

**GROUNDWATER MONITORING PROGRAM
WELL DATA SHEET**

Site Name.: Sunshine Cyn
Well I.D.: LX-6
Collected By: BS
Casing Diameter (inches): 8"
Starting Water Level: /
Total Depth (feet): /
Water column (feet): /
Screen Length (feet): /
Purge Volume (gallons): /
Horiba Model S/N: /

Project No.: 3020-1006
Sampling Date: 3-4-21
Purge start Time: /
Purge Stop time: /
Sampling Time: /
Ending Water Level (feet): /
Total Purged (gallons): /
PID/FID Reading: /
Duplicate Sample: YES NO

GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV

Purge Sampling Rates: CYSIMETER IS UNDER THE SAME
CONDITION AS LAST SAMPLE EVENT.
CHECK WITH MARK VINCENT FOR ELEVATION

Well condition: _____

Additional Info/Comments: Sunny, cool

Name: B. Salinas Signature: Bert Salinas

**GROUNDWATER MONITORING PROGRAM
 SURFACE WATER DATA SHEET**

SITE: Sunshine Cyn.

Station I.D.: U-7
 Collected By: BS
 Horiba Model S/N: RJ54944

Sampling Date: 03/04/21
 Sampling Time: 0915
 Duplicate Sample: YES NO

COLOR	ODOR	pH	CONDUCTIVITY <i>uS/cm</i> us/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
<u>Trace of yellow</u>	<u>yes</u>	<u>6.83</u>	<u>4.64</u>	<u>0.1</u>	<u>1.79</u>	<u>29.40</u>	<u>-54</u>

Surface water conditions (including stream flow rate, stream depth): clear water with a
light color - samples taken a sample for effluent
side to lysimeter discharge

Additional Info/Comments: Sunny, cool

BS

Chain of Custody Record 480009



Environment Testing
Testamerica

Address: _____

Regulatory Program: DW NPDES RCRA Other:

TAL-8210

Company Name: SLA/Republic		Project Manager: Kyle Welchen		Site Contact: J. Mills		Date: 3-4-21		COC No: _____ of _____ COCs	
Address: 1115 W. Bernhardt Ct Suite 108		Tel/Email: 958-451-1136		Lab Contact: R. Tomora		Carrier: TTA		Sampler: BS,mc	
City/State/Zip: 55001 Diego, CA 92127		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		Perform MS / MSD (Y / N)		EPA 8260B VOC		For Lab Use Only:	
Phone: 958-451-1136		TAT if different from Below _____		40 CFR Part 258		Appendix, hVOC		Walk-in Client: _____	
Fax: 958-451-1089		2 weeks		Dr. Chirardi, Fluoromethane and MTBE		EPA 310.1 - Nickel		Lab Sampling: _____	
Project Name: Republic Services		1 week		EPA 350.2 - Ammonia as N		EPA 410-HOH-COD		Job / SDG No.: _____	
Site: Sunshine Canyon L/F		2 days		EPA 6010B - Total Potassium		EPA 415.1 Total Organic Carbon		5020.1006	
P O # _____		1 day		EPA 8270 H-Dioxane		Sample Specific Notes:			
Sample Identification	Sample Date	Sample Time	Sample Type (G=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)		
CM-10R	3-4-21	10:00	G	GW 12	1	Y	Y		
CM-11R		10:00	G	GW 12	1	Y	Y		
LY-7		09:15		WW 12	1	Y	Y		
Combined Subdrains		11:40		WW 12	1	Y	Y		
Extraction Trench		13:05		WW 12	1	Y	Y		
Subdrain (N)		09:50		WW 12	1	Y	Y		
Field Blank				Lab H ₂ O	4	Y	Y		
Trip Blank				Lab H ₂ O	4	Y	Y		

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other _____

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Special Instructions/OC Requirements & Comments: **metals are not field filtered**

Non-Hazard Flammable Skin Irritant Poison B Unknown Return to Client Disposal by Lab Archive for _____ Months

Custody Seals Intact: Yes No

Custody Seal No.: _____

Cooler Temp. (°C): Obs'd: _____ Cor'd: _____

Therm ID No.: _____

Relinquished by: **Mike Cahill** Company: **Geo-Logic Associates** Date/Time: **3-4-21/13:00** Received by: **SA** Company: **EC-1W** Date/Time: **3/4/21 13:00**

Relinquished by: _____ Company: _____ Date/Time: _____ Received in Laboratory by: _____ Company: _____ Date/Time: _____

Chain of Custody Record 480007



Environment Testing
TestAmerica

Address: _____

Regulatory Program: DW NPDES RCRA Other:

TAL-8210

Client Contact Company Name: Geo-Logic Associates Address: 11415 W. Bernardo Ct. Ste 100 City/State/Zip: San Diego, CA 92127 Phone: 858-451-1136 Fax: 858-451-1087 Project Name: Republic Services, Inc. Site: Sunshin Canyon Landfill P O # _____		Project Manager: Kyle Wolchen Tel/Email: kwolchen@geo-logic.com Analysis Turnaround Time: _____ <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below: _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Site Contact: Josh Mills Date: 3-9-07 Lab Contact: K. Tomore Carrier: TTA		COC No.: _____ of _____ COCs Sampler: MUCD For Lab Use Only: Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: 5020.1001			
Sample Identification			Sample Date	Sample Time	Sample Type (G-Comp, G-Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)
CM-9R3		3-9-07	12:22	G	GW	12	1	X	EPA 8260-B VOCs include 40 CFR Part 258 Appendix I VOC's Dichlorodifluoromethane and MTBE EPA 210.1 Total Alkalinity EPA 350.1 Ammonia as N EPA 410.4 - COD EPA 300.0 - Chloride EPA 6010-B Total Potassium EPA 100.1 Total Dissolved Solids EPA 415.1 Total Organic Carbon EPA 8210 1,4-Dioxin e
MW-5			10:34					X	
MW-13R			10:57					X	
MW-9			0836					X	
PZ-2			12:26					X	
PZ-4			0910					X	
DW-2								X	
Field Blank								X	
Field Blank								X	
Tr.p. Blank								X	

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other _____

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Special Instructions/QC Requirements & Comments: No tags are not field filled

Non-Hazard Flammable Skin Irritant Poison B Unknown Return to Client Dispose by Lab Archive for _____ Months

Custody Seals Intact: Yes No

Cooler Temp. (°C): Obs'd: _____

Relinquished by: *Wade Campbell* Company: *Geo-Logic Associates* Date/Time: *3-9-07/1457* Received by: *William Rivera* Company: *EC-TRV* Date/Time: *3/9/07 1457*

Relinquished by: _____ Company: _____ Date/Time: _____ Received in Laboratory by: _____ Company: _____ Date/Time: _____

Address: _____

Regulatory Program: DW NPDES RCRA Other:

TAL-8210

Client Contact Company Name: Geo-Losic Associates Address: 1415 W. Bernede Ct. St. Joe City/State/Zip: 55509 Diogenes IA 52007 Phone: 562-451-1136 Fax: 562-451-1087 Project Name: Koble Service Inc. Site: Sunshine Canyon Landfill P O #		Project Manager: Kyla Welchen Tell/Email: Kyla.Welchen@geo-losic.com Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Site Contact: Josh Mills Date: 3-8-21 Carrier: TIA COC No: 1 of 1 COCs Sampler: MCLC For Lab Use Only: Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: 5020.1008							
Sample Identification			Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)		
MW-2A	3-8-21	0930	G	SW	12				EPA 246.15-VOCs include 40 CFB Part 250 Appendix I VOC Dichlorodifluoromethane and MTBE EPA 310.1 Total Alkalinity EPA 350.2 Ammonia EPA 410.4 - COD EPA 500.0 Chloride EPA 601.0 Total Potassium EPA 100.1 Total Dissolved Solids EPA 415.1 Total Organic Carbon EPA 8270.14-Dioxane		
MW-2B		1032							X		
DW-4		11:44							X		
MW-6		10:00							X		
MW-14		10:47							X		
DW-1		11:35							X		
Duplicate									X		
Field Blank									X		
Trip Blank									X		
Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Other Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months Special Instructions/QC Requirements & Comments: Metals are not field filtered											
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Relinquished by: <i>M. Campbell</i> Relinquished by: <i>Geo-Losic Associates</i> Relinquished by: _____		Custody Seal No.: Company: <i>Geo-Losic Associates</i> Company: _____ Company: _____		Date/Time: Date/Time: <i>3/8/21/1415</i> Date/Time: _____ Date/Time: _____		Cooler Temp. (°C) Obs'd: _____ Received by: <i>[Signature]</i> Received in Laboratory by: _____		Corr'd: _____ Company: <i>EC-18V</i> Company: _____ Company: _____		Therm ID No.: _____ Date/Time: <i>3/8/21</i> Date/Time: <i>1415</i> Date/Time: _____	

Geo-Logic ASSOCIATES

FIELD CALIBRATION DOCUMENTATION FORM

LOCATION (Site/Facility Name) Sunshine Cyn PROJECT NAME / NUMBER SO20-1066

Instrument Make/Model # 4-52/4-5412 800

Date/Time	pH	Electrical Conductivity (µMhos/cm) (4.49 mg/Kg)	Turbidity (NTU)	DO (mg/L or %)	Guidance Remarks	Comments
3-4-21 6:04						
Pre. Cal	4.03	4.43	0.7	11.72		
Calibration	3.99	4.50	0.0	11.27		
Calibration Successful? (Y/N)	yes				enter YES or NO	
Satisfies Protocol?	yes				Did calibration meet criteria in the sampling protocol? (Y or N)	
Calibration by					Signature or initials	<i>Mike Campbell</i>
Physical Condition of Unit					Good	

FIELD CALIBRATION DOCUMENTATION FORM

LOCATION (Site/Facility Name) Sunshine Cyn PROJECT NAME / NUMBER 5020.1001

Instrument Make/Model #		<u>R85549411</u>				Guidance Remarks	Comments
Date/Time <u>3/16/21</u> <u>0810</u>	pH	Electrical Conductivity (μ Mhos/cm) (4.49 mg/Kg)	Turbidity (NTU) (0)	DO (mg/L or %)			
Pre. Cal	<u>4.80</u>	<u>4.66</u>	<u>0</u>	<u>32.12</u>			
Calibration	<u>4.00</u>	<u>4.00</u>	<u>0</u>	<u>11.02</u>		<u>Replace DO sensor cap and internal solution</u>	
Calibration Successful? (Y/N)	<u>Yes</u>				enter YES or NO		
Satisfies Protocol?	<u>Yes</u>				Did calibration meet criteria in the sampling protocol? (Y or N)		
Calibration by	<u>Brad</u>	<u>Adrian</u>			Signature or initials		
Physical Condition of Unit		<u>Good</u>					

Geo-Logic ASSOCIATES

FIELD CALIBRATION DOCUMENTATION FORM

LOCATION (Site/Facility Name) Sunshine Cyn PROJECT NAME / NUMBER 5028. 1006

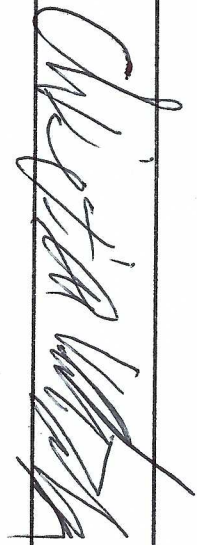
Instrument Make/Model # H52/WSY12BDD

Date/Time	pH	Electrical Conductivity (µMhos/cm) (4.49 mg/Kg)	Turbidity (NTU) (0)	DO (mg/L or ‰)	Guidance Remarks	Comments
<u>3-8-21</u> <u>6:28</u>						
Pre. Cal	<u>4.28</u>	<u>4.55</u>	<u>0.0</u>	<u>16.75</u>		
Calibration	<u>4.00</u>	<u>4.45</u>	<u>0.6</u>	<u>16.95</u>		
Calibration Successful? (Y/N)	<u>yes</u>				enter YES or NO	
Satisfies Protocol?	<u>yes</u>				Did calibration meet criteria in the sampling protocol? (Y or N)	
Calibration by	<u>[Signature]</u>				Signature or initials	<u>[Signature]</u>
Physical Condition of Unit						
<u>Good</u>						

FIELD CALIBRATION DOCUMENTATION FORM

LOCATION (Site/Facility Name) SUNSHINE CANYON PROJECT NAME / NUMBER SO20-1006

Instrument Make/Model # V-52 W&A85RS

Date/Time	pH	Electrical Conductivity (µMhos/cm) (4.49 mg/Kg)	Turbidity (NTU) (0)	DO (mg/L or %)	Guidance Remarks	Comments
3-8-2021 0734						
Pre. Cal	4.31	4.22	0.0	9.95		
Calibration	4.00	4.49	0.0	9.76		
Calibration Successful? (Y/N)	YES				enter YES or NO	
Satisfies Protocol?	YES				Did calibration meet criteria in the sampling protocol? (Y or N)	
Calibration by	CRV				Signature or initials	
Physical Condition of Unit		OK				

Geo-Logic ASSOCIATES

FIELD CALIBRATION DOCUMENTATION FORM

LOCATION (Site/Facility Name) Sunshine Cyp PROJECT NAME / NUMBER SO2001006

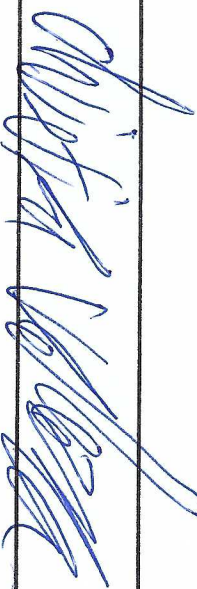
Instrument Make/Model # Li-521 WST120DR

Date/Time	pH	Electrical Conductivity (µMhos/cm) (4.49 mg/Kg)	Turbidity (NTU) (0)	DO (mg/L or %)	Guidance Remarks	Comments
3-9-21 6:32						
Pre. Cal	3.78	4.63	1.2	10.99		
Calibration	4.00	4.50	0.0	10.63		
Calibration Successful? (Y/N)	yes				enter YES or NO	
Satifies Protocol?	yes				Did calibration meet criteria in the sampling protocol? (Y or N)	
Calibration by					Signature or initials	<i>Mike Smith</i>
Physical Condition of Unit				Good		

FIELD CALIBRATION DOCUMENTATION FORM

LOCATION (Site/Facility Name) Sunshine Canyon PROJECT NAME / NUMBER 5020.1006

Instrument Make/Model # 4-52 W66086-R5

Date/Time	pH	Electrical Conductivity (µMhos/cm) (4.49 mg/Kg)	Turbidity (NTU) (0)	DO (mg/L or %)	Guidance Remarks	Comments
3-9-21 0653						
Pre. Cal	3.43	4.51	0.0	11.12		
Calibration	4.08	4.50	0.0	10.67		
Calibration Successful? (Y/N)	Yes				enter YES or NO	
Satisfies Protocol?	Yes				Did calibration meet criteria in the sampling protocol? (Y or N)	
Calibration by	CAV				Signature or initials	
Physical Condition of Unit		OK				

FIELD CALIBRATION DOCUMENTATION FORM

LOCATION (Site/Facility Name) Sunshine Cyn PROJECT NAME / NUMBER 5020.1006

Instrument Make/Model # U-52 / W541WBDD

Date/Time	pH	Electrical Conductivity (µMhos/cm) (4.49 mg/Kg)	Turbidity (NTU) (0)	DO (mg/L or %)	Guidance Remarks	Comments
3-10-21 6:15						
Pre. Cal	4.14	9.47	0.0	11.73		
Calibration	4.60	9.50	0.0	11.40		
Calibration Successful? (Y/N)	yes				enter YES or NO	
Satisfies Protocol?	yes				Did calibration meet criteria in the sampling protocol? (Y or N)	
Calibration by	zm				Signature or initials	<i>zmk</i>
Physical Condition of Unit					Good	

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name: <u>Retest Sunshine Cyn</u> Well I.D.: <u>PZ-2-A-PZ-2-B</u> Collected By: <u>ML</u> Casing Diameter (inches): <u>2</u> Starting Water Level: <u>120.51</u> Total Depth (feet): <u>157.53</u> Water column (feet): <u>37.02</u> Screen Length (feet): _____ Sample Method: <u>Micro Purge</u> <input checked="" type="checkbox"/> Low Flow <input type="checkbox"/> Horiba Model S/N: <u>4-53725412600</u>	Project No.: <u>5021.1059</u> Sampling Date: <u>5-13-20</u> Purge start Time: <u>6:54</u> Purge Stop time: <u>7:28</u> Sampling (Well Recovery) Time: <u>7:38</u> Ending Water Level (feet): <u>126.48</u> Total Purged (gallons): <u>2.01</u> Duplicate Sample: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
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TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
7:05	1.5	122.85	8.06	5.54	1.4	1.91	22.84	41
7:13	1.0	124.24	8.16	5.56	0.6	1.83	22.79	59
7:17	1.25	124.86	8.18	5.56	0.4	1.69	22.80	65
7:20	1.5	125.45	8.19	5.56	0.2	1.53	22.86	73
7:24	1.75	126.01	8.19	5.55	0.2	1.50	22.86	75
7:28	2.0	126.48	8.19	5.55	0.0	1.47	22.84	76

Purge Sampling Rates: 80 psi ref. V 30 discharged 16

Well condition: OK
Requires carry sample, equipment and containers across concrete channel
 Additional Info/Comments: CV excess/ drilled

Name: Mike Campbell Signature: Mike Campbell

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility: <u>Sunshine Cyn</u>	Well ID: <u>PZ-2</u>	Date: <u>5-13-21</u>
Access:		
Accessibility: Good: _____ Fair: _____ Poor: <u>✓</u>		
Vicinity of well clear of weeds and/or debris: Yes: _____ No: <u>✓</u>		
Presence of depressions or standing water around well: Yes: _____ No: <u>✓</u>		
Remarks: <u>Carried sampling equipment and sample containers across a concrete channel to the well</u>		
Concrete Pad:		
Integrity: Good: _____ Inadequate: <u>NA</u>		
Presence of depressions or standing water around well: Yes: _____ No: _____		
Remarks: <u>NO concrete pad</u>		
Protective Outer Casing: Material: <u>metal</u>		
Condition of Protective Casing: Good: <u>✓</u> Damaged: _____		
Condition of Locking Cap: Good: <u>✓</u> Damaged: _____		
Condition of Lock: Good: <u>✓</u> Damaged: _____		
Condition of Weepholes: Good: _____ Damaged: _____		
Remarks: _____		
Well Riser: Material: <u>PVC</u>		
Condition of Riser: Good: <u>✓</u> Damaged: _____		
Condition of Riser Cap: Good: <u>✓</u> Damaged: _____		
Measurement reference point: Yes: <u>✓</u> No: _____		
Remarks: _____		
Dedicated Pump: Type: <u>Bladder</u>		
Condition: Good: <u>✓</u> Damaged: _____ Missing: _____		
Pumping Rate (gpm): <u>NA</u> Current (Hz): <u>NA</u>		
Remarks: _____		

Field Certification: Mike Campbell Signed Field Tech Title 5-13-21 Date

Geo-Logic ASSOCIATES

FIELD CALIBRATION DOCUMENTATION FORM

LOCATION (Site/Facility Name) Sunburn Cyn PROJECT NAME / NUMBER 5021, 1059
~~5020-1005~~

Instrument Make/Model # U.S.R./W541u BDP

Date/Time	pH	Electrical Conductivity (µMhos/cm) (4.49 mg/Kg)	Turbidity (NTU) (0)	DO (mg/L or %)	Guidance Remarks	Comments
5-13-24 6:25						
Pre. Cal	4.10	4.49	0.3	10.33		
Calibration	4.00	4.49	0.1	9.10		
Calibration Successful? (Y/N)	yes				enter YES or NO	
Satisfies Protocol?	yes				Did calibration meet criteria in the sampling protocol? (Y or N)	
Calibration by					Signature or initials	<i>[Signature]</i>
Physical Condition of Unit				Good		

Address: _____

Regulatory Program: DW NPDES RCRA Other: _____

Client Contact		Project Manager: Kyle Wolfhagen		Date: 4-27-21		COC No: _____	
Company Name: GEA Remediation		Tel/Email: 858-451-1136		Site Contact: [Signature]		Sampler: B. Salinas	
Address: 1415 Bonaville St		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		Carrier: TTA		For Lab Use Only:	
City/State/Zip: S.D., CA 92125		TAT if different from Below		Lab Contact: [Signature]		Walk-in Client: _____	
Phone: 858-451-1136		2 weeks <input type="checkbox"/>		Carrier: TTA		Lab Sampling: _____	
Fax: _____		1 week <input type="checkbox"/>		Carrier: TTA		Job / SDG No.: _____	
Project Name: Remedial Services, Part		2 days <input type="checkbox"/>		Carrier: TTA		Sample Specific Notes:	
Site: Sundrive Sp. Cont. Part		1 day <input type="checkbox"/>		Carrier: TTA		_____	
P O # _____				Carrier: TTA		_____	

Sample Identification	Sample Date	Sample Time	Sample Type (G=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Sample Disposal	
								Return to Client	Disposal by Lab
LR-2R	4/27/21	09:55	A	WV	3			X	
Field Blank			G	WV	2			X	
TVR Blank			G	WV	2			X	

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other _____

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard Flammable Skin Irritant Poison B Unknown

Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____	Corr'd: _____	Therm ID No.: _____
Relinquished by: [Signature]	Company: GEA	Received by: [Signature]	Company: B-T	Date/Time: 4-27-21 9:55
Relinquished by: _____	Company: _____	Received in Laboratory by: _____	Company: _____	Date/Time: _____

TAL-8210

Rejest

GROUNDWATER MONITORING PROGRAM SURFACE WATER DATA SHEET

Site Name:

Sundrive c.m.

Project No.:

5021-1059-2

Station I.D.:

LR-2R

Sampling Date:

4-27-21

Collected By:

BS

Sampling Time:

0925

Horiba Model S/N:

R855194H

Duplicate Sample:

YES NO

COLOR	ODOR	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
<u>yellowish</u>	<u>yes</u>	<u>6.88</u>	<u>976</u>	<u>10.6</u>	<u>1.57</u>	<u>23.54</u>	<u>-116</u>

Surface water conditions (including stream flow rate, stream depth): sampled with a new disp. bottle

Field Blank taken

Additional Info/Comments: Sunny, cool

Ben J. Anderson

FIELD CALIBRATION DOCUMENTATION FORM

LOCATION (Site/Facility Name) Sunshine Ex. PROJECT NAME / NUMBER SG21.1059-2

Instrument Make/Model #		<u>RS SNAWIT</u>				Guidance Remarks	Comments
Date/Time <u>4-27-21</u>	pH	Electrical Conductivity (µMhos/cm) (4.49 mg/Kg)	Turbidity (NTU) (0)	DO (mg/L or %)			
Pre. Cal	<u>3.94</u>	<u>4.57</u>	<u>0.4</u>	<u>11.22</u>			
Calibration	<u>4-81</u>	<u>4.50</u>	<u>0</u>	<u>9.58</u>			
Calibration Successful? (Y/N)	<u>Yes</u>	_____		_____	enter YES or NO		
Satisfies Protocol?	<u>Yes</u>	_____		_____	Did calibration meet criteria in the sampling protocol? (Y or N)		
Calibration by	<u>RS</u>	_____		_____	Signature or initials	<u>RS</u>	
Physical Condition of Unit				<u>Good</u>			

**GROUNDWATER MONITORING PROGRAM
WATER LEVEL SURVEY RECORD SHEET**

SITE NAME: Sundline Con.

DATE: 5-17-21

PROJECT NUMBER: 2021-1039

WATER LEVEL MAKE/MODEL: Solinst 101

FIELD PERSONNEL: PZ, MC

WELL ID	CONSTRUCTION TOTAL DEPTH (TD)	ACTUAL TOTAL DEPTH (TD)	DEPTH TO WATER (DTW)	COMMENTS
MW-1			16.04	
MW-2A			33.43	
MW-2B			17.63	
MW-5			18.69	
MW-6			16.47	
MW-8			16.02	
MW-9			18.39	
MW-13R			17.68	
MW-14			14.23	
DW-1			TOT	Damaged
DW-2			26.07	
DW-3			157.18	
DW-4			32.08	
DW-5			13.28	
CM-5R			225.25	
CM-9R			13.63	
CM-10R			49.39	
CM-11R			22.35	
PZ-1			94.48	
PZ-2			120.59	
PZ-3			229.93	
PZ-4			110.21	
EW-2			23.03	
EW-3			20.34	
EW-4			13.07	
OM-3			13.21	casing exposed

REMARKS: The concrete cap has been removed from DW-1, 3, EW-3, EW-4

SIGNATURE: [Signature]

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name: <u>Sunshine Cyn</u>	Project No.: <u>5021. 1059</u>
Well I.D.: <u>CM- 9R3</u>	Sampling Date: <u>5.19.21</u>
Collected By: <u>MC</u>	Purge start Time: <u>8:57</u>
Casing Diameter (inches): <u>4</u>	Purge Stop time: <u>9:17</u>
Starting Water Level: <u>13.66</u>	Sampling (Well Recovery) Time: <u>9:27 9:27</u>
Total Depth (feet): <u>28.10</u>	Ending Water Level (feet): <u>14.79</u>
Water column (feet): <u>14.44</u>	Total Purged (gallons): _____
Screen Length (feet): _____	Duplicate Sample: YES <input type="radio"/> NO <input checked="" type="radio"/>
Sample Method: <u>Micro Purge</u> <small>Low Flow</small>	
Horiba Model S/N: <u>4.52 / W5Y14BDD</u>	

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
9:05	1.0	14.50	6.18	4.45	24.1	1.52	17.45	-45
9:09	1.5	14.59	6.16	4.42	22.5	1.45	17.45	-37
9:11	1.75	14.64	6.13	4.37	14.7	1.38	17.45	-24
9:13	2.0	14.70	6.11	4.35	13.5	1.33	17.45	-16
9:15	2.25	14.75	6.08	4.34	13.1	1.29	17.44	-10
9:17	2.50	14.79	6.08	4.33	12.0	1.27	17.45	-8

Purge Sampling Rates: 25 psi retill 30 discharge 5
water contains orange color

Well condition: OK
Heavy vegetation on path to the well. path to well very narrow
 Additional Info/Comments: clear, mild, breezy

Name: Mike Campbell Signature: Mike Campbell

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility:	<u>Sunshine Cyn</u>	Well ID:	<u>CM-9R3</u>	Date:	<u>5-19-21</u>
Access:					
Accessibility:	Good: _____	Fair: <u>✓</u>	Poor: _____		
Vicinity of well clear of weeds and/or debris:			Yes: _____	No: _____	
Presence of depressions or standing water around well:			Yes: _____	No: _____	
Remarks:	<u>Heavy vegetation on path at well, path to well very narrow</u>				
Concrete Pad:					
Integrity:	Good: _____	Inadequate: _____	<u>NA</u>		
Presence of depressions or standing water around well:			Yes: _____	No: <u>✓</u>	
Remarks:	<u>concrete pad is buried</u>				
Protective Outer Casing:					
Material:		<u>metal</u>			
Condition of Protective Casing:	Good: <u>✓</u>	Damaged: _____			
Condition of Locking Cap:	Good: _____	Damaged: <u>✓</u>			
Condition of Lock:	Good: <u>✓</u>	Damaged: _____			
Condition of Weepholes:	Good: <u>✓</u>	Damaged: _____			
Remarks:	<u>monument lid collar is broke lid not secure</u>				
Well Riser:					
Material:		<u>PVC</u>			
Condition of Riser:	Good: <u>✓</u>	Damaged: _____			
Condition of Riser Cap:	Good: <u>✓</u>	Damaged: _____			
Measurement reference point:	Yes: <u>✓</u>	No: _____			
Remarks:					
Dedicated Pump:					
Type:	<u>Bladder</u>				
Condition:	Good: _____	Damaged: _____		Missing: _____	
Pumping Rate (gpm):	<u>NA</u>	Current (Hz):		<u>NA</u>	
Remarks:					

Field Certification: Mike Campbell Signed Field Tech Title 5-19-21 Date

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name: <u>Sunshine Cyn</u>	Project No.: <u>9021-1059</u>
Well I.D.: <u>CM-10R</u>	Sampling Date: <u>5-19-21</u>
Collected By: <u>MC</u>	Purge start Time: <u>10:17</u>
Casing Diameter (inches): <u>4</u>	Purge Stop time: <u>10:37</u>
Starting Water Level: <u>49.37</u>	Sampling (Well Recovery) Time: <u>10:47</u>
Total Depth (feet): <u>110.90</u>	Ending Water Level (feet): <u>49.61</u>
Water column (feet): <u>61.53</u>	Total Purged (gallons): <u>2.5 +</u>
Screen Length (feet): _____	Duplicate Sample: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
Sample Method: <u>Micro Purge</u> Low Flow	
Horiba Model S/N: <u>U-52/WSY12B00</u>	

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
10:25	1.0	49.56	6.63	2.96	0.0	1.45	20.98	-194
10:29	1.5	49.59	6.63	2.96	0.0	1.31	21.01	-240
10:31	1.75	49.60	6.63	2.95	0.0	1.24	21.03	-249
10:33	2.0	49.60	6.63	2.94	0.0	1.20	21.03	-256
10:35	2.25	49.61	6.63	2.94	0.0	1.18	21.04	-263
10:37	2.5	49.61	6.62	2.94	0.0	1.15	21.07	-269

Purge Sampling Rates: 50 psi refill 40 discharge 12
water is clear with a strong odor

Well condition: OK

Additional Info/Comments: Partly cloudy, hazy sunshine, windy

Name: Mike Campbell Signature: Mike Campbell

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility:	<u>Sunshine Cyn</u>	Well ID:	<u>CM-10R</u>	Date:	<u>5-19-21</u>
Access:					
Accessibility:	Good: <input checked="" type="checkbox"/>	Fair: <input type="checkbox"/>	Poor: <input type="checkbox"/>		
Vicinity of well clear of weeds and/or debris:	Yes: <input checked="" type="checkbox"/>	No: <input type="checkbox"/>			
Presence of depressions or standing water around well:	Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>			
Remarks:					
Concrete Pad:					
Integrity:	Good: <input checked="" type="checkbox"/>	Inadequate: <input type="checkbox"/>			
Presence of depressions or standing water around well:	Yes: <input type="checkbox"/>	No: <input type="checkbox"/>			
Remarks:					
Protective Outer Casing: Material: <u>metal</u>					
Condition of Protective Casing:	Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>			
Condition of Locking Cap:	Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>			
Condition of Lock:	Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>			
Condition of Weepholes:	Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>			
Remarks:					
Well Riser: Material: <u>PVC</u>					
Condition of Riser:	Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>			
Condition of Riser Cap:	Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>			
Measurement reference point:	Yes: <input checked="" type="checkbox"/>	No: <input type="checkbox"/>			
Remarks:					
Dedicated Pump: Type: <u>Bladder</u>					
Condition:	Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>	Missing: <input type="checkbox"/>		
Pumping Rate (gpm):	<u>NA</u>	Current (Hz):	<u>NA</u>		
Remarks:					

Field Certification: Mark Campbell Field Tech 5-19-21
Signed Title Date

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name: Sunshine Cyn
 Well I.D.: CM-11R
 Collected By: ML
 Casing Diameter (inches): 4
 Starting Water Level: 22.36
 Total Depth (feet): 30.70
 Water column (feet): 8.34
 Screen Length (feet): _____
 Sample Method: Micro Purge Low Flow
 Horiba Model S/N: W-52/W5Y1WBPP

Project No.: 5021-1059
 Sampling Date: 5-19-21
 Purge start Time: 7:09
 Purge Stop time: 7:51
 Sampling (Well Recovery) Time: 8:01
 Ending Water Level (feet): 23.57
 Total Purged (gallons): 2.0
 Duplicate Sample: YES NO

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
7:21	1.5	22.79	5.99	4.53	0.2	1.92	16.47	61
7:31	1.0	23.12	5.80	4.26	0.2	1.37	16.34	110
7:36	1.25	23.29	5.67	4.10	0.1	1.31	16.29	138
7:40	1.5	23.42	5.63	4.05	0.0	1.29	16.27	148
7:46	1.75	23.50	5.57	3.98	0.0	1.25	16.22	150
7:51	2.0	23.57						

Purge Sampling Rates: 30 psi refill 25 discharge 6
water is clear with no odor

Well condition: OK
Heavy vegetation on path to well 4x4 required to get to well
 Additional Info/Comments: Clear, mild, slight breeze, increasing overcast as purging progressed, to hazy sunshine

Name: Mike Campbell Signature: Mike Campbell

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility:	<u>Sunshine Gyn</u>	Well ID:	<u>CM-11R</u>	Date:	<u>5-19-21</u>
Access:					
Accessibility:	Good: _____	Fair: <input checked="" type="checkbox"/>	Poor: _____		
Vicinity of well clear of weeds and/or debris:	Yes: _____	No: <input checked="" type="checkbox"/>			
Presence of depressions or standing water around well:	Yes: _____	No: <input checked="" type="checkbox"/>			
Remarks:	<u>Requires 4x4 to backup concrete channel/vegetation around monument and path to the well</u>				
Concrete Pad:					
Integrity:	Good: <input checked="" type="checkbox"/>	Inadequate: _____			
Presence of depressions or standing water around well:	Yes: _____	No: <input checked="" type="checkbox"/>			
Remarks:	<u>half of pad is buried</u>				
Protective Outer Casing:					
Material:	<u>Metg</u>				
Condition of Protective Casing:	Good: <input checked="" type="checkbox"/>	Damaged: _____			
Condition of Locking Cap:	Good: <input checked="" type="checkbox"/>	Damaged: _____			
Condition of Lock:	Good: <input checked="" type="checkbox"/>	Damaged: _____			
Condition of Weepholes:	Good: <input checked="" type="checkbox"/>	Damaged: _____			
Remarks:					
Well Riser:					
Material:	<u>PVC</u>				
Condition of Riser:	Good: <input checked="" type="checkbox"/>	Damaged: _____			
Condition of Riser Cap:	Good: <input checked="" type="checkbox"/>	Damaged: _____			
Measurement reference point:	Yes: <input checked="" type="checkbox"/>	No: _____			
Remarks:					
Dedicated Pump:					
Type:	<u>Bladder</u>				
Condition:	Good: <input checked="" type="checkbox"/>	Damaged: _____	Missing: _____		
Pumping Rate (gpm):	<u>NA</u>	Current (Hz):	<u>NP</u>		
Remarks:					

Field Certification: Mike Coghill Signed Field Tech Title 5.19.21 Date

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name: Sunshine Gas Project No.: S021.1059
 Well I.D.: MW-1 Sampling Date: 5-19-21
 Collected By: BSS Purge start Time: 1019
 Casing Diameter (inches): 4 Purge Stop time: 1038
 Starting Water Level: 16.01 Sampling (Well Recovery) Time: 1046
 Total Depth (feet): _____ Ending Water Level (feet): 16.12
 Water column (feet): _____ Total Purged (gallons): 2
 Screen Length (feet): Duplicate Sample: YES NO
 Sample Method: Micro Purge Low Flow
 Horiba Model S/N: R80549M12

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
1024	1/2	16.12	6.90	3.60	18.4	9.34	20.61	-130
1028	1	"	6.94	3.61	19.0	5.72	20.89	-129
1032	1 1/2	"	6.85	3.61	17.7	4.29	20.93	-145
1035	1 3/4	"	6.73	3.61	17.8	4.23	20.95	-145
1038	2	"	6.81	3.61	18.1	4.21	20.97	-142

Purge Sampling Rates: RSS 25 1:30 / 15
 Water has a yellow tint and some odor
 field blank taken
 Well condition: OK

Additional Info/Comments: cloudy, cool

Name: B. Salinas Signature: B. Salinas

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility: Sunshine Cyn Well ID: MW-1 Date: 5-19-21

Access:

Accessibility: Good: Fair: Poor:
Vicinity of well clear of weeds and/or debris: Yes: No:
Presence of depressions or standing water around well: Yes: No:
Remarks:

Concrete Pad:

Integrity: Good: NA Inadequate:
Presence of depressions or standing water around well: Yes: No:
Remarks: Apron is not visible

Protective Outer Casing:

Material: Metall
Condition of Protective Casing: Good: Damaged:
Condition of Locking Cap: Good: Damaged:
Condition of Lock: Good: Damaged:
Condition of Weepholes: Good: Damaged:
Remarks:

Well Riser:

Material: PVC
Condition of Riser: Good: Damaged:
Condition of Riser Cap: Good: Damaged:
Measurement reference point: Yes: No:
Remarks:

Dedicated Pump:

Type: Bladder
Condition: Good: Damaged: Missing:
Pumping Rate (gpm): NA Current (Hz): NA
Remarks:

Field Certification:

Bob Allen GW Manager 5-19-21
Signed Title Date

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name:	<u>Sunshine Cyn</u>	Project No.:	<u>5021.1059</u>
Well I.D.:	<u>MW-2A</u>	Sampling Date:	<u>5-18-21</u>
Collected By:	<u>mc</u>	Purge start Time:	<u>6:49</u>
Casing Diameter (inches):	<u>4</u>	Purge Stop time:	<u>7:30</u>
Starting Water Level:	<u>33.43</u>	Sampling (Well Recovery) Time:	<u>7:40</u>
Total Depth (feet):	<u>41.27</u>	Ending Water Level (feet):	<u>34.81</u>
Water column (feet):	<u>7.84</u>	Total Purged (gallons):	<u>2.0</u>
Screen Length (feet):		Duplicate Sample:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
Sample Method:	<u>Micro Purge</u> Low Flow		
Horiba Model S/N:	<u>U-52/w541wBOP</u>		

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
7:01	.5	33.89	6.12	3.21	0.2	1.83	20.53	-40
7:11	1.0	34.28	6.14	3.21	0.1	1.27	20.65	-52
7:16	1.25	34.43	6.14	3.21	0.0	1.21	20.65	-55
7:20	1.50	34.57	6.15	3.21	0.0	1.08	20.60	-58
7:25	1.75	34.69	6.15	3.22	0.0	1.05	20.63	-62
7:30	2.0	34.81	6.15	3.22	0.0	1.03	20.64	-64

Purge Sampling Rates: 25 psi refill 25 discharge 6

Well condition: OK carried equipment and sample bottles down a slope and through vegetation to the well. Erosion around the well
 Additional Info/Comments: Overcast, mild, breezy

Name: Mike Campbell Signature: Mike Campbell

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility:	<u>Sunshiro Cyn</u>	Well ID:	<u>MW-2A</u>	Date:	<u>5-18-21</u>
Access:	Accessibility: Good: _____ Fair: _____ Poor: <input checked="" type="checkbox"/>				
	Vicinity of well clear of weeds and/or debris: Yes: _____ No: <input checked="" type="checkbox"/>				
	Presence of depressions or standing water around well: Yes: _____ No: <input checked="" type="checkbox"/>				
Remarks:	<u>Required carrying sampling equipment down steep slope through vegetation to the well. Erosion around the manhole</u>				
Concrete Pad:	Integrity: Good: _____ Inadequate: <u>NA</u>				
	Presence of depressions or standing water around well: Yes: _____ No: _____				
Remarks:	<u>Concrete pad is buried</u>				
Protective Outer Casing:	Material: <u>Metal</u>				
	Condition of Protective Casing:	Good: <input checked="" type="checkbox"/>	Damaged:	_____	
	Condition of Locking Cap:	Good: <input checked="" type="checkbox"/>	Damaged:	_____	
	Condition of Lock:	Good: <input checked="" type="checkbox"/>	Damaged:	_____	
	Condition of Weepholes:	Good: <input checked="" type="checkbox"/>	Damaged:	_____	
Remarks:					
Well Riser:	Material: <u>PVC</u>				
	Condition of Riser:	Good: <input checked="" type="checkbox"/>	Damaged:	_____	
	Condition of Riser Cap:	Good: <input checked="" type="checkbox"/>	Damaged:	_____	
	Measurement reference point:	Yes: <input checked="" type="checkbox"/>	No:	_____	
Remarks:					
Dedicated Pump:	Type: <u>Bladder</u>				
	Condition:	Good: <input checked="" type="checkbox"/>	Damaged:	_____	Missing: _____
	Pumping Rate (gpm):	<u>NA</u>	Current (Hz):	<u>NA</u>	
Remarks:					

Field Certification: Mike Campbell Signed Field Tech Title 5-18-21 Date

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name:	<u>Sunshine Cyn</u>	Project No.:	<u>5021.1059</u>
Well I.D.:	<u>MW-2B</u>	Sampling Date:	<u>5-18-21</u>
Collected By:	<u>mc</u>	Purge start Time:	<u>7:57</u>
Casing Diameter (inches):	<u>4</u>	Purge Stop time:	<u>8:16</u>
Starting Water Level:	<u>17.59</u>	Sampling (Well Recovery) Time:	<u>8:26</u>
Total Depth (feet):	<u>70.90</u>	Ending Water Level (feet):	<u>21.49</u>
Water column (feet):	<u>53.31</u>	Total Purged (gallons):	<u>2.50.1</u>
Screen Length (feet):		Duplicate Sample:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
Sample Method:	<u>Micro Purge</u> Low Flow		
Horiba Model S/N:	<u>U.521W541WB00</u>		

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
8:04	1.0	19.40	6.95	3.26	0.0	1.56	20.61	-133
8:08	1.5	20.02	6.95	3.26	0.0	1.35	20.68	-131
8:10	1.75	20.45	6.95	3.26	0.0	1.29	20.70	+30
8:12	2.0	20.88	6.95	3.26	0.0	1.23	20.71	-13
8:14	2.25	21.27	6.95	3.26	0.0	1.20	20.74	-131
8:16	2.50	21.49	6.95	3.26	0.0	1.18	20.76	-13

Purge Sampling Rates: 40 psi ref 11 35 discharge 14
water is clear with an odor

Well condition: OK carried sampling equipment and sample containers down to slope through vegetation to the well. Erosion neck well
 Additional Info/Comments: Partly cloudy, mild, breeze

Name: Mike Campbell Signature: Mike Campbell

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility:	Sunshine Cyn	Well ID:	MW-2B	Date:	5-18-21
Access:	Accessibility: Good: _____ Fair: _____ Poor: <input checked="" type="checkbox"/>				
	Vicinity of well clear of weeds and/or debris: Yes: _____ No: <input checked="" type="checkbox"/>				
	Presence of depressions or standing water around well: Yes: _____ No: <input checked="" type="checkbox"/>				
Remarks:	Required carrying sampling equipment and bottles down a steep slope through vegetation to the well. Erosion around well monument.				
Concrete Pad:	Integrity: Good: _____ Inadequate: <input checked="" type="checkbox"/>				
	Presence of depressions or standing water around well: Yes: _____ No: <input checked="" type="checkbox"/>				
Remarks:	Half of concrete pad is buried				
Protective Outer Casing:	Material: <u>metal</u>				
	Condition of Protective Casing: Good: <input checked="" type="checkbox"/> Damaged: _____				
	Condition of Locking Cap: Good: <input checked="" type="checkbox"/> Damaged: _____				
	Condition of Lock: Good: <input checked="" type="checkbox"/> Damaged: _____				
	Condition of Weepholes: Good: <input checked="" type="checkbox"/> Damaged: _____				
Remarks:					
Well Riser:	Material: <u>PVC</u>				
	Condition of Riser: Good: <input checked="" type="checkbox"/> Damaged: _____				
	Condition of Riser Cap: Good: <input checked="" type="checkbox"/> Damaged: _____				
	Measurement reference point: Yes: <input checked="" type="checkbox"/> No: _____				
Remarks:					
Dedicated Pump:	Type: <u>bladder</u>				
	Condition: Good: <input checked="" type="checkbox"/> Damaged: _____ Missing: _____				
	Pumping Rate (gpm): <u>NA</u> Current (Hz): <u>NA</u>				
Remarks:					

Field Certification: Mike Campbell Signed Field Tech Title 5-18-21 Date

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name: Sunshine Canyon Project No.: 5021-1059
 Well I.D.: MW-5 Sampling Date: 5-20-20
 Collected By: MC Purge start Time: 6:02
 Casing Diameter (inches): 2 Purge Stop time: 6:22
 Starting Water Level: 18.71 Sampling (Well Recovery) Time: 6:32
 Total Depth (feet): 25.65 Ending Water Level (feet): 19.08
 Water column (feet): 6.94 Total Purged (gallons): 2.51
 Screen Length (feet): _____ Duplicate Sample: YES NO
 Sample Method: Micro Purge Low Flow
 Horiba Model S/N: U-52 / W541W BDD Blanks taken at this well?

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
6:10	1.0	19.07	6.48	3.91	13.9	2.04	19.45	-107
6:14	1.5	19.07	6.50	3.87	12.3	1.88	19.44	-114
6:16	1.75	19.08	6.51	3.85	7.9	1.80	19.45	-119
6:18	2.0	"	6.52	3.85	5.7	1.77	19.44	-123
6:20	2.25	"	6.53	3.85	4.6	1.73	19.44	-127
6:22	2.50	x	6.53	3.84	3.8	1.71	19.45	-130

Purge Sampling Rates: 20 psi ref. 30 discharge
water is yellowish brown in color with an odor
 Well condition: Ok heavy vegetation and asphalt debris in the vicinity of the well. Remove vegetation to sample the well
 Additional Info/Comments: partly cloudy, mild, slight breeze

Name: Mike Campbell Signature: Mike Campbell

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility:	<u>Sunshine Gym</u>	Well ID:	<u>MW-5</u>	Date:	<u>5-20-21</u>
Access:	Accessibility: Good: _____ Fair: <u>✓</u> Poor: _____				
	Vicinity of well clear of weeds and/or debris: Yes: _____ No: <u>✓</u>				
	Presence of depressions or standing water around well: Yes: _____ No: <u>✓</u>				
Remarks:	<u>Removed vegetation from around the well monument to sample the well. Asphalt debris and fallen branches also in the vicinity of the well</u>				
Concrete Pad:	Integrity: Good: _____ Inadequate: _____ <u>NA</u>				
	Presence of depressions or standing water around well: Yes: _____ No: _____				
Remarks:	<u>Concrete pad is not visible</u>				
Protective Outer Casing:	Material: <u>metal</u>				
	Condition of Protective Casing: Good: <u>✓</u> Damaged: _____				
	Condition of Locking Cap: Good: <u>✓</u> Damaged: _____				
	Condition of Lock: Good: <u>✓</u> Damaged: _____				
	Condition of Weepholes: Good: _____ Damaged: _____				
Remarks:					
Well Riser:	Material: <u>PVC</u>				
	Condition of Riser: Good: <u>✓</u> Damaged: _____				
	Condition of Riser Cap: Good: <u>✓</u> Damaged: _____				
	Measurement reference point: Yes: <u>✓</u> No: _____				
Remarks:					
Dedicated Pump:	Type: <u>Bladder</u>				
	Condition: Good: _____ Damaged: _____ Missing: _____				
	Pumping Rate (gpm): <u>NA</u> Current (Hz): <u>NA</u>				
Remarks:					

Field Certification: Mike Campbell Signed Field Tech Title 5-20-21 Date

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name: <u>Sunshine Cyn</u>	Project No.: <u>5021-1059</u>
Well I.D.: <u>MW-6</u>	Sampling Date: <u>5-17-21</u>
Collected By: <u>ML</u>	Purge start Time: <u>7:31</u>
Casing Diameter (inches): <u>2</u>	Purge Stop time: <u>8:20</u>
Starting Water Level: <u>1647</u>	Sampling (Well Recovery) Time: <u>8:30</u>
Total Depth (feet): <u>2057</u>	Ending Water Level (feet): <u>1732</u>
Water column (feet): <u>4.05</u>	Total Purged (gallons): <u>1.75</u>
Screen Length (feet): _____	Duplicate Sample: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
Sample Method: <u>Micro Purge</u> Low Flow	
Horiba Model S/N: <u>U.521 WJY12900</u>	

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
7:47	1.5	16.81 17.02	6.65	3.76	1.6	1.92	20.64	-268
7:59	1.0	17.24	6.61	3.74	0.0	1.32	20.99	-328
8:06	1.25	17.28	6.60	3.73	0.0	1.22	20.95	-340
8:13	1.5	17.30	6.58	3.72	0.0	1.17	20.99	-347
8:20	1.75	17.32	6.56	3.71	0.0	1.14	21.06	-350

Purge Sampling Rates: 25 psi Refill 30 discharge 5
 water mostly clear with a strong odor and blackish tint

Well condition: UV Required carrying sampling equipment and centerlines down a slope and along a path to the well

Additional Info/Comments: Cloudy, cool, slight breeze

Name: Mike Campbell Signature: Mike Campbell

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility:	<u>Sunshine Cyn</u>	Well ID:	<u>MW-6</u>	Date:	<u>5-17-21</u>
Access:					
Accessibility:	Good: _____	Fair: <u>✓</u>	Poor: _____		
Vicinity of well clear of weeds and/or debris:	Yes: <u>✓</u>	No: _____			
Presence of depressions or standing water around well:	Yes: _____	No: <u>✓</u>			
Remarks:	<u>Required carrying sampling equipment and containers down a slope through vegetation along path to the well</u>				
Concrete Pad:					
Integrity:	Good: <u>✓</u>	Inadequate: _____			
Presence of depressions or standing water around well:	Yes: _____	No: <u>✓</u>			
Remarks:					
Protective Outer Casing:					
Material:	<u>metal</u>				
Condition of Protective Casing:	Good: <u>✓</u>	Damaged: _____			
Condition of Locking Cap:	Good: <u>✓</u>	Damaged: _____			
Condition of Lock:	Good: <u>✓</u>	Damaged: _____			
Condition of Weepholes:	Good: <u>✓</u>	Damaged: _____			
Remarks:					
Well Riser:					
Material:	<u>PVC</u>				
Condition of Riser:	Good: <u>✓</u>	Damaged: _____			
Condition of Riser Cap:	Good: <u>✓</u>	Damaged: _____			
Measurement reference point:	Yes: <u>✓</u>	No: _____			
Remarks:					
Dedicated Pump:					
Type:	<u>Bladder</u>				
Condition:	Good: <u>✓</u>	Damaged: _____	Missing: _____		
Pumping Rate (gpm):	<u>NA</u>	Current (Hz):	<u>NA</u>		
Remarks:					

Field Certification: Mike Capell Signed Field Tech Title 5-17-21 Date

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name: Sunshine cyn Project No.: 5021-1059
 Well I.D.: mw-9 Sampling Date: 5-17-21
 Collected By: mc Purge start Time: 10:53
 Casing Diameter (inches): 4 Purge Stop time: 11:49
 Starting Water Level: 18.39 Sampling (Well Recovery) Time: 12:05
 Total Depth (feet): 25.90 Ending Water Level (feet): 18.48
 Water column (feet): 7.51 Total Purged (gallons): 1.5 +
 Screen Length (feet): _____ Duplicate Sample: YES NO
 Sample Method: Micro Purge Low Flow
 Horiba Model S/N: W152/W541W300

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
11:05	.25	18.44	6.16	4.67	7.3	1.39	21.17	-109
11:15	.5	18.46	6.14	4.71	7.0	1.29	21.20	-111
11:24	.75	18.46	6.13	4.72	6.8	1.03	21.31	-112
11:32	1.0	18.47	6.12	4.72	6.8	1.00	21.42	-113
11:41	1.25	18.47	6.11	4.72	7.1	.98	21.48	-114
11:49	1.5	18.48	6.11	4.72	7.0	.97	21.46	-114

Purge Sampling Rates: 25 psi refill 25 discharge 3.0
 Water is mostly clear with a greenish tint and slight odor
 Well condition: Concrete apron had been dislodged outer casing is bent. Carried sampling equipment and bottles to well
 Additional Info/Comments: mostly cloudy, mild, breezy.

Name: Mike Campbell Signature: Mike Campbell

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility: <u>Sunshine Cyn</u>		Well ID: <u>MW-9</u>		Date: <u>5-17-21</u>	
Access:					
Accessibility:		Good: _____	Fair: <u>✓</u>	Poor: _____	
Vicinity of well clear of weeds and/or debris:				Yes: _____	No: <u>✓</u>
Presence of depressions or standing water around well:				Yes: _____	No: <u>✓</u>
Remarks: <u>Concrete debris around the well</u> <u>Required carrying sampling equipment and containers to the well</u>					
Concrete Pad:					
Integrity:		Good: <u>✓</u>	Inadequate: _____		
Presence of depressions or standing water around well:				Yes: _____	No: <u>✓</u>
Remarks: <u>concrete pad had been disturbed then replaced</u>					
Protective Outer Casing:		Material: <u>Metel Fly Ashmcon</u>			
Condition of Protective Casing:		Good: _____	Damaged: <u>✓</u>		
Condition of Locking Cap:		<u>NA</u>	Good: <u>✓</u>	Damaged: _____	
Condition of Lock:		<u>NA</u>	Good: _____	Damaged: _____	
Condition of Weepholes:		<u>NA</u>	Good: _____	Damaged: _____	
Remarks: <u>Outer casing bent when concrete pad had be displaced and then replaced</u>					
Well Riser:		Material: <u>PVC</u>			
Condition of Riser:		Good: <u>✓</u>	Damaged: _____		
Condition of Riser Cap:		Good: <u>✓</u>	Damaged: _____		
Measurement reference point:		Yes: <u>✓</u>	No: _____		
Remarks:					
Dedicated Pump:		Type: <u>Bladder</u>			
Condition:		Good: <u>✓</u>	Damaged: _____	Missing: _____	
Pumping Rate (gpm):		<u>NA</u>	Current (Hz): <u>NA</u>		
Remarks:					

Field Certification: Mike Campbell Signed Field Tech Title 5-17-21 Date

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name: Sunshine Cyn
 Well I.D.: MW-13R
 Collected By: mc
 Casing Diameter (inches): 4
 Starting Water Level: 17.68
 Total Depth (feet): 28.47
 Water column (feet): 10.79
 Screen Length (feet): _____
 Sample Method: Micro Purge Low Flow
 Horiba Model S/N: 4.52/w541wBDD

Project No.: 5021-1059
 Sampling Date: 5-17-21
 Purge start Time: 9:08
 Purge Stop time: 9:52
 Sampling (Well Recovery) Time: 10:02
 Ending Water Level (feet): 18.07
 Total Purged (gallons): _____
 Duplicate Sample: YES NO

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
9:22	0.5	17.93	6.82	2.23	0.0	1.65	19.32	-398
9:34	1.0	17.98	6.82	2.17	0.2	1.23	19.81	-403
9:40	1.25	18.02	6.84	2.13	0.5	1.10	19.95	-404
9:46	1.5	18.05	6.86	2.12	1.0	1.06	20.09	-403
9:52	1.75	18.07	6.87	2.11	1.0	1.04	20.13	-404

Purge Sampling Rates: 30 psi refill 30 discharge 6
water is mostly clear with a strong odor and blackish tint
 Well condition: OK Required carrying sampling equipment and containers to the well
 Additional Info/Comments: mostly cloudy, mild heavy traffic, refuse trucks, breezy

Name: Miko Campbell Signature: Miko Campbell

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility:	<u>Sunshine Cyn</u>	Well ID:	<u>MW-13R</u>	Date:	<u>5-17-21</u>
Access:					
Accessibility:	Good: _____	Fair: <u>✓</u>	Poor: _____		
Vicinity of well clear of weeds and/or debris:	Yes: _____		No: _____		
Presence of depressions or standing water around well:	Yes: _____		No: _____		
Remarks:	<u>Required carrying sampling equipment and bottles to the well</u>				
Concrete Pad:					
Integrity:	Good: <u>✓</u>	Inadequate: _____			
Presence of depressions or standing water around well:	Yes: _____		No: <u>✓</u>		
Remarks:					
Protective Outer Casing:					
Material:	<u>PVC Metal</u>				
Condition of Protective Casing:	Good: <u>✓</u>	Damaged: _____			
Condition of Locking Cap:	Good: <u>✓</u>	Damaged: _____			
Condition of Lock:	Good: <u>✓</u>	Damaged: _____			
Condition of Weepholes:	Good: <u>✓</u>	Damaged: _____			
Remarks:					
Well Riser:					
Material:	<u>PVC</u>				
Condition of Riser:	Good: <u>✓</u>	Damaged: _____			
Condition of Riser Cap:	Good: <u>✓</u>	Damaged: _____			
Measurement reference point:	Yes: <u>✓</u>	No: _____			
Remarks:					
Dedicated Pump:					
Type:	<u>bladder</u>				
Condition:	Good: _____	Damaged: _____	Missing: _____		
Pumping Rate (gpm):	<u>NA</u>	Current (Hz):	<u>NA</u>		
Remarks:					

Field Certification: Mike Campbell Signed Field Tech Title 5-17-21 Date

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name: Sunshine Cyn Project No.: 5021.1059
 Well I.D.: MN-14 Sampling Date: 5-17-21
 Collected By: mc Purge start Time: 6:39
 Casing Diameter (inches): 4 Purge Stop time: 6:59
 Starting Water Level: 14.23 Sampling (Well Recovery) Time: 7:05
 Total Depth (feet): 27.35 Ending Water Level (feet): 14.69
 Water column (feet): 13.12 Total Purged (gallons): _____
 Screen Length (feet): _____ Duplicate Sample: YES NO
 Sample Method: Micro Purge Low Flow
 Horiba Model S/N: W-52/MS412B00

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
6:47	1.0	14.62	6.33	3.35	1.0	6.49	19.67	297
6:51	1.5	14.66	6.35	3.35	0.5	6.02	19.70	295
6:53	1.75	14.68	6.34	3.34	0.6	5.93	19.71	296
6:55	2.0	14.69	6.34	3.35	0.5	5.87	19.72	295
6:57	2.25	11	6.34	3.33	0.0	5.84	19.73	294
6:59	2.50	1	6.34	3.34	0.2	5.82	19.74	295

Purge Sampling Rates: 25psi refill 25 discharge 8

Well condition: ok
 Required carrying sampling equipment and containers down a slope to the well
 Additional Info/Comments: overcast, mild

Name: Mike Campbell Signature: Mike Campbell

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility:	<u>Sunshine Canyon</u>	Well ID:	<u>MW-14</u>	Date:	<u>5.17.21</u>
Access:					
Accessibility:	Good: _____	Fair: <u>✓</u>	Poor: _____		
Vicinity of well clear of weeds and/or debris:	Yes: _____	No: <u>✓</u>			
Presence of depressions or standing water around well:	Yes: _____	No: <u>✓</u>			
Remarks:	<u>Carried sampling equipment and containers down a slope to the well</u>				
Concrete Pad:					
Integrity:	Good: <u>✓</u>	Inadequate: _____			
Presence of depressions or standing water around well:	Yes: _____	No: <u>✓</u>			
Remarks:					
Protective Outer Casing:					
Material:	<u>Metal</u>				
Condition of Protective Casing:	Good: <u>✓</u>	Damaged: _____			
Condition of Locking Cap:	Good: <u>✓</u>	Damaged: _____			
Condition of Lock:	Good: <u>✓</u>	Damaged: _____			
Condition of Weepholes:	Good: <u>✓</u>	Damaged: _____			
Remarks:					
Well Riser:					
Material:	<u>PVC</u>				
Condition of Riser:	Good: <u>✓</u>	Damaged: _____			
Condition of Riser Cap:	Good: <u>✓</u>	Damaged: _____			
Measurement reference point:	Yes: <u>✓</u>	No: _____			
Remarks:					
Dedicated Pump:					
Type:	<u>Bladder</u>				
Condition:	Good: _____	Damaged: _____	Missing: _____		
Pumping Rate (gpm):	<u>NA</u>	Current (Hz):	<u>NA</u>		
Remarks:					

Field Certification: [Signature] Field Tech 5.17.21
Signed Title Date

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name: Sunshine ex. Project No.: 5021.1059
 Well I.D.: DW-1 Sampling Date: 5-17-21
 Collected By: BS Purge start Time: /
 Casing Diameter (inches): 4 Purge Stop time: /
 Starting Water Level: RIC Sampling (Well Recovery) Time: 1310
 Total Depth (feet): _____ Ending Water Level (feet): /
 Water column (feet): _____ Total Purged (gallons): _____
 Screen Length (feet): _____ Duplicate Sample: YES NO
 Sample Method: Micro Purge Low Flow
 Horiba Model S/N: R8554944

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
1300	6mg	—	9.21	4.00	OR	0.55	22.08	-16

Purge Sampling Rates: use a new 3" riser bailer to collect the samples, bailed 5 gal before sample collection

Well condition: Damaged
field blank taken here

Additional Info/Comments: Sunny, cool

Name: Bert Salinas Signature: [Signature]

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility: <u>Sunshine Spa</u>	Well ID: <u>DW-1</u>	Date: <u>5-17-21</u>
Access:		
Accessibility: Good: <input checked="" type="checkbox"/>	Fair: <input type="checkbox"/>	Poor: <input type="checkbox"/>
Vicinity of well clear of weeds and/or debris: Yes: <input checked="" type="checkbox"/>	No: <input type="checkbox"/>	
Presence of depressions or standing water around well: Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>	
Remarks:		
Concrete Pad:		
Integrity: Good: <input type="checkbox"/>	Inadequate: <input checked="" type="checkbox"/>	
Presence of depressions or standing water around well: Yes: <input type="checkbox"/>	No: <input type="checkbox"/>	
Remarks: <u>Concrete apron has been removed - The well casing is free standing.</u>		
Protective Outer Casing: Material: <u>none</u>		
Condition of Protective Casing: Good: <u>N/A</u>	Damaged: <input type="checkbox"/>	
Condition of Locking Cap: Good: <u>N/A</u>	Damaged: <input type="checkbox"/>	
Condition of Lock: Good: <u>N/A</u>	Damaged: <input type="checkbox"/>	
Condition of Weepholes: Good: <u>N/A</u>	Damaged: <input type="checkbox"/>	
Remarks: <u>The Metal casing has been removed.</u>		
Well Riser: Material: <u>PVC</u>		
Condition of Riser: Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>	
Condition of Riser Cap: Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>	
Measurement reference point: Yes: <input checked="" type="checkbox"/>	No: <input type="checkbox"/>	
Remarks:		
Dedicated Pump: Type: <u>Drop tube</u>		
Condition: Good: <u>N/A</u>	Damaged: <u>N/A</u>	Missing: <input type="checkbox"/>
Pumping Rate (gpm): <u>N/A</u>	Current (Hz): <u>N/A</u>	
Remarks:		

Field Certification:

[Signature]
Signed

Area Manager
Title

5-17-21
Date

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name: Sandstone Con,
 Well I.D.: DW-2
 Collected By: BS
 Casing Diameter (inches): 4
 Starting Water Level: 26.11
 Total Depth (feet): 70.90
 Water column (feet): 44.79
 Screen Length (feet): _____
 Sample Method: Micro Purge Low Flow
 Horiba Model S/N: R8050494H

Project No.: 8021-1059
 Sampling Date: 5-18-21
 Purge start Time: 1954
 Purge Stop time: 1018
 Sampling (Well Recovery) Time: 1027
 Ending Water Level (feet): 27.88
 Total Purged (gallons): 3
 Duplicate Sample: YES NO

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
1001	1/2	26.91	7.60	2.64	0	1.41	20.21	-188
1004	1	27.38	7.54	2.66	0	1.41	20.00	-188
1007	1 1/2	27.62	7.53	2.66	0	1.41	19.93	-188
1011	2	27.99	7.52	2.67	0	1.41	19.96	-189
1014	2 1/2	28.22	7.51	2.67	0	1.41	19.96	-189
1018	3	28.57	7.52	2.67	0	1.41	19.97	-188

Purge Sampling Rates: 1st @ 40, 2nd @ 30 / D: 15
Clear water with no odor

Well condition: OK - needs well abandonment

Additional Info/Comments: Sandy, cool

Name: B. Salinas Signature: Bert Salinas

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility: <u>Sunshine Ger.</u>	Well ID: <u>DW-2</u>	Date: <u>5-18-21</u>
Access:		
Accessibility: Good: _____ Fair: <input checked="" type="checkbox"/>	Poor: _____	
Vicinity of well clear of weeds and/or debris: Yes: _____ No: <input checked="" type="checkbox"/>		
Presence of depressions or standing water around well: Yes: _____ No: <input checked="" type="checkbox"/>		
Remarks: <u>Needs weed abatement.</u>		
Concrete Pad:		
Integrity: Good: _____ Inadequate: <input checked="" type="checkbox"/>		
Presence of depressions or standing water around well: Yes: _____ No: <input checked="" type="checkbox"/>		
Remarks: <u>concrete apron not visible</u>		
Protective Outer Casing: Material: <u>METAL</u>		
Condition of Protective Casing: Good: <input checked="" type="checkbox"/>	Damaged: _____	
Condition of Locking Cap: Good: <input checked="" type="checkbox"/>	Damaged: _____	
Condition of Lock: Good: <input checked="" type="checkbox"/>	Damaged: _____	
Condition of Weepholes: Good: <input checked="" type="checkbox"/>	Damaged: _____	
Remarks:		
Well Riser: Material: <u>PVC</u>		
Condition of Riser: Good: <input checked="" type="checkbox"/>	Damaged: _____	
Condition of Riser Cap: Good: <input checked="" type="checkbox"/>	Damaged: _____	
Measurement reference point: Yes: <input checked="" type="checkbox"/>	No: _____	
Remarks:		
Dedicated Pump: Type: <u>Bladder</u>		
Condition: Good: <input checked="" type="checkbox"/>	Damaged: _____	Missing: _____
Pumping Rate (gpm): <u>N/A</u>	Current (Hz): <u>N/A</u>	
Remarks:		

Field Certification: Bert Salin Env. Manager 5-18-21
Signed Title Date

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name:	<u>Sunshine Cym.</u>	Project No.:	<u>SP21.1059</u>
Well I.D.:	<u>DW-3</u>	Sampling Date:	<u>5-18-21</u>
Collected By:	<u>BS</u>	Purge start Time:	<u>1118</u>
Casing Diameter (inches):	<u>4</u>	Purge Stop time:	<u>1141</u>
Starting Water Level:	<u>157.18</u>	Sampling (Well Recovery) Time:	<u>1150</u>
Total Depth (feet):	<u>248.65</u>	Ending Water Level (feet):	<u>159.36</u>
Water column (feet):	<u>91.47</u>	Total Purged (gallons):	<u>2 1/4</u>
Screen Length (feet):		Duplicate Sample:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
Sample Method:	<u>Micro Purge</u> Low Flow		
Horiba Model S/N:	<u>R8TS494H</u>		

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
1124	1/2	157.61	7.53	2.06	←	9.73	21.69	-88
1128	1	158.22	7.48	2.06	←	9.84	21.36	-87
1131	1 1/4	158.87	7.49	2.06	←	9.38	21.21	-100
1134	1 1/2	159.62	7.46	2.07	←	8.76	21.17	-109
1138	2	159.98	7.44	2.07	←	8.66	21.20	-115
1141	2 1/4	160.47	7.44	2.07	←	8.63	21.22	-118

Purge Sampling Rates: PSP 12:00, 12:17, 12:40
clear water with no color

Well condition: OK

Additional Info/Comments: Sunny, cool

Name: B. Salinas Signature: Bat Salinas

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility: <u>Sunshine Cym.</u>	Well ID: <u>DW-3</u>	Date: <u>5-18-21</u>
Access:		
Accessibility: Good: <input checked="" type="checkbox"/>	Fair: <input type="checkbox"/>	Poor: <input type="checkbox"/>
Vicinity of well clear of weeds and/or debris: Yes: <input checked="" type="checkbox"/>	No: <input type="checkbox"/>	
Presence of depressions or standing water around well: Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>	
Remarks:		
Concrete Pad:		
Integrity: Good: <input checked="" type="checkbox"/>	Inadequate: <input type="checkbox"/>	
Presence of depressions or standing water around well: Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>	
Remarks:		
Protective Outer Casing: Material: <u>Metal</u>		
Condition of Protective Casing: Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>	
Condition of Locking Cap: Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>	
Condition of Lock: Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>	
Condition of Weepholes: Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>	
Remarks:		
Well Riser: Material: <u>PVC</u>		
Condition of Riser: Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>	
Condition of Riser Cap: Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>	
Measurement reference point: Yes: <input checked="" type="checkbox"/>	No: <input type="checkbox"/>	
Remarks:		
Dedicated Pump: Type: <u>Bladder</u>		
Condition: Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>	Missing: <input type="checkbox"/>
Pumping Rate (gpm): <u>N/A</u>	Current (Hz): <u>N/A</u>	
Remarks:		

Field Certification:

Bob Allen
Signed

GW Manager
Title

5-18-21
Date

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name: <u>Sunshine Cyn</u>	Project No.: <u>5021.1059</u>
Well I.D.: <u>DW-4</u>	Sampling Date: <u>5-18-21</u>
Collected By: <u>MLC</u>	Purge start Time: <u>8:56</u>
Casing Diameter (inches): <u>4</u>	Purge Stop time: <u>9:15</u>
Starting Water Level: <u>32.11</u>	Sampling (Well Recovery) Time: <u>9:25</u>
Total Depth (feet): <u>134.60</u>	Ending Water Level (feet): <u>34.26</u>
Water column (feet): <u>102.49</u>	Total Purged (gallons): <u>251</u>
Screen Length (feet): _____	Duplicate Sample: <input checked="" type="radio"/> YES <input type="radio"/> NO <u>MLC</u>
Sample Method: <input checked="" type="radio"/> Micro Purge <input type="radio"/> Low Flow	
Horiba Model S/N: <u>U.52/WSY/WB00</u>	<u>Duplicate taken at this well</u>

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
9:03	1.0	33.30	7.04	3.49	0.0	1.38	20.57	-181
9:07	1.5	33.60	7.04	3.50	0.0	1.28	20.57	-170
9:09	1.75	33.85	7.05	3.50	0.0	1.08	20.54	-167
9:11	2.0	34.00	7.05	3.50	0.0	.96	20.55	-165
9:13	2.25	34.13	7.05	3.50	0.0	.92	20.54	-163
9:15	2.50	34.26	7.05	3.50	0.0	.90	20.55	-162

Purge Sampling Rates: 75 psi ref. 11 30 discharges 16

Well condition: OK carried sampling equipment and sample container down a slope through vegetation to the well, Erosion near well

Additional Info/Comments: _____

Name: Mike Campbell Signature: Mike Campbell

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility:	<u>Sunshine Cyn</u>	Well ID:	<u>DW-4</u>	Date:	<u>5-18-21</u>
Access:					
Accessibility:	Good: _____	Fair: _____	Poor:	<u>✓</u>	
Vicinity of well clear of weeds and/or debris:	Yes: _____	No:	<u>✓</u>		
Presence of depressions or standing water around well:	Yes: _____	No:	<u>✓</u>		
Remarks:	<u>Required carrying sampling equipment and bucket down a steep slope through vegetation to the well. Erosion around monument</u>				
Concrete Pad:					
Integrity:	Good: _____	Inadequate:	<u>NA</u>		
Presence of depressions or standing water around well:	Yes: _____	No:	_____		
Remarks:	<u>Pad is buried</u>				
Protective Outer Casing:					
Material:	<u>metal</u>				
Condition of Protective Casing:	Good: <u>✓</u>	Damaged:	_____		
Condition of Locking Cap:	Good: <u>✓</u>	Damaged:	_____		
Condition of Lock:	Good: <u>✓</u>	Damaged:	_____		
Condition of Weepholes:	Good: <u>✓</u>	Damaged:	_____		
Remarks:	_____				
Well Riser:					
Material:	<u>PVC</u>				
Condition of Riser:	Good: <u>✓</u>	Damaged:	_____		
Condition of Riser Cap:	Good: <u>✓</u>	Damaged:	_____		
Measurement reference point:	Yes: <u>✓</u>	No:	_____		
Remarks:	_____				
Dedicated Pump:					
Type:	<u>Bladder</u>				
Condition:	Good: <u>✓</u>	Damaged:	_____	Missing:	_____
Pumping Rate (gpm):	<u>NA</u>	Current (Hz):	<u>NA</u>		
Remarks:	_____				

Field Certification: Milo Cappel Field Tech 5-18-21
Signed Title Date

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name: <u>Sunshine Cyn</u>	Project No.: <u>5021.1059</u>
Well I.D.: <u>DW-5</u>	Sampling Date: <u>5.19.21</u>
Collected By: <u>MC</u>	Purge start Time: <u>11:46</u>
Casing Diameter (inches): <u>4</u>	Purge Stop time: <u>12:15</u>
Starting Water Level: <u>13.22</u>	Sampling (Well Recovery) Time: <u>12:25</u>
Total Depth (feet): <u>100.46</u>	Ending Water Level (feet): <u>16.80</u>
Water column (feet): <u>87.24</u>	Total Purged (gallons): <u>2.57</u>
Screen Length (feet): _____	Duplicate Sample: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
Sample Method: Micro Purge Low Flow	
Horiba Model S/N: _____	

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
11:57	1.0	14.83	8.02	1.71	0.9	1.87	19.92	-183
12:03	1.5	15.47	8.00	1.70	6.2	1.24	19.80	-202
12:06	1.75	15.94	8.00	1.70	0.7	1.09	19.84	-213
12:09	2.0	16.24	8.02	1.71	0.9	.99	19.86	-219
12:12	2.25	16.59	8.00	1.71	1.0	.96	19.79	-224
12:15	2.50	16.80	8.01	1.71	1.3	.95	19.81	-226

Purge Sampling Rates: 65 psi refill 30 discharges 19
water is mostly clear with a slight odor with a greenish tint
 Well condition: OK shack with controls for the misters right next to the well
 Additional Info/Comments: mostly clear, warm, breezy to windy

Name: Mike Campbell Signature: Mike Campbell

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility: <u>Sunshine Cyn</u>		Well ID: <u>DWR 5</u>		Date: <u>5-19-21</u>	
Access:					
Accessibility:		Good: <input checked="" type="checkbox"/>	Fair: <input type="checkbox"/>	Poor: <input type="checkbox"/>	
Vicinity of well clear of weeds and/or debris:				Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>
Presence of depressions or standing water around well:				Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>
Remarks: <u>some vegetation and debris around the monument</u>					
Concrete Pad:					
Integrity:		Good: <input type="checkbox"/>	Inadequate: <input checked="" type="checkbox"/>	Poor: <input type="checkbox"/>	
Presence of depressions or standing water around well:				Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>
Remarks: <u>concrete pad is buried</u>					
Protective Outer Casing:		Material: <u>metal</u>			
Condition of Protective Casing:		Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>		
Condition of Locking Cap:		Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>		
Condition of Lock:		Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>		
Condition of Weepholes:		Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>		
Remarks:					
Well Riser:		Material: <u>PVC</u>			
Condition of Riser:		Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>		
Condition of Riser Cap:		Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>		
Measurement reference point:		Yes: <input checked="" type="checkbox"/>	No: <input type="checkbox"/>		
Remarks:					
Dedicated Pump:		Type: <u>Bladder</u>			
Condition:		Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>	Missing: <input type="checkbox"/>	
Pumping Rate (gpm): <u>NA</u>		Current (Hz): <u>NA</u>			
Remarks:					

Field Certification: Mike Campbell Field Tech 5-19-21
 Signed Title Date

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name: Sunshine Cyn Project No.: 5021.1059
 Well I.D.: PZ-2 Sampling Date: 5-17-20
 Collected By: m Purge start Time: 12:50
 Casing Diameter (inches): 2 Purge Stop time: 13:22
 Starting Water Level: 120.59 Sampling (Well Recovery) Time: 13:32
 Total Depth (feet): 157.53 Ending Water Level (feet): 126.59
 Water column (feet): 36.94 Total Purged (gallons): 2.0 +
 Screen Length (feet): _____ Duplicate Sample: YES NO
 Sample Method: Micro Purge Low Flow
 Horiba Model S/N: U-52/W541WBAD

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
13:00	.5	122.74	8.07	5.49	7.3	1.81	24.42	-134
13:07	1.0	124.17	8.08	5.51	7.2	1.49	24.23	-138
13:11	1.25	124.83	8.08	5.52	7.0	1.28	24.18	-141
13:14	1.5	125.62	8.08	5.51	7.0	1.36	24.14	-142
13:18	1.75	126.22	8.08	5.51	7.0	1.32	24.11	-145
13:22	2.0	126.59	8.08	5.51	6.9	1.30	24.10	-149

Purge Sampling Rates: 80 psi refill 30 discharge 18

Well condition: OK
 Additional Info/Comments: Required carrying sampling equipment and bottles across a concrete channel
Mostly clear, mild, windy

Name: Mike Campbell Signature: [Signature]

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility:	Sunshine Cyn	Well ID:	PZ-2	Date:	5-17-21
Access:					
Accessibility:	Good: _____	Fair: _____	Poor: _____		
Vicinity of well clear of weeds and/or debris:	Yes: _____	No: _____			
Presence of depressions or standing water around well:	Yes: _____	No: _____			
Remarks:	Required carrying sampling equipment and sample bottles across a concrete channel				
Concrete Pad:					
Integrity:	Good: _____	Inadequate: _____	NA		
Presence of depressions or standing water around well:	Yes: _____	No: _____			
Remarks:	NO concrete pad				
Protective Outer Casing: Material: Meta					
Condition of Protective Casing:	Good: <input checked="" type="checkbox"/>	Damaged: _____			
Condition of Locking Cap:	Good: <input checked="" type="checkbox"/>	Damaged: _____			
Condition of Lock:	Good: <input checked="" type="checkbox"/>	Damaged: _____			
Condition of Weepholes:	Good: _____	Damaged: _____			
Remarks:					
Well Riser: Material: PVC					
Condition of Riser:	Good: <input checked="" type="checkbox"/>	Damaged: _____			
Condition of Riser Cap:	Good: <input checked="" type="checkbox"/>	Damaged: _____			
Measurement reference point:	Yes: <input checked="" type="checkbox"/>	No: _____			
Remarks:					
Dedicated Pump: Type: Bladder					
Condition:	Good: <input checked="" type="checkbox"/>	Damaged: _____	Missing: _____		
Pumping Rate (gpm):	NA	Current (Hz):	NA		
Remarks:					

Field Certification: Mike Campbell Signed Field Tech Title 5-17-21 Date

GROUNDWATER MONITORING PROGRAM WELL DATA SHEET

Site Name: Sunshine Cyn Project No.: 5021 1059
 Well I.D.: P2-4 Sampling Date: 5-18-21
 Collected By: mc Purge start Time: 11:19
 Casing Diameter (inches): 2 Purge Stop time: 11:48
 Starting Water Level: 110.18 Sampling (Well Recovery) Time: 11:58
 Total Depth (feet): 118.95 Ending Water Level (feet): 113.58
 Water column (feet): 8.77 Total Purged (gallons): 2.51
 Screen Length (feet): _____ Duplicate Sample: YES NO
 Sample Method: Micro Purge Low Flow
 Horiba Model S/N: L-52/n5Y14BDD

TIME	GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
11:29	1.0	112.44	6.94	1.53	28.3	1.66	23.57	-126
11:35	1.5	112.86	6.94	1.54	5.2	1.35	23.35	-120
11:38	1.75	113.03	6.93	1.55	5.1	1.27	23.30	-118
11:41	2.0	113.23	6.94	1.55	5.2	1.22	23.25	-117
11:45	2.25	113.42	6.93	1.55	2.1	1.20	23.21	-120
11:48	2.50	113.58	6.93	1.55	1.3	1.18	23.18	-124

Purge Sampling Rates: 90 psi refill 30 discharge 21
water is mostly clear, with a greenish tint

Well condition: OK

Additional Info/Comments: clear, warm, windy

Name: Mike Campbell Signature: Mike Campbell

GROUNDWATER MONITORING WELL INSPECTION REPORT

Facility:	<u>Sunshoro Cyn</u>	Well ID:	<u>PZ-4</u>	Date:	<u>5-18-21</u>
Access:	Accessibility: Good: <input checked="" type="checkbox"/>	Fair: <input type="checkbox"/>	Poor: <input type="checkbox"/>	Vicinity of well clear of weeds and/or debris: Yes: <input checked="" type="checkbox"/>	No: <input type="checkbox"/>
	Presence of depressions or standing water around well: Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>	Remarks:		
Concrete Pad:	Integrity: Good: <input checked="" type="checkbox"/>	Inadequate: <input type="checkbox"/>	Presence of depressions or standing water around well: Yes: <input type="checkbox"/>	No: <input type="checkbox"/>	Remarks:
Protective Outer Casing:	Material: <u>Flushmount</u>	Condition of Protective Casing: <u>NA</u>	Good: <input type="checkbox"/>	Damaged: <input type="checkbox"/>	
	Condition of Locking Cap: <u>NA</u>	Good: <input type="checkbox"/>	Damaged: <input type="checkbox"/>		
	Condition of Lock: <u>NA</u>	Good: <input type="checkbox"/>	Damaged: <input type="checkbox"/>		
	Condition of Weepholes: <u>NA</u>	Good: <input type="checkbox"/>	Damaged: <input type="checkbox"/>		
	Remarks:				
Well Riser:	Material: <u>PVC</u>	Condition of Riser: Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>	Condition of Riser Cap: Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>
	Measurement reference point: Yes: <input checked="" type="checkbox"/>	No: <input type="checkbox"/>	Remarks:		
Dedicated Pump:	Type: <u>Bladder</u>	Condition: Good: <input checked="" type="checkbox"/>	Damaged: <input type="checkbox"/>	Missing: <input type="checkbox"/>	
	Pumping Rate (gpm): <u>NA</u>	Current (Hz): <u>NA</u>	Remarks:		

Field Certification: Mike Campbell Signed Field Tech Title 5-18-21 Date

**GROUNDWATER MONITORING PROGRAM
 SURFACE WATER DATA SHEET**

Site Name: Sunshine Cyn.

Project No.: SOUL 1059

Station I.D.: Subdrain (N)

Sampling Date: 5-17-21

Collected By: BS

Sampling Time: 0900

Horiba Model S/N: RPS5494H

Duplicate Sample: YES NO

COLOR	ODOR	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
Yellowish	yes	5.91	414	47.9	←	18.44	-70

Surface water conditions (including stream flow rate, stream depth): Samples collected in discharge pipe to subdrain.

Additional Info/Comments: overcast, cool

B cons. filled

Name: B. Salinas

Signature: [Signature]

**GROUNDWATER MONITORING PROGRAM
 SURFACE WATER DATA SHEET**

Site Name: Sandstone Cyn. Project No.: S021.1059
 Station I.D.: LY-7 Sampling Date: 5-18-21
 Collected By: RES Sampling Time: 0755
 Horiba Model S/N: R855494H Duplicate Sample: YES NO

COLOR	ODOR	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
<u>mut of yellow</u>	<u>yes</u>	<u>7.16</u>	<u>5.49</u>	<u>2.5</u>	<u>3.41</u>	<u>22.77</u>	<u>-31</u>

Surface water conditions (including stream flow rate, stream depth): Samples collected @
sample point @ discharge pipe.

Additional Info/Comments: ANALYSIS, cool

Ben J. Leli

**GROUNDWATER MONITORING PROGRAM
 SURFACE WATER DATA SHEET**

Site Name: Sunshine Gap

Project No.: 5021.1059

Station I.D.: Combined Subdrain

Sampling Date: 5-18-21

Collected By: BS

Sampling Time: 0908

Horiba Model S/N: 128854944

Duplicate Sample: YES NO

COLOR	ODOR	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV
<u>Dark blue</u>	<u>strong odor</u>	<u>6.92</u>	<u>3,97</u>	<u>137</u>	<u>6</u>	<u>18.49</u>	<u>-303</u>

Surface water conditions (including stream flow rate, stream depth): Correct sampled @ sample point.

Additional Info/Comments: Some clouds, cool

Name: B. Salinas

Signature: [Handwritten Signature]

**GROUNDWATER MONITORING PROGRAM
WELL DATA SHEET**

Site Name.: Sunshine Cyn
 Well I.D.: LY-6
 Collected By: BS
 Casing Diameter (inches): _____
 Starting Water Level: _____
 Total Depth (feet): _____
 Water column (feet): _____
 Screen Length (feet): _____
 Purge Volume (gallons): _____
 Horiba Model S/N: _____

Project No.: S021.1059
 Sampling Date: 5-19-21
 Purge start Time: _____
 Purge Stop time: _____
 Sampling Time: _____
 Ending Water Level (feet): _____
 Total Purged (gallons): _____
 PID/FID Reading: _____
 Duplicate Sample: YES NO

GALLONS PURGED	WATER LEVEL	pH	CONDUCTIVITY ms/cm	TURBIDITY NTU	D.O. mg/L	TEMPERATURE °C	O.R.P. mV

Purge Sampling Rates: The lysimeter is dry, no samples collected

Well condition: OK

Additional Info/Comments: Summary, email

Name: B. Salinas

Signature: [Signature]

Geo-Logic

ASSOCIATES

FIELD CALIBRATION DOCUMENTATION FORM

LOCATION (Site/Facility Name) Sunshine Cyn PROJECT NAME / NUMBER S021.1059

Instrument Make/Model #		<u>Hanna U-52</u> <u>R8 Stuart H</u>			Guidance Remarks	Comments
Date/Time	pH	Electrical Conductivity (µMhos/cm) (4.49 mg/Kg)	Turbidity (NTU) (0)	DO (mg/L or %)		
5-18-21 0635						
Pre. Cal	2.92	U.55	0.2	11.16		
Calibration	Yes	U.52	←	9.61		
Calibration Successful? (Y/N)	Yes				enter YES or NO	
Satisfies Protocol?	Yes				Did calibration meet criteria in the sampling protocol? (Y or N)	
Calibration by	R.S				Signature or initials	<u>Rent Julia</u>
Physical Condition of Unit		<u>Good</u>				

Geo-Logic

ASSOCIATES

FIELD CALIBRATION DOCUMENTATION FORM

LOCATION (Site/Facility Name) Sunshine Cyn PROJECT NAME / NUMBER SO21-105C

Instrument Make/Model # U-52/W541wBOP

Date/Time	pH	Electrical Conductivity (µMhos/cm) (4.49 mg/Kg)	Turbidity (NTU) (0)	DO (mg/L or %)	Guidance Remarks	Comments
<u>5-18-21 6:05</u>						
Pre. Cal	<u>7.82</u>	<u>448</u>	<u>0.2</u>	<u>10.1</u>		
Calibration	<u>4.00</u>	<u>4.49</u>	<u>0.0</u>	<u>9.83</u>		
Calibration Successful? (Y/N)	<u>Y</u>	<u>Y</u>			enter YES or NO	
Satisfies Protocol?	<u>Y</u>				Did calibration meet criteria in the sampling protocol? (Y or N)	
Calibration by	<u>2</u>				Signature or initials	<u>Mike Capp</u>
Physical Condition of Unit					<u>Good</u>	

Geo-Logic ASSOCIATES

FIELD CALIBRATION DOCUMENTATION FORM

LOCATION (Site/Facility Name) 5.17.21 6:08 PROJECT NAME / NUMBER W-52/W54WBOP

Instrument Make/Model #		<u>W-52/W54WBOP</u>					
Date/Time	pH	Electrical Conductivity (µMhos/cm) (4.49 mg/Kg)	Turbidity (NTU) (0)	DO (mg/L or %)	Guidance Remarks	Comments	
5.17.21 6:08	9.22	4.48	0.0	9.70			
Pre. Cal	3.99	4.49	0.0	9.76			
Calibration Successful? (Y/N)	yes						
Satisfies Protocol?	yes						
Calibration by	[Signature]						
Physical Condition of Unit					Good		
					Did calibration meet criteria in the sampling protocol? (Y or N)		
					Signature or initials	[Signature]	

Geo-Logic

ASSOCIATES

FIELD CALIBRATION DOCUMENTATION FORM

LOCATION (Site/Facility Name) Sunshine Spa PROJECT NAME / NUMBER SOL11039

Instrument Make/Model # HANNA U-52
D85599V1X

Date/Time	pH	Electrical Conductivity (µMhos/cm) (4.49 mg/Kg)	Turbidity (NTU) (0)	DO (mg/L or %)	Guidance Remarks	Comments
8:33 5/17/21						
Pre-Cal	4.20	4.59	0.7	11.42		
Calibration	3.99	4.29	0	9.91		
Calibration Successful? (Y/N)	Yes	→	→	→	enter YES or NO	
Satisfies Protocol?	Yes	→	→	→	Did calibration meet criteria in the sampling protocol? (Y or N)	
Calibration by	BS	→	→	→	Signature or initials	BS Alan
Physical Condition of Unit					Good	

Geo-Logic ASSOCIATES

FIELD CALIBRATION DOCUMENTATION FORM

LOCATION (Site/Facility Name) Sunshine Spa PROJECT NAME / NUMBER S021.1054

Instrument Make/Model #		<u>Hanna U-52</u> <u>28851911</u>			Guidance Remarks	Comments
Date/Time	pH	Electrical Conductivity (µMhos/cm) (4.49 mg/Kg)	Turbidity (NTU) (0)	DO (mg/L or %)		
<u>5-19-21</u> <u>0712</u>						
Pre. Cal	<u>3.95</u>	<u>4.54</u>	<u>0.5</u>	<u>11.60</u>		
Calibration	<u>4.00</u>	<u>4.49</u>	<u>0</u>	<u>9.56</u>		
Calibration Successful? (Y/N)	<u>Yes</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	enter YES or NO	
Satifies Protocol?	<u>Yes</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	Did calibration meet criteria in the sampling protocol? (Y or N)	
Calibration by	<u>RSB</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	Signature or initials	<u>RSB</u> <u>DL</u>
Physical Condition of Unit					<u>Good</u>	

Geo-Logic ASSOCIATES

FIELD CALIBRATION DOCUMENTATION FORM

LOCATION (Site/Facility Name) Sapphire Cyn PROJECT NAME / NUMBER 5021 1059

Instrument Make/Model # u-52/w541w600

Date/Time	pH	Electrical Conductivity (µMhos/cm) (4.49 mg/Kg)	Turbidity (NTU) (0)	DO (mg/L or %)	Guidance Remarks	Comments
5-19-21 6:22						
Pre. Cal	4.08	4.45	0.0	11.01		
Calibration	4.00	4.49	0.0	9.33		
Calibration Successful? (Y/N)	yes				enter YES or NO	
Satisfies Satifex Protocol?	yes				Did calibration meet criteria in the sampling protocol? (Y or N)	
Calibration by	<u>M</u>				Signature or initials	<u>Mick Cayle</u>
Physical Condition of Unit					Good	

Geo-Logic ASSOCIATES

FIELD CALIBRATION DOCUMENTATION FORM

LOCATION (Site/Facility Name) Sunshine cym PROJECT NAME / NUMBER SOZL-1059

Instrument Make/Model # h-52/m5412BDD

Date/Time	pH	Electrical Conductivity (µMhos/cm) (4.49 mg/Kg)	Turbidity (NTU)	DO (mg/L or %)	Guidance Remarks	Comments
5:20.21			(0)			
5:32						
Pre. Cal	4.00	4.50	0.0	11.04		
Calibration	4.00	4.49	0.0	9.43		
Calibration Successful? (Y/N)	yes				enter YES or NO	
Satisfies Protocol?	yes				Did calibration meet criteria in the sampling protocol? (Y or N)	
Calibration by	mc				Signature or initials	<i>Michelle Campbell</i>
Physical Condition of Unit					Good	

ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-279440-1

Client Project/Site: Republic Sunshine Canyon

For:

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

Attn: Kyle Welchans



Authorized for release by:
3/5/2021 9:46:54 AM

Rossina Tomova, Project Manager I
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Rossina.Tomova@Eurofinset.com

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



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Sample Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279440-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-279440-1	DW-1(A)	Water	02/23/21 08:40	02/23/21 12:45	
440-279440-2	DW-1(B)	Water	02/23/21 08:44	02/23/21 12:45	
440-279440-3	DW-5(A)	Water	02/23/21 09:48	02/23/21 12:45	
440-279440-4	DW-5(B)	Water	02/23/21 09:52	02/23/21 12:45	
440-279440-5	Field Blank	Water	02/23/21 00:01	02/23/21 12:45	
440-279440-6	Trip Blank	Water	02/23/21 00:01	02/23/21 12:45	

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Case Narrative

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279440-1

Job ID: 440-279440-1

Laboratory: Eurofins Calscience Irvine

Narrative

**Job Narrative
440-279440-1**

Comments

No additional comments.

Receipt

The samples were received on 2/23/2021 12:45 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.9° C.

GC/MS VOA

Method 8260B: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: DW-5(A) (440-279440-3) and DW-5(B) (440-279440-4). Elevated reporting limits (RLs) are provided.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-132594.

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

General Chemistry

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

VOA Prep

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

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279440-1

Client Sample ID: DW-1(A)

Date Collected: 02/23/21 08:40

Date Received: 02/23/21 12:45

Lab Sample ID: 440-279440-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3300		100	50	mg/L			03/02/21 09:53	1

Client Sample ID: DW-1(B)

Date Collected: 02/23/21 08:44

Date Received: 02/23/21 12:45

Lab Sample ID: 440-279440-2

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3200		100	50	mg/L			03/02/21 09:53	1

Client Sample ID: DW-5(A)

Date Collected: 02/23/21 09:48

Date Received: 02/23/21 12:45

Lab Sample ID: 440-279440-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.66	ug/L			03/01/21 15:36	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		80 - 128		03/01/21 15:36	2
Dibromofluoromethane (Surr)	103		80 - 127		03/01/21 15:36	2
Toluene-d8 (Surr)	106		80 - 120		03/01/21 15:36	2
4-Bromofluorobenzene (Surr)	95		68 - 120		03/01/21 15:36	2

Client Sample ID: DW-5(B)

Date Collected: 02/23/21 09:52

Date Received: 02/23/21 12:45

Lab Sample ID: 440-279440-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.66	ug/L			03/01/21 16:06	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		80 - 128		03/01/21 16:06	2
Dibromofluoromethane (Surr)	102		80 - 127		03/01/21 16:06	2
Toluene-d8 (Surr)	105		80 - 120		03/01/21 16:06	2
4-Bromofluorobenzene (Surr)	93		68 - 120		03/01/21 16:06	2

Client Sample ID: Field Blank

Date Collected: 02/23/21 00:01

Date Received: 02/23/21 12:45

Lab Sample ID: 440-279440-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		0.50	0.33	ug/L			03/01/21 16:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		80 - 128		03/01/21 16:36	1
Dibromofluoromethane (Surr)	101		80 - 127		03/01/21 16:36	1
Toluene-d8 (Surr)	105		80 - 120		03/01/21 16:36	1
4-Bromofluorobenzene (Surr)	94		68 - 120		03/01/21 16:36	1

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279440-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-279440-6

Date Collected: 02/23/21 00:01

Matrix: Water

Date Received: 02/23/21 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		0.50	0.33	ug/L			03/01/21 17:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		80 - 128					03/01/21 17:06	1
Dibromofluoromethane (Surr)	104		80 - 127					03/01/21 17:06	1
Toluene-d8 (Surr)	106		80 - 120					03/01/21 17:06	1
4-Bromofluorobenzene (Surr)	93		68 - 120					03/01/21 17:06	1



Method Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279440-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL IRV
5030C	Purge and Trap	SW846	ECL 2

Protocol References:

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:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

Lab Chronicle

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279440-1

Client Sample ID: DW-1(A)

Date Collected: 02/23/21 08:40

Date Received: 02/23/21 12:45

Lab Sample ID: 440-279440-1

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	SM 2540C		1	10 mL	100 mL	640085	03/02/21 09:53	VY3D	TAL IRV

Client Sample ID: DW-1(B)

Date Collected: 02/23/21 08:44

Date Received: 02/23/21 12:45

Lab Sample ID: 440-279440-2

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	SM 2540C		1	10 mL	100 mL	640085	03/02/21 09:53	VY3D	TAL IRV

Client Sample ID: DW-5(A)

Date Collected: 02/23/21 09:48

Date Received: 02/23/21 12:45

Lab Sample ID: 440-279440-3

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		2	20 mL	20 mL	132594	03/01/21 15:36	OH1	ECL 2

Client Sample ID: DW-5(B)

Date Collected: 02/23/21 09:52

Date Received: 02/23/21 12:45

Lab Sample ID: 440-279440-4

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		2	20 mL	20 mL	132594	03/01/21 16:06	OH1	ECL 2

Client Sample ID: Field Blank

Date Collected: 02/23/21 00:01

Date Received: 02/23/21 12:45

Lab Sample ID: 440-279440-5

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	20 mL	20 mL	132594	03/01/21 16:36	OH1	ECL 2

Client Sample ID: Trip Blank

Date Collected: 02/23/21 00:01

Date Received: 02/23/21 12:45

Lab Sample ID: 440-279440-6

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	20 mL	20 mL	132594	03/01/21 17:06	OH1	ECL 2

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279440-1

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

Lab Sample ID: MB 570-132594/7
Matrix: Water
Analysis Batch: 132594

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		0.50	0.33	ug/L			03/01/21 11:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		80 - 128					03/01/21 11:03	1
Dibromofluoromethane (Surr)	99		80 - 127					03/01/21 11:03	1
Toluene-d8 (Surr)	102		80 - 120					03/01/21 11:03	1
4-Bromofluorobenzene (Surr)	95		68 - 120					03/01/21 11:03	1

Lab Sample ID: LCS 570-132594/4
Matrix: Water
Analysis Batch: 132594

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	10.0	10.6		ug/L		106	80 - 120
Surrogate	%Recovery	Qualifier	Limits				
1,2-Dichloroethane-d4 (Surr)	92		80 - 128				
Dibromofluoromethane (Surr)	99		80 - 127				
Toluene-d8 (Surr)	101		80 - 120				
4-Bromofluorobenzene (Surr)	96		68 - 120				

Lab Sample ID: LCSD 570-132594/5
Matrix: Water
Analysis Batch: 132594

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	10.0	10.3		ug/L		103	80 - 120	3	20
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	94		80 - 128						
Dibromofluoromethane (Surr)	98		80 - 127						
Toluene-d8 (Surr)	101		80 - 120						
4-Bromofluorobenzene (Surr)	98		68 - 120						

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

Lab Sample ID: MB 440-640085/1
Matrix: Water
Analysis Batch: 640085

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			03/02/21 09:53	1

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279440-1

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

Lab Sample ID: LCS 440-640085/2
Matrix: Water
Analysis Batch: 640085

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	988		mg/L		99	90 - 110

Lab Sample ID: 440-279440-1 DU
Matrix: Water
Analysis Batch: 640085

Client Sample ID: DW-1(A)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	3300		3190		mg/L		4	5

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QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279440-1

GC/MS VOA

Analysis Batch: 132594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279440-3	DW-5(A)	Total/NA	Water	8260B	
440-279440-4	DW-5(B)	Total/NA	Water	8260B	
440-279440-5	Field Blank	Total/NA	Water	8260B	
440-279440-6	Trip Blank	Total/NA	Water	8260B	
MB 570-132594/7	Method Blank	Total/NA	Water	8260B	
LCS 570-132594/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-132594/5	Lab Control Sample Dup	Total/NA	Water	8260B	

General Chemistry

Analysis Batch: 640085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279440-1	DW-1(A)	Total/NA	Water	SM 2540C	
440-279440-2	DW-1(B)	Total/NA	Water	SM 2540C	
MB 440-640085/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-640085/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-279440-1 DU	DW-1(A)	Total/NA	Water	SM 2540C	

Definitions/Glossary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279440-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279440-1

Laboratory: Eurofins Calscience Irvine

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

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-21
Arizona	State	AZ0671	10-14-21
California	Los Angeles County Sanitation Districts	10256	06-30-21
California	State	2706	06-30-21
Guam	State	21-003R	01-23-22
Hawaii	State	CA01531	01-29-22
Kansas	NELAP	E-10420	07-31-21
Nevada	State	CA015312021-5	07-31-21
Oregon	NELAP	4028 - 009	01-29-22
USDA	US Federal Programs	P330-21-00022	02-02-24
Washington	State	C900	09-03-21

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	20-003R	10-31-20 *
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine
 17461 Perian Ave
 Suite 100
 Irvine, CA 92614
 Phone 949 261 1022 Fax

Chain of Custody Record
 081258

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING
 TestAmerica Laboratories, Inc.
 TAL-8210 (0713)

** Request **

Regulatory Program DW NPDES RCRA Other

Client Contact
 Company Name: City of Redlands
 Address: 11455 W. Bembridge CA
 City/State/Zip: S.D. CA 92371
 Phone: 858-451-1136
 Fax: 858-451-1087
 Project Name: City of Redlands Sanitary BAC
 Site: Sanitine Spu Landfill
 P.O.#

Project Manager: Ex V. Waddell **Site Contact:** J. Mills
 Tel/Fax: 858-451-1135 **Lab Contact:** Rossina
 Analysis Turnaround Time: _____
 CALENDAR DAYS WORKING DAYS
 TAT if different from below _____
 2 weeks 1 week 2 days 1 day

Sample Identification	Sample Date	Sample Time	Sample Type (C-Comp, G-Grab)	Matrix	# of Cont.	Perform MS / MSD (Y / N)		Sample Specific Notes
						Filtered Sample (Y/N)	Other	
DW-1(A)	2/23/21	0840	G	GW	1			
DW-1(B)		0844			1			
DW-5(A)		0948			3			
DW-5(B)		0952			3			
Field Blank					2			
Tap Blank					2			



440-279440 Chain of Custody

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other _____
Possible Hazard Identification Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
 Non-Hazard Flammable Skin Irritant Poison B Unknown
 Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments.

Custody Seals Intact: Yes No

Relinquished by: [Signature] Date/Time: 2-23-21 10:00
 Relinquished by: [Signature] Date/Time: 2-23-21 12:45
 Relinquished by: [Signature] Date/Time: 2-23-21 12:45

Company: B-T Date/Time: 2-23-21 10:00
 Company: B-T Date/Time: 2-23-21 12:45
 Company: EC IRV Date/Time: 2-23-21 12:45

T up 20/19 1P89

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Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM:	Carrier Tracking No(s):	COC No:				
Client Contact: Shipping/Receiving		Tomova, Rossina D		440-166592 1				
Company: Eurofins Calscience LLC		E-Mail: Rossina.Tomova@Eurofinset.com	State of Origin: California	Page: Page 1 of 1				
Address: 7440 Lincoln Way, Garden Grove, CA 92841		Job #: 440-279440-1						
City: Garden Grove		Preservation Codes:						
State Zip: CA, 92841		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:						
Phone: 714-895-5494(Tel) 714-894-7501(Fax)		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SD4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)						
Email:		Total Number of Containers						
Project Name: Republic Sunshine Canyon		Analysis Requested						
Site:		82608 LL/6030C Appendix II +MTBE+TBA+TICS						
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, W=water, G=grab)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Preservation Code	Special Instructions/Note:
DW-5(A) (440-279440-3)	2/23/21	09:48 Pacific		Water	X	X		
DW-5(B) (440-279440-4)	2/23/21	09:52 Pacific		Water	X	X		
Field Blank (440-279440-5)	2/23/21	00:01 Pacific		Water	X	X		
Trip Blank (440-279440-6)	2/23/21	00:01 Pacific		Water	X	X		
<p>Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon subcontract laboratories. This sample shipment is forwarded under chain-of-custody if the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.</p>								
<p>Possible Hazard Identification</p> <p>Unconfirmed <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank 2</p>								
<p>Empty Kit Relinquished by: <i>[Signature]</i> Date: 2/23/21 1800 Company: EA</p> <p>Relinquished by: <i>[Signature]</i> Date: 02/23/21 1855 Company: EA</p> <p>Relinquished by: <i>[Signature]</i> Date: 2-23-2021 18:58 Company: EA</p>								
<p>Custody Seals Intact: <input type="checkbox"/> Custody Seal No. <input type="checkbox"/></p> <p> Cooler Temperature(s) °C and Other Remarks: 3.1 / 2-3 506</p>								



Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-279440-1

Login Number: 279440

List Number: 1

Creator: Escalante, Maria I

List Source: Eurofins Irvine

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.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 (excluding tests with immediate HTs)	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	



Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-279440-1

Login Number: 279440

List Number: 2

Creator: Koopman, Jennifer

List Source: Eurofins Calscience

List Creation: 02/23/21 08:23 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
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	1.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-279932-1

Client Project/Site: Republic Sunshine Canyon

For:

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

Attn: Kyle Welchans



Authorized for release by:
3/17/2021 11:49:52 AM

Rossina Tomova, Project Manager I
(949)260-3276

Rossina.Tomova@Eurofinset.com

LINKS

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

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



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Sample Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-279932-1	CM-10R	Water	03/04/21 10:00	03/04/21 16:45	
440-279932-2	CM-11R	Water	03/04/21 10:00	03/04/21 16:45	
440-279932-3	LY-7	Water	03/04/21 09:15	03/04/21 16:45	
440-279932-4	Combined Subdrains	Water	03/04/21 11:40	03/04/21 16:45	
440-279932-5	Extraction Trench	Water	03/04/21 13:05	03/04/21 16:45	
440-279932-6	Subdrain (N)	Water	03/04/21 09:58	03/04/21 16:45	
440-279932-7	Field Blank	Water	03/04/21 00:01	03/04/21 16:45	
440-279932-8	Trip Blank	Water	03/04/21 00:01	03/04/21 16:45	

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Case Narrative

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Job ID: 440-279932-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative 440-279932-1

Comments

No additional comments.

Receipt

The samples were received on 3/4/2021 4:45 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.0° C and 3.3° C.

GC/MS VOA

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-134105.

Method 8260B: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: LY-7 (440-279932-3), Extractions Trench (440-279932-5) and Subdrain (N) (440-279932-6). Elevated reporting limits (RLs) are provided.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-134416.

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

GC/MS Semi VOA

Method 8270C SIM ID: Results for sample Extractions Trench (440-279932-5) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

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

HPLC/IC

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

Metals

Methods 3005A, 7470A: The reference method requires samples to be preserved to a pH of <2. The following samples were received with insufficient preservation: LY-7 (440-279932-3), Extractions Trench (440-279932-5), Subdrain (N) (440-279932-6). The samples were preserved to the appropriate pH in the laboratory. Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion.

03/09/21 @ 1545 hours

0.5 mL of 1:1 HNO₃ was added to each container L-5, L-6, and N-1

1.5 mL of 1:1 HNO₃ was added to container L-3

1:1 HNO₃ Reagent # 6496651

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

General Chemistry

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

Organic Prep

Method 3510C: The following sample formed emulsions during the extraction procedure: Subdrain (N) (440-279932-6). The emulsions were broken up using sodium sulfate. The sample had emulsion. Possible low surrogate recovery.

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

Case Narrative

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Job ID: 440-279932-1 (Continued)

Laboratory: Eurofins Calscience Irvine (Continued)

VOA Prep

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

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: CM-10R

Lab Sample ID: 440-279932-1

Date Collected: 03/04/21 10:00

Matrix: Water

Date Received: 03/04/21 16:45

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	0.32	ug/L			03/06/21 18:47	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/06/21 18:47	1
Acrolein	ND		4.0	2.2	ug/L			03/09/21 00:50	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/09/21 00:50	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/06/21 18:47	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/06/21 18:47	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/06/21 18:47	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/06/21 18:47	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/06/21 18:47	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/06/21 18:47	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/06/21 18:47	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/06/21 18:47	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/06/21 18:47	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/06/21 18:47	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/06/21 18:47	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/06/21 18:47	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/06/21 18:47	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/06/21 18:47	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/06/21 18:47	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/06/21 18:47	1
2-Hexanone	ND		6.0	4.3	ug/L			03/06/21 18:47	1
Acetone	ND		8.0	4.0	ug/L			03/06/21 18:47	1
Acetonitrile	ND		10	3.9	ug/L			03/06/21 18:47	1
Benzene	ND		0.50	0.27	ug/L			03/06/21 18:47	1
Allyl chloride	ND		2.0	0.38	ug/L			03/06/21 18:47	1
Bromoform	ND		0.50	0.39	ug/L			03/06/21 18:47	1
Bromomethane	ND		1.0	0.93	ug/L			03/06/21 18:47	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/06/21 18:47	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/06/21 18:47	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/06/21 18:47	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/06/21 18:47	1
Chloroethane	ND		0.50	0.44	ug/L			03/06/21 18:47	1
Chloroform	ND		0.50	0.28	ug/L			03/06/21 18:47	1
Chloromethane	ND		1.0	0.29	ug/L			03/06/21 18:47	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/06/21 18:47	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/06/21 18:47	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/06/21 18:47	1
Dibromomethane	ND		0.50	0.23	ug/L			03/06/21 18:47	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/06/21 18:47	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/06/21 18:47	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/06/21 18:47	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/06/21 18:47	1
Iodomethane	ND		25	5.9	ug/L			03/06/21 18:47	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/06/21 18:47	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/06/21 18:47	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/06/21 18:47	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/06/21 18:47	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/06/21 18:47	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/06/21 18:47	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: CM-10R

Lab Sample ID: 440-279932-1

Date Collected: 03/04/21 10:00

Matrix: Water

Date Received: 03/04/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.32	ug/L			03/06/21 18:47	1
o-Xylene	ND		0.50	0.35	ug/L			03/06/21 18:47	1
Propionitrile	ND		5.0	3.7	ug/L			03/06/21 18:47	1
Styrene	ND		0.50	0.28	ug/L			03/06/21 18:47	1
t-Butanol	ND		5.0	4.0	ug/L			03/06/21 18:47	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/06/21 18:47	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/06/21 18:47	1
Toluene	ND		0.50	0.33	ug/L			03/06/21 18:47	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/06/21 18:47	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/06/21 18:47	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/06/21 18:47	1
Trichloroethene	ND		0.50	0.29	ug/L			03/06/21 18:47	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/06/21 18:47	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/06/21 18:47	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/06/21 18:47	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/06/21 18:47	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/06/21 18:47	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/06/21 18:47	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	250	T J	ug/L		1.49			03/06/21 18:47	1
Unknown	3000	T J	ug/L		1.55			03/06/21 18:47	1
Unknown	14	T J	ug/L		1.71			03/06/21 18:47	1
Sulfur dioxide	670	T J N	ug/L		1.92	7446-09-5		03/06/21 18:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		68 - 135		03/09/21 00:50	1
1,2-Dichloroethane-d4 (Surr)	92		68 - 135		03/06/21 18:47	1
Dibromofluoromethane (Surr)	96		80 - 120		03/09/21 00:50	1
Dibromofluoromethane (Surr)	100		80 - 120		03/06/21 18:47	1
Toluene-d8 (Surr)	101		80 - 120		03/09/21 00:50	1
4-Bromofluorobenzene (Surr)	94		71 - 120		03/09/21 00:50	1
Toluene-d8 (Surr)	102		80 - 120		03/06/21 18:47	1
4-Bromofluorobenzene (Surr)	95		71 - 120		03/06/21 18:47	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/06/21 09:09	03/09/21 22:09	1
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8	63		15 - 150	03/06/21 09:09	03/09/21 22:09	1			
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Nitrobenzene-d5 (Surr)	77		46 - 128	03/06/21 09:09	03/09/21 22:09	1			

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.7		0.50	0.25	mg/L			03/06/21 00:12	1

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		03/10/21 07:51	03/10/21 14:47	1

Eurofins Calscience Irvine

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: CM-10R

Lab Sample ID: 440-279932-1

Date Collected: 03/04/21 10:00

Matrix: Water

Date Received: 03/04/21 16:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	11		1.0	0.50	mg/L			03/09/21 16:26	5
Chemical Oxygen Demand	ND		20	10	mg/L			03/10/21 14:09	1
Total Dissolved Solids	2500		20	10	mg/L			03/11/21 09:28	1
Total Organic Carbon	4.0		0.10	0.050	mg/L			03/10/21 09:48	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	430		4.0	4.0	mg/L			03/05/21 07:58	1

Client Sample ID: CM-11R

Lab Sample ID: 440-279932-2

Date Collected: 03/04/21 10:00

Matrix: Water

Date Received: 03/04/21 16:45

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	0.32	ug/L			03/06/21 19:17	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/06/21 19:17	1
Acrolein	ND		4.0	2.2	ug/L			03/09/21 01:20	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/09/21 01:20	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/06/21 19:17	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/06/21 19:17	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/06/21 19:17	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/06/21 19:17	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/06/21 19:17	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/06/21 19:17	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/06/21 19:17	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/06/21 19:17	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/06/21 19:17	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/06/21 19:17	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/06/21 19:17	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/06/21 19:17	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/06/21 19:17	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/06/21 19:17	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/06/21 19:17	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/06/21 19:17	1
2-Hexanone	ND		6.0	4.3	ug/L			03/06/21 19:17	1
Acetone	ND		8.0	4.0	ug/L			03/06/21 19:17	1
Acetonitrile	ND		10	3.9	ug/L			03/06/21 19:17	1
Benzene	ND		0.50	0.27	ug/L			03/06/21 19:17	1
Allyl chloride	ND		2.0	0.38	ug/L			03/06/21 19:17	1
Bromoform	ND		0.50	0.39	ug/L			03/06/21 19:17	1
Bromomethane	ND		1.0	0.93	ug/L			03/06/21 19:17	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/06/21 19:17	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/06/21 19:17	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/06/21 19:17	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/06/21 19:17	1
Chloroethane	ND		0.50	0.44	ug/L			03/06/21 19:17	1
Chloroform	ND		0.50	0.28	ug/L			03/06/21 19:17	1
Chloromethane	ND		1.0	0.29	ug/L			03/06/21 19:17	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/06/21 19:17	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/06/21 19:17	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/06/21 19:17	1

Eurofins Calscience Irvine

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: CM-11R

Lab Sample ID: 440-279932-2

Date Collected: 03/04/21 10:00

Matrix: Water

Date Received: 03/04/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		0.50	0.23	ug/L			03/06/21 19:17	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/06/21 19:17	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/06/21 19:17	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/06/21 19:17	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/06/21 19:17	1
Iodomethane	ND		25	5.9	ug/L			03/06/21 19:17	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/06/21 19:17	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/06/21 19:17	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/06/21 19:17	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/06/21 19:17	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/06/21 19:17	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/06/21 19:17	1
Naphthalene	ND		1.0	0.32	ug/L			03/06/21 19:17	1
o-Xylene	ND		0.50	0.35	ug/L			03/06/21 19:17	1
Propionitrile	ND		5.0	3.7	ug/L			03/06/21 19:17	1
Styrene	ND		0.50	0.28	ug/L			03/06/21 19:17	1
t-Butanol	ND		5.0	4.0	ug/L			03/06/21 19:17	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/06/21 19:17	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/06/21 19:17	1
Toluene	ND		0.50	0.33	ug/L			03/06/21 19:17	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/06/21 19:17	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/06/21 19:17	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/06/21 19:17	1
Trichloroethene	ND		0.50	0.29	ug/L			03/06/21 19:17	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/06/21 19:17	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/06/21 19:17	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/06/21 19:17	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/06/21 19:17	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/06/21 19:17	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/06/21 19:17	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Propane, 1-chloro-	510	T J N	ug/L		1.49	540-54-5		03/06/21 19:17	1
Unknown	4200	T J	ug/L		1.54			03/06/21 19:17	1
Sulfur dioxide	740	T J N	ug/L		1.85	7446-09-5		03/06/21 19:17	1
Cysteic acid	15	T J N	ug/L		2.08	1000131-23-1		03/06/21 19:17	1
Unknown	6.4	T J	ug/L		2.48			03/06/21 19:17	1
Unknown	6.2	T J	ug/L		3.20			03/06/21 19:17	1
Unknown	9.2	T J	ug/L		3.38			03/06/21 19:17	1
Unknown	9.1	T J	ug/L		3.47			03/06/21 19:17	1
Unknown	6.0	T J	ug/L		3.78			03/06/21 19:17	1
Unknown	7.9	T J	ug/L		3.99			03/06/21 19:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		68 - 135		03/09/21 01:20	1
1,2-Dichloroethane-d4 (Surr)	89		68 - 135		03/06/21 19:17	1
Dibromofluoromethane (Surr)	98		80 - 120		03/09/21 01:20	1
Dibromofluoromethane (Surr)	99		80 - 120		03/06/21 19:17	1
Toluene-d8 (Surr)	103		80 - 120		03/09/21 01:20	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: CM-11R

Lab Sample ID: 440-279932-2

Date Collected: 03/04/21 10:00

Matrix: Water

Date Received: 03/04/21 16:45

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		71 - 120		03/09/21 01:20	1
Toluene-d8 (Surr)	104		80 - 120		03/06/21 19:17	1
4-Bromofluorobenzene (Surr)	92		71 - 120		03/06/21 19:17	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/06/21 09:09	03/09/21 22:24	1
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8	56		15 - 150	03/06/21 09:09	03/09/21 22:24	1			
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Nitrobenzene-d5 (Surr)	84		46 - 128	03/06/21 09:09	03/09/21 22:24	1			

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.9		1.0	0.50	mg/L			03/06/21 00:30	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	8.5		0.50	0.25	mg/L		03/10/21 07:51	03/10/21 14:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	2.6		0.20	0.10	mg/L			03/09/21 15:38	1
Chemical Oxygen Demand	ND		20	10	mg/L			03/10/21 14:09	1
Total Dissolved Solids	3200		50	25	mg/L			03/11/21 09:28	1
Total Organic Carbon	5.2		0.10	0.050	mg/L			03/10/21 10:03	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	42		4.0	4.0	mg/L			03/05/21 08:04	1

Client Sample ID: LY-7

Lab Sample ID: 440-279932-3

Date Collected: 03/04/21 09:15

Matrix: Water

Date Received: 03/04/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.64	ug/L			03/06/21 20:17	2
1,1,1,2-Tetrachloroethane	ND		1.0	0.51	ug/L			03/06/21 20:17	2
Acrolein	ND		8.0	4.4	ug/L			03/09/21 01:50	2
Acrylonitrile	ND		10	1.7	ug/L			03/09/21 01:50	2
1,1,1-Trichloroethane	ND		1.0	0.53	ug/L			03/06/21 20:17	2
1,1,2,2-Tetrachloroethane	ND		1.0	0.39	ug/L			03/06/21 20:17	2
1,1,2-Trichloroethane	ND		1.0	0.17	ug/L			03/06/21 20:17	2
1,1-Dichloroethane	ND		1.0	0.71	ug/L			03/06/21 20:17	2
1,1-Dichloroethene	ND		1.0	0.78	ug/L			03/06/21 20:17	2
1,1-Dichloropropene	ND		1.0	0.48	ug/L			03/06/21 20:17	2
1,2,4-Trichlorobenzene	ND		1.0	0.75	ug/L			03/06/21 20:17	2
1,2-Dibromo-3-Chloropropane	ND		2.0	1.3	ug/L			03/06/21 20:17	2
1,2-Dichlorobenzene	ND		1.0	0.46	ug/L			03/06/21 20:17	2
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/06/21 20:17	2

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: LY-7

Lab Sample ID: 440-279932-3

Date Collected: 03/04/21 09:15

Matrix: Water

Date Received: 03/04/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.0	0.48	ug/L			03/06/21 20:17	2
1,3-Dichlorobenzene	ND		1.0	0.51	ug/L			03/06/21 20:17	2
1,3-Dichloropropane	ND		1.0	0.41	ug/L			03/06/21 20:17	2
1,4-Dichlorobenzene	1.5		1.0	0.45	ug/L			03/06/21 20:17	2
2,2-Dichloropropane	ND		1.0	0.79	ug/L			03/06/21 20:17	2
2-Chloro-1,3-butadiene	ND		4.0	3.7	ug/L			03/06/21 20:17	2
2-Hexanone	ND		12	8.6	ug/L			03/06/21 20:17	2
Acetone	ND		16	8.0	ug/L			03/06/21 20:17	2
Acetonitrile	ND		20	7.9	ug/L			03/06/21 20:17	2
Benzene	0.61	J	1.0	0.53	ug/L			03/06/21 20:17	2
Allyl chloride	ND		4.0	0.76	ug/L			03/06/21 20:17	2
Bromoform	ND		1.0	0.78	ug/L			03/06/21 20:17	2
Bromomethane	ND		2.0	1.9	ug/L			03/06/21 20:17	2
Carbon disulfide	ND		2.0	0.49	ug/L			03/06/21 20:17	2
Carbon tetrachloride	ND		1.0	0.54	ug/L			03/06/21 20:17	2
Chlorobenzene	ND		1.0	0.48	ug/L			03/06/21 20:17	2
Bromochloromethane	ND		2.0	0.70	ug/L			03/06/21 20:17	2
Chloroethane	ND		1.0	0.88	ug/L			03/06/21 20:17	2
Chloroform	ND		1.0	0.57	ug/L			03/06/21 20:17	2
Chloromethane	ND		2.0	0.59	ug/L			03/06/21 20:17	2
cis-1,2-Dichloroethene	2.3		1.0	0.60	ug/L			03/06/21 20:17	2
cis-1,3-Dichloropropene	ND		1.0	0.38	ug/L			03/06/21 20:17	2
Dibromochloromethane	ND		1.0	0.54	ug/L			03/06/21 20:17	2
Dibromomethane	ND		1.0	0.46	ug/L			03/06/21 20:17	2
Bromodichloromethane	ND		1.0	0.45	ug/L			03/06/21 20:17	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			03/06/21 20:17	2
Ethyl methacrylate	ND		4.0	2.4	ug/L			03/06/21 20:17	2
Ethylbenzene	ND		1.0	0.71	ug/L			03/06/21 20:17	2
Iodomethane	ND		50	12	ug/L			03/06/21 20:17	2
Isobutyl alcohol	ND		50	11	ug/L			03/06/21 20:17	2
m,p-Xylene	ND		2.0	1.6	ug/L			03/06/21 20:17	2
Methylacrylonitrile	ND		4.0	1.4	ug/L			03/06/21 20:17	2
Methyl methacrylate	ND		4.0	2.2	ug/L			03/06/21 20:17	2
Methylene Chloride	ND		2.0	0.96	ug/L			03/06/21 20:17	2
Methyl tert-butyl ether	2.5		1.0	0.41	ug/L			03/06/21 20:17	2
Naphthalene	ND		2.0	0.64	ug/L			03/06/21 20:17	2
o-Xylene	ND		1.0	0.70	ug/L			03/06/21 20:17	2
Propionitrile	ND		10	7.5	ug/L			03/06/21 20:17	2
Styrene	ND		1.0	0.55	ug/L			03/06/21 20:17	2
t-Butanol	500		10	8.0	ug/L			03/06/21 20:17	2
Tetrachloroethene	ND		1.0	0.58	ug/L			03/06/21 20:17	2
Tetrahydrofuran	ND		4.0	2.1	ug/L			03/06/21 20:17	2
Toluene	ND		1.0	0.66	ug/L			03/06/21 20:17	2
trans-1,2-Dichloroethene	ND		1.0	0.72	ug/L			03/06/21 20:17	2
trans-1,3-Dichloropropene	ND		1.0	0.35	ug/L			03/06/21 20:17	2
trans-1,4-Dichloro-2-butene	ND		4.0	2.6	ug/L			03/06/21 20:17	2
Trichloroethene	ND		1.0	0.58	ug/L			03/06/21 20:17	2
Trichlorofluoromethane	ND		1.0	0.59	ug/L			03/06/21 20:17	2
Vinyl acetate	ND		10	6.3	ug/L			03/06/21 20:17	2

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: LY-7

Lab Sample ID: 440-279932-3

Date Collected: 03/04/21 09:15

Matrix: Water

Date Received: 03/04/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0	0.80	ug/L			03/06/21 20:17	2
1,2-Dibromoethane (EDB)	ND		1.0	0.27	ug/L			03/06/21 20:17	2
2-Butanone (MEK)	ND		10	6.1	ug/L			03/06/21 20:17	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.5	ug/L			03/06/21 20:17	2

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	7500	T J	ug/L		1.49			03/06/21 20:17	2
Unknown	150000	T J	ug/L		1.53			03/06/21 20:17	2
Unknown	810	T J	ug/L		1.63			03/06/21 20:17	2
Unknown	630	T J	ug/L		1.69			03/06/21 20:17	2
Unknown	200	T J	ug/L		1.84			03/06/21 20:17	2
1-Propene, 2-methyl-	530	T J N	ug/L		2.01	115-11-7		03/06/21 20:17	2
Silane, fluorotrimethyl-	980	T J N	ug/L		2.23	420-56-4		03/06/21 20:17	2
Unknown	210	T J	ug/L		2.32			03/06/21 20:17	2
Unknown	230	T J	ug/L		4.94			03/06/21 20:17	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		68 - 135		03/09/21 01:50	2
1,2-Dichloroethane-d4 (Surr)	89		68 - 135		03/06/21 20:17	2
Dibromofluoromethane (Surr)	99		80 - 120		03/09/21 01:50	2
Dibromofluoromethane (Surr)	100		80 - 120		03/06/21 20:17	2
Toluene-d8 (Surr)	106		80 - 120		03/09/21 01:50	2
4-Bromofluorobenzene (Surr)	96		71 - 120		03/09/21 01:50	2
Toluene-d8 (Surr)	105		80 - 120		03/06/21 20:17	2
4-Bromofluorobenzene (Surr)	96		71 - 120		03/06/21 20:17	2

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	24		0.50	0.34	ug/L		03/06/21 09:09	03/09/21 22:38	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	60		15 - 150	03/06/21 09:09	03/09/21 22:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	83		46 - 128	03/06/21 09:09	03/09/21 22:38	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	500		100	50	mg/L			03/05/21 01:24	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	39		0.50	0.25	mg/L		03/11/21 08:35	03/11/21 17:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	23		2.0	1.0	mg/L			03/09/21 16:31	10
Chemical Oxygen Demand	160		20	10	mg/L			03/10/21 14:09	1
Total Dissolved Solids	3400		100	50	mg/L			03/11/21 09:28	1
Total Organic Carbon	60		1.0	0.50	mg/L			03/10/21 14:03	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	2200		4.0	4.0	mg/L			03/05/21 08:37	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: Combined Subdrains

Lab Sample ID: 440-279932-4

Date Collected: 03/04/21 11:40

Matrix: Water

Date Received: 03/04/21 16:45

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	0.32	ug/L			03/06/21 19:47	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/06/21 19:47	1
Acrolein	ND		4.0	2.2	ug/L			03/09/21 02:20	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/09/21 02:20	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/06/21 19:47	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/06/21 19:47	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/06/21 19:47	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/06/21 19:47	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/06/21 19:47	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/06/21 19:47	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/06/21 19:47	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/06/21 19:47	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/06/21 19:47	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/06/21 19:47	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/06/21 19:47	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/06/21 19:47	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/06/21 19:47	1
1,4-Dichlorobenzene	5.7		0.50	0.22	ug/L			03/06/21 19:47	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/06/21 19:47	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/06/21 19:47	1
2-Hexanone	ND		6.0	4.3	ug/L			03/06/21 19:47	1
Acetonitrile	ND		10	3.9	ug/L			03/06/21 19:47	1
Benzene	ND		0.50	0.27	ug/L			03/06/21 19:47	1
Allyl chloride	ND		2.0	0.38	ug/L			03/06/21 19:47	1
Bromoform	ND		0.50	0.39	ug/L			03/06/21 19:47	1
Bromomethane	ND		1.0	0.93	ug/L			03/06/21 19:47	1
Carbon disulfide	0.30 J		1.0	0.24	ug/L			03/06/21 19:47	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/06/21 19:47	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/06/21 19:47	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/06/21 19:47	1
Chloroethane	ND		0.50	0.44	ug/L			03/06/21 19:47	1
Chloroform	ND		0.50	0.28	ug/L			03/06/21 19:47	1
Chloromethane	ND		1.0	0.29	ug/L			03/06/21 19:47	1
cis-1,2-Dichloroethene	2.4		0.50	0.30	ug/L			03/06/21 19:47	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/06/21 19:47	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/06/21 19:47	1
Dibromomethane	ND		0.50	0.23	ug/L			03/06/21 19:47	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/06/21 19:47	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/06/21 19:47	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/06/21 19:47	1
Ethylbenzene	2.4		0.50	0.36	ug/L			03/06/21 19:47	1
Iodomethane	ND		25	5.9	ug/L			03/06/21 19:47	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/06/21 19:47	1
m,p-Xylene	4.1		1.0	0.78	ug/L			03/06/21 19:47	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/06/21 19:47	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/06/21 19:47	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/06/21 19:47	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/06/21 19:47	1
Naphthalene	3.1		1.0	0.32	ug/L			03/06/21 19:47	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: Combined Subdrains

Lab Sample ID: 440-279932-4

Date Collected: 03/04/21 11:40

Matrix: Water

Date Received: 03/04/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.9		0.50	0.35	ug/L			03/06/21 19:47	1
Propionitrile	ND		5.0	3.7	ug/L			03/06/21 19:47	1
Styrene	0.92		0.50	0.28	ug/L			03/06/21 19:47	1
t-Butanol	99		5.0	4.0	ug/L			03/06/21 19:47	1
Tetrachloroethene	0.51		0.50	0.29	ug/L			03/06/21 19:47	1
Tetrahydrofuran	4.7		2.0	1.1	ug/L			03/06/21 19:47	1
Toluene	1.0		0.50	0.33	ug/L			03/06/21 19:47	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/06/21 19:47	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/06/21 19:47	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/06/21 19:47	1
Trichloroethene	0.56		0.50	0.29	ug/L			03/06/21 19:47	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/06/21 19:47	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/06/21 19:47	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/06/21 19:47	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/06/21 19:47	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/06/21 19:47	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	460	T J	ug/L		1.49			03/06/21 19:47	1
Unknown	8900	T J	ug/L		1.54			03/06/21 19:47	1
Propene	41	T J N	ug/L		1.69	115-07-1		03/06/21 19:47	1
Sulfur dioxide	260	T J N	ug/L		1.85	7446-09-5		03/06/21 19:47	1
Silane, fluorotrimethyl-	850	T J N	ug/L		2.23	420-56-4		03/06/21 19:47	1
Ethanol	64		ug/L		3.09	64-17-5		03/06/21 19:47	1
Isopropyl alcohol	53		ug/L		3.85	67-63-0		03/06/21 19:47	1
D-Limonene	49	T J N	ug/L		14.11	5989-27-5		03/06/21 19:47	1
4-Isopropyltoluene	110	E	ug/L		14.17	99-87-6		03/06/21 19:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		68 - 135		03/09/21 02:20	1
1,2-Dichloroethane-d4 (Surr)	91		68 - 135		03/06/21 19:47	1
Dibromofluoromethane (Surr)	98		80 - 120		03/09/21 02:20	1
Dibromofluoromethane (Surr)	102		80 - 120		03/06/21 19:47	1
Toluene-d8 (Surr)	100		80 - 120		03/09/21 02:20	1
4-Bromofluorobenzene (Surr)	91		71 - 120		03/09/21 02:20	1
Toluene-d8 (Surr)	105		80 - 120		03/06/21 19:47	1
4-Bromofluorobenzene (Surr)	94		71 - 120		03/06/21 19:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	160		32	16	ug/L			03/09/21 02:50	4
2-Butanone (MEK)	170		20	12	ug/L			03/09/21 02:50	4

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	3400	T J	ug/L		1.49			03/09/21 02:50	4
Unknown	11000	T J	ug/L		1.53			03/09/21 02:50	4
Unknown	38	T J	ug/L		1.68			03/09/21 02:50	4
Unknown	26	T J	ug/L		2.18			03/09/21 02:50	4
Unknown	24	T J	ug/L		2.32			03/09/21 02:50	4
Unknown	30	T J	ug/L		2.77			03/09/21 02:50	4

Eurofins Calscience Irvine

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: Combined Subdrains

Lab Sample ID: 440-279932-4

Date Collected: 03/04/21 11:40

Matrix: Water

Date Received: 03/04/21 16:45

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	32	T J	ug/L		2.96			03/09/21 02:50	4
Unknown	21	T J	ug/L		3.82			03/09/21 02:50	4
D-Limonene	54	T J N	ug/L		14.12	5989-27-5		03/09/21 02:50	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		68 - 135					03/09/21 02:50	4
Dibromofluoromethane (Surr)	101		80 - 120					03/09/21 02:50	4
Toluene-d8 (Surr)	99		80 - 120					03/09/21 02:50	4
4-Bromofluorobenzene (Surr)	95		71 - 120					03/09/21 02:50	4

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	31		0.50	0.34	ug/L		03/06/21 09:09	03/09/21 22:53	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	46		15 - 150				03/06/21 09:09	03/09/21 22:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	94		46 - 128				03/06/21 09:09	03/09/21 22:53	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	240		25	13	mg/L			03/05/21 01:42	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	19		0.50	0.25	mg/L		03/10/21 07:51	03/10/21 14:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	12		2.0	1.0	mg/L			03/09/21 16:36	10
Chemical Oxygen Demand	66		20	10	mg/L			03/10/21 14:09	1
Total Dissolved Solids	2900		50	25	mg/L			03/11/21 09:28	1
Total Organic Carbon	35		1.0	0.50	mg/L			03/10/21 14:20	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	460		4.0	4.0	mg/L			03/05/21 08:47	1

Client Sample ID: Extraction Trench

Lab Sample ID: 440-279932-5

Date Collected: 03/04/21 13:05

Matrix: Water

Date Received: 03/04/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		2.0	1.3	ug/L			03/06/21 21:17	4
1,1,1,2-Tetrachloroethane	ND		2.0	1.0	ug/L			03/06/21 21:17	4
Acrolein	ND		16	8.8	ug/L			03/09/21 03:20	4
Acrylonitrile	ND		20	3.5	ug/L			03/09/21 03:20	4
1,1,1-Trichloroethane	ND		2.0	1.1	ug/L			03/06/21 21:17	4
1,1,2,2-Tetrachloroethane	ND		2.0	0.78	ug/L			03/06/21 21:17	4
1,1,2-Trichloroethane	ND		2.0	0.34	ug/L			03/06/21 21:17	4
1,1-Dichloroethane	ND		2.0	1.4	ug/L			03/06/21 21:17	4

Eurofins Calscience Irvine

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: Extraction Trench

Lab Sample ID: 440-279932-5

Date Collected: 03/04/21 13:05

Matrix: Water

Date Received: 03/04/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		2.0	1.6	ug/L			03/06/21 21:17	4
1,1-Dichloropropene	ND		2.0	0.97	ug/L			03/06/21 21:17	4
1,2,4-Trichlorobenzene	ND		2.0	1.5	ug/L			03/06/21 21:17	4
1,2-Dibromo-3-Chloropropane	ND		4.0	2.6	ug/L			03/06/21 21:17	4
1,2-Dichlorobenzene	ND		2.0	0.92	ug/L			03/06/21 21:17	4
1,2-Dichloroethane	ND		2.0	0.60	ug/L			03/06/21 21:17	4
1,2-Dichloropropane	ND		2.0	0.96	ug/L			03/06/21 21:17	4
1,3-Dichlorobenzene	ND		2.0	1.0	ug/L			03/06/21 21:17	4
1,3-Dichloropropane	ND		2.0	0.82	ug/L			03/06/21 21:17	4
1,4-Dichlorobenzene	ND		2.0	0.90	ug/L			03/06/21 21:17	4
2,2-Dichloropropane	ND		2.0	1.6	ug/L			03/06/21 21:17	4
2-Chloro-1,3-butadiene	ND		8.0	7.3	ug/L			03/06/21 21:17	4
2-Hexanone	ND		24	17	ug/L			03/06/21 21:17	4
Acetone	ND		32	16	ug/L			03/06/21 21:17	4
Acetonitrile	ND		40	16	ug/L			03/06/21 21:17	4
Benzene	ND		2.0	1.1	ug/L			03/06/21 21:17	4
Allyl chloride	ND		8.0	1.5	ug/L			03/06/21 21:17	4
Bromoform	ND		2.0	1.6	ug/L			03/06/21 21:17	4
Bromomethane	ND		4.0	3.7	ug/L			03/06/21 21:17	4
Carbon disulfide	ND		4.0	0.98	ug/L			03/06/21 21:17	4
Carbon tetrachloride	ND		2.0	1.1	ug/L			03/06/21 21:17	4
Chlorobenzene	ND		2.0	0.95	ug/L			03/06/21 21:17	4
Bromochloromethane	ND		4.0	1.4	ug/L			03/06/21 21:17	4
Chloroethane	ND		2.0	1.8	ug/L			03/06/21 21:17	4
Chloroform	ND		2.0	1.1	ug/L			03/06/21 21:17	4
Chloromethane	ND		4.0	1.2	ug/L			03/06/21 21:17	4
cis-1,2-Dichloroethene	4.1		2.0	1.2	ug/L			03/06/21 21:17	4
cis-1,3-Dichloropropene	ND		2.0	0.77	ug/L			03/06/21 21:17	4
Dibromochloromethane	ND		2.0	1.1	ug/L			03/06/21 21:17	4
Dibromomethane	ND		2.0	0.92	ug/L			03/06/21 21:17	4
Bromodichloromethane	ND		2.0	0.89	ug/L			03/06/21 21:17	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			03/06/21 21:17	4
Ethyl methacrylate	ND		8.0	4.7	ug/L			03/06/21 21:17	4
Ethylbenzene	ND		2.0	1.4	ug/L			03/06/21 21:17	4
Iodomethane	ND		100	24	ug/L			03/06/21 21:17	4
Isobutyl alcohol	ND		100	23	ug/L			03/06/21 21:17	4
m,p-Xylene	ND		4.0	3.1	ug/L			03/06/21 21:17	4
Methylacrylonitrile	ND		8.0	2.8	ug/L			03/06/21 21:17	4
Methyl methacrylate	ND		8.0	4.4	ug/L			03/06/21 21:17	4
Methylene Chloride	ND		4.0	1.9	ug/L			03/06/21 21:17	4
Methyl tert-butyl ether	ND		2.0	0.82	ug/L			03/06/21 21:17	4
Naphthalene	ND		4.0	1.3	ug/L			03/06/21 21:17	4
o-Xylene	ND		2.0	1.4	ug/L			03/06/21 21:17	4
Propionitrile	ND		20	15	ug/L			03/06/21 21:17	4
Styrene	ND		2.0	1.1	ug/L			03/06/21 21:17	4
t-Butanol	190		20	16	ug/L			03/06/21 21:17	4
Tetrachloroethene	ND		2.0	1.2	ug/L			03/06/21 21:17	4
Tetrahydrofuran	21		8.0	4.3	ug/L			03/06/21 21:17	4
Toluene	ND		2.0	1.3	ug/L			03/06/21 21:17	4

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: Extraction Trench

Lab Sample ID: 440-279932-5

Date Collected: 03/04/21 13:05

Matrix: Water

Date Received: 03/04/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		2.0	1.4	ug/L			03/06/21 21:17	4
trans-1,3-Dichloropropene	ND		2.0	0.69	ug/L			03/06/21 21:17	4
trans-1,4-Dichloro-2-butene	ND		8.0	5.2	ug/L			03/06/21 21:17	4
Trichloroethene	ND		2.0	1.2	ug/L			03/06/21 21:17	4
Trichlorofluoromethane	ND		2.0	1.2	ug/L			03/06/21 21:17	4
Vinyl acetate	ND		20	13	ug/L			03/06/21 21:17	4
Vinyl chloride	ND		2.0	1.6	ug/L			03/06/21 21:17	4
1,2-Dibromoethane (EDB)	ND		2.0	0.55	ug/L			03/06/21 21:17	4
2-Butanone (MEK)	ND		20	12	ug/L			03/06/21 21:17	4
4-Methyl-2-pentanone (MIBK)	ND		20	9.0	ug/L			03/06/21 21:17	4

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1800	T J	ug/L		1.49			03/06/21 21:17	4
Unknown	11000	T J	ug/L		1.54			03/06/21 21:17	4
Unknown	33	T J	ug/L		1.69			03/06/21 21:17	4
Methane, chlorodifluoro-	99	T J N	ug/L		1.74	75-45-6		03/06/21 21:17	4
Unknown	25	T J	ug/L		1.85			03/06/21 21:17	4
Unknown	25	T J	ug/L		2.23			03/06/21 21:17	4
Ethyl ether	1.4	J	ug/L		3.23	60-29-7		03/06/21 21:17	4
Unknown	21	T J	ug/L		3.57			03/06/21 21:17	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		68 - 135		03/09/21 03:20	4
1,2-Dichloroethane-d4 (Surr)	95		68 - 135		03/06/21 21:17	4
Dibromofluoromethane (Surr)	98		80 - 120		03/09/21 03:20	4
Dibromofluoromethane (Surr)	103		80 - 120		03/06/21 21:17	4
Toluene-d8 (Surr)	103		80 - 120		03/09/21 03:20	4
4-Bromofluorobenzene (Surr)	95		71 - 120		03/09/21 03:20	4
Toluene-d8 (Surr)	105		80 - 120		03/06/21 21:17	4
4-Bromofluorobenzene (Surr)	94		71 - 120		03/06/21 21:17	4

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	110		1.0	0.69	ug/L		03/06/21 09:09	03/10/21 17:01	2
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8	45	*3	15 - 150	03/06/21 09:09	03/10/21 17:01	2			
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Nitrobenzene-d5 (Surr)	79	*3	46 - 128	03/06/21 09:09	03/10/21 17:01	2			

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	540		50	25	mg/L			03/05/21 02:00	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	30		0.50	0.25	mg/L		03/11/21 08:35	03/11/21 17:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	17		1.0	0.50	mg/L			03/09/21 16:13	5

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: Extraction Trench

Lab Sample ID: 440-279932-5

Date Collected: 03/04/21 13:05

Matrix: Water

Date Received: 03/04/21 16:45

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	260		20	10	mg/L			03/10/21 14:09	1
Total Dissolved Solids	4000		100	50	mg/L			03/11/21 09:28	1
Total Organic Carbon	58		1.0	0.50	mg/L			03/10/21 15:01	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	1100		4.0	4.0	mg/L			03/05/21 09:08	1

Client Sample ID: Subdrain (N)

Lab Sample ID: 440-279932-6

Date Collected: 03/04/21 09:58

Matrix: Water

Date Received: 03/04/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.64	ug/L			03/06/21 20:47	2
1,1,1,2-Tetrachloroethane	ND		1.0	0.51	ug/L			03/06/21 20:47	2
Acrolein	ND		8.0	4.4	ug/L			03/09/21 03:50	2
Acrylonitrile	ND		10	1.7	ug/L			03/09/21 03:50	2
1,1,1-Trichloroethane	ND		1.0	0.53	ug/L			03/06/21 20:47	2
1,1,2,2-Tetrachloroethane	ND		1.0	0.39	ug/L			03/06/21 20:47	2
1,1,2-Trichloroethane	ND		1.0	0.17	ug/L			03/06/21 20:47	2
1,1-Dichloroethane	ND		1.0	0.71	ug/L			03/06/21 20:47	2
1,1-Dichloroethene	ND		1.0	0.78	ug/L			03/06/21 20:47	2
1,1-Dichloropropene	ND		1.0	0.48	ug/L			03/06/21 20:47	2
1,2,4-Trichlorobenzene	ND		1.0	0.75	ug/L			03/06/21 20:47	2
1,2-Dibromo-3-Chloropropane	ND		2.0	1.3	ug/L			03/06/21 20:47	2
1,2-Dichlorobenzene	ND		1.0	0.46	ug/L			03/06/21 20:47	2
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/06/21 20:47	2
1,2-Dichloropropane	ND		1.0	0.48	ug/L			03/06/21 20:47	2
1,3-Dichlorobenzene	ND		1.0	0.51	ug/L			03/06/21 20:47	2
1,3-Dichloropropane	ND		1.0	0.41	ug/L			03/06/21 20:47	2
1,4-Dichlorobenzene	2.5		1.0	0.45	ug/L			03/06/21 20:47	2
2,2-Dichloropropane	ND		1.0	0.79	ug/L			03/06/21 20:47	2
2-Chloro-1,3-butadiene	ND		4.0	3.7	ug/L			03/06/21 20:47	2
2-Hexanone	ND		12	8.6	ug/L			03/06/21 20:47	2
Acetone	ND		16	8.0	ug/L			03/06/21 20:47	2
Acetonitrile	ND		20	7.9	ug/L			03/06/21 20:47	2
Benzene	ND		1.0	0.53	ug/L			03/06/21 20:47	2
Allyl chloride	ND		4.0	0.76	ug/L			03/06/21 20:47	2
Bromoform	ND		1.0	0.78	ug/L			03/06/21 20:47	2
Bromomethane	ND		2.0	1.9	ug/L			03/06/21 20:47	2
Carbon disulfide	ND		2.0	0.49	ug/L			03/06/21 20:47	2
Carbon tetrachloride	ND		1.0	0.54	ug/L			03/06/21 20:47	2
Chlorobenzene	ND		1.0	0.48	ug/L			03/06/21 20:47	2
Bromochloromethane	ND		2.0	0.70	ug/L			03/06/21 20:47	2
Chloroethane	ND		1.0	0.88	ug/L			03/06/21 20:47	2
Chloroform	ND		1.0	0.57	ug/L			03/06/21 20:47	2
Chloromethane	ND		2.0	0.59	ug/L			03/06/21 20:47	2
cis-1,2-Dichloroethene	ND		1.0	0.60	ug/L			03/06/21 20:47	2
cis-1,3-Dichloropropene	ND		1.0	0.38	ug/L			03/06/21 20:47	2
Dibromochloromethane	ND		1.0	0.54	ug/L			03/06/21 20:47	2
Dibromomethane	ND		1.0	0.46	ug/L			03/06/21 20:47	2

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: Subdrain (N)

Lab Sample ID: 440-279932-6

Date Collected: 03/04/21 09:58

Matrix: Water

Date Received: 03/04/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.0	0.45	ug/L			03/06/21 20:47	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			03/06/21 20:47	2
Ethyl methacrylate	ND		4.0	2.4	ug/L			03/06/21 20:47	2
Ethylbenzene	ND		1.0	0.71	ug/L			03/06/21 20:47	2
Iodomethane	ND		50	12	ug/L			03/06/21 20:47	2
Isobutyl alcohol	ND		50	11	ug/L			03/06/21 20:47	2
m,p-Xylene	ND		2.0	1.6	ug/L			03/06/21 20:47	2
Methylacrylonitrile	ND		4.0	1.4	ug/L			03/06/21 20:47	2
Methyl methacrylate	ND		4.0	2.2	ug/L			03/06/21 20:47	2
Methylene Chloride	ND		2.0	0.96	ug/L			03/06/21 20:47	2
Methyl tert-butyl ether	0.64	J	1.0	0.41	ug/L			03/06/21 20:47	2
Naphthalene	ND		2.0	0.64	ug/L			03/06/21 20:47	2
o-Xylene	ND		1.0	0.70	ug/L			03/06/21 20:47	2
Propionitrile	ND		10	7.5	ug/L			03/06/21 20:47	2
Styrene	ND		1.0	0.55	ug/L			03/06/21 20:47	2
t-Butanol	150		10	8.0	ug/L			03/06/21 20:47	2
Tetrachloroethene	ND		1.0	0.58	ug/L			03/06/21 20:47	2
Tetrahydrofuran	5.0		4.0	2.1	ug/L			03/06/21 20:47	2
Toluene	ND		1.0	0.66	ug/L			03/06/21 20:47	2
trans-1,2-Dichloroethene	ND		1.0	0.72	ug/L			03/06/21 20:47	2
trans-1,3-Dichloropropene	ND		1.0	0.35	ug/L			03/06/21 20:47	2
trans-1,4-Dichloro-2-butene	ND		4.0	2.6	ug/L			03/06/21 20:47	2
Trichloroethene	ND		1.0	0.58	ug/L			03/06/21 20:47	2
Trichlorofluoromethane	ND		1.0	0.59	ug/L			03/06/21 20:47	2
Vinyl acetate	ND		10	6.3	ug/L			03/06/21 20:47	2
Vinyl chloride	ND		1.0	0.80	ug/L			03/06/21 20:47	2
1,2-Dibromoethane (EDB)	ND		1.0	0.27	ug/L			03/06/21 20:47	2
2-Butanone (MEK)	ND		10	6.1	ug/L			03/06/21 20:47	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.5	ug/L			03/06/21 20:47	2

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1000	T J	ug/L		1.49			03/06/21 20:47	2
Unknown	10000	T J	ug/L		1.54			03/06/21 20:47	2
Unknown	93	T J	ug/L		1.63			03/06/21 20:47	2
Unknown	120	T J	ug/L		1.69			03/06/21 20:47	2
Unknown	37	T J	ug/L		1.74			03/06/21 20:47	2
Unknown	120	T J	ug/L		1.85			03/06/21 20:47	2
1-Propene, 2-methyl-	110	T J N	ug/L		2.02	115-11-7		03/06/21 20:47	2
Silane, fluorotrimethyl-	160	T J N	ug/L		2.24	420-56-4		03/06/21 20:47	2
Dimethyl sulfide	74	T J N	ug/L		3.66	75-18-3		03/06/21 20:47	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		68 - 135		03/09/21 03:50	2
1,2-Dichloroethane-d4 (Surr)	88		68 - 135		03/06/21 20:47	2
Dibromofluoromethane (Surr)	99		80 - 120		03/09/21 03:50	2
Dibromofluoromethane (Surr)	97		80 - 120		03/06/21 20:47	2
Toluene-d8 (Surr)	103		80 - 120		03/09/21 03:50	2
4-Bromofluorobenzene (Surr)	97		71 - 120		03/09/21 03:50	2
Toluene-d8 (Surr)	101		80 - 120		03/06/21 20:47	2
4-Bromofluorobenzene (Surr)	98		71 - 120		03/06/21 20:47	2

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: Subdrain (N)

Lab Sample ID: 440-279932-6

Date Collected: 03/04/21 09:58

Matrix: Water

Date Received: 03/04/21 16:45

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	24		0.50	0.34	ug/L		03/06/21 09:09	03/09/21 23:22	1
Isotope Dilution									
	%Recovery	Qualifier	Limits						
1,4-Dioxane-d8	36		15 - 150						
Surrogate									
	%Recovery	Qualifier	Limits						
Nitrobenzene-d5 (Surr)	84		46 - 128						

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	190		25	13	mg/L			03/05/21 02:17	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	27		0.50	0.25	mg/L		03/11/21 08:35	03/11/21 18:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	27		4.0	2.0	mg/L			03/11/21 13:57	20
Chemical Oxygen Demand	61		20	10	mg/L			03/10/21 14:09	1
Total Dissolved Solids	3300		50	25	mg/L			03/11/21 09:28	1
Total Organic Carbon	57		1.0	0.50	mg/L			03/10/21 11:49	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	700		4.0	4.0	mg/L			03/05/21 09:41	1

Client Sample ID: Field Blank

Lab Sample ID: 440-279932-7

Date Collected: 03/04/21 00:01

Matrix: Water

Date Received: 03/04/21 16:45

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	0.32	ug/L			03/06/21 15:18	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/06/21 15:18	1
Acrolein	ND		4.0	2.2	ug/L			03/08/21 23:20	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/08/21 23:20	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/06/21 15:18	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/06/21 15:18	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/06/21 15:18	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/06/21 15:18	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/06/21 15:18	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/06/21 15:18	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/06/21 15:18	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/06/21 15:18	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/06/21 15:18	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/06/21 15:18	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/06/21 15:18	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/06/21 15:18	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/06/21 15:18	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/06/21 15:18	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/06/21 15:18	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/06/21 15:18	1

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: Field Blank

Lab Sample ID: 440-279932-7

Date Collected: 03/04/21 00:01

Matrix: Water

Date Received: 03/04/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	ND		6.0	4.3	ug/L			03/06/21 15:18	1
Acetone	ND		8.0	4.0	ug/L			03/06/21 15:18	1
Acetonitrile	ND		10	3.9	ug/L			03/06/21 15:18	1
Benzene	ND		0.50	0.27	ug/L			03/06/21 15:18	1
Allyl chloride	ND		2.0	0.38	ug/L			03/06/21 15:18	1
Bromoform	ND		0.50	0.39	ug/L			03/06/21 15:18	1
Bromomethane	ND		1.0	0.93	ug/L			03/06/21 15:18	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/06/21 15:18	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/06/21 15:18	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/06/21 15:18	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/06/21 15:18	1
Chloroethane	ND		0.50	0.44	ug/L			03/06/21 15:18	1
Chloroform	ND		0.50	0.28	ug/L			03/06/21 15:18	1
Chloromethane	ND		1.0	0.29	ug/L			03/06/21 15:18	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/06/21 15:18	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/06/21 15:18	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/06/21 15:18	1
Dibromomethane	ND		0.50	0.23	ug/L			03/06/21 15:18	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/06/21 15:18	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/06/21 15:18	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/06/21 15:18	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/06/21 15:18	1
Iodomethane	ND		25	5.9	ug/L			03/06/21 15:18	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/06/21 15:18	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/06/21 15:18	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/06/21 15:18	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/06/21 15:18	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/06/21 15:18	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/06/21 15:18	1
Naphthalene	ND		1.0	0.32	ug/L			03/06/21 15:18	1
o-Xylene	ND		0.50	0.35	ug/L			03/06/21 15:18	1
Propionitrile	ND		5.0	3.7	ug/L			03/06/21 15:18	1
Styrene	ND		0.50	0.28	ug/L			03/06/21 15:18	1
t-Butanol	ND		5.0	4.0	ug/L			03/06/21 15:18	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/06/21 15:18	1
Tetrahydrofuran	1.5 J		2.0	1.1	ug/L			03/06/21 15:18	1
Toluene	ND		0.50	0.33	ug/L			03/06/21 15:18	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/06/21 15:18	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/06/21 15:18	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/06/21 15:18	1
Trichloroethene	ND		0.50	0.29	ug/L			03/06/21 15:18	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/06/21 15:18	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/06/21 15:18	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/06/21 15:18	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/06/21 15:18	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/06/21 15:18	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/06/21 15:18	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: Field Blank

Lab Sample ID: 440-279932-7

Date Collected: 03/04/21 00:01

Matrix: Water

Date Received: 03/04/21 16:45

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
N(1,1-Difluoro-2,2-bis-trifluor-methyl ethyl)-aziridine	740	T J N	ug/L		1.49	1000143-33-6		03/06/21 15:18	1
Unknown	1500	T J	ug/L		1.54			03/06/21 15:18	1
Unknown	5.4	T J	ug/L		1.85			03/06/21 15:18	1
Unknown	5.1	T J	ug/L		2.20			03/06/21 15:18	1
Unknown	6.4	T J	ug/L		2.61			03/06/21 15:18	1
Unknown	5.7	T J	ug/L		3.05			03/06/21 15:18	1
Unknown	9.2	T J	ug/L		3.59			03/06/21 15:18	1
Unknown	8.1	T J	ug/L		3.68			03/06/21 15:18	1
Unknown	12	T J	ug/L		3.84			03/06/21 15:18	1
Unknown	32	T J	ug/L		4.44			03/06/21 15:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		68 - 135					03/08/21 23:20	1
1,2-Dichloroethane-d4 (Surr)	88		68 - 135					03/06/21 15:18	1
Dibromofluoromethane (Surr)	101		80 - 120					03/08/21 23:20	1
Dibromofluoromethane (Surr)	96		80 - 120					03/06/21 15:18	1
Toluene-d8 (Surr)	103		80 - 120					03/08/21 23:20	1
4-Bromofluorobenzene (Surr)	96		71 - 120					03/08/21 23:20	1
Toluene-d8 (Surr)	105		80 - 120					03/06/21 15:18	1
4-Bromofluorobenzene (Surr)	93		71 - 120					03/06/21 15:18	1

Client Sample ID: Trip Blank

Lab Sample ID: 440-279932-8

Date Collected: 03/04/21 00:01

Matrix: Water

Date Received: 03/04/21 16:45

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	0.32	ug/L			03/06/21 14:48	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/06/21 14:48	1
Acrolein	ND		4.0	2.2	ug/L			03/08/21 23:50	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/08/21 23:50	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/06/21 14:48	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/06/21 14:48	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/06/21 14:48	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/06/21 14:48	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/06/21 14:48	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/06/21 14:48	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/06/21 14:48	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/06/21 14:48	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/06/21 14:48	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/06/21 14:48	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/06/21 14:48	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/06/21 14:48	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/06/21 14:48	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/06/21 14:48	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/06/21 14:48	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/06/21 14:48	1
2-Hexanone	ND		6.0	4.3	ug/L			03/06/21 14:48	1
Acetone	ND		8.0	4.0	ug/L			03/06/21 14:48	1
Acetonitrile	ND		10	3.9	ug/L			03/06/21 14:48	1

Eurofins Calscience Irvine

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-279932-8

Date Collected: 03/04/21 00:01

Matrix: Water

Date Received: 03/04/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50	0.27	ug/L			03/06/21 14:48	1
Allyl chloride	ND		2.0	0.38	ug/L			03/06/21 14:48	1
Bromoform	ND		0.50	0.39	ug/L			03/06/21 14:48	1
Bromomethane	ND		1.0	0.93	ug/L			03/06/21 14:48	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/06/21 14:48	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/06/21 14:48	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/06/21 14:48	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/06/21 14:48	1
Chloroethane	ND		0.50	0.44	ug/L			03/06/21 14:48	1
Chloroform	ND		0.50	0.28	ug/L			03/06/21 14:48	1
Chloromethane	ND		1.0	0.29	ug/L			03/06/21 14:48	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/06/21 14:48	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/06/21 14:48	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/06/21 14:48	1
Dibromomethane	ND		0.50	0.23	ug/L			03/06/21 14:48	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/06/21 14:48	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/06/21 14:48	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/06/21 14:48	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/06/21 14:48	1
Iodomethane	ND		25	5.9	ug/L			03/06/21 14:48	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/06/21 14:48	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/06/21 14:48	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/06/21 14:48	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/06/21 14:48	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/06/21 14:48	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/06/21 14:48	1
Naphthalene	ND		1.0	0.32	ug/L			03/06/21 14:48	1
o-Xylene	ND		0.50	0.35	ug/L			03/06/21 14:48	1
Propionitrile	ND		5.0	3.7	ug/L			03/06/21 14:48	1
Styrene	ND		0.50	0.28	ug/L			03/06/21 14:48	1
t-Butanol	ND		5.0	4.0	ug/L			03/06/21 14:48	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/06/21 14:48	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/06/21 14:48	1
Toluene	ND		0.50	0.33	ug/L			03/06/21 14:48	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/06/21 14:48	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/06/21 14:48	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/06/21 14:48	1
Trichloroethene	ND		0.50	0.29	ug/L			03/06/21 14:48	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/06/21 14:48	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/06/21 14:48	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/06/21 14:48	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/06/21 14:48	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/06/21 14:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/06/21 14:48	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Germacyclohexane, 1,1-dichloro-	1200	T J N	ug/L		1.49	56438-28-9		03/06/21 14:48	1
Unknown	2500	T J	ug/L		1.54			03/06/21 14:48	1
Unknown	10	T J	ug/L		1.92			03/06/21 14:48	1
Unknown	15	T J	ug/L		1.99			03/06/21 14:48	1

Eurofins Calscience Irvine

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-279932-8

Date Collected: 03/04/21 00:01

Matrix: Water

Date Received: 03/04/21 16:45

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

<u>Tentatively Identified Compound</u>	<u>Est. Result</u>	<u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>RT</u>	<u>CAS No.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Unknown	8.6	TJ	ug/L		2.31			03/06/21 14:48	1
Unknown	12	TJ	ug/L		3.32			03/06/21 14:48	1
Unknown	13	TJ	ug/L		3.57			03/06/21 14:48	1
Unknown	9.2	TJ	ug/L		3.61			03/06/21 14:48	1
Unknown	15	TJ	ug/L		3.82			03/06/21 14:48	1
Unknown	8.9	TJ	ug/L		3.92			03/06/21 14:48	1

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
1,2-Dichloroethane-d4 (Surr)	94		68 - 135		03/08/21 23:50	1
1,2-Dichloroethane-d4 (Surr)	92		68 - 135		03/06/21 14:48	1
Dibromofluoromethane (Surr)	98		80 - 120		03/08/21 23:50	1
Dibromofluoromethane (Surr)	100		80 - 120		03/06/21 14:48	1
Toluene-d8 (Surr)	104		80 - 120		03/08/21 23:50	1
4-Bromofluorobenzene (Surr)	93		71 - 120		03/08/21 23:50	1
Toluene-d8 (Surr)	102		80 - 120		03/06/21 14:48	1
4-Bromofluorobenzene (Surr)	94		71 - 120		03/06/21 14:48	1

Method Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
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 5310C	TOC	SM	TAL IRV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL IRV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

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:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

Lab Chronicle

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: CM-10R

Lab Sample ID: 440-279932-1

Date Collected: 03/04/21 10:00

Matrix: Water

Date Received: 03/04/21 16:45

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	20 mL	20 mL	134105	03/06/21 18:47	UJHB	ECL 2
Total/NA	Analysis	8260B		1	20 mL	20 mL	134416	03/09/21 00:50	OH1	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	134080	03/06/21 09:09	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			134620	03/09/21 22:09	ULLI	ECL 1
Total/NA	Analysis	300.0		1			640452	03/06/21 00:12	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	640781	03/10/21 07:51	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			640968	03/10/21 14:47	P1R	TAL IRV
Total/NA	Analysis	350.1		5	0.8 mL	8.0 mL	640963	03/09/21 16:26	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	640933	03/10/21 14:09	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640458	03/05/21 07:58	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	641016	03/11/21 09:28	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	640980	03/10/21 09:48	YO8L	TAL IRV

Client Sample ID: CM-11R

Lab Sample ID: 440-279932-2

Date Collected: 03/04/21 10:00

Matrix: Water

Date Received: 03/04/21 16:45

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	20 mL	20 mL	134105	03/06/21 19:17	UJHB	ECL 2
Total/NA	Analysis	8260B		1	20 mL	20 mL	134416	03/09/21 01:20	OH1	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	134080	03/06/21 09:09	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			134620	03/09/21 22:24	ULLI	ECL 1
Total/NA	Analysis	300.0	DL	10			640452	03/05/21 23:18	NIH3	TAL IRV
Total/NA	Analysis	300.0		2			640452	03/06/21 00:30	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	640781	03/10/21 07:51	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			640968	03/10/21 14:57	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	640963	03/09/21 15:38	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	640933	03/10/21 14:09	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640458	03/05/21 08:04	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	641016	03/11/21 09:28	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	640980	03/10/21 10:03	YO8L	TAL IRV

Client Sample ID: LY-7

Lab Sample ID: 440-279932-3

Date Collected: 03/04/21 09:15

Matrix: Water

Date Received: 03/04/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	20 mL	20 mL	134105	03/06/21 20:17	UJHB	ECL 2
Total/NA	Analysis	8260B		2	20 mL	20 mL	134416	03/09/21 01:50	OH1	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	134080	03/06/21 09:09	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			134620	03/09/21 22:38	ULLI	ECL 1
Total/NA	Analysis	300.0		200			640333	03/05/21 01:24	PS	TAL IRV

Lab Chronicle

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: LY-7

Lab Sample ID: 440-279932-3

Date Collected: 03/04/21 09:15

Matrix: Water

Date Received: 03/04/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			25 mL	25 mL	640996	03/11/21 08:35	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641112	03/11/21 17:56	P1R	TAL IRV
Total/NA	Analysis	350.1		10	0.8 mL	8.0 mL	640963	03/09/21 16:31	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	640933	03/10/21 14:09	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640458	03/05/21 08:37	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	641016	03/11/21 09:28	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		10	100 mL	100 mL	640980	03/10/21 14:03	YO8L	TAL IRV

Client Sample ID: Combined Subdrains

Lab Sample ID: 440-279932-4

Date Collected: 03/04/21 11:40

Matrix: Water

Date Received: 03/04/21 16:45

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	20 mL	20 mL	134105	03/06/21 19:47	UJHB	ECL 2
Total/NA	Analysis	8260B		1	20 mL	20 mL	134416	03/09/21 02:20	OH1	ECL 2
Total/NA	Analysis	8260B	DL	4	20 mL	20 mL	134416	03/09/21 02:50	OH1	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	134080	03/06/21 09:09	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			134620	03/09/21 22:53	ULLI	ECL 1
Total/NA	Analysis	300.0		50			640333	03/05/21 01:42	PS	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	640781	03/10/21 07:51	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			640968	03/10/21 14:59	P1R	TAL IRV
Total/NA	Analysis	350.1		10	0.8 mL	8.0 mL	640963	03/09/21 16:36	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	640933	03/10/21 14:09	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640458	03/05/21 08:47	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	641016	03/11/21 09:28	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		10	100 mL	100 mL	640980	03/10/21 14:20	YO8L	TAL IRV

Client Sample ID: Extraction Trench

Lab Sample ID: 440-279932-5

Date Collected: 03/04/21 13:05

Matrix: Water

Date Received: 03/04/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		4	20 mL	20 mL	134105	03/06/21 21:17	UJHB	ECL 2
Total/NA	Analysis	8260B		4	20 mL	20 mL	134416	03/09/21 03:20	OH1	ECL 2
Total/NA	Prep	3510C	DL		100.0 mL	10 mL	134080	03/06/21 09:09	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID	DL	2			134926	03/10/21 17:01	ULLI	ECL 1
Total/NA	Analysis	300.0		100			640333	03/05/21 02:00	PS	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	640996	03/11/21 08:35	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641112	03/11/21 17:58	P1R	TAL IRV
Total/NA	Analysis	350.1		5	0.8 mL	8.0 mL	640963	03/09/21 16:13	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	640933	03/10/21 14:09	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640458	03/05/21 09:08	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	641016	03/11/21 09:28	VY3D	TAL IRV

Eurofins Calscience Irvine

Lab Chronicle

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Client Sample ID: Extraction Trench

Lab Sample ID: 440-279932-5

Date Collected: 03/04/21 13:05

Matrix: Water

Date Received: 03/04/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5310C		10	100 mL	100 mL	640980	03/10/21 15:01	YO8L	TAL IRV

Client Sample ID: Subdrain (N)

Lab Sample ID: 440-279932-6

Date Collected: 03/04/21 09:58

Matrix: Water

Date Received: 03/04/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	20 mL	20 mL	134105	03/06/21 20:47	UJHB	ECL 2
Total/NA	Analysis	8260B		2	20 mL	20 mL	134416	03/09/21 03:50	OH1	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	134080	03/06/21 09:09	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			134620	03/09/21 23:22	ULLI	ECL 1
Total/NA	Analysis	300.0		50			640333	03/05/21 02:17	PS	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	640996	03/11/21 08:35	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641112	03/11/21 18:01	P1R	TAL IRV
Total/NA	Analysis	350.1		20	0.8 mL	8.0 mL	641076	03/11/21 13:57	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	640933	03/10/21 14:09	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640458	03/05/21 09:41	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	641016	03/11/21 09:28	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		10	100 mL	100 mL	640980	03/10/21 11:49	YO8L	TAL IRV

Client Sample ID: Field Blank

Lab Sample ID: 440-279932-7

Date Collected: 03/04/21 00:01

Matrix: Water

Date Received: 03/04/21 16:45

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	20 mL	20 mL	134105	03/06/21 15:18	UJHB	ECL 2
Total/NA	Analysis	8260B		1	20 mL	20 mL	134416	03/08/21 23:20	OH1	ECL 2

Client Sample ID: Trip Blank

Lab Sample ID: 440-279932-8

Date Collected: 03/04/21 00:01

Matrix: Water

Date Received: 03/04/21 16:45

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	20 mL	20 mL	134105	03/06/21 14:48	UJHB	ECL 2
Total/NA	Analysis	8260B		1	20 mL	20 mL	134416	03/08/21 23:50	OH1	ECL 2

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

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

Lab Sample ID: MB 570-134105/7
Matrix: Water
Analysis Batch: 134105

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	0.32	ug/L			03/06/21 13:18	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/06/21 13:18	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/06/21 13:18	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/06/21 13:18	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/06/21 13:18	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/06/21 13:18	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/06/21 13:18	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/06/21 13:18	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/06/21 13:18	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/06/21 13:18	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/06/21 13:18	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/06/21 13:18	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/06/21 13:18	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/06/21 13:18	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/06/21 13:18	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/06/21 13:18	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/06/21 13:18	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/06/21 13:18	1
2-Hexanone	ND		6.0	4.3	ug/L			03/06/21 13:18	1
Acetone	ND		8.0	4.0	ug/L			03/06/21 13:18	1
Acetonitrile	ND		10	3.9	ug/L			03/06/21 13:18	1
Benzene	ND		0.50	0.27	ug/L			03/06/21 13:18	1
Allyl chloride	ND		2.0	0.38	ug/L			03/06/21 13:18	1
Bromoform	ND		0.50	0.39	ug/L			03/06/21 13:18	1
Bromomethane	ND		1.0	0.93	ug/L			03/06/21 13:18	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/06/21 13:18	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/06/21 13:18	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/06/21 13:18	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/06/21 13:18	1
Chloroethane	ND		0.50	0.44	ug/L			03/06/21 13:18	1
Chloroform	ND		0.50	0.28	ug/L			03/06/21 13:18	1
Chloromethane	ND		1.0	0.29	ug/L			03/06/21 13:18	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/06/21 13:18	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/06/21 13:18	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/06/21 13:18	1
Dibromomethane	ND		0.50	0.23	ug/L			03/06/21 13:18	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/06/21 13:18	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/06/21 13:18	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/06/21 13:18	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/06/21 13:18	1
Iodomethane	ND		25	5.9	ug/L			03/06/21 13:18	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/06/21 13:18	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/06/21 13:18	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/06/21 13:18	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/06/21 13:18	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/06/21 13:18	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/06/21 13:18	1
Naphthalene	ND		1.0	0.32	ug/L			03/06/21 13:18	1

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

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

Lab Sample ID: MB 570-134105/7
Matrix: Water
Analysis Batch: 134105

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	0.35	ug/L			03/06/21 13:18	1
Propionitrile	ND		5.0	3.7	ug/L			03/06/21 13:18	1
Styrene	ND		0.50	0.28	ug/L			03/06/21 13:18	1
t-Butanol	ND		5.0	4.0	ug/L			03/06/21 13:18	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/06/21 13:18	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/06/21 13:18	1
Toluene	ND		0.50	0.33	ug/L			03/06/21 13:18	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/06/21 13:18	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/06/21 13:18	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/06/21 13:18	1
Trichloroethene	ND		0.50	0.29	ug/L			03/06/21 13:18	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/06/21 13:18	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/06/21 13:18	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/06/21 13:18	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/06/21 13:18	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/06/21 13:18	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/06/21 13:18	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					03/06/21 13:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		68 - 135		03/06/21 13:18	1
Dibromofluoromethane (Surr)	95		80 - 120		03/06/21 13:18	1
Toluene-d8 (Surr)	103		80 - 120		03/06/21 13:18	1
4-Bromofluorobenzene (Surr)	93		71 - 120		03/06/21 13:18	1

Lab Sample ID: LCS 570-134105/4
Matrix: Water
Analysis Batch: 134105

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	10.0	7.62		ug/L		76	66 - 131
1,1,1,2-Tetrachloroethane	10.0	10.4		ug/L		104	76 - 143
1,1,1-Trichloroethane	10.0	9.86		ug/L		99	75 - 128
1,1,2,2-Tetrachloroethane	10.0	11.1		ug/L		111	73 - 126
1,1,2-Trichloroethane	10.0	9.41		ug/L		94	80 - 120
1,1-Dichloroethane	10.0	10.1		ug/L		101	76 - 120
1,1-Dichloroethene	10.0	9.27		ug/L		93	72 - 120
1,1-Dichloropropene	10.0	10.2		ug/L		102	76 - 120
1,2,4-Trichlorobenzene	10.0	11.0		ug/L		110	80 - 123
1,2-Dibromo-3-Chloropropane	10.0	9.68		ug/L		97	77 - 120
1,2-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 123
1,2-Dichloroethane	10.0	9.00		ug/L		90	71 - 137
1,2-Dichloropropane	10.0	10.7		ug/L		107	80 - 120
1,3-Dichlorobenzene	10.0	10.3		ug/L		103	79 - 123
1,3-Dichloropropane	10.0	8.83		ug/L		88	80 - 123
1,4-Dichlorobenzene	10.0	9.89		ug/L		99	75 - 123

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

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

Lab Sample ID: LCS 570-134105/4
Matrix: Water
Analysis Batch: 134105

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	10.0	10.3		ug/L		103	78 - 133
2-Hexanone	10.0	7.81		ug/L		78	57 - 127
Acetone	10.0	8.35		ug/L		83	57 - 133
Benzene	10.0	9.87		ug/L		99	80 - 120
Bromoform	10.0	9.58		ug/L		96	46 - 178
Bromomethane	10.0	9.58		ug/L		96	52 - 162
Carbon disulfide	10.0	9.36		ug/L		94	66 - 125
Carbon tetrachloride	10.0	10.6		ug/L		106	69 - 145
Chlorobenzene	10.0	10.1		ug/L		101	80 - 120
Bromochloromethane	10.0	10.2		ug/L		102	76 - 125
Chloroethane	10.0	9.27		ug/L		93	73 - 139
Chloroform	10.0	9.88		ug/L		99	80 - 120
Chloromethane	10.0	8.78		ug/L		88	35 - 159
cis-1,2-Dichloroethene	10.0	10.1		ug/L		101	76 - 122
cis-1,3-Dichloropropene	10.0	9.92		ug/L		99	80 - 122
Dibromochloromethane	10.0	9.23		ug/L		92	63 - 151
Dibromomethane	10.0	9.62		ug/L		96	80 - 121
Bromodichloromethane	10.0	10.0		ug/L		100	77 - 141
Dichlorodifluoromethane	10.0	7.20		ug/L		72	59 - 139
Ethylbenzene	10.0	10.1		ug/L		101	80 - 120
m,p-Xylene	20.0	20.1		ug/L		100	80 - 122
Methylene Chloride	10.0	8.45		ug/L		84	70 - 120
Methyl tert-butyl ether	10.0	7.78		ug/L		78	72 - 120
Naphthalene	10.0	10.1		ug/L		101	75 - 120
o-Xylene	10.0	10.1		ug/L		101	80 - 122
Styrene	10.0	9.85		ug/L		98	80 - 121
t-Butanol	50.0	71.5		ug/L		143	65 - 147
Tetrachloroethene	10.0	10.7		ug/L		107	80 - 128
Toluene	10.0	10.2		ug/L		102	80 - 120
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	67 - 123
trans-1,3-Dichloropropene	10.0	9.27		ug/L		93	78 - 140
Trichloroethene	10.0	10.2		ug/L		102	80 - 123
Trichlorofluoromethane	10.0	9.04		ug/L		90	64 - 168
Vinyl acetate	10.0	11.0		ug/L		110	75 - 144
Vinyl chloride	10.0	8.78		ug/L		88	74 - 130
1,2-Dibromoethane (EDB)	10.0	9.68		ug/L		97	80 - 120
2-Butanone (MEK)	10.0	6.58		ug/L		66	32 - 133
4-Methyl-2-pentanone (MIBK)	10.0	8.87		ug/L		89	68 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		68 - 135
Dibromofluoromethane (Surr)	99		80 - 120
Toluene-d8 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	96		71 - 120

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

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

Lab Sample ID: LCSD 570-134105/5
Matrix: Water
Analysis Batch: 134105

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	10.0	8.76		ug/L		88	66 - 131	14	20
1,1,1,2-Tetrachloroethane	10.0	10.3		ug/L		103	76 - 143	1	20
1,1,1-Trichloroethane	10.0	9.80		ug/L		98	75 - 128	1	20
1,1,2,2-Tetrachloroethane	10.0	10.8		ug/L		108	73 - 126	3	21
1,1,2-Trichloroethane	10.0	9.49		ug/L		95	80 - 120	1	20
1,1-Dichloroethane	10.0	9.77		ug/L		98	76 - 120	3	20
1,1-Dichloroethene	10.0	8.78		ug/L		88	72 - 120	5	20
1,1-Dichloropropene	10.0	10.1		ug/L		101	76 - 120	1	20
1,2,4-Trichlorobenzene	10.0	11.1		ug/L		111	80 - 123	1	20
1,2-Dibromo-3-Chloropropane	10.0	9.82		ug/L		98	77 - 120	1	21
1,2-Dichlorobenzene	10.0	10.2		ug/L		102	79 - 123	1	20
1,2-Dichloroethane	10.0	9.29		ug/L		93	71 - 137	3	20
1,2-Dichloropropane	10.0	10.2		ug/L		102	80 - 120	4	20
1,3-Dichlorobenzene	10.0	10.3		ug/L		103	79 - 123	1	20
1,3-Dichloropropane	10.0	9.25		ug/L		93	80 - 123	5	20
1,4-Dichlorobenzene	10.0	9.71		ug/L		97	75 - 123	2	22
2,2-Dichloropropane	10.0	9.61		ug/L		96	78 - 133	7	20
2-Hexanone	10.0	8.32		ug/L		83	57 - 127	6	21
Acetone	10.0	8.14		ug/L		81	57 - 133	2	28
Benzene	10.0	9.92		ug/L		99	80 - 120	1	20
Bromoform	10.0	9.73		ug/L		97	46 - 178	2	23
Bromomethane	10.0	9.25		ug/L		92	52 - 162	4	20
Carbon disulfide	10.0	9.08		ug/L		91	66 - 125	3	20
Carbon tetrachloride	10.0	10.2		ug/L		102	69 - 145	4	20
Chlorobenzene	10.0	10.1		ug/L		101	80 - 120	0	20
Bromochloromethane	10.0	9.74		ug/L		97	76 - 125	5	20
Chloroethane	10.0	9.05		ug/L		91	73 - 139	2	20
Chloroform	10.0	9.74		ug/L		97	80 - 120	1	20
Chloromethane	10.0	8.40		ug/L		84	35 - 159	4	20
cis-1,2-Dichloroethene	10.0	9.82		ug/L		98	76 - 122	3	20
cis-1,3-Dichloropropene	10.0	10.0		ug/L		100	80 - 122	1	20
Dibromochloromethane	10.0	9.34		ug/L		93	63 - 151	1	20
Dibromomethane	10.0	9.69		ug/L		97	80 - 121	1	20
Bromodichloromethane	10.0	9.89		ug/L		99	77 - 141	1	20
Dichlorodifluoromethane	10.0	6.80		ug/L		68	59 - 139	6	20
Ethylbenzene	10.0	9.89		ug/L		99	80 - 120	2	20
m,p-Xylene	20.0	20.2		ug/L		101	80 - 122	1	20
Methylene Chloride	10.0	7.83		ug/L		78	70 - 120	8	20
Methyl tert-butyl ether	10.0	7.73		ug/L		77	72 - 120	1	20
Naphthalene	10.0	9.97		ug/L		100	75 - 120	1	22
o-Xylene	10.0	9.90		ug/L		99	80 - 122	2	20
Styrene	10.0	9.73		ug/L		97	80 - 121	1	20
t-Butanol	50.0	69.0		ug/L		138	65 - 147	4	21
Tetrachloroethene	10.0	10.4		ug/L		104	80 - 128	2	20
Toluene	10.0	10.2		ug/L		102	80 - 120	0	20
trans-1,2-Dichloroethene	10.0	9.55		ug/L		96	67 - 123	5	20
trans-1,3-Dichloropropene	10.0	9.80		ug/L		98	78 - 140	6	20
Trichloroethene	10.0	9.88		ug/L		99	80 - 123	4	20

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

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

Lab Sample ID: LCSD 570-134105/5
Matrix: Water
Analysis Batch: 134105

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichlorofluoromethane	10.0	8.71		ug/L		87	64 - 168	4	20
Vinyl acetate	10.0	10.4		ug/L		104	75 - 144	6	25
Vinyl chloride	10.0	8.61		ug/L		86	74 - 130	2	20
1,2-Dibromoethane (EDB)	10.0	9.48		ug/L		95	80 - 120	2	20
2-Butanone (MEK)	10.0	7.99		ug/L		80	32 - 133	19	26
4-Methyl-2-pentanone (MIBK)	10.0	8.75		ug/L		87	68 - 120	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		68 - 135
Dibromofluoromethane (Surr)	100		80 - 120
Toluene-d8 (Surr)	103		80 - 120
4-Bromofluorobenzene (Surr)	96		71 - 120

Lab Sample ID: MB 570-134416/8
Matrix: Water
Analysis Batch: 134416

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	ND		4.0	2.2	ug/L			03/08/21 22:51	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/08/21 22:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		68 - 135		03/08/21 22:51	1
Dibromofluoromethane (Surr)	98		80 - 120		03/08/21 22:51	1
Toluene-d8 (Surr)	103		80 - 120		03/08/21 22:51	1
4-Bromofluorobenzene (Surr)	94		71 - 120		03/08/21 22:51	1

Lab Sample ID: LCS 570-134416/4
Matrix: Water
Analysis Batch: 134416

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acrolein	20.0	17.5		ug/L		88	54 - 137
Acrylonitrile	10.0	8.75		ug/L		88	58 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		68 - 135
Dibromofluoromethane (Surr)	101		80 - 120
Toluene-d8 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	97		71 - 120

Lab Sample ID: LCSD 570-134416/5
Matrix: Water
Analysis Batch: 134416

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acrolein	20.0	18.7		ug/L		94	54 - 137	7	24
Acrylonitrile	10.0	8.60		ug/L		86	58 - 123	2	30

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

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

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	91		68 - 135
Dibromofluoromethane (Surr)	103		80 - 120
Toluene-d8 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	92		71 - 120

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-134080/1-A
Matrix: Water
Analysis Batch: 134620

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 134080

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/06/21 09:08	03/09/21 18:16	1
Isotope Dilution		MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8		48		15 - 150			03/06/21 09:08	03/09/21 18:16	1
Surrogate		MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)		69		46 - 128			03/06/21 09:08	03/09/21 18:16	1

Lab Sample ID: LCS 570-134080/2-A
Matrix: Water
Analysis Batch: 134620

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 134080

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	20.0	19.7		ug/L		99	57 - 136
Isotope Dilution		LCS %Recovery	LCS Qualifier	Limits			
1,4-Dioxane-d8		52		15 - 150			
Surrogate		LCS %Recovery	LCS Qualifier	Limits			
Nitrobenzene-d5 (Surr)		88		46 - 128			

Lab Sample ID: LCSD 570-134080/3-A
Matrix: Water
Analysis Batch: 134620

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 134080

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
1,4-Dioxane	20.0	22.0		ug/L		110	57 - 136	11	20
Isotope Dilution		LCSD %Recovery	LCSD Qualifier	Limits					
1,4-Dioxane-d8		49		15 - 150					
Surrogate		LCSD %Recovery	LCSD Qualifier	Limits					
Nitrobenzene-d5 (Surr)		88		46 - 128					

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: 570-52742-E-1-A MS
Matrix: Water
Analysis Batch: 134620

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 134080

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	ND		20.0	21.7		ug/L		108	45 - 139
		MS MS							
Isotope Dilution	%Recovery	Qualifier	Limits						
1,4-Dioxane-d8	51		15 - 150						
		MS MS							
Surrogate	%Recovery	Qualifier	Limits						
Nitrobenzene-d5 (Surr)	85		46 - 128						

Lab Sample ID: 570-52742-E-1-B MSD
Matrix: Water
Analysis Batch: 134620

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 134080

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
1,4-Dioxane	ND		20.0	23.0		ug/L		115	45 - 139	6	17
		MSD MSD									
Isotope Dilution	%Recovery	Qualifier	Limits								
1,4-Dioxane-d8	51		15 - 150								
		MSD MSD									
Surrogate	%Recovery	Qualifier	Limits								
Nitrobenzene-d5 (Surr)	77		46 - 128								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-640333/6
Matrix: Water
Analysis Batch: 640333

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			03/04/21 12:44	1

Lab Sample ID: LCS 440-640333/5
Matrix: Water
Analysis Batch: 640333

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	5.13		mg/L		103	90 - 110

Lab Sample ID: 440-279932-6 MS
Matrix: Water
Analysis Batch: 640333

Client Sample ID: Subdrain (N)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	190		250	459		mg/L		106	80 - 120

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 440-279932-6 MSD
Matrix: Water
Analysis Batch: 640333

Client Sample ID: Subdrain (N)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	190		250	457		mg/L		105	80 - 120	0	20

Lab Sample ID: MB 440-640452/6
Matrix: Water
Analysis Batch: 640452

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			03/05/21 10:18	1

Lab Sample ID: LCS 440-640452/5
Matrix: Water
Analysis Batch: 640452

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.84		mg/L		97	90 - 110

Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 440-279932-2 MS
Matrix: Water
Analysis Batch: 640452

Client Sample ID: CM-11R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride - DL	10		50.0	59.2		mg/L		99	80 - 120

Lab Sample ID: 440-279932-2 MSD
Matrix: Water
Analysis Batch: 640452

Client Sample ID: CM-11R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride - DL	10		50.0	59.5		mg/L		99	80 - 120	1	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-640781/1-A
Matrix: Water
Analysis Batch: 640968

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 640781

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	ND		0.50	0.25	mg/L		03/10/21 07:51	03/10/21 14:40	1

Lab Sample ID: LCS 440-640781/2-A
Matrix: Water
Analysis Batch: 640968

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 640781

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	10.0	9.72		mg/L		97	80 - 120

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

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

Lab Sample ID: 440-279932-1 MS
Matrix: Water
Analysis Batch: 640968

Client Sample ID: CM-10R
Prep Type: Total Recoverable
Prep Batch: 640781

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	10		10.0	20.5		mg/L		101	75 - 125

Lab Sample ID: 440-279932-1 MSD
Matrix: Water
Analysis Batch: 640968

Client Sample ID: CM-10R
Prep Type: Total Recoverable
Prep Batch: 640781

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Potassium	10		10.0	20.7		mg/L		103	75 - 125	1	20

Lab Sample ID: MB 440-640996/1-A
Matrix: Water
Analysis Batch: 641112

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 640996

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	ND		0.50	0.25	mg/L		03/11/21 08:35	03/11/21 17:29	1

Lab Sample ID: LCS 440-640996/2-A
Matrix: Water
Analysis Batch: 641112

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 640996

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	10.0	10.0		mg/L		100	80 - 120

Lab Sample ID: 440-280252-A-7-B MS
Matrix: Water
Analysis Batch: 641112

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 640996

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	19		10.0	28.4		mg/L		97	75 - 125

Lab Sample ID: 440-280252-A-7-C MSD
Matrix: Water
Analysis Batch: 641112

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 640996

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Potassium	19		10.0	28.8		mg/L		101	75 - 125	1	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 440-640963/10
Matrix: Water
Analysis Batch: 640963

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			03/09/21 13:46	1

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 440-640963/11
Matrix: Water
Analysis Batch: 640963

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	5.00	5.27		mg/L		105	90 - 110

Lab Sample ID: MRL 440-640963/9
Matrix: Water
Analysis Batch: 640963

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.200	0.168	J	mg/L		84	50 - 150

Lab Sample ID: 440-279144-R-1 MS
Matrix: Water
Analysis Batch: 640963

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
Ammonia (as N)	0.59		5.00	5.64		mg/L		101	90 - 110

Lab Sample ID: 440-279144-R-1 MSD
Matrix: Water
Analysis Batch: 640963

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	0.59		5.00	5.88		mg/L		106	90 - 110	4	15

Lab Sample ID: MB 440-641076/10
Matrix: Water
Analysis Batch: 641076

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			03/11/21 12:03	1

Lab Sample ID: LCS 440-641076/11
Matrix: Water
Analysis Batch: 641076

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	5.00	4.92		mg/L		98	90 - 110

Lab Sample ID: MRL 440-641076/9
Matrix: Water
Analysis Batch: 641076

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.200	0.158	J	mg/L		79	50 - 150

Lab Sample ID: 440-279921-E-1 MS
Matrix: Water
Analysis Batch: 641076

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
Ammonia (as N)	0.66		5.00	5.81		mg/L		103	90 - 110

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: 440-279921-E-1 MSD
 Matrix: Water
 Analysis Batch: 641076

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	0.66		5.00	5.68		mg/L		100	90 - 110	2	15

Method: 410.4 - COD

Lab Sample ID: MB 440-640933/3
 Matrix: Water
 Analysis Batch: 640933

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			03/10/21 14:08	1

Lab Sample ID: LCS 440-640933/4
 Matrix: Water
 Analysis Batch: 640933

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	213		mg/L		107	90 - 110

Lab Sample ID: 440-280038-A-1 MS
 Matrix: Water
 Analysis Batch: 640933

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
Chemical Oxygen Demand	ND		200	238		mg/L		119	70 - 120

Lab Sample ID: 440-280038-A-1 MSD
 Matrix: Water
 Analysis Batch: 640933

Client Sample ID: Matrix Spike Duplicate
 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	219		mg/L		109	70 - 120	9	15

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 440-640458/3
 Matrix: Water
 Analysis Batch: 640458

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			03/05/21 06:41	1

Lab Sample ID: LCS 440-640458/2
 Matrix: Water
 Analysis Batch: 640458

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	79.0	77.5		mg/L		98	80 - 120

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 440-279932-5 DU
 Matrix: Water
 Analysis Batch: 640458

Client Sample ID: Extraction Trench
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity as CaCO3	1100		1120		mg/L		2	20

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

Lab Sample ID: MB 440-641016/1
 Matrix: Water
 Analysis Batch: 641016

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			03/11/21 09:28	1

Lab Sample ID: LCS 440-641016/2
 Matrix: Water
 Analysis Batch: 641016

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	950		mg/L		95	90 - 110

Lab Sample ID: 440-280088-G-1 DU
 Matrix: Water
 Analysis Batch: 641016

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	970		948		mg/L		2	5

Method: SM 5310C - TOC

Lab Sample ID: MB 440-640980/8
 Matrix: Water
 Analysis Batch: 640980

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			03/10/21 05:42	1

Lab Sample ID: LCS 440-640980/7
 Matrix: Water
 Analysis Batch: 640980

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	5.19		mg/L		104	85 - 115

Lab Sample ID: MRL 440-640980/6
 Matrix: Water
 Analysis Batch: 640980

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.106		mg/L		106	50 - 150

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Method: SM 5310C - TOC (Continued)

Lab Sample ID: 440-280130-I-1 MS
Matrix: Water
Analysis Batch: 640980

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 Organic Carbon	4.0		5.00	9.74		mg/L		114	85 - 115

Lab Sample ID: 440-280130-I-1 MSD
Matrix: Water
Analysis Batch: 640980

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	4.0		5.00	9.77		mg/L		115	85 - 115	0	20

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

GC/MS VOA

Analysis Batch: 134105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-1	CM-10R	Total/NA	Water	8260B	
440-279932-2	CM-11R	Total/NA	Water	8260B	
440-279932-3	LY-7	Total/NA	Water	8260B	
440-279932-4	Combined Subdrains	Total/NA	Water	8260B	
440-279932-5	Extraction Trench	Total/NA	Water	8260B	
440-279932-6	Subdrain (N)	Total/NA	Water	8260B	
440-279932-7	Field Blank	Total/NA	Water	8260B	
440-279932-8	Trip Blank	Total/NA	Water	8260B	
MB 570-134105/7	Method Blank	Total/NA	Water	8260B	
LCS 570-134105/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-134105/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 134416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-1	CM-10R	Total/NA	Water	8260B	
440-279932-2	CM-11R	Total/NA	Water	8260B	
440-279932-3	LY-7	Total/NA	Water	8260B	
440-279932-4	Combined Subdrains	Total/NA	Water	8260B	
440-279932-4 - DL	Combined Subdrains	Total/NA	Water	8260B	
440-279932-5	Extraction Trench	Total/NA	Water	8260B	
440-279932-6	Subdrain (N)	Total/NA	Water	8260B	
440-279932-7	Field Blank	Total/NA	Water	8260B	
440-279932-8	Trip Blank	Total/NA	Water	8260B	
MB 570-134416/8	Method Blank	Total/NA	Water	8260B	
LCS 570-134416/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-134416/5	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 134080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-1	CM-10R	Total/NA	Water	3510C	
440-279932-2	CM-11R	Total/NA	Water	3510C	
440-279932-3	LY-7	Total/NA	Water	3510C	
440-279932-4	Combined Subdrains	Total/NA	Water	3510C	
440-279932-5 - DL	Extraction Trench	Total/NA	Water	3510C	
440-279932-6	Subdrain (N)	Total/NA	Water	3510C	
MB 570-134080/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-134080/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-134080/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
570-52742-E-1-A MS	Matrix Spike	Total/NA	Water	3510C	
570-52742-E-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 134620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-1	CM-10R	Total/NA	Water	8270C SIM ID	134080
440-279932-2	CM-11R	Total/NA	Water	8270C SIM ID	134080
440-279932-3	LY-7	Total/NA	Water	8270C SIM ID	134080
440-279932-4	Combined Subdrains	Total/NA	Water	8270C SIM ID	134080
440-279932-6	Subdrain (N)	Total/NA	Water	8270C SIM ID	134080
MB 570-134080/1-A	Method Blank	Total/NA	Water	8270C SIM ID	134080

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QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

GC/MS Semi VOA (Continued)

Analysis Batch: 134620 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-134080/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	134080
LCSD 570-134080/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	134080
570-52742-E-1-A MS	Matrix Spike	Total/NA	Water	8270C SIM ID	134080
570-52742-E-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270C SIM ID	134080

Analysis Batch: 134926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-5 - DL	Extraction Trench	Total/NA	Water	8270C SIM ID	134080

HPLC/IC

Analysis Batch: 640333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-3	LY-7	Total/NA	Water	300.0	
440-279932-4	Combined Subdrains	Total/NA	Water	300.0	
440-279932-5	Extraction Trench	Total/NA	Water	300.0	
440-279932-6	Subdrain (N)	Total/NA	Water	300.0	
MB 440-640333/6	Method Blank	Total/NA	Water	300.0	
LCS 440-640333/5	Lab Control Sample	Total/NA	Water	300.0	
440-279932-6 MS	Subdrain (N)	Total/NA	Water	300.0	
440-279932-6 MSD	Subdrain (N)	Total/NA	Water	300.0	

Analysis Batch: 640452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-1	CM-10R	Total/NA	Water	300.0	
440-279932-2 - DL	CM-11R	Total/NA	Water	300.0	
440-279932-2	CM-11R	Total/NA	Water	300.0	
MB 440-640452/6	Method Blank	Total/NA	Water	300.0	
LCS 440-640452/5	Lab Control Sample	Total/NA	Water	300.0	
440-279932-2 MS - DL	CM-11R	Total/NA	Water	300.0	
440-279932-2 MSD - DL	CM-11R	Total/NA	Water	300.0	

Metals

Prep Batch: 640781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-1	CM-10R	Total Recoverable	Water	3005A	
440-279932-2	CM-11R	Total Recoverable	Water	3005A	
440-279932-4	Combined Subdrains	Total Recoverable	Water	3005A	
MB 440-640781/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-640781/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-279932-1 MS	CM-10R	Total Recoverable	Water	3005A	
440-279932-1 MSD	CM-10R	Total Recoverable	Water	3005A	

Analysis Batch: 640968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-1	CM-10R	Total Recoverable	Water	6010B	640781
440-279932-2	CM-11R	Total Recoverable	Water	6010B	640781
440-279932-4	Combined Subdrains	Total Recoverable	Water	6010B	640781
MB 440-640781/1-A	Method Blank	Total Recoverable	Water	6010B	640781
LCS 440-640781/2-A	Lab Control Sample	Total Recoverable	Water	6010B	640781
440-279932-1 MS	CM-10R	Total Recoverable	Water	6010B	640781

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QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Metals (Continued)

Analysis Batch: 640968 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-1 MSD	CM-10R	Total Recoverable	Water	6010B	640781

Prep Batch: 640996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-3	LY-7	Total Recoverable	Water	3005A	
440-279932-5	Extraction Trench	Total Recoverable	Water	3005A	
440-279932-6	Subdrain (N)	Total Recoverable	Water	3005A	
MB 440-640996/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-640996/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-280252-A-7-B MS	Matrix Spike	Total Recoverable	Water	3005A	
440-280252-A-7-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 641112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-3	LY-7	Total Recoverable	Water	6010B	640996
440-279932-5	Extraction Trench	Total Recoverable	Water	6010B	640996
440-279932-6	Subdrain (N)	Total Recoverable	Water	6010B	640996
MB 440-640996/1-A	Method Blank	Total Recoverable	Water	6010B	640996
LCS 440-640996/2-A	Lab Control Sample	Total Recoverable	Water	6010B	640996
440-280252-A-7-B MS	Matrix Spike	Total Recoverable	Water	6010B	640996
440-280252-A-7-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	640996

General Chemistry

Analysis Batch: 640458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-1	CM-10R	Total/NA	Water	SM 2320B	
440-279932-2	CM-11R	Total/NA	Water	SM 2320B	
440-279932-3	LY-7	Total/NA	Water	SM 2320B	
440-279932-4	Combined Subdrains	Total/NA	Water	SM 2320B	
440-279932-5	Extraction Trench	Total/NA	Water	SM 2320B	
440-279932-6	Subdrain (N)	Total/NA	Water	SM 2320B	
MB 440-640458/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-640458/2	Lab Control Sample	Total/NA	Water	SM 2320B	
440-279932-5 DU	Extraction Trench	Total/NA	Water	SM 2320B	

Analysis Batch: 640933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-1	CM-10R	Total/NA	Water	410.4	
440-279932-2	CM-11R	Total/NA	Water	410.4	
440-279932-3	LY-7	Total/NA	Water	410.4	
440-279932-4	Combined Subdrains	Total/NA	Water	410.4	
440-279932-5	Extraction Trench	Total/NA	Water	410.4	
440-279932-6	Subdrain (N)	Total/NA	Water	410.4	
MB 440-640933/3	Method Blank	Total/NA	Water	410.4	
LCS 440-640933/4	Lab Control Sample	Total/NA	Water	410.4	
440-280038-A-1 MS	Matrix Spike	Total/NA	Water	410.4	
440-280038-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

General Chemistry

Analysis Batch: 640963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-1	CM-10R	Total/NA	Water	350.1	
440-279932-2	CM-11R	Total/NA	Water	350.1	
440-279932-3	LY-7	Total/NA	Water	350.1	
440-279932-4	Combined Subdrains	Total/NA	Water	350.1	
440-279932-5	Extraction Trench	Total/NA	Water	350.1	
MB 440-640963/10	Method Blank	Total/NA	Water	350.1	
LCS 440-640963/11	Lab Control Sample	Total/NA	Water	350.1	
MRL 440-640963/9	Lab Control Sample	Total/NA	Water	350.1	
440-279144-R-1 MS	Matrix Spike	Total/NA	Water	350.1	
440-279144-R-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 640980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-1	CM-10R	Total/NA	Water	SM 5310C	
440-279932-2	CM-11R	Total/NA	Water	SM 5310C	
440-279932-3	LY-7	Total/NA	Water	SM 5310C	
440-279932-4	Combined Subdrains	Total/NA	Water	SM 5310C	
440-279932-5	Extraction Trench	Total/NA	Water	SM 5310C	
440-279932-6	Subdrain (N)	Total/NA	Water	SM 5310C	
MB 440-640980/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-640980/7	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-640980/6	Lab Control Sample	Total/NA	Water	SM 5310C	
440-280130-I-1 MS	Matrix Spike	Total/NA	Water	SM 5310C	
440-280130-I-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310C	

Analysis Batch: 641016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-1	CM-10R	Total/NA	Water	SM 2540C	
440-279932-2	CM-11R	Total/NA	Water	SM 2540C	
440-279932-3	LY-7	Total/NA	Water	SM 2540C	
440-279932-4	Combined Subdrains	Total/NA	Water	SM 2540C	
440-279932-5	Extraction Trench	Total/NA	Water	SM 2540C	
440-279932-6	Subdrain (N)	Total/NA	Water	SM 2540C	
MB 440-641016/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-641016/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-280088-G-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 641076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279932-6	Subdrain (N)	Total/NA	Water	350.1	
MB 440-641076/10	Method Blank	Total/NA	Water	350.1	
LCS 440-641076/11	Lab Control Sample	Total/NA	Water	350.1	
MRL 440-641076/9	Lab Control Sample	Total/NA	Water	350.1	
440-279921-E-1 MS	Matrix Spike	Total/NA	Water	350.1	
440-279921-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Definitions/Glossary

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

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.

GC/MS VOA TICs

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

GC/MS Semi VOA

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.

General Chemistry

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.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Laboratory: Eurofins Calscience Irvine

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

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-21
Arizona	State	AZ0671	10-14-21
California	Los Angeles County Sanitation Districts	10256	06-30-21
California	State	2706	06-30-21
Guam	State	21-003R	01-23-22
Hawaii	State	CA01531	01-29-22
Kansas	NELAP	E-10420	07-31-21
Nevada	State	CA015312021-5	07-31-21
Oregon	NELAP	4028 - 009	01-29-22
USDA	US Federal Programs	P330-21-00022	02-02-24
Washington	State	C900	09-03-21

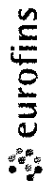
Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	20-003R	10-31-20 *
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Chain of Custody Record 480009



Environment Testing
TestAmerica

TAL-8210

Address

Regulatory Program DW NPDES RCRA Other

Client Contact
 Company Name: G.L.A. Republic
 Address: 11115 W. Bernardo Ct. Suite
 City/State/Zip: San Diego, CA 92127
 Phone: 619-451-1136
 Fax: 619-451-1089
 Project Name: Republic Service
 Site: Sunshine Canyon L/F
 PO #

Project Manager: Kyle Weichens
 Tel/Email: 858-451-1136
 Analysis Turnaround Time
 CALENDAR DAYS WORKING DAYS
 TAT if different from Below
 2 weeks
 1 week
 2 days
 1 day

Site Contact: J. Mills
Lab Contact: R. Tomask
 Date: 3-4-21
 Carrier: T/A
 COC No: 1 of 1 COCs
 Sampler: BSS, MC
 For Lab Use Only
 Walk-in Client:
 Lab Sampling
 Job / SDG No: 5020 1006

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Lab	Carrier	Date
CM-10R	3-4-21	1000	G	GW	12	M	X	EPA 310 - Nitrate	EPA 300 Chloride	3/4/21
CM-11R		1000	G	GW	12	M	X	EPA 310 - Nitrate	EPA 300 Chloride	3/4/21
LY-7		0915		WW	12	M	X	EPA 310 - Nitrate	EPA 300 Chloride	3/4/21
Combined Subdrains		1140		WW	12	M	X	EPA 310 - Nitrate	EPA 300 Chloride	3/4/21
Extraction Trench		1305		WW	12	M	X	EPA 310 - Nitrate	EPA 300 Chloride	3/4/21
Subdrain (N)		0958		WW	12	M	X	EPA 310 - Nitrate	EPA 300 Chloride	3/4/21
Field Blank				Lab H ₂ O	4	M	X	EPA 310 - Nitrate	EPA 300 Chloride	3/4/21
Trip Blank				Lab H ₂ O	4	M	X	EPA 310 - Nitrate	EPA 300 Chloride	3/4/21



440-279932 Chain of Custody

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification
 Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
 Non-Hazard Flammable Skin Irritant Poison B Unknown

Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments
 metals are not field filtered

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return to Client Disposal by Lab Archive for _____ Months

Custody Seals Intact: Yes No

Received by: Mike Campbell
 Date/Time: 3-4-21/1350
 Company: Geo-Logic Associates

Relinquished by: Dea
 Date/Time: 3/4/21
 Company: EC-1W

Received in Laboratory by: Olga Cindas
 Date/Time: 3/4/21 1645
 Company: EC-1W

Therm ID No: 3433
Cooler Temp. (°C) Obs'd: 11.10
Cor'd: EC-1W



Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Tomova, Rossina D	Carrier Tracking No(s): 440-166813.1
Client Contact: Shipping/Receiving		E-Mail: Rossina.Tomova@Eurofinset.com	Page: Page 1 of 1
Company: Eurofins Calscience LLC		Accreditations Required (See note):	Job #: 440-279932-1
Address: 7440 Lincoln Way,		Due Date Requested: 3/17/2021	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:
City: Garden Grove		TAT Requested (days):	M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)
State Zip: CA, 92841		PO #:	
Phone: 714-895-5494(Tel) 714-894-7501(Fax)		WO #:	
Email:		Project #:	
Project Name: Republic Sunshine Canyon		44007851	
Site:		SSOW#:	

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Swab, On-water, Oil)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested				Special Instructions/Note:
							8260B_LL5030C (MOD) Appendix II	8260B_LL5030C_UP (MOD) A+A	8270C_SIM_MS_ID/3510C_14-Dioxane - SIM_MS_ID	Total Number of Containers	
CM-10R (440-279932-1)	3/4/21	10:00 Pacific	Water	Water	X	X	X	X	8		
CM-11R (440-279932-2)	3/4/21	10:00 Pacific	Water	Water	X	X	X	X	8		
LY-7 (440-279932-3)	3/4/21	09:15 Pacific	Water	Water	X	X	X	X	8		
Combined Subdrains (440-279932-4)	3/4/21	11:40 Pacific	Water	Water	X	X	X	X	8		
Extractions Trench (440-279932-5)	3/4/21	13:05 Pacific	Water	Water	X	X	X	X	8		
Subdrain (N) (440-279932-6)	3/4/21	09:58 Pacific	Water	Water	X	X	X	X	8		
Field Blank (440-279932-7)	3/4/21	00:01 Pacific	Water	Water	X	X	X	X	4		
Trip Blank (440-279932-8)	3/4/21	00:01 Pacific	Water	Water	X	X	X	X	4		

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/instrument being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Special Instructions/QC Requirements

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

Empty Kit Relinquished by	Date	Time	Method of Shipment
Relinquished by	3-5-21	10:10	
Relinquished by			
Relinquished by			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Cooler Temperature(s) °C and Other Remarks: 2.4 / 1.3 SC6		



Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-279932-1

Login Number: 279932

List Number: 1

Creator: Escalante, Maria I

List Source: Eurofins Irvine

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.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 (excluding tests with immediate HTs)	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	

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-279932-1

Login Number: 279932

List Number: 2

Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience

List Creation: 03/05/21 02:13 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-279932-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-150)
440-279932-1	CM-10R	63
440-279932-2	CM-11R	56
440-279932-3	LY-7	60
440-279932-4	Combined Subdrains	46
440-279932-5 - DL	Extraction Trench	45 *3
440-279932-6	Subdrain (N)	36
570-52742-E-1-A MS	Matrix Spike	51
570-52742-E-1-B MSD	Matrix Spike Duplicate	51
LCS 570-134080/2-A	Lab Control Sample	52
LCSD 570-134080/3-A	Lab Control Sample Dup	49
MB 570-134080/1-A	Method Blank	48

Surrogate Legend

DXE = 1,4-Dioxane-d8

ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-280130-1

Client Project/Site: Republic Sunshine Canyon

For:

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

Attn: Kyle Welchans



Authorized for release by:
3/18/2021 5:55:06 PM

Rossina Tomova, Project Manager I
(949)260-3276
Rossina.Tomova@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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



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Sample Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-280130-1	MW-2A	Water	03/08/21 09:30	03/08/21 16:50	
440-280130-2	MW-2B	Water	03/08/21 10:32	03/08/21 16:50	
440-280130-3	DW-4	Water	03/08/21 11:44	03/08/21 16:50	
440-280130-4	MW-6	Water	03/08/21 10:00	03/08/21 16:50	
440-280130-5	MW-14	Water	03/08/21 10:47	03/08/21 16:50	
440-280130-6	DW-1	Water	03/08/21 11:35	03/08/21 16:50	
440-280130-7	Duplicate	Water	03/08/21 00:01	03/08/21 16:50	
440-280130-8	Field Blank	Water	03/08/21 00:01	03/08/21 16:50	
440-280130-9	Trip Blank	Water	03/08/21 00:01	03/08/21 16:50	

Case Narrative

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Job ID: 440-280130-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative 440-280130-1

Comments

No additional comments.

Receipt

The samples were received on 3/8/2021 4:50 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.8° C.

GC/MS VOA

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-134879.

Method 8260B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 570-134879 recovered outside control limits for the following analyte: 1,1-Dichloroethene.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-135110.

Method 8260B: The following analyte recovered outside control limit for the LCSD associated with analytical batch 570-135110: Acetone. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8260B: The following analytes recovered outside control limits for the LCS associated with analytical batch 570-135110: Acetone and 1,2-Dibromo-3-Chloropropane. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

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

GC/MS Semi VOA

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

HPLC/IC

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

Metals

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: MW-2A

Lab Sample ID: 440-280130-1

Date Collected: 03/08/21 09:30

Matrix: Water

Date Received: 03/08/21 16:50

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	0.32	ug/L			03/11/21 14:51	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/11/21 14:51	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/11/21 14:51	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/11/21 14:51	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/11/21 14:51	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/11/21 14:51	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/11/21 14:51	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/11/21 14:51	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/11/21 14:51	1
1,2-Dibromo-3-Chloropropane	ND	*-	1.0	0.64	ug/L			03/11/21 14:51	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/11/21 14:51	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/11/21 14:51	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/11/21 14:51	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/11/21 14:51	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/11/21 14:51	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/11/21 14:51	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/11/21 14:51	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/11/21 14:51	1
2-Hexanone	ND		6.0	4.3	ug/L			03/11/21 14:51	1
Acetone	ND	*-	8.0	4.0	ug/L			03/11/21 14:51	1
Acetonitrile	ND		10	3.9	ug/L			03/11/21 14:51	1
Acrolein	ND		4.0	2.2	ug/L			03/11/21 14:51	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/11/21 14:51	1
Benzene	ND		0.50	0.27	ug/L			03/11/21 14:51	1
Allyl chloride	ND		2.0	0.38	ug/L			03/11/21 14:51	1
Bromoform	ND		0.50	0.39	ug/L			03/11/21 14:51	1
Bromomethane	ND		1.0	0.93	ug/L			03/11/21 14:51	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/11/21 14:51	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/11/21 14:51	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/11/21 14:51	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/11/21 14:51	1
Chloroethane	ND		0.50	0.44	ug/L			03/11/21 14:51	1
Chloroform	ND		0.50	0.28	ug/L			03/11/21 14:51	1
Chloromethane	ND		1.0	0.29	ug/L			03/11/21 14:51	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/11/21 14:51	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/11/21 14:51	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/11/21 14:51	1
Dibromomethane	ND		0.50	0.23	ug/L			03/11/21 14:51	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/11/21 14:51	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/11/21 14:51	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/11/21 14:51	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/11/21 14:51	1
Iodomethane	ND		25	5.9	ug/L			03/11/21 14:51	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/11/21 14:51	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/11/21 14:51	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/11/21 14:51	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/11/21 14:51	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/11/21 14:51	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/11/21 14:51	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: MW-2A

Lab Sample ID: 440-280130-1

Date Collected: 03/08/21 09:30

Matrix: Water

Date Received: 03/08/21 16:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.32	ug/L			03/11/21 14:51	1
o-Xylene	ND		0.50	0.35	ug/L			03/11/21 14:51	1
Propionitrile	ND		5.0	3.7	ug/L			03/11/21 14:51	1
Styrene	ND		0.50	0.28	ug/L			03/11/21 14:51	1
t-Butanol	ND		5.0	4.0	ug/L			03/11/21 14:51	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/11/21 14:51	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/11/21 14:51	1
Toluene	ND		0.50	0.33	ug/L			03/11/21 14:51	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/11/21 14:51	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/11/21 14:51	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/11/21 14:51	1
Trichloroethene	ND		0.50	0.29	ug/L			03/11/21 14:51	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/11/21 14:51	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/11/21 14:51	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/11/21 14:51	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/11/21 14:51	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/11/21 14:51	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/11/21 14:51	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	100	T J	ug/L		1.43			03/11/21 14:51	1
Unknown	2800	T J	ug/L		1.49			03/11/21 14:51	1
Unknown	67	T J	ug/L		1.57			03/11/21 14:51	1
Unknown	61	T J	ug/L		1.62			03/11/21 14:51	1
Methane, chlorodifluoro-	130	T J N	ug/L		1.67	75-45-6		03/11/21 14:51	1
Unknown	40	T J	ug/L		1.77			03/11/21 14:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		68 - 135		03/11/21 14:51	1
Dibromofluoromethane (Surr)	94		80 - 120		03/11/21 14:51	1
Toluene-d8 (Surr)	96		80 - 120		03/11/21 14:51	1
4-Bromofluorobenzene (Surr)	96		71 - 120		03/11/21 14:51	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.8		0.50	0.34	ug/L		03/11/21 07:51	03/13/21 11:28	1
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8	73		15 - 150	03/11/21 07:51	03/13/21 11:28	1			
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Nitrobenzene-d5 (Surr)	90		46 - 128	03/11/21 07:51	03/13/21 11:28	1			

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31		5.0	2.5	mg/L			03/10/21 00:35	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	6.2		0.50	0.25	mg/L		03/12/21 08:30	03/12/21 16:02	1

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: MW-2A

Date Collected: 03/08/21 09:30

Date Received: 03/08/21 16:50

Lab Sample ID: 440-280130-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	3.5		0.20	0.10	mg/L			03/11/21 14:02	1
Chemical Oxygen Demand	ND		20	10	mg/L			03/12/21 12:35	1
Total Dissolved Solids	2800		20	10	mg/L			03/11/21 09:31	1
Total Organic Carbon	4.0		0.10	0.050	mg/L			03/10/21 05:56	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	370		4.0	4.0	mg/L			03/09/21 06:30	1

Client Sample ID: MW-2B

Date Collected: 03/08/21 10:32

Date Received: 03/08/21 16:50

Lab Sample ID: 440-280130-2

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	0.32	ug/L			03/10/21 15:48	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/10/21 15:48	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/10/21 15:48	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/10/21 15:48	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/10/21 15:48	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/10/21 15:48	1
1,1-Dichloroethene	ND	*1	0.50	0.39	ug/L			03/10/21 15:48	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/10/21 15:48	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/10/21 15:48	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/10/21 15:48	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/10/21 15:48	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/10/21 15:48	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/10/21 15:48	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/10/21 15:48	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/10/21 15:48	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/10/21 15:48	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/10/21 15:48	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/10/21 15:48	1
2-Hexanone	ND		6.0	4.3	ug/L			03/10/21 15:48	1
Acetone	ND		8.0	4.0	ug/L			03/10/21 15:48	1
Acetonitrile	ND		10	3.9	ug/L			03/10/21 15:48	1
Acrolein	ND		4.0	2.2	ug/L			03/10/21 15:48	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/10/21 15:48	1
Benzene	ND		0.50	0.27	ug/L			03/10/21 15:48	1
Allyl chloride	ND		2.0	0.38	ug/L			03/10/21 15:48	1
Bromoform	ND		0.50	0.39	ug/L			03/10/21 15:48	1
Bromomethane	ND		1.0	0.93	ug/L			03/10/21 15:48	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/10/21 15:48	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/10/21 15:48	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/10/21 15:48	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/10/21 15:48	1
Chloroethane	ND		0.50	0.44	ug/L			03/10/21 15:48	1
Chloroform	ND		0.50	0.28	ug/L			03/10/21 15:48	1
Chloromethane	ND		1.0	0.29	ug/L			03/10/21 15:48	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/10/21 15:48	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/10/21 15:48	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/10/21 15:48	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: MW-2B

Lab Sample ID: 440-280130-2

Date Collected: 03/08/21 10:32

Matrix: Water

Date Received: 03/08/21 16:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		0.50	0.23	ug/L			03/10/21 15:48	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/10/21 15:48	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/10/21 15:48	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/10/21 15:48	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/10/21 15:48	1
Iodomethane	ND		25	5.9	ug/L			03/10/21 15:48	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/10/21 15:48	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/10/21 15:48	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/10/21 15:48	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/10/21 15:48	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/10/21 15:48	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/10/21 15:48	1
Naphthalene	ND		1.0	0.32	ug/L			03/10/21 15:48	1
o-Xylene	ND		0.50	0.35	ug/L			03/10/21 15:48	1
Propionitrile	ND		5.0	3.7	ug/L			03/10/21 15:48	1
Styrene	ND		0.50	0.28	ug/L			03/10/21 15:48	1
t-Butanol	ND		5.0	4.0	ug/L			03/10/21 15:48	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/10/21 15:48	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/10/21 15:48	1
Toluene	ND		0.50	0.33	ug/L			03/10/21 15:48	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/10/21 15:48	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/10/21 15:48	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/10/21 15:48	1
Trichloroethene	ND		0.50	0.29	ug/L			03/10/21 15:48	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/10/21 15:48	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/10/21 15:48	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/10/21 15:48	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/10/21 15:48	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/10/21 15:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/10/21 15:48	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	50	T J	ug/L		1.43			03/10/21 15:48	1
Unknown	1600	T J	ug/L		1.49			03/10/21 15:48	1
Unknown	47	T J	ug/L		1.57			03/10/21 15:48	1
Unknown	35	T J	ug/L		1.62			03/10/21 15:48	1
Unknown	33	T J	ug/L		1.64			03/10/21 15:48	1
Unknown	53	T J	ug/L		1.67			03/10/21 15:48	1
Unknown	18	T J	ug/L		1.71			03/10/21 15:48	1
Unknown	25	T J	ug/L		1.77			03/10/21 15:48	1
Unknown	21	T J	ug/L		1.89			03/10/21 15:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		68 - 135		03/10/21 15:48	1
Dibromofluoromethane (Surr)	98		80 - 120		03/10/21 15:48	1
Toluene-d8 (Surr)	98		80 - 120		03/10/21 15:48	1
4-Bromofluorobenzene (Surr)	103		71 - 120		03/10/21 15:48	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: MW-2B

Lab Sample ID: 440-280130-2

Date Collected: 03/08/21 10:32

Matrix: Water

Date Received: 03/08/21 16:50

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/11/21 07:51	03/13/21 11:43	1
Isotope Dilution									
	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	79		15 - 150				03/11/21 07:51	03/13/21 11:43	1
Surrogate									
	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	86		46 - 128				03/11/21 07:51	03/13/21 11:43	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		2.5	1.3	mg/L			03/10/21 01:29	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	4.7		0.50	0.25	mg/L		03/12/21 08:30	03/12/21 16:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	3.8		0.20	0.10	mg/L			03/11/21 14:08	1
Chemical Oxygen Demand	ND		20	10	mg/L			03/12/21 12:35	1
Total Dissolved Solids	2700		20	10	mg/L			03/11/21 09:31	1
Total Organic Carbon	1.8		0.10	0.050	mg/L			03/10/21 06:12	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	320		4.0	4.0	mg/L			03/09/21 06:50	1

Client Sample ID: DW-4

Lab Sample ID: 440-280130-3

Date Collected: 03/08/21 11:44

Matrix: Water

Date Received: 03/08/21 16:50

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	0.32	ug/L			03/10/21 16:14	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/10/21 16:14	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/10/21 16:14	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/10/21 16:14	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/10/21 16:14	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/10/21 16:14	1
1,1-Dichloroethene	ND	*1	0.50	0.39	ug/L			03/10/21 16:14	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/10/21 16:14	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/10/21 16:14	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/10/21 16:14	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/10/21 16:14	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/10/21 16:14	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/10/21 16:14	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/10/21 16:14	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/10/21 16:14	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/10/21 16:14	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/10/21 16:14	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/10/21 16:14	1
2-Hexanone	ND		6.0	4.3	ug/L			03/10/21 16:14	1
Acetone	ND		8.0	4.0	ug/L			03/10/21 16:14	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: DW-4

Lab Sample ID: 440-280130-3

Date Collected: 03/08/21 11:44

Matrix: Water

Date Received: 03/08/21 16:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetonitrile	ND		10	3.9	ug/L			03/10/21 16:14	1
Acrolein	ND		4.0	2.2	ug/L			03/10/21 16:14	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/10/21 16:14	1
Benzene	ND		0.50	0.27	ug/L			03/10/21 16:14	1
Allyl chloride	ND		2.0	0.38	ug/L			03/10/21 16:14	1
Bromoform	ND		0.50	0.39	ug/L			03/10/21 16:14	1
Bromomethane	ND		1.0	0.93	ug/L			03/10/21 16:14	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/10/21 16:14	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/10/21 16:14	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/10/21 16:14	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/10/21 16:14	1
Chloroethane	ND		0.50	0.44	ug/L			03/10/21 16:14	1
Chloroform	ND		0.50	0.28	ug/L			03/10/21 16:14	1
Chloromethane	ND		1.0	0.29	ug/L			03/10/21 16:14	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/10/21 16:14	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/10/21 16:14	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/10/21 16:14	1
Dibromomethane	ND		0.50	0.23	ug/L			03/10/21 16:14	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/10/21 16:14	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/10/21 16:14	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/10/21 16:14	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/10/21 16:14	1
Iodomethane	ND		25	5.9	ug/L			03/10/21 16:14	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/10/21 16:14	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/10/21 16:14	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/10/21 16:14	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/10/21 16:14	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/10/21 16:14	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/10/21 16:14	1
Naphthalene	ND		1.0	0.32	ug/L			03/10/21 16:14	1
o-Xylene	ND		0.50	0.35	ug/L			03/10/21 16:14	1
Propionitrile	ND		5.0	3.7	ug/L			03/10/21 16:14	1
Styrene	ND		0.50	0.28	ug/L			03/10/21 16:14	1
t-Butanol	ND		5.0	4.0	ug/L			03/10/21 16:14	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/10/21 16:14	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/10/21 16:14	1
Toluene	ND		0.50	0.33	ug/L			03/10/21 16:14	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/10/21 16:14	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/10/21 16:14	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/10/21 16:14	1
Trichloroethene	ND		0.50	0.29	ug/L			03/10/21 16:14	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/10/21 16:14	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/10/21 16:14	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/10/21 16:14	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/10/21 16:14	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/10/21 16:14	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/10/21 16:14	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	71	TJ	ug/L		1.43			03/10/21 16:14	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: DW-4

Lab Sample ID: 440-280130-3

Date Collected: 03/08/21 11:44

Matrix: Water

Date Received: 03/08/21 16:50

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	3100	T J	ug/L		1.49			03/10/21 16:14	1
Unknown	44	T J	ug/L		1.89			03/10/21 16:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		68 - 135					03/10/21 16:14	1
Dibromofluoromethane (Surr)	101		80 - 120					03/10/21 16:14	1
Toluene-d8 (Surr)	99		80 - 120					03/10/21 16:14	1
4-Bromofluorobenzene (Surr)	97		71 - 120					03/10/21 16:14	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/11/21 07:51	03/13/21 11:57	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	55		15 - 150				03/11/21 07:51	03/13/21 11:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	90		46 - 128				03/11/21 07:51	03/13/21 11:57	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		2.5	1.3	mg/L			03/10/21 01:47	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	4.7		0.50	0.25	mg/L		03/12/21 08:30	03/12/21 16:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	4.7		0.20	0.10	mg/L			03/11/21 14:22	1
Chemical Oxygen Demand	ND		20	10	mg/L			03/12/21 12:35	1
Total Dissolved Solids	3000		20	10	mg/L			03/11/21 09:31	1
Total Organic Carbon	1.9		0.10	0.050	mg/L			03/10/21 06:26	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	330		4.0	4.0	mg/L			03/09/21 06:59	1

Client Sample ID: MW-6

Lab Sample ID: 440-280130-4

Date Collected: 03/08/21 10:00

Matrix: Water

Date Received: 03/08/21 16:50

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	0.32	ug/L			03/10/21 16:41	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/10/21 16:41	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/10/21 16:41	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/10/21 16:41	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/10/21 16:41	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/10/21 16:41	1
1,1-Dichloroethene	ND	*1	0.50	0.39	ug/L			03/10/21 16:41	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/10/21 16:41	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/10/21 16:41	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: MW-6

Lab Sample ID: 440-280130-4

Date Collected: 03/08/21 10:00

Matrix: Water

Date Received: 03/08/21 16:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/10/21 16:41	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/10/21 16:41	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/10/21 16:41	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/10/21 16:41	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/10/21 16:41	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/10/21 16:41	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/10/21 16:41	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/10/21 16:41	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/10/21 16:41	1
2-Hexanone	ND		6.0	4.3	ug/L			03/10/21 16:41	1
Acetone	ND		8.0	4.0	ug/L			03/10/21 16:41	1
Acetonitrile	ND		10	3.9	ug/L			03/10/21 16:41	1
Acrolein	ND		4.0	2.2	ug/L			03/10/21 16:41	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/10/21 16:41	1
Benzene	ND		0.50	0.27	ug/L			03/10/21 16:41	1
Allyl chloride	ND		2.0	0.38	ug/L			03/10/21 16:41	1
Bromoform	ND		0.50	0.39	ug/L			03/10/21 16:41	1
Bromomethane	ND		1.0	0.93	ug/L			03/10/21 16:41	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/10/21 16:41	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/10/21 16:41	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/10/21 16:41	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/10/21 16:41	1
Chloroethane	ND		0.50	0.44	ug/L			03/10/21 16:41	1
Chloroform	ND		0.50	0.28	ug/L			03/10/21 16:41	1
Chloromethane	ND		1.0	0.29	ug/L			03/10/21 16:41	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/10/21 16:41	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/10/21 16:41	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/10/21 16:41	1
Dibromomethane	ND		0.50	0.23	ug/L			03/10/21 16:41	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/10/21 16:41	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/10/21 16:41	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/10/21 16:41	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/10/21 16:41	1
Iodomethane	ND		25	5.9	ug/L			03/10/21 16:41	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/10/21 16:41	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/10/21 16:41	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/10/21 16:41	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/10/21 16:41	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/10/21 16:41	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/10/21 16:41	1
Naphthalene	ND		1.0	0.32	ug/L			03/10/21 16:41	1
o-Xylene	ND		0.50	0.35	ug/L			03/10/21 16:41	1
Propionitrile	ND		5.0	3.7	ug/L			03/10/21 16:41	1
Styrene	ND		0.50	0.28	ug/L			03/10/21 16:41	1
t-Butanol	ND		5.0	4.0	ug/L			03/10/21 16:41	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/10/21 16:41	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/10/21 16:41	1
Toluene	ND		0.50	0.33	ug/L			03/10/21 16:41	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/10/21 16:41	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: MW-6

Lab Sample ID: 440-280130-4

Date Collected: 03/08/21 10:00

Matrix: Water

Date Received: 03/08/21 16:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/10/21 16:41	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/10/21 16:41	1
Trichloroethene	ND		0.50	0.29	ug/L			03/10/21 16:41	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/10/21 16:41	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/10/21 16:41	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/10/21 16:41	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/10/21 16:41	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/10/21 16:41	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/10/21 16:41	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1300	T J	ug/L		1.49			03/10/21 16:41	1
Sulfur dioxide	1100	T J N	ug/L		1.76	7446-09-5		03/10/21 16:41	1
Sulfur dioxide	1700	T J N	ug/L		1.95	7446-09-5		03/10/21 16:41	1
Sulfur dioxide	1700	T J N	ug/L		1.96	7446-09-5		03/10/21 16:41	1
Sulfur dioxide	280	T J N	ug/L		2.08	7446-09-5		03/10/21 16:41	1
Sulfur dioxide	590	T J N	ug/L		2.10	7446-09-5		03/10/21 16:41	1
Sulfur dioxide	670	T J N	ug/L		2.19	7446-09-5		03/10/21 16:41	1
Sulfur dioxide	430	T J N	ug/L		2.29	7446-09-5		03/10/21 16:41	1
Sulfur dioxide	370	T J N	ug/L		2.37	7446-09-5		03/10/21 16:41	1
Sulfur dioxide	150	T J N	ug/L		2.65	7446-09-5		03/10/21 16:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		68 - 135		03/10/21 16:41	1
Dibromofluoromethane (Surr)	102		80 - 120		03/10/21 16:41	1
Toluene-d8 (Surr)	100		80 - 120		03/10/21 16:41	1
4-Bromofluorobenzene (Surr)	107		71 - 120		03/10/21 16:41	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/11/21 07:51	03/13/21 12:12	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	51		15 - 150	03/11/21 07:51	03/13/21 12:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	88		46 - 128	03/11/21 07:51	03/13/21 12:12	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35		5.0	2.5	mg/L			03/10/21 02:06	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	5.6		0.50	0.25	mg/L		03/12/21 08:30	03/12/21 16:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	0.98		0.20	0.10	mg/L			03/11/21 14:27	1
Chemical Oxygen Demand	ND		20	10	mg/L			03/12/21 12:36	1
Total Dissolved Solids	3400		20	10	mg/L			03/11/21 09:31	1
Total Organic Carbon	5.2		0.10	0.050	mg/L			03/10/21 06:42	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: MW-6
Date Collected: 03/08/21 10:00
Date Received: 03/08/21 16:50

Lab Sample ID: 440-280130-4
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	460		4.0	4.0	mg/L			03/09/21 07:09	1

Client Sample ID: MW-14
Date Collected: 03/08/21 10:47
Date Received: 03/08/21 16:50

Lab Sample ID: 440-280130-5
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	0.32	ug/L			03/10/21 17:08	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/10/21 17:08	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/10/21 17:08	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/10/21 17:08	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/10/21 17:08	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/10/21 17:08	1
1,1-Dichloroethene	ND	*1	0.50	0.39	ug/L			03/10/21 17:08	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/10/21 17:08	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/10/21 17:08	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/10/21 17:08	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/10/21 17:08	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/10/21 17:08	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/10/21 17:08	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/10/21 17:08	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/10/21 17:08	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/10/21 17:08	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/10/21 17:08	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/10/21 17:08	1
2-Hexanone	ND		6.0	4.3	ug/L			03/10/21 17:08	1
Acetone	ND		8.0	4.0	ug/L			03/10/21 17:08	1
Acetonitrile	ND		10	3.9	ug/L			03/10/21 17:08	1
Acrolein	ND		4.0	2.2	ug/L			03/10/21 17:08	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/10/21 17:08	1
Benzene	ND		0.50	0.27	ug/L			03/10/21 17:08	1
Allyl chloride	ND		2.0	0.38	ug/L			03/10/21 17:08	1
Bromoform	ND		0.50	0.39	ug/L			03/10/21 17:08	1
Bromomethane	ND		1.0	0.93	ug/L			03/10/21 17:08	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/10/21 17:08	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/10/21 17:08	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/10/21 17:08	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/10/21 17:08	1
Chloroethane	ND		0.50	0.44	ug/L			03/10/21 17:08	1
Chloroform	ND		0.50	0.28	ug/L			03/10/21 17:08	1
Chloromethane	ND		1.0	0.29	ug/L			03/10/21 17:08	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/10/21 17:08	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/10/21 17:08	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/10/21 17:08	1
Dibromomethane	ND		0.50	0.23	ug/L			03/10/21 17:08	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/10/21 17:08	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/10/21 17:08	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/10/21 17:08	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/10/21 17:08	1
Iodomethane	ND		25	5.9	ug/L			03/10/21 17:08	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: MW-14

Lab Sample ID: 440-280130-5

Date Collected: 03/08/21 10:47

Matrix: Water

Date Received: 03/08/21 16:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isobutyl alcohol	ND		25	5.7	ug/L			03/10/21 17:08	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/10/21 17:08	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/10/21 17:08	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/10/21 17:08	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/10/21 17:08	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/10/21 17:08	1
Naphthalene	ND		1.0	0.32	ug/L			03/10/21 17:08	1
o-Xylene	ND		0.50	0.35	ug/L			03/10/21 17:08	1
Propionitrile	ND		5.0	3.7	ug/L			03/10/21 17:08	1
Styrene	ND		0.50	0.28	ug/L			03/10/21 17:08	1
t-Butanol	ND		5.0	4.0	ug/L			03/10/21 17:08	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/10/21 17:08	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/10/21 17:08	1
Toluene	ND		0.50	0.33	ug/L			03/10/21 17:08	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/10/21 17:08	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/10/21 17:08	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/10/21 17:08	1
Trichloroethene	ND		0.50	0.29	ug/L			03/10/21 17:08	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/10/21 17:08	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/10/21 17:08	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/10/21 17:08	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/10/21 17:08	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/10/21 17:08	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/10/21 17:08	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	2100	T J	ug/L		1.49			03/10/21 17:08	1
Sulfur dioxide	170	T J N	ug/L		1.76	7446-09-5		03/10/21 17:08	1
Unknown	28	T J	ug/L		1.82			03/10/21 17:08	1
Unknown	23	T J	ug/L		1.88			03/10/21 17:08	1
Ethane, 1-chloro-1-fluoro-	210	T J N	ug/L		2.29	1615-75-4		03/10/21 17:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		68 - 135		03/10/21 17:08	1
Dibromofluoromethane (Surr)	100		80 - 120		03/10/21 17:08	1
Toluene-d8 (Surr)	96		80 - 120		03/10/21 17:08	1
4-Bromofluorobenzene (Surr)	101		71 - 120		03/10/21 17:08	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/11/21 07:51	03/15/21 21:32	1
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8	41		15 - 150	03/11/21 07:51	03/15/21 21:32	1			
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Nitrobenzene-d5 (Surr)	109		46 - 128	03/11/21 07:51	03/15/21 21:32	1			

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		5.0	2.5	mg/L			03/10/21 02:24	10

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: MW-14

Lab Sample ID: 440-280130-5

Date Collected: 03/08/21 10:47

Matrix: Water

Date Received: 03/08/21 16:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	8.7		0.50	0.25	mg/L		03/12/21 08:30	03/12/21 16:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			03/11/21 14:33	1
Chemical Oxygen Demand	ND		20	10	mg/L			03/12/21 12:36	1
Total Dissolved Solids	3300		20	10	mg/L			03/11/21 09:31	1
Total Organic Carbon	4.5		0.10	0.050	mg/L			03/10/21 06:58	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	310		4.0	4.0	mg/L			03/09/21 07:19	1

Client Sample ID: DW-1

Lab Sample ID: 440-280130-6

Date Collected: 03/08/21 11:35

Matrix: Water

Date Received: 03/08/21 16:50

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	0.32	ug/L			03/10/21 17:35	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/10/21 17:35	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/10/21 17:35	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/10/21 17:35	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/10/21 17:35	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/10/21 17:35	1
1,1-Dichloroethene	ND	*1	0.50	0.39	ug/L			03/10/21 17:35	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/10/21 17:35	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/10/21 17:35	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/10/21 17:35	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/10/21 17:35	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/10/21 17:35	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/10/21 17:35	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/10/21 17:35	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/10/21 17:35	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/10/21 17:35	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/10/21 17:35	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/10/21 17:35	1
2-Hexanone	ND		6.0	4.3	ug/L			03/10/21 17:35	1
Acetone	ND		8.0	4.0	ug/L			03/10/21 17:35	1
Acetonitrile	ND		10	3.9	ug/L			03/10/21 17:35	1
Acrolein	ND		4.0	2.2	ug/L			03/10/21 17:35	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/10/21 17:35	1
Benzene	ND		0.50	0.27	ug/L			03/10/21 17:35	1
Allyl chloride	ND		2.0	0.38	ug/L			03/10/21 17:35	1
Bromoform	ND		0.50	0.39	ug/L			03/10/21 17:35	1
Bromomethane	ND		1.0	0.93	ug/L			03/10/21 17:35	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/10/21 17:35	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/10/21 17:35	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/10/21 17:35	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/10/21 17:35	1
Chloroethane	ND		0.50	0.44	ug/L			03/10/21 17:35	1
Chloroform	ND		0.50	0.28	ug/L			03/10/21 17:35	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: DW-1

Lab Sample ID: 440-280130-6

Date Collected: 03/08/21 11:35

Matrix: Water

Date Received: 03/08/21 16:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.29	ug/L			03/10/21 17:35	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/10/21 17:35	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/10/21 17:35	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/10/21 17:35	1
Dibromomethane	ND		0.50	0.23	ug/L			03/10/21 17:35	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/10/21 17:35	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/10/21 17:35	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/10/21 17:35	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/10/21 17:35	1
Iodomethane	ND		25	5.9	ug/L			03/10/21 17:35	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/10/21 17:35	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/10/21 17:35	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/10/21 17:35	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/10/21 17:35	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/10/21 17:35	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/10/21 17:35	1
Naphthalene	ND		1.0	0.32	ug/L			03/10/21 17:35	1
o-Xylene	ND		0.50	0.35	ug/L			03/10/21 17:35	1
Propionitrile	ND		5.0	3.7	ug/L			03/10/21 17:35	1
Styrene	ND		0.50	0.28	ug/L			03/10/21 17:35	1
t-Butanol	ND		5.0	4.0	ug/L			03/10/21 17:35	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/10/21 17:35	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/10/21 17:35	1
Toluene	ND		0.50	0.33	ug/L			03/10/21 17:35	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/10/21 17:35	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/10/21 17:35	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/10/21 17:35	1
Trichloroethene	ND		0.50	0.29	ug/L			03/10/21 17:35	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/10/21 17:35	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/10/21 17:35	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/10/21 17:35	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/10/21 17:35	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/10/21 17:35	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/10/21 17:35	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	38	T J	ug/L		1.43			03/10/21 17:35	1
Unknown	33	T J	ug/L		1.45			03/10/21 17:35	1
Unknown	1100	T J	ug/L		1.49			03/10/21 17:35	1
Unknown	92	T J	ug/L		1.77			03/10/21 17:35	1
Unknown	17	T J	ug/L		1.89			03/10/21 17:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		68 - 135		03/10/21 17:35	1
Dibromofluoromethane (Surr)	100		80 - 120		03/10/21 17:35	1
Toluene-d8 (Surr)	98		80 - 120		03/10/21 17:35	1
4-Bromofluorobenzene (Surr)	99		71 - 120		03/10/21 17:35	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: DW-1

Lab Sample ID: 440-280130-6

Date Collected: 03/08/21 11:35

Matrix: Water

Date Received: 03/08/21 16:50

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/11/21 07:51	03/15/21 21:47	1
Isotope Dilution									
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	53		15 - 150				03/11/21 07:51	03/15/21 21:47	1
Surrogate									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	109		46 - 128				03/11/21 07:51	03/15/21 21:47	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		2.5	1.3	mg/L			03/10/21 02:42	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	3.0		0.50	0.25	mg/L		03/12/21 08:30	03/12/21 16:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	2.3		0.20	0.10	mg/L			03/11/21 14:38	1
Chemical Oxygen Demand	ND		20	10	mg/L			03/12/21 12:36	1
Total Dissolved Solids	3300		50	25	mg/L			03/11/21 09:31	1
Total Organic Carbon	3.6		0.10	0.050	mg/L			03/10/21 08:26	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	530		4.0	4.0	mg/L			03/09/21 07:30	1

Client Sample ID: Duplicate

Lab Sample ID: 440-280130-7

Date Collected: 03/08/21 00:01

Matrix: Water

Date Received: 03/08/21 16:50

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	0.32	ug/L			03/10/21 18:02	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/10/21 18:02	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/10/21 18:02	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/10/21 18:02	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/10/21 18:02	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/10/21 18:02	1
1,1-Dichloroethene	ND	*1	0.50	0.39	ug/L			03/10/21 18:02	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/10/21 18:02	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/10/21 18:02	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/10/21 18:02	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/10/21 18:02	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/10/21 18:02	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/10/21 18:02	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/10/21 18:02	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/10/21 18:02	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/10/21 18:02	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/10/21 18:02	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/10/21 18:02	1
2-Hexanone	ND		6.0	4.3	ug/L			03/10/21 18:02	1
Acetone	ND		8.0	4.0	ug/L			03/10/21 18:02	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: Duplicate

Lab Sample ID: 440-280130-7

Date Collected: 03/08/21 00:01

Matrix: Water

Date Received: 03/08/21 16:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetonitrile	ND		10	3.9	ug/L			03/10/21 18:02	1
Acrolein	ND		4.0	2.2	ug/L			03/10/21 18:02	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/10/21 18:02	1
Benzene	ND		0.50	0.27	ug/L			03/10/21 18:02	1
Allyl chloride	ND		2.0	0.38	ug/L			03/10/21 18:02	1
Bromoform	ND		0.50	0.39	ug/L			03/10/21 18:02	1
Bromomethane	ND		1.0	0.93	ug/L			03/10/21 18:02	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/10/21 18:02	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/10/21 18:02	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/10/21 18:02	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/10/21 18:02	1
Chloroethane	ND		0.50	0.44	ug/L			03/10/21 18:02	1
Chloroform	ND		0.50	0.28	ug/L			03/10/21 18:02	1
Chloromethane	ND		1.0	0.29	ug/L			03/10/21 18:02	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/10/21 18:02	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/10/21 18:02	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/10/21 18:02	1
Dibromomethane	ND		0.50	0.23	ug/L			03/10/21 18:02	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/10/21 18:02	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/10/21 18:02	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/10/21 18:02	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/10/21 18:02	1
Iodomethane	ND		25	5.9	ug/L			03/10/21 18:02	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/10/21 18:02	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/10/21 18:02	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/10/21 18:02	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/10/21 18:02	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/10/21 18:02	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/10/21 18:02	1
Naphthalene	ND		1.0	0.32	ug/L			03/10/21 18:02	1
o-Xylene	ND		0.50	0.35	ug/L			03/10/21 18:02	1
Propionitrile	ND		5.0	3.7	ug/L			03/10/21 18:02	1
Styrene	ND		0.50	0.28	ug/L			03/10/21 18:02	1
t-Butanol	ND		5.0	4.0	ug/L			03/10/21 18:02	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/10/21 18:02	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/10/21 18:02	1
Toluene	ND		0.50	0.33	ug/L			03/10/21 18:02	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/10/21 18:02	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/10/21 18:02	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/10/21 18:02	1
Trichloroethene	ND		0.50	0.29	ug/L			03/10/21 18:02	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/10/21 18:02	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/10/21 18:02	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/10/21 18:02	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/10/21 18:02	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/10/21 18:02	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/10/21 18:02	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	42	T J	ug/L		1.43			03/10/21 18:02	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: Duplicate

Lab Sample ID: 440-280130-7

Date Collected: 03/08/21 00:01

Matrix: Water

Date Received: 03/08/21 16:50

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	2000	T J	ug/L		1.49			03/10/21 18:02	1
Unknown	25	T J	ug/L		1.76			03/10/21 18:02	1
Unknown	36	T J	ug/L		1.89			03/10/21 18:02	1
Ethane, 1-chloro-1-fluoro-	190	T J N	ug/L		2.29	1615-75-4		03/10/21 18:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		68 - 135					03/10/21 18:02	1
Dibromofluoromethane (Surr)	97		80 - 120					03/10/21 18:02	1
Toluene-d8 (Surr)	98		80 - 120					03/10/21 18:02	1
4-Bromofluorobenzene (Surr)	98		71 - 120					03/10/21 18:02	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/11/21 07:51	03/15/21 22:02	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	53		15 - 150				03/11/21 07:51	03/15/21 22:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	114		46 - 128				03/11/21 07:51	03/15/21 22:02	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		2.5	1.3	mg/L			03/10/21 03:00	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	8.9		0.50	0.25	mg/L		03/12/21 08:30	03/12/21 16:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			03/11/21 14:43	1
Chemical Oxygen Demand	10	J	20	10	mg/L			03/12/21 12:36	1
Total Dissolved Solids	3300		20	10	mg/L			03/11/21 09:31	1
Total Organic Carbon	4.6		0.10	0.050	mg/L			03/10/21 08:42	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	310		4.0	4.0	mg/L			03/09/21 07:40	1

Client Sample ID: Field Blank

Lab Sample ID: 440-280130-8

Date Collected: 03/08/21 00:01

Matrix: Water

Date Received: 03/08/21 16:50

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	0.32	ug/L			03/10/21 18:29	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/10/21 18:29	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/10/21 18:29	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/10/21 18:29	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/10/21 18:29	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/10/21 18:29	1
1,1-Dichloroethene	ND	*1	0.50	0.39	ug/L			03/10/21 18:29	1

Eurofins Calscience Irvine

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: Field Blank

Lab Sample ID: 440-280130-8

Date Collected: 03/08/21 00:01

Matrix: Water

Date Received: 03/08/21 16:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/10/21 18:29	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/10/21 18:29	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/10/21 18:29	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/10/21 18:29	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/10/21 18:29	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/10/21 18:29	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/10/21 18:29	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/10/21 18:29	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/10/21 18:29	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/10/21 18:29	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/10/21 18:29	1
2-Hexanone	ND		6.0	4.3	ug/L			03/10/21 18:29	1
Acetone	ND		8.0	4.0	ug/L			03/10/21 18:29	1
Acetonitrile	ND		10	3.9	ug/L			03/10/21 18:29	1
Acrolein	ND		4.0	2.2	ug/L			03/10/21 18:29	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/10/21 18:29	1
Benzene	ND		0.50	0.27	ug/L			03/10/21 18:29	1
Allyl chloride	ND		2.0	0.38	ug/L			03/10/21 18:29	1
Bromoform	ND		0.50	0.39	ug/L			03/10/21 18:29	1
Bromomethane	ND		1.0	0.93	ug/L			03/10/21 18:29	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/10/21 18:29	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/10/21 18:29	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/10/21 18:29	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/10/21 18:29	1
Chloroethane	ND		0.50	0.44	ug/L			03/10/21 18:29	1
Chloroform	ND		0.50	0.28	ug/L			03/10/21 18:29	1
Chloromethane	ND		1.0	0.29	ug/L			03/10/21 18:29	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/10/21 18:29	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/10/21 18:29	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/10/21 18:29	1
Dibromomethane	ND		0.50	0.23	ug/L			03/10/21 18:29	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/10/21 18:29	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/10/21 18:29	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/10/21 18:29	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/10/21 18:29	1
Iodomethane	ND		25	5.9	ug/L			03/10/21 18:29	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/10/21 18:29	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/10/21 18:29	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/10/21 18:29	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/10/21 18:29	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/10/21 18:29	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/10/21 18:29	1
Naphthalene	ND		1.0	0.32	ug/L			03/10/21 18:29	1
o-Xylene	ND		0.50	0.35	ug/L			03/10/21 18:29	1
Propionitrile	ND		5.0	3.7	ug/L			03/10/21 18:29	1
Styrene	ND		0.50	0.28	ug/L			03/10/21 18:29	1
t-Butanol	ND		5.0	4.0	ug/L			03/10/21 18:29	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/10/21 18:29	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/10/21 18:29	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: Field Blank

Lab Sample ID: 440-280130-8

Date Collected: 03/08/21 00:01

Matrix: Water

Date Received: 03/08/21 16:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		0.50	0.33	ug/L			03/10/21 18:29	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/10/21 18:29	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/10/21 18:29	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/10/21 18:29	1
Trichloroethene	ND		0.50	0.29	ug/L			03/10/21 18:29	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/10/21 18:29	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/10/21 18:29	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/10/21 18:29	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/10/21 18:29	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/10/21 18:29	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/10/21 18:29	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	67	T J	ug/L		1.42			03/10/21 18:29	1
Unknown	22	T J	ug/L		1.45			03/10/21 18:29	1
Unknown	780	T J	ug/L		1.49			03/10/21 18:29	1
Unknown	27	T J	ug/L		1.88			03/10/21 18:29	1
Cyclobutanol	17	T J N	ug/L		3.36	2919-23-5		03/10/21 18:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		68 - 135		03/10/21 18:29	1
Dibromofluoromethane (Surr)	99		80 - 120		03/10/21 18:29	1
Toluene-d8 (Surr)	98		80 - 120		03/10/21 18:29	1
4-Bromofluorobenzene (Surr)	99		71 - 120		03/10/21 18:29	1

Client Sample ID: Trip Blank

Lab Sample ID: 440-280130-9

Date Collected: 03/08/21 00:01

Matrix: Water

Date Received: 03/08/21 16:50

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	0.32	ug/L			03/10/21 18:56	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/10/21 18:56	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/10/21 18:56	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/10/21 18:56	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/10/21 18:56	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/10/21 18:56	1
1,1-Dichloroethene	ND	*1	0.50	0.39	ug/L			03/10/21 18:56	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/10/21 18:56	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/10/21 18:56	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/10/21 18:56	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/10/21 18:56	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/10/21 18:56	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/10/21 18:56	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/10/21 18:56	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/10/21 18:56	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/10/21 18:56	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/10/21 18:56	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/10/21 18:56	1
2-Hexanone	ND		6.0	4.3	ug/L			03/10/21 18:56	1

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-280130-9

Date Collected: 03/08/21 00:01

Matrix: Water

Date Received: 03/08/21 16:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		8.0	4.0	ug/L			03/10/21 18:56	1
Acetonitrile	ND		10	3.9	ug/L			03/10/21 18:56	1
Acrolein	ND		4.0	2.2	ug/L			03/10/21 18:56	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/10/21 18:56	1
Benzene	ND		0.50	0.27	ug/L			03/10/21 18:56	1
Allyl chloride	ND		2.0	0.38	ug/L			03/10/21 18:56	1
Bromoform	ND		0.50	0.39	ug/L			03/10/21 18:56	1
Bromomethane	ND		1.0	0.93	ug/L			03/10/21 18:56	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/10/21 18:56	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/10/21 18:56	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/10/21 18:56	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/10/21 18:56	1
Chloroethane	ND		0.50	0.44	ug/L			03/10/21 18:56	1
Chloroform	ND		0.50	0.28	ug/L			03/10/21 18:56	1
Chloromethane	ND		1.0	0.29	ug/L			03/10/21 18:56	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/10/21 18:56	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/10/21 18:56	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/10/21 18:56	1
Dibromomethane	ND		0.50	0.23	ug/L			03/10/21 18:56	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/10/21 18:56	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/10/21 18:56	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/10/21 18:56	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/10/21 18:56	1
Iodomethane	ND		25	5.9	ug/L			03/10/21 18:56	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/10/21 18:56	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/10/21 18:56	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/10/21 18:56	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/10/21 18:56	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/10/21 18:56	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/10/21 18:56	1
Naphthalene	ND		1.0	0.32	ug/L			03/10/21 18:56	1
o-Xylene	ND		0.50	0.35	ug/L			03/10/21 18:56	1
Propionitrile	ND		5.0	3.7	ug/L			03/10/21 18:56	1
Styrene	ND		0.50	0.28	ug/L			03/10/21 18:56	1
t-Butanol	ND		5.0	4.0	ug/L			03/10/21 18:56	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/10/21 18:56	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/10/21 18:56	1
Toluene	ND		0.50	0.33	ug/L			03/10/21 18:56	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/10/21 18:56	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/10/21 18:56	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/10/21 18:56	1
Trichloroethene	ND		0.50	0.29	ug/L			03/10/21 18:56	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/10/21 18:56	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/10/21 18:56	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/10/21 18:56	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/10/21 18:56	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/10/21 18:56	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/10/21 18:56	1

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-280130-9

Date Collected: 03/08/21 00:01

Matrix: Water

Date Received: 03/08/21 16:50

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Unknown	35	TJ	ug/L		1.42			03/10/21 18:56	1
Unknown	73	TJ	ug/L		1.44			03/10/21 18:56	1
Unknown	930	TJ	ug/L		1.49			03/10/21 18:56	1
Unknown	46	TJ	ug/L		1.61			03/10/21 18:56	1
Unknown	44	TJ	ug/L		1.63			03/10/21 18:56	1
Unknown	40	TJ	ug/L		1.68			03/10/21 18:56	1
Unknown	37	TJ	ug/L		1.70			03/10/21 18:56	1
Unknown	39	TJ	ug/L		1.77			03/10/21 18:56	1
Unknown	23	TJ	ug/L		1.83			03/10/21 18:56	1
Unknown	35	TJ	ug/L		1.89			03/10/21 18:56	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	98		68 - 135					03/10/21 18:56	1
Dibromofluoromethane (Surr)	97		80 - 120					03/10/21 18:56	1
Toluene-d8 (Surr)	99		80 - 120					03/10/21 18:56	1
4-Bromofluorobenzene (Surr)	89		71 - 120					03/10/21 18:56	1

Method Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
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 5310C	TOC	SM	TAL IRV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL IRV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

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:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494
TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: MW-2A

Lab Sample ID: 440-280130-1

Date Collected: 03/08/21 09:30

Matrix: Water

Date Received: 03/08/21 16:50

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	20 mL	20 mL	135110	03/11/21 14:51	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	135116	03/11/21 07:51	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			135624	03/13/21 11:28	ULLI	ECL 1
Total/NA	Analysis	300.0		10			640744	03/10/21 00:35	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	641136	03/12/21 08:30	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641211	03/12/21 16:02	VZ0K	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	641076	03/11/21 14:02	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	641176	03/12/21 12:35	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640736	03/09/21 06:30	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	641018	03/11/21 09:31	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	640980	03/10/21 05:56	YO8L	TAL IRV

Client Sample ID: MW-2B

Lab Sample ID: 440-280130-2

Date Collected: 03/08/21 10:32

Matrix: Water

Date Received: 03/08/21 16:50

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	20 mL	20 mL	134879	03/10/21 15:48	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	135116	03/11/21 07:51	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			135624	03/13/21 11:43	ULLI	ECL 1
Total/NA	Analysis	300.0		5			640744	03/10/21 01:29	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	641136	03/12/21 08:30	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641211	03/12/21 16:19	VZ0K	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	641076	03/11/21 14:08	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	641176	03/12/21 12:35	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640736	03/09/21 06:50	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	641018	03/11/21 09:31	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	640980	03/10/21 06:12	YO8L	TAL IRV

Client Sample ID: DW-4

Lab Sample ID: 440-280130-3

Date Collected: 03/08/21 11:44

Matrix: Water

Date Received: 03/08/21 16:50

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	20 mL	20 mL	134879	03/10/21 16:14	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	135116	03/11/21 07:51	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			135624	03/13/21 11:57	ULLI	ECL 1
Total/NA	Analysis	300.0		5			640744	03/10/21 01:47	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	641136	03/12/21 08:30	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641211	03/12/21 16:22	VZ0K	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	641076	03/11/21 14:22	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	641176	03/12/21 12:35	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640736	03/09/21 06:59	YO8L	TAL IRV

Eurofins Calscience Irvine

Lab Chronicle

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: DW-4

Lab Sample ID: 440-280130-3

Date Collected: 03/08/21 11:44

Matrix: Water

Date Received: 03/08/21 16:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	641018	03/11/21 09:31	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	640980	03/10/21 06:26	YO8L	TAL IRV

Client Sample ID: MW-6

Lab Sample ID: 440-280130-4

Date Collected: 03/08/21 10:00

Matrix: Water

Date Received: 03/08/21 16:50

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	20 mL	20 mL	134879	03/10/21 16:41	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	135116	03/11/21 07:51	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			135624	03/13/21 12:12	ULLI	ECL 1
Total/NA	Analysis	300.0		10			640744	03/10/21 02:06	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	641136	03/12/21 08:30	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641211	03/12/21 16:24	VZ0K	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	641076	03/11/21 14:27	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	641176	03/12/21 12:36	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640736	03/09/21 07:09	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	641018	03/11/21 09:31	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	640980	03/10/21 06:42	YO8L	TAL IRV

Client Sample ID: MW-14

Lab Sample ID: 440-280130-5

Date Collected: 03/08/21 10:47

Matrix: Water

Date Received: 03/08/21 16:50

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	20 mL	20 mL	134879	03/10/21 17:08	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	135116	03/11/21 07:51	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			136068	03/15/21 21:32	ULLI	ECL 1
Total/NA	Analysis	300.0		10			640744	03/10/21 02:24	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	641136	03/12/21 08:30	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641211	03/12/21 16:26	VZ0K	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	641076	03/11/21 14:33	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	641176	03/12/21 12:36	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640736	03/09/21 07:19	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	641018	03/11/21 09:31	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	640980	03/10/21 06:58	YO8L	TAL IRV

Client Sample ID: DW-1

Lab Sample ID: 440-280130-6

Date Collected: 03/08/21 11:35

Matrix: Water

Date Received: 03/08/21 16:50

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	20 mL	20 mL	134879	03/10/21 17:35	UJHB	ECL 2

Lab Chronicle

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Client Sample ID: DW-1

Lab Sample ID: 440-280130-6

Date Collected: 03/08/21 11:35

Matrix: Water

Date Received: 03/08/21 16:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			100.0 mL	10 mL	135116	03/11/21 07:51	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			136068	03/15/21 21:47	ULLI	ECL 1
Total/NA	Analysis	300.0		5			640744	03/10/21 02:42	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	641136	03/12/21 08:30	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641211	03/12/21 16:29	VZ0K	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	641076	03/11/21 14:38	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	641176	03/12/21 12:36	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640736	03/09/21 07:30	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	641018	03/11/21 09:31	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	640980	03/10/21 08:26	YO8L	TAL IRV

Client Sample ID: Duplicate

Lab Sample ID: 440-280130-7

Date Collected: 03/08/21 00:01

Matrix: Water

Date Received: 03/08/21 16:50

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	20 mL	20 mL	134879	03/10/21 18:02	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	135116	03/11/21 07:51	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			136068	03/15/21 22:02	ULLI	ECL 1
Total/NA	Analysis	300.0	DL	50			640744	03/09/21 23:41	NIH3	TAL IRV
Total/NA	Analysis	300.0		5			640744	03/10/21 03:00	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	641136	03/12/21 08:30	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641211	03/12/21 16:31	VZ0K	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	641076	03/11/21 14:43	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	641176	03/12/21 12:36	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640736	03/09/21 07:40	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	641018	03/11/21 09:31	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	640980	03/10/21 08:42	YO8L	TAL IRV

Client Sample ID: Field Blank

Lab Sample ID: 440-280130-8

Date Collected: 03/08/21 00:01

Matrix: Water

Date Received: 03/08/21 16:50

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	20 mL	20 mL	134879	03/10/21 18:29	UJHB	ECL 2

Client Sample ID: Trip Blank

Lab Sample ID: 440-280130-9

Date Collected: 03/08/21 00:01

Matrix: Water

Date Received: 03/08/21 16:50

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	20 mL	20 mL	134879	03/10/21 18:56	UJHB	ECL 2

Lab Chronicle

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

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

Lab Sample ID: MB 570-134879/7
Matrix: Water
Analysis Batch: 134879

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			03/10/21 10:25	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/10/21 10:25	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/10/21 10:25	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/10/21 10:25	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/10/21 10:25	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/10/21 10:25	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/10/21 10:25	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/10/21 10:25	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/10/21 10:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/10/21 10:25	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/10/21 10:25	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/10/21 10:25	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/10/21 10:25	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/10/21 10:25	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/10/21 10:25	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/10/21 10:25	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/10/21 10:25	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/10/21 10:25	1
2-Hexanone	ND		6.0	4.3	ug/L			03/10/21 10:25	1
Acetone	ND		8.0	4.0	ug/L			03/10/21 10:25	1
Acetonitrile	ND		10	3.9	ug/L			03/10/21 10:25	1
Acrolein	ND		4.0	2.2	ug/L			03/10/21 10:25	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/10/21 10:25	1
Benzene	ND		0.50	0.27	ug/L			03/10/21 10:25	1
Allyl chloride	ND		2.0	0.38	ug/L			03/10/21 10:25	1
Bromoform	ND		0.50	0.39	ug/L			03/10/21 10:25	1
Bromomethane	ND		1.0	0.93	ug/L			03/10/21 10:25	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/10/21 10:25	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/10/21 10:25	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/10/21 10:25	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/10/21 10:25	1
Chloroethane	ND		0.50	0.44	ug/L			03/10/21 10:25	1
Chloroform	ND		0.50	0.28	ug/L			03/10/21 10:25	1
Chloromethane	ND		1.0	0.29	ug/L			03/10/21 10:25	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/10/21 10:25	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/10/21 10:25	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/10/21 10:25	1
Dibromomethane	ND		0.50	0.23	ug/L			03/10/21 10:25	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/10/21 10:25	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/10/21 10:25	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/10/21 10:25	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/10/21 10:25	1
Iodomethane	ND		25	5.9	ug/L			03/10/21 10:25	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/10/21 10:25	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/10/21 10:25	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/10/21 10:25	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/10/21 10:25	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/10/21 10:25	1

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

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

Lab Sample ID: MB 570-134879/7
Matrix: Water
Analysis Batch: 134879

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/10/21 10:25	1
Naphthalene	ND		1.0	0.32	ug/L			03/10/21 10:25	1
o-Xylene	ND		0.50	0.35	ug/L			03/10/21 10:25	1
Propionitrile	ND		5.0	3.7	ug/L			03/10/21 10:25	1
Styrene	ND		0.50	0.28	ug/L			03/10/21 10:25	1
t-Butanol	ND		5.0	4.0	ug/L			03/10/21 10:25	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/10/21 10:25	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/10/21 10:25	1
Toluene	ND		0.50	0.33	ug/L			03/10/21 10:25	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/10/21 10:25	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/10/21 10:25	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/10/21 10:25	1
Trichloroethene	ND		0.50	0.29	ug/L			03/10/21 10:25	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/10/21 10:25	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/10/21 10:25	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/10/21 10:25	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/10/21 10:25	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/10/21 10:25	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/10/21 10:25	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					03/10/21 10:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		68 - 135		03/10/21 10:25	1
Dibromofluoromethane (Surr)	94		80 - 120		03/10/21 10:25	1
Toluene-d8 (Surr)	98		80 - 120		03/10/21 10:25	1
4-Bromofluorobenzene (Surr)	103		71 - 120		03/10/21 10:25	1

Lab Sample ID: LCS 570-134879/4
Matrix: Water
Analysis Batch: 134879

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	10.0	11.1		ug/L		111	66 - 131
1,1,1,2-Tetrachloroethane	10.0	10.8		ug/L		108	76 - 143
1,1,1-Trichloroethane	10.0	10.2		ug/L		102	75 - 128
1,1,2,2-Tetrachloroethane	10.0	10.3		ug/L		103	73 - 126
1,1,2-Trichloroethane	10.0	9.87		ug/L		99	80 - 120
1,1-Dichloroethane	10.0	10.2		ug/L		102	76 - 120
1,1-Dichloroethene	10.0	10.3		ug/L		103	72 - 120
1,1-Dichloropropene	10.0	10.7		ug/L		107	76 - 120
1,2,4-Trichlorobenzene	10.0	11.1		ug/L		111	80 - 123
1,2-Dibromo-3-Chloropropane	10.0	8.67		ug/L		87	77 - 120
1,2-Dichlorobenzene	10.0	10.8		ug/L		108	79 - 123
1,2-Dichloroethane	10.0	10.7		ug/L		107	71 - 137
1,2-Dichloropropane	10.0	11.0		ug/L		110	80 - 120
1,3-Dichlorobenzene	10.0	11.3		ug/L		113	79 - 123

Eurofins Calscience Irvine

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

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

Lab Sample ID: LCS 570-134879/4
Matrix: Water
Analysis Batch: 134879

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	10.0	10.8		ug/L		108	80 - 123
1,4-Dichlorobenzene	10.0	10.7		ug/L		107	75 - 123
2,2-Dichloropropane	10.0	11.7		ug/L		117	78 - 133
2-Hexanone	10.0	10.6		ug/L		106	57 - 127
Acetone	10.0	8.54		ug/L		85	57 - 133
Acrolein	20.0	20.3		ug/L		102	54 - 137
Acrylonitrile	10.0	9.68		ug/L		97	58 - 123
Benzene	10.0	10.7		ug/L		107	80 - 120
Bromoform	10.0	10.7		ug/L		107	46 - 178
Bromomethane	10.0	11.6		ug/L		116	52 - 162
Carbon disulfide	10.0	9.96		ug/L		100	66 - 125
Carbon tetrachloride	10.0	10.8		ug/L		108	69 - 145
Chlorobenzene	10.0	11.0		ug/L		110	80 - 120
Bromochloromethane	10.0	10.5		ug/L		105	76 - 125
Chloroethane	10.0	10.5		ug/L		105	73 - 139
Chloroform	10.0	10.6		ug/L		106	80 - 120
Chloromethane	10.0	9.28		ug/L		93	35 - 159
cis-1,2-Dichloroethene	10.0	10.8		ug/L		108	76 - 122
cis-1,3-Dichloropropene	10.0	10.8		ug/L		108	80 - 122
Dibromochloromethane	10.0	10.7		ug/L		107	63 - 151
Dibromomethane	10.0	10.8		ug/L		108	80 - 121
Bromodichloromethane	10.0	11.0		ug/L		110	77 - 141
Dichlorodifluoromethane	10.0	9.51		ug/L		95	59 - 139
Ethylbenzene	10.0	11.3		ug/L		113	80 - 120
m,p-Xylene	20.0	22.8		ug/L		114	80 - 122
Methylene Chloride	10.0	9.62		ug/L		96	70 - 120
Methyl tert-butyl ether	10.0	10.1		ug/L		101	72 - 120
Naphthalene	10.0	10.9		ug/L		109	75 - 120
o-Xylene	10.0	11.9		ug/L		119	80 - 122
Styrene	10.0	11.6		ug/L		116	80 - 121
t-Butanol	50.0	51.3		ug/L		103	65 - 147
Tetrachloroethene	10.0	11.2		ug/L		112	80 - 128
Toluene	10.0	10.7		ug/L		107	80 - 120
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	67 - 123
trans-1,3-Dichloropropene	10.0	11.4		ug/L		114	78 - 140
Trichloroethene	10.0	10.8		ug/L		108	80 - 123
Trichlorofluoromethane	10.0	10.6		ug/L		106	64 - 168
Vinyl acetate	10.0	12.4		ug/L		124	75 - 144
Vinyl chloride	10.0	10.5		ug/L		105	74 - 130
1,2-Dibromoethane (EDB)	10.0	10.7		ug/L		107	80 - 120
2-Butanone (MEK)	10.0	8.27		ug/L		83	32 - 133
4-Methyl-2-pentanone (MIBK)	10.0	9.58		ug/L		96	68 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	97		68 - 135
Dibromofluoromethane (Surr)	98		80 - 120
Toluene-d8 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	101		71 - 120

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

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

Lab Sample ID: LCSD 570-134879/5
Matrix: Water
Analysis Batch: 134879

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	10.0	10.5		ug/L		105	66 - 131	5	20
1,1,1,2-Tetrachloroethane	10.0	10.4		ug/L		104	76 - 143	4	20
1,1,1-Trichloroethane	10.0	9.79		ug/L		98	75 - 128	4	20
1,1,2,2-Tetrachloroethane	10.0	9.79		ug/L		98	73 - 126	5	21
1,1,2-Trichloroethane	10.0	9.75		ug/L		97	80 - 120	1	20
1,1-Dichloroethane	10.0	9.91		ug/L		99	76 - 120	3	20
1,1-Dichloroethene	10.0	8.35	*1	ug/L		84	72 - 120	21	20
1,1-Dichloropropene	10.0	10.1		ug/L		101	76 - 120	6	20
1,2,4-Trichlorobenzene	10.0	10.7		ug/L		107	80 - 123	4	20
1,2-Dibromo-3-Chloropropane	10.0	8.74		ug/L		87	77 - 120	1	21
1,2-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 123	6	20
1,2-Dichloroethane	10.0	10.4		ug/L		104	71 - 137	3	20
1,2-Dichloropropane	10.0	10.2		ug/L		102	80 - 120	7	20
1,3-Dichlorobenzene	10.0	10.5		ug/L		105	79 - 123	8	20
1,3-Dichloropropane	10.0	10.6		ug/L		106	80 - 123	2	20
1,4-Dichlorobenzene	10.0	9.88		ug/L		99	75 - 123	8	22
2,2-Dichloropropane	10.0	11.0		ug/L		110	78 - 133	6	20
2-Hexanone	10.0	11.2		ug/L		112	57 - 127	5	21
Acetone	10.0	7.79	J	ug/L		78	57 - 133	9	28
Acrolein	20.0	20.7		ug/L		104	54 - 137	2	24
Acrylonitrile	10.0	9.84		ug/L		98	58 - 123	2	30
Benzene	10.0	10.2		ug/L		102	80 - 120	5	20
Bromoform	10.0	10.2		ug/L		102	46 - 178	5	23
Bromomethane	10.0	10.8		ug/L		108	52 - 162	7	20
Carbon disulfide	10.0	9.56		ug/L		96	66 - 125	4	20
Carbon tetrachloride	10.0	10.1		ug/L		101	69 - 145	7	20
Chlorobenzene	10.0	10.4		ug/L		104	80 - 120	6	20
Bromochloromethane	10.0	9.99		ug/L		100	76 - 125	5	20
Chloroethane	10.0	10.3		ug/L		103	73 - 139	2	20
Chloroform	10.0	10.1		ug/L		101	80 - 120	5	20
Chloromethane	10.0	8.91		ug/L		89	35 - 159	4	20
cis-1,2-Dichloroethene	10.0	10.5		ug/L		105	76 - 122	3	20
cis-1,3-Dichloropropene	10.0	10.4		ug/L		104	80 - 122	4	20
Dibromochloromethane	10.0	10.9		ug/L		109	63 - 151	2	20
Dibromomethane	10.0	10.3		ug/L		103	80 - 121	4	20
Bromodichloromethane	10.0	10.4		ug/L		104	77 - 141	6	20
Dichlorodifluoromethane	10.0	9.01		ug/L		90	59 - 139	5	20
Ethylbenzene	10.0	10.6		ug/L		106	80 - 120	6	20
m,p-Xylene	20.0	21.2		ug/L		106	80 - 122	7	20
Methylene Chloride	10.0	9.56		ug/L		96	70 - 120	1	20
Methyl tert-butyl ether	10.0	10.3		ug/L		103	72 - 120	2	20
Naphthalene	10.0	10.7		ug/L		107	75 - 120	2	22
o-Xylene	10.0	11.0		ug/L		110	80 - 122	8	20
Styrene	10.0	11.2		ug/L		112	80 - 121	3	20
t-Butanol	50.0	46.1		ug/L		92	65 - 147	11	21
Tetrachloroethene	10.0	10.4		ug/L		104	80 - 128	8	20
Toluene	10.0	10.4		ug/L		104	80 - 120	2	20
trans-1,2-Dichloroethene	10.0	9.57		ug/L		96	67 - 123	6	20

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

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

Lab Sample ID: LCSD 570-134879/5
Matrix: Water
Analysis Batch: 134879

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	10.0	11.1		ug/L		111	78 - 140	3	20
Trichloroethene	10.0	10.1		ug/L		101	80 - 123	7	20
Trichlorofluoromethane	10.0	10.4		ug/L		104	64 - 168	2	20
Vinyl acetate	10.0	11.6		ug/L		116	75 - 144	6	25
Vinyl chloride	10.0	10.2		ug/L		102	74 - 130	3	20
1,2-Dibromoethane (EDB)	10.0	10.5		ug/L		105	80 - 120	1	20
2-Butanone (MEK)	10.0	8.81		ug/L		88	32 - 133	6	26
4-Methyl-2-pentanone (MIBK)	10.0	9.95		ug/L		100	68 - 120	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	101		68 - 135
Dibromofluoromethane (Surr)	100		80 - 120
Toluene-d8 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	101		71 - 120

Lab Sample ID: MB 570-135110/10
Matrix: Water
Analysis Batch: 135110

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	0.32	ug/L			03/11/21 14:24	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/11/21 14:24	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/11/21 14:24	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/11/21 14:24	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/11/21 14:24	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/11/21 14:24	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/11/21 14:24	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/11/21 14:24	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/11/21 14:24	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/11/21 14:24	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/11/21 14:24	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/11/21 14:24	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/11/21 14:24	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/11/21 14:24	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/11/21 14:24	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/11/21 14:24	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/11/21 14:24	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/11/21 14:24	1
2-Hexanone	ND		6.0	4.3	ug/L			03/11/21 14:24	1
Acetone	ND		8.0	4.0	ug/L			03/11/21 14:24	1
Acetonitrile	ND		10	3.9	ug/L			03/11/21 14:24	1
Acrolein	ND		4.0	2.2	ug/L			03/11/21 14:24	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/11/21 14:24	1
Benzene	ND		0.50	0.27	ug/L			03/11/21 14:24	1
Allyl chloride	ND		2.0	0.38	ug/L			03/11/21 14:24	1
Bromoform	ND		0.50	0.39	ug/L			03/11/21 14:24	1
Bromomethane	ND		1.0	0.93	ug/L			03/11/21 14:24	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/11/21 14:24	1

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

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

Lab Sample ID: MB 570-135110/10
Matrix: Water
Analysis Batch: 135110

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/11/21 14:24	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/11/21 14:24	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/11/21 14:24	1
Chloroethane	ND		0.50	0.44	ug/L			03/11/21 14:24	1
Chloroform	ND		0.50	0.28	ug/L			03/11/21 14:24	1
Chloromethane	ND		1.0	0.29	ug/L			03/11/21 14:24	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/11/21 14:24	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/11/21 14:24	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/11/21 14:24	1
Dibromomethane	ND		0.50	0.23	ug/L			03/11/21 14:24	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/11/21 14:24	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/11/21 14:24	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/11/21 14:24	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/11/21 14:24	1
Iodomethane	ND		25	5.9	ug/L			03/11/21 14:24	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/11/21 14:24	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/11/21 14:24	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/11/21 14:24	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/11/21 14:24	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/11/21 14:24	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/11/21 14:24	1
Naphthalene	ND		1.0	0.32	ug/L			03/11/21 14:24	1
o-Xylene	ND		0.50	0.35	ug/L			03/11/21 14:24	1
Propionitrile	ND		5.0	3.7	ug/L			03/11/21 14:24	1
Styrene	ND		0.50	0.28	ug/L			03/11/21 14:24	1
t-Butanol	ND		5.0	4.0	ug/L			03/11/21 14:24	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/11/21 14:24	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/11/21 14:24	1
Toluene	ND		0.50	0.33	ug/L			03/11/21 14:24	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/11/21 14:24	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/11/21 14:24	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/11/21 14:24	1
Trichloroethene	ND		0.50	0.29	ug/L			03/11/21 14:24	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/11/21 14:24	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/11/21 14:24	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/11/21 14:24	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/11/21 14:24	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/11/21 14:24	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/11/21 14:24	1

<i>Tentatively Identified Compound</i>	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
<i>Tentatively Identified Compound</i>	None		ug/L					03/11/21 14:24	1

<i>Surrogate</i>	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>1,2-Dichloroethane-d4 (Surr)</i>	92		68 - 135		03/11/21 14:24	1
<i>Dibromofluoromethane (Surr)</i>	91		80 - 120		03/11/21 14:24	1
<i>Toluene-d8 (Surr)</i>	97		80 - 120		03/11/21 14:24	1
<i>4-Bromofluorobenzene (Surr)</i>	102		71 - 120		03/11/21 14:24	1

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

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

Lab Sample ID: LCS 570-135110/7

Matrix: Water

Analysis Batch: 135110

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	10.0	10.3		ug/L		103	66 - 131
1,1,1,2-Tetrachloroethane	10.0	11.3		ug/L		113	76 - 143
1,1,1-Trichloroethane	10.0	9.89		ug/L		99	75 - 128
1,1,2,2-Tetrachloroethane	10.0	9.31		ug/L		93	73 - 126
1,1,2-Trichloroethane	10.0	9.68		ug/L		97	80 - 120
1,1-Dichloroethane	10.0	10.3		ug/L		103	76 - 120
1,1-Dichloroethene	10.0	8.61		ug/L		86	72 - 120
1,1-Dichloropropene	10.0	10.4		ug/L		104	76 - 120
1,2,4-Trichlorobenzene	10.0	11.4		ug/L		114	80 - 123
1,2-Dibromo-3-Chloropropane	10.0	7.57	*-	ug/L		76	77 - 120
1,2-Dichlorobenzene	10.0	10.7		ug/L		107	79 - 123
1,2-Dichloroethane	10.0	10.2		ug/L		102	71 - 137
1,2-Dichloropropane	10.0	10.7		ug/L		107	80 - 120
1,3-Dichlorobenzene	10.0	11.5		ug/L		115	79 - 123
1,3-Dichloropropane	10.0	10.4		ug/L		104	80 - 123
1,4-Dichlorobenzene	10.0	10.8		ug/L		108	75 - 123
2,2-Dichloropropane	10.0	11.3		ug/L		113	78 - 133
2-Hexanone	10.0	9.28		ug/L		93	57 - 127
Acetone	10.0	5.23	J *-	ug/L		52	57 - 133
Acrolein	20.0	16.6		ug/L		83	54 - 137
Acrylonitrile	10.0	8.17		ug/L		82	58 - 123
Benzene	10.0	11.0		ug/L		110	80 - 120
Bromoform	10.0	10.4		ug/L		104	46 - 178
Bromomethane	10.0	10.9		ug/L		109	52 - 162
Carbon disulfide	10.0	8.18		ug/L		82	66 - 125
Carbon tetrachloride	10.0	9.81		ug/L		98	69 - 145
Chlorobenzene	10.0	11.3		ug/L		113	80 - 120
Bromochloromethane	10.0	10.1		ug/L		101	76 - 125
Chloroethane	10.0	10.4		ug/L		104	73 - 139
Chloroform	10.0	10.2		ug/L		102	80 - 120
Chloromethane	10.0	7.25		ug/L		73	35 - 159
cis-1,2-Dichloroethene	10.0	10.5		ug/L		105	76 - 122
cis-1,3-Dichloropropene	10.0	10.6		ug/L		106	80 - 122
Dibromochloromethane	10.0	10.8		ug/L		108	63 - 151
Dibromomethane	10.0	10.3		ug/L		103	80 - 121
Bromodichloromethane	10.0	10.6		ug/L		106	77 - 141
Dichlorodifluoromethane	10.0	9.95		ug/L		100	59 - 139
Ethylbenzene	10.0	11.6		ug/L		116	80 - 120
m,p-Xylene	20.0	23.3		ug/L		116	80 - 122
Methylene Chloride	10.0	9.70		ug/L		97	70 - 120
Methyl tert-butyl ether	10.0	8.69		ug/L		87	72 - 120
Naphthalene	10.0	10.1		ug/L		101	75 - 120
o-Xylene	10.0	11.8		ug/L		118	80 - 122
Styrene	10.0	12.1		ug/L		121	80 - 121
t-Butanol	50.0	55.7		ug/L		111	65 - 147
Tetrachloroethene	10.0	12.0		ug/L		120	80 - 128
Toluene	10.0	11.0		ug/L		110	80 - 120
trans-1,2-Dichloroethene	10.0	10.5		ug/L		105	67 - 123

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

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

Lab Sample ID: LCS 570-135110/7

Matrix: Water

Analysis Batch: 135110

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	10.0	11.3		ug/L		113	78 - 140
Trichloroethene	10.0	10.8		ug/L		108	80 - 123
Trichlorofluoromethane	10.0	10.8		ug/L		108	64 - 168
Vinyl acetate	10.0	10.5		ug/L		105	75 - 144
Vinyl chloride	10.0	10.1		ug/L		101	74 - 130
1,2-Dibromoethane (EDB)	10.0	10.3		ug/L		103	80 - 120
2-Butanone (MEK)	10.0	6.95		ug/L		70	32 - 133
4-Methyl-2-pentanone (MIBK)	10.0	8.44		ug/L		84	68 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		68 - 135
Dibromofluoromethane (Surr)	92		80 - 120
Toluene-d8 (Surr)	98		80 - 120
4-Bromofluorobenzene (Surr)	97		71 - 120

Lab Sample ID: LCSD 570-135110/8

Matrix: Water

Analysis Batch: 135110

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	10.0	10.7		ug/L		107	66 - 131	4	20
1,1,1,2-Tetrachloroethane	10.0	10.6		ug/L		106	76 - 143	6	20
1,1,1-Trichloroethane	10.0	8.99		ug/L		90	75 - 128	10	20
1,1,1,2-Tetrachloroethane	10.0	9.34		ug/L		93	73 - 126	0	21
1,1,2-Trichloroethane	10.0	9.52		ug/L		95	80 - 120	2	20
1,1-Dichloroethane	10.0	9.36		ug/L		94	76 - 120	10	20
1,1-Dichloroethene	10.0	7.74		ug/L		77	72 - 120	11	20
1,1-Dichloropropene	10.0	9.32		ug/L		93	76 - 120	11	20
1,2,4-Trichlorobenzene	10.0	10.8		ug/L		108	80 - 123	6	20
1,2-Dibromo-3-Chloropropane	10.0	8.86		ug/L		89	77 - 120	16	21
1,2-Dichlorobenzene	10.0	10.0		ug/L		100	79 - 123	7	20
1,2-Dichloroethane	10.0	10.1		ug/L		101	71 - 137	1	20
1,2-Dichloropropane	10.0	10.1		ug/L		101	80 - 120	5	20
1,3-Dichlorobenzene	10.0	10.4		ug/L		104	79 - 123	10	20
1,3-Dichloropropane	10.0	10.7		ug/L		107	80 - 123	2	20
1,4-Dichlorobenzene	10.0	9.85		ug/L		98	75 - 123	9	22
2,2-Dichloropropane	10.0	10.2		ug/L		102	78 - 133	10	20
2-Hexanone	10.0	9.27		ug/L		93	57 - 127	0	21
Acetone	10.0	5.62	J *	ug/L		56	57 - 133	7	28
Acrolein	20.0	17.0		ug/L		85	54 - 137	3	24
Acrylonitrile	10.0	9.07		ug/L		91	58 - 123	10	30
Benzene	10.0	10.0		ug/L		100	80 - 120	9	20
Bromoform	10.0	10.1		ug/L		101	46 - 178	2	23
Bromomethane	10.0	9.88		ug/L		99	52 - 162	10	20
Carbon disulfide	10.0	9.35		ug/L		94	66 - 125	13	20
Carbon tetrachloride	10.0	8.98		ug/L		90	69 - 145	9	20
Chlorobenzene	10.0	10.7		ug/L		107	80 - 120	6	20
Bromochloromethane	10.0	9.67		ug/L		97	76 - 125	4	20

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

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

Lab Sample ID: LCSD 570-135110/8
Matrix: Water
Analysis Batch: 135110

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroethane	10.0	9.17		ug/L		92	73 - 139	12	20
Chloroform	10.0	9.69		ug/L		97	80 - 120	5	20
Chloromethane	10.0	6.80		ug/L		68	35 - 159	6	20
cis-1,2-Dichloroethene	10.0	9.84		ug/L		98	76 - 122	6	20
cis-1,3-Dichloropropene	10.0	10.4		ug/L		104	80 - 122	2	20
Dibromochloromethane	10.0	10.3		ug/L		103	63 - 151	4	20
Dibromomethane	10.0	10.4		ug/L		104	80 - 121	2	20
Bromodichloromethane	10.0	10.2		ug/L		102	77 - 141	4	20
Dichlorodifluoromethane	10.0	8.64		ug/L		86	59 - 139	14	20
Ethylbenzene	10.0	10.6		ug/L		106	80 - 120	10	20
m,p-Xylene	20.0	21.1		ug/L		106	80 - 122	10	20
Methylene Chloride	10.0	9.09		ug/L		91	70 - 120	7	20
Methyl tert-butyl ether	10.0	9.60		ug/L		96	72 - 120	10	20
Naphthalene	10.0	10.2		ug/L		102	75 - 120	1	22
o-Xylene	10.0	11.1		ug/L		111	80 - 122	7	20
Styrene	10.0	11.3		ug/L		113	80 - 121	7	20
t-Butanol	50.0	46.3		ug/L		93	65 - 147	18	21
Tetrachloroethene	10.0	10.7		ug/L		107	80 - 128	12	20
Toluene	10.0	10.1		ug/L		101	80 - 120	8	20
trans-1,2-Dichloroethene	10.0	9.37		ug/L		94	67 - 123	12	20
trans-1,3-Dichloropropene	10.0	11.2		ug/L		112	78 - 140	1	20
Trichloroethene	10.0	10.0		ug/L		100	80 - 123	8	20
Trichlorofluoromethane	10.0	9.52		ug/L		95	64 - 168	13	20
Vinyl acetate	10.0	10.5		ug/L		105	75 - 144	0	25
Vinyl chloride	10.0	8.92		ug/L		89	74 - 130	12	20
1,2-Dibromoethane (EDB)	10.0	10.5		ug/L		105	80 - 120	2	20
2-Butanone (MEK)	10.0	7.36		ug/L		74	32 - 133	6	26
4-Methyl-2-pentanone (MIBK)	10.0	9.30		ug/L		93	68 - 120	10	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	96		68 - 135
Dibromofluoromethane (Surr)	96		80 - 120
Toluene-d8 (Surr)	100		80 - 120
4-Bromofluorobenzene (Surr)	100		71 - 120

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-135116/1-A
Matrix: Water
Analysis Batch: 135624

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 135116

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/11/21 07:49	03/13/21 09:30	1

Isotope Dilution	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	69		15 - 150	03/11/21 07:49	03/13/21 09:30	1

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: MB 570-135116/1-A
Matrix: Water
Analysis Batch: 135624

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 135116

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Nitrobenzene-d5 (Surr)	109		46 - 128	03/11/21 07:49	03/13/21 09:30	1

Lab Sample ID: LCS 570-135116/2-A
Matrix: Water
Analysis Batch: 135624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 135116

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	20.0	21.1		ug/L		105	57 - 136
Isotope Dilution							
1,4-Dioxane-d8							
Surrogate							
Nitrobenzene-d5 (Surr)							

Lab Sample ID: LCSD 570-135116/3-A
Matrix: Water
Analysis Batch: 135624

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 135116

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	20.0	20.1		ug/L		100	57 - 136	5	20
Isotope Dilution									
1,4-Dioxane-d8									
Surrogate									
Nitrobenzene-d5 (Surr)									

Lab Sample ID: 570-53188-J-1-A MS
Matrix: Water
Analysis Batch: 135927

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 135116

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	100		20.0	146	4	ug/L		220	45 - 139
Isotope Dilution									
1,4-Dioxane-d8									
Surrogate									
Nitrobenzene-d5 (Surr)									

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: 570-53188-J-1-B MSD
 Matrix: Water
 Analysis Batch: 135927

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total/NA
 Prep Batch: 135116

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	100		20.0	138	4	ug/L		180	45 - 139	6	17
		<i>MSD</i>	<i>MSD</i>								
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>								
1,4-Dioxane-d8	61		15 - 150								
		<i>MSD</i>	<i>MSD</i>								
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>								
Nitrobenzene-d5 (Surr)	92		46 - 128								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-640744/6
 Matrix: Water
 Analysis Batch: 640744

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			03/09/21 10:59	1

Lab Sample ID: LCS 440-640744/5
 Matrix: Water
 Analysis Batch: 640744

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.89		mg/L		98	90 - 110

Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 440-280130-7 MS
 Matrix: Water
 Analysis Batch: 640744

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride - DL	26		250	261		mg/L		94	80 - 120

Lab Sample ID: 440-280130-7 MSD
 Matrix: Water
 Analysis Batch: 640744

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride - DL	26		250	262		mg/L		94	80 - 120	0	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-641136/1-A
 Matrix: Water
 Analysis Batch: 641211

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 641136

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	ND		0.50	0.25	mg/L		03/12/21 08:30	03/12/21 15:55	1

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

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

Lab Sample ID: LCS 440-641136/2-A
Matrix: Water
Analysis Batch: 641211

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 641136
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Potassium	10.0	9.81		mg/L		98	80 - 120

Lab Sample ID: 440-280130-1 MS
Matrix: Water
Analysis Batch: 641211

Client Sample ID: MW-2A
Prep Type: Total Recoverable
Prep Batch: 641136
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Potassium	6.2		10.0	17.1		mg/L		109	75 - 125

Lab Sample ID: 440-280130-1 MSD
Matrix: Water
Analysis Batch: 641211

Client Sample ID: MW-2A
Prep Type: Total Recoverable
Prep Batch: 641136
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Potassium	6.2		10.0	17.1		mg/L		109	75 - 125	0	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 440-641076/10
Matrix: Water
Analysis Batch: 641076

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			03/11/21 12:03	1

Lab Sample ID: LCS 440-641076/11
Matrix: Water
Analysis Batch: 641076

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Ammonia (as N)	5.00	4.92		mg/L		98	90 - 110

Lab Sample ID: MRL 440-641076/9
Matrix: Water
Analysis Batch: 641076

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	Limits
Ammonia (as N)	0.200	0.158	J	mg/L		79	50 - 150

Lab Sample ID: 440-279921-E-1 MS
Matrix: Water
Analysis Batch: 641076

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Ammonia (as N)	0.66		5.00	5.81		mg/L		103	90 - 110

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 440-279921-E-1 MSD
Matrix: Water
Analysis Batch: 641076

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	0.66		5.00	5.68		mg/L		100	90 - 110	2	15

Method: 410.4 - COD

Lab Sample ID: MB 440-641176/3
Matrix: Water
Analysis Batch: 641176

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			03/12/21 12:35	1

Lab Sample ID: LCS 440-641176/4
Matrix: Water
Analysis Batch: 641176

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	190		mg/L		95	90 - 110

Lab Sample ID: 440-280130-1 MS
Matrix: Water
Analysis Batch: 641176

Client Sample ID: MW-2A
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	190		mg/L		95	70 - 120

Lab Sample ID: 440-280130-1 MSD
Matrix: Water
Analysis Batch: 641176

Client Sample ID: MW-2A
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	197		mg/L		98	70 - 120	3	15

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 440-640736/3
Matrix: Water
Analysis Batch: 640736

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			03/09/21 06:21	1

Lab Sample ID: LCS 440-640736/2
Matrix: Water
Analysis Batch: 640736

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	79.0	78.3		mg/L		99	80 - 120

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 440-280130-1 DU
Matrix: Water
Analysis Batch: 640736

Client Sample ID: MW-2A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity as CaCO3	370		373		mg/L		0.1	20

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

Lab Sample ID: MB 440-641018/1
Matrix: Water
Analysis Batch: 641018

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			03/11/21 09:31	1

Lab Sample ID: LCS 440-641018/2
Matrix: Water
Analysis Batch: 641018

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	992		mg/L		99	90 - 110

Lab Sample ID: 440-280130-1 DU
Matrix: Water
Analysis Batch: 641018

Client Sample ID: MW-2A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	2800		2800		mg/L		0.6	5

Method: SM 5310C - TOC

Lab Sample ID: MB 440-640980/8
Matrix: Water
Analysis Batch: 640980

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			03/10/21 05:42	1

Lab Sample ID: LCS 440-640980/7
Matrix: Water
Analysis Batch: 640980

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	5.19		mg/L		104	85 - 115

Lab Sample ID: MRL 440-640980/6
Matrix: Water
Analysis Batch: 640980

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.106		mg/L		106	50 - 150

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Method: SM 5310C - TOC (Continued)

Lab Sample ID: 440-280130-1 MS
Matrix: Water
Analysis Batch: 640980

Client Sample ID: MW-2A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.0		5.00	9.74		mg/L		114	85 - 115

Lab Sample ID: 440-280130-1 MSD
Matrix: Water
Analysis Batch: 640980

Client Sample ID: MW-2A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	4.0		5.00	9.77		mg/L		115	85 - 115	0	20



QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

GC/MS VOA

Analysis Batch: 134879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280130-2	MW-2B	Total/NA	Water	8260B	
440-280130-3	DW-4	Total/NA	Water	8260B	
440-280130-4	MW-6	Total/NA	Water	8260B	
440-280130-5	MW-14	Total/NA	Water	8260B	
440-280130-6	DW-1	Total/NA	Water	8260B	
440-280130-7	Duplicate	Total/NA	Water	8260B	
440-280130-8	Field Blank	Total/NA	Water	8260B	
440-280130-9	Trip Blank	Total/NA	Water	8260B	
MB 570-134879/7	Method Blank	Total/NA	Water	8260B	
LCS 570-134879/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-134879/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 135110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280130-1	MW-2A	Total/NA	Water	8260B	
MB 570-135110/10	Method Blank	Total/NA	Water	8260B	
LCS 570-135110/7	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-135110/8	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 135116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280130-1	MW-2A	Total/NA	Water	3510C	
440-280130-2	MW-2B	Total/NA	Water	3510C	
440-280130-3	DW-4	Total/NA	Water	3510C	
440-280130-4	MW-6	Total/NA	Water	3510C	
440-280130-5	MW-14	Total/NA	Water	3510C	
440-280130-6	DW-1	Total/NA	Water	3510C	
440-280130-7	Duplicate	Total/NA	Water	3510C	
MB 570-135116/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-135116/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-135116/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
570-53188-J-1-A MS	Matrix Spike	Total/NA	Water	3510C	
570-53188-J-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 135624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280130-1	MW-2A	Total/NA	Water	8270C SIM ID	135116
440-280130-2	MW-2B	Total/NA	Water	8270C SIM ID	135116
440-280130-3	DW-4	Total/NA	Water	8270C SIM ID	135116
440-280130-4	MW-6	Total/NA	Water	8270C SIM ID	135116
MB 570-135116/1-A	Method Blank	Total/NA	Water	8270C SIM ID	135116
LCS 570-135116/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	135116
LCSD 570-135116/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	135116

Analysis Batch: 135927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-53188-J-1-A MS	Matrix Spike	Total/NA	Water	8270C SIM ID	135116
570-53188-J-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270C SIM ID	135116

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

GC/MS Semi VOA

Analysis Batch: 136068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280130-5	MW-14	Total/NA	Water	8270C SIM ID	135116
440-280130-6	DW-1	Total/NA	Water	8270C SIM ID	135116
440-280130-7	Duplicate	Total/NA	Water	8270C SIM ID	135116

HPLC/IC

Analysis Batch: 640744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280130-1	MW-2A	Total/NA	Water	300.0	
440-280130-2	MW-2B	Total/NA	Water	300.0	
440-280130-3	DW-4	Total/NA	Water	300.0	
440-280130-4	MW-6	Total/NA	Water	300.0	
440-280130-5	MW-14	Total/NA	Water	300.0	
440-280130-6	DW-1	Total/NA	Water	300.0	
440-280130-7 - DL	Duplicate	Total/NA	Water	300.0	
440-280130-7	Duplicate	Total/NA	Water	300.0	
MB 440-640744/6	Method Blank	Total/NA	Water	300.0	
LCS 440-640744/5	Lab Control Sample	Total/NA	Water	300.0	
440-280130-7 MS - DL	Duplicate	Total/NA	Water	300.0	
440-280130-7 MSD - DL	Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 641136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280130-1	MW-2A	Total Recoverable	Water	3005A	
440-280130-2	MW-2B	Total Recoverable	Water	3005A	
440-280130-3	DW-4	Total Recoverable	Water	3005A	
440-280130-4	MW-6	Total Recoverable	Water	3005A	
440-280130-5	MW-14	Total Recoverable	Water	3005A	
440-280130-6	DW-1	Total Recoverable	Water	3005A	
440-280130-7	Duplicate	Total Recoverable	Water	3005A	
MB 440-641136/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-641136/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-280130-1 MS	MW-2A	Total Recoverable	Water	3005A	
440-280130-1 MSD	MW-2A	Total Recoverable	Water	3005A	

Analysis Batch: 641211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280130-1	MW-2A	Total Recoverable	Water	6010B	641136
440-280130-2	MW-2B	Total Recoverable	Water	6010B	641136
440-280130-3	DW-4	Total Recoverable	Water	6010B	641136
440-280130-4	MW-6	Total Recoverable	Water	6010B	641136
440-280130-5	MW-14	Total Recoverable	Water	6010B	641136
440-280130-6	DW-1	Total Recoverable	Water	6010B	641136
440-280130-7	Duplicate	Total Recoverable	Water	6010B	641136
MB 440-641136/1-A	Method Blank	Total Recoverable	Water	6010B	641136
LCS 440-641136/2-A	Lab Control Sample	Total Recoverable	Water	6010B	641136
440-280130-1 MS	MW-2A	Total Recoverable	Water	6010B	641136
440-280130-1 MSD	MW-2A	Total Recoverable	Water	6010B	641136

Eurofins Calscience Irvine

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

General Chemistry

Analysis Batch: 640736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280130-1	MW-2A	Total/NA	Water	SM 2320B	
440-280130-2	MW-2B	Total/NA	Water	SM 2320B	
440-280130-3	DW-4	Total/NA	Water	SM 2320B	
440-280130-4	MW-6	Total/NA	Water	SM 2320B	
440-280130-5	MW-14	Total/NA	Water	SM 2320B	
440-280130-6	DW-1	Total/NA	Water	SM 2320B	
440-280130-7	Duplicate	Total/NA	Water	SM 2320B	
MB 440-640736/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-640736/2	Lab Control Sample	Total/NA	Water	SM 2320B	
440-280130-1 DU	MW-2A	Total/NA	Water	SM 2320B	

Analysis Batch: 640980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280130-1	MW-2A	Total/NA	Water	SM 5310C	
440-280130-2	MW-2B	Total/NA	Water	SM 5310C	
440-280130-3	DW-4	Total/NA	Water	SM 5310C	
440-280130-4	MW-6	Total/NA	Water	SM 5310C	
440-280130-5	MW-14	Total/NA	Water	SM 5310C	
440-280130-6	DW-1	Total/NA	Water	SM 5310C	
440-280130-7	Duplicate	Total/NA	Water	SM 5310C	
MB 440-640980/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-640980/7	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-640980/6	Lab Control Sample	Total/NA	Water	SM 5310C	
440-280130-1 MS	MW-2A	Total/NA	Water	SM 5310C	
440-280130-1 MSD	MW-2A	Total/NA	Water	SM 5310C	

Analysis Batch: 641018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280130-1	MW-2A	Total/NA	Water	SM 2540C	
440-280130-2	MW-2B	Total/NA	Water	SM 2540C	
440-280130-3	DW-4	Total/NA	Water	SM 2540C	
440-280130-4	MW-6	Total/NA	Water	SM 2540C	
440-280130-5	MW-14	Total/NA	Water	SM 2540C	
440-280130-6	DW-1	Total/NA	Water	SM 2540C	
440-280130-7	Duplicate	Total/NA	Water	SM 2540C	
MB 440-641018/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-641018/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-280130-1 DU	MW-2A	Total/NA	Water	SM 2540C	

Analysis Batch: 641076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280130-1	MW-2A	Total/NA	Water	350.1	
440-280130-2	MW-2B	Total/NA	Water	350.1	
440-280130-3	DW-4	Total/NA	Water	350.1	
440-280130-4	MW-6	Total/NA	Water	350.1	
440-280130-5	MW-14	Total/NA	Water	350.1	
440-280130-6	DW-1	Total/NA	Water	350.1	
440-280130-7	Duplicate	Total/NA	Water	350.1	
MB 440-641076/10	Method Blank	Total/NA	Water	350.1	
LCS 440-641076/11	Lab Control Sample	Total/NA	Water	350.1	
MRL 440-641076/9	Lab Control Sample	Total/NA	Water	350.1	

Eurofins Calscience Irvine

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

General Chemistry (Continued)

Analysis Batch: 641076 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279921-E-1 MS	Matrix Spike	Total/NA	Water	350.1	
440-279921-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 641176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280130-1	MW-2A	Total/NA	Water	410.4	
440-280130-2	MW-2B	Total/NA	Water	410.4	
440-280130-3	DW-4	Total/NA	Water	410.4	
440-280130-4	MW-6	Total/NA	Water	410.4	
440-280130-5	MW-14	Total/NA	Water	410.4	
440-280130-6	DW-1	Total/NA	Water	410.4	
440-280130-7	Duplicate	Total/NA	Water	410.4	
MB 440-641176/3	Method Blank	Total/NA	Water	410.4	
LCS 440-641176/4	Lab Control Sample	Total/NA	Water	410.4	
440-280130-1 MS	MW-2A	Total/NA	Water	410.4	
440-280130-1 MSD	MW-2A	Total/NA	Water	410.4	

Definitions/Glossary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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.

GC/MS Semi VOA

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.

General Chemistry

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.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Laboratory: Eurofins Calscience Irvine

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

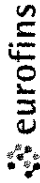
Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-21
Arizona	State	AZ0671	10-14-21
California	Los Angeles County Sanitation Districts	10256	06-30-21
California	State	2706	06-30-21
Guam	State	21-003R	01-23-22
Hawaii	State	CA01531	01-29-22
Kansas	NELAP	E-10420	07-31-21
Nevada	State	CA015312021-5	07-31-21
Oregon	NELAP	4028 - 009	01-29-22
USDA	US Federal Programs	P330-21-00022	02-02-24
Washington	State	C900	09-03-21

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	20-003R	10-31-20 *
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



Address: _____

TAL-8210

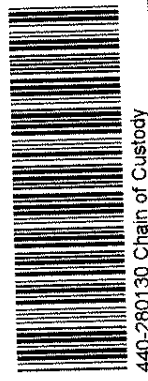
Regulatory Program DW NPDES RCRA Other

Client Contact
Company Name: Geo-Losic Assoc, Inc.
Address: 11415 W. Bernardo Ct. San Diego, CA 92127
City/State/Zip: San Diego, CA 92127
Phone: 619-594-1136
Fax: 619-594-1087
Project Name: Republic Services, Inc.
Site: Sandburg Canyon Landfill
P.O.#: _____

Project Manager: Kyle Weichen
Tel/Email: Kyle Weichen @ geo-losic.com
Analysis Turnaround Time: _____
 CALENDAR DAYS WORKING DAYS
TAT if different from Below: _____
 2 weeks
 1 week
 2 days
 1 day

Site Contact: Josh Miller
Lab Contact: Tamara
Date: 3-8-21
Carrier: TA
Sampler: M S C K
For Lab Use Only
Walk-in Client: _____
Lab Sampling: _____
Job / SDG No.: 5020.1000

Sample Identification	Sample Date	Sample Time	Sample Type (C-comp, G-grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Other	Date	Carrier	Sample Specific Notes
MW-2A	3-8-21	0930	C	GW	17	Y	Y				
MW-2B		1032				Y	Y				
DW-4		11:47				Y	Y				
MW-6		10:00				Y	Y				
MW-14		10:47				Y	Y				
DW-1		11:35				Y	Y				
Duplicate						Y	Y				
Field Blank				Lab	4	Y	Y				
Trip Blank				Lab	4	Y	Y				



12/8/21
00
3/8/21

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other
Possible Hazard Identification: _____
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample
 Non-Hazard Flammable Skin Irritant Poison B Unknown

Special Instructions/QC Requirements & Comments
Metals are not field filtered

Return to Client Disposal by Lab Archive for _____ Months

Relinquished by	Company	Date/Time	Received by	Company	Date/Time	Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Matt Campbell	Geo-Losic Assoc	3-8-21/1415	[Signature]	EC-18V	3/8/21						
[Signature]	EC-18V	3/8/21 1650	[Signature]	EC-18V	3/8/21						
[Signature]	EC-18V	3/8/21 1650	[Signature]	EC-18V	3/8/21						



Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PIV: Tomova, Rossina D	Carrier Tracking No(s): 440-166888 1																																																																						
Client Contact: Shipping/Receiving		E-Mail: Rossina.Tomova@Eurofins.com	State of Origin: California																																																																						
Company: Eurofins Calscience LLC		Accreditations Required (See note): 440-280130-1																																																																							
Address: 7440 Lincoln Way, Garden Grove, CA, 92841		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:																																																																							
Due Date Requested: 3/19/2021		Analysis Requested																																																																							
TAT Requested (days)		Total Number of Containers																																																																							
PO #:	WO #:	Field Filtered Sample (Yes or No)	82608_LL/6030C (MOD) Appendix II																																																																						
Project #:	SSOW#:	Perform M/MSD (Yes or No)	82608_LL/6030C (MOD) Appendix II																																																																						
Republic Sunshine Canyon		8260B_LL/6030C_UP (MOD) A+A	8270C_SIM_MS_ID/3510C-1-Dioxane - SIM_MS_ID																																																																						
<table border="1"> <thead> <tr> <th>Sample Identification - Client ID (Lab ID)</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (W=Water, S=solid, O=soil, BT=Tissue, AA=Air)</th> <th>Preservation Code</th> <th>Special Instructions/Note</th> </tr> </thead> <tbody> <tr> <td>MW-2A (440-280130-1)</td> <td>3/8/21</td> <td>09:30 Pacific</td> <td>Water</td> <td>Water</td> <td>X</td> <td>8</td> </tr> <tr> <td>MW-2B (440-280130-2)</td> <td>3/8/21</td> <td>10:32 Pacific</td> <td>Water</td> <td>Water</td> <td>X</td> <td>8</td> </tr> <tr> <td>DW-4 (440-280130-3)</td> <td>3/8/21</td> <td>11:44 Pacific</td> <td>Water</td> <td>Water</td> <td>X</td> <td>8</td> </tr> <tr> <td>MW-6 (440-280130-4)</td> <td>3/8/21</td> <td>10:00 Pacific</td> <td>Water</td> <td>Water</td> <td>X</td> <td>8</td> </tr> <tr> <td>MW-14 (440-280130-5)</td> <td>3/8/21</td> <td>10:47 Pacific</td> <td>Water</td> <td>Water</td> <td>X</td> <td>8</td> </tr> <tr> <td>DW-1 (440-280130-6)</td> <td>3/8/21</td> <td>11:35 Pacific</td> <td>Water</td> <td>Water</td> <td>X</td> <td>8</td> </tr> <tr> <td>Duplicate (440-280130-7)</td> <td>3/8/21</td> <td>00:01 Pacific</td> <td>Water</td> <td>Water</td> <td>X</td> <td>8</td> </tr> <tr> <td>Field Blank (440-280130-8)</td> <td>3/8/21</td> <td>00:01 Pacific</td> <td>Water</td> <td>Water</td> <td>X</td> <td>4</td> </tr> <tr> <td>Trip Blank (440-280130-9)</td> <td>3/8/21</td> <td>00:01 Pacific</td> <td>Water</td> <td>Water</td> <td>X</td> <td>4</td> </tr> </tbody> </table>				Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=soil, BT=Tissue, AA=Air)	Preservation Code	Special Instructions/Note	MW-2A (440-280130-1)	3/8/21	09:30 Pacific	Water	Water	X	8	MW-2B (440-280130-2)	3/8/21	10:32 Pacific	Water	Water	X	8	DW-4 (440-280130-3)	3/8/21	11:44 Pacific	Water	Water	X	8	MW-6 (440-280130-4)	3/8/21	10:00 Pacific	Water	Water	X	8	MW-14 (440-280130-5)	3/8/21	10:47 Pacific	Water	Water	X	8	DW-1 (440-280130-6)	3/8/21	11:35 Pacific	Water	Water	X	8	Duplicate (440-280130-7)	3/8/21	00:01 Pacific	Water	Water	X	8	Field Blank (440-280130-8)	3/8/21	00:01 Pacific	Water	Water	X	4	Trip Blank (440-280130-9)	3/8/21	00:01 Pacific	Water	Water	X	4
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=soil, BT=Tissue, AA=Air)	Preservation Code	Special Instructions/Note																																																																			
MW-2A (440-280130-1)	3/8/21	09:30 Pacific	Water	Water	X	8																																																																			
MW-2B (440-280130-2)	3/8/21	10:32 Pacific	Water	Water	X	8																																																																			
DW-4 (440-280130-3)	3/8/21	11:44 Pacific	Water	Water	X	8																																																																			
MW-6 (440-280130-4)	3/8/21	10:00 Pacific	Water	Water	X	8																																																																			
MW-14 (440-280130-5)	3/8/21	10:47 Pacific	Water	Water	X	8																																																																			
DW-1 (440-280130-6)	3/8/21	11:35 Pacific	Water	Water	X	8																																																																			
Duplicate (440-280130-7)	3/8/21	00:01 Pacific	Water	Water	X	8																																																																			
Field Blank (440-280130-8)	3/8/21	00:01 Pacific	Water	Water	X	4																																																																			
Trip Blank (440-280130-9)	3/8/21	00:01 Pacific	Water	Water	X	4																																																																			
Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyze & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody if the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.																																																																									
Possible Hazard Identification Unconfirmed <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 2																																																																									
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: _____ Date: 3-9-21 9:05 AM Company: OC-FLOW Relinquished by: _____ Date/Time: 3/9/21 0905 Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____																																																																									
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Cooler Temperature(s) °C and Other Remarks: 3-9/2-8 JSC																																																																									



Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-280130-1

Login Number: 280130

List Number: 1

Creator: Escalante, Maria I

List Source: Eurofins Irvine

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.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 (excluding tests with immediate HTs)	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	

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-280130-1

Login Number: 280130

List Number: 2

Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience

List Creation: 03/09/21 02:12 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280130-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-150)
440-280130-1	MW-2A	73
440-280130-2	MW-2B	79
440-280130-3	DW-4	55
440-280130-4	MW-6	51
440-280130-5	MW-14	41
440-280130-6	DW-1	53
440-280130-7	Duplicate	53
570-53188-J-1-A MS	Matrix Spike	50
570-53188-J-1-B MSD	Matrix Spike Duplicate	61
LCS 570-135116/2-A	Lab Control Sample	78
LCSD 570-135116/3-A	Lab Control Sample Dup	80
MB 570-135116/1-A	Method Blank	69

Surrogate Legend

DXE = 1,4-Dioxane-d8

ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-280207-1

Client Project/Site: Republic Sunshine Canyon

For:

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

Attn: Kyle Welchans



Authorized for release by:
3/24/2021 12:10:18 PM

Rossina Tomova, Project Manager I
(949)260-3276

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

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



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Sample Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-280207-1	CM-9R3	Water	03/09/21 08:03	03/09/21 17:08	
440-280207-2	MW-5	Water	03/09/21 12:22	03/09/21 17:08	
440-280207-3	MW-13R	Water	03/09/21 10:34	03/09/21 17:08	
440-280207-4	MW-9	Water	03/09/21 10:57	03/09/21 17:08	
440-280207-5	PZ-2	Water	03/09/21 08:30	03/09/21 17:08	
440-280207-6	PZ-4	Water	03/09/21 12:36	03/09/21 17:08	
440-280207-7	DW-2	Water	03/09/21 09:10	03/09/21 17:08	
440-280207-8	Field Blank	Water	03/09/21 00:01	03/09/21 17:08	
440-280207-9	Trip Blank	Water	03/09/21 00:01	03/09/21 17:08	

Case Narrative

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Job ID: 440-280207-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative 440-280207-1

Comments

No additional comments.

Receipt

The samples were received on 3/9/2021 5:08 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.5° C and 2.1° C.

GC/MS VOA

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-135890.

Method 8260B: The following analyte(s) recovered outside control limits for the LCS associated with analytical batch 570-135890: Acetone. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

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

GC/MS Semi VOA

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

HPLC/IC

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

Metals

Method 3005A: The reference method requires samples to be preserved to a pH of <2. The following samples were received with insufficient preservation at a pH of 3 (L-4) and a pH of 4 (L-3): MW-13R (440-280207-3) and MW-9 (440-280207-4). The samples were preserved to the appropriate pH in the laboratory. Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion.

03/16/21 @ 1109 hours:

0.5 mL of 1:1 HNO₃ was added to each container L-3 and L-4

1:1 HNO₃ Reagent # 6527819

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

General Chemistry

Methods 350.1: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 440-641401 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) precision was within acceptance limits.

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

Organic Prep

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

VOA Prep

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

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: CM-9R3

Lab Sample ID: 440-280207-1

Date Collected: 03/09/21 08:03

Matrix: Water

Date Received: 03/09/21 17:08

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	0.32	ug/L			03/13/21 01:59	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/13/21 01:59	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/13/21 01:59	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/13/21 01:59	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/13/21 01:59	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/13/21 01:59	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/13/21 01:59	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/13/21 01:59	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/13/21 01:59	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/13/21 01:59	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/13/21 01:59	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/13/21 01:59	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/13/21 01:59	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/13/21 01:59	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/13/21 01:59	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/13/21 01:59	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/13/21 01:59	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/13/21 01:59	1
2-Hexanone	ND		6.0	4.3	ug/L			03/13/21 01:59	1
Acetone	ND		8.0	4.0	ug/L			03/13/21 01:59	1
Acetonitrile	ND		10	3.9	ug/L			03/13/21 01:59	1
Acrolein	ND		4.0	2.2	ug/L			03/13/21 01:59	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/13/21 01:59	1
Benzene	ND		0.50	0.27	ug/L			03/13/21 01:59	1
Allyl chloride	ND		2.0	0.38	ug/L			03/13/21 01:59	1
Bromoform	ND		0.50	0.39	ug/L			03/13/21 01:59	1
Bromomethane	ND		1.0	0.93	ug/L			03/13/21 01:59	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/13/21 01:59	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/13/21 01:59	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/13/21 01:59	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/13/21 01:59	1
Chloroethane	ND		0.50	0.44	ug/L			03/13/21 01:59	1
Chloroform	ND		0.50	0.28	ug/L			03/13/21 01:59	1
Chloromethane	ND		1.0	0.29	ug/L			03/13/21 01:59	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/13/21 01:59	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/13/21 01:59	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/13/21 01:59	1
Dibromomethane	ND		0.50	0.23	ug/L			03/13/21 01:59	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/13/21 01:59	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/13/21 01:59	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/13/21 01:59	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/13/21 01:59	1
Iodomethane	ND		25	5.9	ug/L			03/13/21 01:59	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/13/21 01:59	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/13/21 01:59	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/13/21 01:59	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/13/21 01:59	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/13/21 01:59	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/13/21 01:59	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: CM-9R3

Lab Sample ID: 440-280207-1

Date Collected: 03/09/21 08:03

Matrix: Water

Date Received: 03/09/21 17:08

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.32	ug/L			03/13/21 01:59	1
o-Xylene	ND		0.50	0.35	ug/L			03/13/21 01:59	1
Propionitrile	ND		5.0	3.7	ug/L			03/13/21 01:59	1
Styrene	ND		0.50	0.28	ug/L			03/13/21 01:59	1
t-Butanol	ND		5.0	4.0	ug/L			03/13/21 01:59	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/13/21 01:59	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/13/21 01:59	1
Toluene	ND		0.50	0.33	ug/L			03/13/21 01:59	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/13/21 01:59	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/13/21 01:59	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/13/21 01:59	1
Trichloroethene	ND		0.50	0.29	ug/L			03/13/21 01:59	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/13/21 01:59	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/13/21 01:59	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/13/21 01:59	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/13/21 01:59	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/13/21 01:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/13/21 01:59	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	2800	T J	ug/L		1.42			03/13/21 01:59	1
Unknown	120	T J	ug/L		1.70			03/13/21 01:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		68 - 135		03/13/21 01:59	1
Dibromofluoromethane (Surr)	101		80 - 120		03/13/21 01:59	1
Toluene-d8 (Surr)	102		80 - 120		03/13/21 01:59	1
4-Bromofluorobenzene (Surr)	97		71 - 120		03/13/21 01:59	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/11/21 08:09	03/16/21 11:50	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	45		15 - 150	03/11/21 08:09	03/16/21 11:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	113		46 - 128	03/11/21 08:09	03/16/21 11:50	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		2.5	1.3	mg/L			03/11/21 04:47	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	13		0.50	0.25	mg/L		03/16/21 09:00	03/16/21 16:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	6.8	F2 F1	0.20	0.10	mg/L			03/15/21 15:58	1
Chemical Oxygen Demand	16	J	20	10	mg/L			03/17/21 15:39	1
Total Dissolved Solids	4300		50	25	mg/L			03/11/21 09:31	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: CM-9R3

Lab Sample ID: 440-280207-1

Date Collected: 03/09/21 08:03

Matrix: Water

Date Received: 03/09/21 17:08

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	8.1		0.10	0.050	mg/L			03/11/21 09:27	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	230		4.0	4.0	mg/L			03/10/21 08:36	1

Client Sample ID: MW-5

Lab Sample ID: 440-280207-2

Date Collected: 03/09/21 12:22

Matrix: Water

Date Received: 03/09/21 17:08

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	0.32	ug/L			03/13/21 02:29	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/13/21 02:29	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/13/21 02:29	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/13/21 02:29	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/13/21 02:29	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/13/21 02:29	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/13/21 02:29	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/13/21 02:29	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/13/21 02:29	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/13/21 02:29	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/13/21 02:29	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/13/21 02:29	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/13/21 02:29	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/13/21 02:29	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/13/21 02:29	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/13/21 02:29	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/13/21 02:29	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/13/21 02:29	1
2-Hexanone	ND		6.0	4.3	ug/L			03/13/21 02:29	1
Acetone	ND		8.0	4.0	ug/L			03/13/21 02:29	1
Acetonitrile	ND		10	3.9	ug/L			03/13/21 02:29	1
Acrolein	ND		4.0	2.2	ug/L			03/13/21 02:29	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/13/21 02:29	1
Benzene	ND		0.50	0.27	ug/L			03/13/21 02:29	1
Allyl chloride	ND		2.0	0.38	ug/L			03/13/21 02:29	1
Bromoform	ND		0.50	0.39	ug/L			03/13/21 02:29	1
Bromomethane	ND		1.0	0.93	ug/L			03/13/21 02:29	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/13/21 02:29	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/13/21 02:29	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/13/21 02:29	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/13/21 02:29	1
Chloroethane	ND		0.50	0.44	ug/L			03/13/21 02:29	1
Chloroform	ND		0.50	0.28	ug/L			03/13/21 02:29	1
Chloromethane	ND		1.0	0.29	ug/L			03/13/21 02:29	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/13/21 02:29	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/13/21 02:29	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/13/21 02:29	1
Dibromomethane	ND		0.50	0.23	ug/L			03/13/21 02:29	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/13/21 02:29	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/13/21 02:29	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: MW-5

Lab Sample ID: 440-280207-2

Date Collected: 03/09/21 12:22

Matrix: Water

Date Received: 03/09/21 17:08

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/13/21 02:29	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/13/21 02:29	1
Iodomethane	ND		25	5.9	ug/L			03/13/21 02:29	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/13/21 02:29	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/13/21 02:29	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/13/21 02:29	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/13/21 02:29	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/13/21 02:29	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/13/21 02:29	1
Naphthalene	ND		1.0	0.32	ug/L			03/13/21 02:29	1
o-Xylene	ND		0.50	0.35	ug/L			03/13/21 02:29	1
Propionitrile	ND		5.0	3.7	ug/L			03/13/21 02:29	1
Styrene	ND		0.50	0.28	ug/L			03/13/21 02:29	1
t-Butanol	ND		5.0	4.0	ug/L			03/13/21 02:29	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/13/21 02:29	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/13/21 02:29	1
Toluene	ND		0.50	0.33	ug/L			03/13/21 02:29	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/13/21 02:29	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/13/21 02:29	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/13/21 02:29	1
Trichloroethene	ND		0.50	0.29	ug/L			03/13/21 02:29	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/13/21 02:29	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/13/21 02:29	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/13/21 02:29	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/13/21 02:29	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/13/21 02:29	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/13/21 02:29	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	4000	T J	ug/L		1.42			03/13/21 02:29	1
Unknown	120	T J	ug/L		2.12			03/13/21 02:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		68 - 135		03/13/21 02:29	1
Dibromofluoromethane (Surr)	99		80 - 120		03/13/21 02:29	1
Toluene-d8 (Surr)	100		80 - 120		03/13/21 02:29	1
4-Bromofluorobenzene (Surr)	96		71 - 120		03/13/21 02:29	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	4.7		0.50	0.34	ug/L		03/11/21 08:09	03/16/21 12:05	1
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8	45		15 - 150	03/11/21 08:09	03/16/21 12:05	1			
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Nitrobenzene-d5 (Surr)	110		46 - 128	03/11/21 08:09	03/16/21 12:05	1			

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	280		25	13	mg/L			03/12/21 01:43	50

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: MW-5

Lab Sample ID: 440-280207-2

Date Collected: 03/09/21 12:22

Matrix: Water

Date Received: 03/09/21 17:08

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	22		0.50	0.25	mg/L		03/16/21 09:00	03/16/21 16:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	4.6		0.20	0.10	mg/L			03/15/21 16:14	1
Chemical Oxygen Demand	47		20	10	mg/L			03/17/21 15:39	1
Total Dissolved Solids	3000		50	25	mg/L			03/11/21 09:31	1
Total Organic Carbon	17		0.50	0.25	mg/L			03/11/21 13:03	5
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	480		4.0	4.0	mg/L			03/10/21 08:56	1

Client Sample ID: MW-13R

Lab Sample ID: 440-280207-3

Date Collected: 03/09/21 10:34

Matrix: Water

Date Received: 03/09/21 17:08

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	0.32	ug/L			03/15/21 18:46	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/15/21 18:46	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/15/21 18:46	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/15/21 18:46	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/15/21 18:46	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/15/21 18:46	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/15/21 18:46	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/15/21 18:46	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/15/21 18:46	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/15/21 18:46	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/15/21 18:46	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/15/21 18:46	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/15/21 18:46	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/15/21 18:46	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/15/21 18:46	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/15/21 18:46	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/15/21 18:46	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/15/21 18:46	1
2-Hexanone	ND		6.0	4.3	ug/L			03/15/21 18:46	1
Acetone	ND	*	8.0	4.0	ug/L			03/15/21 18:46	1
Acetonitrile	ND		10	3.9	ug/L			03/15/21 18:46	1
Acrolein	ND		4.0	2.2	ug/L			03/15/21 18:46	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/15/21 18:46	1
Benzene	ND		0.50	0.27	ug/L			03/15/21 18:46	1
Allyl chloride	ND		2.0	0.38	ug/L			03/15/21 18:46	1
Bromoform	ND		0.50	0.39	ug/L			03/15/21 18:46	1
Bromomethane	ND		1.0	0.93	ug/L			03/15/21 18:46	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/15/21 18:46	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/15/21 18:46	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/15/21 18:46	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/15/21 18:46	1
Chloroethane	ND		0.50	0.44	ug/L			03/15/21 18:46	1
Chloroform	ND		0.50	0.28	ug/L			03/15/21 18:46	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: MW-13R

Lab Sample ID: 440-280207-3

Date Collected: 03/09/21 10:34

Matrix: Water

Date Received: 03/09/21 17:08

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.29	ug/L			03/15/21 18:46	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/15/21 18:46	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/15/21 18:46	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/15/21 18:46	1
Dibromomethane	ND		0.50	0.23	ug/L			03/15/21 18:46	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/15/21 18:46	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/15/21 18:46	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/15/21 18:46	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/15/21 18:46	1
Iodomethane	ND		25	5.9	ug/L			03/15/21 18:46	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/15/21 18:46	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/15/21 18:46	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/15/21 18:46	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/15/21 18:46	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/15/21 18:46	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/15/21 18:46	1
Naphthalene	ND		1.0	0.32	ug/L			03/15/21 18:46	1
o-Xylene	ND		0.50	0.35	ug/L			03/15/21 18:46	1
Propionitrile	ND		5.0	3.7	ug/L			03/15/21 18:46	1
Styrene	ND		0.50	0.28	ug/L			03/15/21 18:46	1
t-Butanol	ND		5.0	4.0	ug/L			03/15/21 18:46	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/15/21 18:46	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/15/21 18:46	1
Toluene	ND		0.50	0.33	ug/L			03/15/21 18:46	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/15/21 18:46	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/15/21 18:46	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/15/21 18:46	1
Trichloroethene	ND		0.50	0.29	ug/L			03/15/21 18:46	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/15/21 18:46	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/15/21 18:46	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/15/21 18:46	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/15/21 18:46	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/15/21 18:46	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/15/21 18:46	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1.2	T J	ug/L		1.58			03/15/21 18:46	1
Urea	1.5	T J N	ug/L		1.64	57-13-6		03/15/21 18:46	1
Unknown	1.3	T J	ug/L		1.66			03/15/21 18:46	1
Unknown	1.6	T J	ug/L		1.73			03/15/21 18:46	1
Sulfur dioxide	92	T J N	ug/L		2.01	7446-09-5		03/15/21 18:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		68 - 135		03/15/21 18:46	1
Dibromofluoromethane (Surr)	102		80 - 120		03/15/21 18:46	1
Toluene-d8 (Surr)	100		80 - 120		03/15/21 18:46	1
4-Bromofluorobenzene (Surr)	104		71 - 120		03/15/21 18:46	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: MW-13R

Lab Sample ID: 440-280207-3

Date Collected: 03/09/21 10:34

Matrix: Water

Date Received: 03/09/21 17:08

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	7.8		0.50	0.34	ug/L		03/11/21 08:09	03/16/21 12:20	1
Isotope Dilution									
	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	46		15 - 150				03/11/21 08:09	03/16/21 12:20	1
Surrogate									
	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	108		46 - 128				03/11/21 08:09	03/16/21 12:20	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	98		2.5	1.3	mg/L			03/11/21 05:22	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	22		0.50	0.25	mg/L		03/17/21 11:25	03/18/21 13:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	6.9		0.20	0.10	mg/L			03/15/21 16:19	1
Chemical Oxygen Demand	200		20	10	mg/L			03/17/21 15:39	1
Total Dissolved Solids	1300		20	10	mg/L			03/11/21 09:31	1
Total Organic Carbon	21		0.50	0.25	mg/L			03/11/21 10:00	5
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	710		4.0	4.0	mg/L			03/10/21 09:09	1

Client Sample ID: MW-9

Lab Sample ID: 440-280207-4

Date Collected: 03/09/21 10:57

Matrix: Water

Date Received: 03/09/21 17:08

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	0.32	ug/L			03/13/21 02:59	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/13/21 02:59	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/13/21 02:59	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/13/21 02:59	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/13/21 02:59	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/13/21 02:59	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/13/21 02:59	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/13/21 02:59	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/13/21 02:59	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/13/21 02:59	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/13/21 02:59	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/13/21 02:59	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/13/21 02:59	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/13/21 02:59	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/13/21 02:59	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/13/21 02:59	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/13/21 02:59	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/13/21 02:59	1
2-Hexanone	ND		6.0	4.3	ug/L			03/13/21 02:59	1
Acetone	ND		8.0	4.0	ug/L			03/13/21 02:59	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: MW-9

Lab Sample ID: 440-280207-4

Date Collected: 03/09/21 10:57

Matrix: Water

Date Received: 03/09/21 17:08

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetonitrile	ND		10	3.9	ug/L			03/13/21 02:59	1
Acrolein	ND		4.0	2.2	ug/L			03/13/21 02:59	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/13/21 02:59	1
Benzene	ND		0.50	0.27	ug/L			03/13/21 02:59	1
Allyl chloride	ND		2.0	0.38	ug/L			03/13/21 02:59	1
Bromoform	ND		0.50	0.39	ug/L			03/13/21 02:59	1
Bromomethane	ND		1.0	0.93	ug/L			03/13/21 02:59	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/13/21 02:59	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/13/21 02:59	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/13/21 02:59	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/13/21 02:59	1
Chloroethane	ND		0.50	0.44	ug/L			03/13/21 02:59	1
Chloroform	ND		0.50	0.28	ug/L			03/13/21 02:59	1
Chloromethane	ND		1.0	0.29	ug/L			03/13/21 02:59	1
cis-1,2-Dichloroethene	0.34	J	0.50	0.30	ug/L			03/13/21 02:59	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/13/21 02:59	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/13/21 02:59	1
Dibromomethane	ND		0.50	0.23	ug/L			03/13/21 02:59	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/13/21 02:59	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/13/21 02:59	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/13/21 02:59	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/13/21 02:59	1
Iodomethane	ND		25	5.9	ug/L			03/13/21 02:59	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/13/21 02:59	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/13/21 02:59	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/13/21 02:59	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/13/21 02:59	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/13/21 02:59	1
Methyl tert-butyl ether	0.44	J	0.50	0.21	ug/L			03/13/21 02:59	1
Naphthalene	ND		1.0	0.32	ug/L			03/13/21 02:59	1
o-Xylene	ND		0.50	0.35	ug/L			03/13/21 02:59	1
Propionitrile	ND		5.0	3.7	ug/L			03/13/21 02:59	1
Styrene	ND		0.50	0.28	ug/L			03/13/21 02:59	1
t-Butanol	ND		5.0	4.0	ug/L			03/13/21 02:59	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/13/21 02:59	1
Tetrahydrofuran	6.3		2.0	1.1	ug/L			03/13/21 02:59	1
Toluene	ND		0.50	0.33	ug/L			03/13/21 02:59	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/13/21 02:59	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/13/21 02:59	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/13/21 02:59	1
Trichloroethene	ND		0.50	0.29	ug/L			03/13/21 02:59	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/13/21 02:59	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/13/21 02:59	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/13/21 02:59	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/13/21 02:59	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/13/21 02:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/13/21 02:59	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	3400	T J	ug/L		1.42			03/13/21 02:59	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: MW-9

Lab Sample ID: 440-280207-4

Date Collected: 03/09/21 10:57

Matrix: Water

Date Received: 03/09/21 17:08

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Methane, chlorodifluoro-	79	T J N	ug/L		1.59	75-45-6		03/13/21 02:59	1
Unknown	37	T J	ug/L		1.71			03/13/21 02:59	1
Unknown	42	T J	ug/L		1.86			03/13/21 02:59	1
Unknown	47	T J	ug/L		1.97			03/13/21 02:59	1
Unknown	45	T J	ug/L		2.20			03/13/21 02:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		68 - 135		03/13/21 02:59	1
Dibromofluoromethane (Surr)	100		80 - 120		03/13/21 02:59	1
Toluene-d8 (Surr)	101		80 - 120		03/13/21 02:59	1
4-Bromofluorobenzene (Surr)	96		71 - 120		03/13/21 02:59	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	50		0.50	0.34	ug/L		03/11/21 08:09	03/16/21 12:34	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	45		15 - 150				03/11/21 08:09	03/16/21 12:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	124		46 - 128	03/11/21 08:09	03/16/21 12:34	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	210		25	13	mg/L			03/12/21 02:01	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	17		0.50	0.25	mg/L		03/17/21 11:25	03/18/21 13:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	3.9		0.20	0.10	mg/L			03/15/21 16:24	1
Chemical Oxygen Demand	54		20	10	mg/L			03/17/21 15:39	1
Total Dissolved Solids	3800		50	25	mg/L			03/11/21 09:31	1
Total Organic Carbon	26		0.50	0.25	mg/L			03/11/21 13:20	5

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	650		4.0	4.0	mg/L			03/10/21 09:23	1

Client Sample ID: PZ-2

Lab Sample ID: 440-280207-5

Date Collected: 03/09/21 08:30

Matrix: Water

Date Received: 03/09/21 17:08

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	0.32	ug/L			03/13/21 03:28	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/13/21 03:28	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/13/21 03:28	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/13/21 03:28	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/13/21 03:28	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/13/21 03:28	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: PZ-2

Lab Sample ID: 440-280207-5

Date Collected: 03/09/21 08:30

Matrix: Water

Date Received: 03/09/21 17:08

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/13/21 03:28	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/13/21 03:28	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/13/21 03:28	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/13/21 03:28	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/13/21 03:28	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/13/21 03:28	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/13/21 03:28	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/13/21 03:28	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/13/21 03:28	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/13/21 03:28	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/13/21 03:28	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/13/21 03:28	1
2-Hexanone	ND		6.0	4.3	ug/L			03/13/21 03:28	1
Acetone	ND		8.0	4.0	ug/L			03/13/21 03:28	1
Acetonitrile	ND		10	3.9	ug/L			03/13/21 03:28	1
Acrolein	ND		4.0	2.2	ug/L			03/13/21 03:28	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/13/21 03:28	1
Benzene	ND		0.50	0.27	ug/L			03/13/21 03:28	1
Allyl chloride	ND		2.0	0.38	ug/L			03/13/21 03:28	1
Bromoform	ND		0.50	0.39	ug/L			03/13/21 03:28	1
Bromomethane	ND		1.0	0.93	ug/L			03/13/21 03:28	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/13/21 03:28	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/13/21 03:28	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/13/21 03:28	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/13/21 03:28	1
Chloroethane	ND		0.50	0.44	ug/L			03/13/21 03:28	1
Chloroform	ND		0.50	0.28	ug/L			03/13/21 03:28	1
Chloromethane	ND		1.0	0.29	ug/L			03/13/21 03:28	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/13/21 03:28	1
cis-1,3-Dichloropropane	ND		0.50	0.19	ug/L			03/13/21 03:28	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/13/21 03:28	1
Dibromomethane	ND		0.50	0.23	ug/L			03/13/21 03:28	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/13/21 03:28	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/13/21 03:28	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/13/21 03:28	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/13/21 03:28	1
Iodomethane	ND		25	5.9	ug/L			03/13/21 03:28	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/13/21 03:28	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/13/21 03:28	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/13/21 03:28	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/13/21 03:28	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/13/21 03:28	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/13/21 03:28	1
Naphthalene	ND		1.0	0.32	ug/L			03/13/21 03:28	1
o-Xylene	ND		0.50	0.35	ug/L			03/13/21 03:28	1
Propionitrile	ND		5.0	3.7	ug/L			03/13/21 03:28	1
Styrene	ND		0.50	0.28	ug/L			03/13/21 03:28	1
t-Butanol	ND		5.0	4.0	ug/L			03/13/21 03:28	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/13/21 03:28	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: PZ-2

Lab Sample ID: 440-280207-5

Date Collected: 03/09/21 08:30

Matrix: Water

Date Received: 03/09/21 17:08

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/13/21 03:28	1
Toluene	ND		0.50	0.33	ug/L			03/13/21 03:28	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/13/21 03:28	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/13/21 03:28	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/13/21 03:28	1
Trichloroethene	ND		0.50	0.29	ug/L			03/13/21 03:28	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/13/21 03:28	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/13/21 03:28	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/13/21 03:28	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/13/21 03:28	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/13/21 03:28	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/13/21 03:28	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1300	T J	ug/L		1.42			03/13/21 03:28	1
Unknown	260	T J	ug/L		1.70			03/13/21 03:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		68 - 135		03/13/21 03:28	1
Dibromofluoromethane (Surr)	103		80 - 120		03/13/21 03:28	1
Toluene-d8 (Surr)	102		80 - 120		03/13/21 03:28	1
4-Bromofluorobenzene (Surr)	98		71 - 120		03/13/21 03:28	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/11/21 08:09	03/16/21 12:49	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	50		15 - 150	03/11/21 08:09	03/16/21 12:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	109		46 - 128	03/11/21 08:09	03/16/21 12:49	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		5.0	2.5	mg/L			03/11/21 05:57	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	2.5		0.50	0.25	mg/L		03/16/21 09:00	03/16/21 16:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	3.6		0.20	0.10	mg/L			03/15/21 17:05	1
Chemical Oxygen Demand	ND		20	10	mg/L			03/17/21 15:39	1
Total Dissolved Solids	4000		100	50	mg/L			03/11/21 09:31	1
Total Organic Carbon	2.7		0.10	0.050	mg/L			03/11/21 10:32	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	360		4.0	4.0	mg/L			03/10/21 09:32	1

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: PZ-4

Lab Sample ID: 440-280207-6

Date Collected: 03/09/21 12:36

Matrix: Water

Date Received: 03/09/21 17:08

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	0.32	ug/L			03/13/21 03:58	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/13/21 03:58	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/13/21 03:58	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/13/21 03:58	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/13/21 03:58	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/13/21 03:58	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/13/21 03:58	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/13/21 03:58	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/13/21 03:58	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/13/21 03:58	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/13/21 03:58	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/13/21 03:58	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/13/21 03:58	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/13/21 03:58	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/13/21 03:58	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/13/21 03:58	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/13/21 03:58	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/13/21 03:58	1
2-Hexanone	ND		6.0	4.3	ug/L			03/13/21 03:58	1
Acetone	ND		8.0	4.0	ug/L			03/13/21 03:58	1
Acetonitrile	ND		10	3.9	ug/L			03/13/21 03:58	1
Acrolein	ND		4.0	2.2	ug/L			03/13/21 03:58	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/13/21 03:58	1
Benzene	ND		0.50	0.27	ug/L			03/13/21 03:58	1
Allyl chloride	ND		2.0	0.38	ug/L			03/13/21 03:58	1
Bromoform	ND		0.50	0.39	ug/L			03/13/21 03:58	1
Bromomethane	ND		1.0	0.93	ug/L			03/13/21 03:58	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/13/21 03:58	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/13/21 03:58	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/13/21 03:58	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/13/21 03:58	1
Chloroethane	ND		0.50	0.44	ug/L			03/13/21 03:58	1
Chloroform	ND		0.50	0.28	ug/L			03/13/21 03:58	1
Chloromethane	ND		1.0	0.29	ug/L			03/13/21 03:58	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/13/21 03:58	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/13/21 03:58	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/13/21 03:58	1
Dibromomethane	ND		0.50	0.23	ug/L			03/13/21 03:58	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/13/21 03:58	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/13/21 03:58	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/13/21 03:58	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/13/21 03:58	1
Iodomethane	ND		25	5.9	ug/L			03/13/21 03:58	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/13/21 03:58	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/13/21 03:58	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/13/21 03:58	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/13/21 03:58	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/13/21 03:58	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/13/21 03:58	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: PZ-4

Lab Sample ID: 440-280207-6

Date Collected: 03/09/21 12:36

Matrix: Water

Date Received: 03/09/21 17:08

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.32	ug/L			03/13/21 03:58	1
o-Xylene	ND		0.50	0.35	ug/L			03/13/21 03:58	1
Propionitrile	ND		5.0	3.7	ug/L			03/13/21 03:58	1
Styrene	ND		0.50	0.28	ug/L			03/13/21 03:58	1
t-Butanol	ND		5.0	4.0	ug/L			03/13/21 03:58	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/13/21 03:58	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/13/21 03:58	1
Toluene	ND		0.50	0.33	ug/L			03/13/21 03:58	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/13/21 03:58	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/13/21 03:58	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/13/21 03:58	1
Trichloroethene	ND		0.50	0.29	ug/L			03/13/21 03:58	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/13/21 03:58	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/13/21 03:58	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/13/21 03:58	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/13/21 03:58	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/13/21 03:58	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/13/21 03:58	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	2600	T J	ug/L		1.42			03/13/21 03:58	1
Unknown	110	T J	ug/L		1.70			03/13/21 03:58	1
n-Hexylmethylamine	91	T J N	ug/L		2.09	35161-70-7		03/13/21 03:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		68 - 135		03/13/21 03:58	1
Dibromofluoromethane (Surr)	103		80 - 120		03/13/21 03:58	1
Toluene-d8 (Surr)	103		80 - 120		03/13/21 03:58	1
4-Bromofluorobenzene (Surr)	98		71 - 120		03/13/21 03:58	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/11/21 08:09	03/16/21 13:04	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	51		15 - 150	03/11/21 08:09	03/16/21 13:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	112		46 - 128	03/11/21 08:09	03/16/21 13:04	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.9		2.5	1.3	mg/L			03/11/21 06:15	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	4.1		0.50	0.25	mg/L		03/16/21 09:00	03/16/21 16:21	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			03/15/21 17:10	1
Chemical Oxygen Demand	ND		20	10	mg/L			03/17/21 15:39	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: PZ-4

Lab Sample ID: 440-280207-6

Date Collected: 03/09/21 12:36

Matrix: Water

Date Received: 03/09/21 17:08

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1200		10	5.0	mg/L			03/11/21 09:31	1
Total Organic Carbon	1.5		0.10	0.050	mg/L			03/11/21 10:47	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	330		4.0	4.0	mg/L			03/10/21 09:42	1

Client Sample ID: DW-2

Lab Sample ID: 440-280207-7

Date Collected: 03/09/21 09:10

Matrix: Water

Date Received: 03/09/21 17:08

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	0.32	ug/L			03/13/21 04:28	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/13/21 04:28	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/13/21 04:28	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/13/21 04:28	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/13/21 04:28	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/13/21 04:28	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/13/21 04:28	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/13/21 04:28	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/13/21 04:28	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/13/21 04:28	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/13/21 04:28	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/13/21 04:28	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/13/21 04:28	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/13/21 04:28	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/13/21 04:28	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/13/21 04:28	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/13/21 04:28	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/13/21 04:28	1
2-Hexanone	ND		6.0	4.3	ug/L			03/13/21 04:28	1
Acetone	ND		8.0	4.0	ug/L			03/13/21 04:28	1
Acetonitrile	ND		10	3.9	ug/L			03/13/21 04:28	1
Acrolein	ND		4.0	2.2	ug/L			03/13/21 04:28	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/13/21 04:28	1
Benzene	ND		0.50	0.27	ug/L			03/13/21 04:28	1
Allyl chloride	ND		2.0	0.38	ug/L			03/13/21 04:28	1
Bromoform	ND		0.50	0.39	ug/L			03/13/21 04:28	1
Bromomethane	ND		1.0	0.93	ug/L			03/13/21 04:28	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/13/21 04:28	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/13/21 04:28	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/13/21 04:28	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/13/21 04:28	1
Chloroethane	ND		0.50	0.44	ug/L			03/13/21 04:28	1
Chloroform	ND		0.50	0.28	ug/L			03/13/21 04:28	1
Chloromethane	ND		1.0	0.29	ug/L			03/13/21 04:28	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/13/21 04:28	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/13/21 04:28	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/13/21 04:28	1
Dibromomethane	ND		0.50	0.23	ug/L			03/13/21 04:28	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/13/21 04:28	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: DW-2

Lab Sample ID: 440-280207-7

Date Collected: 03/09/21 09:10

Matrix: Water

Date Received: 03/09/21 17:08

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/13/21 04:28	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/13/21 04:28	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/13/21 04:28	1
Iodomethane	ND		25	5.9	ug/L			03/13/21 04:28	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/13/21 04:28	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/13/21 04:28	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/13/21 04:28	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/13/21 04:28	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/13/21 04:28	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/13/21 04:28	1
Naphthalene	ND		1.0	0.32	ug/L			03/13/21 04:28	1
o-Xylene	ND		0.50	0.35	ug/L			03/13/21 04:28	1
Propionitrile	ND		5.0	3.7	ug/L			03/13/21 04:28	1
Styrene	ND		0.50	0.28	ug/L			03/13/21 04:28	1
t-Butanol	ND		5.0	4.0	ug/L			03/13/21 04:28	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/13/21 04:28	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/13/21 04:28	1
Toluene	ND		0.50	0.33	ug/L			03/13/21 04:28	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/13/21 04:28	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/13/21 04:28	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/13/21 04:28	1
Trichloroethene	ND		0.50	0.29	ug/L			03/13/21 04:28	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/13/21 04:28	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/13/21 04:28	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/13/21 04:28	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/13/21 04:28	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/13/21 04:28	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/13/21 04:28	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1800	T J	ug/L		1.43			03/13/21 04:28	1
Unknown	61	T J	ug/L		1.70			03/13/21 04:28	1
Unknown	39	T J	ug/L		1.93			03/13/21 04:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		68 - 135		03/13/21 04:28	1
Dibromofluoromethane (Surr)	104		80 - 120		03/13/21 04:28	1
Toluene-d8 (Surr)	102		80 - 120		03/13/21 04:28	1
4-Bromofluorobenzene (Surr)	94		71 - 120		03/13/21 04:28	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/11/21 08:09	03/16/21 13:19	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	44		15 - 150	03/11/21 08:09	03/16/21 13:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	116		46 - 128	03/11/21 08:09	03/16/21 13:19	1

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: DW-2

Lab Sample ID: 440-280207-7

Date Collected: 03/09/21 09:10

Matrix: Water

Date Received: 03/09/21 17:08

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		2.5	1.3	mg/L			03/11/21 06:33	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	4.1		0.50	0.25	mg/L		03/16/21 09:00	03/16/21 16:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	3.6		0.20	0.10	mg/L			03/15/21 17:15	1
Chemical Oxygen Demand	ND		20	10	mg/L			03/17/21 15:40	1
Total Dissolved Solids	2000		20	10	mg/L			03/11/21 09:31	1
Total Organic Carbon	1.9		0.10	0.050	mg/L			03/11/21 11:28	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	360		4.0	4.0	mg/L			03/10/21 09:51	1

Client Sample ID: Field Blank

Lab Sample ID: 440-280207-8

Date Collected: 03/09/21 00:01

Matrix: Water

Date Received: 03/09/21 17:08

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	0.32	ug/L			03/13/21 00:30	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/13/21 00:30	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/13/21 00:30	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/13/21 00:30	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/13/21 00:30	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/13/21 00:30	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/13/21 00:30	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/13/21 00:30	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/13/21 00:30	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/13/21 00:30	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/13/21 00:30	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/13/21 00:30	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/13/21 00:30	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/13/21 00:30	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/13/21 00:30	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/13/21 00:30	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/13/21 00:30	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/13/21 00:30	1
2-Hexanone	ND		6.0	4.3	ug/L			03/13/21 00:30	1
Acetone	ND		8.0	4.0	ug/L			03/13/21 00:30	1
Acetonitrile	ND		10	3.9	ug/L			03/13/21 00:30	1
Acrolein	ND		4.0	2.2	ug/L			03/13/21 00:30	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/13/21 00:30	1
Benzene	ND		0.50	0.27	ug/L			03/13/21 00:30	1
Allyl chloride	ND		2.0	0.38	ug/L			03/13/21 00:30	1
Bromoform	ND		0.50	0.39	ug/L			03/13/21 00:30	1
Bromomethane	ND		1.0	0.93	ug/L			03/13/21 00:30	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/13/21 00:30	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/13/21 00:30	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: Field Blank

Lab Sample ID: 440-280207-8

Date Collected: 03/09/21 00:01

Matrix: Water

Date Received: 03/09/21 17:08

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		0.50	0.24	ug/L			03/13/21 00:30	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/13/21 00:30	1
Chloroethane	ND		0.50	0.44	ug/L			03/13/21 00:30	1
Chloroform	ND		0.50	0.28	ug/L			03/13/21 00:30	1
Chloromethane	ND		1.0	0.29	ug/L			03/13/21 00:30	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/13/21 00:30	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/13/21 00:30	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/13/21 00:30	1
Dibromomethane	ND		0.50	0.23	ug/L			03/13/21 00:30	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/13/21 00:30	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/13/21 00:30	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/13/21 00:30	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/13/21 00:30	1
Iodomethane	ND		25	5.9	ug/L			03/13/21 00:30	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/13/21 00:30	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/13/21 00:30	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/13/21 00:30	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/13/21 00:30	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/13/21 00:30	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/13/21 00:30	1
Naphthalene	ND		1.0	0.32	ug/L			03/13/21 00:30	1
o-Xylene	ND		0.50	0.35	ug/L			03/13/21 00:30	1
Propionitrile	ND		5.0	3.7	ug/L			03/13/21 00:30	1
Styrene	ND		0.50	0.28	ug/L			03/13/21 00:30	1
t-Butanol	ND		5.0	4.0	ug/L			03/13/21 00:30	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/13/21 00:30	1
Tetrahydrofuran	1.1	J	2.0	1.1	ug/L			03/13/21 00:30	1
Toluene	ND		0.50	0.33	ug/L			03/13/21 00:30	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/13/21 00:30	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/13/21 00:30	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/13/21 00:30	1
Trichloroethene	ND		0.50	0.29	ug/L			03/13/21 00:30	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/13/21 00:30	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/13/21 00:30	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/13/21 00:30	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/13/21 00:30	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/13/21 00:30	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/13/21 00:30	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	610	T J	ug/L		1.42			03/13/21 00:30	1
Unknown	130	T J	ug/L		1.69			03/13/21 00:30	1
Unknown	44	T J	ug/L		2.18			03/13/21 00:30	1
Unknown	19	T J	ug/L		2.90			03/13/21 00:30	1
Unknown	25	T J	ug/L		3.44			03/13/21 00:30	1
Unknown	14	T J	ug/L		3.78			03/13/21 00:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		68 - 135		03/13/21 00:30	1
Dibromofluoromethane (Surr)	99		80 - 120		03/13/21 00:30	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: Field Blank

Lab Sample ID: 440-280207-8

Date Collected: 03/09/21 00:01

Matrix: Water

Date Received: 03/09/21 17:08

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		80 - 120		03/13/21 00:30	1
4-Bromofluorobenzene (Surr)	95		71 - 120		03/13/21 00:30	1

Client Sample ID: Trip Blank

Lab Sample ID: 440-280207-9

Date Collected: 03/09/21 00:01

Matrix: Water

Date Received: 03/09/21 17:08

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	0.32	ug/L			03/13/21 01:00	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/13/21 01:00	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/13/21 01:00	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/13/21 01:00	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/13/21 01:00	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/13/21 01:00	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/13/21 01:00	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/13/21 01:00	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/13/21 01:00	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/13/21 01:00	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/13/21 01:00	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/13/21 01:00	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/13/21 01:00	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/13/21 01:00	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/13/21 01:00	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/13/21 01:00	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/13/21 01:00	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/13/21 01:00	1
2-Hexanone	ND		6.0	4.3	ug/L			03/13/21 01:00	1
Acetone	ND		8.0	4.0	ug/L			03/13/21 01:00	1
Acetonitrile	ND		10	3.9	ug/L			03/13/21 01:00	1
Acrolein	ND		4.0	2.2	ug/L			03/13/21 01:00	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/13/21 01:00	1
Benzene	ND		0.50	0.27	ug/L			03/13/21 01:00	1
Allyl chloride	ND		2.0	0.38	ug/L			03/13/21 01:00	1
Bromoform	ND		0.50	0.39	ug/L			03/13/21 01:00	1
Bromomethane	ND		1.0	0.93	ug/L			03/13/21 01:00	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/13/21 01:00	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/13/21 01:00	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/13/21 01:00	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/13/21 01:00	1
Chloroethane	ND		0.50	0.44	ug/L			03/13/21 01:00	1
Chloroform	ND		0.50	0.28	ug/L			03/13/21 01:00	1
Chloromethane	ND		1.0	0.29	ug/L			03/13/21 01:00	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/13/21 01:00	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/13/21 01:00	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/13/21 01:00	1
Dibromomethane	ND		0.50	0.23	ug/L			03/13/21 01:00	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/13/21 01:00	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/13/21 01:00	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-280207-9

Date Collected: 03/09/21 00:01

Matrix: Water

Date Received: 03/09/21 17:08

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/13/21 01:00	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/13/21 01:00	1
Iodomethane	ND		25	5.9	ug/L			03/13/21 01:00	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/13/21 01:00	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/13/21 01:00	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/13/21 01:00	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/13/21 01:00	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/13/21 01:00	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/13/21 01:00	1
Naphthalene	ND		1.0	0.32	ug/L			03/13/21 01:00	1
o-Xylene	ND		0.50	0.35	ug/L			03/13/21 01:00	1
Propionitrile	ND		5.0	3.7	ug/L			03/13/21 01:00	1
Styrene	ND		0.50	0.28	ug/L			03/13/21 01:00	1
t-Butanol	ND		5.0	4.0	ug/L			03/13/21 01:00	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/13/21 01:00	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/13/21 01:00	1
Toluene	ND		0.50	0.33	ug/L			03/13/21 01:00	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/13/21 01:00	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/13/21 01:00	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/13/21 01:00	1
Trichloroethene	ND		0.50	0.29	ug/L			03/13/21 01:00	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/13/21 01:00	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/13/21 01:00	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/13/21 01:00	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/13/21 01:00	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/13/21 01:00	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/13/21 01:00	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	620	T J	ug/L		1.42			03/13/21 01:00	1
Unknown	99	T J	ug/L		1.69			03/13/21 01:00	1
Unknown	66	T J	ug/L		2.11			03/13/21 01:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		68 - 135		03/13/21 01:00	1
Dibromofluoromethane (Surr)	101		80 - 120		03/13/21 01:00	1
Toluene-d8 (Surr)	99		80 - 120		03/13/21 01:00	1
4-Bromofluorobenzene (Surr)	95		71 - 120		03/13/21 01:00	1

Method Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
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 5310C	TOC	SM	TAL IRV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL IRV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

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:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494
TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: CM-9R3

Lab Sample ID: 440-280207-1

Date Collected: 03/09/21 08:03

Matrix: Water

Date Received: 03/09/21 17:08

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	20 mL	20 mL	135618	03/13/21 01:59	N1A	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	135125	03/11/21 08:09	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			136113	03/16/21 11:50	ULLI	ECL 1
Total/NA	Analysis	300.0		5			640883	03/11/21 04:47	PS	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	641398	03/16/21 09:00	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641481	03/16/21 16:14	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	641401	03/15/21 15:58	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	641614	03/17/21 15:39	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640896	03/10/21 08:36	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	641018	03/11/21 09:31	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	641121	03/11/21 09:27	YO8L	TAL IRV

Client Sample ID: MW-5

Lab Sample ID: 440-280207-2

Date Collected: 03/09/21 12:22

Matrix: Water

Date Received: 03/09/21 17:08

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	20 mL	20 mL	135618	03/13/21 02:29	N1A	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	135125	03/11/21 08:09	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			136113	03/16/21 12:05	ULLI	ECL 1
Total/NA	Analysis	300.0		50			641013	03/12/21 01:43	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	641398	03/16/21 09:00	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641481	03/16/21 16:17	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	641401	03/15/21 16:14	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	641614	03/17/21 15:39	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640896	03/10/21 08:56	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	641018	03/11/21 09:31	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		5	100 mL	100 mL	641121	03/11/21 13:03	YO8L	TAL IRV

Client Sample ID: MW-13R

Lab Sample ID: 440-280207-3

Date Collected: 03/09/21 10:34

Matrix: Water

Date Received: 03/09/21 17:08

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	20 mL	20 mL	135890	03/15/21 18:46	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	135125	03/11/21 08:09	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			136113	03/16/21 12:20	ULLI	ECL 1
Total/NA	Analysis	300.0		5			640883	03/11/21 05:22	PS	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	641567	03/17/21 11:25	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641724	03/18/21 13:30	VZ0K	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	641401	03/15/21 16:19	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	641614	03/17/21 15:39	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640896	03/10/21 09:09	YO8L	TAL IRV

Eurofins Calscience Irvine

Lab Chronicle

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: MW-13R

Lab Sample ID: 440-280207-3

Date Collected: 03/09/21 10:34

Matrix: Water

Date Received: 03/09/21 17:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	641018	03/11/21 09:31	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		5	100 mL	100 mL	641121	03/11/21 10:00	YO8L	TAL IRV

Client Sample ID: MW-9

Lab Sample ID: 440-280207-4

Date Collected: 03/09/21 10:57

Matrix: Water

Date Received: 03/09/21 17:08

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	20 mL	20 mL	135618	03/13/21 02:59	N1A	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	135125	03/11/21 08:09	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			136113	03/16/21 12:34	ULLI	ECL 1
Total/NA	Analysis	300.0		50			641013	03/12/21 02:01	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	641567	03/17/21 11:25	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641724	03/18/21 13:33	VZ0K	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	641401	03/15/21 16:24	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	641614	03/17/21 15:39	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640896	03/10/21 09:23	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	641018	03/11/21 09:31	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		5	100 mL	100 mL	641121	03/11/21 13:20	YO8L	TAL IRV

Client Sample ID: PZ-2

Lab Sample ID: 440-280207-5

Date Collected: 03/09/21 08:30

Matrix: Water

Date Received: 03/09/21 17:08

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	20 mL	20 mL	135618	03/13/21 03:28	N1A	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	135125	03/11/21 08:09	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			136113	03/16/21 12:49	ULLI	ECL 1
Total/NA	Analysis	300.0		10			640883	03/11/21 05:57	PS	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	641398	03/16/21 09:00	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641481	03/16/21 16:19	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	641401	03/15/21 17:05	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	641614	03/17/21 15:39	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640896	03/10/21 09:32	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	641018	03/11/21 09:31	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	641121	03/11/21 10:32	YO8L	TAL IRV

Client Sample ID: PZ-4

Lab Sample ID: 440-280207-6

Date Collected: 03/09/21 12:36

Matrix: Water

Date Received: 03/09/21 17:08

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	20 mL	20 mL	135618	03/13/21 03:58	N1A	ECL 2

Lab Chronicle

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Client Sample ID: PZ-4

Lab Sample ID: 440-280207-6

Date Collected: 03/09/21 12:36

Matrix: Water

Date Received: 03/09/21 17:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			100.0 mL	10 mL	135125	03/11/21 08:09	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			136113	03/16/21 13:04	ULLI	ECL 1
Total/NA	Analysis	300.0		5			640883	03/11/21 06:15	PS	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	641398	03/16/21 09:00	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641481	03/16/21 16:21	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	641401	03/15/21 17:10	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	641614	03/17/21 15:39	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640896	03/10/21 09:42	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	641018	03/11/21 09:31	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	641121	03/11/21 10:47	YO8L	TAL IRV

Client Sample ID: DW-2

Lab Sample ID: 440-280207-7

Date Collected: 03/09/21 09:10

Matrix: Water

Date Received: 03/09/21 17:08

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	20 mL	20 mL	135618	03/13/21 04:28	N1A	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	135125	03/11/21 08:09	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			136113	03/16/21 13:19	ULLI	ECL 1
Total/NA	Analysis	300.0		5			640883	03/11/21 06:33	PS	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	641398	03/16/21 09:00	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641481	03/16/21 16:24	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	641401	03/15/21 17:15	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	641614	03/17/21 15:40	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640896	03/10/21 09:51	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	641018	03/11/21 09:31	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	641121	03/11/21 11:28	YO8L	TAL IRV

Client Sample ID: Field Blank

Lab Sample ID: 440-280207-8

Date Collected: 03/09/21 00:01

Matrix: Water

Date Received: 03/09/21 17:08

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	20 mL	20 mL	135618	03/13/21 00:30	N1A	ECL 2

Client Sample ID: Trip Blank

Lab Sample ID: 440-280207-9

Date Collected: 03/09/21 00:01

Matrix: Water

Date Received: 03/09/21 17:08

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	20 mL	20 mL	135618	03/13/21 01:00	N1A	ECL 2

Lab Chronicle

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

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

Lab Sample ID: MB 570-135618/8
Matrix: Water
Analysis Batch: 135618

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	0.32	ug/L			03/13/21 00:00	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/13/21 00:00	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/13/21 00:00	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/13/21 00:00	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/13/21 00:00	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/13/21 00:00	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/13/21 00:00	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/13/21 00:00	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/13/21 00:00	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/13/21 00:00	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/13/21 00:00	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/13/21 00:00	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/13/21 00:00	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/13/21 00:00	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/13/21 00:00	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/13/21 00:00	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/13/21 00:00	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/13/21 00:00	1
2-Hexanone	ND		6.0	4.3	ug/L			03/13/21 00:00	1
Acetone	ND		8.0	4.0	ug/L			03/13/21 00:00	1
Acetonitrile	ND		10	3.9	ug/L			03/13/21 00:00	1
Acrolein	ND		4.0	2.2	ug/L			03/13/21 00:00	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/13/21 00:00	1
Benzene	ND		0.50	0.27	ug/L			03/13/21 00:00	1
Allyl chloride	ND		2.0	0.38	ug/L			03/13/21 00:00	1
Bromoform	ND		0.50	0.39	ug/L			03/13/21 00:00	1
Bromomethane	ND		1.0	0.93	ug/L			03/13/21 00:00	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/13/21 00:00	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/13/21 00:00	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/13/21 00:00	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/13/21 00:00	1
Chloroethane	ND		0.50	0.44	ug/L			03/13/21 00:00	1
Chloroform	ND		0.50	0.28	ug/L			03/13/21 00:00	1
Chloromethane	ND		1.0	0.29	ug/L			03/13/21 00:00	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/13/21 00:00	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/13/21 00:00	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/13/21 00:00	1
Dibromomethane	ND		0.50	0.23	ug/L			03/13/21 00:00	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/13/21 00:00	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/13/21 00:00	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/13/21 00:00	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/13/21 00:00	1
Iodomethane	ND		25	5.9	ug/L			03/13/21 00:00	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/13/21 00:00	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/13/21 00:00	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/13/21 00:00	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/13/21 00:00	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/13/21 00:00	1

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

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

Lab Sample ID: MB 570-135618/8
Matrix: Water
Analysis Batch: 135618

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/13/21 00:00	1
Naphthalene	ND		1.0	0.32	ug/L			03/13/21 00:00	1
o-Xylene	ND		0.50	0.35	ug/L			03/13/21 00:00	1
Propionitrile	ND		5.0	3.7	ug/L			03/13/21 00:00	1
Styrene	ND		0.50	0.28	ug/L			03/13/21 00:00	1
t-Butanol	ND		5.0	4.0	ug/L			03/13/21 00:00	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/13/21 00:00	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/13/21 00:00	1
Toluene	ND		0.50	0.33	ug/L			03/13/21 00:00	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/13/21 00:00	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/13/21 00:00	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/13/21 00:00	1
Trichloroethene	ND		0.50	0.29	ug/L			03/13/21 00:00	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/13/21 00:00	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/13/21 00:00	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/13/21 00:00	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/13/21 00:00	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/13/21 00:00	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/13/21 00:00	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					03/13/21 00:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		68 - 135		03/13/21 00:00	1
Dibromofluoromethane (Surr)	100		80 - 120		03/13/21 00:00	1
Toluene-d8 (Surr)	98		80 - 120		03/13/21 00:00	1
4-Bromofluorobenzene (Surr)	95		71 - 120		03/13/21 00:00	1

Lab Sample ID: LCS 570-135618/4
Matrix: Water
Analysis Batch: 135618

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	10.0	9.66		ug/L		97	66 - 131
1,1,1,2-Tetrachloroethane	10.0	9.69		ug/L		97	76 - 143
1,1,1-Trichloroethane	10.0	9.23		ug/L		92	75 - 128
1,1,2,2-Tetrachloroethane	10.0	10.1		ug/L		101	73 - 126
1,1,2-Trichloroethane	10.0	10.3		ug/L		103	80 - 120
1,1-Dichloroethane	10.0	9.10		ug/L		91	76 - 120
1,1-Dichloroethene	10.0	9.05		ug/L		90	72 - 120
1,1-Dichloropropene	10.0	9.62		ug/L		96	76 - 120
1,2,4-Trichlorobenzene	10.0	10.7		ug/L		107	80 - 123
1,2-Dibromo-3-Chloropropane	10.0	8.66		ug/L		87	77 - 120
1,2-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 123
1,2-Dichloroethane	10.0	10.0		ug/L		100	71 - 137
1,2-Dichloropropane	10.0	9.96		ug/L		100	80 - 120
1,3-Dichlorobenzene	10.0	9.95		ug/L		100	79 - 123

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

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

Lab Sample ID: LCS 570-135618/4
Matrix: Water
Analysis Batch: 135618

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	10.0	10.0		ug/L		100	80 - 123
1,4-Dichlorobenzene	10.0	9.77		ug/L		98	75 - 123
2,2-Dichloropropane	10.0	9.32		ug/L		93	78 - 133
2-Hexanone	10.0	10.7		ug/L		107	57 - 127
Acetone	10.0	9.39		ug/L		94	57 - 133
Acrolein	20.0	23.3		ug/L		117	54 - 137
Acrylonitrile	10.0	8.41		ug/L		84	58 - 123
Benzene	10.0	9.82		ug/L		98	80 - 120
Bromoform	10.0	9.67		ug/L		97	46 - 178
Bromomethane	10.0	8.53		ug/L		85	52 - 162
Carbon disulfide	10.0	8.95		ug/L		89	66 - 125
Carbon tetrachloride	10.0	9.12		ug/L		91	69 - 145
Chlorobenzene	10.0	9.78		ug/L		98	80 - 120
Bromochloromethane	10.0	9.47		ug/L		95	76 - 125
Chloroethane	10.0	9.17		ug/L		92	73 - 139
Chloroform	10.0	9.64		ug/L		96	80 - 120
Chloromethane	10.0	9.23		ug/L		92	35 - 159
cis-1,2-Dichloroethene	10.0	9.90		ug/L		99	76 - 122
cis-1,3-Dichloropropene	10.0	9.83		ug/L		98	80 - 122
Dibromochloromethane	10.0	9.90		ug/L		99	63 - 151
Dibromomethane	10.0	9.94		ug/L		99	80 - 121
Bromodichloromethane	10.0	10.3		ug/L		103	77 - 141
Dichlorodifluoromethane	10.0	8.04		ug/L		80	59 - 139
Ethylbenzene	10.0	10.2		ug/L		102	80 - 120
m,p-Xylene	20.0	20.6		ug/L		103	80 - 122
Methylene Chloride	10.0	9.71		ug/L		97	70 - 120
Methyl tert-butyl ether	10.0	9.59		ug/L		96	72 - 120
Naphthalene	10.0	10.1		ug/L		101	75 - 120
o-Xylene	10.0	10.5		ug/L		105	80 - 122
Styrene	10.0	10.6		ug/L		106	80 - 121
t-Butanol	50.0	50.0		ug/L		100	65 - 147
Tetrachloroethene	10.0	9.85		ug/L		98	80 - 128
Toluene	10.0	9.76		ug/L		98	80 - 120
trans-1,2-Dichloroethene	10.0	9.15		ug/L		91	67 - 123
trans-1,3-Dichloropropene	10.0	10.3		ug/L		103	78 - 140
Trichloroethene	10.0	9.50		ug/L		95	80 - 123
Trichlorofluoromethane	10.0	9.07		ug/L		91	64 - 168
Vinyl acetate	10.0	11.5		ug/L		115	75 - 144
Vinyl chloride	10.0	8.96		ug/L		90	74 - 130
1,2-Dibromoethane (EDB)	10.0	10.2		ug/L		102	80 - 120
2-Butanone (MEK)	10.0	9.00		ug/L		90	32 - 133
4-Methyl-2-pentanone (MIBK)	10.0	9.07		ug/L		91	68 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		68 - 135
Dibromofluoromethane (Surr)	102		80 - 120
Toluene-d8 (Surr)	100		80 - 120
4-Bromofluorobenzene (Surr)	103		71 - 120

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

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

Lab Sample ID: LCSD 570-135618/5
Matrix: Water
Analysis Batch: 135618

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD
									Limit
1,2,3-Trichloropropane	10.0	9.70		ug/L		97	66 - 131	0	20
1,1,1,2-Tetrachloroethane	10.0	10.2		ug/L		102	76 - 143	5	20
1,1,1-Trichloroethane	10.0	9.84		ug/L		98	75 - 128	6	20
1,1,2,2-Tetrachloroethane	10.0	10.3		ug/L		103	73 - 126	2	21
1,1,2-Trichloroethane	10.0	10.2		ug/L		102	80 - 120	1	20
1,1-Dichloroethane	10.0	9.60		ug/L		96	76 - 120	5	20
1,1-Dichloroethene	10.0	9.76		ug/L		98	72 - 120	8	20
1,1-Dichloropropene	10.0	10.2		ug/L		102	76 - 120	6	20
1,2,4-Trichlorobenzene	10.0	11.0		ug/L		110	80 - 123	2	20
1,2-Dibromo-3-Chloropropane	10.0	8.89		ug/L		89	77 - 120	3	21
1,2-Dichlorobenzene	10.0	10.5		ug/L		105	79 - 123	3	20
1,2-Dichloroethane	10.0	9.92		ug/L		99	71 - 137	1	20
1,2-Dichloropropane	10.0	10.3		ug/L		103	80 - 120	3	20
1,3-Dichlorobenzene	10.0	10.4		ug/L		104	79 - 123	5	20
1,3-Dichloropropane	10.0	10.3		ug/L		103	80 - 123	2	20
1,4-Dichlorobenzene	10.0	9.97		ug/L		100	75 - 123	2	22
2,2-Dichloropropane	10.0	9.87		ug/L		99	78 - 133	6	20
2-Hexanone	10.0	9.94		ug/L		99	57 - 127	8	21
Acetone	10.0	9.88		ug/L		99	57 - 133	5	28
Acrolein	20.0	21.8		ug/L		109	54 - 137	7	24
Acrylonitrile	10.0	8.94		ug/L		89	58 - 123	6	30
Benzene	10.0	10.3		ug/L		103	80 - 120	4	20
Bromoform	10.0	10.1		ug/L		101	46 - 178	4	23
Bromomethane	10.0	8.63		ug/L		86	52 - 162	1	20
Carbon disulfide	10.0	9.71		ug/L		97	66 - 125	8	20
Carbon tetrachloride	10.0	9.80		ug/L		98	69 - 145	7	20
Chlorobenzene	10.0	10.2		ug/L		102	80 - 120	4	20
Bromochloromethane	10.0	10.0		ug/L		100	76 - 125	6	20
Chloroethane	10.0	9.82		ug/L		98	73 - 139	7	20
Chloroform	10.0	10.0		ug/L		100	80 - 120	4	20
Chloromethane	10.0	9.35		ug/L		94	35 - 159	1	20
cis-1,2-Dichloroethene	10.0	10.4		ug/L		104	76 - 122	5	20
cis-1,3-Dichloropropene	10.0	9.96		ug/L		100	80 - 122	1	20
Dibromochloromethane	10.0	10.5		ug/L		105	63 - 151	6	20
Dibromomethane	10.0	10.1		ug/L		101	80 - 121	2	20
Bromodichloromethane	10.0	10.5		ug/L		105	77 - 141	2	20
Dichlorodifluoromethane	10.0	8.73		ug/L		87	59 - 139	8	20
Ethylbenzene	10.0	10.7		ug/L		107	80 - 120	5	20
m,p-Xylene	20.0	21.7		ug/L		108	80 - 122	5	20
Methylene Chloride	10.0	9.90		ug/L		99	70 - 120	2	20
Methyl tert-butyl ether	10.0	9.78		ug/L		98	72 - 120	2	20
Naphthalene	10.0	10.4		ug/L		104	75 - 120	2	22
o-Xylene	10.0	10.8		ug/L		108	80 - 122	4	20
Styrene	10.0	11.0		ug/L		110	80 - 121	4	20
t-Butanol	50.0	47.2		ug/L		94	65 - 147	6	21
Tetrachloroethene	10.0	10.4		ug/L		104	80 - 128	6	20
Toluene	10.0	10.2		ug/L		102	80 - 120	4	20
trans-1,2-Dichloroethene	10.0	9.74		ug/L		97	67 - 123	6	20

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

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

Lab Sample ID: LCSD 570-135618/5
Matrix: Water
Analysis Batch: 135618

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	10.0	10.7		ug/L		107	78 - 140	3	20
Trichloroethene	10.0	10.2		ug/L		102	80 - 123	7	20
Trichlorofluoromethane	10.0	9.83		ug/L		98	64 - 168	8	20
Vinyl acetate	10.0	12.7		ug/L		127	75 - 144	10	25
Vinyl chloride	10.0	9.75		ug/L		98	74 - 130	8	20
1,2-Dibromoethane (EDB)	10.0	10.4		ug/L		104	80 - 120	1	20
2-Butanone (MEK)	10.0	9.36		ug/L		94	32 - 133	4	26
4-Methyl-2-pentanone (MIBK)	10.0	9.17		ug/L		92	68 - 120	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	98		68 - 135
Dibromofluoromethane (Surr)	100		80 - 120
Toluene-d8 (Surr)	98		80 - 120
4-Bromofluorobenzene (Surr)	104		71 - 120

Lab Sample ID: 440-280207-1 MS
Matrix: Water
Analysis Batch: 135618

Client Sample ID: CM-9R3
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		10.0	10.2		ug/L		102	66 - 139
1,1,1,2-Tetrachloroethane	ND		10.0	10.7		ug/L		107	57 - 157
1,1,1-Trichloroethane	ND		10.0	10.6		ug/L		106	54 - 152
1,1,2,2-Tetrachloroethane	ND		10.0	11.2		ug/L		112	67 - 143
1,1,2-Trichloroethane	ND		10.0	10.9		ug/L		109	70 - 138
1,1-Dichloroethane	ND		10.0	10.6		ug/L		106	57 - 140
1,1-Dichloroethene	ND		10.0	10.3		ug/L		103	48 - 146
1,1-Dichloropropene	ND		10.0	10.6		ug/L		106	56 - 144
1,2,4-Trichlorobenzene	ND		10.0	11.0		ug/L		110	64 - 146
1,2-Dibromo-3-Chloropropane	ND		10.0	9.37		ug/L		94	57 - 145
1,2-Dichlorobenzene	ND		10.0	10.7		ug/L		107	63 - 146
1,2-Dichloroethane	ND		10.0	11.1		ug/L		111	63 - 151
1,2-Dichloropropane	ND		10.0	10.9		ug/L		109	65 - 143
1,3-Dichlorobenzene	ND		10.0	10.5		ug/L		105	61 - 145
1,3-Dichloropropane	ND		10.0	11.0		ug/L		110	70 - 137
1,4-Dichlorobenzene	ND		10.0	10.3		ug/L		103	61 - 141
2,2-Dichloropropane	ND		10.0	8.86		ug/L		89	56 - 148
2-Hexanone	ND		10.0	11.5		ug/L		115	61 - 139
Acetone	ND		10.0	11.1		ug/L		111	49 - 130
Acrolein	ND		20.0	21.4		ug/L		107	45 - 166
Acrylonitrile	ND		10.0	9.89		ug/L		99	41 - 153
Benzene	ND		10.0	11.2		ug/L		112	61 - 143
Bromoform	ND		10.0	10.6		ug/L		106	48 - 168
Bromomethane	ND		10.0	8.77		ug/L		88	58 - 175
Carbon disulfide	ND		10.0	10.2		ug/L		102	48 - 149
Carbon tetrachloride	ND		10.0	9.97		ug/L		100	46 - 167
Chlorobenzene	ND		10.0	10.6		ug/L		106	62 - 143
Bromochloromethane	ND		10.0	10.7		ug/L		107	65 - 140

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

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

Lab Sample ID: 440-280207-1 MS
Matrix: Water
Analysis Batch: 135618

Client Sample ID: CM-9R3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	ND		10.0	10.3		ug/L		103	65 - 162
Chloroform	ND		10.0	11.0		ug/L		110	62 - 145
Chloromethane	ND		10.0	9.44		ug/L		94	21 - 171
cis-1,2-Dichloroethene	ND		10.0	11.4		ug/L		114	53 - 156
cis-1,3-Dichloropropene	ND		10.0	10.4		ug/L		104	65 - 142
Dibromochloromethane	ND		10.0	11.3		ug/L		113	56 - 156
Dibromomethane	ND		10.0	11.1		ug/L		111	69 - 142
Bromodichloromethane	ND		10.0	11.6		ug/L		116	61 - 158
Dichlorodifluoromethane	ND		10.0	7.11		ug/L		71	38 - 159
Ethylbenzene	ND		10.0	11.0		ug/L		110	59 - 145
m,p-Xylene	ND		20.0	22.3		ug/L		111	61 - 150
Methylene Chloride	ND		10.0	11.0		ug/L		110	57 - 131
Methyl tert-butyl ether	ND		10.0	10.7		ug/L		107	62 - 125
Naphthalene	ND		10.0	11.2		ug/L		112	54 - 148
o-Xylene	ND		10.0	11.3		ug/L		113	61 - 150
Styrene	ND		10.0	11.4		ug/L		114	53 - 146
t-Butanol	ND		50.0	60.5		ug/L		121	67 - 156
Tetrachloroethene	ND		10.0	10.5		ug/L		105	52 - 156
Toluene	ND		10.0	10.7		ug/L		107	62 - 145
trans-1,2-Dichloroethene	ND		10.0	10.6		ug/L		106	54 - 142
trans-1,3-Dichloropropene	ND		10.0	10.6		ug/L		106	66 - 146
Trichloroethene	ND		10.0	10.7		ug/L		107	35 - 163
Trichlorofluoromethane	ND		10.0	9.02		ug/L		90	75 - 151
Vinyl acetate	ND		10.0	13.4		ug/L		134	61 - 170
Vinyl chloride	ND		10.0	9.80		ug/L		98	75 - 139
1,2-Dibromoethane (EDB)	ND		10.0	11.3		ug/L		113	69 - 139
2-Butanone (MEK)	ND		10.0	9.99		ug/L		100	48 - 141
4-Methyl-2-pentanone (MIBK)	ND		10.0	10.4		ug/L		104	63 - 139

Surrogate	MS %Recovery	MS Qualifier	MS Limits
1,2-Dichloroethane-d4 (Surr)	104		68 - 135
Dibromofluoromethane (Surr)	102		80 - 120
Toluene-d8 (Surr)	97		80 - 120
4-Bromofluorobenzene (Surr)	103		71 - 120

Lab Sample ID: 440-280207-1 MSD
Matrix: Water
Analysis Batch: 135618

Client Sample ID: CM-9R3
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		10.0	10.2		ug/L		102	66 - 139	0	20
1,1,1,2-Tetrachloroethane	ND		10.0	11.1		ug/L		111	57 - 157	3	20
1,1,1-Trichloroethane	ND		10.0	10.5		ug/L		105	54 - 152	1	26
1,1,2,2-Tetrachloroethane	ND		10.0	11.1		ug/L		111	67 - 143	1	20
1,1,2-Trichloroethane	ND		10.0	10.9		ug/L		109	70 - 138	0	20
1,1-Dichloroethane	ND		10.0	10.5		ug/L		105	57 - 140	1	22
1,1-Dichloroethene	ND		10.0	10.2		ug/L		102	48 - 146	1	28
1,1-Dichloropropene	ND		10.0	10.6		ug/L		106	56 - 144	0	27

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

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

Lab Sample ID: 440-280207-1 MSD

Client Sample ID: CM-9R3

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 135618

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	ND		10.0	11.5		ug/L		115	64 - 146	5	25
1,2-Dibromo-3-Chloropropane	ND		10.0	9.45		ug/L		94	57 - 145	1	21
1,2-Dichlorobenzene	ND		10.0	11.1		ug/L		111	63 - 146	4	20
1,2-Dichloroethane	ND		10.0	11.4		ug/L		114	63 - 151	2	20
1,2-Dichloropropane	ND		10.0	10.9		ug/L		109	65 - 143	1	20
1,3-Dichlorobenzene	ND		10.0	10.9		ug/L		109	61 - 145	4	22
1,3-Dichloropropane	ND		10.0	10.9		ug/L		109	70 - 137	1	20
1,4-Dichlorobenzene	ND		10.0	10.6		ug/L		106	61 - 141	3	22
2,2-Dichloropropane	ND		10.0	8.76		ug/L		88	56 - 148	1	26
2-Hexanone	ND		10.0	11.6		ug/L		116	61 - 139	1	21
Acetone	ND		10.0	10.6		ug/L		106	49 - 130	4	26
Acrolein	ND		20.0	20.3		ug/L		102	45 - 166	5	32
Acrylonitrile	ND		10.0	8.98		ug/L		90	41 - 153	10	40
Benzene	ND		10.0	11.3		ug/L		113	61 - 143	1	20
Bromoform	ND		10.0	11.0		ug/L		110	48 - 168	4	20
Bromomethane	ND		10.0	8.45		ug/L		85	58 - 175	4	22
Carbon disulfide	ND		10.0	10.0		ug/L		100	48 - 149	2	25
Carbon tetrachloride	ND		10.0	10.4		ug/L		104	46 - 167	5	29
Chlorobenzene	ND		10.0	10.8		ug/L		108	62 - 143	1	20
Bromochloromethane	ND		10.0	10.4		ug/L		104	65 - 140	3	20
Chloroethane	ND		10.0	9.80		ug/L		98	65 - 162	5	20
Chloroform	ND		10.0	11.0		ug/L		110	62 - 145	0	20
Chloromethane	ND		10.0	9.42		ug/L		94	21 - 171	0	20
cis-1,2-Dichloroethene	ND		10.0	11.2		ug/L		112	53 - 156	2	20
cis-1,3-Dichloropropene	ND		10.0	10.5		ug/L		105	65 - 142	1	20
Dibromochloromethane	ND		10.0	11.3		ug/L		113	56 - 156	0	20
Dibromomethane	ND		10.0	11.1		ug/L		111	69 - 142	1	20
Bromodichloromethane	ND		10.0	11.7		ug/L		117	61 - 158	2	20
Dichlorodifluoromethane	ND		10.0	6.56		ug/L		66	38 - 159	8	21
Ethylbenzene	ND		10.0	11.3		ug/L		113	59 - 145	3	23
m,p-Xylene	ND		20.0	22.7		ug/L		114	61 - 150	2	23
Methylene Chloride	ND		10.0	10.6		ug/L		106	57 - 131	4	21
Methyl tert-butyl ether	ND		10.0	10.6		ug/L		106	62 - 125	1	20
Naphthalene	ND		10.0	11.3		ug/L		113	54 - 148	1	22
o-Xylene	ND		10.0	11.5		ug/L		115	61 - 150	2	20
Styrene	ND		10.0	11.4		ug/L		114	53 - 146	0	22
t-Butanol	ND		50.0	58.0		ug/L		116	67 - 156	4	28
Tetrachloroethene	ND		10.0	10.6		ug/L		106	52 - 156	1	26
Toluene	ND		10.0	11.0		ug/L		110	62 - 145	3	21
trans-1,2-Dichloroethene	ND		10.0	10.5		ug/L		105	54 - 142	1	25
trans-1,3-Dichloropropene	ND		10.0	10.9		ug/L		109	66 - 146	3	20
Trichloroethene	ND		10.0	11.0		ug/L		110	35 - 163	2	21
Trichlorofluoromethane	ND		10.0	8.67		ug/L		87	75 - 151	4	20
Vinyl acetate	ND		10.0	13.3		ug/L		133	61 - 170	0	27
Vinyl chloride	ND		10.0	9.71		ug/L		97	75 - 139	1	20
1,2-Dibromoethane (EDB)	ND		10.0	10.7		ug/L		107	69 - 139	6	20
2-Butanone (MEK)	ND		10.0	9.67		ug/L		97	48 - 141	3	26
4-Methyl-2-pentanone (MIBK)	ND		10.0	10.1		ug/L		101	63 - 139	2	20

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

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

Lab Sample ID: 440-280207-1 MSD
Matrix: Water
Analysis Batch: 135618

Client Sample ID: CM-9R3
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		68 - 135
Dibromofluoromethane (Surr)	101		80 - 120
Toluene-d8 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	102		71 - 120

Lab Sample ID: MB 570-135890/10
Matrix: Water
Analysis Batch: 135890

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	0.32	ug/L			03/15/21 13:18	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/15/21 13:18	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/15/21 13:18	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/15/21 13:18	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/15/21 13:18	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/15/21 13:18	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/15/21 13:18	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/15/21 13:18	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/15/21 13:18	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/15/21 13:18	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/15/21 13:18	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/15/21 13:18	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/15/21 13:18	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/15/21 13:18	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/15/21 13:18	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/15/21 13:18	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/15/21 13:18	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/15/21 13:18	1
2-Hexanone	ND		6.0	4.3	ug/L			03/15/21 13:18	1
Acetone	ND		8.0	4.0	ug/L			03/15/21 13:18	1
Acetonitrile	ND		10	3.9	ug/L			03/15/21 13:18	1
Acrolein	ND		4.0	2.2	ug/L			03/15/21 13:18	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/15/21 13:18	1
Benzene	ND		0.50	0.27	ug/L			03/15/21 13:18	1
Allyl chloride	ND		2.0	0.38	ug/L			03/15/21 13:18	1
Bromoform	ND		0.50	0.39	ug/L			03/15/21 13:18	1
Bromomethane	ND		1.0	0.93	ug/L			03/15/21 13:18	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/15/21 13:18	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/15/21 13:18	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/15/21 13:18	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/15/21 13:18	1
Chloroethane	ND		0.50	0.44	ug/L			03/15/21 13:18	1
Chloroform	ND		0.50	0.28	ug/L			03/15/21 13:18	1
Chloromethane	ND		1.0	0.29	ug/L			03/15/21 13:18	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/15/21 13:18	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/15/21 13:18	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/15/21 13:18	1
Dibromomethane	ND		0.50	0.23	ug/L			03/15/21 13:18	1

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

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

Lab Sample ID: MB 570-135890/10
Matrix: Water
Analysis Batch: 135890

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		0.50	0.22	ug/L			03/15/21 13:18	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/15/21 13:18	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/15/21 13:18	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/15/21 13:18	1
Iodomethane	ND		25	5.9	ug/L			03/15/21 13:18	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/15/21 13:18	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/15/21 13:18	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/15/21 13:18	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/15/21 13:18	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/15/21 13:18	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/15/21 13:18	1
Naphthalene	ND		1.0	0.32	ug/L			03/15/21 13:18	1
o-Xylene	ND		0.50	0.35	ug/L			03/15/21 13:18	1
Propionitrile	ND		5.0	3.7	ug/L			03/15/21 13:18	1
Styrene	ND		0.50	0.28	ug/L			03/15/21 13:18	1
t-Butanol	ND		5.0	4.0	ug/L			03/15/21 13:18	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/15/21 13:18	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/15/21 13:18	1
Toluene	ND		0.50	0.33	ug/L			03/15/21 13:18	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/15/21 13:18	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/15/21 13:18	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/15/21 13:18	1
Trichloroethene	ND		0.50	0.29	ug/L			03/15/21 13:18	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/15/21 13:18	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/15/21 13:18	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/15/21 13:18	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/15/21 13:18	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/15/21 13:18	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/15/21 13:18	1

<i>Tentatively Identified Compound</i>	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
<i>Tentatively Identified Compound</i>	None		ug/L					03/15/21 13:18	1

<i>Surrogate</i>	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>1,2-Dichloroethane-d4 (Surr)</i>	97		68 - 135		03/15/21 13:18	1
<i>Dibromofluoromethane (Surr)</i>	96		80 - 120		03/15/21 13:18	1
<i>Toluene-d8 (Surr)</i>	101		80 - 120		03/15/21 13:18	1
<i>4-Bromofluorobenzene (Surr)</i>	104		71 - 120		03/15/21 13:18	1

Lab Sample ID: LCS 570-135890/7
Matrix: Water
Analysis Batch: 135890

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	10.0	10.2		ug/L		102	66 - 131
1,1,1,2-Tetrachloroethane	10.0	10.8		ug/L		108	76 - 143
1,1,1-Trichloroethane	10.0	9.23		ug/L		92	75 - 128
1,1,2,2-Tetrachloroethane	10.0	9.37		ug/L		94	73 - 126

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

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

Lab Sample ID: LCS 570-135890/7
Matrix: Water
Analysis Batch: 135890

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	10.0	9.61		ug/L		96	80 - 120
1,1-Dichloroethane	10.0	10.7		ug/L		107	76 - 120
1,1-Dichloroethene	10.0	8.32		ug/L		83	72 - 120
1,1-Dichloropropene	10.0	9.85		ug/L		99	76 - 120
1,2,4-Trichlorobenzene	10.0	11.1		ug/L		111	80 - 123
1,2-Dibromo-3-Chloropropane	10.0	8.06		ug/L		81	77 - 120
1,2-Dichlorobenzene	10.0	10.5		ug/L		105	79 - 123
1,2-Dichloroethane	10.0	10.3		ug/L		103	71 - 137
1,2-Dichloropropane	10.0	11.1		ug/L		111	80 - 120
1,3-Dichlorobenzene	10.0	11.6		ug/L		116	79 - 123
1,3-Dichloropropane	10.0	10.7		ug/L		107	80 - 123
1,4-Dichlorobenzene	10.0	10.7		ug/L		107	75 - 123
2,2-Dichloropropane	10.0	10.8		ug/L		108	78 - 133
2-Hexanone	10.0	9.37		ug/L		94	57 - 127
Acetone	10.0	5.40	J *	ug/L		54	57 - 133
Acrolein	20.0	15.3		ug/L		76	54 - 137
Acrylonitrile	10.0	9.10		ug/L		91	58 - 123
Benzene	10.0	10.5		ug/L		105	80 - 120
Bromoform	10.0	9.72		ug/L		97	46 - 178
Bromomethane	10.0	10.9		ug/L		109	52 - 162
Carbon disulfide	10.0	10.2		ug/L		102	66 - 125
Carbon tetrachloride	10.0	8.75		ug/L		88	69 - 145
Chlorobenzene	10.0	11.6		ug/L		116	80 - 120
Bromochloromethane	10.0	9.91		ug/L		99	76 - 125
Chloroethane	10.0	10.4		ug/L		104	73 - 139
Chloroform	10.0	10.1		ug/L		101	80 - 120
Chloromethane	10.0	8.68		ug/L		87	35 - 159
cis-1,2-Dichloroethene	10.0	10.3		ug/L		103	76 - 122
cis-1,3-Dichloropropene	10.0	10.2		ug/L		102	80 - 122
Dibromochloromethane	10.0	10.6		ug/L		106	63 - 151
Dibromomethane	10.0	9.79		ug/L		98	80 - 121
Bromodichloromethane	10.0	9.88		ug/L		99	77 - 141
Dichlorodifluoromethane	10.0	9.97		ug/L		100	59 - 139
Ethylbenzene	10.0	11.6		ug/L		116	80 - 120
m,p-Xylene	20.0	23.5		ug/L		118	80 - 122
Methylene Chloride	10.0	9.42		ug/L		94	70 - 120
Methyl tert-butyl ether	10.0	8.98		ug/L		90	72 - 120
Naphthalene	10.0	9.59		ug/L		96	75 - 120
o-Xylene	10.0	12.0		ug/L		120	80 - 122
Styrene	10.0	12.1		ug/L		121	80 - 121
t-Butanol	50.0	49.4		ug/L		99	65 - 147
Tetrachloroethene	10.0	11.7		ug/L		117	80 - 128
Toluene	10.0	10.6		ug/L		106	80 - 120
trans-1,2-Dichloroethene	10.0	10.0		ug/L		100	67 - 123
trans-1,3-Dichloropropene	10.0	10.8		ug/L		108	78 - 140
Trichloroethene	10.0	10.3		ug/L		103	80 - 123
Trichlorofluoromethane	10.0	10.3		ug/L		103	64 - 168
Vinyl acetate	10.0	9.55		ug/L		96	75 - 144
Vinyl chloride	10.0	10.5		ug/L		105	74 - 130

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

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

Lab Sample ID: LCS 570-135890/7
Matrix: Water
Analysis Batch: 135890

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane (EDB)	10.0	9.72		ug/L		97	80 - 120
2-Butanone (MEK)	10.0	7.00		ug/L		70	32 - 133
4-Methyl-2-pentanone (MIBK)	10.0	8.29		ug/L		83	68 - 120
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
1,2-Dichloroethane-d4 (Surr)	88		68 - 135				
Dibromofluoromethane (Surr)	97		80 - 120				
Toluene-d8 (Surr)	100		80 - 120				
4-Bromofluorobenzene (Surr)	100		71 - 120				

Lab Sample ID: LCSD 570-135890/8
Matrix: Water
Analysis Batch: 135890

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	10.0	10.5		ug/L		105	66 - 131	3	20
1,1,1,2-Tetrachloroethane	10.0	10.4		ug/L		104	76 - 143	3	20
1,1,1-Trichloroethane	10.0	9.04		ug/L		90	75 - 128	2	20
1,1,1,2-Tetrachloroethane	10.0	9.38		ug/L		94	73 - 126	0	21
1,1,2-Trichloroethane	10.0	9.78		ug/L		98	80 - 120	2	20
1,1-Dichloroethane	10.0	10.6		ug/L		106	76 - 120	1	20
1,1-Dichloroethene	10.0	8.07		ug/L		81	72 - 120	3	20
1,1-Dichloropropene	10.0	9.57		ug/L		96	76 - 120	3	20
1,2,4-Trichlorobenzene	10.0	10.5		ug/L		105	80 - 123	5	20
1,2-Dibromo-3-Chloropropane	10.0	8.83		ug/L		88	77 - 120	9	21
1,2-Dichlorobenzene	10.0	10.3		ug/L		103	79 - 123	2	20
1,2-Dichloroethane	10.0	10.6		ug/L		106	71 - 137	3	20
1,2-Dichloropropane	10.0	10.9		ug/L		109	80 - 120	2	20
1,3-Dichlorobenzene	10.0	10.5		ug/L		105	79 - 123	10	20
1,3-Dichloropropane	10.0	11.0		ug/L		110	80 - 123	3	20
1,4-Dichlorobenzene	10.0	9.95		ug/L		99	75 - 123	7	22
2,2-Dichloropropane	10.0	10.3		ug/L		103	78 - 133	5	20
2-Hexanone	10.0	11.6		ug/L		116	57 - 127	21	21
Acetone	10.0	6.01	J	ug/L		60	57 - 133	11	28
Acrolein	20.0	16.6		ug/L		83	54 - 137	8	24
Acrylonitrile	10.0	9.95		ug/L		100	58 - 123	9	30
Benzene	10.0	10.1		ug/L		101	80 - 120	4	20
Bromoform	10.0	9.58		ug/L		96	46 - 178	1	23
Bromomethane	10.0	10.4		ug/L		104	52 - 162	5	20
Carbon disulfide	10.0	9.73		ug/L		97	66 - 125	5	20
Carbon tetrachloride	10.0	8.74		ug/L		87	69 - 145	0	20
Chlorobenzene	10.0	11.1		ug/L		111	80 - 120	4	20
Bromochloromethane	10.0	10.0		ug/L		100	76 - 125	1	20
Chloroethane	10.0	9.93		ug/L		99	73 - 139	4	20
Chloroform	10.0	10.1		ug/L		101	80 - 120	0	20
Chloromethane	10.0	8.00		ug/L		80	35 - 159	8	20
cis-1,2-Dichloroethene	10.0	10.4		ug/L		104	76 - 122	1	20
cis-1,3-Dichloropropene	10.0	10.2		ug/L		102	80 - 122	0	20

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

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

Lab Sample ID: LCSD 570-135890/8
Matrix: Water
Analysis Batch: 135890

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromochloromethane	10.0	10.8		ug/L		108	63 - 151	1	20
Dibromomethane	10.0	10.3		ug/L		103	80 - 121	5	20
Bromodichloromethane	10.0	9.71		ug/L		97	77 - 141	2	20
Dichlorodifluoromethane	10.0	9.59		ug/L		96	59 - 139	4	20
Ethylbenzene	10.0	10.9		ug/L		109	80 - 120	6	20
m,p-Xylene	20.0	21.9		ug/L		110	80 - 122	7	20
Methylene Chloride	10.0	9.51		ug/L		95	70 - 120	1	20
Methyl tert-butyl ether	10.0	10.2		ug/L		102	72 - 120	13	20
Naphthalene	10.0	10.1		ug/L		101	75 - 120	5	22
o-Xylene	10.0	11.3		ug/L		113	80 - 122	6	20
Styrene	10.0	11.7		ug/L		117	80 - 121	4	20
t-Butanol	50.0	42.8		ug/L		86	65 - 147	14	21
Tetrachloroethene	10.0	10.9		ug/L		109	80 - 128	7	20
Toluene	10.0	10.2		ug/L		102	80 - 120	4	20
trans-1,2-Dichloroethene	10.0	9.75		ug/L		98	67 - 123	3	20
trans-1,3-Dichloropropene	10.0	11.1		ug/L		111	78 - 140	3	20
Trichloroethene	10.0	10.1		ug/L		101	80 - 123	3	20
Trichlorofluoromethane	10.0	9.77		ug/L		98	64 - 168	6	20
Vinyl acetate	10.0	9.87		ug/L		99	75 - 144	3	25
Vinyl chloride	10.0	9.97		ug/L		100	74 - 130	5	20
1,2-Dibromoethane (EDB)	10.0	10.6		ug/L		106	80 - 120	8	20
2-Butanone (MEK)	10.0	8.69		ug/L		87	32 - 133	22	26
4-Methyl-2-pentanone (MIBK)	10.0	9.47		ug/L		95	68 - 120	13	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		68 - 135
Dibromofluoromethane (Surr)	104		80 - 120
Toluene-d8 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	101		71 - 120

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-135125/1-A
Matrix: Water
Analysis Batch: 136113

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 135125

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/11/21 08:09	03/16/21 07:24	1
Isotope Dilution	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	57		15 - 150				03/11/21 08:09	03/16/21 07:24	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	110		46 - 128				03/11/21 08:09	03/16/21 07:24	1

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: LCS 570-135125/2-A
Matrix: Water
Analysis Batch: 136113

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 135125

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	20.0	21.8		ug/L		109	57 - 136
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
1,4-Dioxane-d8	55		15 - 150				
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
Nitrobenzene-d5 (Surr)	111		46 - 128				

Lab Sample ID: LCSD 570-135125/3-A
Matrix: Water
Analysis Batch: 136113

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 135125

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
1,4-Dioxane	20.0	18.8		ug/L		94	57 - 136	14	20
LCSD LCSD									
Isotope Dilution	%Recovery	Qualifier	Limits						
1,4-Dioxane-d8	60		15 - 150						
LCSD LCSD									
Surrogate	%Recovery	Qualifier	Limits						
Nitrobenzene-d5 (Surr)	108		46 - 128						

Lab Sample ID: 570-53275-D-2-A MS
Matrix: Water
Analysis Batch: 136113

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 135125

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	ND		20.0	20.3		ug/L		101	45 - 139
MS MS									
Isotope Dilution	%Recovery	Qualifier	Limits						
1,4-Dioxane-d8	70		15 - 150						
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
Nitrobenzene-d5 (Surr)	106		46 - 128						

Lab Sample ID: 570-53275-D-2-B MSD
Matrix: Water
Analysis Batch: 136113

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 135125

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
1,4-Dioxane	ND		20.0	19.4		ug/L		97	45 - 139	5	17
MSD MSD											
Isotope Dilution	%Recovery	Qualifier	Limits								
1,4-Dioxane-d8	57		15 - 150								
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
Nitrobenzene-d5 (Surr)	105		46 - 128								

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-640883/6
Matrix: Water
Analysis Batch: 640883

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			03/10/21 11:13	1

Lab Sample ID: LCS 440-640883/5
Matrix: Water
Analysis Batch: 640883

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.73		mg/L		95	90 - 110

Lab Sample ID: 440-280285-E-4 MS
Matrix: Water
Analysis Batch: 640883

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
Chloride	1200	E	250	1490	E 4	mg/L		110	80 - 120

Lab Sample ID: 440-280285-E-4 MSD
Matrix: Water
Analysis Batch: 640883

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	1200	E	250	1500	E 4	mg/L		113	80 - 120	0	20

Lab Sample ID: MB 440-641013/6
Matrix: Water
Analysis Batch: 641013

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			03/11/21 11:50	1

Lab Sample ID: LCS 440-641013/5
Matrix: Water
Analysis Batch: 641013

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.82		mg/L		96	90 - 110

Lab Sample ID: 440-280248-A-8 MS
Matrix: Water
Analysis Batch: 641013

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
Chloride	180	E	5.00	185	E 4	mg/L		108	80 - 120

Lab Sample ID: 440-280248-A-8 MSD
Matrix: Water
Analysis Batch: 641013

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	180	E	5.00	187	E 4	mg/L		130	80 - 120	1	20

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-641398/1-A
Matrix: Water
Analysis Batch: 641463

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 641398

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	ND		0.50	0.25	mg/L		03/16/21 09:00	03/16/21 14:38	1

Lab Sample ID: LCS 440-641398/2-A
Matrix: Water
Analysis Batch: 641463

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 641398

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	10.0	9.79		mg/L		98	80 - 120

Lab Sample ID: 320-70724-C-1-B MS
Matrix: Water
Analysis Batch: 641463

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 641398

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	2.5		10.0	11.2		mg/L		87	75 - 125

Lab Sample ID: 320-70724-C-1-C MSD
Matrix: Water
Analysis Batch: 641463

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 641398

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Potassium	2.5		10.0	12.6		mg/L		101	75 - 125	12	20

Lab Sample ID: MB 440-641567/1-A
Matrix: Water
Analysis Batch: 641724

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 641567

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	ND		0.50	0.25	mg/L		03/17/21 11:25	03/18/21 12:39	1

Lab Sample ID: LCS 440-641567/2-A
Matrix: Water
Analysis Batch: 641724

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 641567

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	10.0	9.65		mg/L		96	80 - 120

Lab Sample ID: 440-280620-I-1-B MS
Matrix: Water
Analysis Batch: 641724

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 641567

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	2.1		10.0	11.8		mg/L		97	75 - 125

Lab Sample ID: 440-280620-I-1-C MSD
Matrix: Water
Analysis Batch: 641724

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 641567

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Potassium	2.1		10.0	11.7		mg/L		97	75 - 125	1	20

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 440-641401/43
 Matrix: Water
 Analysis Batch: 641401

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			03/15/21 15:36	1

Lab Sample ID: LCS 440-641401/44
 Matrix: Water
 Analysis Batch: 641401

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	5.00	5.17		mg/L		103	90 - 110

Lab Sample ID: MRL 440-641401/9
 Matrix: Water
 Analysis Batch: 641401

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.200	0.161	J	mg/L		81	50 - 150

Lab Sample ID: 440-280207-1 MS
 Matrix: Water
 Analysis Batch: 641401

Client Sample ID: CM-9R3
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	6.8	F2 F1	5.00	12.4	F1	mg/L		113	90 - 110

Lab Sample ID: 440-280207-1 MSD
 Matrix: Water
 Analysis Batch: 641401

Client Sample ID: CM-9R3
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	6.8	F2 F1	5.00	14.6	F1 F2	mg/L		157	90 - 110	16	15

Method: 410.4 - COD

Lab Sample ID: MB 440-641614/3
 Matrix: Water
 Analysis Batch: 641614

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			03/17/21 15:39	1

Lab Sample ID: LCS 440-641614/4
 Matrix: Water
 Analysis Batch: 641614

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	196		mg/L		98	90 - 110

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Method: 410.4 - COD (Continued)

Lab Sample ID: 440-280207-1 MS
Matrix: Water
Analysis Batch: 641614

Client Sample ID: CM-9R3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	16	J	200	229		mg/L		106	70 - 120

Lab Sample ID: 440-280207-1 MSD
Matrix: Water
Analysis Batch: 641614

Client Sample ID: CM-9R3
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	16	J	200	231		mg/L		107	70 - 120	1	15

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 440-640896/3
Matrix: Water
Analysis Batch: 640896

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			03/10/21 08:28	1

Lab Sample ID: LCS 440-640896/2
Matrix: Water
Analysis Batch: 640896

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	79.0	78.7		mg/L		100	80 - 120

Lab Sample ID: 440-280207-1 DU
Matrix: Water
Analysis Batch: 640896

Client Sample ID: CM-9R3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity as CaCO3	230		223		mg/L		1	20

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

Lab Sample ID: MB 440-641018/1
Matrix: Water
Analysis Batch: 641018

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			03/11/21 09:31	1

Lab Sample ID: LCS 440-641018/2
Matrix: Water
Analysis Batch: 641018

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	992		mg/L		99	90 - 110

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

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

Lab Sample ID: 440-280207-1 DU
 Matrix: Water
 Analysis Batch: 641018

Client Sample ID: CM-9R3
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	4300		4150		mg/L		3	5

Method: SM 5310C - TOC

Lab Sample ID: MB 440-641121/9
 Matrix: Water
 Analysis Batch: 641121

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			03/11/21 06:29	1

Lab Sample ID: LCS 440-641121/8
 Matrix: Water
 Analysis Batch: 641121

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	5.10		mg/L		102	85 - 115

Lab Sample ID: MRL 440-641121/7
 Matrix: Water
 Analysis Batch: 641121

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.0872	J	mg/L		87	50 - 150

Lab Sample ID: 440-279836-G-11 MS
 Matrix: Water
 Analysis Batch: 641121

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 Organic Carbon	1.4		6.00	7.74		mg/L		106	85 - 115

Lab Sample ID: 440-279836-G-11 MSD
 Matrix: Water
 Analysis Batch: 641121

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	1.4		6.00	7.72		mg/L		106	85 - 115	0	20

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

GC/MS VOA

Analysis Batch: 135618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280207-1	CM-9R3	Total/NA	Water	8260B	
440-280207-2	MW-5	Total/NA	Water	8260B	
440-280207-4	MW-9	Total/NA	Water	8260B	
440-280207-5	PZ-2	Total/NA	Water	8260B	
440-280207-6	PZ-4	Total/NA	Water	8260B	
440-280207-7	DW-2	Total/NA	Water	8260B	
440-280207-8	Field Blank	Total/NA	Water	8260B	
440-280207-9	Trip Blank	Total/NA	Water	8260B	
MB 570-135618/8	Method Blank	Total/NA	Water	8260B	
LCS 570-135618/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-135618/5	Lab Control Sample Dup	Total/NA	Water	8260B	
440-280207-1 MS	CM-9R3	Total/NA	Water	8260B	
440-280207-1 MSD	CM-9R3	Total/NA	Water	8260B	

Analysis Batch: 135890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280207-3	MW-13R	Total/NA	Water	8260B	
MB 570-135890/10	Method Blank	Total/NA	Water	8260B	
LCS 570-135890/7	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-135890/8	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 135125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280207-1	CM-9R3	Total/NA	Water	3510C	
440-280207-2	MW-5	Total/NA	Water	3510C	
440-280207-3	MW-13R	Total/NA	Water	3510C	
440-280207-4	MW-9	Total/NA	Water	3510C	
440-280207-5	PZ-2	Total/NA	Water	3510C	
440-280207-6	PZ-4	Total/NA	Water	3510C	
440-280207-7	DW-2	Total/NA	Water	3510C	
MB 570-135125/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-135125/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-135125/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
570-53275-D-2-A MS	Matrix Spike	Total/NA	Water	3510C	
570-53275-D-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 136113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280207-1	CM-9R3	Total/NA	Water	8270C SIM ID	135125
440-280207-2	MW-5	Total/NA	Water	8270C SIM ID	135125
440-280207-3	MW-13R	Total/NA	Water	8270C SIM ID	135125
440-280207-4	MW-9	Total/NA	Water	8270C SIM ID	135125
440-280207-5	PZ-2	Total/NA	Water	8270C SIM ID	135125
440-280207-6	PZ-4	Total/NA	Water	8270C SIM ID	135125
440-280207-7	DW-2	Total/NA	Water	8270C SIM ID	135125
MB 570-135125/1-A	Method Blank	Total/NA	Water	8270C SIM ID	135125
LCS 570-135125/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	135125
LCSD 570-135125/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	135125
570-53275-D-2-A MS	Matrix Spike	Total/NA	Water	8270C SIM ID	135125

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QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

GC/MS Semi VOA (Continued)

Analysis Batch: 136113 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-53275-D-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270C SIM ID	135125

HPLC/IC

Analysis Batch: 640883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280207-1	CM-9R3	Total/NA	Water	300.0	
440-280207-3	MW-13R	Total/NA	Water	300.0	
440-280207-5	PZ-2	Total/NA	Water	300.0	
440-280207-6	PZ-4	Total/NA	Water	300.0	
440-280207-7	DW-2	Total/NA	Water	300.0	
MB 440-640883/6	Method Blank	Total/NA	Water	300.0	
LCS 440-640883/5	Lab Control Sample	Total/NA	Water	300.0	
440-280285-E-4 MS	Matrix Spike	Total/NA	Water	300.0	
440-280285-E-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 641013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280207-2	MW-5	Total/NA	Water	300.0	
440-280207-4	MW-9	Total/NA	Water	300.0	
MB 440-641013/6	Method Blank	Total/NA	Water	300.0	
LCS 440-641013/5	Lab Control Sample	Total/NA	Water	300.0	
440-280248-A-8 MS	Matrix Spike	Total/NA	Water	300.0	
440-280248-A-8 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 641398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280207-1	CM-9R3	Total Recoverable	Water	3005A	
440-280207-2	MW-5	Total Recoverable	Water	3005A	
440-280207-5	PZ-2	Total Recoverable	Water	3005A	
440-280207-6	PZ-4	Total Recoverable	Water	3005A	
440-280207-7	DW-2	Total Recoverable	Water	3005A	
MB 440-641398/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-641398/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
320-70724-C-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
320-70724-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 641463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-641398/1-A	Method Blank	Total Recoverable	Water	6010B	641398
LCS 440-641398/2-A	Lab Control Sample	Total Recoverable	Water	6010B	641398
320-70724-C-1-B MS	Matrix Spike	Total Recoverable	Water	6010B	641398
320-70724-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	641398

Analysis Batch: 641481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280207-1	CM-9R3	Total Recoverable	Water	6010B	641398
440-280207-2	MW-5	Total Recoverable	Water	6010B	641398
440-280207-5	PZ-2	Total Recoverable	Water	6010B	641398
440-280207-6	PZ-4	Total Recoverable	Water	6010B	641398

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QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Metals (Continued)

Analysis Batch: 641481 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280207-7	DW-2	Total Recoverable	Water	6010B	641398

Prep Batch: 641567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280207-3	MW-13R	Total Recoverable	Water	3005A	
440-280207-4	MW-9	Total Recoverable	Water	3005A	
MB 440-641567/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-641567/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-280620-I-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
440-280620-I-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 641724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280207-3	MW-13R	Total Recoverable	Water	6010B	641567
440-280207-4	MW-9	Total Recoverable	Water	6010B	641567
MB 440-641567/1-A	Method Blank	Total Recoverable	Water	6010B	641567
LCS 440-641567/2-A	Lab Control Sample	Total Recoverable	Water	6010B	641567
440-280620-I-1-B MS	Matrix Spike	Total Recoverable	Water	6010B	641567
440-280620-I-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	641567

General Chemistry

Analysis Batch: 640896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280207-1	CM-9R3	Total/NA	Water	SM 2320B	
440-280207-2	MW-5	Total/NA	Water	SM 2320B	
440-280207-3	MW-13R	Total/NA	Water	SM 2320B	
440-280207-4	MW-9	Total/NA	Water	SM 2320B	
440-280207-5	PZ-2	Total/NA	Water	SM 2320B	
440-280207-6	PZ-4	Total/NA	Water	SM 2320B	
440-280207-7	DW-2	Total/NA	Water	SM 2320B	
MB 440-640896/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-640896/2	Lab Control Sample	Total/NA	Water	SM 2320B	
440-280207-1 DU	CM-9R3	Total/NA	Water	SM 2320B	

Analysis Batch: 641018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280207-1	CM-9R3	Total/NA	Water	SM 2540C	
440-280207-2	MW-5	Total/NA	Water	SM 2540C	
440-280207-3	MW-13R	Total/NA	Water	SM 2540C	
440-280207-4	MW-9	Total/NA	Water	SM 2540C	
440-280207-5	PZ-2	Total/NA	Water	SM 2540C	
440-280207-6	PZ-4	Total/NA	Water	SM 2540C	
440-280207-7	DW-2	Total/NA	Water	SM 2540C	
MB 440-641018/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-641018/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-280207-1 DU	CM-9R3	Total/NA	Water	SM 2540C	

Analysis Batch: 641121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280207-1	CM-9R3	Total/NA	Water	SM 5310C	

Eurofins Calscience Irvine

QC Association Summary

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

General Chemistry (Continued)

Analysis Batch: 641121 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280207-2	MW-5	Total/NA	Water	SM 5310C	
440-280207-3	MW-13R	Total/NA	Water	SM 5310C	
440-280207-4	MW-9	Total/NA	Water	SM 5310C	
440-280207-5	PZ-2	Total/NA	Water	SM 5310C	
440-280207-6	PZ-4	Total/NA	Water	SM 5310C	
440-280207-7	DW-2	Total/NA	Water	SM 5310C	
MB 440-641121/9	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-641121/8	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-641121/7	Lab Control Sample	Total/NA	Water	SM 5310C	
440-279836-G-11 MS	Matrix Spike	Total/NA	Water	SM 5310C	
440-279836-G-11 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310C	

Analysis Batch: 641401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280207-1	CM-9R3	Total/NA	Water	350.1	
440-280207-2	MW-5	Total/NA	Water	350.1	
440-280207-3	MW-13R	Total/NA	Water	350.1	
440-280207-4	MW-9	Total/NA	Water	350.1	
440-280207-5	PZ-2	Total/NA	Water	350.1	
440-280207-6	PZ-4	Total/NA	Water	350.1	
440-280207-7	DW-2	Total/NA	Water	350.1	
MB 440-641401/43	Method Blank	Total/NA	Water	350.1	
LCS 440-641401/44	Lab Control Sample	Total/NA	Water	350.1	
MRL 440-641401/9	Lab Control Sample	Total/NA	Water	350.1	
440-280207-1 MS	CM-9R3	Total/NA	Water	350.1	
440-280207-1 MSD	CM-9R3	Total/NA	Water	350.1	

Analysis Batch: 641614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280207-1	CM-9R3	Total/NA	Water	410.4	
440-280207-2	MW-5	Total/NA	Water	410.4	
440-280207-3	MW-13R	Total/NA	Water	410.4	
440-280207-4	MW-9	Total/NA	Water	410.4	
440-280207-5	PZ-2	Total/NA	Water	410.4	
440-280207-6	PZ-4	Total/NA	Water	410.4	
440-280207-7	DW-2	Total/NA	Water	410.4	
MB 440-641614/3	Method Blank	Total/NA	Water	410.4	
LCS 440-641614/4	Lab Control Sample	Total/NA	Water	410.4	
440-280207-1 MS	CM-9R3	Total/NA	Water	410.4	
440-280207-1 MSD	CM-9R3	Total/NA	Water	410.4	

Definitions/Glossary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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.

HPLC/IC

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.
E	Result exceeded calibration range.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds 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
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

Definitions/Glossary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

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Accreditation/Certification Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Laboratory: Eurofins Calscience Irvine

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

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-21
Arizona	State	AZ0671	10-14-21
California	Los Angeles County Sanitation Districts	10256	06-30-21
California	State	2706	06-30-21
Guam	State	21-003R	01-23-22
Hawaii	State	CA01531	01-29-22
Kansas	NELAP	E-10420	07-31-21
Nevada	State	CA015312021-5	07-31-21
Oregon	NELAP	4028 - 009	01-29-22
USDA	US Federal Programs	P330-21-00022	02-02-24
Washington	State	C900	09-03-21

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	20-003R	10-31-20 *
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Calscience Irvine

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-280207-1

Login Number: 280207

List Number: 1

Creator: Escalante, Maria I

List Source: Eurofins Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 (excluding tests with immediate HTs)	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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-280207-1

Login Number: 280207

List Number: 2

Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience

List Creation: 03/10/21 08:20 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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	1.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280207-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-150)
440-280207-1	CM-9R3	45
440-280207-2	MW-5	45
440-280207-3	MW-13R	46
440-280207-4	MW-9	45
440-280207-5	PZ-2	50
440-280207-6	PZ-4	51
440-280207-7	DW-2	44
570-53275-D-2-A MS	Matrix Spike	70
570-53275-D-2-B MSD	Matrix Spike Duplicate	57
LCS 570-135125/2-A	Lab Control Sample	55
LCSD 570-135125/3-A	Lab Control Sample Dup	60
MB 570-135125/1-A	Method Blank	57

Surrogate Legend

DXE = 1,4-Dioxane-d8

ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-280245-1

Client Project/Site: Republic Sunshine Canyon

For:

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

Attn: Kyle Welchans



Authorized for release by:
3/24/2021 1:04:01 PM

Rossina Tomova, Project Manager I
(949)260-3276
Rossina.Tomova@Eurofinset.com

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

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



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Sample Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-280245-1	MW-1	Water	03/10/21 07:30	03/10/21 14:50	
440-280245-2	DW-3	Water	03/10/21 09:48	03/10/21 14:50	
440-280245-3	DW-5	Water	03/10/21 08:34	03/10/21 14:50	
440-280245-4	Field Blank	Water	03/10/21 00:01	03/10/21 14:50	
440-280245-5	Trip Blank	Water	03/10/21 00:01	03/10/21 14:50	

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Case Narrative

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Job ID: 440-280245-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative 440-280245-1

Comments

No additional comments.

Receipt

The samples were received on 3/10/2021 2:50 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.0° C.

GC/MS VOA

Method 8260B: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: MW-1 (440-280245-1). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA

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

HPLC/IC

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

Metals

Method 3005A: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of 5: DW-5 (440-280245-3). The sample was preserved to the appropriate pH in the laboratory. Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion.

0.5 mL of 1:1 HNO₃ was added to container L-3 on 03/16/21 @ 1643 hours
1:1 HNO₃ Reagent # 6527819

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

General Chemistry

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

Organic Prep

Method 3510C: The following sample formed emulsions during the extraction procedure: DW-5 (440-280245-3). The emulsions were broken up using sodium sulfate. The sample had emulsion. Possible low surrogate recovery.

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

VOA Prep

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

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Client Sample ID: MW-1

Lab Sample ID: 440-280245-1

Date Collected: 03/10/21 07:30

Matrix: Water

Date Received: 03/10/21 14:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		2.0	1.3	ug/L			03/13/21 08:20	4
1,1,1,2-Tetrachloroethane	ND		2.0	1.0	ug/L			03/13/21 08:20	4
1,1,1-Trichloroethane	ND		2.0	1.1	ug/L			03/13/21 08:20	4
1,1,2,2-Tetrachloroethane	ND		2.0	0.78	ug/L			03/13/21 08:20	4
1,1,2-Trichloroethane	ND		2.0	0.34	ug/L			03/13/21 08:20	4
1,1-Dichloroethane	ND		2.0	1.4	ug/L			03/13/21 08:20	4
1,1-Dichloroethene	ND		2.0	1.6	ug/L			03/13/21 08:20	4
1,1-Dichloropropene	ND		2.0	0.97	ug/L			03/13/21 08:20	4
1,2,4-Trichlorobenzene	ND		2.0	1.5	ug/L			03/13/21 08:20	4
1,2-Dibromo-3-Chloropropane	ND		4.0	2.6	ug/L			03/13/21 08:20	4
1,2-Dichlorobenzene	ND		2.0	0.92	ug/L			03/13/21 08:20	4
1,2-Dichloroethane	ND		2.0	0.60	ug/L			03/13/21 08:20	4
1,2-Dichloropropane	ND		2.0	0.96	ug/L			03/13/21 08:20	4
1,3-Dichlorobenzene	ND		2.0	1.0	ug/L			03/13/21 08:20	4
1,3-Dichloropropane	ND		2.0	0.82	ug/L			03/13/21 08:20	4
1,4-Dichlorobenzene	ND		2.0	0.90	ug/L			03/13/21 08:20	4
2,2-Dichloropropane	ND		2.0	1.6	ug/L			03/13/21 08:20	4
2-Chloro-1,3-butadiene	ND		8.0	7.3	ug/L			03/13/21 08:20	4
2-Hexanone	ND		24	17	ug/L			03/13/21 08:20	4
Acetone	ND		32	16	ug/L			03/13/21 08:20	4
Acetonitrile	ND		40	16	ug/L			03/13/21 08:20	4
Acrolein	ND		16	8.8	ug/L			03/13/21 08:20	4
Acrylonitrile	ND		20	3.5	ug/L			03/13/21 08:20	4
Benzene	ND		2.0	1.1	ug/L			03/13/21 08:20	4
Allyl chloride	ND		8.0	1.5	ug/L			03/13/21 08:20	4
Bromoform	ND		2.0	1.6	ug/L			03/13/21 08:20	4
Bromomethane	ND		4.0	3.7	ug/L			03/13/21 08:20	4
Carbon disulfide	ND		4.0	0.98	ug/L			03/13/21 08:20	4
Carbon tetrachloride	ND		2.0	1.1	ug/L			03/13/21 08:20	4
Chlorobenzene	ND		2.0	0.95	ug/L			03/13/21 08:20	4
Bromochloromethane	ND		4.0	1.4	ug/L			03/13/21 08:20	4
Chloroethane	ND		2.0	1.8	ug/L			03/13/21 08:20	4
Chloroform	ND		2.0	1.1	ug/L			03/13/21 08:20	4
Chloromethane	ND		4.0	1.2	ug/L			03/13/21 08:20	4
cis-1,2-Dichloroethene	ND		2.0	1.2	ug/L			03/13/21 08:20	4
cis-1,3-Dichloropropene	ND		2.0	0.77	ug/L			03/13/21 08:20	4
Dibromochloromethane	ND		2.0	1.1	ug/L			03/13/21 08:20	4
Dibromomethane	ND		2.0	0.92	ug/L			03/13/21 08:20	4
Bromodichloromethane	ND		2.0	0.89	ug/L			03/13/21 08:20	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			03/13/21 08:20	4
Ethyl methacrylate	ND		8.0	4.7	ug/L			03/13/21 08:20	4
Ethylbenzene	ND		2.0	1.4	ug/L			03/13/21 08:20	4
Iodomethane	ND		100	24	ug/L			03/13/21 08:20	4
Isobutyl alcohol	ND		100	23	ug/L			03/13/21 08:20	4
m,p-Xylene	ND		4.0	3.1	ug/L			03/13/21 08:20	4
Methylacrylonitrile	ND		8.0	2.8	ug/L			03/13/21 08:20	4
Methyl methacrylate	ND		8.0	4.4	ug/L			03/13/21 08:20	4
Methylene Chloride	ND		4.0	1.9	ug/L			03/13/21 08:20	4
Methyl tert-butyl ether	ND		2.0	0.82	ug/L			03/13/21 08:20	4

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Client Sample ID: MW-1

Lab Sample ID: 440-280245-1

Date Collected: 03/10/21 07:30

Matrix: Water

Date Received: 03/10/21 14:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		4.0	1.3	ug/L			03/13/21 08:20	4
o-Xylene	ND		2.0	1.4	ug/L			03/13/21 08:20	4
Propionitrile	ND		20	15	ug/L			03/13/21 08:20	4
Styrene	ND		2.0	1.1	ug/L			03/13/21 08:20	4
t-Butanol	ND		20	16	ug/L			03/13/21 08:20	4
Tetrachloroethene	ND		2.0	1.2	ug/L			03/13/21 08:20	4
Tetrahydrofuran	ND		8.0	4.3	ug/L			03/13/21 08:20	4
Toluene	ND		2.0	1.3	ug/L			03/13/21 08:20	4
trans-1,2-Dichloroethene	ND		2.0	1.4	ug/L			03/13/21 08:20	4
trans-1,3-Dichloropropene	ND		2.0	0.69	ug/L			03/13/21 08:20	4
trans-1,4-Dichloro-2-butene	ND		8.0	5.2	ug/L			03/13/21 08:20	4
Trichloroethene	ND		2.0	1.2	ug/L			03/13/21 08:20	4
Trichlorofluoromethane	ND		2.0	1.2	ug/L			03/13/21 08:20	4
Vinyl acetate	ND		20	13	ug/L			03/13/21 08:20	4
Vinyl chloride	ND		2.0	1.6	ug/L			03/13/21 08:20	4
1,2-Dibromoethane (EDB)	ND		2.0	0.55	ug/L			03/13/21 08:20	4
2-Butanone (MEK)	ND		20	12	ug/L			03/13/21 08:20	4
4-Methyl-2-pentanone (MIBK)	ND		20	9.0	ug/L			03/13/21 08:20	4

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	790	T J	ug/L		1.46			03/13/21 08:20	4
Unknown	11000	T J	ug/L		1.52			03/13/21 08:20	4
Ethane, 1,1-difluoro-	39	T J N	ug/L		1.67	75-37-6		03/13/21 08:20	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		68 - 135		03/13/21 08:20	4
Dibromofluoromethane (Surr)	96		80 - 120		03/13/21 08:20	4
Toluene-d8 (Surr)	101		80 - 120		03/13/21 08:20	4
4-Bromofluorobenzene (Surr)	96		71 - 120		03/13/21 08:20	4

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	13		0.50	0.34	ug/L		03/12/21 07:56	03/16/21 01:29	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	50		15 - 150	03/12/21 07:56	03/16/21 01:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	103		46 - 128	03/12/21 07:56	03/16/21 01:29	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	160		25	13	mg/L			03/12/21 01:07	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	36		0.50	0.25	mg/L		03/16/21 16:31	03/17/21 13:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	6.2		0.20	0.10	mg/L			03/16/21 15:46	1
Chemical Oxygen Demand	50		20	10	mg/L			03/18/21 15:20	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Client Sample ID: MW-1

Date Collected: 03/10/21 07:30

Date Received: 03/10/21 14:50

Lab Sample ID: 440-280245-1

Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2700		20	10	mg/L			03/11/21 10:55	1
Total Organic Carbon	22		0.50	0.25	mg/L			03/11/21 12:17	5
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	460		4.0	4.0	mg/L			03/11/21 04:58	1

Client Sample ID: DW-3

Date Collected: 03/10/21 09:48

Date Received: 03/10/21 14:50

Lab Sample ID: 440-280245-2

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	0.32	ug/L			03/13/21 08:50	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/13/21 08:50	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/13/21 08:50	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/13/21 08:50	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/13/21 08:50	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/13/21 08:50	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/13/21 08:50	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/13/21 08:50	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/13/21 08:50	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/13/21 08:50	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/13/21 08:50	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/13/21 08:50	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/13/21 08:50	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/13/21 08:50	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/13/21 08:50	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/13/21 08:50	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/13/21 08:50	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/13/21 08:50	1
2-Hexanone	ND		6.0	4.3	ug/L			03/13/21 08:50	1
Acetone	ND		8.0	4.0	ug/L			03/13/21 08:50	1
Acetonitrile	ND		10	3.9	ug/L			03/13/21 08:50	1
Acrolein	ND		4.0	2.2	ug/L			03/13/21 08:50	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/13/21 08:50	1
Benzene	ND		0.50	0.27	ug/L			03/13/21 08:50	1
Allyl chloride	ND		2.0	0.38	ug/L			03/13/21 08:50	1
Bromoform	ND		0.50	0.39	ug/L			03/13/21 08:50	1
Bromomethane	ND		1.0	0.93	ug/L			03/13/21 08:50	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/13/21 08:50	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/13/21 08:50	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/13/21 08:50	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/13/21 08:50	1
Chloroethane	ND		0.50	0.44	ug/L			03/13/21 08:50	1
Chloroform	ND		0.50	0.28	ug/L			03/13/21 08:50	1
Chloromethane	ND		1.0	0.29	ug/L			03/13/21 08:50	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/13/21 08:50	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/13/21 08:50	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/13/21 08:50	1
Dibromomethane	ND		0.50	0.23	ug/L			03/13/21 08:50	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/13/21 08:50	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Client Sample ID: DW-3

Lab Sample ID: 440-280245-2

Date Collected: 03/10/21 09:48

Matrix: Water

Date Received: 03/10/21 14:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/13/21 08:50	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/13/21 08:50	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/13/21 08:50	1
Iodomethane	ND		25	5.9	ug/L			03/13/21 08:50	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/13/21 08:50	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/13/21 08:50	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/13/21 08:50	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/13/21 08:50	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/13/21 08:50	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/13/21 08:50	1
Naphthalene	ND		1.0	0.32	ug/L			03/13/21 08:50	1
o-Xylene	ND		0.50	0.35	ug/L			03/13/21 08:50	1
Propionitrile	ND		5.0	3.7	ug/L			03/13/21 08:50	1
Styrene	ND		0.50	0.28	ug/L			03/13/21 08:50	1
t-Butanol	ND		5.0	4.0	ug/L			03/13/21 08:50	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/13/21 08:50	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/13/21 08:50	1
Toluene	ND		0.50	0.33	ug/L			03/13/21 08:50	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/13/21 08:50	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/13/21 08:50	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/13/21 08:50	1
Trichloroethene	ND		0.50	0.29	ug/L			03/13/21 08:50	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/13/21 08:50	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/13/21 08:50	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/13/21 08:50	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/13/21 08:50	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/13/21 08:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/13/21 08:50	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
4,4,6-Trimethyltetrahydro-1,3-oxazin-2-one	340	T J N	ug/L		1.49	27830-77-9		03/13/21 08:50	1
Unknown	2100	T J	ug/L		1.53			03/13/21 08:50	1
Unknown	5.1	T J	ug/L		2.01			03/13/21 08:50	1
Unknown	5.0	T J	ug/L		2.07			03/13/21 08:50	1
Unknown	5.2	T J	ug/L		2.24			03/13/21 08:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		68 - 135		03/13/21 08:50	1
Dibromofluoromethane (Surr)	93		80 - 120		03/13/21 08:50	1
Toluene-d8 (Surr)	101		80 - 120		03/13/21 08:50	1
4-Bromofluorobenzene (Surr)	95		71 - 120		03/13/21 08:50	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/12/21 07:56	03/16/21 01:44	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	59		15 - 150	03/12/21 07:56	03/16/21 01:44	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Client Sample ID: DW-3
Date Collected: 03/10/21 09:48
Date Received: 03/10/21 14:50

Lab Sample ID: 440-280245-2
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	110		46 - 128	03/12/21 07:56	03/16/21 01:44	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		2.5	1.3	mg/L			03/11/21 05:14	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	8.4		0.50	0.25	mg/L		03/16/21 16:31	03/17/21 13:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	0.64		0.20	0.10	mg/L			03/16/21 15:51	1
Chemical Oxygen Demand	ND		20	10	mg/L			03/18/21 15:21	1
Total Dissolved Solids	1800		20	10	mg/L			03/11/21 10:55	1
Total Organic Carbon	0.57		0.10	0.050	mg/L			03/11/21 12:31	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	150		4.0	4.0	mg/L			03/11/21 05:05	1

Client Sample ID: DW-5
Date Collected: 03/10/21 08:34
Date Received: 03/10/21 14:50

Lab Sample ID: 440-280245-3
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	0.32	ug/L			03/13/21 09:20	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/13/21 09:20	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/13/21 09:20	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/13/21 09:20	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/13/21 09:20	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/13/21 09:20	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/13/21 09:20	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/13/21 09:20	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/13/21 09:20	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/13/21 09:20	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/13/21 09:20	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/13/21 09:20	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/13/21 09:20	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/13/21 09:20	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/13/21 09:20	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/13/21 09:20	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/13/21 09:20	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/13/21 09:20	1
2-Hexanone	ND		6.0	4.3	ug/L			03/13/21 09:20	1
Acetone	ND		8.0	4.0	ug/L			03/13/21 09:20	1
Acetonitrile	ND		10	3.9	ug/L			03/13/21 09:20	1
Acrolein	ND		4.0	2.2	ug/L			03/13/21 09:20	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/13/21 09:20	1
Benzene	ND		0.50	0.27	ug/L			03/13/21 09:20	1
Allyl chloride	ND		2.0	0.38	ug/L			03/13/21 09:20	1
Bromoform	ND		0.50	0.39	ug/L			03/13/21 09:20	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Client Sample ID: DW-5

Lab Sample ID: 440-280245-3

Date Collected: 03/10/21 08:34

Matrix: Water

Date Received: 03/10/21 14:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		1.0	0.93	ug/L			03/13/21 09:20	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/13/21 09:20	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/13/21 09:20	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/13/21 09:20	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/13/21 09:20	1
Chloroethane	ND		0.50	0.44	ug/L			03/13/21 09:20	1
Chloroform	ND		0.50	0.28	ug/L			03/13/21 09:20	1
Chloromethane	ND		1.0	0.29	ug/L			03/13/21 09:20	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/13/21 09:20	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/13/21 09:20	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/13/21 09:20	1
Dibromomethane	ND		0.50	0.23	ug/L			03/13/21 09:20	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/13/21 09:20	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/13/21 09:20	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/13/21 09:20	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/13/21 09:20	1
Iodomethane	ND		25	5.9	ug/L			03/13/21 09:20	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/13/21 09:20	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/13/21 09:20	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/13/21 09:20	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/13/21 09:20	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/13/21 09:20	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/13/21 09:20	1
Naphthalene	ND		1.0	0.32	ug/L			03/13/21 09:20	1
o-Xylene	ND		0.50	0.35	ug/L			03/13/21 09:20	1
Propionitrile	ND		5.0	3.7	ug/L			03/13/21 09:20	1
Styrene	ND		0.50	0.28	ug/L			03/13/21 09:20	1
t-Butanol	ND		5.0	4.0	ug/L			03/13/21 09:20	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/13/21 09:20	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/13/21 09:20	1
Toluene	ND		0.50	0.33	ug/L			03/13/21 09:20	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/13/21 09:20	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/13/21 09:20	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/13/21 09:20	1
Trichloroethene	ND		0.50	0.29	ug/L			03/13/21 09:20	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/13/21 09:20	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/13/21 09:20	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/13/21 09:20	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/13/21 09:20	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/13/21 09:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/13/21 09:20	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	55	T J	ug/L		1.54			03/13/21 09:20	1
Propane, 2,2-dimethyl-	7.6	T J N	ug/L		2.11	463-82-1		03/13/21 09:20	1
Butane, 2,2-dimethyl-	5.5	T J N	ug/L		3.53	75-83-2		03/13/21 09:20	1
Butane, 2,3-dimethyl-	12	T J N	ug/L		4.20	79-29-8		03/13/21 09:20	1
1H-Indene, 2,3-dihydro-1,1-dimethyl-	7.3	T J N	ug/L		15.49	4912-92-9		03/13/21 09:20	1
Benzene, 1,2,3,5-tetramethyl-	23	T J N	ug/L		15.62	527-53-7		03/13/21 09:20	1
Benzene, pentamethyl-	7.3	T J N	ug/L		16.69	700-12-9		03/13/21 09:20	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Client Sample ID: DW-5
Date Collected: 03/10/21 08:34
Date Received: 03/10/21 14:50

Lab Sample ID: 440-280245-3
Matrix: Water

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Benzene, ethyl-1,2,4-trimethyl-	5.9	T J N	ug/L		16.85	54120-62-6		03/13/21 09:20	1
1H-Indene,	4.8	T J N	ug/L		16.97	40650-41-7		03/13/21 09:20	1
2,3-dihydro-1,1,5-trimethyl-1H-Indene, 2,3-dihydro-4,7-dimethyl-	8.0	T J N	ug/L		17.73	6682-71-9		03/13/21 09:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		68 - 135					03/13/21 09:20	1
Dibromofluoromethane (Surr)	92		80 - 120					03/13/21 09:20	1
Toluene-d8 (Surr)	102		80 - 120					03/13/21 09:20	1
4-Bromofluorobenzene (Surr)	91		71 - 120					03/13/21 09:20	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/12/21 07:56	03/16/21 01:59	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	50		15 - 150				03/12/21 07:56	03/16/21 01:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	111		46 - 128				03/12/21 07:56	03/16/21 01:59	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19		2.5	1.3	mg/L			03/12/21 01:25	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	0.89		0.50	0.25	mg/L		03/18/21 09:26	03/18/21 17:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	0.34		0.20	0.10	mg/L			03/16/21 15:57	1
Chemical Oxygen Demand	ND		20	10	mg/L			03/18/21 15:21	1
Total Dissolved Solids	1100		10	5.0	mg/L			03/16/21 08:59	1
Total Organic Carbon	8.7		0.50	0.25	mg/L			03/11/21 08:22	5
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	890		4.0	4.0	mg/L			03/12/21 06:03	1

Client Sample ID: Field Blank
Date Collected: 03/10/21 00:01
Date Received: 03/10/21 14:50

Lab Sample ID: 440-280245-4
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	0.32	ug/L			03/13/21 06:50	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/13/21 06:50	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/13/21 06:50	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/13/21 06:50	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/13/21 06:50	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/13/21 06:50	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/13/21 06:50	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/13/21 06:50	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Client Sample ID: Field Blank

Lab Sample ID: 440-280245-4

Date Collected: 03/10/21 00:01

Matrix: Water

Date Received: 03/10/21 14:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/13/21 06:50	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/13/21 06:50	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/13/21 06:50	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/13/21 06:50	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/13/21 06:50	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/13/21 06:50	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/13/21 06:50	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/13/21 06:50	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/13/21 06:50	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/13/21 06:50	1
2-Hexanone	ND		6.0	4.3	ug/L			03/13/21 06:50	1
Acetone	ND		8.0	4.0	ug/L			03/13/21 06:50	1
Acetonitrile	ND		10	3.9	ug/L			03/13/21 06:50	1
Acrolein	ND		4.0	2.2	ug/L			03/13/21 06:50	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/13/21 06:50	1
Benzene	ND		0.50	0.27	ug/L			03/13/21 06:50	1
Allyl chloride	ND		2.0	0.38	ug/L			03/13/21 06:50	1
Bromoform	ND		0.50	0.39	ug/L			03/13/21 06:50	1
Bromomethane	ND		1.0	0.93	ug/L			03/13/21 06:50	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/13/21 06:50	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/13/21 06:50	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/13/21 06:50	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/13/21 06:50	1
Chloroethane	ND		0.50	0.44	ug/L			03/13/21 06:50	1
Chloroform	ND		0.50	0.28	ug/L			03/13/21 06:50	1
Chloromethane	ND		1.0	0.29	ug/L			03/13/21 06:50	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/13/21 06:50	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/13/21 06:50	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/13/21 06:50	1
Dibromomethane	ND		0.50	0.23	ug/L			03/13/21 06:50	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/13/21 06:50	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/13/21 06:50	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/13/21 06:50	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/13/21 06:50	1
Iodomethane	ND		25	5.9	ug/L			03/13/21 06:50	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/13/21 06:50	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/13/21 06:50	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/13/21 06:50	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/13/21 06:50	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/13/21 06:50	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/13/21 06:50	1
Naphthalene	ND		1.0	0.32	ug/L			03/13/21 06:50	1
o-Xylene	ND		0.50	0.35	ug/L			03/13/21 06:50	1
Propionitrile	ND		5.0	3.7	ug/L			03/13/21 06:50	1
Styrene	ND		0.50	0.28	ug/L			03/13/21 06:50	1
t-Butanol	ND		5.0	4.0	ug/L			03/13/21 06:50	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/13/21 06:50	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/13/21 06:50	1
Toluene	ND		0.50	0.33	ug/L			03/13/21 06:50	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Client Sample ID: Field Blank

Lab Sample ID: 440-280245-4

Date Collected: 03/10/21 00:01

Matrix: Water

Date Received: 03/10/21 14:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/13/21 06:50	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/13/21 06:50	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/13/21 06:50	1
Trichloroethene	ND		0.50	0.29	ug/L			03/13/21 06:50	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/13/21 06:50	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/13/21 06:50	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/13/21 06:50	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/13/21 06:50	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/13/21 06:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/13/21 06:50	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	170	T J	ug/L		1.48			03/13/21 06:50	1
Unknown	1200	T J	ug/L		1.54			03/13/21 06:50	1
Unknown	5.0	T J	ug/L		2.61			03/13/21 06:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		68 - 135		03/13/21 06:50	1
Dibromofluoromethane (Surr)	94		80 - 120		03/13/21 06:50	1
Toluene-d8 (Surr)	103		80 - 120		03/13/21 06:50	1
4-Bromofluorobenzene (Surr)	99		71 - 120		03/13/21 06:50	1

Client Sample ID: Trip Blank

Lab Sample ID: 440-280245-5

Date Collected: 03/10/21 00:01

Matrix: Water

Date Received: 03/10/21 14:50

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	0.32	ug/L			03/13/21 07:20	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/13/21 07:20	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/13/21 07:20	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/13/21 07:20	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/13/21 07:20	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/13/21 07:20	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/13/21 07:20	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/13/21 07:20	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/13/21 07:20	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/13/21 07:20	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/13/21 07:20	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/13/21 07:20	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/13/21 07:20	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/13/21 07:20	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/13/21 07:20	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/13/21 07:20	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/13/21 07:20	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/13/21 07:20	1
2-Hexanone	ND		6.0	4.3	ug/L			03/13/21 07:20	1
Acetone	ND		8.0	4.0	ug/L			03/13/21 07:20	1
Acetonitrile	ND		10	3.9	ug/L			03/13/21 07:20	1
Acrolein	ND		4.0	2.2	ug/L			03/13/21 07:20	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-280245-5

Date Collected: 03/10/21 00:01

Matrix: Water

Date Received: 03/10/21 14:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrylonitrile	ND		5.0	0.87	ug/L			03/13/21 07:20	1
Benzene	ND		0.50	0.27	ug/L			03/13/21 07:20	1
Allyl chloride	ND		2.0	0.38	ug/L			03/13/21 07:20	1
Bromoform	ND		0.50	0.39	ug/L			03/13/21 07:20	1
Bromomethane	ND		1.0	0.93	ug/L			03/13/21 07:20	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/13/21 07:20	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/13/21 07:20	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/13/21 07:20	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/13/21 07:20	1
Chloroethane	ND		0.50	0.44	ug/L			03/13/21 07:20	1
Chloroform	ND		0.50	0.28	ug/L			03/13/21 07:20	1
Chloromethane	ND		1.0	0.29	ug/L			03/13/21 07:20	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/13/21 07:20	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/13/21 07:20	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/13/21 07:20	1
Dibromomethane	ND		0.50	0.23	ug/L			03/13/21 07:20	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/13/21 07:20	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/13/21 07:20	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/13/21 07:20	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/13/21 07:20	1
Iodomethane	ND		25	5.9	ug/L			03/13/21 07:20	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/13/21 07:20	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/13/21 07:20	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/13/21 07:20	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/13/21 07:20	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/13/21 07:20	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/13/21 07:20	1
Naphthalene	ND		1.0	0.32	ug/L			03/13/21 07:20	1
o-Xylene	ND		0.50	0.35	ug/L			03/13/21 07:20	1
Propionitrile	ND		5.0	3.7	ug/L			03/13/21 07:20	1
Styrene	ND		0.50	0.28	ug/L			03/13/21 07:20	1
t-Butanol	ND		5.0	4.0	ug/L			03/13/21 07:20	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/13/21 07:20	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/13/21 07:20	1
Toluene	ND		0.50	0.33	ug/L			03/13/21 07:20	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/13/21 07:20	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/13/21 07:20	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/13/21 07:20	1
Trichloroethene	ND		0.50	0.29	ug/L			03/13/21 07:20	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/13/21 07:20	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/13/21 07:20	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/13/21 07:20	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/13/21 07:20	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/13/21 07:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/13/21 07:20	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	160	T J	ug/L		1.47			03/13/21 07:20	1
Unknown	1200	T J	ug/L		1.53			03/13/21 07:20	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-280245-5

Date Collected: 03/10/21 00:01

Matrix: Water

Date Received: 03/10/21 14:50

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
1,2-Dichloroethane-d4 (Surr)	92		68 - 135		03/13/21 07:20	1
Dibromofluoromethane (Surr)	89		80 - 120		03/13/21 07:20	1
Toluene-d8 (Surr)	104		80 - 120		03/13/21 07:20	1
4-Bromofluorobenzene (Surr)	94		71 - 120		03/13/21 07:20	1

Method Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
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 5310C	TOC	SM	TAL IRV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL IRV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

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:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

Lab Chronicle

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Client Sample ID: MW-1

Date Collected: 03/10/21 07:30

Date Received: 03/10/21 14:50

Lab Sample ID: 440-280245-1

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		4	20 mL	20 mL	135621	03/13/21 08:20	GEN9	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	135438	03/12/21 07:56	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			136068	03/16/21 01:29	ULLI	ECL 1
Total/NA	Analysis	300.0		50			641013	03/12/21 01:07	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	641479	03/16/21 16:31	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641595	03/17/21 13:32	VZ0K	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	641487	03/16/21 15:46	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	641734	03/18/21 15:20	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640991	03/11/21 04:58	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	641019	03/11/21 10:55	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		5	100 mL	100 mL	641121	03/11/21 12:17	YO8L	TAL IRV

Client Sample ID: DW-3

Date Collected: 03/10/21 09:48

Date Received: 03/10/21 14:50

Lab Sample ID: 440-280245-2

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	20 mL	20 mL	135621	03/13/21 08:50	GEN9	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	135438	03/12/21 07:56	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			136068	03/16/21 01:44	ULLI	ECL 1
Total/NA	Analysis	300.0		5			640891	03/11/21 05:14	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	641479	03/16/21 16:31	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641595	03/17/21 13:34	VZ0K	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	641487	03/16/21 15:51	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	641734	03/18/21 15:21	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			640991	03/11/21 05:05	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	641019	03/11/21 10:55	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	641121	03/11/21 12:31	YO8L	TAL IRV

Client Sample ID: DW-5

Date Collected: 03/10/21 08:34

Date Received: 03/10/21 14:50

Lab Sample ID: 440-280245-3

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	20 mL	20 mL	135621	03/13/21 09:20	GEN9	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	135438	03/12/21 07:56	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			136068	03/16/21 01:59	ULLI	ECL 1
Total/NA	Analysis	300.0		5			641013	03/12/21 01:25	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	641689	03/18/21 09:26	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			641742	03/18/21 17:30	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	641487	03/16/21 15:57	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	641734	03/18/21 15:21	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			641128	03/12/21 06:03	YO8L	TAL IRV

Eurofins Calscience Irvine

Lab Chronicle

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Client Sample ID: DW-5

Date Collected: 03/10/21 08:34

Date Received: 03/10/21 14:50

Lab Sample ID: 440-280245-3

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	SM 2540C		1	100 mL	100 mL	641397	03/16/21 08:59	VY3D	TAL IRV
Total/NA	Analysis	SM 5310C		5	100 mL	100 mL	641121	03/11/21 08:22	YO8L	TAL IRV

Client Sample ID: Field Blank

Date Collected: 03/10/21 00:01

Date Received: 03/10/21 14:50

Lab Sample ID: 440-280245-4

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	20 mL	20 mL	135621	03/13/21 06:50	GEN9	ECL 2

Client Sample ID: Trip Blank

Date Collected: 03/10/21 00:01

Date Received: 03/10/21 14:50

Lab Sample ID: 440-280245-5

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	20 mL	20 mL	135621	03/13/21 07:20	GEN9	ECL 2

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

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

Lab Sample ID: MB 570-135621/8
Matrix: Water
Analysis Batch: 135621

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			03/13/21 06:21	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			03/13/21 06:21	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			03/13/21 06:21	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			03/13/21 06:21	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			03/13/21 06:21	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			03/13/21 06:21	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			03/13/21 06:21	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			03/13/21 06:21	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			03/13/21 06:21	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			03/13/21 06:21	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			03/13/21 06:21	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			03/13/21 06:21	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			03/13/21 06:21	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			03/13/21 06:21	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			03/13/21 06:21	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			03/13/21 06:21	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			03/13/21 06:21	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			03/13/21 06:21	1
2-Hexanone	ND		6.0	4.3	ug/L			03/13/21 06:21	1
Acetone	ND		8.0	4.0	ug/L			03/13/21 06:21	1
Acetonitrile	ND		10	3.9	ug/L			03/13/21 06:21	1
Acrolein	ND		4.0	2.2	ug/L			03/13/21 06:21	1
Acrylonitrile	ND		5.0	0.87	ug/L			03/13/21 06:21	1
Benzene	ND		0.50	0.27	ug/L			03/13/21 06:21	1
Allyl chloride	ND		2.0	0.38	ug/L			03/13/21 06:21	1
Bromoform	ND		0.50	0.39	ug/L			03/13/21 06:21	1
Bromomethane	ND		1.0	0.93	ug/L			03/13/21 06:21	1
Carbon disulfide	ND		1.0	0.24	ug/L			03/13/21 06:21	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			03/13/21 06:21	1
Chlorobenzene	ND		0.50	0.24	ug/L			03/13/21 06:21	1
Bromochloromethane	ND		1.0	0.35	ug/L			03/13/21 06:21	1
Chloroethane	ND		0.50	0.44	ug/L			03/13/21 06:21	1
Chloroform	ND		0.50	0.28	ug/L			03/13/21 06:21	1
Chloromethane	ND		1.0	0.29	ug/L			03/13/21 06:21	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/13/21 06:21	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			03/13/21 06:21	1
Dibromochloromethane	ND		0.50	0.27	ug/L			03/13/21 06:21	1
Dibromomethane	ND		0.50	0.23	ug/L			03/13/21 06:21	1
Bromodichloromethane	ND		0.50	0.22	ug/L			03/13/21 06:21	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/13/21 06:21	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			03/13/21 06:21	1
Ethylbenzene	ND		0.50	0.36	ug/L			03/13/21 06:21	1
Iodomethane	ND		25	5.9	ug/L			03/13/21 06:21	1
Isobutyl alcohol	ND		25	5.7	ug/L			03/13/21 06:21	1
m,p-Xylene	ND		1.0	0.78	ug/L			03/13/21 06:21	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			03/13/21 06:21	1
Methyl methacrylate	ND		2.0	1.1	ug/L			03/13/21 06:21	1
Methylene Chloride	ND		1.0	0.48	ug/L			03/13/21 06:21	1

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

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

Lab Sample ID: MB 570-135621/8
Matrix: Water
Analysis Batch: 135621

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			03/13/21 06:21	1
Naphthalene	ND		1.0	0.32	ug/L			03/13/21 06:21	1
o-Xylene	ND		0.50	0.35	ug/L			03/13/21 06:21	1
Propionitrile	ND		5.0	3.7	ug/L			03/13/21 06:21	1
Styrene	ND		0.50	0.28	ug/L			03/13/21 06:21	1
t-Butanol	ND		5.0	4.0	ug/L			03/13/21 06:21	1
Tetrachloroethene	ND		0.50	0.29	ug/L			03/13/21 06:21	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			03/13/21 06:21	1
Toluene	ND		0.50	0.33	ug/L			03/13/21 06:21	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			03/13/21 06:21	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			03/13/21 06:21	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			03/13/21 06:21	1
Trichloroethene	ND		0.50	0.29	ug/L			03/13/21 06:21	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			03/13/21 06:21	1
Vinyl acetate	ND		5.0	3.1	ug/L			03/13/21 06:21	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/13/21 06:21	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			03/13/21 06:21	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			03/13/21 06:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			03/13/21 06:21	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					03/13/21 06:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		68 - 135		03/13/21 06:21	1
Dibromofluoromethane (Surr)	96		80 - 120		03/13/21 06:21	1
Toluene-d8 (Surr)	101		80 - 120		03/13/21 06:21	1
4-Bromofluorobenzene (Surr)	97		71 - 120		03/13/21 06:21	1

Lab Sample ID: LCS 570-135621/4
Matrix: Water
Analysis Batch: 135621

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	10.0	8.04		ug/L		80	66 - 131
1,1,1,2-Tetrachloroethane	10.0	9.71		ug/L		97	76 - 143
1,1,1-Trichloroethane	10.0	8.76		ug/L		88	75 - 128
1,1,2,2-Tetrachloroethane	10.0	9.76		ug/L		98	73 - 126
1,1,2-Trichloroethane	10.0	9.44		ug/L		94	80 - 120
1,1-Dichloroethane	10.0	8.62		ug/L		86	76 - 120
1,1-Dichloroethene	10.0	8.70		ug/L		87	72 - 120
1,1-Dichloropropene	10.0	9.04		ug/L		90	76 - 120
1,2,4-Trichlorobenzene	10.0	10.0		ug/L		100	80 - 123
1,2-Dibromo-3-Chloropropane	10.0	9.19		ug/L		92	77 - 120
1,2-Dichlorobenzene	10.0	9.47		ug/L		95	79 - 123
1,2-Dichloroethane	10.0	9.20		ug/L		92	71 - 137
1,2-Dichloropropane	10.0	9.36		ug/L		94	80 - 120
1,3-Dichlorobenzene	10.0	9.24		ug/L		92	79 - 123

Eurofins Calscience Irvine

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

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

Lab Sample ID: LCS 570-135621/4
Matrix: Water
Analysis Batch: 135621

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	10.0	9.52		ug/L		95	80 - 123
1,4-Dichlorobenzene	10.0	9.48		ug/L		95	75 - 123
2,2-Dichloropropane	10.0	8.34		ug/L		83	78 - 133
2-Hexanone	10.0	9.21		ug/L		92	57 - 127
Acetone	10.0	9.08		ug/L		91	57 - 133
Acrolein	20.0	20.4		ug/L		102	54 - 137
Acrylonitrile	10.0	8.05		ug/L		81	58 - 123
Benzene	10.0	9.10		ug/L		91	80 - 120
Bromoform	10.0	9.29		ug/L		93	46 - 178
Bromomethane	10.0	10.2		ug/L		102	52 - 162
Carbon disulfide	10.0	8.53		ug/L		85	66 - 125
Carbon tetrachloride	10.0	8.88		ug/L		89	69 - 145
Chlorobenzene	10.0	9.89		ug/L		99	80 - 120
Bromochloromethane	10.0	9.36		ug/L		94	76 - 125
Chloroethane	10.0	9.56		ug/L		96	73 - 139
Chloroform	10.0	9.07		ug/L		91	80 - 120
Chloromethane	10.0	8.11		ug/L		81	35 - 159
cis-1,2-Dichloroethene	10.0	9.01		ug/L		90	76 - 122
cis-1,3-Dichloropropene	10.0	9.68		ug/L		97	80 - 122
Dibromochloromethane	10.0	9.96		ug/L		100	63 - 151
Dibromomethane	10.0	9.82		ug/L		98	80 - 121
Bromodichloromethane	10.0	10.0		ug/L		100	77 - 141
Dichlorodifluoromethane	10.0	9.01		ug/L		90	59 - 139
Ethylbenzene	10.0	9.46		ug/L		95	80 - 120
m,p-Xylene	20.0	19.5		ug/L		98	80 - 122
Methylene Chloride	10.0	8.79		ug/L		88	70 - 120
Methyl tert-butyl ether	10.0	8.66		ug/L		87	72 - 120
Naphthalene	10.0	9.83		ug/L		98	75 - 120
o-Xylene	10.0	9.75		ug/L		97	80 - 122
Styrene	10.0	10.4		ug/L		104	80 - 121
t-Butanol	50.0	48.1		ug/L		96	65 - 147
Tetrachloroethene	10.0	9.73		ug/L		97	80 - 128
Toluene	10.0	9.56		ug/L		96	80 - 120
trans-1,2-Dichloroethene	10.0	8.60		ug/L		86	67 - 123
trans-1,3-Dichloropropene	10.0	9.83		ug/L		98	78 - 140
Trichloroethene	10.0	9.30		ug/L		93	80 - 123
Trichlorofluoromethane	10.0	9.84		ug/L		98	64 - 168
Vinyl acetate	10.0	12.0		ug/L		120	75 - 144
Vinyl chloride	10.0	9.34		ug/L		93	74 - 130
1,2-Dibromoethane (EDB)	10.0	9.27		ug/L		93	80 - 120
2-Butanone (MEK)	10.0	7.54		ug/L		75	32 - 133
4-Methyl-2-pentanone (MIBK)	10.0	9.06		ug/L		91	68 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		68 - 135
Dibromofluoromethane (Surr)	93		80 - 120
Toluene-d8 (Surr)	100		80 - 120
4-Bromofluorobenzene (Surr)	98		71 - 120

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

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

Lab Sample ID: LCSD 570-135621/5
Matrix: Water
Analysis Batch: 135621

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	10.0	9.69		ug/L		97	66 - 131	19	20
1,1,1,2-Tetrachloroethane	10.0	9.98		ug/L		100	76 - 143	3	20
1,1,1-Trichloroethane	10.0	9.43		ug/L		94	75 - 128	7	20
1,1,2,2-Tetrachloroethane	10.0	10.0		ug/L		100	73 - 126	3	21
1,1,2-Trichloroethane	10.0	9.66		ug/L		97	80 - 120	2	20
1,1-Dichloroethane	10.0	9.27		ug/L		93	76 - 120	7	20
1,1-Dichloroethene	10.0	9.64		ug/L		96	72 - 120	10	20
1,1-Dichloropropene	10.0	9.38		ug/L		94	76 - 120	4	20
1,2,4-Trichlorobenzene	10.0	10.6		ug/L		106	80 - 123	6	20
1,2-Dibromo-3-Chloropropane	10.0	9.96		ug/L		100	77 - 120	8	21
1,2-Dichlorobenzene	10.0	10.2		ug/L		102	79 - 123	8	20
1,2-Dichloroethane	10.0	9.91		ug/L		99	71 - 137	7	20
1,2-Dichloropropane	10.0	9.71		ug/L		97	80 - 120	4	20
1,3-Dichlorobenzene	10.0	9.90		ug/L		99	79 - 123	7	20
1,3-Dichloropropane	10.0	9.96		ug/L		100	80 - 123	4	20
1,4-Dichlorobenzene	10.0	10.1		ug/L		101	75 - 123	6	22
2,2-Dichloropropane	10.0	8.67		ug/L		87	78 - 133	4	20
2-Hexanone	10.0	9.25		ug/L		93	57 - 127	0	21
Acetone	10.0	9.46		ug/L		95	57 - 133	4	28
Acrolein	20.0	19.4		ug/L		97	54 - 137	5	24
Acrylonitrile	10.0	8.86		ug/L		89	58 - 123	10	30
Benzene	10.0	9.73		ug/L		97	80 - 120	7	20
Bromoform	10.0	10.1		ug/L		101	46 - 178	8	23
Bromomethane	10.0	10.4		ug/L		104	52 - 162	2	20
Carbon disulfide	10.0	9.29		ug/L		93	66 - 125	8	20
Carbon tetrachloride	10.0	9.85		ug/L		99	69 - 145	10	20
Chlorobenzene	10.0	10.3		ug/L		103	80 - 120	4	20
Bromochloromethane	10.0	9.54		ug/L		95	76 - 125	2	20
Chloroethane	10.0	10.2		ug/L		102	73 - 139	6	20
Chloroform	10.0	9.57		ug/L		96	80 - 120	5	20
Chloromethane	10.0	9.39		ug/L		94	35 - 159	15	20
cis-1,2-Dichloroethene	10.0	9.80		ug/L		98	76 - 122	8	20
cis-1,3-Dichloropropene	10.0	9.63		ug/L		96	80 - 122	1	20
Dibromochloromethane	10.0	10.3		ug/L		103	63 - 151	3	20
Dibromomethane	10.0	9.67		ug/L		97	80 - 121	1	20
Bromodichloromethane	10.0	10.2		ug/L		102	77 - 141	2	20
Dichlorodifluoromethane	10.0	9.89		ug/L		99	59 - 139	9	20
Ethylbenzene	10.0	10.0		ug/L		100	80 - 120	6	20
m,p-Xylene	20.0	20.4		ug/L		102	80 - 122	4	20
Methylene Chloride	10.0	9.46		ug/L		95	70 - 120	7	20
Methyl tert-butyl ether	10.0	9.01		ug/L		90	72 - 120	4	20
Naphthalene	10.0	10.4		ug/L		104	75 - 120	6	22
o-Xylene	10.0	10.3		ug/L		103	80 - 122	5	20
Styrene	10.0	10.9		ug/L		109	80 - 121	4	20
t-Butanol	50.0	41.5		ug/L		83	65 - 147	15	21
Tetrachloroethene	10.0	10.3		ug/L		103	80 - 128	6	20
Toluene	10.0	9.91		ug/L		99	80 - 120	4	20
trans-1,2-Dichloroethene	10.0	9.27		ug/L		93	67 - 123	7	20

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

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

Lab Sample ID: LCSD 570-135621/5
Matrix: Water
Analysis Batch: 135621

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	10.0	10.1		ug/L		101	78 - 140	2	20
Trichloroethene	10.0	9.90		ug/L		99	80 - 123	6	20
Trichlorofluoromethane	10.0	10.9		ug/L		109	64 - 168	10	20
Vinyl acetate	10.0	11.2		ug/L		112	75 - 144	6	25
Vinyl chloride	10.0	10.5		ug/L		105	74 - 130	12	20
1,2-Dibromoethane (EDB)	10.0	10.1		ug/L		101	80 - 120	9	20
2-Butanone (MEK)	10.0	6.81		ug/L		68	32 - 133	10	26
4-Methyl-2-pentanone (MIBK)	10.0	10.0		ug/L		100	68 - 120	10	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	95		68 - 135
Dibromofluoromethane (Surr)	97		80 - 120
Toluene-d8 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	99		71 - 120

Lab Sample ID: 440-280245-1 MS
Matrix: Water
Analysis Batch: 135621

Client Sample ID: MW-1
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		40.0	32.0		ug/L		80	66 - 139
1,2,3-Trichloropropane	ND		40.0	32.0		ug/L		80	66 - 139
1,1,1,2-Tetrachloroethane	ND		40.0	41.2		ug/L		103	57 - 157
1,1,1,2-Tetrachloroethane	ND		40.0	41.2		ug/L		103	57 - 157
1,1,1-Trichloroethane	ND		40.0	40.4		ug/L		101	54 - 152
1,1,1-Trichloroethane	ND		40.0	40.4		ug/L		101	54 - 152
1,1,2,2-Tetrachloroethane	ND		40.0	40.8		ug/L		102	67 - 143
1,1,2,2-Tetrachloroethane	ND		40.0	40.8		ug/L		102	67 - 143
1,1,2-Trichloroethane	ND		40.0	39.1		ug/L		98	70 - 138
1,1,2-Trichloroethane	ND		40.0	39.1		ug/L		98	70 - 138
1,1-Dichloroethane	ND		40.0	39.0		ug/L		98	57 - 140
1,1-Dichloroethane	ND		40.0	39.0		ug/L		98	57 - 140
1,1-Dichloroethene	ND		40.0	39.4		ug/L		99	48 - 146
1,1-Dichloroethene	ND		40.0	39.4		ug/L		99	48 - 146
1,1-Dichloropropene	ND		40.0	40.1		ug/L		100	56 - 144
1,1-Dichloropropene	ND		40.0	40.1		ug/L		100	56 - 144
1,2,4-Trichlorobenzene	ND		40.0	40.2		ug/L		101	64 - 146
1,2,4-Trichlorobenzene	ND		40.0	40.2		ug/L		101	64 - 146
1,2-Dibromo-3-Chloropropane	ND		40.0	36.3		ug/L		91	57 - 145
1,2-Dibromo-3-Chloropropane	ND		40.0	36.3		ug/L		91	57 - 145
1,2-Dichlorobenzene	ND		40.0	41.9		ug/L		105	63 - 146
1,2-Dichlorobenzene	ND		40.0	41.9		ug/L		105	63 - 146
1,2-Dichloroethane	ND		40.0	41.8		ug/L		104	63 - 151
1,2-Dichloroethane	ND		40.0	41.8		ug/L		104	63 - 151
1,2-Dichloropropane	ND		40.0	42.2		ug/L		105	65 - 143
1,2-Dichloropropane	ND		40.0	42.2		ug/L		105	65 - 143
1,3-Dichlorobenzene	ND		40.0	40.1		ug/L		100	61 - 145
1,3-Dichlorobenzene	ND		40.0	40.1		ug/L		100	61 - 145

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

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

Lab Sample ID: 440-280245-1 MS

Matrix: Water

Analysis Batch: 135621

Client Sample ID: MW-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	ND		40.0	40.6		ug/L		101	70 - 137
1,3-Dichloropropane	ND		40.0	40.6		ug/L		101	70 - 137
1,4-Dichlorobenzene	ND		40.0	41.0		ug/L		103	61 - 141
1,4-Dichlorobenzene	ND		40.0	41.0		ug/L		103	61 - 141
2,2-Dichloropropane	ND		40.0	24.5		ug/L		61	56 - 148
2,2-Dichloropropane	ND		40.0	24.5		ug/L		61	56 - 148
2-Hexanone	ND		40.0	35.1		ug/L		88	61 - 139
2-Hexanone	ND		40.0	35.1		ug/L		88	61 - 139
Acetone	ND		40.0	41.8		ug/L		104	49 - 130
Acetone	ND		40.0	41.8		ug/L		104	49 - 130
Acrolein	ND		80.0	79.3		ug/L		99	45 - 166
Acrolein	ND		80.0	79.3		ug/L		99	45 - 166
Acrylonitrile	ND		40.0	34.5		ug/L		86	41 - 153
Acrylonitrile	ND		40.0	34.5		ug/L		86	41 - 153
Benzene	ND		40.0	41.5		ug/L		104	61 - 143
Benzene	ND		40.0	41.5		ug/L		104	61 - 143
Bromoform	ND		40.0	39.7		ug/L		99	48 - 168
Bromoform	ND		40.0	39.7		ug/L		99	48 - 168
Bromomethane	ND		40.0	49.7		ug/L		124	58 - 175
Bromomethane	ND		40.0	49.7		ug/L		124	58 - 175
Carbon disulfide	ND		40.0	39.5		ug/L		99	48 - 149
Carbon disulfide	ND		40.0	39.5		ug/L		99	48 - 149
Carbon tetrachloride	ND		40.0	40.3		ug/L		101	46 - 167
Carbon tetrachloride	ND		40.0	40.3		ug/L		101	46 - 167
Chlorobenzene	ND		40.0	42.9		ug/L		107	62 - 143
Chlorobenzene	ND		40.0	42.9		ug/L		107	62 - 143
Bromochloromethane	ND		40.0	38.1		ug/L		95	65 - 140
Bromochloromethane	ND		40.0	38.1		ug/L		95	65 - 140
Chloroethane	ND		40.0	42.1		ug/L		105	65 - 162
Chloroethane	ND		40.0	42.1		ug/L		105	65 - 162
Chloroform	ND		40.0	40.6		ug/L		102	62 - 145
Chloroform	ND		40.0	40.6		ug/L		102	62 - 145
Chloromethane	ND		40.0	39.1		ug/L		98	21 - 171
Chloromethane	ND		40.0	39.1		ug/L		98	21 - 171
cis-1,2-Dichloroethene	ND		40.0	41.5		ug/L		104	53 - 156
cis-1,2-Dichloroethene	ND		40.0	41.5		ug/L		104	53 - 156
cis-1,3-Dichloropropene	ND		40.0	38.2		ug/L		95	65 - 142
cis-1,3-Dichloropropene	ND		40.0	38.2		ug/L		95	65 - 142
Dibromochloromethane	ND		40.0	42.3		ug/L		106	56 - 156
Dibromochloromethane	ND		40.0	42.3		ug/L		106	56 - 156
Dibromomethane	ND		40.0	40.6		ug/L		101	69 - 142
Dibromomethane	ND		40.0	40.6		ug/L		101	69 - 142
Bromodichloromethane	ND		40.0	43.4		ug/L		108	61 - 158
Bromodichloromethane	ND		40.0	43.4		ug/L		108	61 - 158
Dichlorodifluoromethane	ND		40.0	27.9		ug/L		70	38 - 159
Dichlorodifluoromethane	ND		40.0	27.9		ug/L		70	38 - 159
Ethylbenzene	ND		40.0	41.2		ug/L		103	59 - 145
Ethylbenzene	ND		40.0	41.2		ug/L		103	59 - 145
m,p-Xylene	ND		80.0	83.8		ug/L		105	61 - 150

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

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

Lab Sample ID: 440-280245-1 MS

Client Sample ID: MW-1

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 135621

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
m,p-Xylene	ND		80.0	83.8		ug/L		105	61 - 150
Methylene Chloride	ND		40.0	39.0		ug/L		98	57 - 131
Methylene Chloride	ND		40.0	39.0		ug/L		98	57 - 131
Methyl tert-butyl ether	ND		40.0	37.2		ug/L		93	62 - 125
Methyl tert-butyl ether	ND		40.0	37.2		ug/L		93	62 - 125
Naphthalene	ND		40.0	38.1		ug/L		95	54 - 148
Naphthalene	ND		40.0	38.1		ug/L		95	54 - 148
o-Xylene	ND		40.0	42.5		ug/L		106	61 - 150
o-Xylene	ND		40.0	42.5		ug/L		106	61 - 150
Styrene	ND		40.0	43.8		ug/L		110	53 - 146
Styrene	ND		40.0	43.8		ug/L		110	53 - 146
t-Butanol	ND		200	199		ug/L		100	67 - 156
t-Butanol	ND		200	199		ug/L		100	67 - 156
Tetrachloroethene	ND		40.0	41.7		ug/L		104	52 - 156
Tetrachloroethene	ND		40.0	41.7		ug/L		104	52 - 156
Toluene	ND		40.0	42.5		ug/L		106	62 - 145
Toluene	ND		40.0	42.5		ug/L		106	62 - 145
trans-1,2-Dichloroethene	ND		40.0	39.7		ug/L		99	54 - 142
trans-1,2-Dichloroethene	ND		40.0	39.7		ug/L		99	54 - 142
trans-1,3-Dichloropropene	ND		40.0	38.1		ug/L		95	66 - 146
trans-1,3-Dichloropropene	ND		40.0	38.1		ug/L		95	66 - 146
Trichloroethene	ND		40.0	44.7		ug/L		112	35 - 163
Trichloroethene	ND		40.0	44.7		ug/L		112	35 - 163
Trichlorofluoromethane	ND		40.0	38.6		ug/L		96	75 - 151
Trichlorofluoromethane	ND		40.0	38.6		ug/L		96	75 - 151
Vinyl acetate	ND		40.0	48.5		ug/L		121	61 - 170
Vinyl acetate	ND		40.0	48.5		ug/L		121	61 - 170
Vinyl chloride	ND		40.0	42.9		ug/L		107	75 - 139
Vinyl chloride	ND		40.0	42.9		ug/L		107	75 - 139
1,2-Dibromoethane (EDB)	ND		40.0	40.8		ug/L		102	69 - 139
1,2-Dibromoethane (EDB)	ND		40.0	40.8		ug/L		102	69 - 139
2-Butanone (MEK)	ND		40.0	28.6		ug/L		71	48 - 141
2-Butanone (MEK)	ND		40.0	28.6		ug/L		71	48 - 141
4-Methyl-2-pentanone (MIBK)	ND		40.0	39.4		ug/L		98	63 - 139
4-Methyl-2-pentanone (MIBK)	ND		40.0	39.4		ug/L		98	63 - 139

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	94		68 - 135
1,2-Dichloroethane-d4 (Surr)	94		68 - 135
Dibromofluoromethane (Surr)	94		80 - 120
Dibromofluoromethane (Surr)	94		80 - 120
Toluene-d8 (Surr)	102		80 - 120
Toluene-d8 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	99		71 - 120
4-Bromofluorobenzene (Surr)	99		71 - 120

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

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

Lab Sample ID: 440-280245-1 MSD
Matrix: Water
Analysis Batch: 135621

Client Sample ID: MW-1
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		40.0	34.9		ug/L		87	66 - 139	9	20
1,2,3-Trichloropropane	ND		40.0	34.9		ug/L		87	66 - 139	9	20
1,1,1,2-Tetrachloroethane	ND		40.0	41.6		ug/L		104	57 - 157	1	20
1,1,1,2-Tetrachloroethane	ND		40.0	41.6		ug/L		104	57 - 157	1	20
1,1,1-Trichloroethane	ND		40.0	40.6		ug/L		102	54 - 152	1	26
1,1,1-Trichloroethane	ND		40.0	40.6		ug/L		102	54 - 152	1	26
1,1,2,2-Tetrachloroethane	ND		40.0	41.5		ug/L		104	67 - 143	2	20
1,1,2,2-Tetrachloroethane	ND		40.0	41.5		ug/L		104	67 - 143	2	20
1,1,2-Trichloroethane	ND		40.0	38.6		ug/L		97	70 - 138	1	20
1,1,2-Trichloroethane	ND		40.0	38.6		ug/L		97	70 - 138	1	20
1,1-Dichloroethane	ND		40.0	39.3		ug/L		98	57 - 140	1	22
1,1-Dichloroethane	ND		40.0	39.3		ug/L		98	57 - 140	1	22
1,1-Dichloroethene	ND		40.0	39.0		ug/L		97	48 - 146	1	28
1,1-Dichloroethene	ND		40.0	39.0		ug/L		97	48 - 146	1	28
1,1-Dichloropropene	ND		40.0	40.5		ug/L		101	56 - 144	1	27
1,1-Dichloropropene	ND		40.0	40.5		ug/L		101	56 - 144	1	27
1,2,4-Trichlorobenzene	ND		40.0	43.2		ug/L		108	64 - 146	7	25
1,2,4-Trichlorobenzene	ND		40.0	43.2		ug/L		108	64 - 146	7	25
1,2-Dibromo-3-Chloropropane	ND		40.0	39.8		ug/L		99	57 - 145	9	21
1,2-Dibromo-3-Chloropropane	ND		40.0	39.8		ug/L		99	57 - 145	9	21
1,2-Dichlorobenzene	ND		40.0	43.0		ug/L		107	63 - 146	2	20
1,2-Dichlorobenzene	ND		40.0	43.0		ug/L		107	63 - 146	2	20
1,2-Dichloroethane	ND		40.0	39.1		ug/L		98	63 - 151	7	20
1,2-Dichloroethane	ND		40.0	39.1		ug/L		98	63 - 151	7	20
1,2-Dichloropropane	ND		40.0	40.1		ug/L		100	65 - 143	5	20
1,2-Dichloropropane	ND		40.0	40.1		ug/L		100	65 - 143	5	20
1,3-Dichlorobenzene	ND		40.0	42.3		ug/L		106	61 - 145	5	22
1,3-Dichlorobenzene	ND		40.0	42.3		ug/L		106	61 - 145	5	22
1,3-Dichloropropane	ND		40.0	40.0		ug/L		100	70 - 137	1	20
1,3-Dichloropropane	ND		40.0	40.0		ug/L		100	70 - 137	1	20
1,4-Dichlorobenzene	ND		40.0	41.4		ug/L		104	61 - 141	1	22
1,4-Dichlorobenzene	ND		40.0	41.4		ug/L		104	61 - 141	1	22
2,2-Dichloropropane	ND		40.0	24.7		ug/L		62	56 - 148	1	26
2,2-Dichloropropane	ND		40.0	24.7		ug/L		62	56 - 148	1	26
2-Hexanone	ND		40.0	35.7		ug/L		89	61 - 139	2	21
2-Hexanone	ND		40.0	35.7		ug/L		89	61 - 139	2	21
Acetone	ND		40.0	42.0		ug/L		105	49 - 130	1	26
Acetone	ND		40.0	42.0		ug/L		105	49 - 130	1	26
Acrolein	ND		80.0	74.1		ug/L		93	45 - 166	7	32
Acrolein	ND		80.0	74.1		ug/L		93	45 - 166	7	32
Acrylonitrile	ND		40.0	33.7		ug/L		84	41 - 153	2	40
Acrylonitrile	ND		40.0	33.7		ug/L		84	41 - 153	2	40
Benzene	ND		40.0	41.1		ug/L		103	61 - 143	1	20
Benzene	ND		40.0	41.1		ug/L		103	61 - 143	1	20
Bromoform	ND		40.0	41.2		ug/L		103	48 - 168	4	20
Bromoform	ND		40.0	41.2		ug/L		103	48 - 168	4	20
Bromomethane	ND		40.0	46.8		ug/L		117	58 - 175	6	22
Bromomethane	ND		40.0	46.8		ug/L		117	58 - 175	6	22

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

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

Lab Sample ID: 440-280245-1 MSD
Matrix: Water
Analysis Batch: 135621

Client Sample ID: MW-1
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		40.0	40.3		ug/L		101	48 - 149	2	25
Carbon disulfide	ND		40.0	40.3		ug/L		101	48 - 149	2	25
Carbon tetrachloride	ND		40.0	41.7		ug/L		104	46 - 167	3	29
Carbon tetrachloride	ND		40.0	41.7		ug/L		104	46 - 167	3	29
Chlorobenzene	ND		40.0	43.8		ug/L		109	62 - 143	2	20
Chlorobenzene	ND		40.0	43.8		ug/L		109	62 - 143	2	20
Bromochloromethane	ND		40.0	39.4		ug/L		98	65 - 140	3	20
Bromochloromethane	ND		40.0	39.4		ug/L		98	65 - 140	3	20
Chloroethane	ND		40.0	42.5		ug/L		106	65 - 162	1	20
Chloroethane	ND		40.0	42.5		ug/L		106	65 - 162	1	20
Chloroform	ND		40.0	41.0		ug/L		103	62 - 145	1	20
Chloroform	ND		40.0	41.0		ug/L		103	62 - 145	1	20
Chloromethane	ND		40.0	40.8		ug/L		102	21 - 171	4	20
Chloromethane	ND		40.0	40.8		ug/L		102	21 - 171	4	20
cis-1,2-Dichloroethene	ND		40.0	40.9		ug/L		102	53 - 156	2	20
cis-1,2-Dichloroethene	ND		40.0	40.9		ug/L		102	53 - 156	2	20
cis-1,3-Dichloropropene	ND		40.0	38.3		ug/L		96	65 - 142	0	20
cis-1,3-Dichloropropene	ND		40.0	38.3		ug/L		96	65 - 142	0	20
Dibromochloromethane	ND		40.0	42.1		ug/L		105	56 - 156	0	20
Dibromochloromethane	ND		40.0	42.1		ug/L		105	56 - 156	0	20
Dibromomethane	ND		40.0	39.3		ug/L		98	69 - 142	3	20
Dibromomethane	ND		40.0	39.3		ug/L		98	69 - 142	3	20
Bromodichloromethane	ND		40.0	41.1		ug/L		103	61 - 158	5	20
Bromodichloromethane	ND		40.0	41.1		ug/L		103	61 - 158	5	20
Dichlorodifluoromethane	ND		40.0	29.4		ug/L		74	38 - 159	5	21
Dichlorodifluoromethane	ND		40.0	29.4		ug/L		74	38 - 159	5	21
Ethylbenzene	ND		40.0	42.1		ug/L		105	59 - 145	2	23
Ethylbenzene	ND		40.0	42.1		ug/L		105	59 - 145	2	23
m,p-Xylene	ND		80.0	84.3		ug/L		105	61 - 150	1	23
m,p-Xylene	ND		80.0	84.3		ug/L		105	61 - 150	1	23
Methylene Chloride	ND		40.0	39.3		ug/L		98	57 - 131	1	21
Methylene Chloride	ND		40.0	39.3		ug/L		98	57 - 131	1	21
Methyl tert-butyl ether	ND		40.0	37.2		ug/L		93	62 - 125	0	20
Methyl tert-butyl ether	ND		40.0	37.2		ug/L		93	62 - 125	0	20
Naphthalene	ND		40.0	43.0		ug/L		108	54 - 148	12	22
Naphthalene	ND		40.0	43.0		ug/L		108	54 - 148	12	22
o-Xylene	ND		40.0	42.7		ug/L		107	61 - 150	0	20
o-Xylene	ND		40.0	42.7		ug/L		107	61 - 150	0	20
Styrene	ND		40.0	45.0		ug/L		113	53 - 146	3	22
Styrene	ND		40.0	45.0		ug/L		113	53 - 146	3	22
t-Butanol	ND		200	202		ug/L		101	67 - 156	1	28
t-Butanol	ND		200	202		ug/L		101	67 - 156	1	28
Tetrachloroethene	ND		40.0	42.0		ug/L		105	52 - 156	1	26
Tetrachloroethene	ND		40.0	42.0		ug/L		105	52 - 156	1	26
Toluene	ND		40.0	42.0		ug/L		105	62 - 145	1	21
Toluene	ND		40.0	42.0		ug/L		105	62 - 145	1	21
trans-1,2-Dichloroethene	ND		40.0	39.3		ug/L		98	54 - 142	1	25
trans-1,2-Dichloroethene	ND		40.0	39.3		ug/L		98	54 - 142	1	25
trans-1,3-Dichloropropene	ND		40.0	39.5		ug/L		99	66 - 146	4	20

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

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

Lab Sample ID: 440-280245-1 MSD

Matrix: Water

Analysis Batch: 135621

Client Sample ID: MW-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	ND		40.0	39.5		ug/L		99	66 - 146	4	20
Trichloroethene	ND		40.0	41.9		ug/L		105	35 - 163	6	21
Trichloroethene	ND		40.0	41.9		ug/L		105	35 - 163	6	21
Trichlorofluoromethane	ND		40.0	38.4		ug/L		96	75 - 151	0	20
Trichlorofluoromethane	ND		40.0	38.4		ug/L		96	75 - 151	0	20
Vinyl acetate	ND		40.0	55.5		ug/L		139	61 - 170	14	27
Vinyl acetate	ND		40.0	55.5		ug/L		139	61 - 170	14	27
Vinyl chloride	ND		40.0	43.5		ug/L		109	75 - 139	1	20
Vinyl chloride	ND		40.0	43.5		ug/L		109	75 - 139	1	20
1,2-Dibromoethane (EDB)	ND		40.0	40.4		ug/L		101	69 - 139	1	20
1,2-Dibromoethane (EDB)	ND		40.0	40.4		ug/L		101	69 - 139	1	20
2-Butanone (MEK)	ND		40.0	32.7		ug/L		82	48 - 141	14	26
2-Butanone (MEK)	ND		40.0	32.7		ug/L		82	48 - 141	14	26
4-Methyl-2-pentanone (MIBK)	ND		40.0	39.2		ug/L		98	63 - 139	0	20
4-Methyl-2-pentanone (MIBK)	ND		40.0	39.2		ug/L		98	63 - 139	0	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		68 - 135
1,2-Dichloroethane-d4 (Surr)	91		68 - 135
Dibromofluoromethane (Surr)	94		80 - 120
Dibromofluoromethane (Surr)	94		80 - 120
Toluene-d8 (Surr)	99		80 - 120
Toluene-d8 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	100		71 - 120
4-Bromofluorobenzene (Surr)	100		71 - 120

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-135438/1-A

Matrix: Water

Analysis Batch: 136068

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 135438

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		03/12/21 07:56	03/16/21 00:15	1
Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8	59		15 - 150	03/12/21 07:56	03/16/21 00:15	1			
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Nitrobenzene-d5 (Surr)	103		46 - 128	03/12/21 07:56	03/16/21 00:15	1			

Lab Sample ID: LCS 570-135438/2-A

Matrix: Water

Analysis Batch: 136068

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 135438

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	20.0	19.6		ug/L		98	57 - 136

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits								
1,4-Dioxane-d8	51		15 - 150								
Surrogate	LCS %Recovery	LCS Qualifier	Limits								
Nitrobenzene-d5 (Surr)	102		46 - 128								
Lab Sample ID: LCSD 570-135438/3-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 136068				Prep Batch: 135438							
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			20.0	19.1		ug/L		95	57 - 136	3	20
Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits								
1,4-Dioxane-d8	67		15 - 150								
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
Nitrobenzene-d5 (Surr)	107		46 - 128								
Lab Sample ID: 440-280245-1 MS				Client Sample ID: MW-1							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 136068				Prep Batch: 135438							
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	13		20.0	31.8		ug/L		95	45 - 139		
Isotope Dilution	MS %Recovery	MS Qualifier	Limits								
1,4-Dioxane-d8	56		15 - 150								
Surrogate	MS %Recovery	MS Qualifier	Limits								
Nitrobenzene-d5 (Surr)	92		46 - 128								
Lab Sample ID: 440-280245-1 MSD				Client Sample ID: MW-1							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 136068				Prep Batch: 135438							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	13		20.0	32.3		ug/L		97	45 - 139	1	17
Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits								
1,4-Dioxane-d8	54		15 - 150								
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Nitrobenzene-d5 (Surr)	106		46 - 128								

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-640891/6
Matrix: Water
Analysis Batch: 640891

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			03/10/21 11:16	1

Lab Sample ID: LCS 440-640891/5
Matrix: Water
Analysis Batch: 640891

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.90		mg/L		98	90 - 110

Lab Sample ID: 440-280282-C-5 MS
Matrix: Water
Analysis Batch: 640891

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
Chloride	430		1000	1420		mg/L		99	80 - 120

Lab Sample ID: 440-280282-C-5 MSD
Matrix: Water
Analysis Batch: 640891

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	430		1000	1420		mg/L		99	80 - 120	0	20

Lab Sample ID: MB 440-641013/6
Matrix: Water
Analysis Batch: 641013

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			03/11/21 11:50	1

Lab Sample ID: LCS 440-641013/5
Matrix: Water
Analysis Batch: 641013

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.82		mg/L		96	90 - 110

Lab Sample ID: 440-280248-A-8 MS
Matrix: Water
Analysis Batch: 641013

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
Chloride	180	E	5.00	185	E 4	mg/L		108	80 - 120

Lab Sample ID: 440-280248-A-8 MSD
Matrix: Water
Analysis Batch: 641013

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	180	E	5.00	187	E 4	mg/L		130	80 - 120	1	20

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 440-280297-A-1 MS
Matrix: Water
Analysis Batch: 641013

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
Chloride	32		25.0	59.0		mg/L		108	80 - 120

Lab Sample ID: 440-280297-A-1 MSD
Matrix: Water
Analysis Batch: 641013

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	32		25.0	59.2		mg/L		109	80 - 120	0	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-641479/1-A
Matrix: Water
Analysis Batch: 641595

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 641479

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	ND		0.50	0.25	mg/L		03/16/21 16:31	03/17/21 12:58	1

Lab Sample ID: LCS 440-641479/2-A
Matrix: Water
Analysis Batch: 641595

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 641479

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	10.0	10.2		mg/L		102	80 - 120

Lab Sample ID: 440-280315-K-1-B MS
Matrix: Water
Analysis Batch: 641595

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 641479

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	2.0		10.0	11.8		mg/L		98	75 - 125

Lab Sample ID: 440-280315-K-1-C MSD
Matrix: Water
Analysis Batch: 641595

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 641479

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Potassium	2.0		10.0	12.0		mg/L		100	75 - 125	2	20

Lab Sample ID: MB 440-641689/1-A
Matrix: Water
Analysis Batch: 641742

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 641689

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	ND		0.50	0.25	mg/L		03/18/21 09:26	03/18/21 17:03	1

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

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

Lab Sample ID: LCS 440-641689/2-A
Matrix: Water
Analysis Batch: 641742

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 641689

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	10.0	9.57		mg/L		96	80 - 120

Lab Sample ID: 440-280683-F-1-B MS
Matrix: Water
Analysis Batch: 641742

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 641689

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	7.7		10.0	17.3		mg/L		96	75 - 125

Lab Sample ID: 440-280683-F-1-C MSD
Matrix: Water
Analysis Batch: 641742

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 641689

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Potassium	7.7		10.0	17.3		mg/L		96	75 - 125	0	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 440-641487/10
Matrix: Water
Analysis Batch: 641487

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			03/16/21 14:34	1

Lab Sample ID: LCS 440-641487/11
Matrix: Water
Analysis Batch: 641487

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	5.00	5.03		mg/L		101	90 - 110

Lab Sample ID: LCSD 440-641487/12
Matrix: Water
Analysis Batch: 641487

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Ammonia (as N)	5.00	5.04		mg/L		101	90 - 110	0	15

Lab Sample ID: MRL 440-641487/9
Matrix: Water
Analysis Batch: 641487

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.200	0.199	J	mg/L		100	50 - 150

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 580-101449-D-1 MS
Matrix: Water
Analysis Batch: 641487

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
Ammonia (as N)	ND		5.00	4.98		mg/L		100	90 - 110

Lab Sample ID: 580-101449-D-1 MSD
Matrix: Water
Analysis Batch: 641487

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	ND		5.00	4.78		mg/L		96	90 - 110	4	15

Method: 410.4 - COD

Lab Sample ID: MB 440-641734/3
Matrix: Water
Analysis Batch: 641734

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			03/18/21 15:19	1

Lab Sample ID: LCS 440-641734/4
Matrix: Water
Analysis Batch: 641734

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	216		mg/L		108	90 - 110

Lab Sample ID: 440-279921-E-1 MS
Matrix: Water
Analysis Batch: 641734

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
Chemical Oxygen Demand	63		200	282		mg/L		110	70 - 120

Lab Sample ID: 440-279921-E-1 MSD
Matrix: Water
Analysis Batch: 641734

Client Sample ID: Matrix Spike Duplicate
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	63		200	280		mg/L		109	70 - 120	1	15

Lab Sample ID: 440-280695-B-1 DU
Matrix: Water
Analysis Batch: 641734

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chemical Oxygen Demand	63		70.7		mg/L		11	15

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 440-640991/3
 Matrix: Water
 Analysis Batch: 640991

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			03/11/21 04:46	1

Lab Sample ID: LCS 440-640991/2
 Matrix: Water
 Analysis Batch: 640991

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	79.0	78.8		mg/L		100	80 - 120

Lab Sample ID: 440-280315-E-4 DU
 Matrix: Water
 Analysis Batch: 640991

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	850		851		mg/L		0.2	20

Lab Sample ID: MB 440-641128/3
 Matrix: Water
 Analysis Batch: 641128

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			03/12/21 05:05	1

Lab Sample ID: LCS 440-641128/2
 Matrix: Water
 Analysis Batch: 641128

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	79.0	76.6		mg/L		97	80 - 120

Lab Sample ID: 440-280408-A-1 DU
 Matrix: Water
 Analysis Batch: 641128

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	180		185		mg/L		0.2	20

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

Lab Sample ID: MB 440-641019/1
 Matrix: Water
 Analysis Batch: 641019

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			03/11/21 09:32	1

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

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

Lab Sample ID: LCS 440-641019/2
Matrix: Water
Analysis Batch: 641019

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	974		mg/L		97	90 - 110

Lab Sample ID: 440-280248-A-4 DU
Matrix: Water
Analysis Batch: 641019

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	720		710		mg/L		2	5

Lab Sample ID: MB 440-641397/1
Matrix: Water
Analysis Batch: 641397

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			03/16/21 08:59	1

Lab Sample ID: LCS 440-641397/2
Matrix: Water
Analysis Batch: 641397

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	954		mg/L		95	90 - 110

Lab Sample ID: 440-280285-E-2 DU
Matrix: Water
Analysis Batch: 641397

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	4100		4250		mg/L		3	5

Method: SM 5310C - TOC

Lab Sample ID: MB 440-641121/9
Matrix: Water
Analysis Batch: 641121

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			03/11/21 06:29	1

Lab Sample ID: LCS 440-641121/8
Matrix: Water
Analysis Batch: 641121

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	5.10		mg/L		102	85 - 115

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Method: SM 5310C - TOC (Continued)

Lab Sample ID: MRL 440-641121/7
Matrix: Water
Analysis Batch: 641121

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.0872	J	mg/L		87	50 - 150

Lab Sample ID: 440-279836-G-11 MS
Matrix: Water
Analysis Batch: 641121

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 Organic Carbon	1.4		6.00	7.74		mg/L		106	85 - 115

Lab Sample ID: 440-279836-G-11 MSD
Matrix: Water
Analysis Batch: 641121

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	1.4		6.00	7.72		mg/L		106	85 - 115	0	20

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

GC/MS VOA

Analysis Batch: 135621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280245-1	MW-1	Total/NA	Water	8260B	
440-280245-2	DW-3	Total/NA	Water	8260B	
440-280245-3	DW-5	Total/NA	Water	8260B	
440-280245-4	Field Blank	Total/NA	Water	8260B	
440-280245-5	Trip Blank	Total/NA	Water	8260B	
MB 570-135621/8	Method Blank	Total/NA	Water	8260B	
LCS 570-135621/4	Lab Control Sample	Total/NA	Water	8260B	
LCS 570-135621/5	Lab Control Sample Dup	Total/NA	Water	8260B	
440-280245-1 MS	MW-1	Total/NA	Water	8260B	
440-280245-1 MSD	MW-1	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 135438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280245-1	MW-1	Total/NA	Water	3510C	
440-280245-2	DW-3	Total/NA	Water	3510C	
440-280245-3	DW-5	Total/NA	Water	3510C	
MB 570-135438/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-135438/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 570-135438/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
440-280245-1 MS	MW-1	Total/NA	Water	3510C	
440-280245-1 MSD	MW-1	Total/NA	Water	3510C	

Analysis Batch: 136068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280245-1	MW-1	Total/NA	Water	8270C SIM ID	135438
440-280245-2	DW-3	Total/NA	Water	8270C SIM ID	135438
440-280245-3	DW-5	Total/NA	Water	8270C SIM ID	135438
MB 570-135438/1-A	Method Blank	Total/NA	Water	8270C SIM ID	135438
LCS 570-135438/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	135438
LCS 570-135438/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	135438
440-280245-1 MS	MW-1	Total/NA	Water	8270C SIM ID	135438
440-280245-1 MSD	MW-1	Total/NA	Water	8270C SIM ID	135438

HPLC/IC

Analysis Batch: 640891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280245-2	DW-3	Total/NA	Water	300.0	
MB 440-640891/6	Method Blank	Total/NA	Water	300.0	
LCS 440-640891/5	Lab Control Sample	Total/NA	Water	300.0	
440-280282-C-5 MS	Matrix Spike	Total/NA	Water	300.0	
440-280282-C-5 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 641013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280245-1	MW-1	Total/NA	Water	300.0	
440-280245-3	DW-5	Total/NA	Water	300.0	
MB 440-641013/6	Method Blank	Total/NA	Water	300.0	
LCS 440-641013/5	Lab Control Sample	Total/NA	Water	300.0	
440-280248-A-8 MS	Matrix Spike	Total/NA	Water	300.0	

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QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

HPLC/IC (Continued)

Analysis Batch: 641013 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280248-A-8 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
440-280297-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
440-280297-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 641479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280245-1	MW-1	Total Recoverable	Water	3005A	
440-280245-2	DW-3	Total Recoverable	Water	3005A	
MB 440-641479/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-641479/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-280315-K-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
440-280315-K-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 641595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280245-1	MW-1	Total Recoverable	Water	6010B	641479
440-280245-2	DW-3	Total Recoverable	Water	6010B	641479
MB 440-641479/1-A	Method Blank	Total Recoverable	Water	6010B	641479
LCS 440-641479/2-A	Lab Control Sample	Total Recoverable	Water	6010B	641479
440-280315-K-1-B MS	Matrix Spike	Total Recoverable	Water	6010B	641479
440-280315-K-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	641479

Prep Batch: 641689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280245-3	DW-5	Total Recoverable	Water	3005A	
MB 440-641689/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-641689/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-280683-F-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
440-280683-F-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 641742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280245-3	DW-5	Total Recoverable	Water	6010B	641689
MB 440-641689/1-A	Method Blank	Total Recoverable	Water	6010B	641689
LCS 440-641689/2-A	Lab Control Sample	Total Recoverable	Water	6010B	641689
440-280683-F-1-B MS	Matrix Spike	Total Recoverable	Water	6010B	641689
440-280683-F-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	641689

General Chemistry

Analysis Batch: 640991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280245-1	MW-1	Total/NA	Water	SM 2320B	
440-280245-2	DW-3	Total/NA	Water	SM 2320B	
MB 440-640991/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-640991/2	Lab Control Sample	Total/NA	Water	SM 2320B	
440-280315-E-4 DU	Duplicate	Total/NA	Water	SM 2320B	

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

General Chemistry

Analysis Batch: 641019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280245-1	MW-1	Total/NA	Water	SM 2540C	
440-280245-2	DW-3	Total/NA	Water	SM 2540C	
MB 440-641019/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-641019/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-280248-A-4 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 641121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280245-1	MW-1	Total/NA	Water	SM 5310C	
440-280245-2	DW-3	Total/NA	Water	SM 5310C	
440-280245-3	DW-5	Total/NA	Water	SM 5310C	
MB 440-641121/9	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-641121/8	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-641121/7	Lab Control Sample	Total/NA	Water	SM 5310C	
440-279836-G-11 MS	Matrix Spike	Total/NA	Water	SM 5310C	
440-279836-G-11 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310C	

Analysis Batch: 641128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280245-3	DW-5	Total/NA	Water	SM 2320B	
MB 440-641128/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-641128/2	Lab Control Sample	Total/NA	Water	SM 2320B	
440-280408-A-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 641397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280245-3	DW-5	Total/NA	Water	SM 2540C	
MB 440-641397/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-641397/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-280285-E-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 641487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280245-1	MW-1	Total/NA	Water	350.1	
440-280245-2	DW-3	Total/NA	Water	350.1	
440-280245-3	DW-5	Total/NA	Water	350.1	
MB 440-641487/10	Method Blank	Total/NA	Water	350.1	
LCS 440-641487/11	Lab Control Sample	Total/NA	Water	350.1	
LCS 440-641487/12	Lab Control Sample Dup	Total/NA	Water	350.1	
MRL 440-641487/9	Lab Control Sample	Total/NA	Water	350.1	
580-101449-D-1 MS	Matrix Spike	Total/NA	Water	350.1	
580-101449-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 641734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280245-1	MW-1	Total/NA	Water	410.4	
440-280245-2	DW-3	Total/NA	Water	410.4	
440-280245-3	DW-5	Total/NA	Water	410.4	
MB 440-641734/3	Method Blank	Total/NA	Water	410.4	
LCS 440-641734/4	Lab Control Sample	Total/NA	Water	410.4	
440-279921-E-1 MS	Matrix Spike	Total/NA	Water	410.4	

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QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

General Chemistry (Continued)

Analysis Batch: 641734 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-279921-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	
440-280695-B-1 DU	Duplicate	Total/NA	Water	410.4	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Definitions/Glossary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Qualifiers

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.

HPLC/IC

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.
E	Result exceeded calibration range.

General Chemistry

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.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Laboratory: Eurofins Calscience Irvine

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

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-21
Arizona	State	AZ0671	10-14-21
California	Los Angeles County Sanitation Districts	10256	06-30-21
California	State	2706	06-30-21
Guam	State	21-003R	01-23-22
Hawaii	State	CA01531	01-29-22
Kansas	NELAP	E-10420	07-31-21
Nevada	State	CA015312021-5	07-31-21
Oregon	NELAP	4028 - 009	01-29-22
USDA	US Federal Programs	P330-21-00022	02-02-24
Washington	State	C900	09-03-21

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	20-003R	10-31-20 *
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Chain of Custody Record 480006



Environment Testing
TestAmerica

Address:

TAL-8210

Regulatory Program DW NPDES RCRA Other

Client Contact Company Name: Geo-Logic Associates Address: 11415 W Bernardo Ct Suite 200 City/State/Zip: San Diego, CA 92127 Phone: 619-451-1136 Fax: 619-451-1087 Project Name: Republic Services, Inc. Site: San Shane Canyon Landfill P O #			Site Contact: Josh Mills Date: 3-10-21 Carrier: T/A			COC No: _____ of _____ COCs Sampler: M. Campbell For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No: 5020.1006	
Tell Email: Kwehahn@geo-logic.com Analysis Turnaround Time: <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below: <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day			Lab Contact: Rexing Temax Perform MS / MSD (Y / N) Filtered Sample (Y / N)			Sample Specific Notes	
Sample Identification	Sample Date	Sample Time	Sample Type (C-Comp, G-Grab)	Matrix	# of Cont.	Performs	Notes
MW-1	3-10-21	0730	G	GW	12	XXXX	12/10/21
DW-3		0948			12	XXXX	
DW-5		0834			12	XXXX	
Field Blank		-			4	XXXX	
Trip Blank		-			4	XXXX	

Preservation Used: 1 = Ice, 2 = HCl, 3 = H2SO4, 4 = HNO3, 5 = NaOH, 6 = Other

Possible Hazard Identification
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample
 Non-Hazardous Flammable Skin Irritant Poison B Unknown

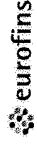
Special Instructions/QC Requirements & Comments

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return to Client Disposal by Lab Archive for _____ Months
 440-280245 Chain of Custody



T 12 11 10 10 07

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Tomova, Rossina D	Carrier Tracking No(s): 440-166953 1
Client Contact: Shipping/Receiving		E-Mail: Rossina.Tomova@Eurofinset.com	Page: Page 1 of 1
Company: Eurofins Calscience LLC		Job #: 440-280245-1	
Address: 7440 Lincoln Way, Garden Grove State, Zip: CA, 92841		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Due Date Requested: 3/23/2021		Accreditations Required (See note):	
TAT Requested (days):		Analysis Requested	
PO #:	WO #:	M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Project #: 44007851	SSOW#:	Total Number of containers	
Sample Identification - Client ID (Lab ID)		Special Instructions/Note:	
MW-1 (440-280245-1)	3/10/21 07:30 Pacific	Water	8
DW-3 (440-280245-2)	3/10/21 09:48 Pacific	Water	8
DW-5 (440-280245-3)	3/10/21 08:34 Pacific	Water	8
Field Blank (440-280245-4)	3/10/21 00:01 Pacific	Water	4
Trip Blank (440-280245-5)	3/10/21 00:01 Pacific	Water	4
Perform MS/MSD (Yes or No)		8270C_SIM_MS_ID/3510C_14-Dioxane - SIM_MS_ID	
Field Filtered Sample (Yes or No)		8260B_LL/5030C (MOD) Appendix II	
+MTBE+TBA+TICS		8260B_LL/5030C_UP (MOD) A+A	
Preservation Code:		8270C_SIM_MS_ID/3510C_14-Dioxane - SIM_MS_ID	
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, A=Air)
<p>Possible Hazard Identification</p> <p><input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p> <p>Unconfirmed Deliverable Requested I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2</p> <p>Empty Kit Relinquished by: _____ Date: _____ Method of Shipment: _____</p> <p>Relinquished by: _____ Date/Time: 3-11-21 9:40 Company: GFAW</p> <p>Relinquished by: _____ Date/Time: _____ Company: _____</p> <p>Relinquished by: _____ Date/Time: _____ Company: _____</p> <p>Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p>Custody Seal No.: _____</p> <p>Cooler Temperature(s) °C and Other Remarks: 4-5 / 3.4 SW</p>			



Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-280245-1

Login Number: 280245

List Number: 1

Creator: Escalante, Maria I

List Source: Eurofins Irvine

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.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 (excluding tests with immediate HTs)	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	

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-280245-1

Login Number: 280245

List Number: 2

Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience

List Creation: 03/11/21 04:42 PM

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

Isotope Dilution Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-280245-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-150)
440-280245-1	MW-1	50
440-280245-1 MS	MW-1	56
440-280245-1 MSD	MW-1	54
440-280245-2	DW-3	59
440-280245-3	DW-5	50
LCS 570-135438/2-A	Lab Control Sample	51
LCSD 570-135438/3-A	Lab Control Sample Dup	67
MB 570-135438/1-A	Method Blank	59

Surrogate Legend

DXE = 1,4-Dioxane-d8

ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-283250-1

Client Project/Site: Republic Sunshine Canyon

For:

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

Attn: Kyle Welchans



Authorized for release by:
5/24/2021 3:37:25 PM

Rossina Tomova, Project Manager I
(949)260-3276

Rossina.Tomova@Eurofinset.com

LINKS

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

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



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Sample Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283250-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-283250-1	PZ-2-A	Water	05/13/21 07:38	05/13/21 13:55	
440-283250-2	PZ-2-B	Water	05/13/21 07:38	05/13/21 13:55	

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Case Narrative

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283250-1

Job ID: 440-283250-1

Laboratory: Eurofins Calscience Irvine

Narrative

**Job Narrative
440-283250-1**

Comments

No additional comments.

Receipt

The samples were received on 5/13/2021 1:55 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.0° C.

General Chemistry

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

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283250-1

Client Sample ID: PZ-2-A

Lab Sample ID: 440-283250-1

Date Collected: 05/13/21 07:38

Matrix: Water

Date Received: 05/13/21 13:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	3.2		0.20	0.10	mg/L			05/20/21 13:00	1

Client Sample ID: PZ-2-B

Lab Sample ID: 440-283250-2

Date Collected: 05/13/21 07:38

Matrix: Water

Date Received: 05/13/21 13:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	3.2		0.20	0.10	mg/L			05/20/21 13:16	1

Method Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283250-1

Method	Method Description	Protocol	Laboratory
350.1	Nitrogen, Ammonia	MCAWW	TAL IRV

Protocol References:

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

Laboratory References:

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



Lab Chronicle

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283250-1

Client Sample ID: PZ-2-A

Date Collected: 05/13/21 07:38

Date Received: 05/13/21 13:55

Lab Sample ID: 440-283250-1

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	350.1		1	0.8 mL	8 mL	647326	05/20/21 13:00	GG0B	TAL IRV

Client Sample ID: PZ-2-B

Date Collected: 05/13/21 07:38

Date Received: 05/13/21 13:55

Lab Sample ID: 440-283250-2

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	350.1		1	0.8 mL	8 mL	647326	05/20/21 13:16	GG0B	TAL IRV

Laboratory References:

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

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283250-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 440-647326/10
Matrix: Water
Analysis Batch: 647326

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			05/20/21 12:49	1

Lab Sample ID: LCS 440-647326/11
Matrix: Water
Analysis Batch: 647326

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	5.00	4.82		mg/L		96	90 - 110

Lab Sample ID: MRL 440-647326/9
Matrix: Water
Analysis Batch: 647326

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.200	0.194	J	mg/L		97	50 - 150

Lab Sample ID: 440-283250-1 MS
Matrix: Water
Analysis Batch: 647326

Client Sample ID: PZ-2-A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	3.2		5.00	7.77		mg/L		92	90 - 110

Lab Sample ID: 440-283250-1 MSD
Matrix: Water
Analysis Batch: 647326

Client Sample ID: PZ-2-A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	3.2		5.00	7.97		mg/L		96	90 - 110	3	15

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283250-1

General Chemistry

Analysis Batch: 647326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283250-1	PZ-2-A	Total/NA	Water	350.1	
440-283250-2	PZ-2-B	Total/NA	Water	350.1	
MB 440-647326/10	Method Blank	Total/NA	Water	350.1	
LCS 440-647326/11	Lab Control Sample	Total/NA	Water	350.1	
MRL 440-647326/9	Lab Control Sample	Total/NA	Water	350.1	
440-283250-1 MS	PZ-2-A	Total/NA	Water	350.1	
440-283250-1 MSD	PZ-2-A	Total/NA	Water	350.1	

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Definitions/Glossary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283250-1

Qualifiers

General Chemistry

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.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283250-1

Laboratory: Eurofins Calscience Irvine

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

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-21
Arizona	State	AZ0671	10-14-21
California	Los Angeles County Sanitation Districts	10256	06-30-21
California	State	2706	06-30-21
Guam	State	21-003R	01-23-22
Hawaii	State	CA01531	01-29-22
Kansas	NELAP	E-10420	07-31-21
Nevada	State	CA015312021-6	07-31-21
Oregon	NELAP	4028 - 010	01-29-22
USDA	US Federal Programs	P330-21-00022	02-02-24
Washington	State	C900	09-03-21

Address

Regulatory Program DW NPDES RCRA Other

Client Contact
 Company Name: Geo-Logic Associate
 Address: 1115 W. Bernardo, #1 Suite 200
 City/State/Zip: San Diego, CA 92127
 Phone: 619-451-1136
 Fax:
 Project Name: Republic Service
 Site: Sunshin (yn Landfill)
 P O #:

Project Manager: Kyle Welch
 Tel/Email: kwelch@geo-logic.com
 Analysis Turnaround Time:
 CALENDAR DAYS WORKING DAYS
 TAT if different from Below:
 2 weeks
 1 week
 2 days
 1 day

Site Contact: Josh Mull
 Date: 5-3-21
Lab Contact: Rossina Tommasi
 Carrier: T/A

COC No.: 1 of 1 COCs
Sampler: M
For Lab Use Only:
 Walk-in Client:
 Lab Sampling:
Job / SDG No: 5020 1006

Sample Identification	Sample Date	Sample Time	Sample Type (C-Comp, G-Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Sample Specific Notes
PZ-2-A	5/13/21	7:38	G	GW	1	Y	Y	
PZ-2-B	5/13/21	7:38	G	GW	1	Y	Y	



440-283250 Chain of Custody

9/13/21

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other

Possible Hazard Identification
 Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample
 Non-Hazard Flammable Skin Irritant Poison B Unknown

Special Instructions/QC Requirements & Comments:
 Return to Client Disposal by Lab Archive for _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Relinquished by: [Signature] Date/Time: 5/13/21 11:12
 Company: B-T
Received by: [Signature] Date/Time: 5/13/21 11:12
 Company: B-T

Relinquished by: [Signature] Date/Time: 5/13/21 13:55
 Company: B-T
Received by: [Signature] Date/Time: 5/13/21 13:55
 Company: Eurofins

Relinquished by: [Signature] Date/Time: 5/13/21 13:55
 Company: Eurofins
Received by: [Signature] Date/Time: 5/13/21 13:55
 Company: Eurofins

Therm ID No.: _____
Cooler Temp. (°C): _____
Obs'd: _____
Corrd: _____

B-Temp 13/10/21 89



Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-283250-1

Login Number: 283250

List Source: Eurofins Calscience Irvine

List Number: 1

Creator: Escalante, Maria I

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.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 (excluding tests with immediate HTs)	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	

ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-282490-1

Client Project/Site: Republic Sunshine Canyon

For:

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

Attn: Kyle Welchans



Authorized for release by:
5/10/2021 4:45:16 PM

Rossina Tomova, Project Manager I
(949)260-3276
Rossina.Tomova@Eurofinset.com

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

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



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Sample Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-282490-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-282490-1	LR-2R	Water	04/27/21 09:25	04/27/21 14:20	
440-282490-2	Field Blank	Water	04/27/21 00:01	04/27/21 14:20	
440-282490-3	Trip Blank	Water	04/27/21 00:01	04/27/21 14:20	

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Case Narrative

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-282490-1

Job ID: 440-282490-1

Laboratory: Eurofins Calscience Irvine

Narrative

**Job Narrative
440-282490-1**

Comments

No additional comments.

Receipt

The samples were received on 4/27/2021 2:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.0° C.

GC/MS VOA

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-148697.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-149044.

Method 8260B: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: LR-2R (440-282490-1). Elevated reporting limits (RLs) are provided.

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

VOA Prep

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

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-282490-1

Client Sample ID: LR-2R

Date Collected: 04/27/21 09:25

Date Received: 04/27/21 14:20

Lab Sample ID: 440-282490-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	19		10	3.2	ug/L			05/08/21 01:31	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	95		80 - 120		05/08/21 01:31	10
1,2-Dichloroethane-d4 (Surr)	100		68 - 135		05/08/21 01:31	10
4-Bromofluorobenzene (Surr)	97		71 - 120		05/08/21 01:31	10
Toluene-d8 (Surr)	98		80 - 120		05/08/21 01:31	10

Client Sample ID: Field Blank

Date Collected: 04/27/21 00:01

Date Received: 04/27/21 14:20

Lab Sample ID: 440-282490-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.32	ug/L			05/07/21 00:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	91		80 - 120		05/07/21 00:16	1
1,2-Dichloroethane-d4 (Surr)	82		68 - 135		05/07/21 00:16	1
4-Bromofluorobenzene (Surr)	97		71 - 120		05/07/21 00:16	1
Toluene-d8 (Surr)	101		80 - 120		05/07/21 00:16	1

Client Sample ID: Trip Blank

Date Collected: 04/27/21 00:01

Date Received: 04/27/21 14:20

Lab Sample ID: 440-282490-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.32	ug/L			05/07/21 00:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	92		80 - 120		05/07/21 00:45	1
1,2-Dichloroethane-d4 (Surr)	82		68 - 135		05/07/21 00:45	1
4-Bromofluorobenzene (Surr)	96		71 - 120		05/07/21 00:45	1
Toluene-d8 (Surr)	97		80 - 120		05/07/21 00:45	1

Method Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-282490-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
5030C	Purge and Trap	SW846	ECL 2

Protocol References:

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

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494



Lab Chronicle

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-282490-1

Client Sample ID: LR-2R

Date Collected: 04/27/21 09:25

Date Received: 04/27/21 14:20

Lab Sample ID: 440-282490-1

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		10	20 mL	20 mL	149044	05/08/21 01:31	OH1	ECL 2

Client Sample ID: Field Blank

Date Collected: 04/27/21 00:01

Date Received: 04/27/21 14:20

Lab Sample ID: 440-282490-2

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	20 mL	20 mL	148697	05/07/21 00:16	A1W	ECL 2

Client Sample ID: Trip Blank

Date Collected: 04/27/21 00:01

Date Received: 04/27/21 14:20

Lab Sample ID: 440-282490-3

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	20 mL	20 mL	148697	05/07/21 00:45	A1W	ECL 2

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-282490-1

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

Lab Sample ID: MB 570-148697/9
Matrix: Water
Analysis Batch: 148697

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.32	ug/L			05/06/21 23:46	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	92		80 - 120					05/06/21 23:46	1
1,2-Dichloroethane-d4 (Surr)	80		68 - 135					05/06/21 23:46	1
4-Bromofluorobenzene (Surr)	95		71 - 120					05/06/21 23:46	1
Toluene-d8 (Surr)	96		80 - 120					05/06/21 23:46	1

Lab Sample ID: LCS 570-148697/5
Matrix: Water
Analysis Batch: 148697

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	10.0	7.48		ug/L		75	75 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Dibromofluoromethane (Surr)	91		80 - 120				
1,2-Dichloroethane-d4 (Surr)	82		68 - 135				
4-Bromofluorobenzene (Surr)	100		71 - 120				
Toluene-d8 (Surr)	98		80 - 120				

Lab Sample ID: LCSD 570-148697/6
Matrix: Water
Analysis Batch: 148697

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	10.0	7.55		ug/L		75	75 - 120	1	22
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
Dibromofluoromethane (Surr)	91		80 - 120						
1,2-Dichloroethane-d4 (Surr)	85		68 - 135						
4-Bromofluorobenzene (Surr)	98		71 - 120						
Toluene-d8 (Surr)	94		80 - 120						

Lab Sample ID: MB 570-149044/8
Matrix: Water
Analysis Batch: 149044

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.32	ug/L			05/07/21 21:28	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	100		80 - 120					05/07/21 21:28	1
1,2-Dichloroethane-d4 (Surr)	102		68 - 135					05/07/21 21:28	1
4-Bromofluorobenzene (Surr)	96		71 - 120					05/07/21 21:28	1
Toluene-d8 (Surr)	100		80 - 120					05/07/21 21:28	1

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-282490-1

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

Lab Sample ID: LCS 570-149044/4
Matrix: Water
Analysis Batch: 149044

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	10.0	10.9		ug/L		109	75 - 120
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
Dibromofluoromethane (Surr)	102		80 - 120				
1,2-Dichloroethane-d4 (Surr)	101		68 - 135				
4-Bromofluorobenzene (Surr)	99		71 - 120				
Toluene-d8 (Surr)	99		80 - 120				

Lab Sample ID: LCSD 570-149044/5
Matrix: Water
Analysis Batch: 149044

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	10.0	10.6		ug/L		106	75 - 120	3	22
LCSD LCSD									
Surrogate	%Recovery	Qualifier	Limits						
Dibromofluoromethane (Surr)	101		80 - 120						
1,2-Dichloroethane-d4 (Surr)	99		68 - 135						
4-Bromofluorobenzene (Surr)	102		71 - 120						
Toluene-d8 (Surr)	98		80 - 120						

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-282490-1

GC/MS VOA

Analysis Batch: 148697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-282490-2	Field Blank	Total/NA	Water	8260B	
440-282490-3	Trip Blank	Total/NA	Water	8260B	
MB 570-148697/9	Method Blank	Total/NA	Water	8260B	
LCS 570-148697/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-148697/6	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 149044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-282490-1	LR-2R	Total/NA	Water	8260B	
MB 570-149044/8	Method Blank	Total/NA	Water	8260B	
LCS 570-149044/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-149044/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Definitions/Glossary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-282490-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-282490-1

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0161	11-19-21
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	20-003R	10-31-20 *
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



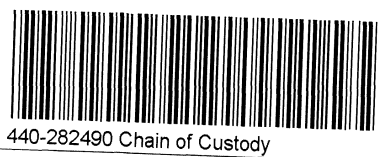
Address: _____

Regulatory Program: DW NPDES RCRA Other:

TAL-8210

Client Contact Company Name: <u>GLA / Republic</u> Address: <u>11415 Bernardo Ln</u> City/State/Zip: <u>S.D. CA 92127</u> Phone: <u>858-451-1136</u> Fax: _____ Project Name: <u>Republic Services, Inc.</u> Site: <u>Sunshine Spn. Landfill</u> P O # _____		Project Manager: <u>Kyle Weiskamp</u> Tel/Email: <u>858-451-1136</u> Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Site Contact: <u>Wangdu Ma</u> Lab Contact: <u>Rossina</u> Date: <u>4-27-21</u> Carrier: <u>TA</u>		COC No: _____ _____ of _____ COCs Sampler: <u>E. Salinas</u> For Lab Use Only: Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____ _____ _____ <u>JUL 4/27/21</u> Sample Specific Notes: _____	
---	--	---	--	---	--	--	--

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)																		
LR-2R	4/27/21	09:55	G	WW	3			X	X																
Field Blank	↓	—	G	LAB	2			X	X																
TRP Blank	↓	—	G	"	2			X	X																



Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
 Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Cor'd: _____		Therm ID No.:	
Relinquished by: <u>[Signature]</u>	Company: <u>GLA</u>	Date/Time: <u>4-27-21 09:55</u>	Received by: <u>[Signature]</u>	Company: <u>B-T</u>	Date/Time: <u>4-27-21 9:55</u>		
Relinquished by: <u>[Signature]</u>	Company: <u>B-T</u>	Date/Time: <u>4-22-21 14:20</u>	Received by: <u>[Signature]</u>	Company: _____	Date/Time: _____		
Relinquished by: _____	Company: _____	Date/Time: _____	Received in Laboratory by: <u>[Signature]</u>	Company: <u>EQ IDV</u>	Date/Time: <u>4/22/21 14:20</u>		

Eurofins Calscience Irvine

17461 Derian Ave Suite 100
Irvine CA 92614-5817
Phone 949-261-1022 Fax 949-260-3297

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler	Lab PM:	Carrier Tracking No(s):	COC No:				
Client Contact:	Phone:		Tomova, Rossina D		440-168284.1				
Shipping/Receiving			Email: Rossina Tomova@Eurofinsset.com	State of Origin: California	Page: 1 of 1				
Company: Eurofins Calscience LLC			Accreditations Required (See note):		Job #: 440-282490-1				
Address: 7440 Lincoln Way		Due Date Requested: 5/10/2021							
City: Garden Grove		TAT Requested (days):	Analysis Requested						
State, Zip: CA, 92841									
Phone: 714-895-5494(Tel) 714-894-7501(Fax)		PO #:							
Email:		WO #:							
Project Name: Republic Sunshine Canyon		Project #: 44007851							
Site:		SSOW#:							
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (G=grab)	Matrix (W=Water, S=Solid, O=Other, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note:
LR-2R (440-282490-1)		4/27/21	09:25 Pacific	Water	Water	X	8260B_LL/5030C (MOD) Appendix II +MTBE+TBA+TICS	3	
Field Blank (440-282490-2)		4/27/21	00:01 Pacific	Water	Water	X		2	
Trip Blank (440-282490-3)		4/27/21	00:01 Pacific	Water	Water	X		2	
<p>Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/estimation, being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.</p>									
Possible Hazard Identification									
<i>Unconfirmed</i>									
Deliverable Requested I, II, III, IV, Other (specify)					Primary Deliverable Rank: 2				
Empty Kit Relinquished by:		Date	Time		Method of Shipment:				
Relinquished by:		Date/Time: 4-27-2021 18:20	Company		Received by: [Signature]				
Relinquished by:		Date/Time:	Company		Received by: [Signature]				
Relinquished by:		Date/Time:	Company		Received by:				
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No: NA		Cooler Temperature(s) °C and Other Remarks: 2.8/3.2 SCUS					

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-282490-1

Login Number: 282490

List Number: 1

Creator: Escalante, Maria I

List Source: Eurofins Irvine

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.	N/A	Not present
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 (excluding tests with immediate HTs)	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	



Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-282490-1

Login Number: 282490

List Number: 2

Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience

List Creation: 04/27/21 08:26 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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	3.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-283413-1

Client Project/Site: Republic Sunshine Canyon

For:

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

Attn: Kyle Welchans



Authorized for release by:
5/27/2021 4:11:43 PM

Rossina Tomova, Project Manager I
(949)260-3276
Rossina.Tomova@Eurofinset.com

LINKS

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

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



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Sample Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-283413-1	MW-6	Water	05/17/21 08:30	05/17/21 18:00	
440-283413-2	MW-9	Water	05/17/21 12:05	05/17/21 18:00	
440-283413-3	MW-13R	Water	05/17/21 10:02	05/17/21 18:00	
440-283413-4	MW-14	Water	05/17/21 07:05	05/17/21 18:00	
440-283413-5	PZ-2	Water	05/17/21 13:32	05/17/21 18:00	
440-283413-6	DW-1	Water	05/17/21 13:10	05/17/21 18:00	
440-283413-7	Subdrain (N)	Water	05/17/21 09:00	05/17/21 18:00	
440-283413-8	Field Blank	Water	05/17/21 00:01	05/17/21 18:00	
440-283413-9	Trip Blank	Water	05/17/21 00:01	05/17/21 18:00	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Case Narrative

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Job ID: 440-283413-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative 440-283413-1

Comments

No additional comments.

Receipt

The samples were received on 5/17/2021 6:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.1° C and 1.6° C.

GC/MS VOA

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-151713.

Method 8260B: The following sample was diluted due to the abundance of non-target analytes: Subdrain (N) (440-283413-7). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA

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

HPLC/IC

Method 300.0: The following samples were diluted due to the nature of the sample matrix: MW-9 (440-283413-2) and PZ-2 (440-283413-5). Elevated reporting limits (RLs) are provided.

Method 300.0: The following samples were diluted due to the nature of the sample matrix: MW-6 (440-283413-1), DW-1 (440-283413-6) and Subdrain (N) (440-283413-7). Elevated reporting limits (RLs) are provided.

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

Metals

Method 3005A: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of 6: Subdrain (N) (440-283413-7). The sample was preserved to the appropriate pH in the laboratory. Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion.

0.5 mL of 1:1 HNO₃ was added to container 440-283413-I-7 on 05/21/21 @ 13:25 hours
1:1 HNO₃ Reagent # 6572054

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

General Chemistry

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

Organic Prep

Method 3510C: The following samples formed emulsions during the extraction procedure: DW-1 (440-283413-6) and Subdrain (N) (440-283413-7). The emulsions were broken up using sodium sulfate.

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

VOA Prep

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

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: MW-6

Lab Sample ID: 440-283413-1

Date Collected: 05/17/21 08:30

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/20/21 01:55	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/20/21 01:55	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/20/21 01:55	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/20/21 01:55	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/20/21 01:55	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/20/21 01:55	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/20/21 01:55	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/20/21 01:55	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/20/21 01:55	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/20/21 01:55	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/20/21 01:55	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/20/21 01:55	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/20/21 01:55	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/20/21 01:55	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/20/21 01:55	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/20/21 01:55	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/20/21 01:55	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/20/21 01:55	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/20/21 01:55	1
2-Hexanone	ND		6.0	4.3	ug/L			05/20/21 01:55	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/20/21 01:55	1
Acetone	ND		8.0	4.0	ug/L			05/20/21 01:55	1
Acetonitrile	ND		10	3.9	ug/L			05/20/21 01:55	1
Acrolein	ND		4.0	2.2	ug/L			05/20/21 01:55	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/20/21 01:55	1
Allyl chloride	ND		2.0	0.38	ug/L			05/20/21 01:55	1
Benzene	ND		0.50	0.27	ug/L			05/20/21 01:55	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/20/21 01:55	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/20/21 01:55	1
Bromoform	ND		0.50	0.39	ug/L			05/20/21 01:55	1
Bromomethane	ND		1.0	0.93	ug/L			05/20/21 01:55	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/20/21 01:55	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/20/21 01:55	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/20/21 01:55	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/20/21 01:55	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/20/21 01:55	1
Chloroethane	ND		0.50	0.44	ug/L			05/20/21 01:55	1
Chloroform	ND		0.50	0.28	ug/L			05/20/21 01:55	1
Chloromethane	ND		1.0	0.29	ug/L			05/20/21 01:55	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/20/21 01:55	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/20/21 01:55	1
Dibromomethane	ND		0.50	0.23	ug/L			05/20/21 01:55	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/20/21 01:55	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/20/21 01:55	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/20/21 01:55	1
Iodomethane	ND		25	5.9	ug/L			05/20/21 01:55	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/20/21 01:55	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/20/21 01:55	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/20/21 01:55	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: MW-6

Lab Sample ID: 440-283413-1

Date Collected: 05/17/21 08:30

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0	0.48	ug/L			05/20/21 01:55	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/20/21 01:55	1
Naphthalene	ND		1.0	0.32	ug/L			05/20/21 01:55	1
o-Xylene	ND		0.50	0.35	ug/L			05/20/21 01:55	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/20/21 01:55	1
Propionitrile	ND		5.0	3.7	ug/L			05/20/21 01:55	1
Styrene	ND		0.50	0.28	ug/L			05/20/21 01:55	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/20/21 01:55	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/20/21 01:55	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/20/21 01:55	1
t-Butanol	ND		5.0	4.0	ug/L			05/20/21 01:55	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/20/21 01:55	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/20/21 01:55	1
Toluene	ND		0.50	0.33	ug/L			05/20/21 01:55	1
Trichloroethene	ND		0.50	0.29	ug/L			05/20/21 01:55	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/20/21 01:55	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/20/21 01:55	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/20/21 01:55	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2H-Pyran-2-acetic acid, tetrahydro-6-methyl-, cis-Unknown	420	T J N	ug/L		1.43	69493-11-4		05/20/21 01:55	1
Unknown	7900	T J	ug/L		1.47			05/20/21 01:55	1
Unknown	47	T J	ug/L		1.62			05/20/21 01:55	1
Unknown	39	T J	ug/L		1.65			05/20/21 01:55	1
Cysteic acid	6700	T J N	ug/L		2.22	1000131-23-1		05/20/21 01:55	1
n-Hexylmethylamine	260	T J N	ug/L		2.97	35161-70-7		05/20/21 01:55	1
Unknown	90	T J	ug/L		3.09			05/20/21 01:55	1
Methanesulfonamide, N,N-dimethyl-	65	T J N	ug/L		3.13	918-05-8		05/20/21 01:55	1
3,3-Dimethyl-4-methylamino-butan-2-one	55	T J N	ug/L		3.16	1000143-60-7		05/20/21 01:55	1
Unknown	160	T J	ug/L		3.19			05/20/21 01:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		68 - 135		05/20/21 01:55	1
4-Bromofluorobenzene (Surr)	96		71 - 120		05/20/21 01:55	1
Dibromofluoromethane (Surr)	107		80 - 120		05/20/21 01:55	1
Toluene-d8 (Surr)	100		80 - 120		05/20/21 01:55	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/21/21 07:53	05/22/21 00:16	1
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8	38		15 - 150	05/21/21 07:53	05/22/21 00:16	1			
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Nitrobenzene-d5 (Surr)	116		46 - 128	05/21/21 07:53	05/22/21 00:16	1			

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: MW-6

Lab Sample ID: 440-283413-1

Date Collected: 05/17/21 08:30

Matrix: Water

Date Received: 05/17/21 18:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.22	0.11	mg/L			05/18/21 15:19	2
Bromide	0.93	J	1.0	0.48	mg/L			05/18/21 15:19	2
Fluoride	1.1		1.0	0.40	mg/L			05/18/21 15:19	2

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36		5.0	2.5	mg/L			05/18/21 22:53	10

Method: 300.0 - Anions, Ion Chromatography - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2000		50	25	mg/L			05/18/21 15:39	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.77		0.050	0.025	mg/L		05/21/21 12:05	05/25/21 11:13	1
Calcium	380		0.10	0.050	mg/L		05/21/21 12:05	05/25/21 11:13	1
Iron	0.47		0.10	0.050	mg/L		05/21/21 12:05	05/25/21 11:13	1
Magnesium	210		0.020	0.010	mg/L		05/21/21 12:05	05/25/21 11:13	1
Manganese	0.98		0.020	0.015	mg/L		05/21/21 12:05	05/25/21 11:13	1
Potassium	5.6		0.50	0.25	mg/L		05/21/21 12:05	05/25/21 11:13	1
Sodium	340		0.50	0.26	mg/L		05/21/21 12:05	05/25/21 11:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	0.93		0.20	0.10	mg/L			05/20/21 13:26	1
Chemical Oxygen Demand	ND		20	10	mg/L			05/20/21 14:42	1
Total Dissolved Solids	3400		20	10	mg/L			05/24/21 08:30	1
Total Sulfide	9.9		1.0	0.54	mg/L			05/20/21 17:22	20
Total Organic Carbon	6.3		0.50	0.25	mg/L			05/21/21 13:04	5
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	460		4.0	4.0	mg/L			05/18/21 07:01	1
Bicarbonate Alkalinity as CaCO3	460		4.0	4.0	mg/L			05/18/21 07:01	1
Carbon Dioxide, Free	55		2.0	2.0	mg/L			05/24/21 14:00	1

Client Sample ID: MW-9

Lab Sample ID: 440-283413-2

Date Collected: 05/17/21 12:05

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/20/21 02:23	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/20/21 02:23	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/20/21 02:23	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/20/21 02:23	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/20/21 02:23	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/20/21 02:23	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/20/21 02:23	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/20/21 02:23	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/20/21 02:23	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/20/21 02:23	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/20/21 02:23	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: MW-9

Lab Sample ID: 440-283413-2

Date Collected: 05/17/21 12:05

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/20/21 02:23	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/20/21 02:23	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/20/21 02:23	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/20/21 02:23	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/20/21 02:23	1
1,4-Dichlorobenzene	0.41	J	0.50	0.22	ug/L			05/20/21 02:23	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/20/21 02:23	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/20/21 02:23	1
2-Hexanone	ND		6.0	4.3	ug/L			05/20/21 02:23	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/20/21 02:23	1
Acetone	ND		8.0	4.0	ug/L			05/20/21 02:23	1
Acetonitrile	ND		10	3.9	ug/L			05/20/21 02:23	1
Acrolein	ND		4.0	2.2	ug/L			05/20/21 02:23	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/20/21 02:23	1
Allyl chloride	ND		2.0	0.38	ug/L			05/20/21 02:23	1
Benzene	ND		0.50	0.27	ug/L			05/20/21 02:23	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/20/21 02:23	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/20/21 02:23	1
Bromoform	ND		0.50	0.39	ug/L			05/20/21 02:23	1
Bromomethane	ND		1.0	0.93	ug/L			05/20/21 02:23	1
cis-1,2-Dichloroethene	1.4		0.50	0.30	ug/L			05/20/21 02:23	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/20/21 02:23	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/20/21 02:23	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/20/21 02:23	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/20/21 02:23	1
Chloroethane	ND		0.50	0.44	ug/L			05/20/21 02:23	1
Chloroform	ND		0.50	0.28	ug/L			05/20/21 02:23	1
Chloromethane	ND		1.0	0.29	ug/L			05/20/21 02:23	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/20/21 02:23	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/20/21 02:23	1
Dibromomethane	ND		0.50	0.23	ug/L			05/20/21 02:23	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/20/21 02:23	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/20/21 02:23	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/20/21 02:23	1
Iodomethane	ND		25	5.9	ug/L			05/20/21 02:23	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/20/21 02:23	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/20/21 02:23	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/20/21 02:23	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/20/21 02:23	1
Methyl tert-butyl ether	0.43	J	0.50	0.21	ug/L			05/20/21 02:23	1
Naphthalene	ND		1.0	0.32	ug/L			05/20/21 02:23	1
o-Xylene	ND		0.50	0.35	ug/L			05/20/21 02:23	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/20/21 02:23	1
Propionitrile	ND		5.0	3.7	ug/L			05/20/21 02:23	1
Styrene	ND		0.50	0.28	ug/L			05/20/21 02:23	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/20/21 02:23	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/20/21 02:23	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/20/21 02:23	1
t-Butanol	40		5.0	4.0	ug/L			05/20/21 02:23	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: MW-9

Lab Sample ID: 440-283413-2

Date Collected: 05/17/21 12:05

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		0.50	0.29	ug/L			05/20/21 02:23	1
Tetrahydrofuran	11		2.0	1.1	ug/L			05/20/21 02:23	1
Toluene	ND		0.50	0.33	ug/L			05/20/21 02:23	1
Trichloroethene	ND		0.50	0.29	ug/L			05/20/21 02:23	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/20/21 02:23	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/20/21 02:23	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/20/21 02:23	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Aspartic acid methyl ester	300	T J N	ug/L		1.42	1000130-17-8		05/20/21 02:23	1
Unknown	10000	T J	ug/L		1.46			05/20/21 02:23	1
Ethane, 1,1-difluoro-	50	T J N	ug/L		1.59	75-37-6		05/20/21 02:23	1
Methane, chlorodifluoro-	110	T J N	ug/L		1.63	75-45-6		05/20/21 02:23	1
Cysteic acid	60	T J N	ug/L		1.76	1000131-23-1		05/20/21 02:23	1
Aminomethanesulfonic acid	190	T J N	ug/L		1.81	13881-91-9		05/20/21 02:23	1
Cysteic acid	3000	T J N	ug/L		2.30	1000131-23-1		05/20/21 02:23	1
Propane, 2-ethoxy-2-methyl-	100	T J N	ug/L		3.89	637-92-3		05/20/21 02:23	1
Diisopropyl ether	13	T J N	ug/L		5.09	108-20-3		05/20/21 02:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		68 - 135		05/20/21 02:23	1
4-Bromofluorobenzene (Surr)	97		71 - 120		05/20/21 02:23	1
Dibromofluoromethane (Surr)	105		80 - 120		05/20/21 02:23	1
Toluene-d8 (Surr)	99		80 - 120		05/20/21 02:23	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	54		0.50	0.34	ug/L		05/21/21 07:53	05/22/21 00:31	1
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8	36		15 - 150	05/21/21 07:53	05/22/21 00:31	1			
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Nitrobenzene-d5 (Surr)	119		46 - 128	05/21/21 07:53	05/22/21 00:31	1			

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	280		50	25	mg/L			05/18/21 14:08	100
Nitrate as N	ND		0.22	0.11	mg/L			05/18/21 13:51	2
Bromide	4.0		1.0	0.48	mg/L			05/18/21 13:51	2
Fluoride	0.41	J	1.0	0.40	mg/L			05/18/21 13:51	2
Sulfate	1700		50	25	mg/L			05/18/21 14:08	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.1		0.050	0.025	mg/L		05/21/21 12:05	05/25/21 11:23	1
Calcium	470		0.10	0.050	mg/L		05/21/21 12:05	05/25/21 11:23	1
Iron	33		0.10	0.050	mg/L		05/21/21 12:05	05/25/21 11:23	1
Magnesium	260		0.020	0.010	mg/L		05/21/21 12:05	05/25/21 11:23	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: MW-9

Lab Sample ID: 440-283413-2

Date Collected: 05/17/21 12:05

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	6.1		0.020	0.015	mg/L		05/21/21 12:05	05/25/21 11:23	1
Potassium	18		0.50	0.25	mg/L		05/21/21 12:05	05/25/21 11:23	1
Sodium	360		0.50	0.26	mg/L		05/21/21 12:05	05/25/21 11:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	3.7		0.20	0.10	mg/L			05/20/21 13:32	1
Chemical Oxygen Demand	96		20	10	mg/L			05/20/21 14:42	1
Total Dissolved Solids	4100		50	25	mg/L			05/24/21 08:30	1
Total Sulfide	ND		0.050	0.027	mg/L			05/20/21 17:22	1
Total Organic Carbon	32		0.50	0.25	mg/L			05/21/21 13:19	5

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	790		4.0	4.0	mg/L			05/18/21 07:15	1
Bicarbonate Alkalinity as CaCO3	790		4.0	4.0	mg/L			05/18/21 07:15	1
Carbon Dioxide, Free	180		2.0	2.0	mg/L			05/24/21 14:00	1

Client Sample ID: MW-13R

Lab Sample ID: 440-283413-3

Date Collected: 05/17/21 10:02

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/20/21 02:51	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/20/21 02:51	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/20/21 02:51	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/20/21 02:51	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/20/21 02:51	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/20/21 02:51	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/20/21 02:51	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/20/21 02:51	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/20/21 02:51	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/20/21 02:51	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/20/21 02:51	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/20/21 02:51	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/20/21 02:51	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/20/21 02:51	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/20/21 02:51	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/20/21 02:51	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/20/21 02:51	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/20/21 02:51	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/20/21 02:51	1
2-Hexanone	ND		6.0	4.3	ug/L			05/20/21 02:51	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/20/21 02:51	1
Acetone	ND		8.0	4.0	ug/L			05/20/21 02:51	1
Acetonitrile	ND		10	3.9	ug/L			05/20/21 02:51	1
Acrolein	ND		4.0	2.2	ug/L			05/20/21 02:51	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/20/21 02:51	1
Allyl chloride	ND		2.0	0.38	ug/L			05/20/21 02:51	1
Benzene	ND		0.50	0.27	ug/L			05/20/21 02:51	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/20/21 02:51	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: MW-13R

Lab Sample ID: 440-283413-3

Date Collected: 05/17/21 10:02

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		0.50	0.22	ug/L			05/20/21 02:51	1
Bromoform	ND		0.50	0.39	ug/L			05/20/21 02:51	1
Bromomethane	ND		1.0	0.93	ug/L			05/20/21 02:51	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/20/21 02:51	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/20/21 02:51	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/20/21 02:51	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/20/21 02:51	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/20/21 02:51	1
Chloroethane	ND		0.50	0.44	ug/L			05/20/21 02:51	1
Chloroform	ND		0.50	0.28	ug/L			05/20/21 02:51	1
Chloromethane	ND		1.0	0.29	ug/L			05/20/21 02:51	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/20/21 02:51	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/20/21 02:51	1
Dibromomethane	ND		0.50	0.23	ug/L			05/20/21 02:51	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/20/21 02:51	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/20/21 02:51	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/20/21 02:51	1
Iodomethane	ND		25	5.9	ug/L			05/20/21 02:51	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/20/21 02:51	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/20/21 02:51	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/20/21 02:51	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/20/21 02:51	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/20/21 02:51	1
Naphthalene	ND		1.0	0.32	ug/L			05/20/21 02:51	1
o-Xylene	ND		0.50	0.35	ug/L			05/20/21 02:51	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/20/21 02:51	1
Propionitrile	ND		5.0	3.7	ug/L			05/20/21 02:51	1
Styrene	ND		0.50	0.28	ug/L			05/20/21 02:51	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/20/21 02:51	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/20/21 02:51	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/20/21 02:51	1
t-Butanol	ND		5.0	4.0	ug/L			05/20/21 02:51	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/20/21 02:51	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/20/21 02:51	1
Toluene	ND		0.50	0.33	ug/L			05/20/21 02:51	1
Trichloroethene	ND		0.50	0.29	ug/L			05/20/21 02:51	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/20/21 02:51	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/20/21 02:51	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/20/21 02:51	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2H-Pyran-2-acetic acid, tetrahydro-6-methyl-, cis-	290	T J N	ug/L		1.42	69493-11-4		05/20/21 02:51	1
Unknown	5400	T J	ug/L		1.46			05/20/21 02:51	1
Unknown	1200	T J	ug/L		1.55			05/20/21 02:51	1
Unknown	180	T J	ug/L		1.59			05/20/21 02:51	1
Unknown	130	T J	ug/L		1.64			05/20/21 02:51	1
Unknown	9400	T J	ug/L		1.96			05/20/21 02:51	1
Unknown	15	T J	ug/L		3.10			05/20/21 02:51	1
Unknown	13	T J	ug/L		3.13			05/20/21 02:51	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: MW-13R

Lab Sample ID: 440-283413-3

Date Collected: 05/17/21 10:02

Matrix: Water

Date Received: 05/17/21 18:00

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	62	T J	ug/L		3.23			05/20/21 02:51	1
Unknown	23	T J	ug/L		3.82			05/20/21 02:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		68 - 135					05/20/21 02:51	1
4-Bromofluorobenzene (Surr)	96		71 - 120					05/20/21 02:51	1
Dibromofluoromethane (Surr)	106		80 - 120					05/20/21 02:51	1
Toluene-d8 (Surr)	100		80 - 120					05/20/21 02:51	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	7.3		0.50	0.34	ug/L		05/21/21 07:53	05/22/21 00:46	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	33		15 - 150				05/21/21 07:53	05/22/21 00:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	120		46 - 128				05/21/21 07:53	05/22/21 00:46	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	86		25	13	mg/L			05/18/21 19:53	50
Nitrate as N	ND		0.11	0.055	mg/L			05/18/21 14:25	1
Bromide	0.96		0.50	0.24	mg/L			05/18/21 14:25	1
Fluoride	0.39	J	0.50	0.20	mg/L			05/18/21 14:25	1
Sulfate	230		25	13	mg/L			05/18/21 19:53	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.85		0.050	0.025	mg/L		05/21/21 12:05	05/25/21 11:25	1
Calcium	110		0.10	0.050	mg/L		05/21/21 12:05	05/25/21 11:25	1
Iron	0.22		0.10	0.050	mg/L		05/21/21 12:05	05/25/21 11:25	1
Magnesium	110		0.020	0.010	mg/L		05/21/21 12:05	05/25/21 11:25	1
Manganese	0.16		0.020	0.015	mg/L		05/21/21 12:05	05/25/21 11:25	1
Potassium	24		0.50	0.25	mg/L		05/21/21 12:05	05/25/21 11:25	1
Sodium	180		0.50	0.26	mg/L		05/21/21 12:05	05/25/21 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	5.9		0.20	0.10	mg/L			05/20/21 13:37	1
Chemical Oxygen Demand	140		20	10	mg/L			05/20/21 14:42	1
Total Dissolved Solids	1300		10	5.0	mg/L			05/24/21 08:30	1
Total Sulfide	95		5.0	2.7	mg/L			05/20/21 17:22	100
Total Organic Carbon	20		0.50	0.25	mg/L			05/21/21 13:35	5
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	740		4.0	4.0	mg/L			05/18/21 07:30	1
Bicarbonate Alkalinity as CaCO3	740		4.0	4.0	mg/L			05/18/21 07:30	1
Carbon Dioxide, Free	5.3		2.0	2.0	mg/L			05/24/21 14:00	1

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: MW-14

Lab Sample ID: 440-283413-4

Date Collected: 05/17/21 07:05

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/20/21 03:18	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/20/21 03:18	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/20/21 03:18	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/20/21 03:18	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/20/21 03:18	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/20/21 03:18	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/20/21 03:18	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/20/21 03:18	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/20/21 03:18	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/20/21 03:18	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/20/21 03:18	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/20/21 03:18	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/20/21 03:18	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/20/21 03:18	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/20/21 03:18	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/20/21 03:18	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/20/21 03:18	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/20/21 03:18	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/20/21 03:18	1
2-Hexanone	ND		6.0	4.3	ug/L			05/20/21 03:18	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/20/21 03:18	1
Acetone	ND		8.0	4.0	ug/L			05/20/21 03:18	1
Acetonitrile	ND		10	3.9	ug/L			05/20/21 03:18	1
Acrolein	ND		4.0	2.2	ug/L			05/20/21 03:18	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/20/21 03:18	1
Allyl chloride	ND		2.0	0.38	ug/L			05/20/21 03:18	1
Benzene	ND		0.50	0.27	ug/L			05/20/21 03:18	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/20/21 03:18	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/20/21 03:18	1
Bromoform	ND		0.50	0.39	ug/L			05/20/21 03:18	1
Bromomethane	ND		1.0	0.93	ug/L			05/20/21 03:18	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/20/21 03:18	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/20/21 03:18	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/20/21 03:18	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/20/21 03:18	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/20/21 03:18	1
Chloroethane	ND		0.50	0.44	ug/L			05/20/21 03:18	1
Chloroform	ND		0.50	0.28	ug/L			05/20/21 03:18	1
Chloromethane	ND		1.0	0.29	ug/L			05/20/21 03:18	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/20/21 03:18	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/20/21 03:18	1
Dibromomethane	ND		0.50	0.23	ug/L			05/20/21 03:18	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/20/21 03:18	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/20/21 03:18	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/20/21 03:18	1
Iodomethane	ND		25	5.9	ug/L			05/20/21 03:18	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/20/21 03:18	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/20/21 03:18	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/20/21 03:18	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: MW-14

Lab Sample ID: 440-283413-4

Date Collected: 05/17/21 07:05

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0	0.48	ug/L			05/20/21 03:18	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/20/21 03:18	1
Naphthalene	ND		1.0	0.32	ug/L			05/20/21 03:18	1
o-Xylene	ND		0.50	0.35	ug/L			05/20/21 03:18	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/20/21 03:18	1
Propionitrile	ND		5.0	3.7	ug/L			05/20/21 03:18	1
Styrene	ND		0.50	0.28	ug/L			05/20/21 03:18	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/20/21 03:18	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/20/21 03:18	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/20/21 03:18	1
t-Butanol	ND		5.0	4.0	ug/L			05/20/21 03:18	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/20/21 03:18	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/20/21 03:18	1
Toluene	ND		0.50	0.33	ug/L			05/20/21 03:18	1
Trichloroethene	ND		0.50	0.29	ug/L			05/20/21 03:18	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/20/21 03:18	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/20/21 03:18	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/20/21 03:18	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2H-Pyran-2-acetic acid, tetrahydro-6-methyl-, cis-Unknown	300	T J N	ug/L		1.43	69493-11-4		05/20/21 03:18	1
Unknown	5600	T J	ug/L		1.47			05/20/21 03:18	1
Unknown	15	T J	ug/L		1.59			05/20/21 03:18	1
Unknown	31	T J	ug/L		1.61			05/20/21 03:18	1
Sulfur dioxide	5900	T J N	ug/L		1.79	7446-09-5		05/20/21 03:18	1
Unknown	6000	T J	ug/L		2.21			05/20/21 03:18	1
Ethanol	40	J	ug/L		2.77	64-17-5		05/20/21 03:18	1
Unknown	410	T J	ug/L		2.95			05/20/21 03:18	1
Unknown	12	T J	ug/L		3.23			05/20/21 03:18	1
Unknown	5.7	T J	ug/L		3.33			05/20/21 03:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		68 - 135		05/20/21 03:18	1
4-Bromofluorobenzene (Surr)	98		71 - 120		05/20/21 03:18	1
Dibromofluoromethane (Surr)	105		80 - 120		05/20/21 03:18	1
Toluene-d8 (Surr)	99		80 - 120		05/20/21 03:18	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/21/21 07:53	05/22/21 01:01	1
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8	35		15 - 150	05/21/21 07:53	05/22/21 01:01	1			
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Nitrobenzene-d5 (Surr)	120		46 - 128	05/21/21 07:53	05/22/21 01:01	1			

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		2.5	1.3	mg/L			05/18/21 20:11	5
Nitrate as N	0.36		0.11	0.055	mg/L			05/18/21 15:01	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: MW-14

Lab Sample ID: 440-283413-4

Date Collected: 05/17/21 07:05

Matrix: Water

Date Received: 05/17/21 18:00

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.58		0.50	0.24	mg/L			05/18/21 15:01	1
Fluoride	1.0		0.50	0.20	mg/L			05/18/21 15:01	1
Sulfate	1900		100	50	mg/L			05/18/21 20:47	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.33		0.050	0.025	mg/L		05/21/21 12:05	05/25/21 11:28	1
Calcium	410		0.10	0.050	mg/L		05/21/21 12:05	05/25/21 11:28	1
Iron	ND		0.10	0.050	mg/L		05/21/21 12:05	05/25/21 11:28	1
Magnesium	170		0.020	0.010	mg/L		05/21/21 12:05	05/25/21 11:28	1
Manganese	3.9		0.020	0.015	mg/L		05/21/21 12:05	05/25/21 11:28	1
Potassium	8.1		0.50	0.25	mg/L		05/21/21 12:05	05/25/21 11:28	1
Sodium	220		0.50	0.26	mg/L		05/21/21 12:05	05/25/21 11:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			05/20/21 13:52	1
Chemical Oxygen Demand	ND		20	10	mg/L			05/20/21 14:42	1
Total Dissolved Solids	3100		20	10	mg/L			05/24/21 08:30	1
Total Sulfide	ND		0.050	0.027	mg/L			05/20/21 17:22	1
Total Organic Carbon	4.5		0.10	0.050	mg/L			05/19/21 15:23	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	310		4.0	4.0	mg/L			05/18/21 07:39	1
Bicarbonate Alkalinity as CaCO3	310		4.0	4.0	mg/L			05/18/21 07:39	1
Carbon Dioxide, Free	35		2.0	2.0	mg/L			05/24/21 14:00	1

Client Sample ID: PZ-2

Lab Sample ID: 440-283413-5

Date Collected: 05/17/21 13:32

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/20/21 03:46	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/20/21 03:46	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/20/21 03:46	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/20/21 03:46	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/20/21 03:46	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/20/21 03:46	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/20/21 03:46	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/20/21 03:46	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/20/21 03:46	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/20/21 03:46	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/20/21 03:46	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/20/21 03:46	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/20/21 03:46	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/20/21 03:46	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/20/21 03:46	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/20/21 03:46	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/20/21 03:46	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/20/21 03:46	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: PZ-2

Lab Sample ID: 440-283413-5

Date Collected: 05/17/21 13:32

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/20/21 03:46	1
2-Hexanone	ND		6.0	4.3	ug/L			05/20/21 03:46	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/20/21 03:46	1
Acetone	ND		8.0	4.0	ug/L			05/20/21 03:46	1
Acetonitrile	ND		10	3.9	ug/L			05/20/21 03:46	1
Acrolein	ND		4.0	2.2	ug/L			05/20/21 03:46	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/20/21 03:46	1
Allyl chloride	ND		2.0	0.38	ug/L			05/20/21 03:46	1
Benzene	ND		0.50	0.27	ug/L			05/20/21 03:46	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/20/21 03:46	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/20/21 03:46	1
Bromoform	ND		0.50	0.39	ug/L			05/20/21 03:46	1
Bromomethane	ND		1.0	0.93	ug/L			05/20/21 03:46	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/20/21 03:46	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/20/21 03:46	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/20/21 03:46	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/20/21 03:46	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/20/21 03:46	1
Chloroethane	ND		0.50	0.44	ug/L			05/20/21 03:46	1
Chloroform	ND		0.50	0.28	ug/L			05/20/21 03:46	1
Chloromethane	ND		1.0	0.29	ug/L			05/20/21 03:46	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/20/21 03:46	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/20/21 03:46	1
Dibromomethane	ND		0.50	0.23	ug/L			05/20/21 03:46	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/20/21 03:46	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/20/21 03:46	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/20/21 03:46	1
Iodomethane	ND		25	5.9	ug/L			05/20/21 03:46	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/20/21 03:46	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/20/21 03:46	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/20/21 03:46	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/20/21 03:46	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/20/21 03:46	1
Naphthalene	ND		1.0	0.32	ug/L			05/20/21 03:46	1
o-Xylene	ND		0.50	0.35	ug/L			05/20/21 03:46	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/20/21 03:46	1
Propionitrile	ND		5.0	3.7	ug/L			05/20/21 03:46	1
Styrene	ND		0.50	0.28	ug/L			05/20/21 03:46	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/20/21 03:46	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/20/21 03:46	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/20/21 03:46	1
t-Butanol	ND		5.0	4.0	ug/L			05/20/21 03:46	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/20/21 03:46	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/20/21 03:46	1
Toluene	ND		0.50	0.33	ug/L			05/20/21 03:46	1
Trichloroethene	ND		0.50	0.29	ug/L			05/20/21 03:46	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/20/21 03:46	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/20/21 03:46	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/20/21 03:46	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: PZ-2

Lab Sample ID: 440-283413-5

Date Collected: 05/17/21 13:32

Matrix: Water

Date Received: 05/17/21 18:00

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2H-Pyran-2-acetic acid, tetrahydro-6-methyl-, cis-Unknown	290	T J N	ug/L		1.43	69493-11-4		05/20/21 03:46	1
Unknown	2600	T J	ug/L		1.47			05/20/21 03:46	1
Unknown	10	T J	ug/L		1.60			05/20/21 03:46	1
Unknown	26	T J	ug/L		1.62			05/20/21 03:46	1
Cysteic acid	4900	T J N	ug/L		2.28	1000131-23-1		05/20/21 03:46	1
Unknown	11	T J	ug/L		3.01			05/20/21 03:46	1
Unknown	14	T J	ug/L		3.04			05/20/21 03:46	1
Unknown	10	T J	ug/L		3.12			05/20/21 03:46	1
Unknown	12	T J	ug/L		3.32			05/20/21 03:46	1
Unknown	26	T J	ug/L		3.76			05/20/21 03:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		68 - 135					05/20/21 03:46	1
4-Bromofluorobenzene (Surr)	96		71 - 120					05/20/21 03:46	1
Dibromofluoromethane (Surr)	104		80 - 120					05/20/21 03:46	1
Toluene-d8 (Surr)	101		80 - 120					05/20/21 03:46	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/21/21 07:53	05/22/21 01:15	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	40		15 - 150				05/21/21 07:53	05/22/21 01:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	114		46 - 128				05/21/21 07:53	05/22/21 01:15	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		5.0	2.5	mg/L			05/18/21 15:36	10
Nitrate as N	ND		1.1	0.55	mg/L			05/18/21 15:36	10
Bromide	ND		5.0	2.4	mg/L			05/18/21 15:36	10
Fluoride	ND		5.0	2.0	mg/L			05/18/21 15:36	10
Sulfate	2600		100	50	mg/L			05/18/21 18:30	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.4		0.050	0.025	mg/L		05/21/21 12:05	05/21/21 17:59	1
Calcium	22		0.10	0.050	mg/L		05/21/21 12:05	05/21/21 17:59	1
Iron	ND		0.10	0.050	mg/L		05/21/21 12:05	05/21/21 17:59	1
Magnesium	20		0.020	0.010	mg/L		05/21/21 12:05	05/21/21 17:59	1
Manganese	0.043		0.020	0.015	mg/L		05/21/21 12:05	05/21/21 17:59	1
Potassium	1.3		0.50	0.25	mg/L		05/21/21 12:05	05/21/21 17:59	1
Sodium	1300		1.0	0.52	mg/L		05/21/21 12:05	05/25/21 11:44	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	3.1		0.20	0.10	mg/L			05/20/21 13:57	1
Chemical Oxygen Demand	ND		20	10	mg/L			05/20/21 14:42	1
Total Dissolved Solids	3900		100	50	mg/L			05/24/21 08:30	1
Total Sulfide	ND		0.050	0.027	mg/L			05/20/21 17:22	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: PZ-2

Date Collected: 05/17/21 13:32

Date Received: 05/17/21 18:00

Lab Sample ID: 440-283413-5

Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	2.3		0.10	0.050	mg/L			05/19/21 15:38	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	340		4.0	4.0	mg/L			05/18/21 07:50	1
Bicarbonate Alkalinity as CaCO3	320		4.0	4.0	mg/L			05/18/21 07:50	1
Carbon Dioxide, Free	ND		2.0	2.0	mg/L			05/24/21 14:00	1

Client Sample ID: DW-1

Date Collected: 05/17/21 13:10

Date Received: 05/17/21 18:00

Lab Sample ID: 440-283413-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/20/21 04:13	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/20/21 04:13	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/20/21 04:13	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/20/21 04:13	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/20/21 04:13	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/20/21 04:13	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/20/21 04:13	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/20/21 04:13	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/20/21 04:13	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/20/21 04:13	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/20/21 04:13	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/20/21 04:13	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/20/21 04:13	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/20/21 04:13	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/20/21 04:13	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/20/21 04:13	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/20/21 04:13	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/20/21 04:13	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/20/21 04:13	1
2-Hexanone	ND		6.0	4.3	ug/L			05/20/21 04:13	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/20/21 04:13	1
Acetone	ND		8.0	4.0	ug/L			05/20/21 04:13	1
Acetonitrile	ND		10	3.9	ug/L			05/20/21 04:13	1
Acrolein	ND		4.0	2.2	ug/L			05/20/21 04:13	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/20/21 04:13	1
Allyl chloride	ND		2.0	0.38	ug/L			05/20/21 04:13	1
Benzene	ND		0.50	0.27	ug/L			05/20/21 04:13	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/20/21 04:13	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/20/21 04:13	1
Bromoform	ND		0.50	0.39	ug/L			05/20/21 04:13	1
Bromomethane	ND		1.0	0.93	ug/L			05/20/21 04:13	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/20/21 04:13	1
cis-1,3-Dichloropropane	ND		0.50	0.19	ug/L			05/20/21 04:13	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/20/21 04:13	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/20/21 04:13	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/20/21 04:13	1
Chloroethane	ND		0.50	0.44	ug/L			05/20/21 04:13	1
Chloroform	ND		0.50	0.28	ug/L			05/20/21 04:13	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: DW-1
Date Collected: 05/17/21 13:10
Date Received: 05/17/21 18:00

Lab Sample ID: 440-283413-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.29	ug/L			05/20/21 04:13	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/20/21 04:13	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/20/21 04:13	1
Dibromomethane	ND		0.50	0.23	ug/L			05/20/21 04:13	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/20/21 04:13	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/20/21 04:13	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/20/21 04:13	1
Iodomethane	ND		25	5.9	ug/L			05/20/21 04:13	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/20/21 04:13	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/20/21 04:13	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/20/21 04:13	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/20/21 04:13	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/20/21 04:13	1
Naphthalene	ND		1.0	0.32	ug/L			05/20/21 04:13	1
o-Xylene	ND		0.50	0.35	ug/L			05/20/21 04:13	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/20/21 04:13	1
Propionitrile	ND		5.0	3.7	ug/L			05/20/21 04:13	1
Styrene	ND		0.50	0.28	ug/L			05/20/21 04:13	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/20/21 04:13	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/20/21 04:13	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/20/21 04:13	1
t-Butanol	ND		5.0	4.0	ug/L			05/20/21 04:13	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/20/21 04:13	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/20/21 04:13	1
Toluene	ND		0.50	0.33	ug/L			05/20/21 04:13	1
Trichloroethene	ND		0.50	0.29	ug/L			05/20/21 04:13	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/20/21 04:13	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/20/21 04:13	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/20/21 04:13	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2H-Pyran-2-acetic acid, tetrahydro-6-methyl-, cis-	700	T J N	ug/L		1.42	69493-11-4		05/20/21 04:13	1
Unknown	3000	T J	ug/L		1.46			05/20/21 04:13	1
Unknown	61	T J	ug/L		1.55			05/20/21 04:13	1
Unknown	17	T J	ug/L		1.61			05/20/21 04:13	1
Unknown	29	T J	ug/L		1.63			05/20/21 04:13	1
Unknown	91	T J	ug/L		3.02			05/20/21 04:13	1
Unknown	29	T J	ug/L		3.12			05/20/21 04:13	1
Unknown	15	T J	ug/L		3.19			05/20/21 04:13	1
Unknown	11	T J	ug/L		3.45			05/20/21 04:13	1
Unknown	19	T J	ug/L		3.75			05/20/21 04:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		68 - 135		05/20/21 04:13	1
4-Bromofluorobenzene (Surr)	93		71 - 120		05/20/21 04:13	1
Dibromofluoromethane (Surr)	103		80 - 120		05/20/21 04:13	1
Toluene-d8 (Surr)	99		80 - 120		05/20/21 04:13	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: DW-1
Date Collected: 05/17/21 13:10
Date Received: 05/17/21 18:00

Lab Sample ID: 440-283413-6
Matrix: Water

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/21/21 07:53	05/22/21 01:30	1
Isotope Dilution									
	%Recovery	Qualifier	Limits						
1,4-Dioxane-d8	27		15 - 150						
Surrogate									
	%Recovery	Qualifier	Limits						
Nitrobenzene-d5 (Surr)	111		46 - 128						

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		2.5	1.3	mg/L			05/18/21 13:59	5
Nitrate as N	ND		0.55	0.28	mg/L			05/18/21 13:59	5
Bromide	ND		2.5	1.2	mg/L			05/18/21 13:59	5
Fluoride	2.3	J	2.5	1.0	mg/L			05/18/21 13:59	5
Sulfate	1500		100	50	mg/L			05/18/21 14:18	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.0		0.050	0.025	mg/L		05/21/21 12:05	05/25/21 11:46	1
Calcium	64		0.10	0.050	mg/L		05/21/21 12:05	05/25/21 11:46	1
Iron	43		0.10	0.050	mg/L		05/21/21 12:05	05/25/21 11:46	1
Magnesium	8.1		0.020	0.010	mg/L		05/21/21 12:05	05/25/21 11:46	1
Manganese	0.96		0.020	0.015	mg/L		05/21/21 12:05	05/25/21 11:46	1
Potassium	7.3		0.50	0.25	mg/L		05/21/21 12:05	05/25/21 11:46	1
Sodium	860		0.50	0.26	mg/L		05/21/21 12:05	05/25/21 11:46	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			05/20/21 14:02	1
Chemical Oxygen Demand	ND		20	10	mg/L			05/20/21 14:42	1
Total Dissolved Solids	2600		50	25	mg/L			05/24/21 08:30	1
Total Sulfide	ND		0.050	0.027	mg/L			05/20/21 17:22	1
Total Organic Carbon	3.8		0.10	0.050	mg/L			05/19/21 15:53	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	540		4.0	4.0	mg/L			05/18/21 08:20	1
Bicarbonate Alkalinity as CaCO3	350		4.0	4.0	mg/L			05/18/21 08:20	1
Carbon Dioxide, Free	ND		2.0	2.0	mg/L			05/24/21 14:00	1

Client Sample ID: Subdrain (N)

Lab Sample ID: 440-283413-7
Matrix: Water

Date Collected: 05/17/21 09:00
Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.51	ug/L			05/20/21 04:41	2
1,1,1-Trichloroethane	ND		1.0	0.53	ug/L			05/20/21 04:41	2
1,1,2,2-Tetrachloroethane	ND		1.0	0.39	ug/L			05/20/21 04:41	2
1,1,2-Trichloroethane	ND		1.0	0.17	ug/L			05/20/21 04:41	2
1,1-Dichloroethane	ND		1.0	0.71	ug/L			05/20/21 04:41	2
1,1-Dichloroethene	ND		1.0	0.78	ug/L			05/20/21 04:41	2
1,1-Dichloropropene	ND		1.0	0.48	ug/L			05/20/21 04:41	2

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: Subdrain (N)

Lab Sample ID: 440-283413-7

Date Collected: 05/17/21 09:00

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.64	ug/L			05/20/21 04:41	2
1,2,4-Trichlorobenzene	ND		1.0	0.75	ug/L			05/20/21 04:41	2
1,2-Dibromo-3-Chloropropane	ND		2.0	1.3	ug/L			05/20/21 04:41	2
1,2-Dibromoethane (EDB)	ND		1.0	0.27	ug/L			05/20/21 04:41	2
1,2-Dichlorobenzene	ND		1.0	0.46	ug/L			05/20/21 04:41	2
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/20/21 04:41	2
1,2-Dichloropropane	ND		1.0	0.48	ug/L			05/20/21 04:41	2
1,3-Dichlorobenzene	ND		1.0	0.51	ug/L			05/20/21 04:41	2
1,3-Dichloropropane	ND		1.0	0.41	ug/L			05/20/21 04:41	2
1,4-Dichlorobenzene	1.2		1.0	0.45	ug/L			05/20/21 04:41	2
2,2-Dichloropropane	ND		1.0	0.79	ug/L			05/20/21 04:41	2
2-Butanone (MEK)	ND		10	6.1	ug/L			05/20/21 04:41	2
2-Hexanone	ND		12	8.6	ug/L			05/20/21 04:41	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.5	ug/L			05/20/21 04:41	2
Acetone	11 J		16	8.0	ug/L			05/20/21 04:41	2
Acetonitrile	ND		20	7.9	ug/L			05/20/21 04:41	2
Acrolein	ND		8.0	4.4	ug/L			05/20/21 04:41	2
Acrylonitrile	ND		10	1.7	ug/L			05/20/21 04:41	2
Allyl chloride	ND		4.0	0.76	ug/L			05/20/21 04:41	2
Benzene	ND		1.0	0.53	ug/L			05/20/21 04:41	2
Bromochloromethane	ND		2.0	0.70	ug/L			05/20/21 04:41	2
Bromodichloromethane	ND		1.0	0.45	ug/L			05/20/21 04:41	2
Bromoform	ND		1.0	0.78	ug/L			05/20/21 04:41	2
Bromomethane	ND		2.0	1.9	ug/L			05/20/21 04:41	2
cis-1,2-Dichloroethene	ND		1.0	0.60	ug/L			05/20/21 04:41	2
cis-1,3-Dichloropropene	ND		1.0	0.38	ug/L			05/20/21 04:41	2
Carbon disulfide	ND		2.0	0.49	ug/L			05/20/21 04:41	2
Carbon tetrachloride	ND		1.0	0.54	ug/L			05/20/21 04:41	2
Chlorobenzene	ND		1.0	0.48	ug/L			05/20/21 04:41	2
Chloroethane	ND		1.0	0.88	ug/L			05/20/21 04:41	2
Chloroform	ND		1.0	0.57	ug/L			05/20/21 04:41	2
Chloromethane	ND		2.0	0.59	ug/L			05/20/21 04:41	2
2-Chloro-1,3-butadiene	ND		4.0	3.7	ug/L			05/20/21 04:41	2
Dibromochloromethane	ND		1.0	0.54	ug/L			05/20/21 04:41	2
Dibromomethane	ND		1.0	0.46	ug/L			05/20/21 04:41	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			05/20/21 04:41	2
Ethyl methacrylate	ND		4.0	2.4	ug/L			05/20/21 04:41	2
Ethylbenzene	ND		1.0	0.71	ug/L			05/20/21 04:41	2
Iodomethane	ND		50	12	ug/L			05/20/21 04:41	2
Isobutyl alcohol	ND		50	11	ug/L			05/20/21 04:41	2
Methylacrylonitrile	ND		4.0	1.4	ug/L			05/20/21 04:41	2
Methyl methacrylate	ND		4.0	2.2	ug/L			05/20/21 04:41	2
Methylene Chloride	ND		2.0	0.96	ug/L			05/20/21 04:41	2
Methyl tert-butyl ether	0.50 J		1.0	0.41	ug/L			05/20/21 04:41	2
Naphthalene	ND		2.0	0.64	ug/L			05/20/21 04:41	2
o-Xylene	ND		1.0	0.70	ug/L			05/20/21 04:41	2
m,p-Xylene	ND		2.0	1.6	ug/L			05/20/21 04:41	2
Propionitrile	ND		10	7.5	ug/L			05/20/21 04:41	2
Styrene	ND		1.0	0.55	ug/L			05/20/21 04:41	2

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: Subdrain (N)

Lab Sample ID: 440-283413-7

Date Collected: 05/17/21 09:00

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.72	ug/L			05/20/21 04:41	2
trans-1,3-Dichloropropene	ND		1.0	0.35	ug/L			05/20/21 04:41	2
trans-1,4-Dichloro-2-butene	ND		4.0	2.6	ug/L			05/20/21 04:41	2
t-Butanol	27		10	8.0	ug/L			05/20/21 04:41	2
Tetrachloroethene	ND		1.0	0.58	ug/L			05/20/21 04:41	2
Tetrahydrofuran	6.9		4.0	2.1	ug/L			05/20/21 04:41	2
Toluene	ND		1.0	0.66	ug/L			05/20/21 04:41	2
Trichloroethene	ND		1.0	0.58	ug/L			05/20/21 04:41	2
Trichlorofluoromethane	ND		1.0	0.59	ug/L			05/20/21 04:41	2
Vinyl acetate	ND		10	6.3	ug/L			05/20/21 04:41	2
Vinyl chloride	ND		1.0	0.80	ug/L			05/20/21 04:41	2

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2H-Pyran-2-acetic acid, tetrahydro-6-methyl-, cis-Unknown	650	T J N	ug/L		1.43	69493-11-4		05/20/21 04:41	2
Unknown	21000	T J	ug/L		1.47			05/20/21 04:41	2
Unknown	100	T J	ug/L		1.55			05/20/21 04:41	2
Ethane, 1,1-difluoro-Unknown	110	T J N	ug/L		1.59	75-37-6		05/20/21 04:41	2
Unknown	90	T J	ug/L		1.63			05/20/21 04:41	2
Aminomethanesulfonic acid	3400	T J N	ug/L		1.88	13881-91-9		05/20/21 04:41	2
Cysteic acid	9600	T J N	ug/L		2.21	1000131-23-1		05/20/21 04:41	2
Unknown	25	T J	ug/L		3.21			05/20/21 04:41	2
Unknown	21	T J	ug/L		3.34			05/20/21 04:41	2
Unknown	72	T J	ug/L		3.89			05/20/21 04:41	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		68 - 135		05/20/21 04:41	2
4-Bromofluorobenzene (Surr)	99		71 - 120		05/20/21 04:41	2
Dibromofluoromethane (Surr)	109		80 - 120		05/20/21 04:41	2
Toluene-d8 (Surr)	102		80 - 120		05/20/21 04:41	2

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	22		0.50	0.34	ug/L		05/21/21 07:53	05/22/21 01:44	1
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8	18		15 - 150	05/21/21 07:53	05/22/21 01:44	1			
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Nitrobenzene-d5 (Surr)	52		46 - 128	05/21/21 07:53	05/22/21 01:44	1			

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	170		50	25	mg/L			05/18/21 14:59	100
Nitrate as N	ND		0.55	0.28	mg/L			05/18/21 14:38	5
Bromide	2.1	J	2.5	1.2	mg/L			05/18/21 14:38	5
Fluoride	1.4	J	2.5	1.0	mg/L			05/18/21 14:38	5
Sulfate	1500		50	25	mg/L			05/18/21 14:59	100

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: Subdrain (N)

Lab Sample ID: 440-283413-7

Date Collected: 05/17/21 09:00

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.1		0.050	0.025	mg/L		05/24/21 09:29	05/24/21 17:24	1
Calcium	370		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 17:24	1
Iron	210		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 17:24	1
Magnesium	220		0.020	0.010	mg/L		05/24/21 09:29	05/24/21 17:24	1
Manganese	1.7		0.020	0.015	mg/L		05/24/21 09:29	05/24/21 17:24	1
Potassium	26		0.50	0.25	mg/L		05/24/21 09:29	05/24/21 17:24	1
Sodium	270		0.50	0.26	mg/L		05/24/21 09:29	05/24/21 17:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	39		4.0	2.0	mg/L			05/20/21 15:09	20
Chemical Oxygen Demand	250		20	10	mg/L			05/20/21 14:42	1
Total Dissolved Solids	3600		50	25	mg/L			05/24/21 08:30	1
Total Sulfide	ND		0.050	0.027	mg/L			05/20/21 17:22	1
Total Organic Carbon	91		1.0	0.50	mg/L			05/21/21 13:52	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	970		4.0	4.0	mg/L			05/18/21 08:37	1
Bicarbonate Alkalinity as CaCO3	970		4.0	4.0	mg/L			05/18/21 08:37	1
Carbon Dioxide, Free	190		2.0	2.0	mg/L			05/24/21 14:00	1

Client Sample ID: Field Blank

Lab Sample ID: 440-283413-8

Date Collected: 05/17/21 00:01

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/19/21 22:14	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/19/21 22:14	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/19/21 22:14	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/19/21 22:14	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/19/21 22:14	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/19/21 22:14	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/19/21 22:14	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/19/21 22:14	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/19/21 22:14	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/19/21 22:14	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/19/21 22:14	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/19/21 22:14	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/19/21 22:14	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/19/21 22:14	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/19/21 22:14	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/19/21 22:14	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/19/21 22:14	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/19/21 22:14	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/19/21 22:14	1
2-Hexanone	ND		6.0	4.3	ug/L			05/19/21 22:14	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/19/21 22:14	1
Acetone	6.1	J	8.0	4.0	ug/L			05/19/21 22:14	1
Acetonitrile	ND		10	3.9	ug/L			05/19/21 22:14	1
Acrolein	ND		4.0	2.2	ug/L			05/19/21 22:14	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: Field Blank

Lab Sample ID: 440-283413-8

Date Collected: 05/17/21 00:01

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrylonitrile	ND		5.0	0.87	ug/L			05/19/21 22:14	1
Allyl chloride	ND		2.0	0.38	ug/L			05/19/21 22:14	1
Benzene	ND		0.50	0.27	ug/L			05/19/21 22:14	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/19/21 22:14	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/19/21 22:14	1
Bromoform	ND		0.50	0.39	ug/L			05/19/21 22:14	1
Bromomethane	ND		1.0	0.93	ug/L			05/19/21 22:14	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/19/21 22:14	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/19/21 22:14	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/19/21 22:14	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/19/21 22:14	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/19/21 22:14	1
Chloroethane	ND		0.50	0.44	ug/L			05/19/21 22:14	1
Chloroform	ND		0.50	0.28	ug/L			05/19/21 22:14	1
Chloromethane	ND		1.0	0.29	ug/L			05/19/21 22:14	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/19/21 22:14	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/19/21 22:14	1
Dibromomethane	ND		0.50	0.23	ug/L			05/19/21 22:14	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/19/21 22:14	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/19/21 22:14	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/19/21 22:14	1
Iodomethane	ND		25	5.9	ug/L			05/19/21 22:14	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/19/21 22:14	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/19/21 22:14	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/19/21 22:14	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/19/21 22:14	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/19/21 22:14	1
Naphthalene	ND		1.0	0.32	ug/L			05/19/21 22:14	1
o-Xylene	ND		0.50	0.35	ug/L			05/19/21 22:14	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/19/21 22:14	1
Propionitrile	ND		5.0	3.7	ug/L			05/19/21 22:14	1
Styrene	ND		0.50	0.28	ug/L			05/19/21 22:14	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/19/21 22:14	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/19/21 22:14	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/19/21 22:14	1
t-Butanol	ND		5.0	4.0	ug/L			05/19/21 22:14	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/19/21 22:14	1
Tetrahydrofuran	1.4	J	2.0	1.1	ug/L			05/19/21 22:14	1
Toluene	ND		0.50	0.33	ug/L			05/19/21 22:14	1
Trichloroethene	ND		0.50	0.29	ug/L			05/19/21 22:14	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/19/21 22:14	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/19/21 22:14	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/19/21 22:14	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	420	T J	ug/L		1.47			05/19/21 22:14	1
Unknown	30	T J	ug/L		1.78			05/19/21 22:14	1
Unknown	14	T J	ug/L		1.80			05/19/21 22:14	1
Unknown	38	T J	ug/L		1.85			05/19/21 22:14	1
Unknown	51	T J	ug/L		1.88			05/19/21 22:14	1

Eurofins Calscience Irvine

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: Field Blank

Lab Sample ID: 440-283413-8

Date Collected: 05/17/21 00:01

Matrix: Water

Date Received: 05/17/21 18:00

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	60	T J	ug/L		1.98			05/19/21 22:14	1
Unknown	65	T J	ug/L		2.03			05/19/21 22:14	1
Unknown	29	T J	ug/L		2.21			05/19/21 22:14	1
Unknown	15	T J	ug/L		2.54			05/19/21 22:14	1
Unknown	58	T J	ug/L		3.20			05/19/21 22:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		68 - 135		05/19/21 22:14	1
4-Bromofluorobenzene (Surr)	96		71 - 120		05/19/21 22:14	1
Dibromofluoromethane (Surr)	104		80 - 120		05/19/21 22:14	1
Toluene-d8 (Surr)	102		80 - 120		05/19/21 22:14	1

Client Sample ID: Trip Blank

Lab Sample ID: 440-283413-9

Date Collected: 05/17/21 00:01

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/19/21 22:42	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/19/21 22:42	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/19/21 22:42	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/19/21 22:42	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/19/21 22:42	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/19/21 22:42	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/19/21 22:42	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/19/21 22:42	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/19/21 22:42	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/19/21 22:42	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/19/21 22:42	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/19/21 22:42	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/19/21 22:42	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/19/21 22:42	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/19/21 22:42	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/19/21 22:42	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/19/21 22:42	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/19/21 22:42	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/19/21 22:42	1
2-Hexanone	ND		6.0	4.3	ug/L			05/19/21 22:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/19/21 22:42	1
Acetone	ND		8.0	4.0	ug/L			05/19/21 22:42	1
Acetonitrile	ND		10	3.9	ug/L			05/19/21 22:42	1
Acrolein	ND		4.0	2.2	ug/L			05/19/21 22:42	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/19/21 22:42	1
Allyl chloride	ND		2.0	0.38	ug/L			05/19/21 22:42	1
Benzene	ND		0.50	0.27	ug/L			05/19/21 22:42	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/19/21 22:42	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/19/21 22:42	1
Bromoform	ND		0.50	0.39	ug/L			05/19/21 22:42	1
Bromomethane	ND		1.0	0.93	ug/L			05/19/21 22:42	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/19/21 22:42	1

Eurofins Calscience Irvine

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-283413-9

Date Collected: 05/17/21 00:01

Matrix: Water

Date Received: 05/17/21 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/19/21 22:42	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/19/21 22:42	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/19/21 22:42	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/19/21 22:42	1
Chloroethane	ND		0.50	0.44	ug/L			05/19/21 22:42	1
Chloroform	ND		0.50	0.28	ug/L			05/19/21 22:42	1
Chloromethane	ND		1.0	0.29	ug/L			05/19/21 22:42	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/19/21 22:42	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/19/21 22:42	1
Dibromomethane	ND		0.50	0.23	ug/L			05/19/21 22:42	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/19/21 22:42	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/19/21 22:42	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/19/21 22:42	1
Iodomethane	ND		25	5.9	ug/L			05/19/21 22:42	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/19/21 22:42	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/19/21 22:42	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/19/21 22:42	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/19/21 22:42	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/19/21 22:42	1
Naphthalene	ND		1.0	0.32	ug/L			05/19/21 22:42	1
o-Xylene	ND		0.50	0.35	ug/L			05/19/21 22:42	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/19/21 22:42	1
Propionitrile	ND		5.0	3.7	ug/L			05/19/21 22:42	1
Styrene	ND		0.50	0.28	ug/L			05/19/21 22:42	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/19/21 22:42	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/19/21 22:42	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/19/21 22:42	1
t-Butanol	ND		5.0	4.0	ug/L			05/19/21 22:42	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/19/21 22:42	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/19/21 22:42	1
Toluene	ND		0.50	0.33	ug/L			05/19/21 22:42	1
Trichloroethene	ND		0.50	0.29	ug/L			05/19/21 22:42	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/19/21 22:42	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/19/21 22:42	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/19/21 22:42	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	580	T J	ug/L		1.47			05/19/21 22:42	1
Unknown	57	T J	ug/L		1.81			05/19/21 22:42	1
Benzenemethanol, 3-hydroxy-.alpha.-[(methylamino)methyl]-	180	T J N	ug/L		1.84	1000185-06-1		05/19/21 22:42	1
Unknown	120	T J	ug/L		2.00			05/19/21 22:42	1
Unknown	670	T J	ug/L		2.28			05/19/21 22:42	1
R-(-)-Cyclohexylethylamine	140	T J N	ug/L		2.43	5913-13-3		05/19/21 22:42	1
Benzeneethanamine, 4-fluoro-.beta.,3-dihydroxy-N-methyl-Amphetamine-3-methyl	250	T J N	ug/L		2.61	103439-06-1		05/19/21 22:42	1
Unknown	550	T J N	ug/L		2.76	588-06-7		05/19/21 22:42	1
Unknown	68	T J	ug/L		3.03			05/19/21 22:42	1
Bactobolin	110	T J N	ug/L		3.07	72615-20-4		05/19/21 22:42	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-283413-9

Date Collected: 05/17/21 00:01

Matrix: Water

Date Received: 05/17/21 18:00

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
1,2-Dichloroethane-d4 (Surr)	113		68 - 135		05/19/21 22:42	1
4-Bromofluorobenzene (Surr)	97		71 - 120		05/19/21 22:42	1
Dibromofluoromethane (Surr)	107		80 - 120		05/19/21 22:42	1
Toluene-d8 (Surr)	97		80 - 120		05/19/21 22:42	1

Method Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
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
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL IRV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

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:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494
TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: MW-6

Lab Sample ID: 440-283413-1

Date Collected: 05/17/21 08:30

Matrix: Water

Date Received: 05/17/21 18:00

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	20 mL	20 mL	151713	05/20/21 01:55	N1A	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152116	05/21/21 07:53	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152326	05/22/21 00:16	EM5C	ECL 1
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	646973	05/18/21 15:19	NIH3	TAL IRV
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	646974	05/18/21 15:19	NIH3	TAL IRV
Total/NA	Analysis	300.0	DL2	100			646974	05/18/21 15:39	NIH3	TAL IRV
Total/NA	Analysis	300.0	DL	10			646973	05/18/21 22:53	NIH3	TAL IRV
Total/NA	Analysis	300.0	DL	10			646974	05/18/21 22:53	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647420	05/21/21 12:05	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			647690	05/25/21 11:13	K1UV	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	647326	05/20/21 13:26	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647315	05/20/21 14:42	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			646960	05/18/21 07:01	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	647515	05/24/21 08:30	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647572	05/24/21 14:00	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		20	7.5 mL	7.5 mL	647332	05/20/21 17:22	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		5	100 mL	100 mL	647476	05/21/21 13:04	YO8L	TAL IRV

Client Sample ID: MW-9

Lab Sample ID: 440-283413-2

Date Collected: 05/17/21 12:05

Matrix: Water

Date Received: 05/17/21 18:00

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	20 mL	20 mL	151713	05/20/21 02:23	N1A	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152116	05/21/21 07:53	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152326	05/22/21 00:31	EM5C	ECL 1
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	646966	05/18/21 13:51	NIH3	TAL IRV
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	646967	05/18/21 13:51	NIH3	TAL IRV
Total/NA	Analysis	300.0		100	5 mL	1.0 mL	646967	05/18/21 14:08	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647420	05/21/21 12:05	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			647690	05/25/21 11:23	K1UV	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	647326	05/20/21 13:32	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647315	05/20/21 14:42	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			646960	05/18/21 07:15	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	647515	05/24/21 08:30	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647572	05/24/21 14:00	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647332	05/20/21 17:22	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		5	100 mL	100 mL	647476	05/21/21 13:19	YO8L	TAL IRV

Lab Chronicle

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: MW-13R

Lab Sample ID: 440-283413-3

Date Collected: 05/17/21 10:02

Matrix: Water

Date Received: 05/17/21 18:00

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	20 mL	20 mL	151713	05/20/21 02:51	N1A	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152116	05/21/21 07:53	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152326	05/22/21 00:46	EM5C	ECL 1
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	646966	05/18/21 14:25	NIH3	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	646967	05/18/21 14:25	NIH3	TAL IRV
Total/NA	Analysis	300.0		50	5 mL	1.0 mL	646967	05/18/21 19:53	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647420	05/21/21 12:05	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			647690	05/25/21 11:25	K1UV	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	647326	05/20/21 13:37	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647315	05/20/21 14:42	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			646960	05/18/21 07:30	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	647515	05/24/21 08:30	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647572	05/24/21 14:00	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		100	7.5 mL	7.5 mL	647332	05/20/21 17:22	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		5	100 mL	100 mL	647476	05/21/21 13:35	YO8L	TAL IRV

Client Sample ID: MW-14

Lab Sample ID: 440-283413-4

Date Collected: 05/17/21 07:05

Matrix: Water

Date Received: 05/17/21 18:00

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	20 mL	20 mL	151713	05/20/21 03:18	N1A	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152116	05/21/21 07:53	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152326	05/22/21 01:01	EM5C	ECL 1
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	646966	05/18/21 15:01	NIH3	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	646967	05/18/21 15:01	NIH3	TAL IRV
Total/NA	Analysis	300.0		5	5 mL	1.0 mL	646967	05/18/21 20:11	NIH3	TAL IRV
Total/NA	Analysis	300.0		200	5 mL	1.0 mL	646967	05/18/21 20:47	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647420	05/21/21 12:05	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			647690	05/25/21 11:28	K1UV	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	647326	05/20/21 13:52	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647315	05/20/21 14:42	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			646960	05/18/21 07:39	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	647515	05/24/21 08:30	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647572	05/24/21 14:00	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647332	05/20/21 17:22	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	647235	05/19/21 15:23	YO8L	TAL IRV

Lab Chronicle

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: PZ-2

Lab Sample ID: 440-283413-5

Date Collected: 05/17/21 13:32

Matrix: Water

Date Received: 05/17/21 18:00

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	20 mL	20 mL	151713	05/20/21 03:46	N1A	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152116	05/21/21 07:53	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152326	05/22/21 01:15	EM5C	ECL 1
Total/NA	Analysis	300.0		10	5 mL	1.0 mL	646966	05/18/21 15:36	NIH3	TAL IRV
Total/NA	Analysis	300.0		10	5 mL	1.0 mL	646967	05/18/21 15:36	NIH3	TAL IRV
Total/NA	Analysis	300.0		200	5 mL	1.0 mL	646967	05/18/21 18:30	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647420	05/21/21 12:05	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			647461	05/21/21 17:59	P1R	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647420	05/21/21 12:05	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		2			647690	05/25/21 11:44	K1UV	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	647326	05/20/21 13:57	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647315	05/20/21 14:42	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			646960	05/18/21 07:50	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	647515	05/24/21 08:30	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647572	05/24/21 14:00	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647332	05/20/21 17:22	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	647235	05/19/21 15:38	YO8L	TAL IRV

Client Sample ID: DW-1

Lab Sample ID: 440-283413-6

Date Collected: 05/17/21 13:10

Matrix: Water

Date Received: 05/17/21 18:00

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	20 mL	20 mL	151713	05/20/21 04:13	N1A	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152116	05/21/21 07:53	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152326	05/22/21 01:30	EM5C	ECL 1
Total/NA	Analysis	300.0		5	5 mL	1.0 mL	646973	05/18/21 13:59	NIH3	TAL IRV
Total/NA	Analysis	300.0		5	5 mL	1.0 mL	646974	05/18/21 13:59	NIH3	TAL IRV
Total/NA	Analysis	300.0		200			646974	05/18/21 14:18	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647420	05/21/21 12:05	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			647690	05/25/21 11:46	K1UV	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	647326	05/20/21 14:02	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647315	05/20/21 14:42	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			646960	05/18/21 08:20	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	647515	05/24/21 08:30	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647572	05/24/21 14:00	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647332	05/20/21 17:22	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	647235	05/19/21 15:53	YO8L	TAL IRV

Lab Chronicle

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Client Sample ID: Subdrain (N)

Lab Sample ID: 440-283413-7

Date Collected: 05/17/21 09:00

Matrix: Water

Date Received: 05/17/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	20 mL	20 mL	151713	05/20/21 04:41	N1A	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152116	05/21/21 07:53	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152326	05/22/21 01:44	EM5C	ECL 1
Total/NA	Analysis	300.0		5	5 mL	1.0 mL	646973	05/18/21 14:38	NIH3	TAL IRV
Total/NA	Analysis	300.0		5	5 mL	1.0 mL	646974	05/18/21 14:38	NIH3	TAL IRV
Total/NA	Analysis	300.0		100	5 mL	1.0 mL	646974	05/18/21 14:59	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647529	05/24/21 09:29	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			647605	05/24/21 17:24	P1R	TAL IRV
Total/NA	Analysis	350.1		20	0.8 mL	8 mL	647326	05/20/21 15:09	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647315	05/20/21 14:42	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			646960	05/18/21 08:37	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	647515	05/24/21 08:30	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647572	05/24/21 14:00	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647332	05/20/21 17:22	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		10	100 mL	100 mL	647476	05/21/21 13:52	YO8L	TAL IRV

Client Sample ID: Field Blank

Lab Sample ID: 440-283413-8

Date Collected: 05/17/21 00:01

Matrix: Water

Date Received: 05/17/21 18:00

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	20 mL	20 mL	151713	05/19/21 22:14	N1A	ECL 2

Client Sample ID: Trip Blank

Lab Sample ID: 440-283413-9

Date Collected: 05/17/21 00:01

Matrix: Water

Date Received: 05/17/21 18:00

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	20 mL	20 mL	151713	05/19/21 22:42	N1A	ECL 2

Laboratory References:

- ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
- ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494
- TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

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

Lab Sample ID: MB 570-151713/8
Matrix: Water
Analysis Batch: 151713

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/19/21 21:47	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/19/21 21:47	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/19/21 21:47	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/19/21 21:47	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/19/21 21:47	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/19/21 21:47	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/19/21 21:47	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/19/21 21:47	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/19/21 21:47	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/19/21 21:47	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/19/21 21:47	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/19/21 21:47	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/19/21 21:47	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/19/21 21:47	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/19/21 21:47	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/19/21 21:47	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/19/21 21:47	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/19/21 21:47	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/19/21 21:47	1
2-Hexanone	ND		6.0	4.3	ug/L			05/19/21 21:47	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/19/21 21:47	1
Acetone	ND		8.0	4.0	ug/L			05/19/21 21:47	1
Acetonitrile	ND		10	3.9	ug/L			05/19/21 21:47	1
Acrolein	ND		4.0	2.2	ug/L			05/19/21 21:47	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/19/21 21:47	1
Allyl chloride	ND		2.0	0.38	ug/L			05/19/21 21:47	1
Benzene	ND		0.50	0.27	ug/L			05/19/21 21:47	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/19/21 21:47	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/19/21 21:47	1
Bromoform	ND		0.50	0.39	ug/L			05/19/21 21:47	1
Bromomethane	ND		1.0	0.93	ug/L			05/19/21 21:47	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/19/21 21:47	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/19/21 21:47	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/19/21 21:47	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/19/21 21:47	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/19/21 21:47	1
Chloroethane	ND		0.50	0.44	ug/L			05/19/21 21:47	1
Chloroform	ND		0.50	0.28	ug/L			05/19/21 21:47	1
Chloromethane	ND		1.0	0.29	ug/L			05/19/21 21:47	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/19/21 21:47	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/19/21 21:47	1
Dibromomethane	ND		0.50	0.23	ug/L			05/19/21 21:47	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/19/21 21:47	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/19/21 21:47	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/19/21 21:47	1
Iodomethane	ND		25	5.9	ug/L			05/19/21 21:47	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/19/21 21:47	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/19/21 21:47	1

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

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

Lab Sample ID: MB 570-151713/8
Matrix: Water
Analysis Batch: 151713

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl methacrylate	ND		2.0	1.1	ug/L			05/19/21 21:47	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/19/21 21:47	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/19/21 21:47	1
Naphthalene	ND		1.0	0.32	ug/L			05/19/21 21:47	1
o-Xylene	ND		0.50	0.35	ug/L			05/19/21 21:47	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/19/21 21:47	1
Propionitrile	ND		5.0	3.7	ug/L			05/19/21 21:47	1
Styrene	ND		0.50	0.28	ug/L			05/19/21 21:47	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/19/21 21:47	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/19/21 21:47	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/19/21 21:47	1
t-Butanol	ND		5.0	4.0	ug/L			05/19/21 21:47	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/19/21 21:47	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/19/21 21:47	1
Toluene	ND		0.50	0.33	ug/L			05/19/21 21:47	1
Trichloroethene	ND		0.50	0.29	ug/L			05/19/21 21:47	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/19/21 21:47	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/19/21 21:47	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/19/21 21:47	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					05/19/21 21:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		68 - 135		05/19/21 21:47	1
4-Bromofluorobenzene (Surr)	97		71 - 120		05/19/21 21:47	1
Dibromofluoromethane (Surr)	109		80 - 120		05/19/21 21:47	1
Toluene-d8 (Surr)	101		80 - 120		05/19/21 21:47	1

Lab Sample ID: LCS 570-151713/4
Matrix: Water
Analysis Batch: 151713

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	9.79		ug/L		98	76 - 143
1,1,1-Trichloroethane	10.0	9.92		ug/L		99	75 - 128
1,1,2,2-Tetrachloroethane	10.0	10.4		ug/L		104	73 - 126
1,1,2-Trichloroethane	10.0	10.2		ug/L		102	80 - 120
1,1-Dichloroethane	10.0	10.2		ug/L		102	76 - 120
1,1-Dichloroethene	10.0	9.61		ug/L		96	72 - 120
1,1-Dichloropropene	10.0	10.0		ug/L		100	76 - 120
1,2,3-Trichloropropane	10.0	9.56		ug/L		96	66 - 131
1,2,4-Trichlorobenzene	10.0	9.55		ug/L		96	80 - 123
1,2-Dibromo-3-Chloropropane	10.0	9.75		ug/L		97	77 - 120
1,2-Dibromoethane (EDB)	10.0	10.0		ug/L		100	80 - 120
1,2-Dichlorobenzene	10.0	9.67		ug/L		97	79 - 123
1,2-Dichloroethane	10.0	10.6		ug/L		106	71 - 137
1,2-Dichloropropane	10.0	10.2		ug/L		102	80 - 120

Eurofins Calscience Irvine

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

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

Lab Sample ID: LCS 570-151713/4
Matrix: Water
Analysis Batch: 151713

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	10.0	9.68		ug/L		97	79 - 123
1,3-Dichloropropane	10.0	9.91		ug/L		99	80 - 123
1,4-Dichlorobenzene	10.0	9.50		ug/L		95	75 - 123
2,2-Dichloropropane	10.0	10.5		ug/L		105	78 - 133
2-Butanone (MEK)	10.0	11.1		ug/L		111	32 - 133
2-Hexanone	10.0	9.61		ug/L		96	57 - 127
4-Methyl-2-pentanone (MIBK)	10.0	10.5		ug/L		105	68 - 120
Acetone	10.0	9.70		ug/L		97	57 - 133
Acrolein	20.0	20.3		ug/L		102	54 - 137
Acrylonitrile	10.0	9.73		ug/L		97	58 - 123
Benzene	10.0	9.86		ug/L		99	80 - 120
Bromochloromethane	10.0	10.1		ug/L		101	76 - 125
Bromodichloromethane	10.0	10.7		ug/L		107	77 - 141
Bromoform	10.0	10.2		ug/L		102	46 - 178
Bromomethane	10.0	8.84		ug/L		88	52 - 162
cis-1,2-Dichloroethene	10.0	10.5		ug/L		105	76 - 122
cis-1,3-Dichloropropene	10.0	10.2		ug/L		102	80 - 122
Carbon disulfide	10.0	9.13		ug/L		91	66 - 125
Carbon tetrachloride	10.0	10.2		ug/L		102	69 - 145
Chlorobenzene	10.0	9.79		ug/L		98	80 - 120
Chloroethane	10.0	10.3		ug/L		103	73 - 139
Chloroform	10.0	10.5		ug/L		105	80 - 120
Chloromethane	10.0	9.98		ug/L		100	35 - 159
Dibromochloromethane	10.0	10.1		ug/L		101	63 - 151
Dibromomethane	10.0	10.6		ug/L		106	80 - 121
Dichlorodifluoromethane	10.0	8.76		ug/L		88	59 - 139
Ethylbenzene	10.0	9.84		ug/L		98	80 - 120
Methylene Chloride	10.0	10.1		ug/L		101	70 - 120
Methyl tert-butyl ether	10.0	10.2		ug/L		102	72 - 120
Naphthalene	10.0	9.70		ug/L		97	75 - 120
o-Xylene	10.0	9.89		ug/L		99	80 - 122
m,p-Xylene	20.0	20.2		ug/L		101	80 - 122
Styrene	10.0	9.90		ug/L		99	80 - 121
trans-1,2-Dichloroethene	10.0	9.71		ug/L		97	67 - 123
trans-1,3-Dichloropropene	10.0	9.98		ug/L		100	78 - 140
t-Butanol	50.0	48.4		ug/L		97	65 - 147
Tetrachloroethene	10.0	9.48		ug/L		95	80 - 128
Toluene	10.0	10.2		ug/L		102	80 - 120
Trichloroethene	10.0	9.70		ug/L		97	80 - 123
Trichlorofluoromethane	10.0	9.90		ug/L		99	64 - 168
Vinyl acetate	10.0	13.7		ug/L		137	75 - 144
Vinyl chloride	10.0	10.4		ug/L		104	74 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	108		68 - 135
4-Bromofluorobenzene (Surr)	100		71 - 120
Dibromofluoromethane (Surr)	105		80 - 120
Toluene-d8 (Surr)	103		80 - 120

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

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

Lab Sample ID: LCSD 570-151713/5
Matrix: Water
Analysis Batch: 151713

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD
									Limit
1,1,1,2-Tetrachloroethane	10.0	10.1		ug/L		101	76 - 143	3	20
1,1,1-Trichloroethane	10.0	10.7		ug/L		107	75 - 128	7	20
1,1,2,2-Tetrachloroethane	10.0	11.0		ug/L		110	73 - 126	5	21
1,1,2-Trichloroethane	10.0	9.53		ug/L		95	80 - 120	7	20
1,1-Dichloroethane	10.0	10.3		ug/L		103	76 - 120	0	20
1,1-Dichloroethene	10.0	10.3		ug/L		103	72 - 120	7	20
1,1-Dichloropropene	10.0	10.6		ug/L		106	76 - 120	5	20
1,2,3-Trichloropropane	10.0	10.2		ug/L		102	66 - 131	6	20
1,2,4-Trichlorobenzene	10.0	9.22		ug/L		92	80 - 123	4	20
1,2-Dibromo-3-Chloropropane	10.0	8.76		ug/L		88	77 - 120	11	21
1,2-Dibromoethane (EDB)	10.0	9.72		ug/L		97	80 - 120	3	20
1,2-Dichlorobenzene	10.0	9.92		ug/L		99	79 - 123	3	20
1,2-Dichloroethane	10.0	10.6		ug/L		106	71 - 137	0	20
1,2-Dichloropropane	10.0	10.3		ug/L		103	80 - 120	1	20
1,3-Dichlorobenzene	10.0	10.2		ug/L		102	79 - 123	5	20
1,3-Dichloropropane	10.0	9.65		ug/L		96	80 - 123	3	20
1,4-Dichlorobenzene	10.0	9.92		ug/L		99	75 - 123	4	22
2,2-Dichloropropane	10.0	10.5		ug/L		105	78 - 133	0	20
2-Butanone (MEK)	10.0	11.3		ug/L		113	32 - 133	2	26
2-Hexanone	10.0	9.96		ug/L		100	57 - 127	4	21
4-Methyl-2-pentanone (MIBK)	10.0	10.5		ug/L		105	68 - 120	0	20
Acetone	10.0	9.14		ug/L		91	57 - 133	6	28
Acrolein	20.0	22.7		ug/L		113	54 - 137	11	24
Acrylonitrile	10.0	9.35		ug/L		94	58 - 123	4	30
Benzene	10.0	10.4		ug/L		104	80 - 120	5	20
Bromochloromethane	10.0	10.1		ug/L		101	76 - 125	0	20
Bromodichloromethane	10.0	10.8		ug/L		108	77 - 141	1	20
Bromoform	10.0	10.2		ug/L		102	46 - 178	0	23
Bromomethane	10.0	9.10		ug/L		91	52 - 162	3	20
cis-1,2-Dichloroethene	10.0	10.7		ug/L		107	76 - 122	2	20
cis-1,3-Dichloropropene	10.0	10.4		ug/L		104	80 - 122	2	20
Carbon disulfide	10.0	9.46		ug/L		95	66 - 125	3	20
Carbon tetrachloride	10.0	10.6		ug/L		106	69 - 145	4	20
Chlorobenzene	10.0	10.0		ug/L		100	80 - 120	2	20
Chloroethane	10.0	10.5		ug/L		105	73 - 139	3	20
Chloroform	10.0	10.8		ug/L		108	80 - 120	3	20
Chloromethane	10.0	11.2		ug/L		112	35 - 159	11	20
Dibromochloromethane	10.0	9.89		ug/L		99	63 - 151	2	20
Dibromomethane	10.0	10.8		ug/L		108	80 - 121	1	20
Dichlorodifluoromethane	10.0	9.46		ug/L		95	59 - 139	8	20
Ethylbenzene	10.0	10.3		ug/L		103	80 - 120	5	20
Methylene Chloride	10.0	10.1		ug/L		101	70 - 120	1	20
Methyl tert-butyl ether	10.0	10.3		ug/L		103	72 - 120	0	20
Naphthalene	10.0	9.28		ug/L		93	75 - 120	4	22
o-Xylene	10.0	10.3		ug/L		103	80 - 122	4	20
m,p-Xylene	20.0	21.2		ug/L		106	80 - 122	5	20
Styrene	10.0	10.2		ug/L		102	80 - 121	3	20
trans-1,2-Dichloroethene	10.0	9.98		ug/L		100	67 - 123	3	20

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

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

Lab Sample ID: LCSD 570-151713/5
Matrix: Water
Analysis Batch: 151713

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	10.0	9.85		ug/L		99	78 - 140	1	20
t-Butanol	50.0	49.2		ug/L		98	65 - 147	2	21
Tetrachloroethene	10.0	9.53		ug/L		95	80 - 128	1	20
Toluene	10.0	10.4		ug/L		104	80 - 120	2	20
Trichloroethene	10.0	9.93		ug/L		99	80 - 123	2	20
Trichlorofluoromethane	10.0	10.6		ug/L		106	64 - 168	7	20
Vinyl acetate	10.0	13.5		ug/L		135	75 - 144	1	25
Vinyl chloride	10.0	10.6		ug/L		106	74 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	109		68 - 135
4-Bromofluorobenzene (Surr)	102		71 - 120
Dibromofluoromethane (Surr)	108		80 - 120
Toluene-d8 (Surr)	104		80 - 120

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-152116/1-A
Matrix: Water
Analysis Batch: 152326

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 152116

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/21/21 07:53	05/21/21 22:19	1
Isotope Dilution	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8	39		15 - 150	05/21/21 07:53	05/21/21 22:19	1			
Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac			
Nitrobenzene-d5 (Surr)	126		46 - 128	05/21/21 07:53	05/21/21 22:19	1			

Lab Sample ID: LCS 570-152116/2-A
Matrix: Water
Analysis Batch: 152543

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 152116

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	20.0	18.9		ug/L		94	57 - 136
Isotope Dilution	LCS %Recovery	LCS Qualifier	LCS Limits				
1,4-Dioxane-d8	52		15 - 150				
Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits				
Nitrobenzene-d5 (Surr)	120		46 - 128				

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: LCSD 570-152116/3-A
Matrix: Water
Analysis Batch: 152326

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 152116

Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane		20.0	19.1		ug/L		96	57 - 136	1	20
	<i>LCSD</i>	<i>LCSD</i>								
	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>							
<i>Isotope Dilution</i>										
1,4-Dioxane-d8		40								15 - 150
	<i>LCSD</i>	<i>LCSD</i>								
	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>							
<i>Surrogate</i>										
Nitrobenzene-d5 (Surr)		115								46 - 128

Lab Sample ID: 570-59475-D-13-A MS
Matrix: Water
Analysis Batch: 152326

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 152116

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	1.9		20.0	22.4		ug/L		102	45 - 139		
	<i>MS</i>	<i>MS</i>									
	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>								
<i>Isotope Dilution</i>											
1,4-Dioxane-d8		37									15 - 150
	<i>MS</i>	<i>MS</i>									
	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>								
<i>Surrogate</i>											
Nitrobenzene-d5 (Surr)		116									46 - 128

Lab Sample ID: 570-59475-D-13-B MSD
Matrix: Water
Analysis Batch: 152326

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 152116

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	1.9		20.0	22.0		ug/L		100	45 - 139	2	17
	<i>MSD</i>	<i>MSD</i>									
	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>								
<i>Isotope Dilution</i>											
1,4-Dioxane-d8		44									15 - 150
	<i>MSD</i>	<i>MSD</i>									
	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>								
<i>Surrogate</i>											
Nitrobenzene-d5 (Surr)		119									46 - 128

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-646966/6
Matrix: Water
Analysis Batch: 646966

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			05/18/21 13:05	1

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 440-646966/5
Matrix: Water
Analysis Batch: 646966

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	1.07		mg/L		95	90 - 110

Lab Sample ID: 440-283455-A-4 MS
Matrix: Water
Analysis Batch: 646966

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
Nitrate as N	0.15		1.13	1.30		mg/L		102	80 - 120

Lab Sample ID: 440-283455-A-4 MSD
Matrix: Water
Analysis Batch: 646966

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Nitrate as N	0.15		1.13	1.29		mg/L		100	80 - 120	1	20

Lab Sample ID: MB 440-646967/6
Matrix: Water
Analysis Batch: 646967

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			05/18/21 13:05	1
Bromide	ND		0.50	0.24	mg/L			05/18/21 13:05	1
Fluoride	ND		0.50	0.20	mg/L			05/18/21 13:05	1
Sulfate	ND		0.50	0.25	mg/L			05/18/21 13:05	1

Lab Sample ID: LCS 440-646967/5
Matrix: Water
Analysis Batch: 646967

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.54		mg/L		91	90 - 110
Bromide	5.00	4.71		mg/L		94	90 - 110
Fluoride	5.00	4.88		mg/L		98	90 - 110
Sulfate	5.00	4.78		mg/L		96	90 - 110

Lab Sample ID: 440-283455-A-4 MS
Matrix: Water
Analysis Batch: 646967

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
Chloride	110	E	5.00	119	E 4	mg/L		97	80 - 120
Bromide	ND		5.00	5.59		mg/L		112	80 - 120
Fluoride	0.24	J	5.00	5.16		mg/L		98	80 - 120
Sulfate	240	E	5.00	245	E 4	mg/L		112	80 - 120

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 440-283455-A-4 MSD
Matrix: Water
Analysis Batch: 646967

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	110	E	5.00	119	E 4	mg/L		95	80 - 120	0	20
Bromide	ND		5.00	5.53		mg/L		111	80 - 120	1	20
Fluoride	0.24	J	5.00	5.14		mg/L		98	80 - 120	0	20
Sulfate	240	E	5.00	245	E 4	mg/L		112	80 - 120	0	20

Lab Sample ID: MB 440-646973/6
Matrix: Water
Analysis Batch: 646973

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			05/18/21 12:01	1

Lab Sample ID: LCS 440-646973/5
Matrix: Water
Analysis Batch: 646973

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	1.10		mg/L		97	90 - 110

Lab Sample ID: MB 440-646974/6
Matrix: Water
Analysis Batch: 646974

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			05/18/21 12:01	1
Bromide	ND		0.50	0.24	mg/L			05/18/21 12:01	1
Fluoride	ND		0.50	0.20	mg/L			05/18/21 12:01	1
Sulfate	ND		0.50	0.25	mg/L			05/18/21 12:01	1

Lab Sample ID: LCS 440-646974/5
Matrix: Water
Analysis Batch: 646974

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	5.01		mg/L		100	90 - 110
Bromide	5.00	5.03		mg/L		101	90 - 110
Fluoride	5.00	5.11		mg/L		102	90 - 110
Sulfate	5.00	5.06		mg/L		101	90 - 110

Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 440-283413-1 MS
Matrix: Water
Analysis Batch: 646973

Client Sample ID: MW-6
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		11.3	10.4		mg/L		92	80 - 120

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

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

Lab Sample ID: 440-283413-1 MSD
Matrix: Water
Analysis Batch: 646973

Client Sample ID: MW-6
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		11.3	11.5		mg/L		102	80 - 120	10	20

Lab Sample ID: 440-283413-1 MS
Matrix: Water
Analysis Batch: 646974

Client Sample ID: MW-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride - DL	36		50.0	85.8		mg/L		99	80 - 120		
Bromide - DL	ND		50.0	48.4		mg/L		97	80 - 120		
Fluoride - DL	2.0	J	50.0	48.6		mg/L		97	80 - 120		
Sulfate - DL	2400	E	50.0	2370	E 4	mg/L		-137	80 - 120		

Lab Sample ID: 440-283413-1 MSD
Matrix: Water
Analysis Batch: 646974

Client Sample ID: MW-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride - DL	36		50.0	82.9		mg/L		94	80 - 120	3	20
Bromide - DL	ND		50.0	43.2		mg/L		86	80 - 120	11	20
Fluoride - DL	2.0	J	50.0	43.3		mg/L		87	80 - 120	11	20
Sulfate - DL	2400	E	50.0	2110	E 4	mg/L		-651	80 - 120	11	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-647420/1-A
Matrix: Water
Analysis Batch: 647690

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 647420

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.025	mg/L		05/21/21 12:05	05/25/21 11:06	1
Calcium	ND		0.10	0.050	mg/L		05/21/21 12:05	05/25/21 11:06	1
Iron	ND		0.10	0.050	mg/L		05/21/21 12:05	05/25/21 11:06	1
Magnesium	ND		0.020	0.010	mg/L		05/21/21 12:05	05/25/21 11:06	1
Manganese	ND		0.020	0.015	mg/L		05/21/21 12:05	05/25/21 11:06	1
Potassium	ND		0.50	0.25	mg/L		05/21/21 12:05	05/25/21 11:06	1
Sodium	ND		0.50	0.26	mg/L		05/21/21 12:05	05/25/21 11:06	1

Lab Sample ID: LCS 440-647420/2-A
Matrix: Water
Analysis Batch: 647690

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 647420

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	1.01		mg/L		101	80 - 120		
Calcium	5.00	5.14		mg/L		103	80 - 120		
Iron	1.00	1.03		mg/L		103	80 - 120		
Magnesium	5.00	5.13		mg/L		103	80 - 120		
Manganese	1.00	1.01		mg/L		101	80 - 120		
Potassium	10.0	10.3		mg/L		103	80 - 120		
Sodium	10.0	10.2		mg/L		102	80 - 120		

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

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

Lab Sample ID: 440-283413-1 MS
Matrix: Water
Analysis Batch: 647690

Client Sample ID: MW-6
Prep Type: Total Recoverable
Prep Batch: 647420

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Boron	0.77		1.00	1.81		mg/L		104	75 - 125
Calcium	380		5.00	370	4	mg/L		-162	75 - 125
Iron	0.47		1.00	1.44		mg/L		97	75 - 125
Magnesium	210		5.00	211	4	mg/L		-52	75 - 125
Manganese	0.98		1.00	1.93		mg/L		94	75 - 125
Potassium	5.6		10.0	15.8		mg/L		102	75 - 125
Sodium	340		10.0	333	4	mg/L		-34	75 - 125

Lab Sample ID: 440-283413-1 MSD
Matrix: Water
Analysis Batch: 647690

Client Sample ID: MW-6
Prep Type: Total Recoverable
Prep Batch: 647420

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Boron	0.77		1.00	1.80		mg/L		103	75 - 125	0	20
Calcium	380		5.00	369	4	mg/L		-184	75 - 125	0	20
Iron	0.47		1.00	1.42		mg/L		96	75 - 125	1	20
Magnesium	210		5.00	210	4	mg/L		-84	75 - 125	1	20
Manganese	0.98		1.00	1.92		mg/L		94	75 - 125	0	20
Potassium	5.6		10.0	15.7		mg/L		101	75 - 125	0	20
Sodium	340		10.0	333	4	mg/L		-34	75 - 125	0	20

Lab Sample ID: MB 440-647529/1-A
Matrix: Water
Analysis Batch: 647571

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 647529

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.025	mg/L		05/24/21 09:29	05/24/21 14:45	1
Calcium	ND		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 14:45	1
Iron	ND		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 14:45	1
Magnesium	ND		0.020	0.010	mg/L		05/24/21 09:29	05/24/21 14:45	1
Manganese	ND		0.020	0.015	mg/L		05/24/21 09:29	05/24/21 14:45	1
Potassium	ND		0.50	0.25	mg/L		05/24/21 09:29	05/24/21 14:45	1
Sodium	ND		0.50	0.26	mg/L		05/24/21 09:29	05/24/21 14:45	1

Lab Sample ID: LCS 440-647529/2-A
Matrix: Water
Analysis Batch: 647571

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 647529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Boron	1.00	0.948		mg/L		95	80 - 120
Calcium	5.00	4.74		mg/L		95	80 - 120
Iron	1.00	0.969		mg/L		97	80 - 120
Magnesium	5.00	4.81		mg/L		96	80 - 120
Manganese	1.00	0.960		mg/L		96	80 - 120
Potassium	10.0	9.71		mg/L		97	80 - 120
Sodium	10.0	9.52		mg/L		95	80 - 120

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

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

Lab Sample ID: 440-283490-I-1-B MS
Matrix: Water
Analysis Batch: 647571

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 647529

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Boron	0.57		1.00	1.56		mg/L		99	75 - 125
Calcium	210		5.00	212	4	mg/L		82	75 - 125
Iron	6.4		1.00	7.35	4	mg/L		93	75 - 125
Magnesium	120		5.00	124	4	mg/L		82	75 - 125
Manganese	0.73		1.00	1.67		mg/L		94	75 - 125
Potassium	5.2		10.0	15.0		mg/L		98	75 - 125
Sodium	380		10.0	391	4	mg/L		79	75 - 125

Lab Sample ID: 440-283490-I-1-C MSD
Matrix: Water
Analysis Batch: 647571

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 647529

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Boron	0.57		1.00	1.58		mg/L		101	75 - 125	2	20
Calcium	210		5.00	217	4	mg/L		182	75 - 125	2	20
Iron	6.4		1.00	7.49	4	mg/L		107	75 - 125	2	20
Magnesium	120		5.00	125	4	mg/L		112	75 - 125	1	20
Manganese	0.73		1.00	1.71		mg/L		97	75 - 125	2	20
Potassium	5.2		10.0	15.2		mg/L		100	75 - 125	1	20
Sodium	380		10.0	399	4	mg/L		163	75 - 125	2	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 440-647326/10
Matrix: Water
Analysis Batch: 647326

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			05/20/21 12:49	1

Lab Sample ID: LCS 440-647326/11
Matrix: Water
Analysis Batch: 647326

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Ammonia (as N)	5.00	4.82		mg/L		96	90 - 110

Lab Sample ID: MRL 440-647326/9
Matrix: Water
Analysis Batch: 647326

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	Limits
Ammonia (as N)	0.200	0.194	J	mg/L		97	50 - 150

Lab Sample ID: 440-283250-A-1 MS
Matrix: Water
Analysis Batch: 647326

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Ammonia (as N)	3.2		5.00	7.77		mg/L		92	90 - 110

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: 440-283250-A-1 MSD
Matrix: Water
Analysis Batch: 647326

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	3.2		5.00	7.97		mg/L		96	90 - 110	3	15

Method: 410.4 - COD

Lab Sample ID: MB 440-647315/3
Matrix: Water
Analysis Batch: 647315

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			05/20/21 14:41	1

Lab Sample ID: LCS 440-647315/4
Matrix: Water
Analysis Batch: 647315

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	198		mg/L		99	90 - 110

Lab Sample ID: 440-283545-A-5 MS
Matrix: Water
Analysis Batch: 647315

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
Chemical Oxygen Demand	16	J	200	215		mg/L		100	70 - 120

Lab Sample ID: 440-283545-A-5 MSD
Matrix: Water
Analysis Batch: 647315

Client Sample ID: Matrix Spike Duplicate
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	16	J	200	221		mg/L		103	70 - 120	3	15

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 440-646960/3
Matrix: Water
Analysis Batch: 646960

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			05/18/21 06:25	1
Bicarbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			05/18/21 06:25	1

Lab Sample ID: LCS 440-646960/2
Matrix: Water
Analysis Batch: 646960

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	79.0	79.6		mg/L		101	80 - 120

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 440-283314-A-1 DU
Matrix: Water
Analysis Batch: 646960

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Alkalinity as CaCO3	61		60.3		mg/L		0.3	20
Bicarbonate Alkalinity as CaCO3	61		60.3		mg/L		0.3	20

Lab Sample ID: 440-283408-A-1 DU
Matrix: Water
Analysis Batch: 646960

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Alkalinity as CaCO3	270		275		mg/L		0.2	20
Bicarbonate Alkalinity as CaCO3	210		210		mg/L		0.4	20

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

Lab Sample ID: MB 440-647515/1
Matrix: Water
Analysis Batch: 647515

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	ND		10	5.0	mg/L			05/24/21 08:29	1

Lab Sample ID: LCS 440-647515/2
Matrix: Water
Analysis Batch: 647515

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Total Dissolved Solids	1000	980		mg/L		98	90 - 110

Lab Sample ID: 590-15174-B-1 DU
Matrix: Water
Analysis Batch: 647515

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Total Dissolved Solids	1200		1120		mg/L		3	5

Method: SM 4500 CO2 C - Free Carbon Dioxide

Lab Sample ID: MB 440-647572/1
Matrix: Water
Analysis Batch: 647572

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

Analyte	MB	MB	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Carbon Dioxide, Free	ND		2.0	2.0	mg/L			05/24/21 14:00	1

Lab Sample ID: 440-283234-F-1 DU
Matrix: Water
Analysis Batch: 647572

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Carbon Dioxide, Free	42		40.5		mg/L		4	20

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-647332/3
Matrix: Water
Analysis Batch: 647332

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	0.027	mg/L			05/20/21 17:20	1

Lab Sample ID: LCS 440-647332/4
Matrix: Water
Analysis Batch: 647332

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Sulfide	0.499	0.461		mg/L		92	80 - 120

Lab Sample ID: 440-283291-E-1 MS
Matrix: Water
Analysis Batch: 647332

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		0.499	0.356		mg/L		71	70 - 130

Lab Sample ID: 440-283291-E-1 MSD
Matrix: Water
Analysis Batch: 647332

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Sulfide	ND		0.499	0.366		mg/L		73	70 - 130	3	30

Method: SM 5310C - TOC

Lab Sample ID: MB 440-647235/8
Matrix: Water
Analysis Batch: 647235

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			05/19/21 12:22	1

Lab Sample ID: LCS 440-647235/7
Matrix: Water
Analysis Batch: 647235

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	5.28		mg/L		106	85 - 115

Lab Sample ID: MRL 440-647235/6
Matrix: Water
Analysis Batch: 647235

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.127		mg/L		127	50 - 150

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Method: SM 5310C - TOC (Continued)

Lab Sample ID: 440-283490-J-1 MS
Matrix: Water
Analysis Batch: 647235

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 Organic Carbon	3.0		5.00	8.07		mg/L		101	85 - 115

Lab Sample ID: 440-283490-J-1 MSD
Matrix: Water
Analysis Batch: 647235

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	3.0		5.00	8.11		mg/L		102	85 - 115	1	20

Lab Sample ID: MB 440-647476/8
Matrix: Water
Analysis Batch: 647476

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			05/21/21 06:05	1

Lab Sample ID: LCS 440-647476/7
Matrix: Water
Analysis Batch: 647476

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	5.05		mg/L		101	85 - 115

Lab Sample ID: MRL 440-647476/6
Matrix: Water
Analysis Batch: 647476

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.0649	J	mg/L		65	50 - 150

Lab Sample ID: 570-59083-A-11 MS
Matrix: Water
Analysis Batch: 647476

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 Organic Carbon	0.63		5.00	6.09		mg/L		109	85 - 115

Lab Sample ID: 570-59083-A-11 MSD
Matrix: Water
Analysis Batch: 647476

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	0.63		5.00	6.04		mg/L		108	85 - 115	1	20

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

GC/MS VOA

Analysis Batch: 151713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-1	MW-6	Total/NA	Water	8260B	
440-283413-2	MW-9	Total/NA	Water	8260B	
440-283413-3	MW-13R	Total/NA	Water	8260B	
440-283413-4	MW-14	Total/NA	Water	8260B	
440-283413-5	PZ-2	Total/NA	Water	8260B	
440-283413-6	DW-1	Total/NA	Water	8260B	
440-283413-7	Subdrain (N)	Total/NA	Water	8260B	
440-283413-8	Field Blank	Total/NA	Water	8260B	
440-283413-9	Trip Blank	Total/NA	Water	8260B	
MB 570-151713/8	Method Blank	Total/NA	Water	8260B	
LCS 570-151713/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-151713/5	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 152116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-1	MW-6	Total/NA	Water	3510C	
440-283413-2	MW-9	Total/NA	Water	3510C	
440-283413-3	MW-13R	Total/NA	Water	3510C	
440-283413-4	MW-14	Total/NA	Water	3510C	
440-283413-5	PZ-2	Total/NA	Water	3510C	
440-283413-6	DW-1	Total/NA	Water	3510C	
440-283413-7	Subdrain (N)	Total/NA	Water	3510C	
MB 570-152116/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-152116/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-152116/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
570-59475-D-13-A MS	Matrix Spike	Total/NA	Water	3510C	
570-59475-D-13-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 152326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-1	MW-6	Total/NA	Water	8270C SIM ID	152116
440-283413-2	MW-9	Total/NA	Water	8270C SIM ID	152116
440-283413-3	MW-13R	Total/NA	Water	8270C SIM ID	152116
440-283413-4	MW-14	Total/NA	Water	8270C SIM ID	152116
440-283413-5	PZ-2	Total/NA	Water	8270C SIM ID	152116
440-283413-6	DW-1	Total/NA	Water	8270C SIM ID	152116
440-283413-7	Subdrain (N)	Total/NA	Water	8270C SIM ID	152116
MB 570-152116/1-A	Method Blank	Total/NA	Water	8270C SIM ID	152116
LCSD 570-152116/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	152116
570-59475-D-13-A MS	Matrix Spike	Total/NA	Water	8270C SIM ID	152116
570-59475-D-13-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270C SIM ID	152116

Analysis Batch: 152543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-152116/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	152116

QC Association Summary

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

HPLC/IC

Analysis Batch: 646966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-2	MW-9	Total/NA	Water	300.0	
440-283413-3	MW-13R	Total/NA	Water	300.0	
440-283413-4	MW-14	Total/NA	Water	300.0	
440-283413-5	PZ-2	Total/NA	Water	300.0	
MB 440-646966/6	Method Blank	Total/NA	Water	300.0	
LCS 440-646966/5	Lab Control Sample	Total/NA	Water	300.0	
440-283455-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
440-283455-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 646967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-2	MW-9	Total/NA	Water	300.0	
440-283413-2	MW-9	Total/NA	Water	300.0	
440-283413-3	MW-13R	Total/NA	Water	300.0	
440-283413-3	MW-13R	Total/NA	Water	300.0	
440-283413-4	MW-14	Total/NA	Water	300.0	
440-283413-4	MW-14	Total/NA	Water	300.0	
440-283413-4	MW-14	Total/NA	Water	300.0	
440-283413-5	PZ-2	Total/NA	Water	300.0	
440-283413-5	PZ-2	Total/NA	Water	300.0	
MB 440-646967/6	Method Blank	Total/NA	Water	300.0	
LCS 440-646967/5	Lab Control Sample	Total/NA	Water	300.0	
440-283455-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
440-283455-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 646973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-1	MW-6	Total/NA	Water	300.0	
440-283413-1 - DL	MW-6	Total/NA	Water	300.0	
440-283413-6	DW-1	Total/NA	Water	300.0	
440-283413-7	Subdrain (N)	Total/NA	Water	300.0	
MB 440-646973/6	Method Blank	Total/NA	Water	300.0	
LCS 440-646973/5	Lab Control Sample	Total/NA	Water	300.0	
440-283413-1 MS - DL	MW-6	Total/NA	Water	300.0	
440-283413-1 MSD - DL	MW-6	Total/NA	Water	300.0	

Analysis Batch: 646974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-1	MW-6	Total/NA	Water	300.0	
440-283413-1 - DL2	MW-6	Total/NA	Water	300.0	
440-283413-1 - DL	MW-6	Total/NA	Water	300.0	
440-283413-6	DW-1	Total/NA	Water	300.0	
440-283413-6	DW-1	Total/NA	Water	300.0	
440-283413-7	Subdrain (N)	Total/NA	Water	300.0	
440-283413-7	Subdrain (N)	Total/NA	Water	300.0	
MB 440-646974/6	Method Blank	Total/NA	Water	300.0	
LCS 440-646974/5	Lab Control Sample	Total/NA	Water	300.0	
440-283413-1 MS - DL	MW-6	Total/NA	Water	300.0	
440-283413-1 MSD - DL	MW-6	Total/NA	Water	300.0	

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Metals

Prep Batch: 647420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-1	MW-6	Total Recoverable	Water	3005A	
440-283413-2	MW-9	Total Recoverable	Water	3005A	
440-283413-3	MW-13R	Total Recoverable	Water	3005A	
440-283413-4	MW-14	Total Recoverable	Water	3005A	
440-283413-5	PZ-2	Total Recoverable	Water	3005A	
440-283413-6	DW-1	Total Recoverable	Water	3005A	
MB 440-647420/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-647420/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-283413-1 MS	MW-6	Total Recoverable	Water	3005A	
440-283413-1 MSD	MW-6	Total Recoverable	Water	3005A	

Analysis Batch: 647461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-5	PZ-2	Total Recoverable	Water	6010B	647420

Prep Batch: 647529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-7	Subdrain (N)	Total Recoverable	Water	3005A	
MB 440-647529/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-647529/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-283490-I-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
440-283490-I-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 647571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-647529/1-A	Method Blank	Total Recoverable	Water	6010B	647529
LCS 440-647529/2-A	Lab Control Sample	Total Recoverable	Water	6010B	647529
440-283490-I-1-B MS	Matrix Spike	Total Recoverable	Water	6010B	647529
440-283490-I-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	647529

Analysis Batch: 647605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-7	Subdrain (N)	Total Recoverable	Water	6010B	647529

Analysis Batch: 647690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-1	MW-6	Total Recoverable	Water	6010B	647420
440-283413-2	MW-9	Total Recoverable	Water	6010B	647420
440-283413-3	MW-13R	Total Recoverable	Water	6010B	647420
440-283413-4	MW-14	Total Recoverable	Water	6010B	647420
440-283413-5	PZ-2	Total Recoverable	Water	6010B	647420
440-283413-6	DW-1	Total Recoverable	Water	6010B	647420
MB 440-647420/1-A	Method Blank	Total Recoverable	Water	6010B	647420
LCS 440-647420/2-A	Lab Control Sample	Total Recoverable	Water	6010B	647420
440-283413-1 MS	MW-6	Total Recoverable	Water	6010B	647420
440-283413-1 MSD	MW-6	Total Recoverable	Water	6010B	647420

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

General Chemistry

Analysis Batch: 646960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-1	MW-6	Total/NA	Water	SM 2320B	
440-283413-2	MW-9	Total/NA	Water	SM 2320B	
440-283413-3	MW-13R	Total/NA	Water	SM 2320B	
440-283413-4	MW-14	Total/NA	Water	SM 2320B	
440-283413-5	PZ-2	Total/NA	Water	SM 2320B	
440-283413-6	DW-1	Total/NA	Water	SM 2320B	
440-283413-7	Subdrain (N)	Total/NA	Water	SM 2320B	
MB 440-646960/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-646960/2	Lab Control Sample	Total/NA	Water	SM 2320B	
440-283314-A-1 DU	Duplicate	Total/NA	Water	SM 2320B	
440-283408-A-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 647235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-4	MW-14	Total/NA	Water	SM 5310C	
440-283413-5	PZ-2	Total/NA	Water	SM 5310C	
440-283413-6	DW-1	Total/NA	Water	SM 5310C	
MB 440-647235/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-647235/7	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-647235/6	Lab Control Sample	Total/NA	Water	SM 5310C	
440-283490-J-1 MS	Matrix Spike	Total/NA	Water	SM 5310C	
440-283490-J-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310C	

Analysis Batch: 647315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-1	MW-6	Total/NA	Water	410.4	
440-283413-2	MW-9	Total/NA	Water	410.4	
440-283413-3	MW-13R	Total/NA	Water	410.4	
440-283413-4	MW-14	Total/NA	Water	410.4	
440-283413-5	PZ-2	Total/NA	Water	410.4	
440-283413-6	DW-1	Total/NA	Water	410.4	
440-283413-7	Subdrain (N)	Total/NA	Water	410.4	
MB 440-647315/3	Method Blank	Total/NA	Water	410.4	
LCS 440-647315/4	Lab Control Sample	Total/NA	Water	410.4	
440-283545-A-5 MS	Matrix Spike	Total/NA	Water	410.4	
440-283545-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	

Analysis Batch: 647326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-1	MW-6	Total/NA	Water	350.1	
440-283413-2	MW-9	Total/NA	Water	350.1	
440-283413-3	MW-13R	Total/NA	Water	350.1	
440-283413-4	MW-14	Total/NA	Water	350.1	
440-283413-5	PZ-2	Total/NA	Water	350.1	
440-283413-6	DW-1	Total/NA	Water	350.1	
440-283413-7	Subdrain (N)	Total/NA	Water	350.1	
MB 440-647326/10	Method Blank	Total/NA	Water	350.1	
LCS 440-647326/11	Lab Control Sample	Total/NA	Water	350.1	
MRL 440-647326/9	Lab Control Sample	Total/NA	Water	350.1	
440-283250-A-1 MS	Matrix Spike	Total/NA	Water	350.1	
440-283250-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Eurofins Calscience Irvine

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

General Chemistry

Analysis Batch: 647332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-1	MW-6	Total/NA	Water	SM 4500 S2 D	
440-283413-2	MW-9	Total/NA	Water	SM 4500 S2 D	
440-283413-3	MW-13R	Total/NA	Water	SM 4500 S2 D	
440-283413-4	MW-14	Total/NA	Water	SM 4500 S2 D	
440-283413-5	PZ-2	Total/NA	Water	SM 4500 S2 D	
440-283413-6	DW-1	Total/NA	Water	SM 4500 S2 D	
440-283413-7	Subdrain (N)	Total/NA	Water	SM 4500 S2 D	
MB 440-647332/3	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 440-647332/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
440-283291-E-1 MS	Matrix Spike	Total/NA	Water	SM 4500 S2 D	
440-283291-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 647476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-1	MW-6	Total/NA	Water	SM 5310C	
440-283413-2	MW-9	Total/NA	Water	SM 5310C	
440-283413-3	MW-13R	Total/NA	Water	SM 5310C	
440-283413-7	Subdrain (N)	Total/NA	Water	SM 5310C	
MB 440-647476/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-647476/7	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-647476/6	Lab Control Sample	Total/NA	Water	SM 5310C	
570-59083-A-11 MS	Matrix Spike	Total/NA	Water	SM 5310C	
570-59083-A-11 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310C	

Analysis Batch: 647515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-1	MW-6	Total/NA	Water	SM 2540C	
440-283413-2	MW-9	Total/NA	Water	SM 2540C	
440-283413-3	MW-13R	Total/NA	Water	SM 2540C	
440-283413-4	MW-14	Total/NA	Water	SM 2540C	
440-283413-5	PZ-2	Total/NA	Water	SM 2540C	
440-283413-6	DW-1	Total/NA	Water	SM 2540C	
440-283413-7	Subdrain (N)	Total/NA	Water	SM 2540C	
MB 440-647515/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-647515/2	Lab Control Sample	Total/NA	Water	SM 2540C	
590-15174-B-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 647572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283413-1	MW-6	Total/NA	Water	SM 4500 CO2 C	
440-283413-2	MW-9	Total/NA	Water	SM 4500 CO2 C	
440-283413-3	MW-13R	Total/NA	Water	SM 4500 CO2 C	
440-283413-4	MW-14	Total/NA	Water	SM 4500 CO2 C	
440-283413-5	PZ-2	Total/NA	Water	SM 4500 CO2 C	
440-283413-6	DW-1	Total/NA	Water	SM 4500 CO2 C	
440-283413-7	Subdrain (N)	Total/NA	Water	SM 4500 CO2 C	
MB 440-647572/1	Method Blank	Total/NA	Water	SM 4500 CO2 C	
440-283234-F-1 DU	Duplicate	Total/NA	Water	SM 4500 CO2 C	

Definitions/Glossary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

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.

GC/MS VOA TICs

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

HPLC/IC

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.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
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.

General Chemistry

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.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)

Definitions/Glossary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

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Accreditation/Certification Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Laboratory: Eurofins Calscience Irvine

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

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-21
Arizona	State	AZ0671	10-14-21
California	Los Angeles County Sanitation Districts	10256	06-30-21
California	State	2706	06-30-21
Guam	State	21-003R	01-23-22
Hawaii	State	CA01531	01-29-22
Kansas	NELAP	E-10420	07-31-21
Nevada	State	CA015312021-6	07-31-21
Oregon	NELAP	4028 - 010	01-29-22
USDA	US Federal Programs	P330-21-00022	02-02-24
Washington	State	C900	09-03-21

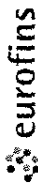
Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0161	11-19-21
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	20-003R	10-31-20 *
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Chain of Custody Record 480004



Environment
TestArmer Ca

Address

TAL-8210

Regulatory Program DW NPDES RCRA Other

Client Contact
Company Name: **Geo-Logic Associates**
Address: **1415 W. Benedict Ct, Sunvale**
City/State/Zip: **San Diego, CA 92127**
Phone: **619-451-1136**
Fax:
Project Name: **Republic Services**
Site: **Sunshine Canyon Landfill**
P.O.#

Project Manager: **Kyle Welchen** | Site Contact: **J. M. D.** | Date: **5-17-21**
Tel/Email: **Kwelchen@geologic.com** | Lab Contact: **R. Turvey** | Carrier: **EC-IRV**
Analysis Turnaround Time: _____
 CALENDAR DAYS WORKING DAYS
TAT if different from Below: _____
 2 weeks
 1 week
 2 days
 1 day

Company Name: **Geo-Logic Associates** | COC No: **1** of **1** COCs
Address: **1415 W. Benedict Ct, Sunvale**
City/State/Zip: **San Diego, CA 92127**
Phone: **619-451-1136**
Fax:
Project Name: **Republic Services**
Site: **Sunshine Canyon Landfill**
P.O.#

Sampler: **BSIMC**
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No: **5821 1059**

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Carrier	Company	Date/Time	Received by
MW-6	5/17/21	0830	G	GW	13	M	Y	EC-IRV	EC-IRV	5/17/21 1415	William Rivera
MW-9	1205		G	GW	13	Y	Y	EC-IRV	EC-IRV	5/17/21 1800	William Rivera
MW-13R	1002		G	GW	13	Y	Y	EC-IRV	EC-IRV	5/17/21 1800	William Rivera
MW-14	0705		G	GW	13	Y	Y	EC-IRV	EC-IRV	5/17/21 1800	William Rivera
PZ-2	1332		G	GW	13	Y	Y	EC-IRV	EC-IRV	5/17/21 1800	William Rivera
DW-1	0910		G	Upland Landing H2O	4	Y	Y	EC-IRV	EC-IRV	5/17/21 1800	William Rivera
Subdrain (4)	0900		G	Upland Landing H2O	4	Y	Y	EC-IRV	EC-IRV	5/17/21 1800	William Rivera
Field Blank						Y	Y	EC-IRV	EC-IRV	5/17/21 1800	William Rivera
Tap Blank						Y	Y	EC-IRV	EC-IRV	5/17/21 1800	William Rivera

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

Non-Hazardous Flammable Skin Irritant Unknown

Special Instructions/QC Requirements & Comments

Return to Client: Disposal by Lab: Archive for: _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Company: **Geo-Logic** | Received by: **William Rivera** | Date/Time: **5/17/21 1415**

Company: **EC-IRV** | Received by: **William Rivera** | Date/Time: **5/17/21 1800**

Company: **EC-IRV** | Received by: **William Rivera** | Date/Time: **5/17/21 1800**

1.9/1.8; 1.4/1.1 # 89



Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler	Lab P/N:	Carrier Tracking No(s):	COC No:						
Client Contact: Shipping/Receiving		Phone:	Tomova, Rossina D	440-169462 1							
Company: Eurofins Calscience LLC		Address: 7440 Lincoln Way,	E-Mail: Rossina.Tomova@Eurofins.com	State of Origin: California	Page: 1 of 1						
City: Garden Grove		Due Date Requested: 5/28/2021	Job #: 440-283413-1								
State/Zip: CA, 92841		TAT Requested (days):	Preservation Codes:								
Phone: 714-895-5494(Tel) 714-894-7501(Fax)		PO #:	A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anhydrous H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:								
Email: Project #: 44007851		WO #:	M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)								
Project Name: Republic Sunshine Canyon		SSCOW#:	Special Instructions/Note:								
Site:		Analysis Requested									
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (Water, Soil, Overstabil, Br-Tissue, AMNH)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030C (MOD) Appendix II +MTBE+TBA+TICS	8260B_LL/5030C_UP (MOD) A+A	8270C_SIM_MS_ID/3510C 1,4-Dioxane - SIM_MS_ID	Total Number of containers
MMW-6 (440-283413-1)	5/17/21	08:30	Pacific	Water	X	X	X	X	X	7	
MMW-9 (440-283413-2)	5/17/21	12:05	Pacific	Water	X	X	X	X	X	7	
MMW-13R (440-283413-3)	5/17/21	12:02	Pacific	Water	X	X	X	X	X	7	
MMW-14 (440-283413-4)	5/17/21	07:05	Pacific	Water	X	X	X	X	X	7	
PZ-2 (440-283413-5)	5/17/21	13:32	Pacific	Water	X	X	X	X	X	7	
DW-1 (440-283413-6)	5/17/21	13:10	Pacific	Water	X	X	X	X	X	7	
Subtrain (N) (440-283413-7)	5/17/21	09:00	Pacific	Water	X	X	X	X	X	7	
Field Blank (440-283413-8)	5/17/21	00:01	Pacific	Water	X	X	X	X	X	4	
Trip Blank (440-283413-9)	5/17/21	00:01	Pacific	Water	X	X	X	X	X	4	

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysts/methods/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification
Unconfirmed

Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank 2 Special Instructions/QC Requirements

Empty Kit Relinquished by: *[Signature]* Date: 5/18/21 Time: 16:20 Company: EQ-RU
Relinquished by: *[Signature]* Date/Time: Company:
Relinquished by: Date/Time: Company:
Relinquished by: Date/Time: Company:

Custody Seals Intact: Yes No Custody Seal No. *[Signature]*
Cooler Temperature(s) °C and Other Remarks: 3.5/3.9 deg

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

Method of Shipment: Date/Time: 5-18-2021 16:20 Company: BCI

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-283413-1

Login Number: 283413

List Source: Eurofins Calscience Irvine

List Number: 1

Creator: Escalante, Maria I

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.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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	

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-283413-1

Login Number: 283413

List Number: 2

Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience LLC

List Creation: 05/18/21 08:05 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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	3.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283413-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-150)
440-283413-1	MW-6	38
440-283413-2	MW-9	36
440-283413-3	MW-13R	33
440-283413-4	MW-14	35
440-283413-5	PZ-2	40
440-283413-6	DW-1	27
440-283413-7	Subdrain (N)	18
570-59475-D-13-A MS	Matrix Spike	37
570-59475-D-13-B MSD	Matrix Spike Duplicate	44
LCS 570-152116/2-A	Lab Control Sample	52
LCSD 570-152116/3-A	Lab Control Sample Dup	40
MB 570-152116/1-A	Method Blank	39

Surrogate Legend

DXE = 1,4-Dioxane-d8

ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-283490-1

Client Project/Site: Republic Sunshine Canyon

For:

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

Attn: Kyle Welchans



Authorized for release by:
5/27/2021 4:34:00 PM

Rossina Tomova, Project Manager I
(949)260-3276
Rossina.Tomova@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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



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Sample Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-283490-1	MW-2A	Water	05/18/21 07:40	05/18/21 17:45	
440-283490-2	MW-2B	Water	05/18/21 08:26	05/18/21 17:45	
440-283490-3	DW-4	Water	05/18/21 09:25	05/18/21 17:45	
440-283490-4	PZ-4	Water	05/18/21 11:58	05/18/21 17:45	
440-283490-5	DW-2	Water	05/18/21 10:27	05/18/21 17:45	
440-283490-6	DW-3	Water	05/18/21 11:50	05/18/21 17:45	
440-283490-7	LY-7	Water	05/18/21 07:55	05/18/21 17:45	
440-283490-8	Combined Subdrains	Water	05/18/21 09:08	05/18/21 17:45	
440-283490-9	Duplicate	Water	05/18/21 00:01	05/18/21 17:45	
440-283490-10	Field Blank	Water	05/18/21 00:01	05/18/21 17:45	
440-283490-11	Trip Blank	Water	05/18/21 00:01	05/18/21 17:45	

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Case Narrative

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Job ID: 440-283490-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative 440-283490-1

Comments

No additional comments.

Receipt

The samples were received on 5/18/2021 5:45 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.1° C and 4.5° C.

GC/MS VOA

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-151712.

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

GC/MS Semi VOA

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

HPLC/IC

Method 300.0: The following samples were diluted due to the nature of the sample matrix: MW-2A (440-283490-1), MW-2B (440-283490-2), DW-4 (440-283490-3), LY-7 (440-283490-7), Combined Subdrains (440-283490-8) and Duplicate (440-283490-9). Elevated reporting limits (RLs) are provided.

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

Metals

Method 3005A: The reference method requires samples to be preserved to a pH of <2. The following samples were received with insufficient preservation at a pH of 6: LY-7 (440-283490-7) and Combined Subdrains (440-283490-8). The samples were preserved to the appropriate pH in the laboratory. Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion.

1.0 mL of 1:1 HNO₃ was added to container 440-283490-I-7 on 05/21/21 @ 15:30 hours
1:1 HNO₃ Reagent # 6572054

0.5 mL of 1:1 HNO₃ was added to container 440-283490-I-8 on 05/21/21 @ 15:30 hours
1:1 HNO₃ Reagent # 6572054

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

General Chemistry

Method SM 5310C: The continuing calibration blank (CCB) for analytical batch 440-647361 contained Total Organic Carbon above the method detection limit (MDL). All reported samples associated with this CCB contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method SM 2320B: The method blank for analytical batch 440-647496 contained alkalinity above the method reporting limit (RL). Associated samples were not re-analyzed because results were greater than 10X the value found in the method blank.

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

Organic Prep

Method 3510C: The following sample formed emulsions during the extraction procedure: Combined Subdrains (440-283490-8). The emulsions were broken up using sodium sulfate.

Method 3510C: Re-extraction was performed for parent sample due to dilutions, a matrix spike/matrix spike duplicate (MS/MSD) was not

Case Narrative

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Job ID: 440-283490-1 (Continued)

Laboratory: Eurofins Calscience Irvine (Continued)

available for preparation batch 570-152412. MW-2A (440-283490-1), MW-2B (440-283490-2), DW-4 (440-283490-3), PZ-4 (440-283490-4), DW-2 (440-283490-5), DW-3 (440-283490-6), LY-7 (440-283490-7), Combined Subdrains (440-283490-8) and Duplicate (440-283490-9)

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

VOA Prep

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

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: MW-2A

Lab Sample ID: 440-283490-1

Date Collected: 05/18/21 07:40

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/19/21 23:46	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/19/21 23:46	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/19/21 23:46	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/19/21 23:46	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/19/21 23:46	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/19/21 23:46	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/19/21 23:46	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/19/21 23:46	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/19/21 23:46	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/19/21 23:46	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/19/21 23:46	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/19/21 23:46	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/19/21 23:46	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/19/21 23:46	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/19/21 23:46	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/19/21 23:46	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/19/21 23:46	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/19/21 23:46	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/19/21 23:46	1
2-Hexanone	ND		6.0	4.3	ug/L			05/19/21 23:46	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/19/21 23:46	1
Acetone	ND		8.0	4.0	ug/L			05/19/21 23:46	1
Acetonitrile	ND		10	3.9	ug/L			05/19/21 23:46	1
Acrolein	ND		4.0	2.2	ug/L			05/19/21 23:46	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/19/21 23:46	1
Allyl chloride	ND		2.0	0.38	ug/L			05/19/21 23:46	1
Benzene	ND		0.50	0.27	ug/L			05/19/21 23:46	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/19/21 23:46	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/19/21 23:46	1
Bromoform	ND		0.50	0.39	ug/L			05/19/21 23:46	1
Bromomethane	ND		1.0	0.93	ug/L			05/19/21 23:46	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/19/21 23:46	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/19/21 23:46	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/19/21 23:46	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/19/21 23:46	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/19/21 23:46	1
Chloroethane	ND		0.50	0.44	ug/L			05/19/21 23:46	1
Chloroform	ND		0.50	0.28	ug/L			05/19/21 23:46	1
Chloromethane	ND		1.0	0.29	ug/L			05/19/21 23:46	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/19/21 23:46	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/19/21 23:46	1
Dibromomethane	ND		0.50	0.23	ug/L			05/19/21 23:46	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/19/21 23:46	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/19/21 23:46	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/19/21 23:46	1
Iodomethane	ND		25	5.9	ug/L			05/19/21 23:46	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/19/21 23:46	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/19/21 23:46	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/19/21 23:46	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: MW-2A

Lab Sample ID: 440-283490-1

Date Collected: 05/18/21 07:40

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0	0.48	ug/L			05/19/21 23:46	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/19/21 23:46	1
Naphthalene	ND		1.0	0.32	ug/L			05/19/21 23:46	1
o-Xylene	ND		0.50	0.35	ug/L			05/19/21 23:46	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/19/21 23:46	1
Propionitrile	ND		5.0	3.7	ug/L			05/19/21 23:46	1
Styrene	ND		0.50	0.28	ug/L			05/19/21 23:46	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/19/21 23:46	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/19/21 23:46	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/19/21 23:46	1
t-Butanol	ND		5.0	4.0	ug/L			05/19/21 23:46	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/19/21 23:46	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/19/21 23:46	1
Toluene	ND		0.50	0.33	ug/L			05/19/21 23:46	1
Trichloroethene	ND		0.50	0.29	ug/L			05/19/21 23:46	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/19/21 23:46	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/19/21 23:46	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/19/21 23:46	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	74	T J	ug/L		1.79			05/19/21 23:46	1
Methane, chlorodifluoro-	210	T J N	ug/L		1.84	75-45-6		05/19/21 23:46	1
Unknown	130	T J	ug/L		1.97			05/19/21 23:46	1
Unknown	180	T J	ug/L		2.13			05/19/21 23:46	1
Unknown	31	T J	ug/L		2.43			05/19/21 23:46	1
Unknown	120	T J	ug/L		2.46			05/19/21 23:46	1
Unknown	25	T J	ug/L		2.63			05/19/21 23:46	1
Unknown	26	T J	ug/L		2.69			05/19/21 23:46	1
Unknown	160	T J	ug/L		2.81			05/19/21 23:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		68 - 135		05/19/21 23:46	1
4-Bromofluorobenzene (Surr)	99		71 - 120		05/19/21 23:46	1
Dibromofluoromethane (Surr)	99		80 - 120		05/19/21 23:46	1
Toluene-d8 (Surr)	101		80 - 120		05/19/21 23:46	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.5		0.50	0.34	ug/L		05/22/21 11:38	05/24/21 16:44	1
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8	46		15 - 150	05/22/21 11:38	05/24/21 16:44	1			
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Nitrobenzene-d5 (Surr)	111		46 - 128	05/22/21 11:38	05/24/21 16:44	1			

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21		1.0	0.50	mg/L			05/18/21 22:45	2
Nitrate as N	ND		0.22	0.11	mg/L			05/18/21 22:45	2
Bromide	ND		1.0	0.48	mg/L			05/18/21 22:45	2

Eurofins Calscience Irvine

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: MW-2A

Lab Sample ID: 440-283490-1

Date Collected: 05/18/21 07:40

Matrix: Water

Date Received: 05/18/21 17:45

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.97	J	1.0	0.40	mg/L			05/18/21 22:45	2
Sulfate	1600		50	25	mg/L			05/18/21 23:03	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.57		0.050	0.025	mg/L		05/24/21 09:29	05/24/21 14:50	1
Calcium	210		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 14:50	1
Iron	6.4		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 14:50	1
Magnesium	120		0.020	0.010	mg/L		05/24/21 09:29	05/24/21 14:50	1
Manganese	0.73		0.020	0.015	mg/L		05/24/21 09:29	05/24/21 14:50	1
Potassium	5.2		0.50	0.25	mg/L		05/24/21 09:29	05/24/21 14:50	1
Sodium	380		0.50	0.26	mg/L		05/24/21 09:29	05/24/21 14:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	3.1		0.20	0.10	mg/L			05/20/21 14:29	1
Chemical Oxygen Demand	20		20	10	mg/L			05/21/21 14:12	1
Total Dissolved Solids	2600		20	10	mg/L			05/25/21 10:00	1
Total Sulfide	ND		0.050	0.027	mg/L			05/20/21 17:22	1
Total Organic Carbon	3.0		0.10	0.050	mg/L			05/19/21 12:35	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	360		4.0	4.0	mg/L			05/19/21 05:45	1
Bicarbonate Alkalinity as CaCO3	360		4.0	4.0	mg/L			05/19/21 05:45	1
Carbon Dioxide, Free	120		2.0	2.0	mg/L			05/24/21 14:00	1

Client Sample ID: MW-2B

Lab Sample ID: 440-283490-2

Date Collected: 05/18/21 08:26

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/20/21 00:12	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/20/21 00:12	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/20/21 00:12	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/20/21 00:12	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/20/21 00:12	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/20/21 00:12	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/20/21 00:12	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/20/21 00:12	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/20/21 00:12	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/20/21 00:12	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/20/21 00:12	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/20/21 00:12	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/20/21 00:12	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/20/21 00:12	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/20/21 00:12	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/20/21 00:12	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/20/21 00:12	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/20/21 00:12	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/20/21 00:12	1

Eurofins Calscience Irvine

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: MW-2B

Lab Sample ID: 440-283490-2

Date Collected: 05/18/21 08:26

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	ND		6.0	4.3	ug/L			05/20/21 00:12	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/20/21 00:12	1
Acetone	ND		8.0	4.0	ug/L			05/20/21 00:12	1
Acetonitrile	ND		10	3.9	ug/L			05/20/21 00:12	1
Acrolein	ND		4.0	2.2	ug/L			05/20/21 00:12	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/20/21 00:12	1
Allyl chloride	ND		2.0	0.38	ug/L			05/20/21 00:12	1
Benzene	ND		0.50	0.27	ug/L			05/20/21 00:12	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/20/21 00:12	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/20/21 00:12	1
Bromoform	ND		0.50	0.39	ug/L			05/20/21 00:12	1
Bromomethane	ND		1.0	0.93	ug/L			05/20/21 00:12	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/20/21 00:12	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/20/21 00:12	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/20/21 00:12	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/20/21 00:12	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/20/21 00:12	1
Chloroethane	ND		0.50	0.44	ug/L			05/20/21 00:12	1
Chloroform	ND		0.50	0.28	ug/L			05/20/21 00:12	1
Chloromethane	ND		1.0	0.29	ug/L			05/20/21 00:12	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/20/21 00:12	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/20/21 00:12	1
Dibromomethane	ND		0.50	0.23	ug/L			05/20/21 00:12	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/20/21 00:12	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/20/21 00:12	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/20/21 00:12	1
Iodomethane	ND		25	5.9	ug/L			05/20/21 00:12	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/20/21 00:12	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/20/21 00:12	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/20/21 00:12	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/20/21 00:12	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/20/21 00:12	1
Naphthalene	ND		1.0	0.32	ug/L			05/20/21 00:12	1
o-Xylene	ND		0.50	0.35	ug/L			05/20/21 00:12	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/20/21 00:12	1
Propionitrile	ND		5.0	3.7	ug/L			05/20/21 00:12	1
Styrene	ND		0.50	0.28	ug/L			05/20/21 00:12	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/20/21 00:12	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/20/21 00:12	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/20/21 00:12	1
t-Butanol	ND		5.0	4.0	ug/L			05/20/21 00:12	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/20/21 00:12	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/20/21 00:12	1
Toluene	ND		0.50	0.33	ug/L			05/20/21 00:12	1
Trichloroethene	ND		0.50	0.29	ug/L			05/20/21 00:12	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/20/21 00:12	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/20/21 00:12	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/20/21 00:12	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: MW-2B

Lab Sample ID: 440-283490-2

Date Collected: 05/18/21 08:26

Matrix: Water

Date Received: 05/18/21 17:45

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	250	T J	ug/L		1.96			05/20/21 00:12	1
Unknown	29	T J	ug/L		2.27			05/20/21 00:12	1
Unknown	19	T J	ug/L		2.30			05/20/21 00:12	1
Unknown	70	T J	ug/L		2.32			05/20/21 00:12	1
Unknown	190	T J	ug/L		2.47			05/20/21 00:12	1
Unknown	20	T J	ug/L		2.61			05/20/21 00:12	1
Unknown	37	T J	ug/L		2.63			05/20/21 00:12	1
Unknown	69	T J	ug/L		2.83			05/20/21 00:12	1
Unknown	83	T J	ug/L		2.94			05/20/21 00:12	1
Unknown	32	T J	ug/L		2.98			05/20/21 00:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		68 - 135					05/20/21 00:12	1
4-Bromofluorobenzene (Surr)	98		71 - 120					05/20/21 00:12	1
Dibromofluoromethane (Surr)	99		80 - 120					05/20/21 00:12	1
Toluene-d8 (Surr)	100		80 - 120					05/20/21 00:12	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/22/21 11:38	05/25/21 08:02	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	47		15 - 150				05/22/21 11:38	05/25/21 08:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	108		46 - 128				05/22/21 11:38	05/25/21 08:02	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		1.0	0.50	mg/L			05/18/21 23:20	2
Nitrate as N	ND		0.22	0.11	mg/L			05/18/21 23:20	2
Bromide	ND		1.0	0.48	mg/L			05/18/21 23:20	2
Fluoride	0.76	J	1.0	0.40	mg/L			05/18/21 23:20	2
Sulfate	1600		50	25	mg/L			05/18/21 23:38	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.57		0.050	0.025	mg/L		05/24/21 09:29	05/24/21 16:57	1
Calcium	180		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 16:57	1
Iron	2.1		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 16:57	1
Magnesium	110		0.020	0.010	mg/L		05/24/21 09:29	05/24/21 16:57	1
Manganese	0.13		0.020	0.015	mg/L		05/24/21 09:29	05/24/21 16:57	1
Potassium	4.1		0.50	0.25	mg/L		05/24/21 09:29	05/24/21 16:57	1
Sodium	420		0.50	0.26	mg/L		05/24/21 09:29	05/24/21 16:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	3.4		0.20	0.10	mg/L			05/20/21 14:35	1
Chemical Oxygen Demand	ND		20	10	mg/L			05/21/21 14:12	1
Total Dissolved Solids	2500		20	10	mg/L			05/25/21 10:00	1
Total Sulfide	ND		0.050	0.027	mg/L			05/20/21 17:22	1
Total Organic Carbon	1.8		0.10	0.050	mg/L			05/19/21 12:50	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: MW-2B

Lab Sample ID: 440-283490-2

Date Collected: 05/18/21 08:26

Matrix: Water

Date Received: 05/18/21 17:45

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	330		4.0	4.0	mg/L			05/19/21 05:54	1
Bicarbonate Alkalinity as CaCO3	330		4.0	4.0	mg/L			05/19/21 05:54	1
Carbon Dioxide, Free	26		2.0	2.0	mg/L			05/24/21 14:00	1

Client Sample ID: DW-4

Lab Sample ID: 440-283490-3

Date Collected: 05/18/21 09:25

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/20/21 00:38	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/20/21 00:38	1
1,1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/20/21 00:38	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/20/21 00:38	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/20/21 00:38	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/20/21 00:38	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/20/21 00:38	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/20/21 00:38	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/20/21 00:38	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/20/21 00:38	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/20/21 00:38	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/20/21 00:38	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/20/21 00:38	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/20/21 00:38	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/20/21 00:38	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/20/21 00:38	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/20/21 00:38	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/20/21 00:38	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/20/21 00:38	1
2-Hexanone	ND		6.0	4.3	ug/L			05/20/21 00:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/20/21 00:38	1
Acetone	ND		8.0	4.0	ug/L			05/20/21 00:38	1
Acetonitrile	ND		10	3.9	ug/L			05/20/21 00:38	1
Acrolein	ND		4.0	2.2	ug/L			05/20/21 00:38	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/20/21 00:38	1
Allyl chloride	ND		2.0	0.38	ug/L			05/20/21 00:38	1
Benzene	ND		0.50	0.27	ug/L			05/20/21 00:38	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/20/21 00:38	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/20/21 00:38	1
Bromoform	ND		0.50	0.39	ug/L			05/20/21 00:38	1
Bromomethane	ND		1.0	0.93	ug/L			05/20/21 00:38	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/20/21 00:38	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/20/21 00:38	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/20/21 00:38	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/20/21 00:38	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/20/21 00:38	1
Chloroethane	ND		0.50	0.44	ug/L			05/20/21 00:38	1
Chloroform	ND		0.50	0.28	ug/L			05/20/21 00:38	1
Chloromethane	ND		1.0	0.29	ug/L			05/20/21 00:38	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/20/21 00:38	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/20/21 00:38	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: DW-4

Lab Sample ID: 440-283490-3

Date Collected: 05/18/21 09:25

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		0.50	0.23	ug/L			05/20/21 00:38	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/20/21 00:38	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/20/21 00:38	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/20/21 00:38	1
Iodomethane	ND		25	5.9	ug/L			05/20/21 00:38	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/20/21 00:38	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/20/21 00:38	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/20/21 00:38	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/20/21 00:38	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/20/21 00:38	1
Naphthalene	ND		1.0	0.32	ug/L			05/20/21 00:38	1
o-Xylene	ND		0.50	0.35	ug/L			05/20/21 00:38	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/20/21 00:38	1
Propionitrile	ND		5.0	3.7	ug/L			05/20/21 00:38	1
Styrene	ND		0.50	0.28	ug/L			05/20/21 00:38	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/20/21 00:38	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/20/21 00:38	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/20/21 00:38	1
t-Butanol	ND		5.0	4.0	ug/L			05/20/21 00:38	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/20/21 00:38	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/20/21 00:38	1
Toluene	ND		0.50	0.33	ug/L			05/20/21 00:38	1
Trichloroethene	ND		0.50	0.29	ug/L			05/20/21 00:38	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/20/21 00:38	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/20/21 00:38	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/20/21 00:38	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	110	T J	ug/L		1.96			05/20/21 00:38	1
Unknown	240	T J	ug/L		2.05			05/20/21 00:38	1
Unknown	150	T J	ug/L		2.32			05/20/21 00:38	1
Unknown	61	T J	ug/L		2.35			05/20/21 00:38	1
Unknown	67	T J	ug/L		2.45			05/20/21 00:38	1
Unknown	100	T J	ug/L		2.48			05/20/21 00:38	1
Unknown	87	T J	ug/L		2.55			05/20/21 00:38	1
Unknown	140	T J	ug/L		2.71			05/20/21 00:38	1
Unknown	63	T J	ug/L		2.82			05/20/21 00:38	1
Unknown	97	T J	ug/L		2.86			05/20/21 00:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		68 - 135		05/20/21 00:38	1
4-Bromofluorobenzene (Surr)	98		71 - 120		05/20/21 00:38	1
Dibromofluoromethane (Surr)	96		80 - 120		05/20/21 00:38	1
Toluene-d8 (Surr)	101		80 - 120		05/20/21 00:38	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/22/21 11:38	05/25/21 08:16	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	43		15 - 150	05/22/21 11:38	05/25/21 08:16	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: DW-4
Date Collected: 05/18/21 09:25
Date Received: 05/18/21 17:45

Lab Sample ID: 440-283490-3
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	105		46 - 128	05/22/21 11:38	05/25/21 08:16	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		1.0	0.50	mg/L			05/18/21 23:55	2
Nitrate as N	ND		0.22	0.11	mg/L			05/18/21 23:55	2
Bromide	ND		1.0	0.48	mg/L			05/18/21 23:55	2
Fluoride	ND		1.0	0.40	mg/L			05/18/21 23:55	2
Sulfate	1800		50	25	mg/L			05/19/21 00:13	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.58		0.050	0.025	mg/L		05/24/21 09:29	05/24/21 17:00	1
Calcium	170		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 17:00	1
Iron	1.4		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 17:00	1
Magnesium	120		0.020	0.010	mg/L		05/24/21 09:29	05/24/21 17:00	1
Manganese	0.11		0.020	0.015	mg/L		05/24/21 09:29	05/24/21 17:00	1
Potassium	3.9		0.50	0.25	mg/L		05/24/21 09:29	05/24/21 17:00	1
Sodium	450		0.50	0.26	mg/L		05/24/21 09:29	05/24/21 17:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	4.4		0.20	0.10	mg/L			05/20/21 14:40	1
Chemical Oxygen Demand	ND		20	10	mg/L			05/21/21 14:12	1
Total Dissolved Solids	2900		20	10	mg/L			05/25/21 10:00	1
Total Sulfide	ND		0.050	0.027	mg/L			05/20/21 17:23	1
Total Organic Carbon	1.8		0.10	0.050	mg/L			05/19/21 14:18	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	340		4.0	4.0	mg/L			05/19/21 06:04	1
Bicarbonate Alkalinity as CaCO3	340		4.0	4.0	mg/L			05/19/21 06:04	1
Carbon Dioxide, Free	32		2.0	2.0	mg/L			05/26/21 16:31	1

Client Sample ID: PZ-4
Date Collected: 05/18/21 11:58
Date Received: 05/18/21 17:45

Lab Sample ID: 440-283490-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/20/21 01:03	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/20/21 01:03	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/20/21 01:03	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/20/21 01:03	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/20/21 01:03	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/20/21 01:03	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/20/21 01:03	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/20/21 01:03	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/20/21 01:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/20/21 01:03	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/20/21 01:03	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/20/21 01:03	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/20/21 01:03	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: PZ-4

Lab Sample ID: 440-283490-4

Date Collected: 05/18/21 11:58

Matrix: Water

Date Received: 05/18/21 17:45

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	0.24	ug/L			05/20/21 01:03	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/20/21 01:03	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/20/21 01:03	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/20/21 01:03	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/20/21 01:03	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/20/21 01:03	1
2-Hexanone	ND		6.0	4.3	ug/L			05/20/21 01:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/20/21 01:03	1
Acetone	ND		8.0	4.0	ug/L			05/20/21 01:03	1
Acetonitrile	ND		10	3.9	ug/L			05/20/21 01:03	1
Acrolein	ND		4.0	2.2	ug/L			05/20/21 01:03	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/20/21 01:03	1
Allyl chloride	ND		2.0	0.38	ug/L			05/20/21 01:03	1
Benzene	ND		0.50	0.27	ug/L			05/20/21 01:03	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/20/21 01:03	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/20/21 01:03	1
Bromoform	ND		0.50	0.39	ug/L			05/20/21 01:03	1
Bromomethane	ND		1.0	0.93	ug/L			05/20/21 01:03	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/20/21 01:03	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/20/21 01:03	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/20/21 01:03	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/20/21 01:03	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/20/21 01:03	1
Chloroethane	ND		0.50	0.44	ug/L			05/20/21 01:03	1
Chloroform	ND		0.50	0.28	ug/L			05/20/21 01:03	1
Chloromethane	ND		1.0	0.29	ug/L			05/20/21 01:03	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/20/21 01:03	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/20/21 01:03	1
Dibromomethane	ND		0.50	0.23	ug/L			05/20/21 01:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/20/21 01:03	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/20/21 01:03	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/20/21 01:03	1
Iodomethane	ND		25	5.9	ug/L			05/20/21 01:03	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/20/21 01:03	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/20/21 01:03	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/20/21 01:03	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/20/21 01:03	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/20/21 01:03	1
Naphthalene	ND		1.0	0.32	ug/L			05/20/21 01:03	1
o-Xylene	ND		0.50	0.35	ug/L			05/20/21 01:03	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/20/21 01:03	1
Propionitrile	ND		5.0	3.7	ug/L			05/20/21 01:03	1
Styrene	ND		0.50	0.28	ug/L			05/20/21 01:03	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/20/21 01:03	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/20/21 01:03	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/20/21 01:03	1
t-Butanol	ND		5.0	4.0	ug/L			05/20/21 01:03	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/20/21 01:03	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/20/21 01:03	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: PZ-4

Lab Sample ID: 440-283490-4

Date Collected: 05/18/21 11:58

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		0.50	0.33	ug/L			05/20/21 01:03	1
Trichloroethene	ND		0.50	0.29	ug/L			05/20/21 01:03	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/20/21 01:03	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/20/21 01:03	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/20/21 01:03	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	69	T J	ug/L		2.13			05/20/21 01:03	1
Unknown	120	T J	ug/L		2.24			05/20/21 01:03	1
Unknown	84	T J	ug/L		2.30			05/20/21 01:03	1
Unknown	74	T J	ug/L		2.38			05/20/21 01:03	1
Unknown	140	T J	ug/L		2.45			05/20/21 01:03	1
Unknown	45	T J	ug/L		2.58			05/20/21 01:03	1
Unknown	32	T J	ug/L		2.66			05/20/21 01:03	1
Unknown	42	T J	ug/L		2.68			05/20/21 01:03	1
Unknown	71	T J	ug/L		2.84			05/20/21 01:03	1
Unknown	67	T J	ug/L		2.92			05/20/21 01:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		68 - 135		05/20/21 01:03	1
4-Bromofluorobenzene (Surr)	97		71 - 120		05/20/21 01:03	1
Dibromofluoromethane (Surr)	98		80 - 120		05/20/21 01:03	1
Toluene-d8 (Surr)	102		80 - 120		05/20/21 01:03	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/22/21 11:38	05/25/21 08:31	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	47		15 - 150	05/22/21 11:38	05/25/21 08:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	114		46 - 128	05/22/21 11:38	05/25/21 08:31	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.3		0.50	0.25	mg/L			05/19/21 00:31	1
Nitrate as N	ND		0.11	0.055	mg/L			05/19/21 00:31	1
Bromide	ND		0.50	0.24	mg/L			05/19/21 00:31	1
Fluoride	1.0		0.50	0.20	mg/L			05/19/21 00:31	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	550		25	13	mg/L			05/19/21 01:23	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.15		0.050	0.025	mg/L		05/24/21 09:29	05/24/21 17:02	1
Calcium	130		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 17:02	1
Iron	1.2		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 17:02	1
Magnesium	77		0.020	0.010	mg/L		05/24/21 09:29	05/24/21 17:02	1
Manganese	0.13		0.020	0.015	mg/L		05/24/21 09:29	05/24/21 17:02	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: PZ-4

Lab Sample ID: 440-283490-4

Date Collected: 05/18/21 11:58

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	4.1		0.50	0.25	mg/L		05/24/21 09:29	05/24/21 17:02	1
Sodium	84		0.50	0.26	mg/L		05/24/21 09:29	05/24/21 17:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	2.3		0.20	0.10	mg/L			05/20/21 14:45	1
Chemical Oxygen Demand	16	J	20	10	mg/L			05/21/21 14:13	1
Total Dissolved Solids	1200		10	5.0	mg/L			05/25/21 10:00	1
Total Sulfide	ND		0.050	0.027	mg/L			05/25/21 15:53	1
Total Organic Carbon	1.1		0.10	0.050	mg/L			05/19/21 14:31	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	330		4.0	4.0	mg/L			05/19/21 06:17	1
Bicarbonate Alkalinity as CaCO3	330		4.0	4.0	mg/L			05/19/21 06:17	1
Carbon Dioxide, Free	46		2.0	2.0	mg/L			05/26/21 16:31	1

Client Sample ID: DW-2

Lab Sample ID: 440-283490-5

Date Collected: 05/18/21 10:27

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/20/21 01:29	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/20/21 01:29	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/20/21 01:29	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/20/21 01:29	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/20/21 01:29	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/20/21 01:29	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/20/21 01:29	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/20/21 01:29	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/20/21 01:29	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/20/21 01:29	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/20/21 01:29	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/20/21 01:29	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/20/21 01:29	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/20/21 01:29	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/20/21 01:29	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/20/21 01:29	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/20/21 01:29	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/20/21 01:29	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/20/21 01:29	1
2-Hexanone	ND		6.0	4.3	ug/L			05/20/21 01:29	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/20/21 01:29	1
Acetone	ND		8.0	4.0	ug/L			05/20/21 01:29	1
Acetonitrile	ND		10	3.9	ug/L			05/20/21 01:29	1
Acrolein	ND		4.0	2.2	ug/L			05/20/21 01:29	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/20/21 01:29	1
Allyl chloride	ND		2.0	0.38	ug/L			05/20/21 01:29	1
Benzene	ND		0.50	0.27	ug/L			05/20/21 01:29	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/20/21 01:29	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/20/21 01:29	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: DW-2

Lab Sample ID: 440-283490-5

Date Collected: 05/18/21 10:27

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		0.50	0.39	ug/L			05/20/21 01:29	1
Bromomethane	ND		1.0	0.93	ug/L			05/20/21 01:29	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/20/21 01:29	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/20/21 01:29	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/20/21 01:29	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/20/21 01:29	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/20/21 01:29	1
Chloroethane	ND		0.50	0.44	ug/L			05/20/21 01:29	1
Chloroform	ND		0.50	0.28	ug/L			05/20/21 01:29	1
Chloromethane	ND		1.0	0.29	ug/L			05/20/21 01:29	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/20/21 01:29	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/20/21 01:29	1
Dibromomethane	ND		0.50	0.23	ug/L			05/20/21 01:29	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/20/21 01:29	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/20/21 01:29	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/20/21 01:29	1
Iodomethane	ND		25	5.9	ug/L			05/20/21 01:29	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/20/21 01:29	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/20/21 01:29	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/20/21 01:29	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/20/21 01:29	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/20/21 01:29	1
Naphthalene	ND		1.0	0.32	ug/L			05/20/21 01:29	1
o-Xylene	ND		0.50	0.35	ug/L			05/20/21 01:29	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/20/21 01:29	1
Propionitrile	ND		5.0	3.7	ug/L			05/20/21 01:29	1
Styrene	ND		0.50	0.28	ug/L			05/20/21 01:29	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/20/21 01:29	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/20/21 01:29	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/20/21 01:29	1
t-Butanol	ND		5.0	4.0	ug/L			05/20/21 01:29	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/20/21 01:29	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/20/21 01:29	1
Toluene	ND		0.50	0.33	ug/L			05/20/21 01:29	1
Trichloroethene	ND		0.50	0.29	ug/L			05/20/21 01:29	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/20/21 01:29	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/20/21 01:29	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/20/21 01:29	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	110	T J	ug/L		1.97			05/20/21 01:29	1
Unknown	64	T J	ug/L		2.04			05/20/21 01:29	1
Unknown	140	T J	ug/L		2.11			05/20/21 01:29	1
Unknown	140	T J	ug/L		2.26			05/20/21 01:29	1
Unknown	77	T J	ug/L		2.37			05/20/21 01:29	1
Unknown	200	T J	ug/L		2.45			05/20/21 01:29	1
Unknown	60	T J	ug/L		2.64			05/20/21 01:29	1
Unknown	86	T J	ug/L		2.76			05/20/21 01:29	1
Unknown	83	T J	ug/L		2.87			05/20/21 01:29	1
1,5-Hexadiyne	67	T J N	ug/L		2.97	628-16-0		05/20/21 01:29	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: DW-2

Lab Sample ID: 440-283490-5

Date Collected: 05/18/21 10:27

Matrix: Water

Date Received: 05/18/21 17:45

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		68 - 135		05/20/21 01:29	1
4-Bromofluorobenzene (Surr)	98		71 - 120		05/20/21 01:29	1
Dibromofluoromethane (Surr)	98		80 - 120		05/20/21 01:29	1
Toluene-d8 (Surr)	103		80 - 120		05/20/21 01:29	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/22/21 11:38	05/25/21 08:46	1
Isotope Dilution									
	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	46		15 - 150				05/22/21 11:38	05/25/21 08:46	1
Surrogate									
	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	116		46 - 128				05/22/21 11:38	05/25/21 08:46	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		0.50	0.25	mg/L			05/19/21 02:33	1
Nitrate as N	ND		0.11	0.055	mg/L			05/19/21 02:33	1
Bromide	0.35	J	0.50	0.24	mg/L			05/19/21 02:33	1
Fluoride	0.33	J	0.50	0.20	mg/L			05/19/21 02:33	1
Sulfate	1100		25	13	mg/L			05/19/21 02:51	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.55		0.050	0.025	mg/L		05/24/21 09:29	05/24/21 17:05	1
Calcium	98		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 17:05	1
Iron	1.5		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 17:05	1
Magnesium	69		0.020	0.010	mg/L		05/24/21 09:29	05/24/21 17:05	1
Manganese	0.14		0.020	0.015	mg/L		05/24/21 09:29	05/24/21 17:05	1
Potassium	3.8		0.50	0.25	mg/L		05/24/21 09:29	05/24/21 17:05	1
Sodium	390		0.50	0.26	mg/L		05/24/21 09:29	05/24/21 17:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	3.3		0.20	0.10	mg/L			05/20/21 15:20	1
Chemical Oxygen Demand	27		20	10	mg/L			05/21/21 14:13	1
Total Dissolved Solids	1900		20	10	mg/L			05/25/21 10:00	1
Total Sulfide	ND		0.050	0.027	mg/L			05/25/21 15:53	1
Total Organic Carbon	1.5		0.10	0.050	mg/L			05/19/21 14:43	1
Surrogate									
	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	340		4.0	4.0	mg/L			05/19/21 06:35	1
Bicarbonate Alkalinity as CaCO3	340		4.0	4.0	mg/L			05/19/21 06:35	1
Carbon Dioxide, Free	30		2.0	2.0	mg/L			05/26/21 16:31	1

Client Sample ID: DW-3

Lab Sample ID: 440-283490-6

Date Collected: 05/18/21 11:50

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/20/21 01:54	1

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: DW-3

Lab Sample ID: 440-283490-6

Date Collected: 05/18/21 11:50

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/20/21 01:54	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/20/21 01:54	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/20/21 01:54	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/20/21 01:54	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/20/21 01:54	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/20/21 01:54	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/20/21 01:54	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/20/21 01:54	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/20/21 01:54	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/20/21 01:54	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/20/21 01:54	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/20/21 01:54	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/20/21 01:54	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/20/21 01:54	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/20/21 01:54	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/20/21 01:54	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/20/21 01:54	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/20/21 01:54	1
2-Hexanone	ND		6.0	4.3	ug/L			05/20/21 01:54	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/20/21 01:54	1
Acetone	ND		8.0	4.0	ug/L			05/20/21 01:54	1
Acetonitrile	ND		10	3.9	ug/L			05/20/21 01:54	1
Acrolein	ND		4.0	2.2	ug/L			05/20/21 01:54	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/20/21 01:54	1
Allyl chloride	ND		2.0	0.38	ug/L			05/20/21 01:54	1
Benzene	ND		0.50	0.27	ug/L			05/20/21 01:54	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/20/21 01:54	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/20/21 01:54	1
Bromoform	ND		0.50	0.39	ug/L			05/20/21 01:54	1
Bromomethane	ND		1.0	0.93	ug/L			05/20/21 01:54	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/20/21 01:54	1
cis-1,3-Dichloropropane	ND		0.50	0.19	ug/L			05/20/21 01:54	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/20/21 01:54	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/20/21 01:54	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/20/21 01:54	1
Chloroethane	ND		0.50	0.44	ug/L			05/20/21 01:54	1
Chloroform	ND		0.50	0.28	ug/L			05/20/21 01:54	1
Chloromethane	ND		1.0	0.29	ug/L			05/20/21 01:54	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/20/21 01:54	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/20/21 01:54	1
Dibromomethane	ND		0.50	0.23	ug/L			05/20/21 01:54	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/20/21 01:54	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/20/21 01:54	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/20/21 01:54	1
Iodomethane	ND		25	5.9	ug/L			05/20/21 01:54	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/20/21 01:54	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/20/21 01:54	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/20/21 01:54	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/20/21 01:54	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: DW-3

Lab Sample ID: 440-283490-6

Date Collected: 05/18/21 11:50

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/20/21 01:54	1
Naphthalene	ND		1.0	0.32	ug/L			05/20/21 01:54	1
o-Xylene	ND		0.50	0.35	ug/L			05/20/21 01:54	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/20/21 01:54	1
Propionitrile	ND		5.0	3.7	ug/L			05/20/21 01:54	1
Styrene	ND		0.50	0.28	ug/L			05/20/21 01:54	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/20/21 01:54	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/20/21 01:54	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/20/21 01:54	1
t-Butanol	ND		5.0	4.0	ug/L			05/20/21 01:54	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/20/21 01:54	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/20/21 01:54	1
Toluene	ND		0.50	0.33	ug/L			05/20/21 01:54	1
Trichloroethene	ND		0.50	0.29	ug/L			05/20/21 01:54	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/20/21 01:54	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/20/21 01:54	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/20/21 01:54	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	220	T J	ug/L		1.87			05/20/21 01:54	1
Unknown	34	T J	ug/L		2.12			05/20/21 01:54	1
Unknown	480	T J	ug/L		2.14			05/20/21 01:54	1
Unknown	65	T J	ug/L		2.72			05/20/21 01:54	1
Unknown	17	T J	ug/L		2.79			05/20/21 01:54	1
Unknown	52	T J	ug/L		2.82			05/20/21 01:54	1
Unknown	98	T J	ug/L		2.86			05/20/21 01:54	1
Unknown	51	T J	ug/L		2.98			05/20/21 01:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		68 - 135		05/20/21 01:54	1
4-Bromofluorobenzene (Surr)	99		71 - 120		05/20/21 01:54	1
Dibromofluoromethane (Surr)	99		80 - 120		05/20/21 01:54	1
Toluene-d8 (Surr)	101		80 - 120		05/20/21 01:54	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/22/21 11:38	05/25/21 09:01	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	41		15 - 150	05/22/21 11:38	05/25/21 09:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	114		46 - 128	05/22/21 11:38	05/25/21 09:01	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15		0.50	0.25	mg/L			05/19/21 03:08	1
Nitrate as N	ND		0.11	0.055	mg/L			05/19/21 03:08	1
Bromide	ND		0.50	0.24	mg/L			05/19/21 03:08	1
Fluoride	0.31	J	0.50	0.20	mg/L			05/19/21 03:08	1
Sulfate	1200		25	13	mg/L			05/19/21 03:26	50

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: DW-3

Lab Sample ID: 440-283490-6

Date Collected: 05/18/21 11:50

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.051		0.050	0.025	mg/L		05/24/21 09:29	05/24/21 17:07	1
Calcium	290		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 17:07	1
Iron	0.53		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 17:07	1
Magnesium	100		0.020	0.010	mg/L		05/24/21 09:29	05/24/21 17:07	1
Manganese	0.061		0.020	0.015	mg/L		05/24/21 09:29	05/24/21 17:07	1
Potassium	8.3		0.50	0.25	mg/L		05/24/21 09:29	05/24/21 17:07	1
Sodium	65		0.50	0.26	mg/L		05/24/21 09:29	05/24/21 17:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	0.69		0.20	0.10	mg/L			05/20/21 15:25	1
Chemical Oxygen Demand	14	J	20	10	mg/L			05/21/21 14:13	1
Total Dissolved Solids	1900		20	10	mg/L			05/25/21 10:00	1
Total Sulfide	ND		0.050	0.027	mg/L			05/25/21 15:53	1
Total Organic Carbon	0.41		0.10	0.050	mg/L			05/19/21 14:56	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	140		4.0	4.0	mg/L			05/19/21 06:43	1
Bicarbonate Alkalinity as CaCO3	140		4.0	4.0	mg/L			05/19/21 06:43	1
Carbon Dioxide, Free	14		2.0	2.0	mg/L			05/26/21 16:31	1

Client Sample ID: LY-7

Lab Sample ID: 440-283490-7

Date Collected: 05/18/21 07:55

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.51	ug/L			05/20/21 05:19	2
1,1,1-Trichloroethane	ND		1.0	0.53	ug/L			05/20/21 05:19	2
1,1,2,2-Tetrachloroethane	ND		1.0	0.39	ug/L			05/20/21 05:19	2
1,1,2-Trichloroethane	ND		1.0	0.17	ug/L			05/20/21 05:19	2
1,1-Dichloroethane	ND		1.0	0.71	ug/L			05/20/21 05:19	2
1,1-Dichloroethene	ND		1.0	0.78	ug/L			05/20/21 05:19	2
1,1-Dichloropropene	ND		1.0	0.48	ug/L			05/20/21 05:19	2
1,2,3-Trichloropropane	ND		1.0	0.64	ug/L			05/20/21 05:19	2
1,2,4-Trichlorobenzene	ND		1.0	0.75	ug/L			05/20/21 05:19	2
1,2-Dibromo-3-Chloropropane	ND		2.0	1.3	ug/L			05/20/21 05:19	2
1,2-Dibromoethane (EDB)	ND		1.0	0.27	ug/L			05/20/21 05:19	2
1,2-Dichlorobenzene	ND		1.0	0.46	ug/L			05/20/21 05:19	2
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/20/21 05:19	2
1,2-Dichloropropane	ND		1.0	0.48	ug/L			05/20/21 05:19	2
1,3-Dichlorobenzene	ND		1.0	0.51	ug/L			05/20/21 05:19	2
1,3-Dichloropropane	ND		1.0	0.41	ug/L			05/20/21 05:19	2
1,4-Dichlorobenzene	1.6		1.0	0.45	ug/L			05/20/21 05:19	2
2,2-Dichloropropane	ND		1.0	0.79	ug/L			05/20/21 05:19	2
2-Butanone (MEK)	ND		10	6.1	ug/L			05/20/21 05:19	2
2-Hexanone	ND		12	8.6	ug/L			05/20/21 05:19	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.5	ug/L			05/20/21 05:19	2
Acetone	ND		16	8.0	ug/L			05/20/21 05:19	2
Acetonitrile	ND		20	7.9	ug/L			05/20/21 05:19	2
Acrolein	ND		8.0	4.4	ug/L			05/20/21 05:19	2

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: LY-7

Lab Sample ID: 440-283490-7

Date Collected: 05/18/21 07:55

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrylonitrile	ND		10	1.7	ug/L			05/20/21 05:19	2
Allyl chloride	ND		4.0	0.76	ug/L			05/20/21 05:19	2
Benzene	0.61	J	1.0	0.53	ug/L			05/20/21 05:19	2
Bromochloromethane	ND		2.0	0.70	ug/L			05/20/21 05:19	2
Bromodichloromethane	ND		1.0	0.45	ug/L			05/20/21 05:19	2
Bromoform	ND		1.0	0.78	ug/L			05/20/21 05:19	2
Bromomethane	ND		2.0	1.9	ug/L			05/20/21 05:19	2
cis-1,2-Dichloroethene	2.2		1.0	0.60	ug/L			05/20/21 05:19	2
cis-1,3-Dichloropropene	ND		1.0	0.38	ug/L			05/20/21 05:19	2
Carbon disulfide	ND		2.0	0.49	ug/L			05/20/21 05:19	2
Carbon tetrachloride	ND		1.0	0.54	ug/L			05/20/21 05:19	2
Chlorobenzene	ND		1.0	0.48	ug/L			05/20/21 05:19	2
Chloroethane	ND		1.0	0.88	ug/L			05/20/21 05:19	2
Chloroform	ND		1.0	0.57	ug/L			05/20/21 05:19	2
Chloromethane	ND		2.0	0.59	ug/L			05/20/21 05:19	2
2-Chloro-1,3-butadiene	ND		4.0	3.7	ug/L			05/20/21 05:19	2
Dibromochloromethane	ND		1.0	0.54	ug/L			05/20/21 05:19	2
Dibromomethane	ND		1.0	0.46	ug/L			05/20/21 05:19	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			05/20/21 05:19	2
Ethyl methacrylate	ND		4.0	2.4	ug/L			05/20/21 05:19	2
Ethylbenzene	ND		1.0	0.71	ug/L			05/20/21 05:19	2
Iodomethane	ND		50	12	ug/L			05/20/21 05:19	2
Isobutyl alcohol	ND		50	11	ug/L			05/20/21 05:19	2
Methylacrylonitrile	ND		4.0	1.4	ug/L			05/20/21 05:19	2
Methyl methacrylate	ND		4.0	2.2	ug/L			05/20/21 05:19	2
Methylene Chloride	ND		2.0	0.96	ug/L			05/20/21 05:19	2
Methyl tert-butyl ether	2.6		1.0	0.41	ug/L			05/20/21 05:19	2
Naphthalene	ND		2.0	0.64	ug/L			05/20/21 05:19	2
o-Xylene	ND		1.0	0.70	ug/L			05/20/21 05:19	2
m,p-Xylene	ND		2.0	1.6	ug/L			05/20/21 05:19	2
Propionitrile	ND		10	7.5	ug/L			05/20/21 05:19	2
Styrene	ND		1.0	0.55	ug/L			05/20/21 05:19	2
trans-1,2-Dichloroethene	ND		1.0	0.72	ug/L			05/20/21 05:19	2
trans-1,3-Dichloropropene	ND		1.0	0.35	ug/L			05/20/21 05:19	2
trans-1,4-Dichloro-2-butene	ND		4.0	2.6	ug/L			05/20/21 05:19	2
t-Butanol	460		10	8.0	ug/L			05/20/21 05:19	2
Tetrachloroethene	ND		1.0	0.58	ug/L			05/20/21 05:19	2
Tetrahydrofuran	ND		4.0	2.1	ug/L			05/20/21 05:19	2
Toluene	ND		1.0	0.66	ug/L			05/20/21 05:19	2
Trichloroethene	ND		1.0	0.58	ug/L			05/20/21 05:19	2
Trichlorofluoromethane	ND		1.0	0.59	ug/L			05/20/21 05:19	2
Vinyl acetate	ND		10	6.3	ug/L			05/20/21 05:19	2
Vinyl chloride	ND		1.0	0.80	ug/L			05/20/21 05:19	2

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	470	T J	ug/L		1.72			05/20/21 05:19	2
Unknown	920	T J	ug/L		1.79			05/20/21 05:19	2
Sulfur dioxide	1200	T J N	ug/L		1.96	7446-09-5		05/20/21 05:19	2
1-Propene, 2-methyl-	720	T J N	ug/L		2.13	115-11-7		05/20/21 05:19	2
Unknown	370	T J	ug/L		2.29			05/20/21 05:19	2

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: LY-7

Lab Sample ID: 440-283490-7

Date Collected: 05/18/21 07:55

Matrix: Water

Date Received: 05/18/21 17:45

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	220	T J	ug/L		2.38			05/20/21 05:19	2
Unknown	460	T J	ug/L		2.52			05/20/21 05:19	2
Unknown	400	T J	ug/L		2.76			05/20/21 05:19	2
Ethanol	510		ug/L		3.42	64-17-5		05/20/21 05:19	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		68 - 135		05/20/21 05:19	2
4-Bromofluorobenzene (Surr)	102		71 - 120		05/20/21 05:19	2
Dibromofluoromethane (Surr)	104		80 - 120		05/20/21 05:19	2
Toluene-d8 (Surr)	97		80 - 120		05/20/21 05:19	2

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	25		0.50	0.34	ug/L		05/22/21 11:38	05/25/21 09:15	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	38		15 - 150				05/22/21 11:38	05/25/21 09:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	105		46 - 128				05/22/21 11:38	05/25/21 09:15	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	510		100	50	mg/L			05/19/21 04:01	200
Nitrate as N	ND		0.55	0.28	mg/L			05/19/21 03:43	5
Bromide	3.6		2.5	1.2	mg/L			05/19/21 03:43	5
Fluoride	ND		2.5	1.0	mg/L			05/19/21 03:43	5
Sulfate	350		100	50	mg/L			05/19/21 04:01	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	6.6		0.050	0.025	mg/L		05/24/21 09:29	05/24/21 17:14	1
Calcium	180		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 17:14	1
Iron	0.78		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 17:14	1
Magnesium	160		0.020	0.010	mg/L		05/24/21 09:29	05/24/21 17:14	1
Manganese	2.0		0.020	0.015	mg/L		05/24/21 09:29	05/24/21 17:14	1
Potassium	37		0.50	0.25	mg/L		05/24/21 09:29	05/24/21 17:14	1
Sodium	870		0.50	0.26	mg/L		05/24/21 09:29	05/24/21 17:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	24		2.0	1.0	mg/L			05/20/21 15:14	10
Chemical Oxygen Demand	170		20	10	mg/L			05/21/21 14:13	1
Total Dissolved Solids	3700		100	50	mg/L			05/25/21 10:00	1
Total Sulfide	ND		0.050	0.027	mg/L			05/25/21 15:53	1
Total Organic Carbon	71		1.0	0.50	mg/L			05/20/21 10:19	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	2200	B	4.0	4.0	mg/L			05/24/21 04:00	1
Bicarbonate Alkalinity as CaCO3	2200	B	4.0	4.0	mg/L			05/24/21 04:00	1
Carbon Dioxide, Free	250		2.0	2.0	mg/L			05/26/21 16:31	1

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: Combined Subdrains

Lab Sample ID: 440-283490-8

Date Collected: 05/18/21 09:08

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/20/21 02:20	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/20/21 02:20	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/20/21 02:20	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/20/21 02:20	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/20/21 02:20	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/20/21 02:20	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/20/21 02:20	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/20/21 02:20	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/20/21 02:20	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/20/21 02:20	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/20/21 02:20	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/20/21 02:20	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/20/21 02:20	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/20/21 02:20	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/20/21 02:20	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/20/21 02:20	1
1,4-Dichlorobenzene	15		0.50	0.22	ug/L			05/20/21 02:20	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/20/21 02:20	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/20/21 02:20	1
2-Hexanone	ND		6.0	4.3	ug/L			05/20/21 02:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/20/21 02:20	1
Acetone	ND		8.0	4.0	ug/L			05/20/21 02:20	1
Acetonitrile	ND		10	3.9	ug/L			05/20/21 02:20	1
Acrolein	ND		4.0	2.2	ug/L			05/20/21 02:20	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/20/21 02:20	1
Allyl chloride	ND		2.0	0.38	ug/L			05/20/21 02:20	1
Benzene	ND		0.50	0.27	ug/L			05/20/21 02:20	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/20/21 02:20	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/20/21 02:20	1
Bromoform	ND		0.50	0.39	ug/L			05/20/21 02:20	1
Bromomethane	ND		1.0	0.93	ug/L			05/20/21 02:20	1
cis-1,2-Dichloroethene	1.3		0.50	0.30	ug/L			05/20/21 02:20	1
cis-1,3-Dichloropropane	ND		0.50	0.19	ug/L			05/20/21 02:20	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/20/21 02:20	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/20/21 02:20	1
Chlorobenzene	0.33 J		0.50	0.24	ug/L			05/20/21 02:20	1
Chloroethane	ND		0.50	0.44	ug/L			05/20/21 02:20	1
Chloroform	ND		0.50	0.28	ug/L			05/20/21 02:20	1
Chloromethane	ND		1.0	0.29	ug/L			05/20/21 02:20	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/20/21 02:20	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/20/21 02:20	1
Dibromomethane	ND		0.50	0.23	ug/L			05/20/21 02:20	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/20/21 02:20	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/20/21 02:20	1
Ethylbenzene	8.9		0.50	0.36	ug/L			05/20/21 02:20	1
Iodomethane	ND		25	5.9	ug/L			05/20/21 02:20	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/20/21 02:20	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/20/21 02:20	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/20/21 02:20	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: Combined Subdrains

Lab Sample ID: 440-283490-8

Date Collected: 05/18/21 09:08

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0	0.48	ug/L			05/20/21 02:20	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/20/21 02:20	1
Naphthalene	11		1.0	0.32	ug/L			05/20/21 02:20	1
o-Xylene	6.5		0.50	0.35	ug/L			05/20/21 02:20	1
m,p-Xylene	11		1.0	0.78	ug/L			05/20/21 02:20	1
Propionitrile	ND		5.0	3.7	ug/L			05/20/21 02:20	1
Styrene	1.0		0.50	0.28	ug/L			05/20/21 02:20	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/20/21 02:20	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/20/21 02:20	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/20/21 02:20	1
t-Butanol	20		5.0	4.0	ug/L			05/20/21 02:20	1
Tetrachloroethene	0.42 J		0.50	0.29	ug/L			05/20/21 02:20	1
Tetrahydrofuran	4.2		2.0	1.1	ug/L			05/20/21 02:20	1
Toluene	2.4		0.50	0.33	ug/L			05/20/21 02:20	1
Trichloroethene	ND		0.50	0.29	ug/L			05/20/21 02:20	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/20/21 02:20	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/20/21 02:20	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/20/21 02:20	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	9.7	T J	ug/L		1.74			05/20/21 02:20	1
Unknown	6.5	T J	ug/L		1.82			05/20/21 02:20	1
Methanethiol	130	T J N	ug/L		2.44	74-93-1		05/20/21 02:20	1
Unknown	45	T J	ug/L		4.20			05/20/21 02:20	1
Benzene, 1-chloro-4-(trifluoromethyl)-	17	T J N	ug/L		11.61	98-56-6		05/20/21 02:20	1
1,2,4-Trimethylbenzene	11		ug/L		13.99	95-63-6		05/20/21 02:20	1
4-Isopropyltoluene	71		ug/L		14.39	99-87-6		05/20/21 02:20	1
Benzene, 1,3,5-trimethyl-	9.4	T J N	ug/L		14.52	108-67-8		05/20/21 02:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		68 - 135		05/20/21 02:20	1
4-Bromofluorobenzene (Surr)	107		71 - 120		05/20/21 02:20	1
Dibromofluoromethane (Surr)	103		80 - 120		05/20/21 02:20	1
Toluene-d8 (Surr)	101		80 - 120		05/20/21 02:20	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	18		0.50	0.34	ug/L		05/22/21 11:38	05/25/21 09:30	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	34		15 - 150				05/22/21 11:38	05/25/21 09:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	69		46 - 128				05/22/21 11:38	05/25/21 09:30	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	140		50	25	mg/L			05/19/21 04:36	100
Nitrate as N	ND		0.22	0.11	mg/L			05/19/21 04:18	2
Bromide	1.6		1.0	0.48	mg/L			05/19/21 04:18	2
Fluoride	2.2		1.0	0.40	mg/L			05/19/21 04:18	2

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: Combined Subdrains

Lab Sample ID: 440-283490-8

Date Collected: 05/18/21 09:08

Matrix: Water

Date Received: 05/18/21 17:45

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	900		50	25	mg/L			05/19/21 04:36	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.84		0.050	0.025	mg/L		05/24/21 09:29	05/24/21 17:17	1
Calcium	320		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 17:17	1
Iron	9.6		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 17:17	1
Magnesium	230		0.020	0.010	mg/L		05/24/21 09:29	05/24/21 17:17	1
Manganese	3.7		0.020	0.015	mg/L		05/24/21 09:29	05/24/21 17:17	1
Potassium	19		0.50	0.25	mg/L		05/24/21 09:29	05/24/21 17:17	1
Sodium	210		0.50	0.26	mg/L		05/24/21 09:29	05/24/21 17:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	71		10	5.0	mg/L			05/20/21 15:02	50
Chemical Oxygen Demand	360		20	10	mg/L			05/21/21 14:13	1
Total Dissolved Solids	2900		50	25	mg/L			05/25/21 10:00	1
Total Sulfide	130		10	5.4	mg/L			05/25/21 15:53	200
Total Organic Carbon	91		5.0	2.5	mg/L			05/21/21 12:52	50
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	1300	B	4.0	4.0	mg/L			05/24/21 04:00	1
Bicarbonate Alkalinity as CaCO3	1300	B	4.0	4.0	mg/L			05/24/21 04:00	1
Carbon Dioxide, Free	370		2.0	2.0	mg/L			05/26/21 16:31	1

Client Sample ID: Duplicate

Lab Sample ID: 440-283490-9

Date Collected: 05/18/21 00:01

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/20/21 02:45	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/20/21 02:45	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/20/21 02:45	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/20/21 02:45	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/20/21 02:45	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/20/21 02:45	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/20/21 02:45	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/20/21 02:45	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/20/21 02:45	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/20/21 02:45	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/20/21 02:45	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/20/21 02:45	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/20/21 02:45	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/20/21 02:45	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/20/21 02:45	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/20/21 02:45	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/20/21 02:45	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/20/21 02:45	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/20/21 02:45	1
2-Hexanone	ND		6.0	4.3	ug/L			05/20/21 02:45	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: Duplicate

Lab Sample ID: 440-283490-9

Date Collected: 05/18/21 00:01

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/20/21 02:45	1
Acetone	ND		8.0	4.0	ug/L			05/20/21 02:45	1
Acetonitrile	ND		10	3.9	ug/L			05/20/21 02:45	1
Acrolein	ND		4.0	2.2	ug/L			05/20/21 02:45	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/20/21 02:45	1
Allyl chloride	ND		2.0	0.38	ug/L			05/20/21 02:45	1
Benzene	ND		0.50	0.27	ug/L			05/20/21 02:45	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/20/21 02:45	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/20/21 02:45	1
Bromoform	ND		0.50	0.39	ug/L			05/20/21 02:45	1
Bromomethane	ND		1.0	0.93	ug/L			05/20/21 02:45	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/20/21 02:45	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/20/21 02:45	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/20/21 02:45	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/20/21 02:45	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/20/21 02:45	1
Chloroethane	ND		0.50	0.44	ug/L			05/20/21 02:45	1
Chloroform	ND		0.50	0.28	ug/L			05/20/21 02:45	1
Chloromethane	ND		1.0	0.29	ug/L			05/20/21 02:45	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/20/21 02:45	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/20/21 02:45	1
Dibromomethane	ND		0.50	0.23	ug/L			05/20/21 02:45	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/20/21 02:45	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/20/21 02:45	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/20/21 02:45	1
Iodomethane	ND		25	5.9	ug/L			05/20/21 02:45	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/20/21 02:45	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/20/21 02:45	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/20/21 02:45	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/20/21 02:45	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/20/21 02:45	1
Naphthalene	ND		1.0	0.32	ug/L			05/20/21 02:45	1
o-Xylene	ND		0.50	0.35	ug/L			05/20/21 02:45	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/20/21 02:45	1
Propionitrile	ND		5.0	3.7	ug/L			05/20/21 02:45	1
Styrene	ND		0.50	0.28	ug/L			05/20/21 02:45	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/20/21 02:45	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/20/21 02:45	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/20/21 02:45	1
t-Butanol	ND		5.0	4.0	ug/L			05/20/21 02:45	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/20/21 02:45	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/20/21 02:45	1
Toluene	ND		0.50	0.33	ug/L			05/20/21 02:45	1
Trichloroethene	ND		0.50	0.29	ug/L			05/20/21 02:45	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/20/21 02:45	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/20/21 02:45	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/20/21 02:45	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Sulfur dioxide	5200	T J N	ug/L		1.95	7446-09-5		05/20/21 02:45	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: Duplicate

Lab Sample ID: 440-283490-9

Date Collected: 05/18/21 00:01

Matrix: Water

Date Received: 05/18/21 17:45

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	5.2	T J	ug/L		3.11			05/20/21 02:45	1
Unknown	6.1	T J	ug/L		4.05			05/20/21 02:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		68 - 135					05/20/21 02:45	1
4-Bromofluorobenzene (Surr)	97		71 - 120					05/20/21 02:45	1
Dibromofluoromethane (Surr)	101		80 - 120					05/20/21 02:45	1
Toluene-d8 (Surr)	98		80 - 120					05/20/21 02:45	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/22/21 11:38	05/25/21 09:45	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	50		15 - 150				05/22/21 11:38	05/25/21 09:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	106		46 - 128				05/22/21 11:38	05/25/21 09:45	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		1.0	0.50	mg/L			05/19/21 04:54	2
Nitrate as N	ND		0.22	0.11	mg/L			05/19/21 04:54	2
Bromide	0.48	J	1.0	0.48	mg/L			05/19/21 04:54	2
Fluoride	ND		1.0	0.40	mg/L			05/19/21 04:54	2
Sulfate	1800		50	25	mg/L			05/19/21 05:11	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.59		0.050	0.025	mg/L		05/24/21 09:29	05/24/21 17:19	1
Calcium	170		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 17:19	1
Iron	1.5		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 17:19	1
Magnesium	120		0.020	0.010	mg/L		05/24/21 09:29	05/24/21 17:19	1
Manganese	0.11		0.020	0.015	mg/L		05/24/21 09:29	05/24/21 17:19	1
Potassium	4.0		0.50	0.25	mg/L		05/24/21 09:29	05/24/21 17:19	1
Sodium	470		0.50	0.26	mg/L		05/24/21 09:29	05/24/21 17:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	4.4		0.20	0.10	mg/L			05/20/21 15:30	1
Chemical Oxygen Demand	ND		20	10	mg/L			05/21/21 14:13	1
Total Dissolved Solids	2800		20	10	mg/L			05/25/21 10:00	1
Total Sulfide	ND		0.050	0.027	mg/L			05/25/21 15:54	1
Total Organic Carbon	1.7		0.10	0.050	mg/L			05/20/21 05:29	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	340		4.0	4.0	mg/L			05/19/21 07:46	1
Bicarbonate Alkalinity as CaCO3	340		4.0	4.0	mg/L			05/19/21 07:46	1
Carbon Dioxide, Free	32		2.0	2.0	mg/L			05/26/21 16:31	1

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: Field Blank

Lab Sample ID: 440-283490-10

Date Collected: 05/18/21 00:01

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/19/21 22:55	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/19/21 22:55	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/19/21 22:55	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/19/21 22:55	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/19/21 22:55	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/19/21 22:55	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/19/21 22:55	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/19/21 22:55	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/19/21 22:55	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/19/21 22:55	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/19/21 22:55	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/19/21 22:55	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/19/21 22:55	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/19/21 22:55	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/19/21 22:55	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/19/21 22:55	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/19/21 22:55	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/19/21 22:55	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/19/21 22:55	1
2-Hexanone	ND		6.0	4.3	ug/L			05/19/21 22:55	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/19/21 22:55	1
Acetone	4.9	J	8.0	4.0	ug/L			05/19/21 22:55	1
Acetonitrile	ND		10	3.9	ug/L			05/19/21 22:55	1
Acrolein	ND		4.0	2.2	ug/L			05/19/21 22:55	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/19/21 22:55	1
Allyl chloride	ND		2.0	0.38	ug/L			05/19/21 22:55	1
Benzene	ND		0.50	0.27	ug/L			05/19/21 22:55	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/19/21 22:55	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/19/21 22:55	1
Bromoform	ND		0.50	0.39	ug/L			05/19/21 22:55	1
Bromomethane	ND		1.0	0.93	ug/L			05/19/21 22:55	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/19/21 22:55	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/19/21 22:55	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/19/21 22:55	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/19/21 22:55	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/19/21 22:55	1
Chloroethane	ND		0.50	0.44	ug/L			05/19/21 22:55	1
Chloroform	ND		0.50	0.28	ug/L			05/19/21 22:55	1
Chloromethane	ND		1.0	0.29	ug/L			05/19/21 22:55	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/19/21 22:55	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/19/21 22:55	1
Dibromomethane	ND		0.50	0.23	ug/L			05/19/21 22:55	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/19/21 22:55	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/19/21 22:55	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/19/21 22:55	1
Iodomethane	ND		25	5.9	ug/L			05/19/21 22:55	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/19/21 22:55	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/19/21 22:55	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/19/21 22:55	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: Field Blank

Lab Sample ID: 440-283490-10

Date Collected: 05/18/21 00:01

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0	0.48	ug/L			05/19/21 22:55	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/19/21 22:55	1
Naphthalene	ND		1.0	0.32	ug/L			05/19/21 22:55	1
o-Xylene	ND		0.50	0.35	ug/L			05/19/21 22:55	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/19/21 22:55	1
Propionitrile	ND		5.0	3.7	ug/L			05/19/21 22:55	1
Styrene	ND		0.50	0.28	ug/L			05/19/21 22:55	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/19/21 22:55	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/19/21 22:55	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/19/21 22:55	1
t-Butanol	ND		5.0	4.0	ug/L			05/19/21 22:55	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/19/21 22:55	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/19/21 22:55	1
Toluene	ND		0.50	0.33	ug/L			05/19/21 22:55	1
Trichloroethene	ND		0.50	0.29	ug/L			05/19/21 22:55	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/19/21 22:55	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/19/21 22:55	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/19/21 22:55	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	56	T J	ug/L		1.83			05/19/21 22:55	1
Unknown	63	T J	ug/L		1.89			05/19/21 22:55	1
Unknown	47	T J	ug/L		1.98			05/19/21 22:55	1
Unknown	85	T J	ug/L		2.08			05/19/21 22:55	1
Unknown	87	T J	ug/L		2.20			05/19/21 22:55	1
Unknown	88	T J	ug/L		2.34			05/19/21 22:55	1
Unknown	160	T J	ug/L		2.46			05/19/21 22:55	1
Unknown	68	T J	ug/L		2.62			05/19/21 22:55	1
Unknown	51	T J	ug/L		2.76			05/19/21 22:55	1
Unknown	78	T J	ug/L		2.90			05/19/21 22:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		68 - 135		05/19/21 22:55	1
4-Bromofluorobenzene (Surr)	100		71 - 120		05/19/21 22:55	1
Dibromofluoromethane (Surr)	101		80 - 120		05/19/21 22:55	1
Toluene-d8 (Surr)	99		80 - 120		05/19/21 22:55	1

Client Sample ID: Trip Blank

Lab Sample ID: 440-283490-11

Date Collected: 05/18/21 00:01

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/19/21 23:21	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/19/21 23:21	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/19/21 23:21	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/19/21 23:21	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/19/21 23:21	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/19/21 23:21	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/19/21 23:21	1

Eurofins Calscience Irvine

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-283490-11

Date Collected: 05/18/21 00:01

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/19/21 23:21	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/19/21 23:21	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/19/21 23:21	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/19/21 23:21	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/19/21 23:21	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/19/21 23:21	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/19/21 23:21	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/19/21 23:21	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/19/21 23:21	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/19/21 23:21	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/19/21 23:21	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/19/21 23:21	1
2-Hexanone	ND		6.0	4.3	ug/L			05/19/21 23:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/19/21 23:21	1
Acetone	ND		8.0	4.0	ug/L			05/19/21 23:21	1
Acetonitrile	ND		10	3.9	ug/L			05/19/21 23:21	1
Acrolein	ND		4.0	2.2	ug/L			05/19/21 23:21	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/19/21 23:21	1
Allyl chloride	ND		2.0	0.38	ug/L			05/19/21 23:21	1
Benzene	ND		0.50	0.27	ug/L			05/19/21 23:21	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/19/21 23:21	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/19/21 23:21	1
Bromoform	ND		0.50	0.39	ug/L			05/19/21 23:21	1
Bromomethane	ND		1.0	0.93	ug/L			05/19/21 23:21	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/19/21 23:21	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/19/21 23:21	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/19/21 23:21	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/19/21 23:21	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/19/21 23:21	1
Chloroethane	ND		0.50	0.44	ug/L			05/19/21 23:21	1
Chloroform	ND		0.50	0.28	ug/L			05/19/21 23:21	1
Chloromethane	ND		1.0	0.29	ug/L			05/19/21 23:21	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/19/21 23:21	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/19/21 23:21	1
Dibromomethane	ND		0.50	0.23	ug/L			05/19/21 23:21	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/19/21 23:21	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/19/21 23:21	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/19/21 23:21	1
Iodomethane	ND		25	5.9	ug/L			05/19/21 23:21	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/19/21 23:21	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/19/21 23:21	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/19/21 23:21	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/19/21 23:21	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/19/21 23:21	1
Naphthalene	ND		1.0	0.32	ug/L			05/19/21 23:21	1
o-Xylene	ND		0.50	0.35	ug/L			05/19/21 23:21	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/19/21 23:21	1
Propionitrile	ND		5.0	3.7	ug/L			05/19/21 23:21	1
Styrene	ND		0.50	0.28	ug/L			05/19/21 23:21	1

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-283490-11

Date Collected: 05/18/21 00:01

Matrix: Water

Date Received: 05/18/21 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/19/21 23:21	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/19/21 23:21	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/19/21 23:21	1
t-Butanol	ND		5.0	4.0	ug/L			05/19/21 23:21	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/19/21 23:21	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/19/21 23:21	1
Toluene	ND		0.50	0.33	ug/L			05/19/21 23:21	1
Trichloroethene	ND		0.50	0.29	ug/L			05/19/21 23:21	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/19/21 23:21	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/19/21 23:21	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/19/21 23:21	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	130	T J	ug/L		1.98			05/19/21 23:21	1
Unknown	110	T J	ug/L		2.13			05/19/21 23:21	1
Unknown	63	T J	ug/L		2.21			05/19/21 23:21	1
Unknown	70	T J	ug/L		2.26			05/19/21 23:21	1
Unknown	150	T J	ug/L		2.35			05/19/21 23:21	1
3-Ethylenimino-acrylonitrile	180	T J N	ug/L		2.51	1000143-26-2		05/19/21 23:21	1
Unknown	200	T J	ug/L		2.58			05/19/21 23:21	1
Unknown	62	T J	ug/L		2.84			05/19/21 23:21	1
Unknown	65	T J	ug/L		2.90			05/19/21 23:21	1
Unknown	54	T J	ug/L		2.97			05/19/21 23:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		68 - 135		05/19/21 23:21	1
4-Bromofluorobenzene (Surr)	98		71 - 120		05/19/21 23:21	1
Dibromofluoromethane (Surr)	104		80 - 120		05/19/21 23:21	1
Toluene-d8 (Surr)	95		80 - 120		05/19/21 23:21	1

Method Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
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
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL IRV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

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:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494
TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: MW-2A

Lab Sample ID: 440-283490-1

Date Collected: 05/18/21 07:40

Matrix: Water

Date Received: 05/18/21 17:45

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	20 mL	20 mL	151712	05/19/21 23:46	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152412	05/22/21 11:38	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152543	05/24/21 16:44	AJ2Q	ECL 1
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	646966	05/18/21 22:45	NIH3	TAL IRV
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	646967	05/18/21 22:45	NIH3	TAL IRV
Total/NA	Analysis	300.0		100	5 mL	1.0 mL	646967	05/18/21 23:03	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647529	05/24/21 09:29	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			647571	05/24/21 14:50	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	647326	05/20/21 14:29	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647434	05/21/21 14:12	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			647118	05/19/21 05:45	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	647657	05/25/21 10:00	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647572	05/24/21 14:00	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647332	05/20/21 17:22	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	647235	05/19/21 12:35	YO8L	TAL IRV

Client Sample ID: MW-2B

Lab Sample ID: 440-283490-2

Date Collected: 05/18/21 08:26

Matrix: Water

Date Received: 05/18/21 17:45

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	20 mL	20 mL	151712	05/20/21 00:12	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152412	05/22/21 11:38	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152716	05/25/21 08:02	AJ2Q	ECL 1
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	646966	05/18/21 23:20	NIH3	TAL IRV
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	646967	05/18/21 23:20	NIH3	TAL IRV
Total/NA	Analysis	300.0		100	5 mL	1.0 mL	646967	05/18/21 23:38	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647529	05/24/21 09:29	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			647605	05/24/21 16:57	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	647326	05/20/21 14:35	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647434	05/21/21 14:12	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			647118	05/19/21 05:54	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	647657	05/25/21 10:00	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647572	05/24/21 14:00	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647332	05/20/21 17:22	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	647235	05/19/21 12:50	YO8L	TAL IRV

Lab Chronicle

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: DW-4

Lab Sample ID: 440-283490-3

Date Collected: 05/18/21 09:25

Matrix: Water

Date Received: 05/18/21 17:45

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	20 mL	20 mL	151712	05/20/21 00:38	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152412	05/22/21 11:38	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152716	05/25/21 08:16	AJ2Q	ECL 1
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	646966	05/18/21 23:55	NIH3	TAL IRV
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	646967	05/18/21 23:55	NIH3	TAL IRV
Total/NA	Analysis	300.0		100	5 mL	1.0 mL	646967	05/19/21 00:13	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647529	05/24/21 09:29	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			647605	05/24/21 17:00	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	647326	05/20/21 14:40	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647434	05/21/21 14:12	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			647118	05/19/21 06:04	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	647657	05/25/21 10:00	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647846	05/26/21 16:31	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647332	05/20/21 17:23	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	647235	05/19/21 14:18	YO8L	TAL IRV

Client Sample ID: PZ-4

Lab Sample ID: 440-283490-4

Date Collected: 05/18/21 11:58

Matrix: Water

Date Received: 05/18/21 17:45

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	20 mL	20 mL	151712	05/20/21 01:03	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152412	05/22/21 11:38	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152716	05/25/21 08:31	AJ2Q	ECL 1
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	646966	05/19/21 00:31	NIH3	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	646967	05/19/21 00:31	NIH3	TAL IRV
Total/NA	Analysis	300.0	DL	50	5 mL	1.0 mL	646967	05/19/21 01:23	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647529	05/24/21 09:29	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			647605	05/24/21 17:02	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	647326	05/20/21 14:45	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647434	05/21/21 14:13	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			647118	05/19/21 06:17	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	647657	05/25/21 10:00	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647846	05/26/21 16:31	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647714	05/25/21 15:53	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	647235	05/19/21 14:31	YO8L	TAL IRV

Lab Chronicle

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: DW-2

Date Collected: 05/18/21 10:27

Date Received: 05/18/21 17:45

Lab Sample ID: 440-283490-5

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	20 mL	20 mL	151712	05/20/21 01:29	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152412	05/22/21 11:38	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152716	05/25/21 08:46	AJ2Q	ECL 1
Total/NA	Analysis	300.0		1			646966	05/19/21 02:33	NIH3	TAL IRV
Total/NA	Analysis	300.0		1			646967	05/19/21 02:33	NIH3	TAL IRV
Total/NA	Analysis	300.0		50			646967	05/19/21 02:51	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647529	05/24/21 09:29	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			647605	05/24/21 17:05	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	647326	05/20/21 15:20	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647434	05/21/21 14:13	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			647118	05/19/21 06:35	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	647657	05/25/21 10:00	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647846	05/26/21 16:31	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647714	05/25/21 15:53	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	647235	05/19/21 14:43	YO8L	TAL IRV

Client Sample ID: DW-3

Date Collected: 05/18/21 11:50

Date Received: 05/18/21 17:45

Lab Sample ID: 440-283490-6

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	20 mL	20 mL	151712	05/20/21 01:54	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152412	05/22/21 11:38	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152716	05/25/21 09:01	AJ2Q	ECL 1
Total/NA	Analysis	300.0		1			646966	05/19/21 03:08	NIH3	TAL IRV
Total/NA	Analysis	300.0		1			646967	05/19/21 03:08	NIH3	TAL IRV
Total/NA	Analysis	300.0		50			646967	05/19/21 03:26	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647529	05/24/21 09:29	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			647605	05/24/21 17:07	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	647326	05/20/21 15:25	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647434	05/21/21 14:13	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			647118	05/19/21 06:43	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	647657	05/25/21 10:00	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647846	05/26/21 16:31	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647714	05/25/21 15:53	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	647235	05/19/21 14:56	YO8L	TAL IRV

Lab Chronicle

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: LY-7

Lab Sample ID: 440-283490-7

Date Collected: 05/18/21 07:55

Matrix: Water

Date Received: 05/18/21 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	20 mL	20 mL	151712	05/20/21 05:19	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152412	05/22/21 11:38	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152716	05/25/21 09:15	AJ2Q	ECL 1
Total/NA	Analysis	300.0		5			646966	05/19/21 03:43	NIH3	TAL IRV
Total/NA	Analysis	300.0		5			646967	05/19/21 03:43	NIH3	TAL IRV
Total/NA	Analysis	300.0		200			646967	05/19/21 04:01	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647529	05/24/21 09:29	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			647605	05/24/21 17:14	P1R	TAL IRV
Total/NA	Analysis	350.1		10	0.8 mL	8 mL	647326	05/20/21 15:14	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647434	05/21/21 14:13	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1	25 mL	25 mL	647496	05/24/21 04:00	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	647657	05/25/21 10:00	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647846	05/26/21 16:31	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647714	05/25/21 15:53	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		10	100 mL	100 mL	647361	05/20/21 10:19	YO8L	TAL IRV

Client Sample ID: Combined Subdrains

Lab Sample ID: 440-283490-8

Date Collected: 05/18/21 09:08

Matrix: Water

Date Received: 05/18/21 17:45

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	20 mL	20 mL	151712	05/20/21 02:20	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152412	05/22/21 11:38	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152716	05/25/21 09:30	AJ2Q	ECL 1
Total/NA	Analysis	300.0		2			646966	05/19/21 04:18	NIH3	TAL IRV
Total/NA	Analysis	300.0		2			646967	05/19/21 04:18	NIH3	TAL IRV
Total/NA	Analysis	300.0		100			646967	05/19/21 04:36	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647529	05/24/21 09:29	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			647605	05/24/21 17:17	P1R	TAL IRV
Total/NA	Analysis	350.1		50	0.8 mL	8 mL	647326	05/20/21 15:02	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647434	05/21/21 14:13	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1	25 mL	25 mL	647496	05/24/21 04:00	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	647657	05/25/21 10:00	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647846	05/26/21 16:31	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		200	7.5 mL	7.5 mL	647714	05/25/21 15:53	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		50	100 mL	100 mL	647476	05/21/21 12:52	YO8L	TAL IRV

Lab Chronicle

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Client Sample ID: Duplicate

Lab Sample ID: 440-283490-9

Date Collected: 05/18/21 00:01

Matrix: Water

Date Received: 05/18/21 17:45

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	20 mL	20 mL	151712	05/20/21 02:45	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152412	05/22/21 11:38	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152716	05/25/21 09:45	AJ2Q	ECL 1
Total/NA	Analysis	300.0		2			646966	05/19/21 04:54	NIH3	TAL IRV
Total/NA	Analysis	300.0		2			646967	05/19/21 04:54	NIH3	TAL IRV
Total/NA	Analysis	300.0		100			646967	05/19/21 05:11	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647529	05/24/21 09:29	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			647605	05/24/21 17:19	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8 mL	647326	05/20/21 15:30	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647434	05/21/21 14:13	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			647118	05/19/21 07:46	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	647657	05/25/21 10:00	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647846	05/26/21 16:31	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647714	05/25/21 15:54	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	647361	05/20/21 05:29	YO8L	TAL IRV

Client Sample ID: Field Blank

Lab Sample ID: 440-283490-10

Date Collected: 05/18/21 00:01

Matrix: Water

Date Received: 05/18/21 17:45

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	20 mL	20 mL	151712	05/19/21 22:55	A1W	ECL 2

Client Sample ID: Trip Blank

Lab Sample ID: 440-283490-11

Date Collected: 05/18/21 00:01

Matrix: Water

Date Received: 05/18/21 17:45

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	20 mL	20 mL	151712	05/19/21 23:21	A1W	ECL 2

Laboratory References:

- ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
- ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494
- TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

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

Lab Sample ID: MB 570-151712/8
Matrix: Water
Analysis Batch: 151712

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/19/21 22:30	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/19/21 22:30	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/19/21 22:30	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/19/21 22:30	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/19/21 22:30	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/19/21 22:30	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/19/21 22:30	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/19/21 22:30	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/19/21 22:30	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/19/21 22:30	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/19/21 22:30	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/19/21 22:30	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/19/21 22:30	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/19/21 22:30	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/19/21 22:30	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/19/21 22:30	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/19/21 22:30	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/19/21 22:30	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/19/21 22:30	1
2-Hexanone	ND		6.0	4.3	ug/L			05/19/21 22:30	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/19/21 22:30	1
Acetone	ND		8.0	4.0	ug/L			05/19/21 22:30	1
Acetonitrile	ND		10	3.9	ug/L			05/19/21 22:30	1
Acrolein	ND		4.0	2.2	ug/L			05/19/21 22:30	1
Acrylonitrile	ND		5.0	0.87	ug/L			05/19/21 22:30	1
Allyl chloride	ND		2.0	0.38	ug/L			05/19/21 22:30	1
Benzene	ND		0.50	0.27	ug/L			05/19/21 22:30	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/19/21 22:30	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/19/21 22:30	1
Bromoform	ND		0.50	0.39	ug/L			05/19/21 22:30	1
Bromomethane	ND		1.0	0.93	ug/L			05/19/21 22:30	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/19/21 22:30	1
cis-1,3-Dichloropropane	ND		0.50	0.19	ug/L			05/19/21 22:30	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/19/21 22:30	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/19/21 22:30	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/19/21 22:30	1
Chloroethane	ND		0.50	0.44	ug/L			05/19/21 22:30	1
Chloroform	ND		0.50	0.28	ug/L			05/19/21 22:30	1
Chloromethane	ND		1.0	0.29	ug/L			05/19/21 22:30	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/19/21 22:30	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/19/21 22:30	1
Dibromomethane	ND		0.50	0.23	ug/L			05/19/21 22:30	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/19/21 22:30	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/19/21 22:30	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/19/21 22:30	1
Iodomethane	ND		25	5.9	ug/L			05/19/21 22:30	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/19/21 22:30	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/19/21 22:30	1

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

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

Lab Sample ID: MB 570-151712/8
Matrix: Water
Analysis Batch: 151712

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl methacrylate	ND		2.0	1.1	ug/L			05/19/21 22:30	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/19/21 22:30	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/19/21 22:30	1
Naphthalene	ND		1.0	0.32	ug/L			05/19/21 22:30	1
o-Xylene	ND		0.50	0.35	ug/L			05/19/21 22:30	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/19/21 22:30	1
Propionitrile	ND		5.0	3.7	ug/L			05/19/21 22:30	1
Styrene	ND		0.50	0.28	ug/L			05/19/21 22:30	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/19/21 22:30	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/19/21 22:30	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/19/21 22:30	1
t-Butanol	ND		5.0	4.0	ug/L			05/19/21 22:30	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/19/21 22:30	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/19/21 22:30	1
Toluene	ND		0.50	0.33	ug/L			05/19/21 22:30	1
Trichloroethene	ND		0.50	0.29	ug/L			05/19/21 22:30	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/19/21 22:30	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/19/21 22:30	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/19/21 22:30	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					05/19/21 22:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		68 - 135		05/19/21 22:30	1
4-Bromofluorobenzene (Surr)	102		71 - 120		05/19/21 22:30	1
Dibromofluoromethane (Surr)	105		80 - 120		05/19/21 22:30	1
Toluene-d8 (Surr)	98		80 - 120		05/19/21 22:30	1

Lab Sample ID: LCS 570-151712/4
Matrix: Water
Analysis Batch: 151712

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	10.2		ug/L		102	76 - 143
1,1,1-Trichloroethane	10.0	10.0		ug/L		100	75 - 128
1,1,2,2-Tetrachloroethane	10.0	9.71		ug/L		97	73 - 126
1,1,2-Trichloroethane	10.0	9.76		ug/L		98	80 - 120
1,1-Dichloroethane	10.0	10.2		ug/L		102	76 - 120
1,1-Dichloroethene	10.0	9.88		ug/L		99	72 - 120
1,1-Dichloropropene	10.0	10.2		ug/L		102	76 - 120
1,2,3-Trichloropropane	10.0	9.81		ug/L		98	66 - 131
1,2,4-Trichlorobenzene	10.0	9.34		ug/L		93	80 - 123
1,2-Dibromo-3-Chloropropane	10.0	8.75		ug/L		88	77 - 120
1,2-Dibromoethane (EDB)	10.0	10.2		ug/L		102	80 - 120
1,2-Dichlorobenzene	10.0	9.78		ug/L		98	79 - 123
1,2-Dichloroethane	10.0	10.2		ug/L		102	71 - 137
1,2-Dichloropropane	10.0	10.5		ug/L		105	80 - 120

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

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

Lab Sample ID: LCS 570-151712/4
Matrix: Water
Analysis Batch: 151712

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 123
1,3-Dichloropropane	10.0	10.2		ug/L		102	80 - 123
1,4-Dichlorobenzene	10.0	9.80		ug/L		98	75 - 123
2,2-Dichloropropane	10.0	10.3		ug/L		103	78 - 133
2-Butanone (MEK)	10.0	9.38		ug/L		94	32 - 133
2-Hexanone	10.0	10.4		ug/L		104	57 - 127
4-Methyl-2-pentanone (MIBK)	10.0	10.5		ug/L		105	68 - 120
Acetone	10.0	10.7		ug/L		107	57 - 133
Acrolein	20.0	21.4		ug/L		107	54 - 137
Acrylonitrile	10.0	8.04		ug/L		80	58 - 123
Benzene	10.0	10.1		ug/L		101	80 - 120
Bromochloromethane	10.0	9.96		ug/L		100	76 - 125
Bromodichloromethane	10.0	10.2		ug/L		102	77 - 141
Bromoform	10.0	9.65		ug/L		97	46 - 178
Bromomethane	10.0	11.1		ug/L		111	52 - 162
cis-1,2-Dichloroethene	10.0	10.4		ug/L		104	76 - 122
cis-1,3-Dichloropropene	10.0	10.3		ug/L		103	80 - 122
Carbon disulfide	10.0	9.56		ug/L		96	66 - 125
Carbon tetrachloride	10.0	10.3		ug/L		103	69 - 145
Chlorobenzene	10.0	10.2		ug/L		102	80 - 120
Chloroethane	10.0	10.1		ug/L		101	73 - 139
Chloroform	10.0	10.4		ug/L		104	80 - 120
Chloromethane	10.0	10.1		ug/L		101	35 - 159
Dibromochloromethane	10.0	10.0		ug/L		100	63 - 151
Dibromomethane	10.0	9.95		ug/L		99	80 - 121
Dichlorodifluoromethane	10.0	9.14		ug/L		91	59 - 139
Ethylbenzene	10.0	10.2		ug/L		102	80 - 120
Methylene Chloride	10.0	9.79		ug/L		98	70 - 120
Methyl tert-butyl ether	10.0	10.4		ug/L		104	72 - 120
Naphthalene	10.0	9.64		ug/L		96	75 - 120
o-Xylene	10.0	10.2		ug/L		102	80 - 122
m,p-Xylene	20.0	20.7		ug/L		104	80 - 122
Styrene	10.0	10.3		ug/L		103	80 - 121
trans-1,2-Dichloroethene	10.0	9.65		ug/L		96	67 - 123
trans-1,3-Dichloropropene	10.0	10.2		ug/L		102	78 - 140
t-Butanol	50.0	51.9		ug/L		104	65 - 147
Tetrachloroethene	10.0	10.1		ug/L		101	80 - 128
Toluene	10.0	10.1		ug/L		101	80 - 120
Trichloroethene	10.0	10.1		ug/L		101	80 - 123
Trichlorofluoromethane	10.0	10.5		ug/L		105	64 - 168
Vinyl acetate	10.0	12.0		ug/L		120	75 - 144
Vinyl chloride	10.0	10.2		ug/L		102	74 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		68 - 135
4-Bromofluorobenzene (Surr)	101		71 - 120
Dibromofluoromethane (Surr)	101		80 - 120
Toluene-d8 (Surr)	99		80 - 120

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

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

Lab Sample ID: LCSD 570-151712/5
Matrix: Water
Analysis Batch: 151712

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD
									Limit
1,1,1,2-Tetrachloroethane	10.0	10.8		ug/L		108	76 - 143	6	20
1,1,1-Trichloroethane	10.0	10.7		ug/L		107	75 - 128	6	20
1,1,2,2-Tetrachloroethane	10.0	9.79		ug/L		98	73 - 126	1	21
1,1,2-Trichloroethane	10.0	9.96		ug/L		100	80 - 120	2	20
1,1-Dichloroethane	10.0	10.6		ug/L		106	76 - 120	4	20
1,1-Dichloroethene	10.0	10.8		ug/L		108	72 - 120	9	20
1,1-Dichloropropene	10.0	10.8		ug/L		108	76 - 120	6	20
1,2,3-Trichloropropane	10.0	10.0		ug/L		100	66 - 131	2	20
1,2,4-Trichlorobenzene	10.0	9.81		ug/L		98	80 - 123	5	20
1,2-Dibromo-3-Chloropropane	10.0	8.94		ug/L		89	77 - 120	2	21
1,2-Dibromoethane (EDB)	10.0	10.4		ug/L		104	80 - 120	2	20
1,2-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 123	3	20
1,2-Dichloroethane	10.0	10.4		ug/L		104	71 - 137	2	20
1,2-Dichloropropane	10.0	10.7		ug/L		107	80 - 120	2	20
1,3-Dichlorobenzene	10.0	10.4		ug/L		104	79 - 123	4	20
1,3-Dichloropropane	10.0	10.3		ug/L		103	80 - 123	1	20
1,4-Dichlorobenzene	10.0	10.2		ug/L		102	75 - 123	4	22
2,2-Dichloropropane	10.0	10.8		ug/L		108	78 - 133	5	20
2-Butanone (MEK)	10.0	10.0		ug/L		100	32 - 133	7	26
2-Hexanone	10.0	10.7		ug/L		107	57 - 127	4	21
4-Methyl-2-pentanone (MIBK)	10.0	10.3		ug/L		103	68 - 120	2	20
Acetone	10.0	10.6		ug/L		106	57 - 133	1	28
Acrolein	20.0	19.3		ug/L		96	54 - 137	11	24
Acrylonitrile	10.0	8.84		ug/L		88	58 - 123	9	30
Benzene	10.0	10.6		ug/L		106	80 - 120	5	20
Bromochloromethane	10.0	10.5		ug/L		105	76 - 125	5	20
Bromodichloromethane	10.0	10.4		ug/L		104	77 - 141	2	20
Bromoform	10.0	9.56		ug/L		96	46 - 178	1	23
Bromomethane	10.0	11.6		ug/L		116	52 - 162	5	20
cis-1,2-Dichloroethene	10.0	11.0		ug/L		110	76 - 122	6	20
cis-1,3-Dichloropropene	10.0	10.3		ug/L		103	80 - 122	0	20
Carbon disulfide	10.0	10.2		ug/L		102	66 - 125	7	20
Carbon tetrachloride	10.0	11.0		ug/L		110	69 - 145	6	20
Chlorobenzene	10.0	10.7		ug/L		107	80 - 120	5	20
Chloroethane	10.0	10.9		ug/L		109	73 - 139	8	20
Chloroform	10.0	10.8		ug/L		108	80 - 120	4	20
Chloromethane	10.0	10.5		ug/L		105	35 - 159	4	20
Dibromochloromethane	10.0	10.5		ug/L		105	63 - 151	5	20
Dibromomethane	10.0	9.97		ug/L		100	80 - 121	0	20
Dichlorodifluoromethane	10.0	10.1		ug/L		101	59 - 139	10	20
Ethylbenzene	10.0	10.8		ug/L		108	80 - 120	6	20
Methylene Chloride	10.0	10.3		ug/L		103	70 - 120	5	20
Methyl tert-butyl ether	10.0	10.6		ug/L		106	72 - 120	2	20
Naphthalene	10.0	9.55		ug/L		96	75 - 120	1	22
o-Xylene	10.0	10.8		ug/L		108	80 - 122	6	20
m,p-Xylene	20.0	22.0		ug/L		110	80 - 122	6	20
Styrene	10.0	10.6		ug/L		106	80 - 121	4	20
trans-1,2-Dichloroethene	10.0	10.5		ug/L		105	67 - 123	8	20

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

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

Lab Sample ID: LCSD 570-151712/5
Matrix: Water
Analysis Batch: 151712

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	10.0	10.4		ug/L		104	78 - 140	2	20
t-Butanol	50.0	54.9		ug/L		110	65 - 147	6	21
Tetrachloroethene	10.0	11.0		ug/L		110	80 - 128	9	20
Toluene	10.0	10.7		ug/L		107	80 - 120	5	20
Trichloroethene	10.0	10.6		ug/L		106	80 - 123	6	20
Trichlorofluoromethane	10.0	11.5		ug/L		115	64 - 168	9	20
Vinyl acetate	10.0	11.3		ug/L		113	75 - 144	6	25
Vinyl chloride	10.0	11.1		ug/L		111	74 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	98		68 - 135
4-Bromofluorobenzene (Surr)	102		71 - 120
Dibromofluoromethane (Surr)	99		80 - 120
Toluene-d8 (Surr)	99		80 - 120

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-152412/1-A
Matrix: Water
Analysis Batch: 152543

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 152412

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/22/21 11:37	05/24/21 12:35	1
Isotope Dilution	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8	41		15 - 150	05/22/21 11:37	05/24/21 12:35	1			
Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac			
Nitrobenzene-d5 (Surr)	120		46 - 128	05/22/21 11:37	05/24/21 12:35	1			

Lab Sample ID: LCS 570-152412/2-A
Matrix: Water
Analysis Batch: 152543

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 152412

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	20.0	19.7		ug/L		99	57 - 136
Isotope Dilution	LCS %Recovery	LCS Qualifier	LCS Limits				
1,4-Dioxane-d8	40		15 - 150				
Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits				
Nitrobenzene-d5 (Surr)	103		46 - 128				

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: LCSD 570-152412/3-A
 Matrix: Water
 Analysis Batch: 152543

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 152412

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	20.0	20.2		ug/L		101	57 - 136	2	20
<i>LCSD LCSD</i>									
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>						
1,4-Dioxane-d8	42		15 - 150						
<i>LCSD LCSD</i>									
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>						
Nitrobenzene-d5 (Surr)	104		46 - 128						

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-646966/6
 Matrix: Water
 Analysis Batch: 646966

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			05/18/21 13:05	1

Lab Sample ID: LCS 440-646966/5
 Matrix: Water
 Analysis Batch: 646966

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	1.07		mg/L		95	90 - 110

Lab Sample ID: 440-283490-4 MS
 Matrix: Water
 Analysis Batch: 646966

Client Sample ID: PZ-4
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	ND		1.13	1.05		mg/L		93	80 - 120

Lab Sample ID: 440-283490-4 MSD
 Matrix: Water
 Analysis Batch: 646966

Client Sample ID: PZ-4
 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	ND		1.13	1.04		mg/L		92	80 - 120	1	20

Lab Sample ID: MB 440-646967/6
 Matrix: Water
 Analysis Batch: 646967

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			05/18/21 13:05	1
Bromide	ND		0.50	0.24	mg/L			05/18/21 13:05	1
Fluoride	ND		0.50	0.20	mg/L			05/18/21 13:05	1
Sulfate	ND		0.50	0.25	mg/L			05/18/21 13:05	1

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 440-646967/5
Matrix: Water
Analysis Batch: 646967

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.54		mg/L		91	90 - 110
Bromide	5.00	4.71		mg/L		94	90 - 110
Fluoride	5.00	4.88		mg/L		98	90 - 110
Sulfate	5.00	4.78		mg/L		96	90 - 110

Lab Sample ID: 440-283490-4 MS
Matrix: Water
Analysis Batch: 646967

Client Sample ID: PZ-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	9.3		5.00	14.1		mg/L		97	80 - 120
Bromide	ND		5.00	4.66		mg/L		93	80 - 120
Fluoride	1.0		5.00	5.95		mg/L		99	80 - 120
Sulfate	730	E	5.00	735	E 4	mg/L		36	80 - 120

Lab Sample ID: 440-283490-4 MSD
Matrix: Water
Analysis Batch: 646967

Client Sample ID: PZ-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	9.3		5.00	14.1		mg/L		97	80 - 120	0	20
Bromide	ND		5.00	4.64		mg/L		93	80 - 120	0	20
Fluoride	1.0		5.00	5.95		mg/L		99	80 - 120	0	20
Sulfate	730	E	5.00	736	E 4	mg/L		59	80 - 120	0	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-647529/1-A
Matrix: Water
Analysis Batch: 647571

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 647529

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.025	mg/L		05/24/21 09:29	05/24/21 14:45	1
Calcium	ND		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 14:45	1
Iron	ND		0.10	0.050	mg/L		05/24/21 09:29	05/24/21 14:45	1
Magnesium	ND		0.020	0.010	mg/L		05/24/21 09:29	05/24/21 14:45	1
Manganese	ND		0.020	0.015	mg/L		05/24/21 09:29	05/24/21 14:45	1
Potassium	ND		0.50	0.25	mg/L		05/24/21 09:29	05/24/21 14:45	1
Sodium	ND		0.50	0.26	mg/L		05/24/21 09:29	05/24/21 14:45	1

Lab Sample ID: LCS 440-647529/2-A
Matrix: Water
Analysis Batch: 647571

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 647529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.948		mg/L		95	80 - 120
Calcium	5.00	4.74		mg/L		95	80 - 120
Iron	1.00	0.969		mg/L		97	80 - 120
Magnesium	5.00	4.81		mg/L		96	80 - 120
Manganese	1.00	0.960		mg/L		96	80 - 120

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

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

Lab Sample ID: LCS 440-647529/2-A
Matrix: Water
Analysis Batch: 647571

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 647529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	10.0	9.71		mg/L		97	80 - 120
Sodium	10.0	9.52		mg/L		95	80 - 120

Lab Sample ID: 440-283490-1 MS
Matrix: Water
Analysis Batch: 647571

Client Sample ID: MW-2A
Prep Type: Total Recoverable
Prep Batch: 647529

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.57		1.00	1.56		mg/L		99	75 - 125
Calcium	210		5.00	212	4	mg/L		82	75 - 125
Iron	6.4		1.00	7.35	4	mg/L		93	75 - 125
Magnesium	120		5.00	124	4	mg/L		82	75 - 125
Manganese	0.73		1.00	1.67		mg/L		94	75 - 125
Potassium	5.2		10.0	15.0		mg/L		98	75 - 125
Sodium	380		10.0	391	4	mg/L		79	75 - 125

Lab Sample ID: 440-283490-1 MSD
Matrix: Water
Analysis Batch: 647571

Client Sample ID: MW-2A
Prep Type: Total Recoverable
Prep Batch: 647529

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Boron	0.57		1.00	1.58		mg/L		101	75 - 125	2	20
Calcium	210		5.00	217	4	mg/L		182	75 - 125	2	20
Iron	6.4		1.00	7.49	4	mg/L		107	75 - 125	2	20
Magnesium	120		5.00	125	4	mg/L		112	75 - 125	1	20
Manganese	0.73		1.00	1.71		mg/L		97	75 - 125	2	20
Potassium	5.2		10.0	15.2		mg/L		100	75 - 125	1	20
Sodium	380		10.0	399	4	mg/L		163	75 - 125	2	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 440-647326/10
Matrix: Water
Analysis Batch: 647326

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			05/20/21 12:49	1

Lab Sample ID: LCS 440-647326/11
Matrix: Water
Analysis Batch: 647326

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	5.00	4.82		mg/L		96	90 - 110

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: MRL 440-647326/9
Matrix: Water
Analysis Batch: 647326

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.200	0.194	J	mg/L		97	50 - 150

Lab Sample ID: 440-283250-A-1 MS
Matrix: Water
Analysis Batch: 647326

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
Ammonia (as N)	3.2		5.00	7.77		mg/L		92	90 - 110

Lab Sample ID: 440-283250-A-1 MSD
Matrix: Water
Analysis Batch: 647326

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	3.2		5.00	7.97		mg/L		96	90 - 110	3	15

Method: 410.4 - COD

Lab Sample ID: MB 440-647434/3
Matrix: Water
Analysis Batch: 647434

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			05/21/21 14:11	1

Lab Sample ID: LCS 440-647434/4
Matrix: Water
Analysis Batch: 647434

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	190		mg/L		95	90 - 110

Lab Sample ID: 440-283490-1 MS
Matrix: Water
Analysis Batch: 647434

Client Sample ID: MW-2A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	20		200	195		mg/L		88	70 - 120

Lab Sample ID: 440-283490-1 MSD
Matrix: Water
Analysis Batch: 647434

Client Sample ID: MW-2A
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	20		200	184		mg/L		82	70 - 120	6	15

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Method: 410.4 - COD (Continued)

Lab Sample ID: 440-283593-A-1 DU
Matrix: Water
Analysis Batch: 647434

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chemical Oxygen Demand	88		89.4		mg/L		1	15

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 440-647118/3
Matrix: Water
Analysis Batch: 647118

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			05/19/21 04:59	1
Bicarbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			05/19/21 04:59	1

Lab Sample ID: LCS 440-647118/2
Matrix: Water
Analysis Batch: 647118

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	79.0	78.3		mg/L		99	80 - 120

Lab Sample ID: 440-283490-4 DU
Matrix: Water
Analysis Batch: 647118

Client Sample ID: PZ-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity as CaCO3	330		316		mg/L		5	20
Bicarbonate Alkalinity as CaCO3	330		316		mg/L		5	20

Lab Sample ID: MB 440-647496/2
Matrix: Water
Analysis Batch: 647496

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	10.0		4.0	4.0	mg/L			05/24/21 04:00	1
Bicarbonate Alkalinity as CaCO3	10.0		4.0	4.0	mg/L			05/24/21 04:00	1

Lab Sample ID: LCS 440-647496/1
Matrix: Water
Analysis Batch: 647496

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	79.0	80.0		mg/L		101	80 - 120

Lab Sample ID: 440-283490-7 DU
Matrix: Water
Analysis Batch: 647496

Client Sample ID: LY-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity as CaCO3	2200	B	2200		mg/L		0	20
Bicarbonate Alkalinity as CaCO3	2200	B	2200		mg/L		0	20

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

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

Lab Sample ID: MB 440-647657/1
 Matrix: Water
 Analysis Batch: 647657

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			05/25/21 09:25	1

Lab Sample ID: LCS 440-647657/2
 Matrix: Water
 Analysis Batch: 647657

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: 440-283490-1 DU
 Matrix: Water
 Analysis Batch: 647657

Client Sample ID: MW-2A
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	2600		2520		mg/L		4	5

Method: SM 4500 CO2 C - Free Carbon Dioxide

Lab Sample ID: MB 440-647572/1
 Matrix: Water
 Analysis Batch: 647572

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			05/24/21 14:00	1

Lab Sample ID: 440-283234-F-1 DU
 Matrix: Water
 Analysis Batch: 647572

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Carbon Dioxide, Free	42		40.5		mg/L		4	20

Lab Sample ID: MB 440-647846/1
 Matrix: Water
 Analysis Batch: 647846

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			05/26/21 16:31	1

Lab Sample ID: 440-283490-3 DU
 Matrix: Water
 Analysis Batch: 647846

Client Sample ID: DW-4
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Carbon Dioxide, Free	32		31.7		mg/L		0	20

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-647332/3
Matrix: Water
Analysis Batch: 647332

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	0.027	mg/L			05/20/21 17:20	1

Lab Sample ID: LCS 440-647332/4
Matrix: Water
Analysis Batch: 647332

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Sulfide	0.499	0.461		mg/L		92	80 - 120

Lab Sample ID: 440-283291-E-1 MS
Matrix: Water
Analysis Batch: 647332

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		0.499	0.356		mg/L		71	70 - 130

Lab Sample ID: 440-283291-E-1 MSD
Matrix: Water
Analysis Batch: 647332

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Total Sulfide	ND		0.499	0.366		mg/L		73	70 - 130	3	30

Lab Sample ID: MB 440-647714/3
Matrix: Water
Analysis Batch: 647714

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	0.027	mg/L			05/25/21 15:52	1

Lab Sample ID: LCS 440-647714/4
Matrix: Water
Analysis Batch: 647714

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Sulfide	0.499	0.500		mg/L		100	80 - 120

Lab Sample ID: 440-283581-K-1 MS
Matrix: Water
Analysis Batch: 647714

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		0.499	0.369		mg/L		74	70 - 130

Lab Sample ID: 440-283581-K-1 MSD
Matrix: Water
Analysis Batch: 647714

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Total Sulfide	ND		0.499	0.419		mg/L		84	70 - 130	13	30

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Method: SM 5310C - TOC

Lab Sample ID: MB 440-647235/8
Matrix: Water
Analysis Batch: 647235

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			05/19/21 12:22	1

Lab Sample ID: LCS 440-647235/7
Matrix: Water
Analysis Batch: 647235

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	5.28		mg/L		106	85 - 115

Lab Sample ID: MRL 440-647235/6
Matrix: Water
Analysis Batch: 647235

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.127		mg/L		127	50 - 150

Lab Sample ID: 440-283490-1 MS
Matrix: Water
Analysis Batch: 647235

Client Sample ID: MW-2A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	3.0		5.00	8.07		mg/L		101	85 - 115

Lab Sample ID: 440-283490-1 MSD
Matrix: Water
Analysis Batch: 647235

Client Sample ID: MW-2A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	3.0		5.00	8.11		mg/L		102	85 - 115	1	20

Lab Sample ID: MB 440-647361/8
Matrix: Water
Analysis Batch: 647361

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			05/20/21 05:17	1

Lab Sample ID: LCS 440-647361/7
Matrix: Water
Analysis Batch: 647361

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	5.28		mg/L		106	85 - 115

Lab Sample ID: MRL 440-647361/6
Matrix: Water
Analysis Batch: 647361

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.0869	J	mg/L		87	50 - 150

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Method: SM 5310C - TOC

Lab Sample ID: 440-283490-9 MS
Matrix: Water
Analysis Batch: 647361

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	1.7		5.00	7.11		mg/L		108	85 - 115

Lab Sample ID: 440-283490-9 MSD
Matrix: Water
Analysis Batch: 647361

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	1.7		5.00	7.12		mg/L		108	85 - 115	0	20

Lab Sample ID: MB 440-647476/8
Matrix: Water
Analysis Batch: 647476

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			05/21/21 06:05	1

Lab Sample ID: LCS 440-647476/7
Matrix: Water
Analysis Batch: 647476

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	5.05		mg/L		101	85 - 115

Lab Sample ID: MRL 440-647476/6
Matrix: Water
Analysis Batch: 647476

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.0649	J	mg/L		65	50 - 150

Lab Sample ID: 570-59083-A-11 MS
Matrix: Water
Analysis Batch: 647476

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 Organic Carbon	0.63		5.00	6.09		mg/L		109	85 - 115

Lab Sample ID: 570-59083-A-11 MSD
Matrix: Water
Analysis Batch: 647476

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	0.63		5.00	6.04		mg/L		108	85 - 115	1	20

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

GC/MS VOA

Analysis Batch: 151712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-1	MW-2A	Total/NA	Water	8260B	
440-283490-2	MW-2B	Total/NA	Water	8260B	
440-283490-3	DW-4	Total/NA	Water	8260B	
440-283490-4	PZ-4	Total/NA	Water	8260B	
440-283490-5	DW-2	Total/NA	Water	8260B	
440-283490-6	DW-3	Total/NA	Water	8260B	
440-283490-7	LY-7	Total/NA	Water	8260B	
440-283490-8	Combined Subdrains	Total/NA	Water	8260B	
440-283490-9	Duplicate	Total/NA	Water	8260B	
440-283490-10	Field Blank	Total/NA	Water	8260B	
440-283490-11	Trip Blank	Total/NA	Water	8260B	
MB 570-151712/8	Method Blank	Total/NA	Water	8260B	
LCS 570-151712/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-151712/5	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 152412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-1	MW-2A	Total/NA	Water	3510C	
440-283490-2	MW-2B	Total/NA	Water	3510C	
440-283490-3	DW-4	Total/NA	Water	3510C	
440-283490-4	PZ-4	Total/NA	Water	3510C	
440-283490-5	DW-2	Total/NA	Water	3510C	
440-283490-6	DW-3	Total/NA	Water	3510C	
440-283490-7	LY-7	Total/NA	Water	3510C	
440-283490-8	Combined Subdrains	Total/NA	Water	3510C	
440-283490-9	Duplicate	Total/NA	Water	3510C	
MB 570-152412/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-152412/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-152412/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 152543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-1	MW-2A	Total/NA	Water	8270C SIM ID	152412
MB 570-152412/1-A	Method Blank	Total/NA	Water	8270C SIM ID	152412
LCS 570-152412/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	152412
LCSD 570-152412/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	152412

Analysis Batch: 152716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-2	MW-2B	Total/NA	Water	8270C SIM ID	152412
440-283490-3	DW-4	Total/NA	Water	8270C SIM ID	152412
440-283490-4	PZ-4	Total/NA	Water	8270C SIM ID	152412
440-283490-5	DW-2	Total/NA	Water	8270C SIM ID	152412
440-283490-6	DW-3	Total/NA	Water	8270C SIM ID	152412
440-283490-7	LY-7	Total/NA	Water	8270C SIM ID	152412
440-283490-8	Combined Subdrains	Total/NA	Water	8270C SIM ID	152412
440-283490-9	Duplicate	Total/NA	Water	8270C SIM ID	152412

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

HPLC/IC

Analysis Batch: 646966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-1	MW-2A	Total/NA	Water	300.0	
440-283490-2	MW-2B	Total/NA	Water	300.0	
440-283490-3	DW-4	Total/NA	Water	300.0	
440-283490-4	PZ-4	Total/NA	Water	300.0	
440-283490-5	DW-2	Total/NA	Water	300.0	
440-283490-6	DW-3	Total/NA	Water	300.0	
440-283490-7	LY-7	Total/NA	Water	300.0	
440-283490-8	Combined Subdrains	Total/NA	Water	300.0	
440-283490-9	Duplicate	Total/NA	Water	300.0	
MB 440-646966/6	Method Blank	Total/NA	Water	300.0	
LCS 440-646966/5	Lab Control Sample	Total/NA	Water	300.0	
440-283490-4 MS	PZ-4	Total/NA	Water	300.0	
440-283490-4 MSD	PZ-4	Total/NA	Water	300.0	

Analysis Batch: 646967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-1	MW-2A	Total/NA	Water	300.0	
440-283490-1	MW-2A	Total/NA	Water	300.0	
440-283490-2	MW-2B	Total/NA	Water	300.0	
440-283490-2	MW-2B	Total/NA	Water	300.0	
440-283490-3	DW-4	Total/NA	Water	300.0	
440-283490-3	DW-4	Total/NA	Water	300.0	
440-283490-4	PZ-4	Total/NA	Water	300.0	
440-283490-4 - DL	PZ-4	Total/NA	Water	300.0	
440-283490-5	DW-2	Total/NA	Water	300.0	
440-283490-5	DW-2	Total/NA	Water	300.0	
440-283490-6	DW-3	Total/NA	Water	300.0	
440-283490-6	DW-3	Total/NA	Water	300.0	
440-283490-7	LY-7	Total/NA	Water	300.0	
440-283490-7	LY-7	Total/NA	Water	300.0	
440-283490-8	Combined Subdrains	Total/NA	Water	300.0	
440-283490-8	Combined Subdrains	Total/NA	Water	300.0	
440-283490-9	Duplicate	Total/NA	Water	300.0	
440-283490-9	Duplicate	Total/NA	Water	300.0	
MB 440-646967/6	Method Blank	Total/NA	Water	300.0	
LCS 440-646967/5	Lab Control Sample	Total/NA	Water	300.0	
440-283490-4 MS	PZ-4	Total/NA	Water	300.0	
440-283490-4 MSD	PZ-4	Total/NA	Water	300.0	

Metals

Prep Batch: 647529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-1	MW-2A	Total Recoverable	Water	3005A	
440-283490-2	MW-2B	Total Recoverable	Water	3005A	
440-283490-3	DW-4	Total Recoverable	Water	3005A	
440-283490-4	PZ-4	Total Recoverable	Water	3005A	
440-283490-5	DW-2	Total Recoverable	Water	3005A	
440-283490-6	DW-3	Total Recoverable	Water	3005A	
440-283490-7	LY-7	Total Recoverable	Water	3005A	
440-283490-8	Combined Subdrains	Total Recoverable	Water	3005A	

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QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Metals (Continued)

Prep Batch: 647529 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-9	Duplicate	Total Recoverable	Water	3005A	
MB 440-647529/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-647529/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-283490-1 MS	MW-2A	Total Recoverable	Water	3005A	
440-283490-1 MSD	MW-2A	Total Recoverable	Water	3005A	

Analysis Batch: 647571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-1	MW-2A	Total Recoverable	Water	6010B	647529
MB 440-647529/1-A	Method Blank	Total Recoverable	Water	6010B	647529
LCS 440-647529/2-A	Lab Control Sample	Total Recoverable	Water	6010B	647529
440-283490-1 MS	MW-2A	Total Recoverable	Water	6010B	647529
440-283490-1 MSD	MW-2A	Total Recoverable	Water	6010B	647529

Analysis Batch: 647605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-2	MW-2B	Total Recoverable	Water	6010B	647529
440-283490-3	DW-4	Total Recoverable	Water	6010B	647529
440-283490-4	PZ-4	Total Recoverable	Water	6010B	647529
440-283490-5	DW-2	Total Recoverable	Water	6010B	647529
440-283490-6	DW-3	Total Recoverable	Water	6010B	647529
440-283490-7	LY-7	Total Recoverable	Water	6010B	647529
440-283490-8	Combined Subdrains	Total Recoverable	Water	6010B	647529
440-283490-9	Duplicate	Total Recoverable	Water	6010B	647529

General Chemistry

Analysis Batch: 647118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-1	MW-2A	Total/NA	Water	SM 2320B	
440-283490-2	MW-2B	Total/NA	Water	SM 2320B	
440-283490-3	DW-4	Total/NA	Water	SM 2320B	
440-283490-4	PZ-4	Total/NA	Water	SM 2320B	
440-283490-5	DW-2	Total/NA	Water	SM 2320B	
440-283490-6	DW-3	Total/NA	Water	SM 2320B	
440-283490-9	Duplicate	Total/NA	Water	SM 2320B	
MB 440-647118/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-647118/2	Lab Control Sample	Total/NA	Water	SM 2320B	
440-283490-4 DU	PZ-4	Total/NA	Water	SM 2320B	

Analysis Batch: 647235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-1	MW-2A	Total/NA	Water	SM 5310C	
440-283490-2	MW-2B	Total/NA	Water	SM 5310C	
440-283490-3	DW-4	Total/NA	Water	SM 5310C	
440-283490-4	PZ-4	Total/NA	Water	SM 5310C	
440-283490-5	DW-2	Total/NA	Water	SM 5310C	
440-283490-6	DW-3	Total/NA	Water	SM 5310C	
MB 440-647235/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-647235/7	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-647235/6	Lab Control Sample	Total/NA	Water	SM 5310C	

Eurofins Calscience Irvine

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

General Chemistry (Continued)

Analysis Batch: 647235 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-1 MS	MW-2A	Total/NA	Water	SM 5310C	
440-283490-1 MSD	MW-2A	Total/NA	Water	SM 5310C	

Analysis Batch: 647326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-1	MW-2A	Total/NA	Water	350.1	
440-283490-2	MW-2B	Total/NA	Water	350.1	
440-283490-3	DW-4	Total/NA	Water	350.1	
440-283490-4	PZ-4	Total/NA	Water	350.1	
440-283490-5	DW-2	Total/NA	Water	350.1	
440-283490-6	DW-3	Total/NA	Water	350.1	
440-283490-7	LY-7	Total/NA	Water	350.1	
440-283490-8	Combined Subdrains	Total/NA	Water	350.1	
440-283490-9	Duplicate	Total/NA	Water	350.1	
MB 440-647326/10	Method Blank	Total/NA	Water	350.1	
LCS 440-647326/11	Lab Control Sample	Total/NA	Water	350.1	
MRL 440-647326/9	Lab Control Sample	Total/NA	Water	350.1	
440-283250-A-1 MS	Matrix Spike	Total/NA	Water	350.1	
440-283250-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 647332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-1	MW-2A	Total/NA	Water	SM 4500 S2 D	
440-283490-2	MW-2B	Total/NA	Water	SM 4500 S2 D	
440-283490-3	DW-4	Total/NA	Water	SM 4500 S2 D	
MB 440-647332/3	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 440-647332/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
440-283291-E-1 MS	Matrix Spike	Total/NA	Water	SM 4500 S2 D	
440-283291-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 647361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-7	LY-7	Total/NA	Water	SM 5310C	
440-283490-9	Duplicate	Total/NA	Water	SM 5310C	
MB 440-647361/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-647361/7	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-647361/6	Lab Control Sample	Total/NA	Water	SM 5310C	
440-283490-9 MS	Duplicate	Total/NA	Water	SM 5310C	
440-283490-9 MSD	Duplicate	Total/NA	Water	SM 5310C	

Analysis Batch: 647434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-1	MW-2A	Total/NA	Water	410.4	
440-283490-2	MW-2B	Total/NA	Water	410.4	
440-283490-3	DW-4	Total/NA	Water	410.4	
440-283490-4	PZ-4	Total/NA	Water	410.4	
440-283490-5	DW-2	Total/NA	Water	410.4	
440-283490-6	DW-3	Total/NA	Water	410.4	
440-283490-7	LY-7	Total/NA	Water	410.4	
440-283490-8	Combined Subdrains	Total/NA	Water	410.4	
440-283490-9	Duplicate	Total/NA	Water	410.4	

Eurofins Calscience Irvine

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

General Chemistry (Continued)

Analysis Batch: 647434 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-647434/3	Method Blank	Total/NA	Water	410.4	
LCS 440-647434/4	Lab Control Sample	Total/NA	Water	410.4	
440-283490-1 MS	MW-2A	Total/NA	Water	410.4	
440-283490-1 MSD	MW-2A	Total/NA	Water	410.4	
440-283593-A-1 DU	Duplicate	Total/NA	Water	410.4	

Analysis Batch: 647476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-8	Combined Subdrains	Total/NA	Water	SM 5310C	
MB 440-647476/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-647476/7	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-647476/6	Lab Control Sample	Total/NA	Water	SM 5310C	
570-59083-A-11 MS	Matrix Spike	Total/NA	Water	SM 5310C	
570-59083-A-11 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310C	

Analysis Batch: 647496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-7	LY-7	Total/NA	Water	SM 2320B	
440-283490-8	Combined Subdrains	Total/NA	Water	SM 2320B	
MB 440-647496/2	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-647496/1	Lab Control Sample	Total/NA	Water	SM 2320B	
440-283490-7 DU	LY-7	Total/NA	Water	SM 2320B	

Analysis Batch: 647572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-1	MW-2A	Total/NA	Water	SM 4500 CO2 C	
440-283490-2	MW-2B	Total/NA	Water	SM 4500 CO2 C	
MB 440-647572/1	Method Blank	Total/NA	Water	SM 4500 CO2 C	
440-283234-F-1 DU	Duplicate	Total/NA	Water	SM 4500 CO2 C	

Analysis Batch: 647657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-1	MW-2A	Total/NA	Water	SM 2540C	
440-283490-2	MW-2B	Total/NA	Water	SM 2540C	
440-283490-3	DW-4	Total/NA	Water	SM 2540C	
440-283490-4	PZ-4	Total/NA	Water	SM 2540C	
440-283490-5	DW-2	Total/NA	Water	SM 2540C	
440-283490-6	DW-3	Total/NA	Water	SM 2540C	
440-283490-7	LY-7	Total/NA	Water	SM 2540C	
440-283490-8	Combined Subdrains	Total/NA	Water	SM 2540C	
440-283490-9	Duplicate	Total/NA	Water	SM 2540C	
MB 440-647657/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-647657/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-283490-1 DU	MW-2A	Total/NA	Water	SM 2540C	

Analysis Batch: 647714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-4	PZ-4	Total/NA	Water	SM 4500 S2 D	
440-283490-5	DW-2	Total/NA	Water	SM 4500 S2 D	
440-283490-6	DW-3	Total/NA	Water	SM 4500 S2 D	
440-283490-7	LY-7	Total/NA	Water	SM 4500 S2 D	

Eurofins Calscience Irvine

QC Association Summary

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

General Chemistry (Continued)

Analysis Batch: 647714 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-8	Combined Subdrains	Total/NA	Water	SM 4500 S2 D	
440-283490-9	Duplicate	Total/NA	Water	SM 4500 S2 D	
MB 440-647714/3	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 440-647714/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
440-283581-K-1 MS	Matrix Spike	Total/NA	Water	SM 4500 S2 D	
440-283581-K-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 647846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283490-3	DW-4	Total/NA	Water	SM 4500 CO2 C	
440-283490-4	PZ-4	Total/NA	Water	SM 4500 CO2 C	
440-283490-5	DW-2	Total/NA	Water	SM 4500 CO2 C	
440-283490-6	DW-3	Total/NA	Water	SM 4500 CO2 C	
440-283490-7	LY-7	Total/NA	Water	SM 4500 CO2 C	
440-283490-8	Combined Subdrains	Total/NA	Water	SM 4500 CO2 C	
440-283490-9	Duplicate	Total/NA	Water	SM 4500 CO2 C	
MB 440-647846/1	Method Blank	Total/NA	Water	SM 4500 CO2 C	
440-283490-3 DU	DW-4	Total/NA	Water	SM 4500 CO2 C	



Definitions/Glossary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

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.

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.

HPLC/IC

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.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
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.

General Chemistry

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)

Definitions/Glossary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

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Accreditation/Certification Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Laboratory: Eurofins Calscience Irvine

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

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-21
Arizona	State	AZ0671	10-14-21
California	Los Angeles County Sanitation Districts	10256	06-30-21
California	State	2706	06-30-21
Guam	State	21-003R	01-23-22
Hawaii	State	CA01531	01-29-22
Kansas	NELAP	E-10420	07-31-21
Nevada	State	CA015312021-6	07-31-21
Oregon	NELAP	4028 - 010	01-29-22
USDA	US Federal Programs	P330-21-00022	02-02-24
Washington	State	C900	09-03-21

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0161	11-19-21
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	20-003R	10-31-20 *
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Chain of Custody Record 316180

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING
 TestAmerica Laboratories Inc.
 TAL-8210 (0713)

Regulatory Program DW NPDES RCRA Other: _____

Project Manager: Kyle Welch Site Contact: Josh Mills Date: 5-18-21

Tell Fax: kwelch@geo-logix.com Lab Contact: Passing Trower Carrier: T/A

Analysis Turnaround Time _____

CALENDAR DAYS WORKING DAYS

TAT if different from Below _____

2 weeks 1 week 2 days 1 day

Client Contact

Company Name: Geo-Logix Associates

Address: 11415 West Bernardo Ct Suite 201

City/State/Zip: San Diego, CA 92127

Phone: 858-451-1126

Fax: _____

Project Name: Republic Services

Site: Sunshine Canyon Landfill

P.O.# _____

COB No. 1 of 1 COCs

Sampler: B57MC

For Lab Use Only _____

Walk-in Client _____

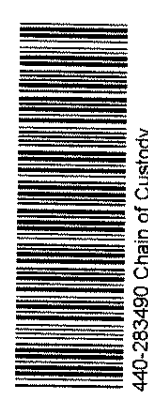
Lab Sampling _____

Job / SDG No. 5021.1059

Metals are wet held filtered

Sample Specific Notes

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Performed MS/MSD (Y/N)	Lab Contact	Carrier	Date
MW-2A	5-18-21	0740	G	GW	13	M	Y	Passing Trower	PR 3402 - Fluoride	5-18-21
MW-2B	0826		G	GW	13	M	Y	Passing Trower	PR 3762 - Sulfide	5-18-21
DW-4	0925		G	GW	13	M	Y	Passing Trower	PR 3402 - Fluoride	5-18-21
P2-4	1158		G	GW	13	M	Y	Passing Trower	PR 3762 - Sulfide	5-18-21
DW-2	1027		G	GW	13	M	Y	Passing Trower	PR 3402 - Fluoride	5-18-21
DW-3	1150		G	GW	13	M	Y	Passing Trower	PR 3762 - Sulfide	5-18-21
LY-7	0755		R	W	13	M	Y	Passing Trower	PR 3402 - Fluoride	5-18-21
Combined Substrains	0908		R	W	13	M	Y	Passing Trower	PR 3762 - Sulfide	5-18-21
Duplicate			G	GW	13	M	Y	Passing Trower	PR 3402 - Fluoride	5-18-21
Field Blank			G	WBS	4	M	Y	Passing Trower	PR 3762 - Sulfide	5-18-21
Trap Blank	5-18-21		G	"	4	M	Y	Passing Trower	PR 3402 - Fluoride	5-18-21



Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other _____

Possible Hazard Identification

Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

Non-Hazard Flammable Skin Irritant Poison B Unknown

Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments

Cooler Temp (°C): Obs'd 4.3 Corrd. 4.5 Therm ID No. 1693

Custody Seal No. _____

Relinquished by: Benjamin Company: Geo-Logix Date/Time: 5-18-21

Relinquished by: Benjamin Company: Geo-Logix Date/Time: 5-18-21

Relinquished by: Benjamin Company: Geo-Logix Date/Time: 5-18-21

Received by: Benjamin Company: Geo-Logix Date/Time: 5-18-21

Received by: Benjamin Company: Geo-Logix Date/Time: 5-18-21

Received in Laboratory by: Benjamin Company: Geo-Logix Date/Time: 5-18-21

17 45



Chain of Custody Record



Client Information (Sub Contract Lab)

Client Contact: _____ Phone: _____
 Shipping/Receiving: _____
 Company: Eurofins Calscience LLC
 Address: 7440 Lincoln Way
 City: Garden Grove
 State Zip: CA, 92841
 Phone: 714-895-5494(Tel) 714-894-7501(Fax)
 Email: _____
 Project Name: Republic Sunshine Canyon
 Project #: 44007851
 Site: _____ SSO#:

Sampler: _____ Lab PM: Tomova, Rossina D
 Phone: _____ E-Mail: Rossina.Tomova@Eurofins.com
 Accreditations Required (See note): _____

Due Date Requested: 5/31/2021
 TAT Requested (days): _____
 Carrier Tracking No(s): _____
 State of Origin: California
 COC No: 440-169555-1
 Page: Page 1 of 2

Sample ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (Water, Soil, Sewage, Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030C (MOD) Appendix II +MTBE+TBA+TICS	8260B_LL/5030C_UP (MOD) A+A	8270C_SIM_MS_ID/3510C 1,4-Dioxane - SIM_MS_ID	Total Number of containers	Special Instructions/Note
MMW-2A (440-283490-1)	5/18/21	07:40	Pacific	Water	X	X	X	X	X	8	
MMW-2B (440-283490-2)	5/18/21	08:26	Pacific	Water	X	X	X	X	X	8	
DW-4 (440-283490-3)	5/18/21	09:25	Pacific	Water	X	X	X	X	X	8	
P2-4 (440-283490-4)	5/18/21	11:58	Pacific	Water	X	X	X	X	X	8	
DW 2 (440-283490-5)	5/18/21	10:27	Pacific	Water	X	X	X	X	X	8	
DW-3 (440-283490-6)	5/18/21	11:50	Pacific	Water	X	X	X	X	X	8	
LY-7 (440-283490-7)	5/18/21	07:55	Pacific	Water	X	X	X	X	X	8	
Combined Subdrains (440-283490-8)	5/18/21	09:08	Pacific	Water	X	X	X	X	X	8	
Duplicate (440-283490-9)	5/18/21	00:01	Pacific	Water	X	X	X	X	X	8	

Analysis Requested

Preservation Codes:
 A: HCL, B: NaOH, C: Zn Acetate, D: Nitric Acid, E: NaHSO4, F: MeOH, G: Amchlor, H: Ascorbic Acid, I: Ice, J: DI Water, K: EDTA, L: EDA, M: Hexane, N: None, O: Asn2O2, P: Na2O4S, Q: Na2SO3, R: Na2S2O3, S: H2SO4, T: TSP Dodecahydrate, U: Acetone, V: MCAA, W: pH 4-5, Z: other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For _____ Months

Deliverable Requested I II III IV Other (specify): Primary Deliverable Rank 2

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: _____ Date/Time: 5-19-21 10:00 Company: Eurofins

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seal Intact: _____ Custody Seal No: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

17461 Deran Ave Suite 100
Irvine CA 92614-5817
Phone 949-261-1022 Fax 949-260-3297

Client Information (Sub Contract Lab)

Client Contact: Shipping/Receiving
Company: Eurofins Calscience LLC

Sampler: Tomova Rossina D

Address: 7440 Lincoln Way
City: Garden Grove
State Zip: CA, 92841

Lab P/N: Tomova Rossina D
E-Mail: Rossina.Tomova@Eurofins.com

Carrier Tracking No(s):
State of Origin: California

COC No: 440-169555-2
Page: Page 2 of 2

Job #: 440-283490-1

Due Date Requested: 5/31/2021
TAT Requested (days):

Project #: 44007851
SSOW#:

PO #: 714-895-5494(Tel) 714-894-7501(Fax)
Email: WO #

Project Name: Republic Sunshine Canyon
Site:

Analysis Requested

Field Filtered Sample (Yes or No)
Perform MS/MSD (Yes or No)

Preservation Codes

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Where Sampled, Overstabil, Br-Tissue, Air/Aq)
Field Blank (440 283490-10)	5/18/21	00 01	Pacific	Water
Trip Blank (440 283490 11)	5/18/21	00 01	Pacific	Water

Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030C (MOD) Appendix II +MTBE+TBA+TICS	8260B_LL/5030C_UP (MOD) A+A	8270C_SIM_MS_ID/3510C 1,4-Dioxane - SIM_MS_ID
X	X	X	X	

Total Number of containers	Special Instructions/Note
4	
4	

Possible Hazard Identification
Unconfirmed

Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2

Special Instructions/OC Requirements

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

Empty Kit Relinquished by	Date	Time	Method of Shipment
Relinquished by	5/19/21	10:00	Company
Relinquished by			Company
Relinquished by			Company
Relinquished by			Company

Custody Seals Intact: Yes No
Custody Seal No: *11A*

Cooler Temperature(s) °C and Other Remarks: *3 1/35 + 25*

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out sub-contract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-283490-1

Login Number: 283490

List Source: Eurofins Calscience Irvine

List Number: 1

Creator: Escalante, Maria I

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.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 (excluding tests with immediate HTs)	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	

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-283490-1

Login Number: 283490

List Number: 2

Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience LLC

List Creation: 05/19/21 02:14 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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	3.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283490-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-150)
440-283490-1	MW-2A	46
440-283490-2	MW-2B	47
440-283490-3	DW-4	43
440-283490-4	PZ-4	47
440-283490-5	DW-2	46
440-283490-6	DW-3	41
440-283490-7	LY-7	38
440-283490-8	Combined Subdrains	34
440-283490-9	Duplicate	50
LCS 570-152412/2-A	Lab Control Sample	40
LCSD 570-152412/3-A	Lab Control Sample Dup	42
MB 570-152412/1-A	Method Blank	41

Surrogate Legend

DXE = 1,4-Dioxane-d8

ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-283533-1

Client Project/Site: Republic Sunshine Canyon

For:

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

Attn: Kyle Welchans



Authorized for release by:
5/27/2021 4:56:38 PM

Rossina Tomova, Project Manager I
(949)260-3276

Rossina.Tomova@Eurofinset.com

LINKS

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

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



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Sample Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-283533-1	MW-1	Water	05/19/21 10:46	05/19/21 16:15	
440-283533-2	CM-9R3	Water	05/19/21 09:27	05/19/21 16:15	
440-283533-3	CM-10R	Water	05/19/21 10:47	05/19/21 16:15	
440-283533-4	CM-11R	Water	05/19/21 08:01	05/19/21 16:15	
440-283533-5	DW-5	Water	05/19/21 12:25	05/19/21 16:15	
440-283533-6	Field Blank	Water	05/19/21 00:01	05/19/21 16:15	
440-283533-7	Trip Blank	Water	05/19/21 00:01	05/19/21 16:15	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Case Narrative

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Job ID: 440-283533-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative 440-283533-1

Comments

No additional comments.

Receipt

The samples were received on 5/19/2021 4:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.1° C.

GC/MS VOA

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-152010.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-152338.

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

GC/MS Semi VOA

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

HPLC/IC

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

Metals

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Iron and Potassium for preparation batch 440-647560 and analytical batch 440-647899 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

General Chemistry

Method SM 5310C: The continuing calibration blank (CCB) for analytical batch 440-647361 contained Total Organic Carbon above the method detection limit (MDL). All reported samples associated with this CCB contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

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

Organic Prep

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

VOA Prep

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

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: MW-1

Lab Sample ID: 440-283533-1

Date Collected: 05/19/21 10:46

Matrix: Water

Date Received: 05/19/21 16:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/21/21 23:53	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/21/21 23:53	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/21/21 23:53	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/21/21 23:53	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/21/21 23:53	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/21/21 23:53	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/21/21 23:53	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/21/21 23:53	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/21/21 23:53	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/21/21 23:53	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/21/21 23:53	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/21/21 23:53	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/21/21 23:53	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/21/21 23:53	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/21/21 23:53	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/21/21 23:53	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/21/21 23:53	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/21/21 23:53	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/21/21 23:53	1
2-Hexanone	ND		6.0	4.3	ug/L			05/21/21 23:53	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/21/21 23:53	1
Acetone	ND		8.0	4.0	ug/L			05/21/21 23:53	1
Acetonitrile	ND		10	3.9	ug/L			05/21/21 23:53	1
Allyl chloride	ND		2.0	0.38	ug/L			05/21/21 23:53	1
Benzene	ND		0.50	0.27	ug/L			05/21/21 23:53	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/21/21 23:53	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/21/21 23:53	1
Bromoform	ND		0.50	0.39	ug/L			05/21/21 23:53	1
Bromomethane	ND		1.0	0.93	ug/L			05/21/21 23:53	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/21/21 23:53	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/21/21 23:53	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/21/21 23:53	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/21/21 23:53	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/21/21 23:53	1
Chloroethane	ND		0.50	0.44	ug/L			05/21/21 23:53	1
Chloroform	ND		0.50	0.28	ug/L			05/21/21 23:53	1
Chloromethane	ND		1.0	0.29	ug/L			05/21/21 23:53	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/21/21 23:53	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/21/21 23:53	1
Dibromomethane	ND		0.50	0.23	ug/L			05/21/21 23:53	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/21/21 23:53	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/21/21 23:53	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/21/21 23:53	1
Iodomethane	ND		25	5.9	ug/L			05/21/21 23:53	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/21/21 23:53	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/21/21 23:53	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/21/21 23:53	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/21/21 23:53	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/21/21 23:53	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: MW-1

Lab Sample ID: 440-283533-1

Date Collected: 05/19/21 10:46

Matrix: Water

Date Received: 05/19/21 16:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.32	ug/L			05/21/21 23:53	1
o-Xylene	ND		0.50	0.35	ug/L			05/21/21 23:53	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/21/21 23:53	1
Propionitrile	ND		5.0	3.7	ug/L			05/21/21 23:53	1
Styrene	ND		0.50	0.28	ug/L			05/21/21 23:53	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/21/21 23:53	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/21/21 23:53	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/21/21 23:53	1
t-Butanol	9.6		5.0	4.0	ug/L			05/21/21 23:53	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/21/21 23:53	1
Tetrahydrofuran	1.7 J		2.0	1.1	ug/L			05/21/21 23:53	1
Toluene	ND		0.50	0.33	ug/L			05/21/21 23:53	1
Trichloroethene	ND		0.50	0.29	ug/L			05/21/21 23:53	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/21/21 23:53	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/21/21 23:53	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/21/21 23:53	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	860	T J	ug/L		1.75			05/21/21 23:53	1
Unknown	110	T J	ug/L		2.17			05/21/21 23:53	1
Unknown	120	T J	ug/L		2.23			05/21/21 23:53	1
Unknown	230	T J	ug/L		2.30			05/21/21 23:53	1
Unknown	100	T J	ug/L		2.45			05/21/21 23:53	1
Unknown	100	T J	ug/L		2.50			05/21/21 23:53	1
Unknown	76	T J	ug/L		2.58			05/21/21 23:53	1
Unknown	70	T J	ug/L		2.64			05/21/21 23:53	1
Unknown	80	T J	ug/L		2.79			05/21/21 23:53	1
Unknown	71	T J	ug/L		2.99			05/21/21 23:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		68 - 135		05/21/21 23:53	1
4-Bromofluorobenzene (Surr)	100		71 - 120		05/21/21 23:53	1
Dibromofluoromethane (Surr)	104		80 - 120		05/21/21 23:53	1
Toluene-d8 (Surr)	98		80 - 120		05/21/21 23:53	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	17		0.50	0.34	ug/L		05/24/21 08:38	05/25/21 11:12	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	42		15 - 150	05/24/21 08:38	05/25/21 11:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	111		46 - 128	05/24/21 08:38	05/25/21 11:12	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	2.3		0.50	0.24	mg/L			05/19/21 20:13	1
Nitrate as N	ND		0.11	0.055	mg/L			05/19/21 20:13	1
Chloride	180		25	13	mg/L			05/19/21 20:30	50
Fluoride	2.2		0.50	0.20	mg/L			05/19/21 20:13	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: MW-1

Lab Sample ID: 440-283533-1

Date Collected: 05/19/21 10:46

Matrix: Water

Date Received: 05/19/21 16:15

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1700		25	13	mg/L			05/19/21 20:30	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	400		0.10	0.050	mg/L		05/24/21 12:05	05/26/21 15:59	1
Iron	53		0.10	0.050	mg/L		05/24/21 12:05	05/26/21 15:59	1
Magnesium	190		0.020	0.010	mg/L		05/24/21 12:05	05/26/21 15:59	1
Boron	0.80		0.050	0.025	mg/L		05/24/21 12:05	05/26/21 15:59	1
Manganese	2.4		0.020	0.015	mg/L		05/24/21 12:05	05/26/21 15:59	1
Sodium	210		0.50	0.26	mg/L		05/24/21 12:05	05/26/21 15:59	1
Potassium	38		0.50	0.25	mg/L		05/24/21 12:05	05/26/21 15:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	6.4		0.20	0.10	mg/L			05/21/21 11:52	1
Chemical Oxygen Demand	73		20	10	mg/L			05/21/21 14:14	1
Total Dissolved Solids	3200		20	10	mg/L			05/26/21 09:23	1
Total Sulfide	ND		0.050	0.027	mg/L			05/25/21 15:53	1
Total Organic Carbon	29		0.50	0.25	mg/L			05/20/21 12:09	5
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	490		4.0	4.0	mg/L			05/20/21 05:44	1
Bicarbonate Alkalinity as CaCO3	490		4.0	4.0	mg/L			05/20/21 05:44	1
Carbon Dioxide, Free	170		2.0	2.0	mg/L			05/26/21 16:31	1

Client Sample ID: CM-9R3

Lab Sample ID: 440-283533-2

Date Collected: 05/19/21 09:27

Matrix: Water

Date Received: 05/19/21 16:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/21/21 00:43	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/21/21 00:43	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/21/21 00:43	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/21/21 00:43	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/21/21 00:43	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/21/21 00:43	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/21/21 00:43	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/21/21 00:43	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/21/21 00:43	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/21/21 00:43	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/21/21 00:43	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/21/21 00:43	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/21/21 00:43	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/21/21 00:43	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/21/21 00:43	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/21/21 00:43	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/21/21 00:43	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/21/21 00:43	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/21/21 00:43	1
2-Hexanone	ND		6.0	4.3	ug/L			05/21/21 00:43	1

Eurofins Calscience Irvine

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: CM-9R3

Lab Sample ID: 440-283533-2

Date Collected: 05/19/21 09:27

Matrix: Water

Date Received: 05/19/21 16:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/21/21 00:43	1
Acetone	ND		8.0	4.0	ug/L			05/21/21 00:43	1
Acetonitrile	ND		10	3.9	ug/L			05/21/21 00:43	1
Allyl chloride	ND		2.0	0.38	ug/L			05/21/21 00:43	1
Benzene	ND		0.50	0.27	ug/L			05/21/21 00:43	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/21/21 00:43	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/21/21 00:43	1
Bromoform	ND		0.50	0.39	ug/L			05/21/21 00:43	1
Bromomethane	ND		1.0	0.93	ug/L			05/21/21 00:43	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/21/21 00:43	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/21/21 00:43	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/21/21 00:43	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/21/21 00:43	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/21/21 00:43	1
Chloroethane	ND		0.50	0.44	ug/L			05/21/21 00:43	1
Chloroform	ND		0.50	0.28	ug/L			05/21/21 00:43	1
Chloromethane	ND		1.0	0.29	ug/L			05/21/21 00:43	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/21/21 00:43	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/21/21 00:43	1
Dibromomethane	ND		0.50	0.23	ug/L			05/21/21 00:43	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/21/21 00:43	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/21/21 00:43	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/21/21 00:43	1
Iodomethane	ND		25	5.9	ug/L			05/21/21 00:43	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/21/21 00:43	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/21/21 00:43	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/21/21 00:43	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/21/21 00:43	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/21/21 00:43	1
Naphthalene	ND		1.0	0.32	ug/L			05/21/21 00:43	1
o-Xylene	ND		0.50	0.35	ug/L			05/21/21 00:43	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/21/21 00:43	1
Propionitrile	ND		5.0	3.7	ug/L			05/21/21 00:43	1
Styrene	ND		0.50	0.28	ug/L			05/21/21 00:43	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/21/21 00:43	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/21/21 00:43	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/21/21 00:43	1
t-Butanol	ND		5.0	4.0	ug/L			05/21/21 00:43	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/21/21 00:43	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/21/21 00:43	1
Toluene	ND		0.50	0.33	ug/L			05/21/21 00:43	1
Trichloroethene	ND		0.50	0.29	ug/L			05/21/21 00:43	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/21/21 00:43	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/21/21 00:43	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/21/21 00:43	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Sulfur dioxide	96	T J N	ug/L		1.97	7446-09-5		05/21/21 00:43	1
Unknown	180	T J	ug/L		2.04			05/21/21 00:43	1
Unknown	76	T J	ug/L		2.30			05/21/21 00:43	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: CM-9R3

Lab Sample ID: 440-283533-2

Date Collected: 05/19/21 09:27

Matrix: Water

Date Received: 05/19/21 16:15

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	140	TJ	ug/L		2.46			05/21/21 00:43	1
Unknown	49	TJ	ug/L		2.48			05/21/21 00:43	1
Unknown	110	TJ	ug/L		2.53			05/21/21 00:43	1
Unknown	56	TJ	ug/L		2.74			05/21/21 00:43	1
Unknown	26	TJ	ug/L		2.84			05/21/21 00:43	1
Unknown	46	TJ	ug/L		2.88			05/21/21 00:43	1
Unknown	56	TJ	ug/L		2.98			05/21/21 00:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		68 - 135		05/21/21 00:43	1
4-Bromofluorobenzene (Surr)	100		71 - 120		05/21/21 00:43	1
Dibromofluoromethane (Surr)	102		80 - 120		05/21/21 00:43	1
Toluene-d8 (Surr)	98		80 - 120		05/21/21 00:43	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/24/21 08:38	05/25/21 11:26	1
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8	42		15 - 150	05/24/21 08:38	05/25/21 11:26	1			

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	109		46 - 128	05/24/21 08:38	05/25/21 11:26	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.26	J	0.50	0.24	mg/L			05/19/21 20:48	1
Nitrate as N	0.35		0.11	0.055	mg/L			05/19/21 20:48	1
Chloride	15		0.50	0.25	mg/L			05/19/21 20:48	1
Fluoride	1.8		0.50	0.20	mg/L			05/19/21 20:48	1
Sulfate	2600		250	130	mg/L			05/19/21 23:51	500

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	360		0.10	0.050	mg/L		05/24/21 12:05	05/26/21 16:02	1
Iron	4.2		0.10	0.050	mg/L		05/24/21 12:05	05/26/21 16:02	1
Magnesium	220		0.020	0.010	mg/L		05/24/21 12:05	05/26/21 16:02	1
Boron	1.8		0.050	0.025	mg/L		05/24/21 12:05	05/26/21 16:02	1
Manganese	2.4		0.020	0.015	mg/L		05/24/21 12:05	05/26/21 16:02	1
Sodium	420		0.50	0.26	mg/L		05/24/21 12:05	05/26/21 16:02	1
Potassium	12		0.50	0.25	mg/L		05/24/21 12:05	05/26/21 16:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	4.2		0.20	0.10	mg/L			05/21/21 12:08	1
Chemical Oxygen Demand	ND		20	10	mg/L			05/21/21 14:14	1
Total Dissolved Solids	4100		50	25	mg/L			05/26/21 09:23	1
Total Sulfide	ND		0.050	0.027	mg/L			05/25/21 15:54	1
Total Organic Carbon	8.5		0.50	0.25	mg/L			05/21/21 14:31	5
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	180		4.0	4.0	mg/L			05/20/21 05:56	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: CM-9R3

Lab Sample ID: 440-283533-2

Date Collected: 05/19/21 09:27

Matrix: Water

Date Received: 05/19/21 16:15

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	180		4.0	4.0	mg/L			05/20/21 05:56	1
Carbon Dioxide, Free	86		2.0	2.0	mg/L			05/26/21 16:31	1

Client Sample ID: CM-10R

Lab Sample ID: 440-283533-3

Date Collected: 05/19/21 10:47

Matrix: Water

Date Received: 05/19/21 16:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/21/21 01:09	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/21/21 01:09	1
1,1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/21/21 01:09	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/21/21 01:09	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/21/21 01:09	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/21/21 01:09	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/21/21 01:09	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/21/21 01:09	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/21/21 01:09	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/21/21 01:09	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/21/21 01:09	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/21/21 01:09	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/21/21 01:09	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/21/21 01:09	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/21/21 01:09	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/21/21 01:09	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/21/21 01:09	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/21/21 01:09	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/21/21 01:09	1
2-Hexanone	ND		6.0	4.3	ug/L			05/21/21 01:09	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/21/21 01:09	1
Acetone	ND		8.0	4.0	ug/L			05/21/21 01:09	1
Acetonitrile	ND		10	3.9	ug/L			05/21/21 01:09	1
Allyl chloride	ND		2.0	0.38	ug/L			05/21/21 01:09	1
Benzene	ND		0.50	0.27	ug/L			05/21/21 01:09	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/21/21 01:09	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/21/21 01:09	1
Bromoform	ND		0.50	0.39	ug/L			05/21/21 01:09	1
Bromomethane	ND		1.0	0.93	ug/L			05/21/21 01:09	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/21/21 01:09	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/21/21 01:09	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/21/21 01:09	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/21/21 01:09	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/21/21 01:09	1
Chloroethane	ND		0.50	0.44	ug/L			05/21/21 01:09	1
Chloroform	ND		0.50	0.28	ug/L			05/21/21 01:09	1
Chloromethane	ND		1.0	0.29	ug/L			05/21/21 01:09	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/21/21 01:09	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/21/21 01:09	1
Dibromomethane	ND		0.50	0.23	ug/L			05/21/21 01:09	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/21/21 01:09	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: CM-10R

Lab Sample ID: 440-283533-3

Date Collected: 05/19/21 10:47

Matrix: Water

Date Received: 05/19/21 16:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/21/21 01:09	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/21/21 01:09	1
Iodomethane	ND		25	5.9	ug/L			05/21/21 01:09	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/21/21 01:09	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/21/21 01:09	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/21/21 01:09	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/21/21 01:09	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/21/21 01:09	1
Naphthalene	ND		1.0	0.32	ug/L			05/21/21 01:09	1
o-Xylene	ND		0.50	0.35	ug/L			05/21/21 01:09	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/21/21 01:09	1
Propionitrile	ND		5.0	3.7	ug/L			05/21/21 01:09	1
Styrene	ND		0.50	0.28	ug/L			05/21/21 01:09	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/21/21 01:09	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/21/21 01:09	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/21/21 01:09	1
t-Butanol	ND		5.0	4.0	ug/L			05/21/21 01:09	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/21/21 01:09	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/21/21 01:09	1
Toluene	ND		0.50	0.33	ug/L			05/21/21 01:09	1
Trichloroethene	ND		0.50	0.29	ug/L			05/21/21 01:09	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/21/21 01:09	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/21/21 01:09	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/21/21 01:09	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Urea	120	T J N	ug/L		1.81	57-13-6		05/21/21 01:09	1
Sulfur dioxide	3800	T J N	ug/L		2.13	7446-09-5		05/21/21 01:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		68 - 135		05/21/21 01:09	1
4-Bromofluorobenzene (Surr)	101		71 - 120		05/21/21 01:09	1
Dibromofluoromethane (Surr)	101		80 - 120		05/21/21 01:09	1
Toluene-d8 (Surr)	99		80 - 120		05/21/21 01:09	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/24/21 08:38	05/25/21 11:41	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	49		15 - 150	05/24/21 08:38	05/25/21 11:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	105		46 - 128	05/24/21 08:38	05/25/21 11:41	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.50	0.24	mg/L			05/19/21 21:23	1
Nitrate as N	ND		0.11	0.055	mg/L			05/19/21 21:23	1
Chloride	10		0.50	0.25	mg/L			05/19/21 21:23	1
Fluoride	1.2		0.50	0.20	mg/L			05/19/21 21:23	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: CM-10R

Lab Sample ID: 440-283533-3

Date Collected: 05/19/21 10:47

Matrix: Water

Date Received: 05/19/21 16:15

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1400		25	13	mg/L			05/19/21 21:41	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	230		0.10	0.050	mg/L		05/24/21 12:05	05/26/21 16:05	1
Iron	0.089	J	0.10	0.050	mg/L		05/24/21 12:05	05/26/21 16:05	1
Magnesium	190		0.020	0.010	mg/L		05/24/21 12:05	05/26/21 16:05	1
Boron	0.83		0.050	0.025	mg/L		05/24/21 12:05	05/26/21 16:05	1
Manganese	0.32		0.020	0.015	mg/L		05/24/21 12:05	05/26/21 16:05	1
Sodium	170		0.50	0.26	mg/L		05/24/21 12:05	05/26/21 16:05	1
Potassium	10		0.50	0.25	mg/L		05/24/21 12:05	05/26/21 16:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	10		0.20	0.10	mg/L			05/21/21 12:13	1
Chemical Oxygen Demand	20		20	10	mg/L			05/21/21 14:14	1
Total Dissolved Solids	2400		20	10	mg/L			05/26/21 09:23	1
Total Sulfide	3.4		0.25	0.14	mg/L			05/25/21 15:54	5
Total Organic Carbon	7.1		0.50	0.25	mg/L			05/21/21 14:43	5
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	490		4.0	4.0	mg/L			05/20/21 06:07	1
Bicarbonate Alkalinity as CaCO3	490		4.0	4.0	mg/L			05/20/21 06:07	1
Carbon Dioxide, Free	100		2.0	2.0	mg/L			05/26/21 16:31	1

Client Sample ID: CM-11R

Lab Sample ID: 440-283533-4

Date Collected: 05/19/21 08:01

Matrix: Water

Date Received: 05/19/21 16:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/21/21 01:35	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/21/21 01:35	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/21/21 01:35	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/21/21 01:35	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/21/21 01:35	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/21/21 01:35	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/21/21 01:35	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/21/21 01:35	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/21/21 01:35	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/21/21 01:35	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/21/21 01:35	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/21/21 01:35	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/21/21 01:35	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/21/21 01:35	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/21/21 01:35	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/21/21 01:35	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/21/21 01:35	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/21/21 01:35	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/21/21 01:35	1
2-Hexanone	ND		6.0	4.3	ug/L			05/21/21 01:35	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: CM-11R

Lab Sample ID: 440-283533-4

Date Collected: 05/19/21 08:01

Matrix: Water

Date Received: 05/19/21 16:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/21/21 01:35	1
Acetone	ND		8.0	4.0	ug/L			05/21/21 01:35	1
Acetonitrile	ND		10	3.9	ug/L			05/21/21 01:35	1
Allyl chloride	ND		2.0	0.38	ug/L			05/21/21 01:35	1
Benzene	ND		0.50	0.27	ug/L			05/21/21 01:35	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/21/21 01:35	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/21/21 01:35	1
Bromoform	ND		0.50	0.39	ug/L			05/21/21 01:35	1
Bromomethane	ND		1.0	0.93	ug/L			05/21/21 01:35	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/21/21 01:35	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/21/21 01:35	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/21/21 01:35	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/21/21 01:35	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/21/21 01:35	1
Chloroethane	ND		0.50	0.44	ug/L			05/21/21 01:35	1
Chloroform	ND		0.50	0.28	ug/L			05/21/21 01:35	1
Chloromethane	ND		1.0	0.29	ug/L			05/21/21 01:35	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/21/21 01:35	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/21/21 01:35	1
Dibromomethane	ND		0.50	0.23	ug/L			05/21/21 01:35	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/21/21 01:35	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/21/21 01:35	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/21/21 01:35	1
Iodomethane	ND		25	5.9	ug/L			05/21/21 01:35	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/21/21 01:35	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/21/21 01:35	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/21/21 01:35	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/21/21 01:35	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/21/21 01:35	1
Naphthalene	ND		1.0	0.32	ug/L			05/21/21 01:35	1
o-Xylene	ND		0.50	0.35	ug/L			05/21/21 01:35	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/21/21 01:35	1
Propionitrile	ND		5.0	3.7	ug/L			05/21/21 01:35	1
Styrene	ND		0.50	0.28	ug/L			05/21/21 01:35	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/21/21 01:35	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/21/21 01:35	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/21/21 01:35	1
t-Butanol	ND		5.0	4.0	ug/L			05/21/21 01:35	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/21/21 01:35	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/21/21 01:35	1
Toluene	ND		0.50	0.33	ug/L			05/21/21 01:35	1
Trichloroethene	ND		0.50	0.29	ug/L			05/21/21 01:35	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/21/21 01:35	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/21/21 01:35	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/21/21 01:35	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Sulfur dioxide	170	T J N	ug/L		1.97	7446-09-5		05/21/21 01:35	1
Unknown	91	T J	ug/L		2.13			05/21/21 01:35	1
Unknown	160	T J	ug/L		2.20			05/21/21 01:35	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: CM-11R

Lab Sample ID: 440-283533-4

Date Collected: 05/19/21 08:01

Matrix: Water

Date Received: 05/19/21 16:15

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	35	T J	ug/L		2.43			05/21/21 01:35	1
Unknown	110	T J	ug/L		2.47			05/21/21 01:35	1
Unknown	22	T J	ug/L		2.64			05/21/21 01:35	1
Unknown	75	T J	ug/L		2.74			05/21/21 01:35	1
Unknown	22	T J	ug/L		2.84			05/21/21 01:35	1
Unknown	52	T J	ug/L		2.90			05/21/21 01:35	1
Unknown	17	T J	ug/L		2.97			05/21/21 01:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		68 - 135		05/21/21 01:35	1
4-Bromofluorobenzene (Surr)	99		71 - 120		05/21/21 01:35	1
Dibromofluoromethane (Surr)	102		80 - 120		05/21/21 01:35	1
Toluene-d8 (Surr)	103		80 - 120		05/21/21 01:35	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/24/21 08:38	05/25/21 11:55	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	45		15 - 150	05/24/21 08:38	05/25/21 11:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	110		46 - 128	05/24/21 08:38	05/25/21 11:55	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.50	0.24	mg/L			05/19/21 21:58	1
Nitrate as N	1.2		0.11	0.055	mg/L			05/19/21 21:58	1
Chloride	10		0.50	0.25	mg/L			05/19/21 21:58	1
Fluoride	0.66		0.50	0.20	mg/L			05/19/21 21:58	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2100		250	130	mg/L			05/20/21 00:08	500

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	230		0.10	0.050	mg/L		05/24/21 12:05	05/26/21 16:07	1
Iron	0.058	J	0.10	0.050	mg/L		05/24/21 12:05	05/26/21 16:07	1
Magnesium	140		0.020	0.010	mg/L		05/24/21 12:05	05/26/21 16:07	1
Boron	1.2		0.050	0.025	mg/L		05/24/21 12:05	05/26/21 16:07	1
Manganese	2.8		0.020	0.015	mg/L		05/24/21 12:05	05/26/21 16:07	1
Sodium	460		0.50	0.26	mg/L		05/24/21 12:05	05/26/21 16:07	1
Potassium	9.3		0.50	0.25	mg/L		05/24/21 12:05	05/26/21 16:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	1.1		0.20	0.10	mg/L			05/21/21 12:18	1
Chemical Oxygen Demand	ND		20	10	mg/L			05/21/21 14:14	1
Total Dissolved Solids	3300		20	10	mg/L			05/26/21 09:23	1
Total Sulfide	ND		0.050	0.027	mg/L			05/25/21 15:54	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: CM-11R

Lab Sample ID: 440-283533-4

Date Collected: 05/19/21 08:01

Matrix: Water

Date Received: 05/19/21 16:15

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	6.5		0.50	0.25	mg/L			05/24/21 06:01	5
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	34		4.0	4.0	mg/L			05/20/21 06:13	1
Bicarbonate Alkalinity as CaCO3	34		4.0	4.0	mg/L			05/20/21 06:13	1
Carbon Dioxide, Free	8.8		2.0	2.0	mg/L			05/26/21 16:31	1

Client Sample ID: DW-5

Lab Sample ID: 440-283533-5

Date Collected: 05/19/21 12:25

Matrix: Water

Date Received: 05/19/21 16:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/21/21 02:00	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/21/21 02:00	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/21/21 02:00	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/21/21 02:00	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/21/21 02:00	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/21/21 02:00	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/21/21 02:00	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/21/21 02:00	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/21/21 02:00	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/21/21 02:00	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/21/21 02:00	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/21/21 02:00	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/21/21 02:00	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/21/21 02:00	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/21/21 02:00	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/21/21 02:00	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/21/21 02:00	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/21/21 02:00	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/21/21 02:00	1
2-Hexanone	ND		6.0	4.3	ug/L			05/21/21 02:00	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/21/21 02:00	1
Acetone	ND		8.0	4.0	ug/L			05/21/21 02:00	1
Acetonitrile	ND		10	3.9	ug/L			05/21/21 02:00	1
Allyl chloride	ND		2.0	0.38	ug/L			05/21/21 02:00	1
Benzene	ND		0.50	0.27	ug/L			05/21/21 02:00	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/21/21 02:00	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/21/21 02:00	1
Bromoform	ND		0.50	0.39	ug/L			05/21/21 02:00	1
Bromomethane	ND		1.0	0.93	ug/L			05/21/21 02:00	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/21/21 02:00	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/21/21 02:00	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/21/21 02:00	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/21/21 02:00	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/21/21 02:00	1
Chloroethane	ND		0.50	0.44	ug/L			05/21/21 02:00	1
Chloroform	ND		0.50	0.28	ug/L			05/21/21 02:00	1
Chloromethane	ND		1.0	0.29	ug/L			05/21/21 02:00	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/21/21 02:00	1

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Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: DW-5

Lab Sample ID: 440-283533-5

Date Collected: 05/19/21 12:25

Matrix: Water

Date Received: 05/19/21 16:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		0.50	0.27	ug/L			05/21/21 02:00	1
Dibromomethane	ND		0.50	0.23	ug/L			05/21/21 02:00	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/21/21 02:00	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/21/21 02:00	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/21/21 02:00	1
Iodomethane	ND		25	5.9	ug/L			05/21/21 02:00	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/21/21 02:00	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/21/21 02:00	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/21/21 02:00	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/21/21 02:00	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/21/21 02:00	1
Naphthalene	ND		1.0	0.32	ug/L			05/21/21 02:00	1
o-Xylene	ND		0.50	0.35	ug/L			05/21/21 02:00	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/21/21 02:00	1
Propionitrile	ND		5.0	3.7	ug/L			05/21/21 02:00	1
Styrene	ND		0.50	0.28	ug/L			05/21/21 02:00	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/21/21 02:00	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/21/21 02:00	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/21/21 02:00	1
t-Butanol	4.1	J	5.0	4.0	ug/L			05/21/21 02:00	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/21/21 02:00	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/21/21 02:00	1
Toluene	ND		0.50	0.33	ug/L			05/21/21 02:00	1
Trichloroethene	ND		0.50	0.29	ug/L			05/21/21 02:00	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/21/21 02:00	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/21/21 02:00	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/21/21 02:00	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Propane, 2,2-dimethyl-	8.8	T J N	ug/L		2.23	463-82-1		05/21/21 02:00	1
Butane, 2,2-dimethyl-	7.9	T J N	ug/L		3.76	75-83-2		05/21/21 02:00	1
Butane, 2,3-dimethyl-	20	T J N	ug/L		4.46	79-29-8		05/21/21 02:00	1
Benzene, (2-methylpropyl)-	6.9	T J N	ug/L		14.17	538-93-2		05/21/21 02:00	1
1H-Indene, 2,3-dihydro-1,1-dimethyl-	7.8	T J N	ug/L		15.72	4912-92-9		05/21/21 02:00	1
Benzene, 1,2,3,5-tetramethyl-	27	T J N	ug/L		15.84	527-53-7		05/21/21 02:00	1
Benzene, 1,3-dimethyl-5-(1-methylethyl)-	9.0	T J N	ug/L		16.91	4706-90-5		05/21/21 02:00	1
1H-Indene, 2,3-dihydro-4,7-dimethyl-	9.1	T J N	ug/L		17.89	6682-71-9		05/21/21 02:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		68 - 135		05/21/21 02:00	1
4-Bromofluorobenzene (Surr)	101		71 - 120		05/21/21 02:00	1
Dibromofluoromethane (Surr)	100		80 - 120		05/21/21 02:00	1
Toluene-d8 (Surr)	99		80 - 120		05/21/21 02:00	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/24/21 08:38	05/25/21 12:10	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	47		15 - 150	05/24/21 08:38	05/25/21 12:10	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: DW-5

Lab Sample ID: 440-283533-5

Date Collected: 05/19/21 12:25

Matrix: Water

Date Received: 05/19/21 16:15

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	101		46 - 128	05/24/21 08:38	05/25/21 12:10	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.50	0.24	mg/L			05/19/21 21:16	1
Nitrate as N	ND		0.11	0.055	mg/L			05/19/21 21:16	1
Fluoride	3.1		0.50	0.20	mg/L			05/19/21 21:16	1
Sulfate	ND		0.50	0.25	mg/L			05/19/21 21:16	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19		2.5	1.3	mg/L			05/19/21 22:04	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	5.2		0.10	0.050	mg/L		05/24/21 12:05	05/26/21 16:38	1
Iron	0.10		0.10	0.050	mg/L		05/24/21 12:05	05/26/21 16:38	1
Magnesium	0.87		0.020	0.010	mg/L		05/24/21 12:05	05/26/21 16:38	1
Boron	2.5		0.050	0.025	mg/L		05/24/21 12:05	05/26/21 16:38	1
Manganese	0.094		0.020	0.015	mg/L		05/24/21 12:05	05/26/21 16:38	1
Sodium	420		0.50	0.26	mg/L		05/24/21 12:05	05/26/21 16:38	1
Potassium	0.67		0.50	0.25	mg/L		05/24/21 12:05	05/26/21 16:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	0.28		0.20	0.10	mg/L			05/21/21 12:24	1
Chemical Oxygen Demand	ND		20	10	mg/L			05/25/21 09:22	1
Total Dissolved Solids	1100		10	5.0	mg/L			05/26/21 09:23	1
Total Sulfide	0.041	J	0.050	0.027	mg/L			05/25/21 15:54	1
Total Organic Carbon	7.0		0.50	0.25	mg/L			05/24/21 06:27	5
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	910		4.0	4.0	mg/L			05/20/21 06:47	1
Bicarbonate Alkalinity as CaCO3	870		4.0	4.0	mg/L			05/20/21 06:47	1
Carbon Dioxide, Free	11		2.0	2.0	mg/L			05/26/21 16:31	1

Client Sample ID: Field Blank

Lab Sample ID: 440-283533-6

Date Collected: 05/19/21 00:01

Matrix: Water

Date Received: 05/19/21 16:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/20/21 22:35	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/20/21 22:35	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/20/21 22:35	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/20/21 22:35	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/20/21 22:35	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/20/21 22:35	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/20/21 22:35	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/20/21 22:35	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/20/21 22:35	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/20/21 22:35	1

Eurofins Calscience Irvine

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: Field Blank

Lab Sample ID: 440-283533-6

Date Collected: 05/19/21 00:01

Matrix: Water

Date Received: 05/19/21 16:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/20/21 22:35	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/20/21 22:35	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/20/21 22:35	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/20/21 22:35	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/20/21 22:35	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/20/21 22:35	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/20/21 22:35	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/20/21 22:35	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/20/21 22:35	1
2-Hexanone	ND		6.0	4.3	ug/L			05/20/21 22:35	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/20/21 22:35	1
Acetone	5.2	J	8.0	4.0	ug/L			05/20/21 22:35	1
Acetonitrile	ND		10	3.9	ug/L			05/20/21 22:35	1
Allyl chloride	ND		2.0	0.38	ug/L			05/20/21 22:35	1
Benzene	ND		0.50	0.27	ug/L			05/20/21 22:35	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/20/21 22:35	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/20/21 22:35	1
Bromoform	ND		0.50	0.39	ug/L			05/20/21 22:35	1
Bromomethane	ND		1.0	0.93	ug/L			05/20/21 22:35	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/20/21 22:35	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/20/21 22:35	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/20/21 22:35	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/20/21 22:35	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/20/21 22:35	1
Chloroethane	ND		0.50	0.44	ug/L			05/20/21 22:35	1
Chloroform	ND		0.50	0.28	ug/L			05/20/21 22:35	1
Chloromethane	ND		1.0	0.29	ug/L			05/20/21 22:35	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/20/21 22:35	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/20/21 22:35	1
Dibromomethane	ND		0.50	0.23	ug/L			05/20/21 22:35	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/20/21 22:35	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/20/21 22:35	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/20/21 22:35	1
Iodomethane	ND		25	5.9	ug/L			05/20/21 22:35	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/20/21 22:35	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/20/21 22:35	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/20/21 22:35	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/20/21 22:35	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/20/21 22:35	1
Naphthalene	ND		1.0	0.32	ug/L			05/20/21 22:35	1
o-Xylene	ND		0.50	0.35	ug/L			05/20/21 22:35	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/20/21 22:35	1
Propionitrile	ND		5.0	3.7	ug/L			05/20/21 22:35	1
Styrene	ND		0.50	0.28	ug/L			05/20/21 22:35	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/20/21 22:35	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/20/21 22:35	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/20/21 22:35	1
t-Butanol	ND		5.0	4.0	ug/L			05/20/21 22:35	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/20/21 22:35	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: Field Blank

Lab Sample ID: 440-283533-6

Date Collected: 05/19/21 00:01

Matrix: Water

Date Received: 05/19/21 16:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/20/21 22:35	1
Toluene	ND		0.50	0.33	ug/L			05/20/21 22:35	1
Trichloroethene	ND		0.50	0.29	ug/L			05/20/21 22:35	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/20/21 22:35	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/20/21 22:35	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/20/21 22:35	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	240	T J	ug/L		1.78			05/20/21 22:35	1
Sulfur dioxide	310	T J N	ug/L		1.97	7446-09-5		05/20/21 22:35	1
Unknown	270	T J	ug/L		2.45			05/20/21 22:35	1
Unknown	70	T J	ug/L		2.62			05/20/21 22:35	1
Unknown	28	T J	ug/L		2.75			05/20/21 22:35	1
Unknown	40	T J	ug/L		2.79			05/20/21 22:35	1
Unknown	25	T J	ug/L		2.90			05/20/21 22:35	1
Unknown	60	T J	ug/L		2.93			05/20/21 22:35	1
Unknown	36	T J	ug/L		3.01			05/20/21 22:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		68 - 135		05/20/21 22:35	1
4-Bromofluorobenzene (Surr)	99		71 - 120		05/20/21 22:35	1
Dibromofluoromethane (Surr)	105		80 - 120		05/20/21 22:35	1
Toluene-d8 (Surr)	98		80 - 120		05/20/21 22:35	1

Client Sample ID: Trip Blank

Lab Sample ID: 440-283533-7

Date Collected: 05/19/21 00:01

Matrix: Water

Date Received: 05/19/21 16:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/20/21 23:01	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/20/21 23:01	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/20/21 23:01	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/20/21 23:01	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/20/21 23:01	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/20/21 23:01	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/20/21 23:01	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/20/21 23:01	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/20/21 23:01	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/20/21 23:01	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/20/21 23:01	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/20/21 23:01	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/20/21 23:01	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/20/21 23:01	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/20/21 23:01	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/20/21 23:01	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/20/21 23:01	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/20/21 23:01	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/20/21 23:01	1
2-Hexanone	ND		6.0	4.3	ug/L			05/20/21 23:01	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-283533-7

Date Collected: 05/19/21 00:01

Matrix: Water

Date Received: 05/19/21 16:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/20/21 23:01	1
Acetone	ND		8.0	4.0	ug/L			05/20/21 23:01	1
Acetonitrile	ND		10	3.9	ug/L			05/20/21 23:01	1
Allyl chloride	ND		2.0	0.38	ug/L			05/20/21 23:01	1
Benzene	ND		0.50	0.27	ug/L			05/20/21 23:01	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/20/21 23:01	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/20/21 23:01	1
Bromoform	ND		0.50	0.39	ug/L			05/20/21 23:01	1
Bromomethane	ND		1.0	0.93	ug/L			05/20/21 23:01	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/20/21 23:01	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/20/21 23:01	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/20/21 23:01	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/20/21 23:01	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/20/21 23:01	1
Chloroethane	ND		0.50	0.44	ug/L			05/20/21 23:01	1
Chloroform	ND		0.50	0.28	ug/L			05/20/21 23:01	1
Chloromethane	ND		1.0	0.29	ug/L			05/20/21 23:01	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/20/21 23:01	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/20/21 23:01	1
Dibromomethane	ND		0.50	0.23	ug/L			05/20/21 23:01	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/20/21 23:01	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/20/21 23:01	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/20/21 23:01	1
Iodomethane	ND		25	5.9	ug/L			05/20/21 23:01	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/20/21 23:01	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/20/21 23:01	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/20/21 23:01	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/20/21 23:01	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/20/21 23:01	1
Naphthalene	ND		1.0	0.32	ug/L			05/20/21 23:01	1
o-Xylene	ND		0.50	0.35	ug/L			05/20/21 23:01	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/20/21 23:01	1
Propionitrile	ND		5.0	3.7	ug/L			05/20/21 23:01	1
Styrene	ND		0.50	0.28	ug/L			05/20/21 23:01	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/20/21 23:01	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/20/21 23:01	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/20/21 23:01	1
t-Butanol	ND		5.0	4.0	ug/L			05/20/21 23:01	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/20/21 23:01	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/20/21 23:01	1
Toluene	ND		0.50	0.33	ug/L			05/20/21 23:01	1
Trichloroethene	ND		0.50	0.29	ug/L			05/20/21 23:01	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/20/21 23:01	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/20/21 23:01	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/20/21 23:01	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Sulfur dioxide	500	T J N	ug/L		1.97	7446-09-5		05/20/21 23:01	1
Unknown	130	T J	ug/L		2.30			05/20/21 23:01	1
Unknown	340	T J	ug/L		2.45			05/20/21 23:01	1

Eurofins Calscience Irvine

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-283533-7

Date Collected: 05/19/21 00:01

Matrix: Water

Date Received: 05/19/21 16:15

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

<u>Tentatively Identified Compound</u>	<u>Est. Result</u>	<u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>RT</u>	<u>CAS No.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Unknown	78	TJ	ug/L		2.63			05/20/21 23:01	1
Unknown	85	TJ	ug/L		2.66			05/20/21 23:01	1
Unknown	26	TJ	ug/L		2.74			05/20/21 23:01	1
Unknown	48	TJ	ug/L		2.77			05/20/21 23:01	1
Unknown	28	TJ	ug/L		2.80			05/20/21 23:01	1
Unknown	260	TJ	ug/L		2.98			05/20/21 23:01	1
Unknown	54	TJ	ug/L		4.59			05/20/21 23:01	1

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
1,2-Dichloroethane-d4 (Surr)	104		68 - 135		05/20/21 23:01	1
4-Bromofluorobenzene (Surr)	100		71 - 120		05/20/21 23:01	1
Dibromofluoromethane (Surr)	104		80 - 120		05/20/21 23:01	1
Toluene-d8 (Surr)	99		80 - 120		05/20/21 23:01	1

Method Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
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
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL IRV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

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:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

Lab Chronicle

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: MW-1

Lab Sample ID: 440-283533-1

Date Collected: 05/19/21 10:46

Matrix: Water

Date Received: 05/19/21 16:15

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	20 mL	20 mL	152338	05/21/21 23:53	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152514	05/24/21 08:38	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152716	05/25/21 11:12	AJ2Q	ECL 1
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	647110	05/19/21 20:13	PS	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	647111	05/19/21 20:13	PS	TAL IRV
Total/NA	Analysis	300.0		50			647111	05/19/21 20:30	PS	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647560	05/24/21 12:05		TAL IRV
Total Recoverable	Analysis	6010B		1			647899	05/26/21 15:59	K1UV	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	647432	05/21/21 11:52	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647434	05/21/21 14:14	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			647359	05/20/21 05:44	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	647789	05/26/21 09:23	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647846	05/26/21 16:31	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647714	05/25/21 15:53	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		5	100 mL	100 mL	647361	05/20/21 12:09	YO8L	TAL IRV

Client Sample ID: CM-9R3

Lab Sample ID: 440-283533-2

Date Collected: 05/19/21 09:27

Matrix: Water

Date Received: 05/19/21 16:15

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	20 mL	20 mL	152010	05/21/21 00:43	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152514	05/24/21 08:38	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152716	05/25/21 11:26	AJ2Q	ECL 1
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	647110	05/19/21 20:48	PS	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	647111	05/19/21 20:48	PS	TAL IRV
Total/NA	Analysis	300.0		500			647111	05/19/21 23:51	PS	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647560	05/24/21 12:05		TAL IRV
Total Recoverable	Analysis	6010B		1			647899	05/26/21 16:02	K1UV	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	647432	05/21/21 12:08	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647434	05/21/21 14:14	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			647359	05/20/21 05:56	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	647789	05/26/21 09:23	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647846	05/26/21 16:31	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647714	05/25/21 15:54	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		5	100 mL	100 mL	647476	05/21/21 14:31	YO8L	TAL IRV

Lab Chronicle

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: CM-10R

Lab Sample ID: 440-283533-3

Date Collected: 05/19/21 10:47

Matrix: Water

Date Received: 05/19/21 16:15

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	20 mL	20 mL	152010	05/21/21 01:09	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152514	05/24/21 08:38	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152716	05/25/21 11:41	AJ2Q	ECL 1
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	647110	05/19/21 21:23	PS	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	647111	05/19/21 21:23	PS	TAL IRV
Total/NA	Analysis	300.0		50	5 mL	1.0 mL	647111	05/19/21 21:41	PS	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647560	05/24/21 12:05		TAL IRV
Total Recoverable	Analysis	6010B		1			647899	05/26/21 16:05	K1UV	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	647432	05/21/21 12:13	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647434	05/21/21 14:14	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			647359	05/20/21 06:07	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	647789	05/26/21 09:23	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647846	05/26/21 16:31	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		5	7.5 mL	7.5 mL	647714	05/25/21 15:54	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		5	100 mL	100 mL	647476	05/21/21 14:43	YO8L	TAL IRV

Client Sample ID: CM-11R

Lab Sample ID: 440-283533-4

Date Collected: 05/19/21 08:01

Matrix: Water

Date Received: 05/19/21 16:15

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	20 mL	20 mL	152010	05/21/21 01:35	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152514	05/24/21 08:38	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152716	05/25/21 11:55	AJ2Q	ECL 1
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	647110	05/19/21 21:58	PS	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	647111	05/19/21 21:58	PS	TAL IRV
Total/NA	Analysis	300.0	DL	500	5 mL	1.0 mL	647111	05/20/21 00:08	PS	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647560	05/24/21 12:05		TAL IRV
Total Recoverable	Analysis	6010B		1			647899	05/26/21 16:07	K1UV	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	647432	05/21/21 12:18	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647434	05/21/21 14:14	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			647359	05/20/21 06:13	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	647789	05/26/21 09:23	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647846	05/26/21 16:31	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647714	05/25/21 15:54	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		5	100 mL	100 mL	647622	05/24/21 06:01	YO8L	TAL IRV

Lab Chronicle

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Client Sample ID: DW-5

Lab Sample ID: 440-283533-5

Date Collected: 05/19/21 12:25

Matrix: Water

Date Received: 05/19/21 16:15

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	20 mL	20 mL	152010	05/21/21 02:00	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152514	05/24/21 08:38	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			152716	05/25/21 12:10	AJ2Q	ECL 1
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	647112	05/19/21 21:16	PS	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	647113	05/19/21 21:16	PS	TAL IRV
Total/NA	Analysis	300.0	DL	5	5 mL	1.0 mL	647113	05/19/21 22:04	PS	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647560	05/24/21 12:05		TAL IRV
Total Recoverable	Analysis	6010B		1			647899	05/26/21 16:38	K1UV	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	647432	05/21/21 12:24	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647656	05/25/21 09:22	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			647359	05/20/21 06:47	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	647789	05/26/21 09:23	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647846	05/26/21 16:31	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647714	05/25/21 15:54	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		5	100 mL	100 mL	647622	05/24/21 06:27	YO8L	TAL IRV

Client Sample ID: Field Blank

Lab Sample ID: 440-283533-6

Date Collected: 05/19/21 00:01

Matrix: Water

Date Received: 05/19/21 16:15

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	20 mL	20 mL	152010	05/20/21 22:35	A1W	ECL 2

Client Sample ID: Trip Blank

Lab Sample ID: 440-283533-7

Date Collected: 05/19/21 00:01

Matrix: Water

Date Received: 05/19/21 16:15

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	20 mL	20 mL	152010	05/20/21 23:01	A1W	ECL 2

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

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

Lab Sample ID: MB 570-152010/8
Matrix: Water
Analysis Batch: 152010

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/20/21 22:10	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/20/21 22:10	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/20/21 22:10	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/20/21 22:10	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/20/21 22:10	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/20/21 22:10	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/20/21 22:10	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/20/21 22:10	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/20/21 22:10	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/20/21 22:10	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/20/21 22:10	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/20/21 22:10	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/20/21 22:10	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/20/21 22:10	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/20/21 22:10	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/20/21 22:10	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/20/21 22:10	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/20/21 22:10	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/20/21 22:10	1
2-Hexanone	ND		6.0	4.3	ug/L			05/20/21 22:10	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/20/21 22:10	1
Acetone	ND		8.0	4.0	ug/L			05/20/21 22:10	1
Acetonitrile	ND		10	3.9	ug/L			05/20/21 22:10	1
Allyl chloride	ND		2.0	0.38	ug/L			05/20/21 22:10	1
Benzene	ND		0.50	0.27	ug/L			05/20/21 22:10	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/20/21 22:10	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/20/21 22:10	1
Bromoform	ND		0.50	0.39	ug/L			05/20/21 22:10	1
Bromomethane	ND		1.0	0.93	ug/L			05/20/21 22:10	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/20/21 22:10	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/20/21 22:10	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/20/21 22:10	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/20/21 22:10	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/20/21 22:10	1
Chloroethane	ND		0.50	0.44	ug/L			05/20/21 22:10	1
Chloroform	ND		0.50	0.28	ug/L			05/20/21 22:10	1
Chloromethane	ND		1.0	0.29	ug/L			05/20/21 22:10	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/20/21 22:10	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/20/21 22:10	1
Dibromomethane	ND		0.50	0.23	ug/L			05/20/21 22:10	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/20/21 22:10	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/20/21 22:10	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/20/21 22:10	1
Iodomethane	ND		25	5.9	ug/L			05/20/21 22:10	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/20/21 22:10	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/20/21 22:10	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/20/21 22:10	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/20/21 22:10	1

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

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

Lab Sample ID: MB 570-152010/8
Matrix: Water
Analysis Batch: 152010

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/20/21 22:10	1
Naphthalene	ND		1.0	0.32	ug/L			05/20/21 22:10	1
o-Xylene	ND		0.50	0.35	ug/L			05/20/21 22:10	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/20/21 22:10	1
Propionitrile	ND		5.0	3.7	ug/L			05/20/21 22:10	1
Styrene	ND		0.50	0.28	ug/L			05/20/21 22:10	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/20/21 22:10	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/20/21 22:10	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/20/21 22:10	1
t-Butanol	ND		5.0	4.0	ug/L			05/20/21 22:10	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/20/21 22:10	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/20/21 22:10	1
Toluene	ND		0.50	0.33	ug/L			05/20/21 22:10	1
Trichloroethene	ND		0.50	0.29	ug/L			05/20/21 22:10	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/20/21 22:10	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/20/21 22:10	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/20/21 22:10	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					05/20/21 22:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		68 - 135		05/20/21 22:10	1
4-Bromofluorobenzene (Surr)	100		71 - 120		05/20/21 22:10	1
Dibromofluoromethane (Surr)	104		80 - 120		05/20/21 22:10	1
Toluene-d8 (Surr)	99		80 - 120		05/20/21 22:10	1

Lab Sample ID: LCS 570-152010/4
Matrix: Water
Analysis Batch: 152010

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	9.84		ug/L		98	76 - 143
1,1,1-Trichloroethane	10.0	10.1		ug/L		101	75 - 128
1,1,2,2-Tetrachloroethane	10.0	9.14		ug/L		91	73 - 126
1,1,2-Trichloroethane	10.0	9.42		ug/L		94	80 - 120
1,1-Dichloroethane	10.0	9.95		ug/L		99	76 - 120
1,1-Dichloroethene	10.0	9.97		ug/L		100	72 - 120
1,1-Dichloropropene	10.0	10.3		ug/L		103	76 - 120
1,2,3-Trichloropropane	10.0	9.65		ug/L		97	66 - 131
1,2,4-Trichlorobenzene	10.0	9.24		ug/L		92	80 - 123
1,2-Dibromo-3-Chloropropane	10.0	9.14		ug/L		91	77 - 120
1,2-Dibromoethane (EDB)	10.0	10.0		ug/L		100	80 - 120
1,2-Dichlorobenzene	10.0	9.65		ug/L		97	79 - 123
1,2-Dichloroethane	10.0	10.1		ug/L		101	71 - 137
1,2-Dichloropropane	10.0	10.0		ug/L		100	80 - 120
1,3-Dichlorobenzene	10.0	9.65		ug/L		96	79 - 123
1,3-Dichloropropane	10.0	9.85		ug/L		98	80 - 123

Eurofins Calscience Irvine

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

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

Lab Sample ID: LCS 570-152010/4
Matrix: Water
Analysis Batch: 152010

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	10.0	9.55		ug/L		95	75 - 123
2,2-Dichloropropane	10.0	10.3		ug/L		103	78 - 133
2-Butanone (MEK)	10.0	11.1		ug/L		111	32 - 133
2-Hexanone	10.0	10.4		ug/L		104	57 - 127
4-Methyl-2-pentanone (MIBK)	10.0	10.2		ug/L		102	68 - 120
Acetone	10.0	12.2		ug/L		122	57 - 133
Benzene	10.0	9.97		ug/L		100	80 - 120
Bromochloromethane	10.0	10.6		ug/L		106	76 - 125
Bromodichloromethane	10.0	10.1		ug/L		101	77 - 141
Bromoform	10.0	9.20		ug/L		92	46 - 178
Bromomethane	10.0	11.7		ug/L		117	52 - 162
cis-1,2-Dichloroethene	10.0	10.3		ug/L		103	76 - 122
cis-1,3-Dichloropropene	10.0	10.1		ug/L		101	80 - 122
Carbon disulfide	10.0	9.45		ug/L		94	66 - 125
Carbon tetrachloride	10.0	10.5		ug/L		105	69 - 145
Chlorobenzene	10.0	9.81		ug/L		98	80 - 120
Chloroethane	10.0	10.0		ug/L		100	73 - 139
Chloroform	10.0	10.4		ug/L		104	80 - 120
Chloromethane	10.0	9.99		ug/L		100	35 - 159
Dibromochloromethane	10.0	9.86		ug/L		99	63 - 151
Dibromomethane	10.0	10.1		ug/L		101	80 - 121
Dichlorodifluoromethane	10.0	8.71		ug/L		87	59 - 139
Ethylbenzene	10.0	9.81		ug/L		98	80 - 120
Methylene Chloride	10.0	10.0		ug/L		100	70 - 120
Methyl tert-butyl ether	10.0	10.4		ug/L		104	72 - 120
Naphthalene	10.0	9.35		ug/L		94	75 - 120
o-Xylene	10.0	9.79		ug/L		98	80 - 122
m,p-Xylene	20.0	19.8		ug/L		99	80 - 122
Styrene	10.0	9.77		ug/L		98	80 - 121
trans-1,2-Dichloroethene	10.0	9.91		ug/L		99	67 - 123
trans-1,3-Dichloropropene	10.0	9.85		ug/L		98	78 - 140
t-Butanol	50.0	52.4		ug/L		105	65 - 147
Tetrachloroethene	10.0	10.0		ug/L		100	80 - 128
Toluene	10.0	9.99		ug/L		100	80 - 120
Trichloroethene	10.0	10.8		ug/L		108	80 - 123
Trichlorofluoromethane	10.0	10.5		ug/L		105	64 - 168
Vinyl acetate	10.0	9.17		ug/L		92	75 - 144
Vinyl chloride	10.0	10.1		ug/L		101	74 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	108		68 - 135
4-Bromofluorobenzene (Surr)	101		71 - 120
Dibromofluoromethane (Surr)	105		80 - 120
Toluene-d8 (Surr)	99		80 - 120

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

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

Lab Sample ID: LCSD 570-152010/5

Matrix: Water

Analysis Batch: 152010

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD
									Limit
1,1,1,2-Tetrachloroethane	10.0	10.6		ug/L		106	76 - 143	8	20
1,1,1-Trichloroethane	10.0	11.0		ug/L		110	75 - 128	8	20
1,1,2,2-Tetrachloroethane	10.0	9.74		ug/L		97	73 - 126	6	21
1,1,2-Trichloroethane	10.0	10.1		ug/L		101	80 - 120	7	20
1,1-Dichloroethane	10.0	10.7		ug/L		107	76 - 120	7	20
1,1-Dichloroethene	10.0	11.0		ug/L		110	72 - 120	10	20
1,1-Dichloropropene	10.0	11.2		ug/L		112	76 - 120	9	20
1,2,3-Trichloropropane	10.0	10.0		ug/L		100	66 - 131	4	20
1,2,4-Trichlorobenzene	10.0	10.3		ug/L		103	80 - 123	11	20
1,2-Dibromo-3-Chloropropane	10.0	9.81		ug/L		98	77 - 120	7	21
1,2-Dibromoethane (EDB)	10.0	10.5		ug/L		105	80 - 120	5	20
1,2-Dichlorobenzene	10.0	10.4		ug/L		104	79 - 123	8	20
1,2-Dichloroethane	10.0	10.9		ug/L		109	71 - 137	7	20
1,2-Dichloropropane	10.0	10.8		ug/L		108	80 - 120	8	20
1,3-Dichlorobenzene	10.0	10.6		ug/L		106	79 - 123	9	20
1,3-Dichloropropane	10.0	10.5		ug/L		105	80 - 123	6	20
1,4-Dichlorobenzene	10.0	10.3		ug/L		103	75 - 123	8	22
2,2-Dichloropropane	10.0	10.9		ug/L		109	78 - 133	6	20
2-Butanone (MEK)	10.0	11.4		ug/L		114	32 - 133	3	26
2-Hexanone	10.0	11.5		ug/L		115	57 - 127	10	21
4-Methyl-2-pentanone (MIBK)	10.0	10.7		ug/L		107	68 - 120	4	20
Acetone	10.0	13.0		ug/L		130	57 - 133	7	28
Benzene	10.0	10.9		ug/L		109	80 - 120	9	20
Bromochloromethane	10.0	10.9		ug/L		109	76 - 125	3	20
Bromodichloromethane	10.0	10.8		ug/L		108	77 - 141	7	20
Bromoform	10.0	10.1		ug/L		101	46 - 178	9	23
Bromomethane	10.0	11.9		ug/L		119	52 - 162	2	20
cis-1,2-Dichloroethene	10.0	10.9		ug/L		109	76 - 122	6	20
cis-1,3-Dichloropropene	10.0	10.7		ug/L		107	80 - 122	6	20
Carbon disulfide	10.0	10.4		ug/L		104	66 - 125	9	20
Carbon tetrachloride	10.0	11.4		ug/L		114	69 - 145	8	20
Chlorobenzene	10.0	10.7		ug/L		107	80 - 120	8	20
Chloroethane	10.0	10.8		ug/L		108	73 - 139	8	20
Chloroform	10.0	11.1		ug/L		111	80 - 120	6	20
Chloromethane	10.0	10.8		ug/L		108	35 - 159	7	20
Dibromochloromethane	10.0	10.8		ug/L		108	63 - 151	9	20
Dibromomethane	10.0	10.8		ug/L		108	80 - 121	7	20
Dichlorodifluoromethane	10.0	9.60		ug/L		96	59 - 139	10	20
Ethylbenzene	10.0	11.0		ug/L		110	80 - 120	11	20
Methylene Chloride	10.0	10.6		ug/L		106	70 - 120	6	20
Methyl tert-butyl ether	10.0	10.9		ug/L		109	72 - 120	4	20
Naphthalene	10.0	10.1		ug/L		101	75 - 120	8	22
o-Xylene	10.0	10.9		ug/L		109	80 - 122	10	20
m,p-Xylene	20.0	21.9		ug/L		109	80 - 122	10	20
Styrene	10.0	10.7		ug/L		107	80 - 121	9	20
trans-1,2-Dichloroethene	10.0	10.5		ug/L		105	67 - 123	6	20
trans-1,3-Dichloropropene	10.0	10.5		ug/L		105	78 - 140	6	20
t-Butanol	50.0	58.7		ug/L		117	65 - 147	11	21

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

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

Lab Sample ID: LCSD 570-152010/5
Matrix: Water
Analysis Batch: 152010

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrachloroethene	10.0	11.2		ug/L		112	80 - 128	11	20
Toluene	10.0	10.9		ug/L		109	80 - 120	9	20
Trichloroethene	10.0	11.7		ug/L		117	80 - 123	8	20
Trichlorofluoromethane	10.0	11.5		ug/L		115	64 - 168	9	20
Vinyl acetate	10.0	8.91		ug/L		89	75 - 144	3	25
Vinyl chloride	10.0	11.2		ug/L		112	74 - 130	10	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	106		68 - 135
4-Bromofluorobenzene (Surr)	101		71 - 120
Dibromofluoromethane (Surr)	104		80 - 120
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: MB 570-152338/8
Matrix: Water
Analysis Batch: 152338

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/21/21 21:59	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/21/21 21:59	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/21/21 21:59	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/21/21 21:59	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/21/21 21:59	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/21/21 21:59	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/21/21 21:59	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/21/21 21:59	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/21/21 21:59	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/21/21 21:59	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/21/21 21:59	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/21/21 21:59	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/21/21 21:59	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/21/21 21:59	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/21/21 21:59	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/21/21 21:59	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/21/21 21:59	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/21/21 21:59	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/21/21 21:59	1
2-Hexanone	ND		6.0	4.3	ug/L			05/21/21 21:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/21/21 21:59	1
Acetone	ND		8.0	4.0	ug/L			05/21/21 21:59	1
Acetonitrile	ND		10	3.9	ug/L			05/21/21 21:59	1
Allyl chloride	ND		2.0	0.38	ug/L			05/21/21 21:59	1
Benzene	ND		0.50	0.27	ug/L			05/21/21 21:59	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/21/21 21:59	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/21/21 21:59	1
Bromoform	ND		0.50	0.39	ug/L			05/21/21 21:59	1
Bromomethane	ND		1.0	0.93	ug/L			05/21/21 21:59	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/21/21 21:59	1

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

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

Lab Sample ID: MB 570-152338/8
 Matrix: Water
 Analysis Batch: 152338

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/21/21 21:59	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/21/21 21:59	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/21/21 21:59	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/21/21 21:59	1
Chloroethane	ND		0.50	0.44	ug/L			05/21/21 21:59	1
Chloroform	ND		0.50	0.28	ug/L			05/21/21 21:59	1
Chloromethane	ND		1.0	0.29	ug/L			05/21/21 21:59	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/21/21 21:59	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/21/21 21:59	1
Dibromomethane	ND		0.50	0.23	ug/L			05/21/21 21:59	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/21/21 21:59	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/21/21 21:59	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/21/21 21:59	1
Iodomethane	ND		25	5.9	ug/L			05/21/21 21:59	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/21/21 21:59	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/21/21 21:59	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/21/21 21:59	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/21/21 21:59	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/21/21 21:59	1
Naphthalene	ND		1.0	0.32	ug/L			05/21/21 21:59	1
o-Xylene	ND		0.50	0.35	ug/L			05/21/21 21:59	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/21/21 21:59	1
Propionitrile	ND		5.0	3.7	ug/L			05/21/21 21:59	1
Styrene	ND		0.50	0.28	ug/L			05/21/21 21:59	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/21/21 21:59	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/21/21 21:59	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/21/21 21:59	1
t-Butanol	ND		5.0	4.0	ug/L			05/21/21 21:59	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/21/21 21:59	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/21/21 21:59	1
Toluene	ND		0.50	0.33	ug/L			05/21/21 21:59	1
Trichloroethene	ND		0.50	0.29	ug/L			05/21/21 21:59	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/21/21 21:59	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/21/21 21:59	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/21/21 21:59	1

<i>Tentatively Identified Compound</i>	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
<i>Tentatively Identified Compound</i>	None		ug/L					05/21/21 21:59	1

<i>Surrogate</i>	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>1,2-Dichloroethane-d4 (Surr)</i>	106		68 - 135		05/21/21 21:59	1
<i>4-Bromofluorobenzene (Surr)</i>	103		71 - 120		05/21/21 21:59	1
<i>Dibromofluoromethane (Surr)</i>	103		80 - 120		05/21/21 21:59	1
<i>Toluene-d8 (Surr)</i>	96		80 - 120		05/21/21 21:59	1

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

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

Lab Sample ID: LCS 570-152338/4

Matrix: Water

Analysis Batch: 152338

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	9.91		ug/L		99	76 - 143
1,1,1-Trichloroethane	10.0	9.99		ug/L		100	75 - 128
1,1,2,2-Tetrachloroethane	10.0	9.76		ug/L		98	73 - 126
1,1,2-Trichloroethane	10.0	9.75		ug/L		97	80 - 120
1,1-Dichloroethane	10.0	10.1		ug/L		101	76 - 120
1,1-Dichloroethene	10.0	9.77		ug/L		98	72 - 120
1,1-Dichloropropene	10.0	10.2		ug/L		102	76 - 120
1,2,3-Trichloropropane	10.0	9.69		ug/L		97	66 - 131
1,2,4-Trichlorobenzene	10.0	10.0		ug/L		100	80 - 123
1,2-Dibromo-3-Chloropropane	10.0	9.66		ug/L		97	77 - 120
1,2-Dibromoethane (EDB)	10.0	10.3		ug/L		103	80 - 120
1,2-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 123
1,2-Dichloroethane	10.0	10.1		ug/L		101	71 - 137
1,2-Dichloropropane	10.0	10.3		ug/L		103	80 - 120
1,3-Dichlorobenzene	10.0	10.2		ug/L		102	79 - 123
1,3-Dichloropropane	10.0	9.95		ug/L		100	80 - 123
1,4-Dichlorobenzene	10.0	9.89		ug/L		99	75 - 123
2,2-Dichloropropane	10.0	10.6		ug/L		106	78 - 133
2-Butanone (MEK)	10.0	11.4		ug/L		114	32 - 133
2-Hexanone	10.0	10.3		ug/L		103	57 - 127
4-Methyl-2-pentanone (MIBK)	10.0	10.7		ug/L		107	68 - 120
Acetone	10.0	11.2		ug/L		112	57 - 133
Benzene	10.0	9.90		ug/L		99	80 - 120
Bromochloromethane	10.0	10.2		ug/L		102	76 - 125
Bromodichloromethane	10.0	10.1		ug/L		101	77 - 141
Bromoform	10.0	9.66		ug/L		97	46 - 178
Bromomethane	10.0	10.9		ug/L		109	52 - 162
cis-1,2-Dichloroethene	10.0	10.3		ug/L		103	76 - 122
cis-1,3-Dichloropropene	10.0	10.2		ug/L		102	80 - 122
Carbon disulfide	10.0	9.23		ug/L		92	66 - 125
Carbon tetrachloride	10.0	10.4		ug/L		104	69 - 145
Chlorobenzene	10.0	10.1		ug/L		101	80 - 120
Chloroethane	10.0	10.0		ug/L		100	73 - 139
Chloroform	10.0	10.4		ug/L		104	80 - 120
Chloromethane	10.0	9.32		ug/L		93	35 - 159
Dibromochloromethane	10.0	10.2		ug/L		102	63 - 151
Dibromomethane	10.0	10.0		ug/L		100	80 - 121
Dichlorodifluoromethane	10.0	8.28		ug/L		83	59 - 139
Ethylbenzene	10.0	10.1		ug/L		101	80 - 120
Methylene Chloride	10.0	9.76		ug/L		98	70 - 120
Methyl tert-butyl ether	10.0	10.4		ug/L		104	72 - 120
Naphthalene	10.0	10.1		ug/L		101	75 - 120
o-Xylene	10.0	10.1		ug/L		101	80 - 122
m,p-Xylene	20.0	20.3		ug/L		102	80 - 122
Styrene	10.0	10.0		ug/L		100	80 - 121
trans-1,2-Dichloroethene	10.0	9.97		ug/L		100	67 - 123
trans-1,3-Dichloropropene	10.0	10.2		ug/L		102	78 - 140
t-Butanol	50.0	52.8		ug/L		106	65 - 147

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

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

Lab Sample ID: LCS 570-152338/4
Matrix: Water
Analysis Batch: 152338

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrachloroethene	10.0	10.4		ug/L		104	80 - 128
Toluene	10.0	10.1		ug/L		101	80 - 120
Trichloroethene	10.0	10.2		ug/L		102	80 - 123
Trichlorofluoromethane	10.0	10.4		ug/L		104	64 - 168
Vinyl acetate	10.0	12.5		ug/L		125	75 - 144
Vinyl chloride	10.0	9.91		ug/L		99	74 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		68 - 135
4-Bromofluorobenzene (Surr)	99		71 - 120
Dibromofluoromethane (Surr)	103		80 - 120
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: LCSD 570-152338/5
Matrix: Water
Analysis Batch: 152338

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	10.0	10.4		ug/L		104	76 - 143	4	20
1,1,1-Trichloroethane	10.0	10.9		ug/L		109	75 - 128	9	20
1,1,2,2-Tetrachloroethane	10.0	9.70		ug/L		97	73 - 126	1	21
1,1,2-Trichloroethane	10.0	10.0		ug/L		100	80 - 120	3	20
1,1-Dichloroethane	10.0	10.7		ug/L		107	76 - 120	7	20
1,1-Dichloroethene	10.0	10.8		ug/L		108	72 - 120	10	20
1,1-Dichloropropene	10.0	11.2		ug/L		112	76 - 120	9	20
1,2,3-Trichloropropane	10.0	10.3		ug/L		103	66 - 131	6	20
1,2,4-Trichlorobenzene	10.0	9.98		ug/L		100	80 - 123	0	20
1,2-Dibromo-3-Chloropropane	10.0	8.91		ug/L		89	77 - 120	8	21
1,2-Dibromoethane (EDB)	10.0	10.4		ug/L		104	80 - 120	2	20
1,2-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 123	0	20
1,2-Dichloroethane	10.0	10.5		ug/L		105	71 - 137	4	20
1,2-Dichloropropane	10.0	10.6		ug/L		106	80 - 120	3	20
1,3-Dichlorobenzene	10.0	10.2		ug/L		102	79 - 123	0	20
1,3-Dichloropropane	10.0	10.2		ug/L		102	80 - 123	3	20
1,4-Dichlorobenzene	10.0	10.1		ug/L		101	75 - 123	2	22
2,2-Dichloropropane	10.0	11.4		ug/L		114	78 - 133	8	20
2-Butanone (MEK)	10.0	9.91		ug/L		99	32 - 133	14	26
2-Hexanone	10.0	10.9		ug/L		109	57 - 127	5	21
4-Methyl-2-pentanone (MIBK)	10.0	10.4		ug/L		104	68 - 120	2	20
Acetone	10.0	10.7		ug/L		107	57 - 133	4	28
Benzene	10.0	10.8		ug/L		108	80 - 120	8	20
Bromochloromethane	10.0	10.7		ug/L		107	76 - 125	5	20
Bromodichloromethane	10.0	10.7		ug/L		107	77 - 141	6	20
Bromoform	10.0	9.96		ug/L		100	46 - 178	3	23
Bromomethane	10.0	11.6		ug/L		116	52 - 162	7	20
cis-1,2-Dichloroethene	10.0	10.9		ug/L		109	76 - 122	5	20
cis-1,3-Dichloropropene	10.0	10.5		ug/L		105	80 - 122	3	20
Carbon disulfide	10.0	10.2		ug/L		102	66 - 125	10	20

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

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

Lab Sample ID: LCSD 570-152338/5
 Matrix: Water
 Analysis Batch: 152338

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Carbon tetrachloride	10.0	11.4		ug/L		114	69 - 145	9	20
Chlorobenzene	10.0	10.7		ug/L		107	80 - 120	5	20
Chloroethane	10.0	11.0		ug/L		110	73 - 139	9	20
Chloroform	10.0	11.1		ug/L		111	80 - 120	7	20
Chloromethane	10.0	10.2		ug/L		102	35 - 159	9	20
Dibromochloromethane	10.0	10.5		ug/L		105	63 - 151	3	20
Dibromomethane	10.0	10.5		ug/L		105	80 - 121	5	20
Dichlorodifluoromethane	10.0	9.03		ug/L		90	59 - 139	9	20
Ethylbenzene	10.0	10.8		ug/L		108	80 - 120	7	20
Methylene Chloride	10.0	10.3		ug/L		103	70 - 120	5	20
Methyl tert-butyl ether	10.0	10.9		ug/L		109	72 - 120	5	20
Naphthalene	10.0	9.89		ug/L		99	75 - 120	2	22
o-Xylene	10.0	10.6		ug/L		106	80 - 122	5	20
m,p-Xylene	20.0	21.7		ug/L		109	80 - 122	7	20
Styrene	10.0	10.6		ug/L		106	80 - 121	6	20
trans-1,2-Dichloroethene	10.0	10.6		ug/L		106	67 - 123	7	20
trans-1,3-Dichloropropene	10.0	10.3		ug/L		103	78 - 140	1	20
t-Butanol	50.0	52.0		ug/L		104	65 - 147	1	21
Tetrachloroethene	10.0	11.3		ug/L		113	80 - 128	8	20
Toluene	10.0	10.7		ug/L		107	80 - 120	6	20
Trichloroethene	10.0	10.9		ug/L		109	80 - 123	7	20
Trichlorofluoromethane	10.0	11.5		ug/L		115	64 - 168	10	20
Vinyl acetate	10.0	13.3		ug/L		133	75 - 144	6	25
Vinyl chloride	10.0	11.1		ug/L		111	74 - 130	12	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	103		68 - 135
4-Bromofluorobenzene (Surr)	100		71 - 120
Dibromofluoromethane (Surr)	101		80 - 120
Toluene-d8 (Surr)	99		80 - 120

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-152514/1-A
 Matrix: Water
 Analysis Batch: 152716

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 152514

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/24/21 08:38	05/25/21 09:59	1
Isotope Dilution	%Recovery	MB Qualifier	MB Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	44		15 - 150				05/24/21 08:38	05/25/21 09:59	1
Surrogate	%Recovery	MB Qualifier	MB Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	102		46 - 128				05/24/21 08:38	05/25/21 09:59	1

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: LCS 570-152514/2-A
Matrix: Water
Analysis Batch: 152716

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 152514

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane		20.0	19.6		ug/L		98	57 - 136
	LCS	LCS						
Isotope Dilution	%Recovery	Qualifier	Limits					
1,4-Dioxane-d8	41		15 - 150					
	LCS	LCS						
Surrogate	%Recovery	Qualifier	Limits					
Nitrobenzene-d5 (Surr)	113		46 - 128					

Lab Sample ID: LCSD 570-152514/3-A
Matrix: Water
Analysis Batch: 152716

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 152514

Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
1,4-Dioxane		20.0	19.4		ug/L		97	57 - 136	1	20
	LCSD	LCSD								
Isotope Dilution	%Recovery	Qualifier	Limits							
1,4-Dioxane-d8	56		15 - 150							
	LCSD	LCSD								
Surrogate	%Recovery	Qualifier	Limits							
Nitrobenzene-d5 (Surr)	101		46 - 128							

Lab Sample ID: 440-283533-1 MS
Matrix: Water
Analysis Batch: 152716

Client Sample ID: MW-1
Prep Type: Total/NA
Prep Batch: 152514

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	17		20.0	37.2		ug/L		103	45 - 139
	MS	MS							
Isotope Dilution	%Recovery	Qualifier	Limits						
1,4-Dioxane-d8	40		15 - 150						
	MS	MS							
Surrogate	%Recovery	Qualifier	Limits						
Nitrobenzene-d5 (Surr)	111		46 - 128						

Lab Sample ID: 440-283533-1 MSD
Matrix: Water
Analysis Batch: 152716

Client Sample ID: MW-1
Prep Type: Total/NA
Prep Batch: 152514

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
1,4-Dioxane	17		20.0	36.2		ug/L		98	45 - 139	3	17
	MSD	MSD									
Isotope Dilution	%Recovery	Qualifier	Limits								
1,4-Dioxane-d8	45		15 - 150								
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
Nitrobenzene-d5 (Surr)	106		46 - 128								

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-647110/6
Matrix: Water
Analysis Batch: 647110

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			05/19/21 11:47	1

Lab Sample ID: LCS 440-647110/5
Matrix: Water
Analysis Batch: 647110

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	1.13		mg/L		100	90 - 110

Lab Sample ID: 440-283533-4 MS
Matrix: Water
Analysis Batch: 647110

Client Sample ID: CM-11R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.2		1.13	2.28		mg/L		94	80 - 120

Lab Sample ID: 440-283533-4 MSD
Matrix: Water
Analysis Batch: 647110

Client Sample ID: CM-11R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Nitrate as N	1.2		1.13	2.29		mg/L		95	80 - 120	0	20

Lab Sample ID: MB 440-647111/6
Matrix: Water
Analysis Batch: 647111

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	0.24	mg/L			05/19/21 11:47	1
Chloride	ND		0.50	0.25	mg/L			05/19/21 11:47	1
Fluoride	ND		0.50	0.20	mg/L			05/19/21 11:47	1
Sulfate	ND		0.50	0.25	mg/L			05/19/21 11:47	1

Lab Sample ID: LCS 440-647111/5
Matrix: Water
Analysis Batch: 647111

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	5.12		mg/L		102	90 - 110
Chloride	5.00	4.87		mg/L		97	90 - 110
Fluoride	5.00	4.92		mg/L		98	90 - 110
Sulfate	5.00	4.85		mg/L		97	90 - 110

Lab Sample ID: 440-283533-4 MS
Matrix: Water
Analysis Batch: 647111

Client Sample ID: CM-11R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	ND		5.00	4.71		mg/L		94	80 - 120
Chloride	10		5.00	14.9		mg/L		93	80 - 120

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 440-283533-4 MS
Matrix: Water
Analysis Batch: 647111

Client Sample ID: CM-11R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.66		5.00	5.14		mg/L		89	80 - 120
Sulfate	3100	E	5.00	3070	E 4	mg/L		-367	80 - 120

Lab Sample ID: 440-283533-4 MSD
Matrix: Water
Analysis Batch: 647111

Client Sample ID: CM-11R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	ND		5.00	4.71		mg/L		94	80 - 120	0	20
Chloride	10		5.00	14.8		mg/L		91	80 - 120	1	20
Fluoride	0.66		5.00	5.07		mg/L		88	80 - 120	1	20
Sulfate	3100	E	5.00	3080	E 4	mg/L		-229	80 - 120	0	20

Lab Sample ID: MB 440-647112/6
Matrix: Water
Analysis Batch: 647112

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			05/19/21 11:45	1

Lab Sample ID: LCS 440-647112/5
Matrix: Water
Analysis Batch: 647112

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	1.12		mg/L		99	90 - 110

Lab Sample ID: 440-283533-5 MS
Matrix: Water
Analysis Batch: 647112

Client Sample ID: DW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	ND		1.13	1.07		mg/L		95	80 - 120

Lab Sample ID: 440-283533-5 MSD
Matrix: Water
Analysis Batch: 647112

Client Sample ID: DW-5
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	ND		1.13	1.08		mg/L		95	80 - 120	1	20

Lab Sample ID: MB 440-647113/6
Matrix: Water
Analysis Batch: 647113

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	0.24	mg/L			05/19/21 11:45	1
Chloride	ND		0.50	0.25	mg/L			05/19/21 11:45	1
Fluoride	ND		0.50	0.20	mg/L			05/19/21 11:45	1
Sulfate	ND		0.50	0.25	mg/L			05/19/21 11:45	1

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 440-647113/5
Matrix: Water
Analysis Batch: 647113

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	5.01		mg/L		100	90 - 110
Chloride	5.00	4.85		mg/L		97	90 - 110
Fluoride	5.00	4.95		mg/L		99	90 - 110
Sulfate	5.00	4.91		mg/L		98	90 - 110

Lab Sample ID: 440-283533-5 MS
Matrix: Water
Analysis Batch: 647113

Client Sample ID: DW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	ND		5.00	4.86		mg/L		97	80 - 120
Chloride	23	E	5.00	27.8	E 4	mg/L		102	80 - 120
Fluoride	3.1		5.00	7.89		mg/L		95	80 - 120
Sulfate	ND		5.00	4.87		mg/L		97	80 - 120

Lab Sample ID: 440-283533-5 MSD
Matrix: Water
Analysis Batch: 647113

Client Sample ID: DW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	ND		5.00	4.86		mg/L		97	80 - 120	0	20
Chloride	23	E	5.00	27.8	E 4	mg/L		102	80 - 120	0	20
Fluoride	3.1		5.00	7.89		mg/L		95	80 - 120	0	20
Sulfate	ND		5.00	4.96		mg/L		99	80 - 120	2	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-647560/1-A
Matrix: Water
Analysis Batch: 647899

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 647560

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.10	0.050	mg/L		05/24/21 12:05	05/26/21 15:49	1
Iron	ND		0.10	0.050	mg/L		05/24/21 12:05	05/26/21 15:49	1
Magnesium	ND		0.020	0.010	mg/L		05/24/21 12:05	05/26/21 15:49	1
Boron	ND		0.050	0.025	mg/L		05/24/21 12:05	05/26/21 15:49	1
Manganese	ND		0.020	0.015	mg/L		05/24/21 12:05	05/26/21 15:49	1
Sodium	ND		0.50	0.26	mg/L		05/24/21 12:05	05/26/21 15:49	1
Potassium	ND		0.50	0.25	mg/L		05/24/21 12:05	05/26/21 15:49	1

Lab Sample ID: LCS 440-647560/2-A
Matrix: Water
Analysis Batch: 647899

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 647560

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	5.00	5.04		mg/L		101	80 - 120
Iron	1.00	1.03		mg/L		103	80 - 120
Magnesium	5.00	4.99		mg/L		100	80 - 120
Boron	1.00	1.00		mg/L		100	80 - 120
Manganese	1.00	0.979		mg/L		98	80 - 120

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

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

Lab Sample ID: LCS 440-647560/2-A
Matrix: Water
Analysis Batch: 647899

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 647560

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	10.0	9.83		mg/L		98	80 - 120
Potassium	10.0	10.1		mg/L		101	80 - 120

Lab Sample ID: LCSD 440-647560/25-A
Matrix: Water
Analysis Batch: 647899

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 647560

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Calcium	5.00	4.93		mg/L		99	80 - 120	2	20
Iron	1.00	1.01		mg/L		101	80 - 120	2	20
Magnesium	5.00	4.89		mg/L		98	80 - 120	2	20
Boron	1.00	0.985		mg/L		99	80 - 120	2	20
Manganese	1.00	0.958		mg/L		96	80 - 120	2	20
Sodium	10.0	9.62		mg/L		96	80 - 120	2	20
Potassium	10.0	9.88		mg/L		99	80 - 120	2	20

Lab Sample ID: 550-163412-I-2-G MS ^20
Matrix: Water
Analysis Batch: 647899

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 647560

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	570		5.00	531	4	mg/L		-824	75 - 125
Iron	ND	F1	1.00	1.04	J	mg/L		104	75 - 125
Magnesium	540		5.00	496	4	mg/L		-772	75 - 125
Boron	1.8		1.00	2.52		mg/L		76	75 - 125
Manganese	0.62		1.00	1.46		mg/L		84	75 - 125
Sodium	7000		10.0	6490	4	mg/L		-5420	75 - 125
Potassium	38	F1	10.0	42.6	F1	mg/L		48	75 - 125

Lab Sample ID: 550-163412-I-2-H MSD ^20
Matrix: Water
Analysis Batch: 647899

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 647560

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Calcium	570		5.00	575	4	mg/L		64	75 - 125	8	20
Iron	ND	F1	1.00	ND	F1	mg/L		0	75 - 125	NC	20
Magnesium	540		5.00	535	4	mg/L		0	75 - 125	7	20
Boron	1.8		1.00	2.68		mg/L		92	75 - 125	6	20
Manganese	0.62		1.00	1.53		mg/L		90	75 - 125	5	20
Sodium	7000		10.0	7040	4	mg/L		0	75 - 125	8	20
Potassium	38	F1	10.0	46.0		mg/L		82	75 - 125	8	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 440-647432/10
Matrix: Water
Analysis Batch: 647432

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			05/21/21 11:41	1

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: LCS 440-647432/11
Matrix: Water
Analysis Batch: 647432

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	5.00	5.00		mg/L		100	90 - 110

Lab Sample ID: MRL 440-647432/9
Matrix: Water
Analysis Batch: 647432

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.200	0.239		mg/L		120	50 - 150

Lab Sample ID: 440-283533-1 MS
Matrix: Water
Analysis Batch: 647432

Client Sample ID: MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	6.4		5.00	11.3		mg/L		99	90 - 110

Lab Sample ID: 440-283533-1 MSD
Matrix: Water
Analysis Batch: 647432

Client Sample ID: MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	6.4		5.00	11.2		mg/L		97	90 - 110	1	15

Method: 410.4 - COD

Lab Sample ID: MB 440-647434/3
Matrix: Water
Analysis Batch: 647434

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			05/21/21 14:11	1

Lab Sample ID: LCS 440-647434/4
Matrix: Water
Analysis Batch: 647434

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	190		mg/L		95	90 - 110

Lab Sample ID: 440-283490-H-1 MS
Matrix: Water
Analysis Batch: 647434

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
Chemical Oxygen Demand	20		200	195		mg/L		88	70 - 120

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Method: 410.4 - COD (Continued)

Lab Sample ID: 440-283490-H-1 MSD
Matrix: Water
Analysis Batch: 647434

Client Sample ID: Matrix Spike Duplicate
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	20		200	184		mg/L		82	70 - 120	6	15

Lab Sample ID: 440-283593-A-1 DU
Matrix: Water
Analysis Batch: 647434

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chemical Oxygen Demand	88		89.4		mg/L		1	15

Lab Sample ID: MB 440-647656/3
Matrix: Water
Analysis Batch: 647656

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			05/25/21 09:21	1

Lab Sample ID: LCS 440-647656/4
Matrix: Water
Analysis Batch: 647656

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	202		mg/L		101	90 - 110

Lab Sample ID: 440-283612-A-1 MS
Matrix: Water
Analysis Batch: 647656

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
Chemical Oxygen Demand	50		200	247		mg/L		98	70 - 120

Lab Sample ID: 440-283612-A-1 MSD
Matrix: Water
Analysis Batch: 647656

Client Sample ID: Matrix Spike Duplicate
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	50		200	250		mg/L		100	70 - 120	1	15

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 440-647359/3
Matrix: Water
Analysis Batch: 647359

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			05/20/21 05:02	1
Bicarbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			05/20/21 05:02	1

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 440-647359/2
Matrix: Water
Analysis Batch: 647359

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	79.0	77.8		mg/L		98	80 - 120

Lab Sample ID: 440-283512-A-1 DU
Matrix: Water
Analysis Batch: 647359

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	150		155		mg/L		0.7	20
Bicarbonate Alkalinity as CaCO3	150		155		mg/L		0.7	20

Lab Sample ID: 440-283555-A-1 DU
Matrix: Water
Analysis Batch: 647359

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	140		137		mg/L		0.3	20
Bicarbonate Alkalinity as CaCO3	140		137		mg/L		0.3	20

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

Lab Sample ID: MB 440-647789/1
Matrix: Water
Analysis Batch: 647789

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			05/26/21 09:23	1

Lab Sample ID: LCS 440-647789/2
Matrix: Water
Analysis Batch: 647789

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	994		mg/L		99	90 - 110

Lab Sample ID: 440-283622-C-1 DU
Matrix: Water
Analysis Batch: 647789

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	740		735		mg/L		1	5

Method: SM 4500 CO2 C - Free Carbon Dioxide

Lab Sample ID: MB 440-647846/1
Matrix: Water
Analysis Batch: 647846

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			05/26/21 16:31	1

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QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Method: SM 4500 CO2 C - Free Carbon Dioxide (Continued)

Lab Sample ID: 440-283490-K-3 DU
Matrix: Water
Analysis Batch: 647846

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	32		31.7		mg/L		0	20

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-647714/3
Matrix: Water
Analysis Batch: 647714

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	0.027	mg/L			05/25/21 15:52	1

Lab Sample ID: LCS 440-647714/4
Matrix: Water
Analysis Batch: 647714

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Sulfide	0.499	0.500		mg/L		100	80 - 120

Lab Sample ID: 440-283581-K-1 MS
Matrix: Water
Analysis Batch: 647714

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		0.499	0.369		mg/L		74	70 - 130

Lab Sample ID: 440-283581-K-1 MSD
Matrix: Water
Analysis Batch: 647714

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Sulfide	ND		0.499	0.419		mg/L		84	70 - 130	13	30

Method: SM 5310C - TOC

Lab Sample ID: MB 440-647361/8
Matrix: Water
Analysis Batch: 647361

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			05/20/21 05:17	1

Lab Sample ID: LCS 440-647361/7
Matrix: Water
Analysis Batch: 647361

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	5.28		mg/L		106	85 - 115

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Method: SM 5310C - TOC (Continued)

Lab Sample ID: MRL 440-647361/6
Matrix: Water
Analysis Batch: 647361

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.0869	J	mg/L		87	50 - 150

Lab Sample ID: 440-283490-J-9 MS
Matrix: Water
Analysis Batch: 647361

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 Organic Carbon	1.7		5.00	7.11		mg/L		108	85 - 115

Lab Sample ID: 440-283490-J-9 MSD
Matrix: Water
Analysis Batch: 647361

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Total Organic Carbon	1.7		5.00	7.12		mg/L		108	85 - 115	0	20

Lab Sample ID: MB 440-647476/8
Matrix: Water
Analysis Batch: 647476

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			05/21/21 06:05	1

Lab Sample ID: LCS 440-647476/7
Matrix: Water
Analysis Batch: 647476

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	5.05		mg/L		101	85 - 115

Lab Sample ID: MRL 440-647476/6
Matrix: Water
Analysis Batch: 647476

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.0649	J	mg/L		65	50 - 150

Lab Sample ID: 570-59083-A-11 MS
Matrix: Water
Analysis Batch: 647476

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 Organic Carbon	0.63		5.00	6.09		mg/L		109	85 - 115

Lab Sample ID: 570-59083-A-11 MSD
Matrix: Water
Analysis Batch: 647476

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Total Organic Carbon	0.63		5.00	6.04		mg/L		108	85 - 115	1	20

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Method: SM 5310C - TOC

Lab Sample ID: MB 440-647622/8
Matrix: Water
Analysis Batch: 647622

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			05/24/21 05:33	1

Lab Sample ID: LCS 440-647622/7
Matrix: Water
Analysis Batch: 647622

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	5.26		mg/L		105	85 - 115

Lab Sample ID: MRL 440-647622/6
Matrix: Water
Analysis Batch: 647622

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.0657	J	mg/L		66	50 - 150

Lab Sample ID: 440-283533-4 MS
Matrix: Water
Analysis Batch: 647622

Client Sample ID: CM-11R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	6.5		25.0	33.2		mg/L		107	85 - 115

Lab Sample ID: 440-283533-4 MSD
Matrix: Water
Analysis Batch: 647622

Client Sample ID: CM-11R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	6.5		25.0	34.1		mg/L		110	85 - 115	3	20

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

GC/MS VOA

Analysis Batch: 152010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-2	CM-9R3	Total/NA	Water	8260B	
440-283533-3	CM-10R	Total/NA	Water	8260B	
440-283533-4	CM-11R	Total/NA	Water	8260B	
440-283533-5	DW-5	Total/NA	Water	8260B	
440-283533-6	Field Blank	Total/NA	Water	8260B	
440-283533-7	Trip Blank	Total/NA	Water	8260B	
MB 570-152010/8	Method Blank	Total/NA	Water	8260B	
LCS 570-152010/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-152010/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 152338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-1	MW-1	Total/NA	Water	8260B	
MB 570-152338/8	Method Blank	Total/NA	Water	8260B	
LCS 570-152338/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-152338/5	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 152514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-1	MW-1	Total/NA	Water	3510C	
440-283533-2	CM-9R3	Total/NA	Water	3510C	
440-283533-3	CM-10R	Total/NA	Water	3510C	
440-283533-4	CM-11R	Total/NA	Water	3510C	
440-283533-5	DW-5	Total/NA	Water	3510C	
MB 570-152514/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-152514/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-152514/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
440-283533-1 MS	MW-1	Total/NA	Water	3510C	
440-283533-1 MSD	MW-1	Total/NA	Water	3510C	

Analysis Batch: 152716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-1	MW-1	Total/NA	Water	8270C SIM ID	152514
440-283533-2	CM-9R3	Total/NA	Water	8270C SIM ID	152514
440-283533-3	CM-10R	Total/NA	Water	8270C SIM ID	152514
440-283533-4	CM-11R	Total/NA	Water	8270C SIM ID	152514
440-283533-5	DW-5	Total/NA	Water	8270C SIM ID	152514
MB 570-152514/1-A	Method Blank	Total/NA	Water	8270C SIM ID	152514
LCS 570-152514/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	152514
LCSD 570-152514/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	152514
440-283533-1 MS	MW-1	Total/NA	Water	8270C SIM ID	152514
440-283533-1 MSD	MW-1	Total/NA	Water	8270C SIM ID	152514

HPLC/IC

Analysis Batch: 647110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-1	MW-1	Total/NA	Water	300.0	
440-283533-2	CM-9R3	Total/NA	Water	300.0	
440-283533-3	CM-10R	Total/NA	Water	300.0	

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QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

HPLC/IC (Continued)

Analysis Batch: 647110 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-4	CM-11R	Total/NA	Water	300.0	
MB 440-647110/6	Method Blank	Total/NA	Water	300.0	
LCS 440-647110/5	Lab Control Sample	Total/NA	Water	300.0	
440-283533-4 MS	CM-11R	Total/NA	Water	300.0	
440-283533-4 MSD	CM-11R	Total/NA	Water	300.0	

Analysis Batch: 647111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-1	MW-1	Total/NA	Water	300.0	
440-283533-1	MW-1	Total/NA	Water	300.0	
440-283533-2	CM-9R3	Total/NA	Water	300.0	
440-283533-2	CM-9R3	Total/NA	Water	300.0	
440-283533-3	CM-10R	Total/NA	Water	300.0	
440-283533-3	CM-10R	Total/NA	Water	300.0	
440-283533-4	CM-11R	Total/NA	Water	300.0	
440-283533-4 - DL	CM-11R	Total/NA	Water	300.0	
MB 440-647111/6	Method Blank	Total/NA	Water	300.0	
LCS 440-647111/5	Lab Control Sample	Total/NA	Water	300.0	
440-283533-4 MS	CM-11R	Total/NA	Water	300.0	
440-283533-4 MSD	CM-11R	Total/NA	Water	300.0	

Analysis Batch: 647112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-5	DW-5	Total/NA	Water	300.0	
MB 440-647112/6	Method Blank	Total/NA	Water	300.0	
LCS 440-647112/5	Lab Control Sample	Total/NA	Water	300.0	
440-283533-5 MS	DW-5	Total/NA	Water	300.0	
440-283533-5 MSD	DW-5	Total/NA	Water	300.0	

Analysis Batch: 647113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-5	DW-5	Total/NA	Water	300.0	
440-283533-5 - DL	DW-5	Total/NA	Water	300.0	
MB 440-647113/6	Method Blank	Total/NA	Water	300.0	
LCS 440-647113/5	Lab Control Sample	Total/NA	Water	300.0	
440-283533-5 MS	DW-5	Total/NA	Water	300.0	
440-283533-5 MSD	DW-5	Total/NA	Water	300.0	

Metals

Prep Batch: 647560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-1	MW-1	Total Recoverable	Water	3005A	
440-283533-2	CM-9R3	Total Recoverable	Water	3005A	
440-283533-3	CM-10R	Total Recoverable	Water	3005A	
440-283533-4	CM-11R	Total Recoverable	Water	3005A	
440-283533-5	DW-5	Total Recoverable	Water	3005A	
MB 440-647560/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-647560/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 440-647560/25-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
550-163412-I-2-G MS ^20	Matrix Spike	Total Recoverable	Water	3005A	

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QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Metals (Continued)

Prep Batch: 647560 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-163412-I-2-H MSD ^20	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 647899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-1	MW-1	Total Recoverable	Water	6010B	647560
440-283533-2	CM-9R3	Total Recoverable	Water	6010B	647560
440-283533-3	CM-10R	Total Recoverable	Water	6010B	647560
440-283533-4	CM-11R	Total Recoverable	Water	6010B	647560
440-283533-5	DW-5	Total Recoverable	Water	6010B	647560
MB 440-647560/1-A	Method Blank	Total Recoverable	Water	6010B	647560
LCS 440-647560/2-A	Lab Control Sample	Total Recoverable	Water	6010B	647560
LCS 440-647560/25-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	647560
550-163412-I-2-G MS ^20	Matrix Spike	Total Recoverable	Water	6010B	647560
550-163412-I-2-H MSD ^20	Matrix Spike Duplicate	Total Recoverable	Water	6010B	647560

General Chemistry

Analysis Batch: 647359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-1	MW-1	Total/NA	Water	SM 2320B	
440-283533-2	CM-9R3	Total/NA	Water	SM 2320B	
440-283533-3	CM-10R	Total/NA	Water	SM 2320B	
440-283533-4	CM-11R	Total/NA	Water	SM 2320B	
440-283533-5	DW-5	Total/NA	Water	SM 2320B	
MB 440-647359/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-647359/2	Lab Control Sample	Total/NA	Water	SM 2320B	
440-283512-A-1 DU	Duplicate	Total/NA	Water	SM 2320B	
440-283555-A-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 647361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-1	MW-1	Total/NA	Water	SM 5310C	
MB 440-647361/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-647361/7	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-647361/6	Lab Control Sample	Total/NA	Water	SM 5310C	
440-283490-J-9 MS	Matrix Spike	Total/NA	Water	SM 5310C	
440-283490-J-9 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310C	

Analysis Batch: 647432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-1	MW-1	Total/NA	Water	350.1	
440-283533-2	CM-9R3	Total/NA	Water	350.1	
440-283533-3	CM-10R	Total/NA	Water	350.1	
440-283533-4	CM-11R	Total/NA	Water	350.1	
440-283533-5	DW-5	Total/NA	Water	350.1	
MB 440-647432/10	Method Blank	Total/NA	Water	350.1	
LCS 440-647432/11	Lab Control Sample	Total/NA	Water	350.1	
MRL 440-647432/9	Lab Control Sample	Total/NA	Water	350.1	
440-283533-1 MS	MW-1	Total/NA	Water	350.1	
440-283533-1 MSD	MW-1	Total/NA	Water	350.1	

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

General Chemistry

Analysis Batch: 647434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-1	MW-1	Total/NA	Water	410.4	
440-283533-2	CM-9R3	Total/NA	Water	410.4	
440-283533-3	CM-10R	Total/NA	Water	410.4	
440-283533-4	CM-11R	Total/NA	Water	410.4	
MB 440-647434/3	Method Blank	Total/NA	Water	410.4	
LCS 440-647434/4	Lab Control Sample	Total/NA	Water	410.4	
440-283490-H-1 MS	Matrix Spike	Total/NA	Water	410.4	
440-283490-H-1 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	
440-283593-A-1 DU	Duplicate	Total/NA	Water	410.4	

Analysis Batch: 647476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-2	CM-9R3	Total/NA	Water	SM 5310C	
440-283533-3	CM-10R	Total/NA	Water	SM 5310C	
MB 440-647476/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-647476/7	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-647476/6	Lab Control Sample	Total/NA	Water	SM 5310C	
570-59083-A-11 MS	Matrix Spike	Total/NA	Water	SM 5310C	
570-59083-A-11 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310C	

Analysis Batch: 647622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-4	CM-11R	Total/NA	Water	SM 5310C	
440-283533-5	DW-5	Total/NA	Water	SM 5310C	
MB 440-647622/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-647622/7	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-647622/6	Lab Control Sample	Total/NA	Water	SM 5310C	
440-283533-4 MS	CM-11R	Total/NA	Water	SM 5310C	
440-283533-4 MSD	CM-11R	Total/NA	Water	SM 5310C	

Analysis Batch: 647656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-5	DW-5	Total/NA	Water	410.4	
MB 440-647656/3	Method Blank	Total/NA	Water	410.4	
LCS 440-647656/4	Lab Control Sample	Total/NA	Water	410.4	
440-283612-A-1 MS	Matrix Spike	Total/NA	Water	410.4	
440-283612-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	

Analysis Batch: 647714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-1	MW-1	Total/NA	Water	SM 4500 S2 D	
440-283533-2	CM-9R3	Total/NA	Water	SM 4500 S2 D	
440-283533-3	CM-10R	Total/NA	Water	SM 4500 S2 D	
440-283533-4	CM-11R	Total/NA	Water	SM 4500 S2 D	
440-283533-5	DW-5	Total/NA	Water	SM 4500 S2 D	
MB 440-647714/3	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 440-647714/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
440-283581-K-1 MS	Matrix Spike	Total/NA	Water	SM 4500 S2 D	
440-283581-K-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 S2 D	

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QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

General Chemistry

Analysis Batch: 647789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-1	MW-1	Total/NA	Water	SM 2540C	
440-283533-2	CM-9R3	Total/NA	Water	SM 2540C	
440-283533-3	CM-10R	Total/NA	Water	SM 2540C	
440-283533-4	CM-11R	Total/NA	Water	SM 2540C	
440-283533-5	DW-5	Total/NA	Water	SM 2540C	
MB 440-647789/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-647789/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-283622-C-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 647846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283533-1	MW-1	Total/NA	Water	SM 4500 CO2 C	
440-283533-2	CM-9R3	Total/NA	Water	SM 4500 CO2 C	
440-283533-3	CM-10R	Total/NA	Water	SM 4500 CO2 C	
440-283533-4	CM-11R	Total/NA	Water	SM 4500 CO2 C	
440-283533-5	DW-5	Total/NA	Water	SM 4500 CO2 C	
MB 440-647846/1	Method Blank	Total/NA	Water	SM 4500 CO2 C	
440-283490-K-3 DU	Duplicate	Total/NA	Water	SM 4500 CO2 C	

Definitions/Glossary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

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.

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.

HPLC/IC

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.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

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

General Chemistry

Qualifier	Qualifier Description
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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control

Definitions/Glossary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

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Accreditation/Certification Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Laboratory: Eurofins Calscience Irvine

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

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-21
Arizona	State	AZ0671	10-14-21
California	Los Angeles County Sanitation Districts	10256	06-30-21
California	State	2706	06-30-21
Guam	State	21-003R	01-23-22
Hawaii	State	CA01531	01-29-22
Kansas	NELAP	E-10420	07-31-21
Nevada	State	CA015312021-6	07-31-21
Oregon	NELAP	4028 - 010	01-29-22
USDA	US Federal Programs	P330-21-00022	02-02-24
Washington	State	C900	09-03-21

Laboratory: Eurofins Calscience LLC

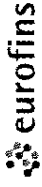
All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0161	11-19-21
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	20-003R	10-31-20 *
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Chain of Custody Record

556606



Environment Testing
TestAmerica

TAL-8210

Address _____

Regulatory Program DW NPDES RCRA Other

Client Contact		Project Manager: Kyle Williams		Site Contact: T. Lucas		Date: 5-19-21		COC No: 1 of 1 COCs	
Company Name: Republic GWA		Tel/Email: 858-451-1336		Lab Contact: ROSSING		Carrier: TTA		Sampler: SS.MC	
Address: 1115 W. Bernardino Cr.		Analysis Turnaround Time		Perform MS/MSD (Y/N)		Filtered Sample (Y/N)		For Lab Use Only	
City/State/Zip: S.D. CA 92127		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		TAT if different from Below		Date: 5-19-21		Walk-in Client:	
Phone: 858-451-1336		2 weeks		<input type="checkbox"/> 2 weeks		Date: 5-19-21		Lab Sampling	
Fax: _____		1 week		<input type="checkbox"/> 1 week		Date: 5-19-21		Job / SDG No	
Project Name: Republic Services		2 days		<input type="checkbox"/> 2 days		Date: 5-19-21		Sample Specific Notes:	
Site: Sunshine Landfill		1 day		<input type="checkbox"/> 1 day		Date: 5-19-21		12/19/19	
PO #		Sample Date		Sample Time		Sample Type (C-Comp, G-Grab)			
Sample Identification		Sample Date		Sample Time		Matrix			
MU-1	5/19/21	1046	G	6W	13			X	
CM-9B3	5/19/21	0827			13			X	
CM-10R	5/19/21	1047			13			X	
CM-11R	5/19/21	0801			13			X	
DW-5	5/19/21	1225			13			X	
Field Blank	5/19/21				4			X	
Tap Blank	5/19/21				4			X	



440-283533 Chain of Custody

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= H2O2, 6= Other
 Possible Hazard Identification: _____
 Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
 Non-Hazard Flammable Skin Irritant Poison B Unknown

Special Instructions/QC Requirements & Comments

Relinquished by: <i>[Signature]</i>	Company: Geo-Log	Date/Time: 5-19-21	Received by: <i>[Signature]</i>	Company: EC-FRU	Date/Time: 5-19-21 13:30
Relinquished by: <i>[Signature]</i>	Company: EC-FRU	Date/Time: 5-19-21	Received by: <i>[Signature]</i>	Company: EC-10R	Date/Time: 5/19/21 1615

615 5/21/21 11:58-89



Eurofins Calscience Irvine

17461 Dertan Ave Suite 100
Irvine, CA 92614-5817

Phone 949-261-1022 Fax: 949-260-3297

Chain of Custody Record



Environment Testing
America

Client Information (Sub Contract Lab)		Sampler		Lab PW: Tomova, Rossina D		Carrier Tracking No(s):		COC No.: 440-189620-1			
Company: Eurofins Calscience LLC		Phone:		E-Mail: Rossina.Tomova@Eurofins.com		State of Origin: California		Page: 1 of 1			
Address: 7440 Lincoln Way		Due Date Requested: 6/1/2021		Accreditations Required (See note):		Job #: 440-283533-1		Preservation Codes: A-HCL, B-NaOH, C-Zn Acetate, D-Nitric Acid, E-NaHSO4, F-MeOH, G-Archlor, H-Ascorbic Acid, I-Ice, J-DI Water, K-EDTA, L-EDA, M-Hexane, N-None, O-AsnO2, P-Na2SO4, Q-Na2S2O3, R-Na2S2O3, S-H2SO4, T-TSP Dodecahydrate, U-Acetone, V-MCAA, W-pH 4-5, Z-other (specify)			
City: Garden Grove		TAT Requested (days):		Analysis Requested							
State, Zip: CA, 92841		PO #:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>							
Phone: 714-895-5494(Tel) 714-894-7501(Fax)		WO #:		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>							
Email: Project #: 44007851		SSOW#:		8260B_LL/5030C_UP (MOD)Appendix II +MTBE+TBA+A+A+2CVE+TICS							
Project Name: Republic Sunshine Canyon		Project #:		8270C_SIM_MS_ID/3510C_1,4-Dioxane - SIM_MS_ID							
Site:		SSOW#:		Total Number of containers							
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (Water, Soil, Over-satell, Brine, Anhyd)		Special Instructions/Note:	
MW-1 (440-283533-1)		5/19/21		10:46		Pacific		Water		7	
CM-9R3 (440-283533-2)		5/19/21		09:27		Pacific		Water		7	
CM-10R (440-283533-3)		5/19/21		10:47		Pacific		Water		7	
CM-11R (440-283533-4)		5/19/21		08:01		Pacific		Water		7	
DW-5 (440-283533-5)		5/19/21		12:25		Pacific		Water		7	
Field Blank (440-283533-6)		5/19/21		00:01		Pacific		Water		4	
Trip Blank (440-283533-7)		5/19/21		00:01		Pacific		Water		4	
<p>Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other institutions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.</p>											
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
Unconfirmed				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested I, II, III, IV, Other (specify)				Primary Deliverable Rank: 2		Special Instructions/QC Requirements					
Empty Kit Relinquished by		Date		Time		Method of Shipment:					
Relinquished by		Date/Time: 5-20-21 11:30		Company: Eurofins		Received by:		Date/Time: 5/20/21 11:00			
Relinquished by		Date/Time:		Company:		Received by:		Date/Time:			
Relinquished by		Date/Time:		Company:		Received by:		Date/Time:			
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 20/3.0 SES							

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-283533-1

Login Number: 283533

List Source: Eurofins Calscience Irvine

List Number: 1

Creator: Skinner, Alma D

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 (excluding tests with immediate HTs)	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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-283533-1

Login Number: 283533

List Number: 2

Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience LLC

List Creation: 05/20/21 02:33 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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	3.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283533-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-150)
440-283533-1	MW-1	42
440-283533-1 MS	MW-1	40
440-283533-1 MSD	MW-1	45
440-283533-2	CM-9R3	42
440-283533-3	CM-10R	49
440-283533-4	CM-11R	45
440-283533-5	DW-5	47
LCS 570-152514/2-A	Lab Control Sample	41
LCSD 570-152514/3-A	Lab Control Sample Dup	56
MB 570-152514/1-A	Method Blank	44

Surrogate Legend

DXE = 1,4-Dioxane-d8

ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-283581-1

Client Project/Site: Republic Sunshine Canyon

For:

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

Attn: Kyle Welchans



Authorized for release by:
5/28/2021 8:45:19 AM

Rossina Tomova, Project Manager I
(949)260-3276
Rossina.Tomova@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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



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Sample Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-283581-1	MW-5	Water	05/20/21 06:32	05/20/21 16:45	
440-283581-2	Field Blank	Water	05/20/21 00:01	05/20/21 16:45	
440-283581-3	Trip Blank	Water	05/20/21 00:01	05/20/21 16:45	

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Case Narrative

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Job ID: 440-283581-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative 440-283581-1

Comments

No additional comments.

Receipt

The samples were received on 5/20/2021 4:45 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.6° C.

GC/MS VOA

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-153098.

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

GC/MS Semi VOA

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

HPLC/IC

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

Metals

Method 6010B: The method blank for preparation batch 440-647721 and analytical batch 440-648000 contained Calcium above the method detection limit. This target analyte concentration was less than the reporting limit (RL) or greater than 10X the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6010B: The method blank for preparation batch 440-647721 and analytical batch 440-648000 contained Iron 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.

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Client Sample ID: MW-5

Lab Sample ID: 440-283581-1

Date Collected: 05/20/21 06:32

Matrix: Water

Date Received: 05/20/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/26/21 11:38	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/26/21 11:38	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/26/21 11:38	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/26/21 11:38	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/26/21 11:38	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/26/21 11:38	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/26/21 11:38	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/26/21 11:38	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/26/21 11:38	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/26/21 11:38	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/26/21 11:38	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/26/21 11:38	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/26/21 11:38	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/26/21 11:38	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/26/21 11:38	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/26/21 11:38	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/26/21 11:38	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/26/21 11:38	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/26/21 11:38	1
2-Hexanone	ND		6.0	4.3	ug/L			05/26/21 11:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/26/21 11:38	1
Acetone	ND		8.0	4.0	ug/L			05/26/21 11:38	1
Acetonitrile	ND		10	3.9	ug/L			05/26/21 11:38	1
Allyl chloride	ND		2.0	0.38	ug/L			05/26/21 11:38	1
Benzene	ND		0.50	0.27	ug/L			05/26/21 11:38	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/26/21 11:38	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/26/21 11:38	1
Bromoform	ND		0.50	0.39	ug/L			05/26/21 11:38	1
Bromomethane	ND		1.0	0.93	ug/L			05/26/21 11:38	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/26/21 11:38	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/26/21 11:38	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/26/21 11:38	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/26/21 11:38	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/26/21 11:38	1
Chloroethane	ND		0.50	0.44	ug/L			05/26/21 11:38	1
Chloroform	ND		0.50	0.28	ug/L			05/26/21 11:38	1
Chloromethane	ND		1.0	0.29	ug/L			05/26/21 11:38	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/26/21 11:38	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/26/21 11:38	1
Dibromomethane	ND		0.50	0.23	ug/L			05/26/21 11:38	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/26/21 11:38	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/26/21 11:38	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/26/21 11:38	1
Iodomethane	ND		25	5.9	ug/L			05/26/21 11:38	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/26/21 11:38	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/26/21 11:38	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/26/21 11:38	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/26/21 11:38	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/26/21 11:38	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Client Sample ID: MW-5

Lab Sample ID: 440-283581-1

Date Collected: 05/20/21 06:32

Matrix: Water

Date Received: 05/20/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.32	ug/L			05/26/21 11:38	1
o-Xylene	ND		0.50	0.35	ug/L			05/26/21 11:38	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/26/21 11:38	1
Propionitrile	ND		5.0	3.7	ug/L			05/26/21 11:38	1
Styrene	ND		0.50	0.28	ug/L			05/26/21 11:38	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/26/21 11:38	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/26/21 11:38	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/26/21 11:38	1
t-Butanol	ND		5.0	4.0	ug/L			05/26/21 11:38	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/26/21 11:38	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/26/21 11:38	1
Toluene	ND		0.50	0.33	ug/L			05/26/21 11:38	1
Trichloroethene	ND		0.50	0.29	ug/L			05/26/21 11:38	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/26/21 11:38	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/26/21 11:38	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/26/21 11:38	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	600	T J	ug/L		1.74			05/26/21 11:38	1
1,5-Hexadiyne	72	T J N	ug/L		2.46	628-16-0		05/26/21 11:38	1
2-Pyridinecarboxylic acid, 3-nitro-, methyl ester	22	T J N	ug/L		2.48	103698-08-4		05/26/21 11:38	1
Unknown	76	T J	ug/L		2.51			05/26/21 11:38	1
Unknown	39	T J	ug/L		2.62			05/26/21 11:38	1
Unknown	15	T J	ug/L		2.73			05/26/21 11:38	1
Unknown	16	T J	ug/L		2.81			05/26/21 11:38	1
Unknown	30	T J	ug/L		2.87			05/26/21 11:38	1
2-(2-Hydroxyphenoxy)-1-phenylethanol	27	T J N	ug/L		2.91	1000222-82-1		05/26/21 11:38	1
Unknown	19	T J	ug/L		2.98			05/26/21 11:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		68 - 135		05/26/21 11:38	1
4-Bromofluorobenzene (Surr)	99		71 - 120		05/26/21 11:38	1
Dibromofluoromethane (Surr)	101		80 - 120		05/26/21 11:38	1
Toluene-d8 (Surr)	97		80 - 120		05/26/21 11:38	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	4.2		0.50	0.34	ug/L		05/25/21 07:57	05/26/21 19:03	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	49		15 - 150	05/25/21 07:57	05/26/21 19:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	85		46 - 128	05/25/21 07:57	05/26/21 19:03	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	3.2		0.50	0.24	mg/L			05/20/21 19:42	1
Nitrate as N	ND		0.11	0.055	mg/L			05/20/21 19:42	1
Fluoride	2.1		0.50	0.20	mg/L			05/20/21 19:42	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Client Sample ID: MW-5

Lab Sample ID: 440-283581-1

Date Collected: 05/20/21 06:32

Matrix: Water

Date Received: 05/20/21 16:45

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	270		25	13	mg/L			05/20/21 20:34	50
Sulfate	1500		25	13	mg/L			05/20/21 20:34	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	300		0.50	0.26	mg/L		05/26/21 07:43	05/27/21 17:15	1
Potassium	22		0.50	0.25	mg/L		05/26/21 07:43	05/27/21 17:15	1
Calcium	370	B	0.10	0.050	mg/L		05/26/21 07:43	05/27/21 17:15	1
Iron	32	B	0.10	0.050	mg/L		05/26/21 07:43	05/27/21 17:15	1
Magnesium	160		0.020	0.010	mg/L		05/26/21 07:43	05/27/21 17:15	1
Boron	1.0		0.050	0.025	mg/L		05/26/21 07:43	05/27/21 17:15	1
Manganese	4.0		0.020	0.015	mg/L		05/26/21 07:43	05/27/21 17:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	4.0		0.20	0.10	mg/L			05/21/21 12:29	1
Chemical Oxygen Demand	36		20	10	mg/L			05/25/21 09:22	1
Total Dissolved Solids	3100		20	10	mg/L			05/25/21 10:43	1
Total Sulfide	ND		0.050	0.027	mg/L			05/25/21 15:53	1
Total Organic Carbon	18		0.50	0.25	mg/L			05/21/21 16:39	5

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	450		4.0	4.0	mg/L			05/21/21 06:35	1
Bicarbonate Alkalinity as CaCO3	450		4.0	4.0	mg/L			05/21/21 06:35	1
Carbon Dioxide, Free	79		2.0	2.0	mg/L			05/26/21 16:31	1

Client Sample ID: Field Blank

Lab Sample ID: 440-283581-2

Date Collected: 05/20/21 00:01

Matrix: Water

Date Received: 05/20/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/26/21 10:47	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/26/21 10:47	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/26/21 10:47	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/26/21 10:47	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/26/21 10:47	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/26/21 10:47	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/26/21 10:47	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/26/21 10:47	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/26/21 10:47	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/26/21 10:47	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/26/21 10:47	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/26/21 10:47	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/26/21 10:47	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/26/21 10:47	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/26/21 10:47	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/26/21 10:47	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/26/21 10:47	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/26/21 10:47	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/26/21 10:47	1

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Client Sample ID: Field Blank

Lab Sample ID: 440-283581-2

Date Collected: 05/20/21 00:01

Matrix: Water

Date Received: 05/20/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	ND		6.0	4.3	ug/L			05/26/21 10:47	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/26/21 10:47	1
Acetone	ND		8.0	4.0	ug/L			05/26/21 10:47	1
Acetonitrile	ND		10	3.9	ug/L			05/26/21 10:47	1
Allyl chloride	ND		2.0	0.38	ug/L			05/26/21 10:47	1
Benzene	ND		0.50	0.27	ug/L			05/26/21 10:47	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/26/21 10:47	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/26/21 10:47	1
Bromoform	ND		0.50	0.39	ug/L			05/26/21 10:47	1
Bromomethane	ND		1.0	0.93	ug/L			05/26/21 10:47	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/26/21 10:47	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/26/21 10:47	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/26/21 10:47	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/26/21 10:47	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/26/21 10:47	1
Chloroethane	ND		0.50	0.44	ug/L			05/26/21 10:47	1
Chloroform	ND		0.50	0.28	ug/L			05/26/21 10:47	1
Chloromethane	ND		1.0	0.29	ug/L			05/26/21 10:47	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/26/21 10:47	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/26/21 10:47	1
Dibromomethane	ND		0.50	0.23	ug/L			05/26/21 10:47	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/26/21 10:47	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/26/21 10:47	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/26/21 10:47	1
Iodomethane	ND		25	5.9	ug/L			05/26/21 10:47	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/26/21 10:47	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/26/21 10:47	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/26/21 10:47	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/26/21 10:47	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/26/21 10:47	1
Naphthalene	ND		1.0	0.32	ug/L			05/26/21 10:47	1
o-Xylene	ND		0.50	0.35	ug/L			05/26/21 10:47	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/26/21 10:47	1
Propionitrile	ND		5.0	3.7	ug/L			05/26/21 10:47	1
Styrene	ND		0.50	0.28	ug/L			05/26/21 10:47	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/26/21 10:47	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/26/21 10:47	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/26/21 10:47	1
t-Butanol	ND		5.0	4.0	ug/L			05/26/21 10:47	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/26/21 10:47	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/26/21 10:47	1
Toluene	ND		0.50	0.33	ug/L			05/26/21 10:47	1
Trichloroethene	ND		0.50	0.29	ug/L			05/26/21 10:47	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/26/21 10:47	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/26/21 10:47	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/26/21 10:47	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	290	TJ	ug/L		1.82			05/26/21 10:47	1
Unknown	86	TJ	ug/L		2.19			05/26/21 10:47	1

Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Client Sample ID: Field Blank

Lab Sample ID: 440-283581-2

Date Collected: 05/20/21 00:01

Matrix: Water

Date Received: 05/20/21 16:45

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	48	T J	ug/L		2.29			05/26/21 10:47	1
Unknown	54	T J	ug/L		2.34			05/26/21 10:47	1
2-Pyridinecarboxylic acid, 3-nitro-, methyl ester	110	T J N	ug/L		2.48	103698-08-4		05/26/21 10:47	1
Unknown	75	T J	ug/L		2.54			05/26/21 10:47	1
Unknown	25	T J	ug/L		2.63			05/26/21 10:47	1
Unknown	25	T J	ug/L		2.74			05/26/21 10:47	1
Unknown	29	T J	ug/L		2.80			05/26/21 10:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		68 - 135					05/26/21 10:47	1
4-Bromofluorobenzene (Surr)	98		71 - 120					05/26/21 10:47	1
Dibromofluoromethane (Surr)	104		80 - 120					05/26/21 10:47	1
Toluene-d8 (Surr)	98		80 - 120					05/26/21 10:47	1

Client Sample ID: Trip Blank

Lab Sample ID: 440-283581-3

Date Collected: 05/20/21 00:01

Matrix: Water

Date Received: 05/20/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/26/21 10:22	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/26/21 10:22	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/26/21 10:22	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/26/21 10:22	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/26/21 10:22	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/26/21 10:22	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/26/21 10:22	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/26/21 10:22	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/26/21 10:22	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/26/21 10:22	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/26/21 10:22	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/26/21 10:22	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/26/21 10:22	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/26/21 10:22	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/26/21 10:22	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/26/21 10:22	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/26/21 10:22	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/26/21 10:22	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/26/21 10:22	1
2-Hexanone	ND		6.0	4.3	ug/L			05/26/21 10:22	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/26/21 10:22	1
Acetone	ND		8.0	4.0	ug/L			05/26/21 10:22	1
Acetonitrile	ND		10	3.9	ug/L			05/26/21 10:22	1
Allyl chloride	ND		2.0	0.38	ug/L			05/26/21 10:22	1
Benzene	ND		0.50	0.27	ug/L			05/26/21 10:22	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/26/21 10:22	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/26/21 10:22	1
Bromoform	ND		0.50	0.39	ug/L			05/26/21 10:22	1
Bromomethane	ND		1.0	0.93	ug/L			05/26/21 10:22	1

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Client Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-283581-3

Date Collected: 05/20/21 00:01

Matrix: Water

Date Received: 05/20/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/26/21 10:22	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/26/21 10:22	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/26/21 10:22	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/26/21 10:22	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/26/21 10:22	1
Chloroethane	ND		0.50	0.44	ug/L			05/26/21 10:22	1
Chloroform	ND		0.50	0.28	ug/L			05/26/21 10:22	1
Chloromethane	ND		1.0	0.29	ug/L			05/26/21 10:22	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/26/21 10:22	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/26/21 10:22	1
Dibromomethane	ND		0.50	0.23	ug/L			05/26/21 10:22	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/26/21 10:22	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/26/21 10:22	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/26/21 10:22	1
Iodomethane	ND		25	5.9	ug/L			05/26/21 10:22	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/26/21 10:22	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/26/21 10:22	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/26/21 10:22	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/26/21 10:22	1
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/26/21 10:22	1
Naphthalene	ND		1.0	0.32	ug/L			05/26/21 10:22	1
o-Xylene	ND		0.50	0.35	ug/L			05/26/21 10:22	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/26/21 10:22	1
Propionitrile	ND		5.0	3.7	ug/L			05/26/21 10:22	1
Styrene	ND		0.50	0.28	ug/L			05/26/21 10:22	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/26/21 10:22	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/26/21 10:22	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/26/21 10:22	1
t-Butanol	ND		5.0	4.0	ug/L			05/26/21 10:22	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/26/21 10:22	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/26/21 10:22	1
Toluene	ND		0.50	0.33	ug/L			05/26/21 10:22	1
Trichloroethene	ND		0.50	0.29	ug/L			05/26/21 10:22	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/26/21 10:22	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/26/21 10:22	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/26/21 10:22	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	240	TJ	ug/L		1.76			05/26/21 10:22	1
Unknown	66	TJ	ug/L		1.97			05/26/21 10:22	1
Unknown	160	TJ	ug/L		2.03			05/26/21 10:22	1
Unknown	48	TJ	ug/L		2.31			05/26/21 10:22	1
Unknown	66	TJ	ug/L		2.33			05/26/21 10:22	1
Unknown	94	TJ	ug/L		2.46			05/26/21 10:22	1
Unknown	48	TJ	ug/L		2.53			05/26/21 10:22	1
Unknown	54	TJ	ug/L		2.76			05/26/21 10:22	1
Unknown	38	TJ	ug/L		2.82			05/26/21 10:22	1
Unknown	30	TJ	ug/L		2.86			05/26/21 10:22	1

Client Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-283581-3

Date Collected: 05/20/21 00:01

Matrix: Water

Date Received: 05/20/21 16:45

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	102		68 - 135		05/26/21 10:22	1
4-Bromofluorobenzene (Surr)	97		71 - 120		05/26/21 10:22	1
Dibromofluoromethane (Surr)	99		80 - 120		05/26/21 10:22	1
Toluene-d8 (Surr)	97		80 - 120		05/26/21 10:22	1

Method Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
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
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL IRV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

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:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494
TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Client Sample ID: MW-5

Lab Sample ID: 440-283581-1

Date Collected: 05/20/21 06:32

Matrix: Water

Date Received: 05/20/21 16:45

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	20 mL	20 mL	153098	05/26/21 11:38	OH1	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	152803	05/25/21 07:57	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			153212	05/26/21 19:03	AJ2Q	ECL 1
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	647251	05/20/21 19:42	NIH3	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	647252	05/20/21 19:42	NIH3	TAL IRV
Total/NA	Analysis	300.0	DL	50	5 mL	1.0 mL	647252	05/20/21 20:34	NIH3	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	647721	05/26/21 07:43	LZY7	TAL IRV
Total Recoverable	Analysis	6010B		1			648000	05/27/21 17:15	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	647432	05/21/21 12:29	GG0B	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	647656	05/25/21 09:22	PN8W	TAL IRV
Total/NA	Analysis	SM 2320B		1			647372	05/21/21 06:35	YO8L	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	647657	05/25/21 10:43	VY3D	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	647846	05/26/21 16:31	W0EF	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	647714	05/25/21 15:53	GG0B	TAL IRV
Total/NA	Analysis	SM 5310C		5	100 mL	100 mL	647476	05/21/21 16:39	YO8L	TAL IRV

Client Sample ID: Field Blank

Lab Sample ID: 440-283581-2

Date Collected: 05/20/21 00:01

Matrix: Water

Date Received: 05/20/21 16:45

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	20 mL	20 mL	153098	05/26/21 10:47	OH1	ECL 2

Client Sample ID: Trip Blank

Lab Sample ID: 440-283581-3

Date Collected: 05/20/21 00:01

Matrix: Water

Date Received: 05/20/21 16:45

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	20 mL	20 mL	153098	05/26/21 10:22	OH1	ECL 2

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
 ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494
 TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

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

Lab Sample ID: MB 570-153098/6

Matrix: Water

Analysis Batch: 153098

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			05/26/21 09:56	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			05/26/21 09:56	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			05/26/21 09:56	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			05/26/21 09:56	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			05/26/21 09:56	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			05/26/21 09:56	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			05/26/21 09:56	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			05/26/21 09:56	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			05/26/21 09:56	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			05/26/21 09:56	1
1,2-Dibromoethane (EDB)	ND		0.50	0.14	ug/L			05/26/21 09:56	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			05/26/21 09:56	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			05/26/21 09:56	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			05/26/21 09:56	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			05/26/21 09:56	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			05/26/21 09:56	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			05/26/21 09:56	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			05/26/21 09:56	1
2-Butanone (MEK)	ND		5.0	3.0	ug/L			05/26/21 09:56	1
2-Hexanone	ND		6.0	4.3	ug/L			05/26/21 09:56	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.2	ug/L			05/26/21 09:56	1
Acetone	ND		8.0	4.0	ug/L			05/26/21 09:56	1
Acetonitrile	ND		10	3.9	ug/L			05/26/21 09:56	1
Allyl chloride	ND		2.0	0.38	ug/L			05/26/21 09:56	1
Benzene	ND		0.50	0.27	ug/L			05/26/21 09:56	1
Bromochloromethane	ND		1.0	0.35	ug/L			05/26/21 09:56	1
Bromodichloromethane	ND		0.50	0.22	ug/L			05/26/21 09:56	1
Bromoform	ND		0.50	0.39	ug/L			05/26/21 09:56	1
Bromomethane	ND		1.0	0.93	ug/L			05/26/21 09:56	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			05/26/21 09:56	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			05/26/21 09:56	1
Carbon disulfide	ND		1.0	0.24	ug/L			05/26/21 09:56	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			05/26/21 09:56	1
Chlorobenzene	ND		0.50	0.24	ug/L			05/26/21 09:56	1
Chloroethane	ND		0.50	0.44	ug/L			05/26/21 09:56	1
Chloroform	ND		0.50	0.28	ug/L			05/26/21 09:56	1
Chloromethane	ND		1.0	0.29	ug/L			05/26/21 09:56	1
2-Chloro-1,3-butadiene	ND		2.0	1.8	ug/L			05/26/21 09:56	1
Dibromochloromethane	ND		0.50	0.27	ug/L			05/26/21 09:56	1
Dibromomethane	ND		0.50	0.23	ug/L			05/26/21 09:56	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/26/21 09:56	1
Ethyl methacrylate	ND		2.0	1.2	ug/L			05/26/21 09:56	1
Ethylbenzene	ND		0.50	0.36	ug/L			05/26/21 09:56	1
Iodomethane	ND		25	5.9	ug/L			05/26/21 09:56	1
Isobutyl alcohol	ND		25	5.7	ug/L			05/26/21 09:56	1
Methylacrylonitrile	ND		2.0	0.71	ug/L			05/26/21 09:56	1
Methyl methacrylate	ND		2.0	1.1	ug/L			05/26/21 09:56	1
Methylene Chloride	ND		1.0	0.48	ug/L			05/26/21 09:56	1

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

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

Lab Sample ID: MB 570-153098/6

Matrix: Water

Analysis Batch: 153098

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methyl tert-butyl ether	ND		0.50	0.21	ug/L			05/26/21 09:56	1
Naphthalene	ND		1.0	0.32	ug/L			05/26/21 09:56	1
o-Xylene	ND		0.50	0.35	ug/L			05/26/21 09:56	1
m,p-Xylene	ND		1.0	0.78	ug/L			05/26/21 09:56	1
Propionitrile	ND		5.0	3.7	ug/L			05/26/21 09:56	1
Styrene	ND		0.50	0.28	ug/L			05/26/21 09:56	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			05/26/21 09:56	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			05/26/21 09:56	1
trans-1,4-Dichloro-2-butene	ND		2.0	1.3	ug/L			05/26/21 09:56	1
t-Butanol	ND		5.0	4.0	ug/L			05/26/21 09:56	1
Tetrachloroethene	ND		0.50	0.29	ug/L			05/26/21 09:56	1
Tetrahydrofuran	ND		2.0	1.1	ug/L			05/26/21 09:56	1
Toluene	ND		0.50	0.33	ug/L			05/26/21 09:56	1
Trichloroethene	ND		0.50	0.29	ug/L			05/26/21 09:56	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			05/26/21 09:56	1
Vinyl acetate	ND		5.0	3.1	ug/L			05/26/21 09:56	1
Vinyl chloride	ND		0.50	0.40	ug/L			05/26/21 09:56	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Tentatively Identified Compound	None		ug/L					05/26/21 09:56	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	111		68 - 135		05/26/21 09:56	1
4-Bromofluorobenzene (Surr)	100		71 - 120		05/26/21 09:56	1
Dibromofluoromethane (Surr)	106		80 - 120		05/26/21 09:56	1
Toluene-d8 (Surr)	96		80 - 120		05/26/21 09:56	1

Lab Sample ID: LCS 570-153098/3

Matrix: Water

Analysis Batch: 153098

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
1,1,1,2-Tetrachloroethane	10.0	10.1		ug/L		101	76 - 143
1,1,1-Trichloroethane	10.0	10.0		ug/L		100	75 - 128
1,1,2,2-Tetrachloroethane	10.0	9.31		ug/L		93	73 - 126
1,1,2-Trichloroethane	10.0	9.46		ug/L		95	80 - 120
1,1-Dichloroethane	10.0	10.0		ug/L		100	76 - 120
1,1-Dichloroethene	10.0	9.43		ug/L		94	72 - 120
1,1-Dichloropropene	10.0	10.0		ug/L		100	76 - 120
1,2,3-Trichloropropane	10.0	9.60		ug/L		96	66 - 131
1,2,4-Trichlorobenzene	10.0	10.4		ug/L		104	80 - 123
1,2-Dibromo-3-Chloropropane	10.0	9.07		ug/L		91	77 - 120
1,2-Dibromoethane (EDB)	10.0	10.1		ug/L		101	80 - 120
1,2-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 123
1,2-Dichloroethane	10.0	10.2		ug/L		102	71 - 137
1,2-Dichloropropane	10.0	10.2		ug/L		102	80 - 120
1,3-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 123
1,3-Dichloropropane	10.0	9.99		ug/L		100	80 - 123

Eurofins Calscience Irvine

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

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

Lab Sample ID: LCS 570-153098/3

Matrix: Water

Analysis Batch: 153098

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
1,4-Dichlorobenzene	10.0	9.85		ug/L		99	75 - 123
2,2-Dichloropropane	10.0	11.1		ug/L		111	78 - 133
2-Butanone (MEK)	10.0	9.39		ug/L		94	32 - 133
2-Hexanone	10.0	10.3		ug/L		103	57 - 127
4-Methyl-2-pentanone (MIBK)	10.0	9.62		ug/L		96	68 - 120
Acetone	10.0	9.71		ug/L		97	57 - 133
Benzene	10.0	9.97		ug/L		100	80 - 120
Bromochloromethane	10.0	10.4		ug/L		104	76 - 125
Bromodichloromethane	10.0	10.6		ug/L		106	77 - 141
Bromoform	10.0	10.0		ug/L		100	46 - 178
Bromomethane	10.0	11.5		ug/L		115	52 - 162
cis-1,2-Dichloroethene	10.0	10.3		ug/L		103	76 - 122
cis-1,3-Dichloropropene	10.0	10.3		ug/L		103	80 - 122
Carbon disulfide	10.0	8.89		ug/L		89	66 - 125
Carbon tetrachloride	10.0	10.1		ug/L		101	69 - 145
Chlorobenzene	10.0	10.3		ug/L		103	80 - 120
Chloroethane	10.0	9.88		ug/L		99	73 - 139
Chloroform	10.0	10.5		ug/L		105	80 - 120
Chloromethane	10.0	8.92		ug/L		89	35 - 159
Dibromochloromethane	10.0	10.3		ug/L		103	63 - 151
Dibromomethane	10.0	10.5		ug/L		105	80 - 121
Dichlorodifluoromethane	10.0	7.74		ug/L		77	59 - 139
Ethylbenzene	10.0	10.2		ug/L		102	80 - 120
Methylene Chloride	10.0	9.54		ug/L		95	70 - 120
Methyl tert-butyl ether	10.0	10.3		ug/L		103	72 - 120
Naphthalene	10.0	9.77		ug/L		98	75 - 120
o-Xylene	10.0	9.91		ug/L		99	80 - 122
m,p-Xylene	20.0	20.1		ug/L		101	80 - 122
Styrene	10.0	9.83		ug/L		98	80 - 121
trans-1,2-Dichloroethene	10.0	9.95		ug/L		99	67 - 123
trans-1,3-Dichloropropene	10.0	9.81		ug/L		98	78 - 140
t-Butanol	50.0	46.7		ug/L		93	65 - 147
Tetrachloroethene	10.0	10.4		ug/L		104	80 - 128
Toluene	10.0	10.4		ug/L		104	80 - 120
Trichloroethene	10.0	10.6		ug/L		106	80 - 123
Trichlorofluoromethane	10.0	9.81		ug/L		98	64 - 168
Vinyl acetate	10.0	11.1		ug/L		111	75 - 144
Vinyl chloride	10.0	9.51		ug/L		95	74 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	104		68 - 135
4-Bromofluorobenzene (Surr)	96		71 - 120
Dibromofluoromethane (Surr)	103		80 - 120
Toluene-d8 (Surr)	98		80 - 120

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

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

Lab Sample ID: LCSD 570-153098/4

Matrix: Water

Analysis Batch: 153098

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD
									Limit
1,1,1,2-Tetrachloroethane	10.0	10.1		ug/L		101	76 - 143	1	20
1,1,1-Trichloroethane	10.0	9.53		ug/L		95	75 - 128	5	20
1,1,2,2-Tetrachloroethane	10.0	9.79		ug/L		98	73 - 126	5	21
1,1,2-Trichloroethane	10.0	9.72		ug/L		97	80 - 120	3	20
1,1-Dichloroethane	10.0	9.88		ug/L		99	76 - 120	1	20
1,1-Dichloroethene	10.0	8.93		ug/L		89	72 - 120	6	20
1,1-Dichloropropene	10.0	9.50		ug/L		95	76 - 120	5	20
1,2,3-Trichloropropane	10.0	9.71		ug/L		97	66 - 131	1	20
1,2,4-Trichlorobenzene	10.0	10.4		ug/L		104	80 - 123	0	20
1,2-Dibromo-3-Chloropropane	10.0	9.45		ug/L		94	77 - 120	4	21
1,2-Dibromoethane (EDB)	10.0	10.0		ug/L		100	80 - 120	0	20
1,2-Dichlorobenzene	10.0	9.98		ug/L		100	79 - 123	1	20
1,2-Dichloroethane	10.0	10.4		ug/L		104	71 - 137	2	20
1,2-Dichloropropane	10.0	10.1		ug/L		101	80 - 120	1	20
1,3-Dichlorobenzene	10.0	10.0		ug/L		100	79 - 123	1	20
1,3-Dichloropropane	10.0	9.94		ug/L		99	80 - 123	0	20
1,4-Dichlorobenzene	10.0	9.89		ug/L		99	75 - 123	0	22
2,2-Dichloropropane	10.0	10.3		ug/L		103	78 - 133	7	20
2-Butanone (MEK)	10.0	9.80		ug/L		98	32 - 133	4	26
2-Hexanone	10.0	11.3		ug/L		113	57 - 127	10	21
4-Methyl-2-pentanone (MIBK)	10.0	10.3		ug/L		103	68 - 120	7	20
Acetone	10.0	9.79		ug/L		98	57 - 133	1	28
Benzene	10.0	9.71		ug/L		97	80 - 120	3	20
Bromochloromethane	10.0	10.1		ug/L		101	76 - 125	3	20
Bromodichloromethane	10.0	10.5		ug/L		105	77 - 141	1	20
Bromoform	10.0	10.4		ug/L		104	46 - 178	4	23
Bromomethane	10.0	11.3		ug/L		113	52 - 162	1	20
cis-1,2-Dichloroethene	10.0	10.1		ug/L		101	76 - 122	2	20
cis-1,3-Dichloropropene	10.0	10.2		ug/L		102	80 - 122	1	20
Carbon disulfide	10.0	8.52		ug/L		85	66 - 125	4	20
Carbon tetrachloride	10.0	9.68		ug/L		97	69 - 145	5	20
Chlorobenzene	10.0	10.2		ug/L		102	80 - 120	1	20
Chloroethane	10.0	9.37		ug/L		94	73 - 139	5	20
Chloroform	10.0	10.3		ug/L		103	80 - 120	3	20
Chloromethane	10.0	8.73		ug/L		87	35 - 159	2	20
Dibromochloromethane	10.0	10.5		ug/L		105	63 - 151	2	20
Dibromomethane	10.0	10.4		ug/L		104	80 - 121	1	20
Dichlorodifluoromethane	10.0	7.15		ug/L		72	59 - 139	8	20
Ethylbenzene	10.0	9.84		ug/L		98	80 - 120	3	20
Methylene Chloride	10.0	9.57		ug/L		96	70 - 120	0	20
Methyl tert-butyl ether	10.0	10.4		ug/L		104	72 - 120	1	20
Naphthalene	10.0	10.4		ug/L		104	75 - 120	7	22
o-Xylene	10.0	9.77		ug/L		98	80 - 122	1	20
m,p-Xylene	20.0	19.7		ug/L		99	80 - 122	2	20
Styrene	10.0	9.78		ug/L		98	80 - 121	1	20
trans-1,2-Dichloroethene	10.0	9.69		ug/L		97	67 - 123	3	20
trans-1,3-Dichloropropene	10.0	10.1		ug/L		101	78 - 140	3	20
t-Butanol	50.0	49.4		ug/L		99	65 - 147	6	21

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QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

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

Lab Sample ID: LCSD 570-153098/4

Matrix: Water

Analysis Batch: 153098

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrachloroethene	10.0	10.1		ug/L		101	80 - 128	3	20
Toluene	10.0	10.0		ug/L		100	80 - 120	3	20
Trichloroethene	10.0	10.3		ug/L		103	80 - 123	3	20
Trichlorofluoromethane	10.0	9.44		ug/L		94	64 - 168	4	20
Vinyl acetate	10.0	11.6		ug/L		116	75 - 144	4	25
Vinyl chloride	10.0	9.04		ug/L		90	74 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		68 - 135
4-Bromofluorobenzene (Surr)	96		71 - 120
Dibromofluoromethane (Surr)	103		80 - 120
Toluene-d8 (Surr)	98		80 - 120

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-152803/1-A

Matrix: Water

Analysis Batch: 153212

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 152803

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.34	ug/L		05/25/21 07:57	05/26/21 15:24	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	50		15 - 150	05/25/21 07:57	05/26/21 15:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	81		46 - 128	05/25/21 07:57	05/26/21 15:24	1

Lab Sample ID: LCS 570-152803/2-A

Matrix: Water

Analysis Batch: 153212

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 152803

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	20.0	19.8		ug/L		99	57 - 136

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
1,4-Dioxane-d8	60		15 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	89		46 - 128

Lab Sample ID: LCSD 570-152803/3-A

Matrix: Water

Analysis Batch: 153212

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 152803

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	20.0	20.4		ug/L		102	57 - 136	3	20

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

	LCSD %Recovery	LCSD Qualifier	Limits
Isotope Dilution			
1,4-Dioxane-d8	67		15 - 150
Surrogate			
Nitrobenzene-d5 (Surr)	84		46 - 128

Lab Sample ID: 440-283601-H-2-A MS
Matrix: Water
Analysis Batch: 153212

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 152803

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	9.1		20.0	30.9		ug/L		109	45 - 139
Isotope Dilution									
1,4-Dioxane-d8	51		15 - 150						
Surrogate									
Nitrobenzene-d5 (Surr)	96		46 - 128						

Lab Sample ID: 440-283601-H-2-B MSD
Matrix: Water
Analysis Batch: 153212

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 152803

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	9.1		20.0	29.7		ug/L		103	45 - 139	4	17
Isotope Dilution											
1,4-Dioxane-d8	68		15 - 150								
Surrogate											
Nitrobenzene-d5 (Surr)	90		46 - 128								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-647251/6
Matrix: Water
Analysis Batch: 647251

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			05/20/21 10:56	1

Lab Sample ID: LCS 440-647251/5
Matrix: Water
Analysis Batch: 647251

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	1.13		mg/L		100	90 - 110

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 440-283581-1 MS
Matrix: Water
Analysis Batch: 647251

Client Sample ID: MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	ND		1.13	1.08		mg/L		95	80 - 120

Lab Sample ID: 440-283581-1 MSD
Matrix: Water
Analysis Batch: 647251

Client Sample ID: MW-5
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	ND		1.13	1.07		mg/L		95	80 - 120	0	20

Lab Sample ID: MB 440-647252/6
Matrix: Water
Analysis Batch: 647252

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	0.24	mg/L			05/20/21 10:56	1
Chloride	ND		0.50	0.25	mg/L			05/20/21 10:56	1
Fluoride	ND		0.50	0.20	mg/L			05/20/21 10:56	1
Sulfate	ND		0.50	0.25	mg/L			05/20/21 10:56	1

Lab Sample ID: LCS 440-647252/5
Matrix: Water
Analysis Batch: 647252

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	5.11		mg/L		102	90 - 110
Chloride	5.00	4.84		mg/L		97	90 - 110
Fluoride	5.00	4.91		mg/L		98	90 - 110
Sulfate	5.00	4.86		mg/L		97	90 - 110

Lab Sample ID: 440-283581-1 MS
Matrix: Water
Analysis Batch: 647252

Client Sample ID: MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	3.2		5.00	8.03		mg/L		97	80 - 120
Chloride	370	E	5.00	371	E 4	mg/L		19	80 - 120
Fluoride	2.1		5.00	6.99		mg/L		98	80 - 120
Sulfate	2100	E	5.00	2070	E 4	mg/L		-336	80 - 120

Lab Sample ID: 440-283581-1 MSD
Matrix: Water
Analysis Batch: 647252

Client Sample ID: MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	3.2		5.00	8.00		mg/L		96	80 - 120	0	20
Chloride	370	E	5.00	371	E 4	mg/L		24	80 - 120	0	20
Fluoride	2.1		5.00	7.06		mg/L		100	80 - 120	1	20
Sulfate	2100	E	5.00	2070	E 4	mg/L		-334	80 - 120	0	20

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-647721/1-A
Matrix: Water
Analysis Batch: 648000

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 647721

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Sodium	ND		0.50	0.26	mg/L		05/25/21 16:27	05/27/21 16:23	1
Potassium	ND		0.50	0.25	mg/L		05/25/21 16:27	05/27/21 16:23	1
Calcium	0.0858	J	0.10	0.050	mg/L		05/25/21 16:27	05/27/21 16:23	1
Iron	0.756		0.10	0.050	mg/L		05/25/21 16:27	05/27/21 16:23	1
Magnesium	ND		0.020	0.010	mg/L		05/25/21 16:27	05/27/21 16:23	1
Boron	ND		0.050	0.025	mg/L		05/25/21 16:27	05/27/21 16:23	1
Manganese	ND		0.020	0.015	mg/L		05/25/21 16:27	05/27/21 16:23	1

Lab Sample ID: LCS 440-647721/2-A
Matrix: Water
Analysis Batch: 648000

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 647721

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	10.0	10.2		mg/L		102	80 - 120
Calcium	5.00	5.09		mg/L		102	80 - 120
Iron	1.00	1.04		mg/L		104	80 - 120
Magnesium	5.00	4.98		mg/L		100	80 - 120
Boron	1.00	1.01		mg/L		101	80 - 120
Manganese	1.00	1.00		mg/L		100	80 - 120

Lab Sample ID: 440-283481-M-2-B MS
Matrix: Water
Analysis Batch: 648000

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 647721

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	3.7		10.0	13.8		mg/L		100	75 - 125
Calcium	49	B	5.00	53.9	4	mg/L		101	75 - 125
Iron	0.14	B	1.00	1.20		mg/L		106	75 - 125
Magnesium	15		5.00	19.9		mg/L		94	75 - 125
Boron	0.26		1.00	1.28		mg/L		102	75 - 125
Manganese	0.019	J	1.00	1.01		mg/L		99	75 - 125

Lab Sample ID: 440-283481-M-2-C MSD
Matrix: Water
Analysis Batch: 648000

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 647721

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Potassium	3.7		10.0	13.8		mg/L		101	75 - 125	0	20
Calcium	49	B	5.00	54.3	4	mg/L		109	75 - 125	1	20
Iron	0.14	B	1.00	1.18		mg/L		104	75 - 125	2	20
Magnesium	15		5.00	20.1		mg/L		97	75 - 125	1	20
Boron	0.26		1.00	1.28		mg/L		102	75 - 125	0	20
Manganese	0.019	J	1.00	1.01		mg/L		99	75 - 125	0	20

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 440-647432/10
Matrix: Water
Analysis Batch: 647432

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			05/21/21 11:41	1

Lab Sample ID: LCS 440-647432/11
Matrix: Water
Analysis Batch: 647432

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	5.00	5.00		mg/L		100	90 - 110

Lab Sample ID: MRL 440-647432/9
Matrix: Water
Analysis Batch: 647432

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.200	0.239		mg/L		120	50 - 150

Lab Sample ID: 440-283533-I-1 MS
Matrix: Water
Analysis Batch: 647432

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
Ammonia (as N)	6.4		5.00	11.3		mg/L		99	90 - 110

Lab Sample ID: 440-283533-I-1 MSD
Matrix: Water
Analysis Batch: 647432

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	6.4		5.00	11.2		mg/L		97	90 - 110	1	15

Method: 410.4 - COD

Lab Sample ID: MB 440-647656/3
Matrix: Water
Analysis Batch: 647656

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			05/25/21 09:21	1

Lab Sample ID: LCS 440-647656/4
Matrix: Water
Analysis Batch: 647656

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	202		mg/L		101	90 - 110

QC Sample Results

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Method: 410.4 - COD (Continued)

Lab Sample ID: 440-283612-A-1 MS
Matrix: Water
Analysis Batch: 647656

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
Chemical Oxygen Demand	50		200	247		mg/L		98	70 - 120

Lab Sample ID: 440-283612-A-1 MSD
Matrix: Water
Analysis Batch: 647656

Client Sample ID: Matrix Spike Duplicate
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	50		200	250		mg/L		100	70 - 120	1	15

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 440-647372/3
Matrix: Water
Analysis Batch: 647372

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			05/21/21 05:03	1
Bicarbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			05/21/21 05:03	1

Lab Sample ID: LCS 440-647372/2
Matrix: Water
Analysis Batch: 647372

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	79.0	77.8		mg/L		99	80 - 120

Lab Sample ID: 440-283581-1 DU
Matrix: Water
Analysis Batch: 647372

Client Sample ID: MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity as CaCO3	450		457		mg/L		2	20
Bicarbonate Alkalinity as CaCO3	450		457		mg/L		2	20

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

Lab Sample ID: MB 440-647657/1
Matrix: Water
Analysis Batch: 647657

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			05/25/21 09:25	1

Lab Sample ID: LCS 440-647657/2
Matrix: Water
Analysis Batch: 647657

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

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

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

Lab Sample ID: 440-283537-A-2 DU
 Matrix: Water
 Analysis Batch: 647657

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	550		558		mg/L		0.7	5

Method: SM 4500 CO2 C - Free Carbon Dioxide

Lab Sample ID: MB 440-647846/1
 Matrix: Water
 Analysis Batch: 647846

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			05/26/21 16:31	1

Lab Sample ID: 440-283490-K-3 DU
 Matrix: Water
 Analysis Batch: 647846

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	32		31.7		mg/L		0	20

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-647714/3
 Matrix: Water
 Analysis Batch: 647714

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	0.027	mg/L			05/25/21 15:52	1

Lab Sample ID: LCS 440-647714/4
 Matrix: Water
 Analysis Batch: 647714

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Sulfide	0.499	0.500		mg/L		100	80 - 120

Lab Sample ID: 440-283581-1 MS
 Matrix: Water
 Analysis Batch: 647714

Client Sample ID: MW-5
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Sulfide	ND		0.499	0.369		mg/L		74	70 - 130

Lab Sample ID: 440-283581-1 MSD
 Matrix: Water
 Analysis Batch: 647714

Client Sample ID: MW-5
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Sulfide	ND		0.499	0.419		mg/L		84	70 - 130	13	30

QC Sample Results

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Method: SM 5310C - TOC

Lab Sample ID: MB 440-647476/8
Matrix: Water
Analysis Batch: 647476

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			05/21/21 06:05	1

Lab Sample ID: LCS 440-647476/7
Matrix: Water
Analysis Batch: 647476

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	5.05		mg/L		101	85 - 115

Lab Sample ID: MRL 440-647476/6
Matrix: Water
Analysis Batch: 647476

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.0649	J	mg/L		65	50 - 150

Lab Sample ID: 570-59083-A-11 MS
Matrix: Water
Analysis Batch: 647476

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 Organic Carbon	0.63		5.00	6.09		mg/L		109	85 - 115

Lab Sample ID: 570-59083-A-11 MSD
Matrix: Water
Analysis Batch: 647476

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	0.63		5.00	6.04		mg/L		108	85 - 115	1	20

QC Association Summary

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

GC/MS VOA

Analysis Batch: 153098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283581-1	MW-5	Total/NA	Water	8260B	
440-283581-2	Field Blank	Total/NA	Water	8260B	
440-283581-3	Trip Blank	Total/NA	Water	8260B	
MB 570-153098/6	Method Blank	Total/NA	Water	8260B	
LCS 570-153098/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-153098/4	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 152803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283581-1	MW-5	Total/NA	Water	3510C	
MB 570-152803/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-152803/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-152803/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
440-283601-H-2-A MS	Matrix Spike	Total/NA	Water	3510C	
440-283601-H-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 153212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283581-1	MW-5	Total/NA	Water	8270C SIM ID	152803
MB 570-152803/1-A	Method Blank	Total/NA	Water	8270C SIM ID	152803
LCS 570-152803/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	152803
LCSD 570-152803/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	152803
440-283601-H-2-A MS	Matrix Spike	Total/NA	Water	8270C SIM ID	152803
440-283601-H-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270C SIM ID	152803

HPLC/IC

Analysis Batch: 647251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283581-1	MW-5	Total/NA	Water	300.0	
MB 440-647251/6	Method Blank	Total/NA	Water	300.0	
LCS 440-647251/5	Lab Control Sample	Total/NA	Water	300.0	
440-283581-1 MS	MW-5	Total/NA	Water	300.0	
440-283581-1 MSD	MW-5	Total/NA	Water	300.0	

Analysis Batch: 647252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283581-1	MW-5	Total/NA	Water	300.0	
440-283581-1 - DL	MW-5	Total/NA	Water	300.0	
MB 440-647252/6	Method Blank	Total/NA	Water	300.0	
LCS 440-647252/5	Lab Control Sample	Total/NA	Water	300.0	
440-283581-1 MS	MW-5	Total/NA	Water	300.0	
440-283581-1 MSD	MW-5	Total/NA	Water	300.0	

Metals

Prep Batch: 647721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283581-1	MW-5	Total Recoverable	Water	3005A	
MB 440-647721/1-A	Method Blank	Total Recoverable	Water	3005A	

Eurofins Calscience Irvine

QC Association Summary

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Metals (Continued)

Prep Batch: 647721 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-647721/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-283481-M-2-B MS	Matrix Spike	Total Recoverable	Water	3005A	
440-283481-M-2-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 648000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283581-1	MW-5	Total Recoverable	Water	6010B	647721
MB 440-647721/1-A	Method Blank	Total Recoverable	Water	6010B	647721
LCS 440-647721/2-A	Lab Control Sample	Total Recoverable	Water	6010B	647721
440-283481-M-2-B MS	Matrix Spike	Total Recoverable	Water	6010B	647721
440-283481-M-2-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	647721

General Chemistry

Analysis Batch: 647372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283581-1	MW-5	Total/NA	Water	SM 2320B	
MB 440-647372/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-647372/2	Lab Control Sample	Total/NA	Water	SM 2320B	
440-283581-1 DU	MW-5	Total/NA	Water	SM 2320B	

Analysis Batch: 647432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283581-1	MW-5	Total/NA	Water	350.1	
MB 440-647432/10	Method Blank	Total/NA	Water	350.1	
LCS 440-647432/11	Lab Control Sample	Total/NA	Water	350.1	
MRL 440-647432/9	Lab Control Sample	Total/NA	Water	350.1	
440-283533-I-1 MS	Matrix Spike	Total/NA	Water	350.1	
440-283533-I-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 647476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283581-1	MW-5	Total/NA	Water	SM 5310C	
MB 440-647476/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-647476/7	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-647476/6	Lab Control Sample	Total/NA	Water	SM 5310C	
570-59083-A-11 MS	Matrix Spike	Total/NA	Water	SM 5310C	
570-59083-A-11 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310C	

Analysis Batch: 647656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283581-1	MW-5	Total/NA	Water	410.4	
MB 440-647656/3	Method Blank	Total/NA	Water	410.4	
LCS 440-647656/4	Lab Control Sample	Total/NA	Water	410.4	
440-283612-A-1 MS	Matrix Spike	Total/NA	Water	410.4	
440-283612-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	

Analysis Batch: 647657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283581-1	MW-5	Total/NA	Water	SM 2540C	
MB 440-647657/1	Method Blank	Total/NA	Water	SM 2540C	

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

General Chemistry (Continued)

Analysis Batch: 647657 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-647657/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-283537-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 647714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283581-1	MW-5	Total/NA	Water	SM 4500 S2 D	
MB 440-647714/3	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 440-647714/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
440-283581-1 MS	MW-5	Total/NA	Water	SM 4500 S2 D	
440-283581-1 MSD	MW-5	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 647846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-283581-1	MW-5	Total/NA	Water	SM 4500 CO2 C	
MB 440-647846/1	Method Blank	Total/NA	Water	SM 4500 CO2 C	
440-283490-K-3 DU	Duplicate	Total/NA	Water	SM 4500 CO2 C	

Definitions/Glossary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Qualifiers

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.

HPLC/IC

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.
E	Result exceeded calibration range.

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

General Chemistry

Qualifier	Qualifier Description
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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Definitions/Glossary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Accreditation/Certification Summary

Client: Geo-Logic Associates
 Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Laboratory: Eurofins Calscience Irvine

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

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-21
Arizona	State	AZ0671	10-14-21
California	Los Angeles County Sanitation Districts	10256	06-30-21
California	State	2706	06-30-21
Guam	State	21-003R	01-23-22
Hawaii	State	CA01531	01-29-22
Kansas	NELAP	E-10420	07-31-21
Nevada	State	CA015312021-6	07-31-21
Oregon	NELAP	4028 - 010	01-29-22
USDA	US Federal Programs	P330-21-00022	02-02-24
Washington	State	C900	09-03-21

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0161	11-19-21
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	20-003R	10-31-20 *
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Calscience Irvine

17461 Dehan Ave Suite 100
Irvine CA 92614-5817
Phone 949-261-1022 Fax: 949-260-3297

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:				
Company: Eurofins Calscience LLC		Phone:	Tomova, Rossina D	440-169664.1	440-169664.1				
Address: 7440 Lincoln Way		E-Mail: Rossina.Tomova@Eurofins.com		State of Origin: California	Page: 1 of 1				
City: Garden Grove		Accreditations Required (See note):		Page 1 of 1	Page 1 of 1				
State, Zip: CA, 92841		Analysis Requested		Job #:	440-283581-1				
Phone: 714-895-5494(Tel) 714-894-7501(Fax)		TAT Requested (days):		Preservation Codes:	A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - As2O3 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)				
Email:		Project #:		Other:					
Project Name: Republic Sunshine Canyon		44007851		Special Instructions/Note:					
Site:		SSOW#:							
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Viewed, Solid, Overweight, In-Tissue Analyt)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	
MW-5 (440-283581-1)	5/20/21	06:32	Pacific	Water	Water	X	X	7	
Field Blank (440-283581-2)	5/20/21	00:01	Pacific	Water	Water	X		4	
Trip Blank (440-283581-3)	5/20/21	00:01	Pacific	Water	Water	X		4	
Note: Since laboratory accreditations are subject to change Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.									
Possible Hazard Identification									
Unconfirmed									
Deliverable Requested I, II, III, IV, Other (specify)		Primary Deliverable Rank: 2		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client		Disposal By Lab	
Empty Kit Relinquished by		Date:		Time		Method of Shipment:		Archive For	
Relinquished by		Date/Time: 5-21-21 9:15		Company: ECF		Received by:		Date/Time: 5/21/21 07:15	
Relinquished by		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No. N/A		Cooler Temperature(s) °C and Other Remarks: 3.7/4.1 Secs					

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-283581-1

Login Number: 283581

List Source: Eurofins Calscience Irvine

List Number: 1

Creator: Escalante, Maria I

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 (excluding tests with immediate HTs)	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-283581-1

Login Number: 283581

List Source: Eurofins Calscience LLC

List Number: 2

List Creation: 05/21/21 08:02 PM

Creator: Ortiz-Luis, Michael

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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	4.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-283581-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-150)
440-283581-1	MW-5	49
440-283601-H-2-A MS	Matrix Spike	51
440-283601-H-2-B MSD	Matrix Spike Duplicate	68
LCS 570-152803/2-A	Lab Control Sample	60
LCSD 570-152803/3-A	Lab Control Sample Dup	67
MB 570-152803/1-A	Method Blank	50

Surrogate Legend

DXE = 1,4-Dioxane-d8

- 1
- 2
- 3
- 4
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- 7
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- 10
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- 12
- 13
- 14

ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-276946-1

Client Project/Site: Republic-Sunshine Canyon - Stormwater

For:

Republic Services Inc
14747 San Fernando Road
Sylmar, California 91342

Attn: Mr. Tuong-Phu Ngo



Authorized for release by:
1/15/2021 2:28:05 PM

Rossina Tomova, Project Manager I
(949)260-3276
Rossina.Tomova@Eurofinset.com

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results through
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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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



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Sample Summary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-276946-1	Stormwater_122619-SW1	Water	01/04/21 13:05	01/05/21 14:45	

1

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Case Narrative

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

Job ID: 440-276946-1

Laboratory: Eurofins Calscience Irvine

Narrative

**Job Narrative
440-276946-1**

Comments

No additional comments.

Receipt

The sample was received on 1/5/2021 2:45 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.1° C.

GC/MS VOA

Method 8260B: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: Stormwater_122619-SW1 (440-276946-1). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA

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

HPLC/IC

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

GC Semi VOA

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

Metals

Method 200.8: The continuing calibration verification (CCV) associated with batch 440-635657 recovered above the upper control limit for Beryllium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: Stormwater_122619-SW1 (440-276946-1).

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

General Chemistry

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

Organic Prep

Method 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-635714 and analytical batch 440-635730. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch. Method 1664A.

Method 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-121367. LCS/LCSD was performed to meet QC requirements.

Method 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-121324. The LCS/LCSD was preform to meet QC requirements.,

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

VOA Prep

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

Client Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

Client Sample ID: Stormwater_122619-SW1

Lab Sample ID: 440-276946-1

Date Collected: 01/04/21 13:05

Matrix: Water

Date Received: 01/05/21 14:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrylonitrile	ND		0.010	0.0017	mg/L			01/06/21 11:39	2
Benzene	ND		0.0010	0.00053	mg/L			01/06/21 11:39	2
Ethylbenzene	ND		0.0010	0.00071	mg/L			01/06/21 11:39	2
Toluene	ND		0.0010	0.00066	mg/L			01/06/21 11:39	2
Trichloroethylene	ND		0.0010	0.00058	mg/L			01/06/21 11:39	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		80 - 128		01/06/21 11:39	2
4-Bromofluorobenzene (Surr)	96		68 - 120		01/06/21 11:39	2
Dibromofluoromethane (Surr)	94		80 - 127		01/06/21 11:39	2
Toluene-d8 (Surr)	98		80 - 120		01/06/21 11:39	2

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alpha-Terpineol	0.0029	J	0.0096	0.0024	mg/L		01/11/21 05:34	01/11/21 21:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	125		27 - 159	01/11/21 05:34	01/11/21 21:38	1
2-Fluorobiphenyl (Surr)	103		33 - 120	01/11/21 05:34	01/11/21 21:38	1
2-Fluorophenol (Surr)	63		24 - 120	01/11/21 05:34	01/11/21 21:38	1
Nitrobenzene-d5 (Surr)	104		38 - 120	01/11/21 05:34	01/11/21 21:38	1
Phenol-d6 (Surr)	39		16 - 120	01/11/21 05:34	01/11/21 21:38	1
p-Terphenyl-d14 (Surr)	116		41 - 137	01/11/21 05:34	01/11/21 21:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzoic acid	ND		0.048	0.012	mg/L		01/07/21 10:58	01/08/21 22:04	1
Butyl benzyl phthalate	ND		0.0096	0.0024	mg/L		01/07/21 10:58	01/08/21 22:04	1
Dimethyl phthalate	ND		0.0096	0.0025	mg/L		01/07/21 10:58	01/08/21 22:04	1
Fluoranthene	ND		0.0096	0.0030	mg/L		01/07/21 10:58	01/08/21 22:04	1
Pyrene	ND		0.0096	0.0029	mg/L		01/07/21 10:58	01/08/21 22:04	1
m+p-Cresol	ND		0.0096	0.0021	mg/L		01/07/21 10:58	01/08/21 22:04	1
Phenol	ND		0.0096	0.0020	mg/L		01/07/21 10:58	01/08/21 22:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	48		15 - 138	01/07/21 10:58	01/08/21 22:04	1
Nitrobenzene-d5 (Surr)	75		56 - 123	01/07/21 10:58	01/08/21 22:04	1
2,4,6-Tribromophenol (Surr)	79		32 - 143	01/07/21 10:58	01/08/21 22:04	1
Phenol-d6 (Surr)	37		17 - 141	01/07/21 10:58	01/08/21 22:04	1

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1221	ND		0.00029	0.00011	mg/L		01/11/21 08:04	01/12/21 14:03	1
Aroclor 1232	ND		0.00029	0.00011	mg/L		01/11/21 08:04	01/12/21 14:03	1
Aroclor 1016	ND		0.00029	0.00011	mg/L		01/11/21 08:04	01/12/21 14:03	1
Aroclor 1242	ND		0.00029	0.00011	mg/L		01/11/21 08:04	01/12/21 14:03	1
Aroclor 1248	ND		0.00029	0.00011	mg/L		01/11/21 08:04	01/12/21 14:03	1
Aroclor 1254	ND		0.00029	0.000048	mg/L		01/11/21 08:04	01/12/21 14:03	1
Aroclor 1260	ND		0.00029	0.000048	mg/L		01/11/21 08:04	01/12/21 14:03	1

Client Sample Results

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

Client Sample ID: Stormwater_122619-SW1

Lab Sample ID: 440-276946-1

Date Collected: 01/04/21 13:05

Matrix: Water

Date Received: 01/05/21 14:45

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	65		20 - 154	01/11/21 08:04	01/12/21 14:03	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.2		0.11	0.055	mg/L			01/05/21 22:28	1
Chloride	19		0.50	0.25	mg/L			01/05/21 22:28	1
Nitrite as N	0.069	J	0.15	0.025	mg/L			01/05/21 22:28	1
Fluoride	0.50		0.50	0.25	mg/L			01/05/21 22:28	1

Method: NO3NO2 Calc - Nitrogen, Nitrate-Nitrite

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	1.3		0.15	0.055	mg/L			01/06/21 11:37	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.27		0.10	0.050	mg/L		01/08/21 09:47	01/08/21 19:26	1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.18		0.010	0.0050	mg/L		01/08/21 10:03	01/08/21 14:22	1
Antimony	0.00087	J	0.0020	0.00050	mg/L		01/08/21 10:03	01/08/21 14:22	1
Arsenic	0.0021		0.0010	0.00050	mg/L		01/08/21 10:03	01/08/21 14:22	1
Beryllium	ND	^+	0.00050	0.00025	mg/L		01/08/21 10:03	01/08/21 14:22	1
Cadmium	0.0022		0.0010	0.00025	mg/L		01/08/21 10:03	01/08/21 14:22	1
Copper	0.0085		0.0020	0.00050	mg/L		01/08/21 10:03	01/08/21 14:22	1
Lead	ND		0.0010	0.00050	mg/L		01/08/21 10:03	01/08/21 14:22	1
Manganese	2.7		0.0010	0.00050	mg/L		01/08/21 10:03	01/08/21 14:22	1
Nickel	0.11		0.0020	0.00050	mg/L		01/08/21 10:03	01/08/21 14:22	1
Selenium	0.0019	J	0.0020	0.00050	mg/L		01/08/21 10:03	01/08/21 14:22	1
Silver	ND		0.0010	0.00050	mg/L		01/08/21 10:03	01/08/21 14:22	1
Zinc	0.13		0.020	0.0025	mg/L		01/08/21 10:03	01/08/21 14:22	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		01/11/21 11:23	01/11/21 16:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease (HEM)	ND		4.8	1.4	mg/L		01/11/21 07:18	01/11/21 07:18	1
Total Suspended Solids	6.9		1.3	0.63	mg/L			01/11/21 10:54	1
Phosphorus, Total	0.041	J	0.050	0.025	mg/L		01/12/21 09:38	01/12/21 12:03	1
Ammonia (as N)	1.3		0.50	0.10	mg/L		01/06/21 04:00	01/06/21 06:00	1
Chemical Oxygen Demand	79		20	10	mg/L			01/14/21 14:59	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	15		4.6	4.6	mg/L			01/06/21 11:27	1

Method Summary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	ECL 1
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	ECL 1
608.3	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	ECL 1
300.0	Anions, Ion Chromatography	MCAWW	TAL IRV
NO3NO2 Calc	Nitrogen, Nitrate-Nitrite	EPA	TAL IRV
200.7 Rev 4.4	Metals (ICP)	EPA	TAL IRV
200.8	Metals (ICP/MS)	EPA	TAL IRV
245.1	Mercury (CVAA)	EPA	TAL IRV
1664A	HEM and SGT-HEM	1664A	TAL IRV
2540 D	TSS	SM21	TAL IRV
365.3	Phosphorus, Total	EPA	TAL IRV
SM 4500 NH3 D	Ammonia	SM	TAL IRV
SM 5220D	COD	SM	TAL IRV
SM5210B	BOD, 5 Day	SM	TAL IRV
1664A	HEM and SGT-HEM (SPE)	1664A	TAL IRV
200.2	Preparation, Total Recoverable Metals	EPA	TAL IRV
245.1	Preparation, Mercury	EPA	TAL IRV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
365.2/365.3/365	Phosphorus, Total	MCAWW	TAL IRV
5030C	Purge and Trap	SW846	ECL 2
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	ECL 1
625	Liquid-Liquid Extraction	40CFR136A	ECL 1
SM 4500 NH3 B	Distillation, Ammonia	SM	TAL IRV

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

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"

SM21 = Standard Methods For The Examination Of Water And Wastewater, 21st Edition

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

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

Lab Chronicle

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

Client Sample ID: Stormwater_122619-SW1

Lab Sample ID: 440-276946-1

Date Collected: 01/04/21 13:05

Matrix: Water

Date Received: 01/05/21 14:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	20 mL	20 mL	120458	01/06/21 11:39	A1W	ECL 2
Total/NA	Prep	625			1041.8 mL	2 mL	121324	01/11/21 05:34	H1SH	ECL 1
Total/NA	Analysis	625.1		1			121565	01/11/21 21:38	N8CZ	ECL 1
Total/NA	Prep	3510C			1042.8 mL	2 mL	120545	01/07/21 10:58	OAJ3	ECL 1
Total/NA	Analysis	8270C		1			121093	01/08/21 22:04	N8CZ	ECL 1
Total/NA	Prep	608			1041.1 mL	2 mL	121367	01/11/21 08:04	OAJ3	ECL 1
Total/NA	Analysis	608.3		1			121697	01/12/21 14:03	UHHN	ECL 1
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	635264	01/05/21 22:28	NTN	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	635265	01/05/21 22:28	NTN	TAL IRV
Total/NA	Analysis	NO3NO2 Calc		1			635417	01/06/21 11:37	TLN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	635621	01/08/21 09:47	VYQ5	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			635713	01/08/21 19:26	K1UV	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	635627	01/08/21 10:03	VYQ5	TAL IRV
Total Recoverable	Analysis	200.8		1			635657	01/08/21 14:22	Y2WS	TAL IRV
Total/NA	Prep	245.1			20 mL	20 mL	635755	01/11/21 11:23	MA6V	TAL IRV
Total/NA	Analysis	245.1		1			635790	01/11/21 16:12	MA6V	TAL IRV
Total/NA	Prep	1664A			1035 mL	1000 mL	635714	01/11/21 07:18	GT1R	TAL IRV
Total/NA	Analysis	1664A		1			635730	01/11/21 07:18	GT1R	TAL IRV
Total/NA	Analysis	2540 D		1	800 mL	1000 mL	635746	01/11/21 10:54	XL	TAL IRV
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	635873	01/12/21 09:38	CKL	TAL IRV
Total/NA	Analysis	365.3		1			635893	01/12/21 12:03	CKL	TAL IRV
Total/NA	Prep	SM 4500 NH3 B			50 mL	50 mL	635374	01/06/21 04:00	YZ	TAL IRV
Total/NA	Analysis	SM 4500 NH3 D		1			635376	01/06/21 06:00	YZ	TAL IRV
Total/NA	Analysis	SM 5220D		1	2 mL	2 mL	636122	01/14/21 14:59	NN	TAL IRV
Total/NA	Analysis	SM5210B		1	130 mL	300 mL	635416	01/06/21 11:27	KYP	TAL IRV

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
 ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494
 TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

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

Lab Sample ID: MB 570-120458/8
Matrix: Water
Analysis Batch: 120458

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acrylonitrile	ND		0.0050	0.00087	mg/L			01/06/21 11:13	1
Benzene	ND		0.00050	0.00027	mg/L			01/06/21 11:13	1
Ethylbenzene	ND		0.00050	0.00036	mg/L			01/06/21 11:13	1
Toluene	ND		0.00050	0.00033	mg/L			01/06/21 11:13	1
Trichloroethylene	ND		0.00050	0.00029	mg/L			01/06/21 11:13	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	101		80 - 128		01/06/21 11:13	1
4-Bromofluorobenzene (Surr)	100		68 - 120		01/06/21 11:13	1
Dibromofluoromethane (Surr)	96		80 - 127		01/06/21 11:13	1
Toluene-d8 (Surr)	100		80 - 120		01/06/21 11:13	1

Lab Sample ID: LCS 570-120458/4
Matrix: Water
Analysis Batch: 120458

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Acrylonitrile	0.0100	0.00929		mg/L		93	53 - 130
Benzene	0.0100	0.0101		mg/L		101	80 - 120
Ethylbenzene	0.0100	0.00992		mg/L		99	80 - 120
Toluene	0.0100	0.0103		mg/L		103	80 - 120
Trichloroethylene	0.0100	0.0102		mg/L		102	80 - 120

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	97		80 - 128
4-Bromofluorobenzene (Surr)	107		68 - 120
Dibromofluoromethane (Surr)	98		80 - 127
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: LCSD 570-120458/5
Matrix: Water
Analysis Batch: 120458

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

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
		Result	Qualifier						
Acrylonitrile	0.0100	0.00947		mg/L		95	53 - 130	2	30
Benzene	0.0100	0.0100		mg/L		100	80 - 120	1	20
Ethylbenzene	0.0100	0.0104		mg/L		104	80 - 120	5	20
Toluene	0.0100	0.0102		mg/L		102	80 - 120	2	20
Trichloroethylene	0.0100	0.0100		mg/L		100	80 - 120	2	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	97		80 - 128
4-Bromofluorobenzene (Surr)	105		68 - 120
Dibromofluoromethane (Surr)	99		80 - 127
Toluene-d8 (Surr)	100		80 - 120

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

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

Lab Sample ID: 440-276946-1 MS
Matrix: Water
Analysis Batch: 120458

Client Sample ID: Stormwater_122619-SW1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acrylonitrile	ND		0.0200	0.0177		mg/L		88	68 - 134
Benzene	ND		0.0200	0.0183		mg/L		92	75 - 125
Ethylbenzene	ND		0.0200	0.0187		mg/L		94	75 - 125
Toluene	ND		0.0200	0.0184		mg/L		92	75 - 125
Trichloroethylene	ND		0.0200	0.0188		mg/L		94	75 - 125

Surrogate	MS %Recovery	MS Qualifier	MS Limits
1,2-Dichloroethane-d4 (Surr)	97		80 - 128
4-Bromofluorobenzene (Surr)	106		68 - 120
Dibromofluoromethane (Surr)	98		80 - 127
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: 440-276946-1 MSD
Matrix: Water
Analysis Batch: 120458

Client Sample ID: Stormwater_122619-SW1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acrylonitrile	ND		0.0200	0.0176		mg/L		88	68 - 134	1	20
Benzene	ND		0.0200	0.0181		mg/L		91	75 - 125	1	20
Ethylbenzene	ND		0.0200	0.0184		mg/L		92	75 - 125	2	20
Toluene	ND		0.0200	0.0182		mg/L		91	75 - 125	1	20
Trichloroethylene	ND		0.0200	0.0178		mg/L		89	75 - 125	5	20

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1,2-Dichloroethane-d4 (Surr)	95		80 - 128
4-Bromofluorobenzene (Surr)	106		68 - 120
Dibromofluoromethane (Surr)	97		80 - 127
Toluene-d8 (Surr)	100		80 - 120

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-121324/1-A
Matrix: Water
Analysis Batch: 121565

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 121324

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alpha-Terpineol	ND		0.010	0.0025	mg/L		01/11/21 05:34	01/11/21 20:41	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	110		27 - 159	01/11/21 05:34	01/11/21 20:41	1
2-Fluorobiphenyl (Surr)	96		33 - 120	01/11/21 05:34	01/11/21 20:41	1
2-Fluorophenol (Surr)	58		24 - 120	01/11/21 05:34	01/11/21 20:41	1
Nitrobenzene-d5 (Surr)	96		38 - 120	01/11/21 05:34	01/11/21 20:41	1
Phenol-d6 (Surr)	39		16 - 120	01/11/21 05:34	01/11/21 20:41	1
p-Terphenyl-d14 (Surr)	114		41 - 137	01/11/21 05:34	01/11/21 20:41	1

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

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

Lab Sample ID: MB 570-120545/1-A
Matrix: Water
Analysis Batch: 120772

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120545

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzoic acid	ND		0.050	0.012	mg/L		01/06/21 12:22	01/07/21 10:44	1
Butyl benzyl phthalate	ND		0.010	0.0025	mg/L		01/06/21 12:22	01/07/21 10:44	1
Dimethyl phthalate	ND		0.010	0.0026	mg/L		01/06/21 12:22	01/07/21 10:44	1
Fluoranthene	ND		0.010	0.0031	mg/L		01/06/21 12:22	01/07/21 10:44	1
Pyrene	ND		0.010	0.0030	mg/L		01/06/21 12:22	01/07/21 10:44	1
m+p-Cresol	ND		0.010	0.0022	mg/L		01/06/21 12:22	01/07/21 10:44	1
Phenol	ND		0.010	0.0021	mg/L		01/06/21 12:22	01/07/21 10:44	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol (Surr)	63		15 - 138	01/06/21 12:22	01/07/21 10:44	1
Nitrobenzene-d5 (Surr)	75		56 - 123	01/06/21 12:22	01/07/21 10:44	1
2,4,6-Tribromophenol (Surr)	102		32 - 143	01/06/21 12:22	01/07/21 10:44	1
Phenol-d6 (Surr)	40		17 - 141	01/06/21 12:22	01/07/21 10:44	1

Lab Sample ID: LCS 570-120545/2-A
Matrix: Water
Analysis Batch: 120772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120545

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
Butyl benzyl phthalate	0.100	0.0976		mg/L		98	45 - 115	
Dimethyl phthalate	0.100	0.0847		mg/L		85	25 - 125	
Fluoranthene	0.100	0.0886		mg/L		89	55 - 115	
Pyrene	0.100	0.0949		mg/L		95	50 - 130	
m+p-Cresol	0.200	0.131		mg/L		65	30 - 110	
Phenol	0.100	0.0415		mg/L		41	10 - 115	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
2-Fluorophenol (Surr)	68		15 - 138
Nitrobenzene-d5 (Surr)	75		56 - 123
2,4,6-Tribromophenol (Surr)	108		32 - 143
Phenol-d6 (Surr)	48		17 - 141

Lab Sample ID: LCSD 570-120545/3-A
Matrix: Water
Analysis Batch: 120772

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120545

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Butyl benzyl phthalate	0.100	0.102		mg/L		102	45 - 115	4	20
Dimethyl phthalate	0.100	0.0889		mg/L		89	25 - 125	5	20
Fluoranthene	0.100	0.0936		mg/L		94	55 - 115	5	20
Pyrene	0.100	0.0978		mg/L		98	50 - 130	3	20
m+p-Cresol	0.200	0.134		mg/L		67	30 - 110	2	20
Phenol	0.100	0.0427		mg/L		43	10 - 115	3	23

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

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

Lab Sample ID: LCSD 570-120545/3-A
Matrix: Water
Analysis Batch: 120772

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120545

Surrogate	LCS D %Recovery	LCS D Qualifier	Limits
2-Fluorophenol (Surr)	70		15 - 138
Nitrobenzene-d5 (Surr)	76		56 - 123
2,4,6-Tribromophenol (Surr)	110		32 - 143
Phenol-d6 (Surr)	47		17 - 141

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 570-121367/1-A
Matrix: Water
Analysis Batch: 121697

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 121367

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1221	ND		0.00010	0.000039	mg/L		01/11/21 08:04	01/12/21 13:06	1
Aroclor 1232	ND		0.00010	0.000039	mg/L		01/11/21 08:04	01/12/21 13:06	1
Aroclor 1016	ND		0.00010	0.000039	mg/L		01/11/21 08:04	01/12/21 13:06	1
Aroclor 1242	ND		0.00010	0.000039	mg/L		01/11/21 08:04	01/12/21 13:06	1
Aroclor 1248	ND		0.00010	0.000039	mg/L		01/11/21 08:04	01/12/21 13:06	1
Aroclor 1254	ND		0.00010	0.000017	mg/L		01/11/21 08:04	01/12/21 13:06	1
Aroclor 1260	ND		0.00010	0.000017	mg/L		01/11/21 08:04	01/12/21 13:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	84		20 - 154	01/11/21 08:04	01/12/21 13:06	1

Lab Sample ID: LCS 570-121367/2-A
Matrix: Water
Analysis Batch: 121697

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 121367

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aroclor 1016	0.000133	0.000119		mg/L		89	50 - 140
Aroclor 1260	0.000133	0.000155		mg/L		116	8 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	102		20 - 154

Lab Sample ID: LCSD 570-121367/3-A
Matrix: Water
Analysis Batch: 121697

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 121367

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aroclor 1016	0.000133	0.000100		mg/L		75	50 - 140	18	36
Aroclor 1260	0.000133	0.000143		mg/L		107	8 - 140	8	38

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	92		20 - 154

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-635264/6
Matrix: Water
Analysis Batch: 635264

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			01/05/21 20:03	1
Nitrite as N	ND		0.15	0.025	mg/L			01/05/21 20:03	1

Lab Sample ID: LCS 440-635264/7
Matrix: Water
Analysis Batch: 635264

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	1.13		mg/L		100	90 - 110
Nitrite as N	1.52	1.43		mg/L		94	90 - 110

Lab Sample ID: 440-276946-1 MS
Matrix: Water
Analysis Batch: 635264

Client Sample ID: Stormwater_122619-SW1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.2		1.13	2.40		mg/L		103	80 - 120
Nitrite as N	0.069	J	1.52	1.44		mg/L		90	80 - 120

Lab Sample ID: 440-276946-1 MSD
Matrix: Water
Analysis Batch: 635264

Client Sample ID: Stormwater_122619-SW1
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	1.2		1.13	2.40		mg/L		103	80 - 120	0	20
Nitrite as N	0.069	J	1.52	1.44		mg/L		90	80 - 120	1	20

Lab Sample ID: MB 440-635265/6
Matrix: Water
Analysis Batch: 635265

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			01/05/21 20:03	1
Fluoride	ND		0.50	0.25	mg/L			01/05/21 20:03	1

Lab Sample ID: LCS 440-635265/7
Matrix: Water
Analysis Batch: 635265

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.79		mg/L		96	90 - 110
Fluoride	5.00	4.88		mg/L		98	90 - 110

Lab Sample ID: 440-276946-1 MS
Matrix: Water
Analysis Batch: 635265

Client Sample ID: Stormwater_122619-SW1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	19		5.00	24.2	E	mg/L		108	80 - 120
Fluoride	0.50		5.00	5.56		mg/L		101	80 - 120

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QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 440-276946-1 MSD
 Matrix: Water
 Analysis Batch: 635265

Client Sample ID: Stormwater_122619-SW1
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	19		5.00	24.2	E	mg/L		108	80 - 120	0	20
Fluoride	0.50		5.00	5.60		mg/L		102	80 - 120	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 440-635621/1-A
 Matrix: Water
 Analysis Batch: 635713

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 635621

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10	0.050	mg/L		01/08/21 09:47	01/08/21 18:46	1

Lab Sample ID: LCS 440-635621/2-A
 Matrix: Water
 Analysis Batch: 635713

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 635621

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.500	0.519		mg/L		104	85 - 115

Lab Sample ID: 440-276946-1 MS
 Matrix: Water
 Analysis Batch: 635713

Client Sample ID: Stormwater_122619-SW1
 Prep Type: Total Recoverable
 Prep Batch: 635621

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.27		0.500	0.779		mg/L		102	70 - 130

Lab Sample ID: 440-276946-1 MSD
 Matrix: Water
 Analysis Batch: 635713

Client Sample ID: Stormwater_122619-SW1
 Prep Type: Total Recoverable
 Prep Batch: 635621

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	0.27		0.500	0.801		mg/L		106	70 - 130	3	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 440-635627/1-A
 Matrix: Water
 Analysis Batch: 635657

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 635627

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.010	0.0050	mg/L		01/08/21 10:03	01/08/21 14:18	1
Antimony	ND		0.0020	0.00050	mg/L		01/08/21 10:03	01/08/21 14:18	1
Arsenic	ND		0.0010	0.00050	mg/L		01/08/21 10:03	01/08/21 14:18	1
Beryllium	ND	^+	0.00050	0.00025	mg/L		01/08/21 10:03	01/08/21 14:18	1
Cadmium	ND		0.0010	0.00025	mg/L		01/08/21 10:03	01/08/21 14:18	1
Copper	ND		0.0020	0.00050	mg/L		01/08/21 10:03	01/08/21 14:18	1
Lead	ND		0.0010	0.00050	mg/L		01/08/21 10:03	01/08/21 14:18	1
Manganese	ND		0.0010	0.00050	mg/L		01/08/21 10:03	01/08/21 14:18	1
Nickel	ND		0.0020	0.00050	mg/L		01/08/21 10:03	01/08/21 14:18	1
Selenium	ND		0.0020	0.00050	mg/L		01/08/21 10:03	01/08/21 14:18	1

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QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 440-635627/1-A
Matrix: Water
Analysis Batch: 635657

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 635627

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0010	0.00050	mg/L		01/08/21 10:03	01/08/21 14:18	1
Zinc	ND		0.020	0.0025	mg/L		01/08/21 10:03	01/08/21 14:18	1

Lab Sample ID: LCS 440-635627/2-A
Matrix: Water
Analysis Batch: 635657

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 635627

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	0.0800	0.0777		mg/L		97	85 - 115
Antimony	0.0800	0.0834		mg/L		104	85 - 115
Arsenic	0.0800	0.0772		mg/L		96	85 - 115
Beryllium	0.0800	0.0835	^+	mg/L		104	85 - 115
Cadmium	0.0800	0.0778		mg/L		97	85 - 115
Copper	0.0800	0.0790		mg/L		99	85 - 115
Lead	0.0800	0.0796		mg/L		100	85 - 115
Manganese	0.0800	0.0777		mg/L		97	85 - 115
Nickel	0.0800	0.0809		mg/L		101	85 - 115
Selenium	0.0800	0.0762		mg/L		95	85 - 115
Silver	0.0800	0.0838		mg/L		105	85 - 115
Zinc	0.0800	0.0770		mg/L		96	85 - 115

Lab Sample ID: 440-276946-1 MS
Matrix: Water
Analysis Batch: 635657

Client Sample ID: Stormwater_122619-SW1
Prep Type: Total Recoverable
Prep Batch: 635627

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	0.18		0.0800	0.279		mg/L		118	70 - 130
Antimony	0.00087	J	0.0800	0.0882		mg/L		109	70 - 130
Arsenic	0.0021		0.0800	0.0824		mg/L		100	70 - 130
Beryllium	ND	^+	0.0800	0.0825	^+	mg/L		103	70 - 130
Cadmium	0.0022		0.0800	0.0799		mg/L		97	70 - 130
Copper	0.0085		0.0800	0.0854		mg/L		96	70 - 130
Lead	ND		0.0800	0.0766		mg/L		96	70 - 130
Manganese	2.7		0.0800	2.63	4	mg/L		-103	70 - 130
Nickel	0.11		0.0800	0.179		mg/L		89	70 - 130
Selenium	0.0019	J	0.0800	0.0787		mg/L		96	70 - 130
Silver	ND		0.0800	0.0819		mg/L		102	70 - 130
Zinc	0.13		0.0800	0.193		mg/L		83	70 - 130

Lab Sample ID: 440-276946-1 MSD
Matrix: Water
Analysis Batch: 635657

Client Sample ID: Stormwater_122619-SW1
Prep Type: Total Recoverable
Prep Batch: 635627

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	0.18		0.0800	0.285		mg/L		125	70 - 130	2	20
Antimony	0.00087	J	0.0800	0.0894		mg/L		111	70 - 130	1	20
Arsenic	0.0021		0.0800	0.0838		mg/L		102	70 - 130	2	20
Beryllium	ND	^+	0.0800	0.0851	^+	mg/L		106	70 - 130	3	20
Cadmium	0.0022		0.0800	0.0815		mg/L		99	70 - 130	2	20

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QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 440-276946-1 MSD
 Matrix: Water
 Analysis Batch: 635657

Client Sample ID: Stormwater_122619-SW1
 Prep Type: Total Recoverable
 Prep Batch: 635627

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	0.0085		0.0800	0.0860		mg/L		97	70 - 130	1	20
Lead	ND		0.0800	0.0782		mg/L		98	70 - 130	2	20
Manganese	2.7		0.0800	2.58	4	mg/L		-165	70 - 130	2	20
Nickel	0.11		0.0800	0.179		mg/L		90	70 - 130	0	20
Selenium	0.0019	J	0.0800	0.0803		mg/L		98	70 - 130	2	20
Silver	ND		0.0800	0.0839		mg/L		105	70 - 130	2	20
Zinc	0.13		0.0800	0.192		mg/L		81	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 440-635755/1-A
 Matrix: Water
 Analysis Batch: 635790

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 635755

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		01/11/21 11:23	01/11/21 15:46	1

Lab Sample ID: LCS 440-635755/2-A
 Matrix: Water
 Analysis Batch: 635790

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 635755

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00400	0.00404		mg/L		101	85 - 115

Lab Sample ID: 320-68076-B-1-B MS
 Matrix: Water
 Analysis Batch: 635790

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 635755

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00400	0.00395		mg/L		99	75 - 125

Lab Sample ID: 320-68076-B-1-C MSD
 Matrix: Water
 Analysis Batch: 635790

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total/NA
 Prep Batch: 635755

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00400	0.00401		mg/L		100	75 - 125	2	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 440-635714/1-A
 Matrix: Water
 Analysis Batch: 635730

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 635714

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease (HEM)	ND		5.0	1.4	mg/L		01/11/21 07:18	01/11/21 07:18	1

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

Method: 1664A - HEM and SGT-HEM (Continued)

Lab Sample ID: LCS 440-635714/2-A
 Matrix: Water
 Analysis Batch: 635730

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 635714
 %Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Oil & Grease (HEM)	40.0	35.70		mg/L		89	78 - 114

Lab Sample ID: LCSD 440-635714/3-A
 Matrix: Water
 Analysis Batch: 635730

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 635714
 %Rec. RPD

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Oil & Grease (HEM)	40.0	39.80		mg/L		100	78 - 114	11	11

Method: 2540 D - TSS

Lab Sample ID: MB 440-635746/1
 Matrix: Water
 Analysis Batch: 635746

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	0.50	mg/L			01/11/21 10:54	1

Lab Sample ID: LCS 440-635746/2
 Matrix: Water
 Analysis Batch: 635746

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	1000	1010		mg/L		101	85 - 115

Lab Sample ID: 440-277080-A-1 DU
 Matrix: Water
 Analysis Batch: 635746

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Suspended Solids	8500		8450		mg/L		0	10

Method: 365.3 - Phosphorus, Total

Lab Sample ID: MB 440-635873/1-A
 Matrix: Water
 Analysis Batch: 635893

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 635873

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus, Total	ND		0.050	0.025	mg/L		01/12/21 09:38	01/12/21 12:01	1

Lab Sample ID: LCS 440-635873/2-A
 Matrix: Water
 Analysis Batch: 635893

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 635873
 %Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	0.500	0.495		mg/L		99	80 - 120

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

Method: 365.3 - Phosphorus, Total (Continued)

Lab Sample ID: 440-276961-A-1-C MS
Matrix: Water
Analysis Batch: 635893

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 635873
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Phosphorus, Total	ND	F1	0.500	0.356	F1	mg/L		71	75 - 125

Lab Sample ID: 440-276961-A-1-D MSD
Matrix: Water
Analysis Batch: 635893

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 635873
 %Rec. RPD

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Phosphorus, Total	ND	F1	0.500	0.419		mg/L		84	75 - 125	16	20

Method: SM 4500 NH3 D - Ammonia

Lab Sample ID: MB 440-635374/2-A
Matrix: Water
Analysis Batch: 635376

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 635374

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.50	0.10	mg/L		01/06/21 04:00	01/06/21 06:00	1

Lab Sample ID: LCS 440-635374/1-A
Matrix: Water
Analysis Batch: 635376

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 635374
 %Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Ammonia (as N)	2.50	2.28		mg/L		91	85 - 115

Lab Sample ID: 440-276831-A-5-B MS
Matrix: Water
Analysis Batch: 635376

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 635374
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Ammonia (as N)	0.36	J	2.50	2.69		mg/L		93	75 - 125

Lab Sample ID: 440-276831-A-5-C MSD
Matrix: Water
Analysis Batch: 635376

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 635374
 %Rec. RPD

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Ammonia (as N)	0.36	J	2.50	2.58		mg/L		89	75 - 125	4	15

Method: SM 5220D - COD

Lab Sample ID: MB 440-636122/3
Matrix: Water
Analysis Batch: 636122

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			01/14/21 14:57	1

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

Method: SM 5220D - COD (Continued)

Lab Sample ID: LCS 440-636122/4
Matrix: Water
Analysis Batch: 636122

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	211		mg/L		106	90 - 110

Lab Sample ID: 440-277054-C-1 MS
Matrix: Water
Analysis Batch: 636122

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
Chemical Oxygen Demand	75		200	248		mg/L		87	70 - 120

Lab Sample ID: 440-277054-C-1 MSD
Matrix: Water
Analysis Batch: 636122

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chemical Oxygen Demand	75		200	240		mg/L		83	70 - 120	3	15

Method: SM5210B - BOD, 5 Day

Lab Sample ID: USB 440-635416/3
Matrix: Water
Analysis Batch: 635416

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

Analyte	USB Result	USB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			01/06/21 11:27	1

Lab Sample ID: LCS 440-635416/7
Matrix: Water
Analysis Batch: 635416

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	199	226		mg/L		114	85 - 115

Lab Sample ID: LCSD 440-635416/8
Matrix: Water
Analysis Batch: 635416

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Biochemical Oxygen Demand	199	226		mg/L		114	85 - 115	0	20

Lab Sample ID: LCSD 440-635416/9
Matrix: Water
Analysis Batch: 635416

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Biochemical Oxygen Demand	199	227		mg/L		114	85 - 115	0	20

QC Sample Results

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

Method: SM5210B - BOD, 5 Day (Continued)

Lab Sample ID: 440-276946-1 DU
Matrix: Water
Analysis Batch: 635416

Client Sample ID: Stormwater_122619-SW1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	15		14.9		mg/L		0.5	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

QC Association Summary

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

GC/MS VOA

Analysis Batch: 120458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	8260B	
MB 570-120458/8	Method Blank	Total/NA	Water	8260B	
LCS 570-120458/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-120458/5	Lab Control Sample Dup	Total/NA	Water	8260B	
440-276946-1 MS	Stormwater_122619-SW1	Total/NA	Water	8260B	
440-276946-1 MSD	Stormwater_122619-SW1	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 120545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	3510C	
MB 570-120545/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-120545/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-120545/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 120772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-120545/1-A	Method Blank	Total/NA	Water	8270C	120545
LCS 570-120545/2-A	Lab Control Sample	Total/NA	Water	8270C	120545
LCSD 570-120545/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	120545

Analysis Batch: 121093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	8270C	120545

Prep Batch: 121324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	625	
MB 570-121324/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 121565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	625.1	121324
MB 570-121324/1-A	Method Blank	Total/NA	Water	625.1	121324

GC Semi VOA

Prep Batch: 121367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	608	
MB 570-121367/1-A	Method Blank	Total/NA	Water	608	
LCS 570-121367/2-A	Lab Control Sample	Total/NA	Water	608	
LCSD 570-121367/3-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 121697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	608.3	121367
MB 570-121367/1-A	Method Blank	Total/NA	Water	608.3	121367
LCS 570-121367/2-A	Lab Control Sample	Total/NA	Water	608.3	121367
LCSD 570-121367/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	121367

Eurofins Calscience Irvine

QC Association Summary

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

HPLC/IC

Analysis Batch: 635264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	300.0	
MB 440-635264/6	Method Blank	Total/NA	Water	300.0	
LCS 440-635264/7	Lab Control Sample	Total/NA	Water	300.0	
440-276946-1 MS	Stormwater_122619-SW1	Total/NA	Water	300.0	
440-276946-1 MSD	Stormwater_122619-SW1	Total/NA	Water	300.0	

Analysis Batch: 635265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	300.0	
MB 440-635265/6	Method Blank	Total/NA	Water	300.0	
LCS 440-635265/7	Lab Control Sample	Total/NA	Water	300.0	
440-276946-1 MS	Stormwater_122619-SW1	Total/NA	Water	300.0	
440-276946-1 MSD	Stormwater_122619-SW1	Total/NA	Water	300.0	

Analysis Batch: 635417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	NO3NO2 Calc	

Metals

Prep Batch: 635621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total Recoverable	Water	200.2	
MB 440-635621/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-635621/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-276946-1 MS	Stormwater_122619-SW1	Total Recoverable	Water	200.2	
440-276946-1 MSD	Stormwater_122619-SW1	Total Recoverable	Water	200.2	

Prep Batch: 635627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total Recoverable	Water	200.2	
MB 440-635627/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-635627/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-276946-1 MS	Stormwater_122619-SW1	Total Recoverable	Water	200.2	
440-276946-1 MSD	Stormwater_122619-SW1	Total Recoverable	Water	200.2	

Analysis Batch: 635657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total Recoverable	Water	200.8	635627
MB 440-635627/1-A	Method Blank	Total Recoverable	Water	200.8	635627
LCS 440-635627/2-A	Lab Control Sample	Total Recoverable	Water	200.8	635627
440-276946-1 MS	Stormwater_122619-SW1	Total Recoverable	Water	200.8	635627
440-276946-1 MSD	Stormwater_122619-SW1	Total Recoverable	Water	200.8	635627

Analysis Batch: 635713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total Recoverable	Water	200.7 Rev 4.4	635621
MB 440-635621/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	635621
LCS 440-635621/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	635621
440-276946-1 MS	Stormwater_122619-SW1	Total Recoverable	Water	200.7 Rev 4.4	635621
440-276946-1 MSD	Stormwater_122619-SW1	Total Recoverable	Water	200.7 Rev 4.4	635621

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QC Association Summary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

Metals

Prep Batch: 635755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	245.1	
MB 440-635755/1-A	Method Blank	Total/NA	Water	245.1	
LCS 440-635755/2-A	Lab Control Sample	Total/NA	Water	245.1	
320-68076-B-1-B MS	Matrix Spike	Total/NA	Water	245.1	
320-68076-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 635790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	245.1	635755
MB 440-635755/1-A	Method Blank	Total/NA	Water	245.1	635755
LCS 440-635755/2-A	Lab Control Sample	Total/NA	Water	245.1	635755
320-68076-B-1-B MS	Matrix Spike	Total/NA	Water	245.1	635755
320-68076-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	635755

General Chemistry

Prep Batch: 635374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	SM 4500 NH3 B	
MB 440-635374/2-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 440-635374/1-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
440-276831-A-5-B MS	Matrix Spike	Total/NA	Water	SM 4500 NH3 B	
440-276831-A-5-C MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 NH3 B	

Analysis Batch: 635376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	SM 4500 NH3 D	635374
MB 440-635374/2-A	Method Blank	Total/NA	Water	SM 4500 NH3 D	635374
LCS 440-635374/1-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 D	635374
440-276831-A-5-B MS	Matrix Spike	Total/NA	Water	SM 4500 NH3 D	635374
440-276831-A-5-C MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 NH3 D	635374

Analysis Batch: 635416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	SM5210B	
USB 440-635416/3	Method Blank	Total/NA	Water	SM5210B	
LCS 440-635416/7	Lab Control Sample	Total/NA	Water	SM5210B	
LCSD 440-635416/8	Lab Control Sample Dup	Total/NA	Water	SM5210B	
LCSD 440-635416/9	Lab Control Sample Dup	Total/NA	Water	SM5210B	
440-276946-1 DU	Stormwater_122619-SW1	Total/NA	Water	SM5210B	

Prep Batch: 635714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	1664A	
MB 440-635714/1-A	Method Blank	Total/NA	Water	1664A	
LCS 440-635714/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 440-635714/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	

Analysis Batch: 635730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	1664A	635714

Eurofins Calscience Irvine

QC Association Summary

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

General Chemistry (Continued)

Analysis Batch: 635730 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-635714/1-A	Method Blank	Total/NA	Water	1664A	635714
LCS 440-635714/2-A	Lab Control Sample	Total/NA	Water	1664A	635714
LCS 440-635714/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	635714

Analysis Batch: 635746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	2540 D	
MB 440-635746/1	Method Blank	Total/NA	Water	2540 D	
LCS 440-635746/2	Lab Control Sample	Total/NA	Water	2540 D	
440-277080-A-1 DU	Duplicate	Total/NA	Water	2540 D	

Prep Batch: 635873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	365.2/365.3/365	
MB 440-635873/1-A	Method Blank	Total/NA	Water	365.2/365.3/365	
LCS 440-635873/2-A	Lab Control Sample	Total/NA	Water	365.2/365.3/365	
440-276961-A-1-C MS	Matrix Spike	Total/NA	Water	365.2/365.3/365	
440-276961-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	365.2/365.3/365	

Analysis Batch: 635893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	365.3	635873
MB 440-635873/1-A	Method Blank	Total/NA	Water	365.3	635873
LCS 440-635873/2-A	Lab Control Sample	Total/NA	Water	365.3	635873
440-276961-A-1-C MS	Matrix Spike	Total/NA	Water	365.3	635873
440-276961-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	365.3	635873

Analysis Batch: 636122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-276946-1	Stormwater_122619-SW1	Total/NA	Water	SM 5220D	
MB 440-636122/3	Method Blank	Total/NA	Water	SM 5220D	
LCS 440-636122/4	Lab Control Sample	Total/NA	Water	SM 5220D	
440-277054-C-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
440-277054-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	

Definitions/Glossary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

Qualifiers

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
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
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.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds 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
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-276946-1

Laboratory: Eurofins Calscience Irvine

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

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-21
Arizona	State	AZ0671	10-14-21
California	Los Angeles County Sanitation Districts	10256	06-30-21
California	State	2706	06-30-21
Guam	State	20-004R	01-23-21
Hawaii	State	CA01531	01-29-21
Kansas	NELAP	E-10420	07-31-21
Nevada	State	CA015312021-5	07-31-21
Oregon	NELAP	4028 - 008	01-29-21
USDA	US Federal Programs	P330-18-00214	07-09-21
Washington	State	C900	09-03-21

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	20-003R	10-31-20 *
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-29-21
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Calscience Irvine

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler: Tomova, Rossina D	Lab PM: Tomova, Rossina D	Carrier Tracking No(s): 440-165458-1	COC No: 440-165458-1
Client Contact: Rossina.Tomova@Eurofinset.com		Phone: Rossina.Tomova@Eurofinset.com	E-Mail: Rossina.Tomova@Eurofinset.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Calscience LLC		Address: 7440 Lincoln Way, Garden Grove, CA, 92841		Job #: 440-276946-1	Preservation Codes: M - Hexane N - None O - AsNaO2 P - Ni2OAS Q - Ni2SO3 R - Ni2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 L - EDA Other:
Due Date Requested: 1/18/2021		TAT Requested (days):		Analysis Requested	
PO #:	WO #:	Project #:	44003139	8260B_IL/5030C (MOD) Custom 8260B Vials List	
Project Name: Republic-Sunshine Canyon - Stormwater		Site:		8270C/3510C (MOD) Custom 8270C Semi-Vials List	
Sample Date: 1/4/21		Sample Time: 13:05 Pacific		608_3_PCB/608_Prep_PCB Standard 608 PCB list	
Sample Identification - Client ID (Lab ID): Stormwater_1226-SW1 (440-276946-1)		Matrix (Water, Seawater, Oil, etc.): Water		625_1/625_Prep (MOD) Custom List	
Sample Type (C=comp, G=grab):		Preservation Code:		Field Filtered Sample (Yes or No)	
Sample Date: 1/4/21		Sample Time: 13:05 Pacific		Perform MS/MSD (Yes or No)	
Total Number of Containers: 11		Special Instructions/Note:		Total Number of Containers: 11	

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately if all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested I, II, III, IV, Other (specify): Primary Deliverable Rank. 2

Special Instructions/QC Requirements:
 Return To Client Disposal By Lab Archive For _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Received by: <i>Rudy N</i>	Date/Time: 1/5/21 16:50	Company: EC
Received by: <i>Rudy N</i>	Date/Time: 1/5/2021 18:12	Company: EC
Received by:	Date/Time:	Company:

Method of Shipment:
 Cooler Temperature(s) °C and Other Remarks: 37-12-20 SCC



Login Sample Receipt Checklist

Client: Republic Services Inc

Job Number: 440-276946-1

Login Number: 276946

List Number: 1

Creator: Escalante, Maria I

List Source: Eurofins Irvine

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.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 (excluding tests with immediate HTs)	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	

Login Sample Receipt Checklist

Client: Republic Services Inc

Job Number: 440-276946-1

Login Number: 276946

List Number: 2

Creator: Rivera, Isaac

List Source: Eurofins Calscience

List Creation: 01/05/21 07:38 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-278031-1

Client Project/Site: Republic-Sunshine Canyon - Stormwater

For:

Republic Services Inc
14747 San Fernando Road
Sylmar, California 91342

Attn: Mr. Tuong-Phu Ngo



Authorized for release by:
2/10/2021 10:38:18 AM

Rossina Tomova, Project Manager I
(949)260-3276
Rossina.Tomova@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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



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Sample Summary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-278031-1	Stormwater_012621_SW2	Water	01/26/21 14:30	01/28/21 12:40	

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Case Narrative

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Job ID: 440-278031-1

Laboratory: Eurofins Calscience Irvine

Narrative

**Job Narrative
440-278031-1**

Comments

No additional comments.

Receipt

The sample was received on 1/28/2021 12:40 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.2° C.

GC/MS VOA

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-125863.

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

GC/MS Semi VOA

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

HPLC/IC

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

GC Semi VOA

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

Metals

Method 200.8: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Aluminum for preparation batch 440-637378 and analytical batch 440-637423 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 245.1: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for Mercury preparation batch 440-638152 and analytical batch 440-638230 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

General Chemistry

Method SM5210B: The residual D.O. in sample (440-277996-A-1 DU) was < 1.0 mg/L in all dilutions tested; they were over depleted. Results were reported, but they may be biased low.

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

Organic Prep

Method 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-126129. LCS/LCSD was performed to meet QC requirement

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-125888. LCS/LCSD was performed to meet QC requirements.

Method 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-126169. The LCS/LCSD was performed to meet QC requirements.

Method 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-125882. The LCS/LCSD was performed to meet QC requirements.

Case Narrative

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Job ID: 440-278031-1 (Continued)

Laboratory: Eurofins Calscience Irvine (Continued)

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

VOA Prep

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

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Client Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Client Sample ID: Stormwater_012621_SW2

Lab Sample ID: 440-278031-1

Date Collected: 01/26/21 14:30

Matrix: Water

Date Received: 01/28/21 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrylonitrile	ND		0.0050	0.00087	mg/L			01/31/21 23:59	1
Benzene	ND		0.00050	0.00027	mg/L			01/31/21 23:59	1
Ethylbenzene	ND		0.00050	0.00036	mg/L			01/31/21 23:59	1
Toluene	ND		0.00050	0.00033	mg/L			01/31/21 23:59	1
Trichloroethylene	ND		0.00050	0.00029	mg/L			01/31/21 23:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		80 - 128		01/31/21 23:59	1
4-Bromofluorobenzene (Surr)	95		68 - 120		01/31/21 23:59	1
Dibromofluoromethane (Surr)	87		80 - 127		01/31/21 23:59	1
Toluene-d8 (Surr)	99		80 - 120		01/31/21 23:59	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alpha-Terpineol	ND		0.0096	0.0024	mg/L		02/01/21 07:54	02/02/21 16:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	107		27 - 159	02/01/21 07:54	02/02/21 16:57	1
2-Fluorobiphenyl (Surr)	107		33 - 120	02/01/21 07:54	02/02/21 16:57	1
2-Fluorophenol (Surr)	49		24 - 120	02/01/21 07:54	02/02/21 16:57	1
Nitrobenzene-d5 (Surr)	95		38 - 120	02/01/21 07:54	02/02/21 16:57	1
Phenol-d6 (Surr)	34		16 - 120	02/01/21 07:54	02/02/21 16:57	1
p-Terphenyl-d14 (Surr)	107		41 - 137	02/01/21 07:54	02/02/21 16:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzoic acid	ND		0.048	0.012	mg/L		02/01/21 08:20	02/02/21 20:01	1
Butyl benzyl phthalate	ND		0.0096	0.0024	mg/L		02/01/21 08:20	02/02/21 20:01	1
Dimethyl phthalate	ND		0.0096	0.0025	mg/L		02/01/21 08:20	02/02/21 20:01	1
Fluoranthene	ND		0.0096	0.0030	mg/L		02/01/21 08:20	02/02/21 20:01	1
Pyrene	ND		0.0096	0.0028	mg/L		02/01/21 08:20	02/02/21 20:01	1
m+p-Cresol	ND		9.6	2.1	ug/L		02/01/21 08:20	02/02/21 20:01	1
Phenol	ND		0.0096	0.0020	mg/L		02/01/21 08:20	02/02/21 20:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	43		15 - 138	02/01/21 08:20	02/02/21 20:01	1
Nitrobenzene-d5 (Surr)	74		56 - 123	02/01/21 08:20	02/02/21 20:01	1
2,4,6-Tribromophenol (Surr)	95		32 - 143	02/01/21 08:20	02/02/21 20:01	1
Phenol-d6 (Surr)	30		17 - 141	02/01/21 08:20	02/02/21 20:01	1

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1221	ND		0.00029	0.00011	mg/L		02/02/21 05:12	02/03/21 02:52	1
Aroclor 1232	ND		0.00029	0.00011	mg/L		02/02/21 05:12	02/03/21 02:52	1
Aroclor 1016	ND		0.00029	0.00011	mg/L		02/02/21 05:12	02/03/21 02:52	1
Aroclor 1242	ND		0.00029	0.00011	mg/L		02/02/21 05:12	02/03/21 02:52	1
Aroclor 1248	ND		0.00029	0.00011	mg/L		02/02/21 05:12	02/03/21 02:52	1
Aroclor 1254	ND		0.00029	0.000048	mg/L		02/02/21 05:12	02/03/21 02:52	1
Aroclor 1260	ND		0.00029	0.000048	mg/L		02/02/21 05:12	02/03/21 02:52	1

Client Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Client Sample ID: Stormwater_012621_SW2

Lab Sample ID: 440-278031-1

Date Collected: 01/26/21 14:30

Matrix: Water

Date Received: 01/28/21 12:40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	88		20 - 154	02/02/21 05:12	02/03/21 02:52	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.1		0.11	0.055	mg/L			01/28/21 13:30	1
Nitrite as N	0.086	J	0.15	0.025	mg/L			01/28/21 13:30	1
Fluoride	0.96		0.50	0.25	mg/L			01/28/21 13:30	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25		2.5	1.3	mg/L			01/28/21 16:21	5

Method: NO3NO2 Calc - Nitrogen, Nitrate-Nitrite

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	1.2		0.15	0.055	mg/L			01/29/21 10:07	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.73		0.10	0.050	mg/L		01/29/21 09:15	01/29/21 20:40	1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.42		0.010	0.0050	mg/L		01/29/21 11:26	01/29/21 17:53	1
Antimony	0.00059	J	0.0020	0.00050	mg/L		01/29/21 11:26	01/29/21 17:53	1
Arsenic	0.0011		0.0010	0.00050	mg/L		01/29/21 11:26	01/29/21 17:53	1
Beryllium	ND		0.00050	0.00025	mg/L		01/29/21 11:26	01/29/21 17:53	1
Cadmium	0.0025		0.0010	0.00025	mg/L		01/29/21 11:26	01/29/21 17:53	1
Copper	0.0078		0.0020	0.00050	mg/L		01/29/21 11:26	01/29/21 17:53	1
Lead	ND		0.0010	0.00050	mg/L		01/29/21 11:26	01/29/21 17:53	1
Manganese	3.2		0.0010	0.00050	mg/L		01/29/21 11:26	01/29/21 17:53	1
Nickel	0.12		0.0020	0.00050	mg/L		01/29/21 11:26	01/29/21 17:53	1
Selenium	0.0022		0.0020	0.00050	mg/L		01/29/21 11:26	01/29/21 17:53	1
Silver	ND		0.0010	0.00050	mg/L		01/29/21 11:26	01/29/21 17:53	1
Zinc	0.11		0.020	0.0025	mg/L		01/29/21 11:26	01/29/21 17:53	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	F1 F2	0.00020	0.00010	mg/L		02/08/21 12:06	02/08/21 17:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	0.87	J	0.97	0.78	mg/L		02/01/21 18:09	02/03/21 15:20	1
Total Suspended Solids	16		2.0	1.0	mg/L			01/29/21 14:12	1
Phosphorus, Total	0.062		0.050	0.025	mg/L		02/04/21 08:42	02/04/21 11:24	1
Ammonia (as N)	0.88		0.50	0.10	mg/L		01/29/21 05:00	01/29/21 07:00	1
Chemical Oxygen Demand	46		20	10	mg/L			02/04/21 15:17	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	12		2.0	2.0	mg/L			01/28/21 13:15	1

Method Summary

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	ECL 1
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	ECL 1
608.3	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	ECL 1
300.0	Anions, Ion Chromatography	MCAWW	TAL IRV
NO3NO2 Calc	Nitrogen, Nitrate-Nitrite	EPA	TAL IRV
200.7 Rev 4.4	Metals (ICP)	EPA	TAL IRV
200.8	Metals (ICP/MS)	EPA	TAL IRV
245.1	Mercury (CVAA)	EPA	TAL IRV
1664A	HEM and SGT-HEM	1664A	ECL 1
2540 D	TSS	SM21	TAL IRV
365.3	Phosphorus, Total	EPA	TAL IRV
SM 4500 NH3 D	Ammonia	SM	TAL IRV
SM 5220D	COD	SM	TAL IRV
SM5210B	BOD, 5 Day	SM	TAL IRV
1664A	HEM and SGT-HEM (Aqueous)	1664A	ECL 1
200.2	Preparation, Total Recoverable Metals	EPA	TAL IRV
245.1	Preparation, Mercury	EPA	TAL IRV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
365.2/365.3/365	Phosphorus, Total	MCAWW	TAL IRV
5030C	Purge and Trap	SW846	ECL 2
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	ECL 1
625	Liquid-Liquid Extraction	40CFR136A	ECL 1
SM 4500 NH3 B	Distillation, Ammonia	SM	TAL IRV

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

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"

SM21 = Standard Methods For The Examination Of Water And Wastewater, 21st Edition

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

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

Lab Chronicle

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Client Sample ID: Stormwater_012621_SW2

Lab Sample ID: 440-278031-1

Date Collected: 01/26/21 14:30

Matrix: Water

Date Received: 01/28/21 12:40

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	20 mL	20 mL	125863	01/31/21 23:59	A1W	ECL 2
Total/NA	Prep	625			1046.5 mL	2 mL	125882	02/01/21 07:54	H1SH	ECL 1
Total/NA	Analysis	625.1		1			126364	02/02/21 16:57	N8CZ	ECL 1
Total/NA	Prep	3510C			1046.5 mL	2 mL	125888	02/01/21 08:20	OAJ3	ECL 1
Total/NA	Analysis	8270C		1			126292	02/02/21 20:01	N8CZ	ECL 1
Total/NA	Prep	608			1047.2 mL	2 mL	126169	02/02/21 05:12	H1SH	ECL 1
Total/NA	Analysis	608.3		1			126353	02/03/21 02:52	UHHN	ECL 1
Total/NA	Analysis	300.0		1			637234	01/28/21 13:30	NIH3	TAL IRV
Total/NA	Analysis	300.0		1			637235	01/28/21 13:30	NIH3	TAL IRV
Total/NA	Analysis	300.0	DL	5			637235	01/28/21 16:21	NIH3	TAL IRV
Total/NA	Analysis	NO3NO2 Calc		1			637362	01/29/21 10:07	K8ZG	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	637354	01/29/21 09:15	LZY7	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			637475	01/29/21 20:40	K1UV	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	637378	01/29/21 11:26	LZY7	TAL IRV
Total Recoverable	Analysis	200.8		1			637423	01/29/21 17:53	SQ5O	TAL IRV
Total/NA	Prep	245.1			20 mL	30 mL	638152	02/08/21 12:06	C0YH	TAL IRV
Total/NA	Analysis	245.1		1			638230	02/08/21 17:47	C0YH	TAL IRV
Total/NA	Prep	1664A			1032 mL	1000 mL	126129	02/01/21 18:09	UYUW	ECL 1
Total/NA	Analysis	1664A		1			126653	02/03/21 15:20	F7UI	ECL 1
Total/NA	Analysis	2540 D		1	500 mL	1000 mL	637395	01/29/21 14:12	ZL7L	TAL IRV
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	637885	02/04/21 08:42	V4XS	TAL IRV
Total/NA	Analysis	365.3		1			637905	02/04/21 11:24	V4XS	TAL IRV
Total/NA	Prep	SM 4500 NH3 B			50 mL	50 mL	637334	01/29/21 05:00	YO8L	TAL IRV
Total/NA	Analysis	SM 4500 NH3 D		1			637335	01/29/21 07:00	YO8L	TAL IRV
Total/NA	Analysis	SM 5220D		1	2 mL	2 mL	637941	02/04/21 15:17	PN8W	TAL IRV
Total/NA	Analysis	SM5210B		1	300 mL	300 mL	637253	01/28/21 13:15	W0EF	TAL IRV

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

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

Lab Sample ID: MB 570-125863/7
Matrix: Water
Analysis Batch: 125863

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acrylonitrile	ND		5.0	0.87	ug/L			01/31/21 18:30	1
Benzene	ND		0.00050	0.00027	mg/L			01/31/21 18:30	1
Ethylbenzene	ND		0.00050	0.00036	mg/L			01/31/21 18:30	1
Toluene	ND		0.00050	0.00033	mg/L			01/31/21 18:30	1
Trichloroethylene	ND		0.00050	0.00029	mg/L			01/31/21 18:30	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	96		80 - 128		01/31/21 18:30	1
4-Bromofluorobenzene (Surr)	100		68 - 120		01/31/21 18:30	1
Dibromofluoromethane (Surr)	91		80 - 127		01/31/21 18:30	1
Toluene-d8 (Surr)	99		80 - 120		01/31/21 18:30	1

Lab Sample ID: LCS 570-125863/3
Matrix: Water
Analysis Batch: 125863

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.00959		mg/L		96	80 - 120
Ethylbenzene	0.0100	0.00968		mg/L		97	80 - 120
Toluene	0.0100	0.00941		mg/L		94	80 - 120
Trichloroethylene	0.0100	0.00915		mg/L		92	80 - 120

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	96		80 - 128
4-Bromofluorobenzene (Surr)	99		68 - 120
Dibromofluoromethane (Surr)	94		80 - 127
Toluene-d8 (Surr)	97		80 - 120

Lab Sample ID: LCSD 570-125863/4
Matrix: Water
Analysis Batch: 125863

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0100	0.00931		mg/L		93	80 - 120	3	20
Ethylbenzene	0.0100	0.00939		mg/L		94	80 - 120	3	20
Toluene	0.0100	0.00920		mg/L		92	80 - 120	2	20
Trichloroethylene	0.0100	0.00852		mg/L		85	80 - 120	7	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	98		80 - 128
4-Bromofluorobenzene (Surr)	101		68 - 120
Dibromofluoromethane (Surr)	93		80 - 127
Toluene-d8 (Surr)	98		80 - 120

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-125882/1-A
Matrix: Water
Analysis Batch: 126364

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125882

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alpha-Terpineol	ND		0.010	0.0025	mg/L		02/01/21 07:54	02/02/21 16:38	1
Surrogate	%Recovery	MB Qualifier	MB Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	80		27 - 159				02/01/21 07:54	02/02/21 16:38	1
2-Fluorobiphenyl (Surr)	77		33 - 120				02/01/21 07:54	02/02/21 16:38	1
2-Fluorophenol (Surr)	39		24 - 120				02/01/21 07:54	02/02/21 16:38	1
Nitrobenzene-d5 (Surr)	71		38 - 120				02/01/21 07:54	02/02/21 16:38	1
Phenol-d6 (Surr)	26		16 - 120				02/01/21 07:54	02/02/21 16:38	1
p-Terphenyl-d14 (Surr)	88		41 - 137				02/01/21 07:54	02/02/21 16:38	1

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

Lab Sample ID: MB 570-125888/1-A
Matrix: Water
Analysis Batch: 126292

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125888

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzoic acid	ND		0.050	0.012	mg/L		02/01/21 08:20	02/02/21 19:22	1
Butyl benzyl phthalate	ND		0.010	0.0025	mg/L		02/01/21 08:20	02/02/21 19:22	1
Dimethyl phthalate	ND		0.010	0.0026	mg/L		02/01/21 08:20	02/02/21 19:22	1
Fluoranthene	ND		0.010	0.0031	mg/L		02/01/21 08:20	02/02/21 19:22	1
Pyrene	ND		0.010	0.0030	mg/L		02/01/21 08:20	02/02/21 19:22	1
m+p-Cresol	ND		10	2.2	ug/L		02/01/21 08:20	02/02/21 19:22	1
Phenol	ND		0.010	0.0021	mg/L		02/01/21 08:20	02/02/21 19:22	1
Surrogate	%Recovery	MB Qualifier	MB Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	44		15 - 138				02/01/21 08:20	02/02/21 19:22	1
Nitrobenzene-d5 (Surr)	75		56 - 123				02/01/21 08:20	02/02/21 19:22	1
2,4,6-Tribromophenol (Surr)	85		32 - 143				02/01/21 08:20	02/02/21 19:22	1
Phenol-d6 (Surr)	29		17 - 141				02/01/21 08:20	02/02/21 19:22	1

Lab Sample ID: LCS 570-125888/2-A
Matrix: Water
Analysis Batch: 126292

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125888

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzoic acid	0.100	0.0335	J	mg/L		34	0.1 - 125
Butyl benzyl phthalate	0.100	0.0897		mg/L		90	45 - 115
Dimethyl phthalate	0.100	0.0817		mg/L		82	25 - 125
Fluoranthene	0.100	0.0880		mg/L		88	55 - 115
Pyrene	0.100	0.0853		mg/L		85	50 - 130
m+p-Cresol	200	120		ug/L		60	30 - 110
Phenol	0.100	0.0368		mg/L		37	10 - 115
Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits				
2-Fluorophenol (Surr)	51		15 - 138				
Nitrobenzene-d5 (Surr)	71		56 - 123				
2,4,6-Tribromophenol (Surr)	86		32 - 143				

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

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

Lab Sample ID: LCS 570-125888/2-A
Matrix: Water
Analysis Batch: 126292

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125888

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Phenol-d6 (Surr)	35		17 - 141

Lab Sample ID: LCSD 570-125888/3-A
Matrix: Water
Analysis Batch: 126292

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 125888

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzoic acid	0.100	0.0332	J	mg/L		33	0.1 - 125	1	20
Butyl benzyl phthalate	0.100	0.0874		mg/L		87	45 - 115	3	20
Dimethyl phthalate	0.100	0.0788		mg/L		79	25 - 125	4	20
Fluoranthene	0.100	0.0862		mg/L		86	55 - 115	2	20
Pyrene	0.100	0.0837		mg/L		84	50 - 130	2	20
m+p-Cresol	200	118		ug/L		59	30 - 110	2	20
Phenol	0.100	0.0359		mg/L		36	10 - 115	2	23

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorophenol (Surr)	50		15 - 138
Nitrobenzene-d5 (Surr)	69		56 - 123
2,4,6-Tribromophenol (Surr)	85		32 - 143
Phenol-d6 (Surr)	34		17 - 141

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 570-126169/1-A
Matrix: Water
Analysis Batch: 126353

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126169

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1221	ND		0.00010	0.000039	mg/L		02/02/21 05:12	02/03/21 01:59	1
Aroclor 1232	ND		0.00010	0.000039	mg/L		02/02/21 05:12	02/03/21 01:59	1
Aroclor 1016	ND		0.00010	0.000039	mg/L		02/02/21 05:12	02/03/21 01:59	1
Aroclor 1242	ND		0.00010	0.000039	mg/L		02/02/21 05:12	02/03/21 01:59	1
Aroclor 1248	ND		0.00010	0.000039	mg/L		02/02/21 05:12	02/03/21 01:59	1
Aroclor 1254	ND		0.00010	0.000017	mg/L		02/02/21 05:12	02/03/21 01:59	1
Aroclor 1260	ND		0.00010	0.000017	mg/L		02/02/21 05:12	02/03/21 01:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	34		20 - 154	02/02/21 05:12	02/03/21 01:59	1

Lab Sample ID: LCS 570-126169/4-A
Matrix: Water
Analysis Batch: 126353

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126169

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	0.000133	0.000151		mg/L		113	50 - 140
Aroclor 1260	0.000133	0.000107		mg/L		80	8 - 140

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 570-126169/4-A
Matrix: Water
Analysis Batch: 126353

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126169

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr)	34		20 - 154

Lab Sample ID: LCSD 570-126169/5-A
Matrix: Water
Analysis Batch: 126353

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 126169

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec.		RPD	Limit
		Result	Qualifier				Limits	RPD		
Aroclor 1016	0.000133	0.000166		mg/L		124	50 - 140	9	36	
Aroclor 1260	0.000133	0.000121		mg/L		91	8 - 140	12	38	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr)	37		20 - 154

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-637234/6
Matrix: Water
Analysis Batch: 637234

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Nitrate as N	ND		0.11	0.055	mg/L			01/28/21 11:18	1
Nitrite as N	ND		0.15	0.025	mg/L			01/28/21 11:18	1

Lab Sample ID: LCS 440-637234/5
Matrix: Water
Analysis Batch: 637234

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	RPD
Nitrate as N	1.13	1.14		mg/L		101	90 - 110	
Nitrite as N	1.52	1.51		mg/L		99	90 - 110	

Lab Sample ID: 440-278031-1 MS
Matrix: Water
Analysis Batch: 637234

Client Sample ID: Stormwater_012621_SW2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec.	
				Result	Qualifier				Limits	RPD
Nitrate as N	1.1		1.13	2.32		mg/L		105	80 - 120	
Nitrite as N	0.086	J	1.52	1.69		mg/L		105	80 - 120	

Lab Sample ID: 440-278031-1 MSD
Matrix: Water
Analysis Batch: 637234

Client Sample ID: Stormwater_012621_SW2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec.		RPD	Limit
				Result	Qualifier				Limits	RPD		
Nitrate as N	1.1		1.13	2.36		mg/L		108	80 - 120	2	20	
Nitrite as N	0.086	J	1.52	1.74		mg/L		109	80 - 120	3	20	

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 440-637235/6
Matrix: Water
Analysis Batch: 637235

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			01/28/21 11:18	1
Fluoride	ND		0.50	0.25	mg/L			01/28/21 11:18	1

Lab Sample ID: LCS 440-637235/5
Matrix: Water
Analysis Batch: 637235

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	5.00		mg/L		100	90 - 110
Fluoride	5.00	5.06		mg/L		101	90 - 110

Lab Sample ID: 440-278031-1 MS
Matrix: Water
Analysis Batch: 637235

Client Sample ID: Stormwater_012621_SW2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	29	E	5.00	35.6	E 4	mg/L		125	80 - 120
Fluoride	0.96		5.00	5.88		mg/L		98	80 - 120

Lab Sample ID: 440-278031-1 MSD
Matrix: Water
Analysis Batch: 637235

Client Sample ID: Stormwater_012621_SW2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	29	E	5.00	35.9	E 4	mg/L		130	80 - 120	1	20
Fluoride	0.96		5.00	5.87		mg/L		98	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 440-637354/1-A
Matrix: Water
Analysis Batch: 637475

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 637354

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10	0.050	mg/L		01/29/21 09:15	01/29/21 20:10	1

Lab Sample ID: LCS 440-637354/2-A
Matrix: Water
Analysis Batch: 637475

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 637354

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.500	0.460		mg/L		92	85 - 115

Lab Sample ID: 320-69261-D-1-B MS
Matrix: Water
Analysis Batch: 637475

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 637354

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.56		0.500	0.997		mg/L		86	70 - 130

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QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 320-69261-D-1-C MSD
 Matrix: Water
 Analysis Batch: 637475

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total Recoverable
 Prep Batch: 637354

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	0.56		0.500	1.11		mg/L		110	70 - 130	11	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 440-637378/1-A
 Matrix: Water
 Analysis Batch: 637423

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 637378

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.010	0.0050	mg/L		01/29/21 11:26	01/29/21 17:41	1
Antimony	ND		0.0020	0.00050	mg/L		01/29/21 11:26	01/29/21 17:41	1
Arsenic	ND		0.0010	0.00050	mg/L		01/29/21 11:26	01/29/21 17:41	1
Beryllium	ND		0.00050	0.00025	mg/L		01/29/21 11:26	01/29/21 17:41	1
Cadmium	ND		0.0010	0.00025	mg/L		01/29/21 11:26	01/29/21 17:41	1
Copper	ND		0.0020	0.00050	mg/L		01/29/21 11:26	01/29/21 17:41	1
Lead	ND		0.0010	0.00050	mg/L		01/29/21 11:26	01/29/21 17:41	1
Manganese	ND		0.0010	0.00050	mg/L		01/29/21 11:26	01/29/21 17:41	1
Nickel	ND		0.0020	0.00050	mg/L		01/29/21 11:26	01/29/21 17:41	1
Selenium	ND		0.0020	0.00050	mg/L		01/29/21 11:26	01/29/21 17:41	1
Silver	ND		0.0010	0.00050	mg/L		01/29/21 11:26	01/29/21 17:41	1
Zinc	ND		0.020	0.0025	mg/L		01/29/21 11:26	01/29/21 17:41	1

Lab Sample ID: LCS 440-637378/2-A
 Matrix: Water
 Analysis Batch: 637423

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 637378

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	0.0800	0.0758		mg/L		95	85 - 115
Antimony	0.0800	0.0854		mg/L		107	85 - 115
Arsenic	0.0800	0.0777		mg/L		97	85 - 115
Beryllium	0.0800	0.0811		mg/L		101	85 - 115
Cadmium	0.0800	0.0782		mg/L		98	85 - 115
Copper	0.0800	0.0771		mg/L		96	85 - 115
Lead	0.0800	0.0762		mg/L		95	85 - 115
Manganese	0.0800	0.0782		mg/L		98	85 - 115
Nickel	0.0800	0.0784		mg/L		98	85 - 115
Selenium	0.0800	0.0764		mg/L		96	85 - 115
Silver	0.0800	0.0809		mg/L		101	85 - 115
Zinc	0.0800	0.0773		mg/L		97	85 - 115

Lab Sample ID: 440-277801-A-1-B MS
 Matrix: Water
 Analysis Batch: 637423

Client Sample ID: Matrix Spike
 Prep Type: Total Recoverable
 Prep Batch: 637378

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	0.23	F1	0.0800	0.348	F1	mg/L		152	70 - 130
Antimony	0.00083	J	0.0800	0.0877		mg/L		109	70 - 130
Arsenic	ND		0.0800	0.0788		mg/L		99	70 - 130
Beryllium	ND		0.0800	0.0845		mg/L		106	70 - 130

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QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 440-277801-A-1-B MS
Matrix: Water
Analysis Batch: 637423

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 637378

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.00027	J	0.0800	0.0803		mg/L		100	70 - 130
Copper	0.011		0.0800	0.0919		mg/L		101	70 - 130
Lead	0.0010		0.0800	0.0797		mg/L		98	70 - 130
Manganese	0.032		0.0800	0.109		mg/L		96	70 - 130
Nickel	0.0031		0.0800	0.0875		mg/L		106	70 - 130
Selenium	ND		0.0800	0.0767		mg/L		96	70 - 130
Silver	ND		0.0800	0.0806		mg/L		101	70 - 130
Zinc	3.6		0.0800	3.59	4	mg/L		-17	70 - 130

Lab Sample ID: 440-277801-A-1-C MSD
Matrix: Water
Analysis Batch: 637423

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 637378

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aluminum	0.23	F1	0.0800	0.348	F1	mg/L		151	70 - 130	0	20
Antimony	0.00083	J	0.0800	0.0892		mg/L		111	70 - 130	2	20
Arsenic	ND		0.0800	0.0786		mg/L		98	70 - 130	0	20
Beryllium	ND		0.0800	0.0860		mg/L		107	70 - 130	2	20
Cadmium	0.00027	J	0.0800	0.0820		mg/L		102	70 - 130	2	20
Copper	0.011		0.0800	0.0925		mg/L		101	70 - 130	1	20
Lead	0.0010		0.0800	0.0808		mg/L		100	70 - 130	1	20
Manganese	0.032		0.0800	0.112		mg/L		100	70 - 130	3	20
Nickel	0.0031		0.0800	0.105		mg/L		128	70 - 130	18	20
Selenium	ND		0.0800	0.0769		mg/L		96	70 - 130	0	20
Silver	ND		0.0800	0.0797		mg/L		100	70 - 130	1	20
Zinc	3.6		0.0800	3.63	4	mg/L		36	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 440-638152/1-A
Matrix: Water
Analysis Batch: 638230

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 638152

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		02/08/21 12:06	02/08/21 17:42	1

Lab Sample ID: LCS 440-638152/2-A
Matrix: Water
Analysis Batch: 638230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 638152

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00600	0.00587		mg/L		98	85 - 115

Lab Sample ID: 440-278031-1 MS
Matrix: Water
Analysis Batch: 638230

Client Sample ID: Stormwater_012621_SW2
Prep Type: Total/NA
Prep Batch: 638152

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND	F1 F2	0.00600	0.00384	F1	mg/L		64	75 - 125

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 440-278031-1 MSD
 Matrix: Water
 Analysis Batch: 638230

Client Sample ID: Stormwater_012621_SW2
 Prep Type: Total/NA
 Prep Batch: 638152

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND	F1 F2	0.00600	0.00530	F2	mg/L		88	75 - 125	32	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-126129/1-A
 Matrix: Water
 Analysis Batch: 126653

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 126129

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	ND		1.0	0.80	mg/L		02/01/21 18:09	02/03/21 15:20	1

Lab Sample ID: LCS 570-126129/2-A
 Matrix: Water
 Analysis Batch: 126653

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 126129

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM: Oil and Grease	40.0	39.40		mg/L		98	78 - 114

Lab Sample ID: LCSD 570-126129/3-A
 Matrix: Water
 Analysis Batch: 126653

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 126129

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM: Oil and Grease	40.0	39.30		mg/L		98	78 - 114	0	18

Method: 2540 D - TSS

Lab Sample ID: MB 440-637395/1
 Matrix: Water
 Analysis Batch: 637395

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	0.50	mg/L			01/29/21 14:12	1

Lab Sample ID: LCS 440-637395/2
 Matrix: Water
 Analysis Batch: 637395

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	1000	1020		mg/L		102	85 - 115

Lab Sample ID: 440-277954-C-4 DU
 Matrix: Water
 Analysis Batch: 637395

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	28		26.5		mg/L		6	10

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Method: 365.3 - Phosphorus, Total

Lab Sample ID: MB 440-637885/1-A
Matrix: Water
Analysis Batch: 637905

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 637885

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus, Total	ND		0.050	0.025	mg/L		02/04/21 08:42	02/04/21 11:21	1

Lab Sample ID: LCS 440-637885/2-A
Matrix: Water
Analysis Batch: 637905

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 637885

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	0.500	0.405		mg/L		81	80 - 120

Lab Sample ID: 440-278238-C-1-A MS
Matrix: Water
Analysis Batch: 637905

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 637885

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	0.046	J F1	0.500	0.183	F1	mg/L		27	75 - 125

Lab Sample ID: 440-278238-C-1-B MSD
Matrix: Water
Analysis Batch: 637905

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 637885

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Phosphorus, Total	0.046	J F1	0.500	0.214	F1	mg/L		34	75 - 125	16	20

Method: SM 4500 NH3 D - Ammonia

Lab Sample ID: MB 440-637334/2-A
Matrix: Water
Analysis Batch: 637335

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 637334

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.50	0.10	mg/L		01/29/21 05:00	01/29/21 07:00	1

Lab Sample ID: LCS 440-637334/1-A
Matrix: Water
Analysis Batch: 637335

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 637334

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	2.50	2.27		mg/L		91	85 - 115

Lab Sample ID: 440-278064-A-1-A MS
Matrix: Water
Analysis Batch: 637335

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 637334

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.64		2.50	2.84		mg/L		88	75 - 125

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Method: SM 4500 NH3 D - Ammonia (Continued)

Lab Sample ID: 440-278064-A-1-B MSD
Matrix: Water
Analysis Batch: 637335

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 637334

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	0.64		2.50	2.97		mg/L		93	75 - 125	5	15

Lab Sample ID: 440-278064-B-1-B DU
Matrix: Water
Analysis Batch: 637335

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 637334

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ammonia (as N)	0.64		0.614		mg/L		5	15

Method: SM 5220D - COD

Lab Sample ID: MB 440-637941/3
Matrix: Water
Analysis Batch: 637941

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			02/04/21 15:17	1

Lab Sample ID: LCS 440-637941/4
Matrix: Water
Analysis Batch: 637941

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	211		mg/L		106	90 - 110

Lab Sample ID: 440-278313-A-2 MS
Matrix: Water
Analysis Batch: 637941

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
Chemical Oxygen Demand	30		200	225		mg/L		98	70 - 120

Lab Sample ID: 440-278313-A-2 MSD
Matrix: Water
Analysis Batch: 637941

Client Sample ID: Matrix Spike Duplicate
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	30		200	210		mg/L		90	70 - 120	7	15

Method: SM5210B - BOD, 5 Day

Lab Sample ID: USB 440-637253/3
Matrix: Water
Analysis Batch: 637253

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

Analyte	USB Result	USB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			01/28/21 09:49	1

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Method: SM5210B - BOD, 5 Day (Continued)

Lab Sample ID: LCS 440-637253/7
Matrix: Water
Analysis Batch: 637253

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	199	178		mg/L		90	85 - 115

Lab Sample ID: LCSD 440-637253/8
Matrix: Water
Analysis Batch: 637253

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Biochemical Oxygen Demand	199	187		mg/L		94	85 - 115	5	20

Lab Sample ID: LCSD 440-637253/9
Matrix: Water
Analysis Batch: 637253

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Biochemical Oxygen Demand	199	180		mg/L		91	85 - 115	1	20

Lab Sample ID: 440-277996-A-1 DU
Matrix: Water
Analysis Batch: 637253

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	21		20.0		mg/L		6	20

QC Association Summary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

GC/MS VOA

Analysis Batch: 125863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	8260B	
MB 570-125863/7	Method Blank	Total/NA	Water	8260B	
LCS 570-125863/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-125863/4	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 125882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	625	
MB 570-125882/1-A	Method Blank	Total/NA	Water	625	

Prep Batch: 125888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	3510C	
MB 570-125888/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-125888/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-125888/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 126292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	8270C	125888
MB 570-125888/1-A	Method Blank	Total/NA	Water	8270C	125888
LCS 570-125888/2-A	Lab Control Sample	Total/NA	Water	8270C	125888
LCSD 570-125888/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	125888

Analysis Batch: 126364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	625.1	125882
MB 570-125882/1-A	Method Blank	Total/NA	Water	625.1	125882

GC Semi VOA

Prep Batch: 126169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	608	
MB 570-126169/1-A	Method Blank	Total/NA	Water	608	
LCS 570-126169/4-A	Lab Control Sample	Total/NA	Water	608	
LCSD 570-126169/5-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 126353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	608.3	126169
MB 570-126169/1-A	Method Blank	Total/NA	Water	608.3	126169
LCS 570-126169/4-A	Lab Control Sample	Total/NA	Water	608.3	126169
LCSD 570-126169/5-A	Lab Control Sample Dup	Total/NA	Water	608.3	126169

HPLC/IC

Analysis Batch: 637234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	300.0	

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QC Association Summary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

HPLC/IC (Continued)

Analysis Batch: 637234 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-637234/6	Method Blank	Total/NA	Water	300.0	
LCS 440-637234/5	Lab Control Sample	Total/NA	Water	300.0	
440-278031-1 MS	Stormwater_012621_SW2	Total/NA	Water	300.0	
440-278031-1 MSD	Stormwater_012621_SW2	Total/NA	Water	300.0	

Analysis Batch: 637235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	300.0	
440-278031-1 - DL	Stormwater_012621_SW2	Total/NA	Water	300.0	
MB 440-637235/6	Method Blank	Total/NA	Water	300.0	
LCS 440-637235/5	Lab Control Sample	Total/NA	Water	300.0	
440-278031-1 MS	Stormwater_012621_SW2	Total/NA	Water	300.0	
440-278031-1 MSD	Stormwater_012621_SW2	Total/NA	Water	300.0	

Analysis Batch: 637362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	NO3NO2 Calc	

Metals

Prep Batch: 637354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total Recoverable	Water	200.2	
MB 440-637354/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-637354/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
320-69261-D-1-B MS	Matrix Spike	Total Recoverable	Water	200.2	
320-69261-D-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.2	

Prep Batch: 637378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total Recoverable	Water	200.2	
MB 440-637378/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-637378/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-277801-A-1-B MS	Matrix Spike	Total Recoverable	Water	200.2	
440-277801-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.2	

Analysis Batch: 637423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total Recoverable	Water	200.8	637378
MB 440-637378/1-A	Method Blank	Total Recoverable	Water	200.8	637378
LCS 440-637378/2-A	Lab Control Sample	Total Recoverable	Water	200.8	637378
440-277801-A-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	637378
440-277801-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	637378

Analysis Batch: 637475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total Recoverable	Water	200.7 Rev 4.4	637354
MB 440-637354/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	637354
LCS 440-637354/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	637354
320-69261-D-1-B MS	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	637354
320-69261-D-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	637354

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QC Association Summary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Metals

Prep Batch: 638152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	245.1	
MB 440-638152/1-A	Method Blank	Total/NA	Water	245.1	
LCS 440-638152/2-A	Lab Control Sample	Total/NA	Water	245.1	
440-278031-1 MS	Stormwater_012621_SW2	Total/NA	Water	245.1	
440-278031-1 MSD	Stormwater_012621_SW2	Total/NA	Water	245.1	

Analysis Batch: 638230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	245.1	638152
MB 440-638152/1-A	Method Blank	Total/NA	Water	245.1	638152
LCS 440-638152/2-A	Lab Control Sample	Total/NA	Water	245.1	638152
440-278031-1 MS	Stormwater_012621_SW2	Total/NA	Water	245.1	638152
440-278031-1 MSD	Stormwater_012621_SW2	Total/NA	Water	245.1	638152

General Chemistry

Prep Batch: 126129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	1664A	
MB 570-126129/1-A	Method Blank	Total/NA	Water	1664A	
LCS 570-126129/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 570-126129/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	

Analysis Batch: 126653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	1664A	126129
MB 570-126129/1-A	Method Blank	Total/NA	Water	1664A	126129
LCS 570-126129/2-A	Lab Control Sample	Total/NA	Water	1664A	126129
LCSD 570-126129/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	126129

Analysis Batch: 637253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	SM5210B	
USB 440-637253/3	Method Blank	Total/NA	Water	SM5210B	
LCS 440-637253/7	Lab Control Sample	Total/NA	Water	SM5210B	
LCSD 440-637253/8	Lab Control Sample Dup	Total/NA	Water	SM5210B	
LCSD 440-637253/9	Lab Control Sample Dup	Total/NA	Water	SM5210B	
440-277996-A-1 DU	Duplicate	Total/NA	Water	SM5210B	

Prep Batch: 637334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	SM 4500 NH3 B	
MB 440-637334/2-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 440-637334/1-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
440-278064-A-1-A MS	Matrix Spike	Total/NA	Water	SM 4500 NH3 B	
440-278064-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 NH3 B	
440-278064-B-1-B DU	Duplicate	Total/NA	Water	SM 4500 NH3 B	

Analysis Batch: 637335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	SM 4500 NH3 D	637334

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QC Association Summary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

General Chemistry (Continued)

Analysis Batch: 637335 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-637334/2-A	Method Blank	Total/NA	Water	SM 4500 NH3 D	637334
LCS 440-637334/1-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 D	637334
440-278064-A-1-A MS	Matrix Spike	Total/NA	Water	SM 4500 NH3 D	637334
440-278064-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 NH3 D	637334
440-278064-B-1-B DU	Duplicate	Total/NA	Water	SM 4500 NH3 D	637334

Analysis Batch: 637395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	2540 D	
MB 440-637395/1	Method Blank	Total/NA	Water	2540 D	
LCS 440-637395/2	Lab Control Sample	Total/NA	Water	2540 D	
440-277954-C-4 DU	Duplicate	Total/NA	Water	2540 D	

Prep Batch: 637885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	365.2/365.3/365	
MB 440-637885/1-A	Method Blank	Total/NA	Water	365.2/365.3/365	
LCS 440-637885/2-A	Lab Control Sample	Total/NA	Water	365.2/365.3/365	
440-278238-C-1-A MS	Matrix Spike	Total/NA	Water	365.2/365.3/365	
440-278238-C-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	365.2/365.3/365	

Analysis Batch: 637905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	365.3	637885
MB 440-637885/1-A	Method Blank	Total/NA	Water	365.3	637885
LCS 440-637885/2-A	Lab Control Sample	Total/NA	Water	365.3	637885
440-278238-C-1-A MS	Matrix Spike	Total/NA	Water	365.3	637885
440-278238-C-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	365.3	637885

Analysis Batch: 637941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278031-1	Stormwater_012621_SW2	Total/NA	Water	SM 5220D	
MB 440-637941/3	Method Blank	Total/NA	Water	SM 5220D	
LCS 440-637941/4	Lab Control Sample	Total/NA	Water	SM 5220D	
440-278313-A-2 MS	Matrix Spike	Total/NA	Water	SM 5220D	
440-278313-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	

Definitions/Glossary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Qualifiers

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
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.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
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.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds 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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

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Definitions/Glossary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

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Accreditation/Certification Summary

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278031-1

Laboratory: Eurofins Calscience Irvine

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

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-21
Arizona	State	AZ0671	10-14-21
California	Los Angeles County Sanitation Districts	10256	06-30-21
California	State	2706	06-30-21
Guam	State	21-003R	01-23-22
Hawaii	State	CA01531	01-29-22
Kansas	NELAP	E-10420	07-31-21
Nevada	State	CA015312021-5	07-31-21
Oregon	NELAP	4028 - 009	01-29-22
USDA	US Federal Programs	P330-18-00214	07-09-21
Washington	State	C900	09-03-21

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	20-003R	10-31-20 *
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine
 17461 Derian Ave
 Suite 100
 Irvine, CA 92614
 phone 949.261 1022 fax

Chain of Custody Record

TestAmerica
 THE EALER NV ZONMEN A ES N

TestAmerica Laboratories, Inc.

Regulatory Program DW NPDES RCRA Other

Client Contact Republic Services 14747 San Fernando Road Sylmar CA 91342 Phone (818) 362-2124 FAX (818) 362-5854 Project Name: Storm Water Event Sampling Site: Sunshine Canyon Landfill P O #		Project Manager: Tuong-Phu Ngo Tel/Fax: 818-362-2096 Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Site Contact: Dennis Montano Lab Contact: Rossina Tomova		Date: 4/8/2020 Carrier: Eurofins Calscience COC No: 1 1 of 1 COCs																																			
Sample Identification Stormwater_012621_SW2		Sample Date 01/26/21		Sample Time 2:30 PM		Sample Type (C=Comp, G=Grab) G		Matrix W		# of Cont. 22		Sample Specific Notes. EPA 300.0 Field pH = 6.20																													
<table border="1"> <tr> <td>Filtered Sample (Y/N)</td> <td>Perform MS / MSD (Y/N)</td> <td>Oil & Grease (EPA 1664A HEM)</td> <td>TSS (SM 2540-D)</td> <td>Metals (EPA 200.7, 200.8, & 245.1)</td> <td>α-Terpineol (EPA 625)</td> <td>Ammonia as N (SM 4500D)</td> <td>BOD (SM 5210B)</td> <td>Semi-VOCs (SM 8270C), PCBs (EPA 608)</td> <td>SM 8260B - project VOCs</td> <td>Semivolatiles (SM 8270)</td> <td>Acrylonitrile (SM 8260b)</td> <td>chloride, fluoride, nitrate+nitrite (N)</td> <td>Total phosphorus (EPA 365.3)</td> <td>COD (SM 5220D)</td> </tr> <tr> <td>N</td> <td>N</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> </table>												Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Oil & Grease (EPA 1664A HEM)	TSS (SM 2540-D)	Metals (EPA 200.7, 200.8, & 245.1)	α-Terpineol (EPA 625)	Ammonia as N (SM 4500D)	BOD (SM 5210B)	Semi-VOCs (SM 8270C), PCBs (EPA 608)	SM 8260B - project VOCs	Semivolatiles (SM 8270)	Acrylonitrile (SM 8260b)	chloride, fluoride, nitrate+nitrite (N)	Total phosphorus (EPA 365.3)	COD (SM 5220D)	N	N	X	X	X	X	X	X	X	X	X	X	X	X	X
Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Oil & Grease (EPA 1664A HEM)	TSS (SM 2540-D)	Metals (EPA 200.7, 200.8, & 245.1)	α-Terpineol (EPA 625)	Ammonia as N (SM 4500D)	BOD (SM 5210B)	Semi-VOCs (SM 8270C), PCBs (EPA 608)	SM 8260B - project VOCs	Semivolatiles (SM 8270)	Acrylonitrile (SM 8260b)	chloride, fluoride, nitrate+nitrite (N)	Total phosphorus (EPA 365.3)	COD (SM 5220D)																											
N	N	X	X	X	X	X	X	X	X	X	X	X	X	X																											
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3; 5=NaOH; 6= Other Total # 22																																									
Possible Hazard Identification Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown																																									
Special Instructions/QC Requirements & Comments:																																									
Custody Seal No. Company: Republic Services Landfill: Sunshine Canyon				Cooler Temp. (°C) Obs'd:				Therm ID No.																																	
Relinquished by: [Signature] Date/Time: 1/26/1500				Received by: [Signature] Date/Time: 1/28/21 10:45				Company: B-T																																	
Relinquished by: [Signature] Date/Time: 1/28/21 12:40				Received by: [Signature]				Company: EC 12V																																	
Relinquished by: [Signature]				Received in Laboratory: [Signature]				Company: EC 12V Date/Time: 1/28/21 12:40																																	

Top 1/4/12 1E53



Login Sample Receipt Checklist

Client: Republic Services Inc

Job Number: 440-278031-1

Login Number: 278031

List Number: 1

Creator: Escalante, Maria I

List Source: Eurofins Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 (excluding tests with immediate HTs)	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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Republic Services Inc

Job Number: 440-278031-1

Login Number: 278031

List Number: 2

Creator: Rivera, Isaac

List Source: Eurofins Calscience

List Creation: 01/29/21 03:27 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-278392-1

Client Project/Site: Republic-Sunshine Canyon - Stormwater

For:

Republic Services Inc
14747 San Fernando Road
Sylmar, California 91342

Attn: Mr. Tuong-Phu Ngo



Authorized for release by:
2/15/2021 11:15:13 AM

Rossina Tomova, Project Manager I
(949)260-3276

Rossina.Tomova@Eurofinset.com

LINKS

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results through
TotalAccess

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

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



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Sample Summary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-278392-1	Stormwater_020221_SW3	Water	02/02/21 03:30	02/02/21 14:15	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Case Narrative

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Job ID: 440-278392-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative 440-278392-1

Comments

No additional comments.

Receipt

The sample was received on 2/2/2021 2:15 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.1° C.

GC/MS VOA

Method 8260B: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: Stormwater_012621_SW3 (440-278392-1). Elevated reporting limits (RLs) are provided.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with analytical batch 570-127088 were outside control limits: (570-50258-A-1 MS) and (570-50258-A-1 MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

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

GC/MS Semi VOA

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

HPLC/IC

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

GC Semi VOA

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

Metals

Method 200.8: Due to the high concentration of Manganese, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 440-638082 and analytical batch 440-638151 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

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

General Chemistry

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

Organic Prep

Method 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-127569.LCS/LCSD were performed to meet QC requirements

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-126734.LCS/LCSD was performed to meet QC requirements.

Method 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-127125. The LCS/LCSD was preformed to meet QC requirements.

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

VOA Prep

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

Client Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Client Sample ID: Stormwater_020221_SW3

Lab Sample ID: 440-278392-1

Date Collected: 02/02/21 03:30

Matrix: Water

Date Received: 02/02/21 14:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrylonitrile	ND		0.010	0.0017	mg/L			02/05/21 14:20	2
Benzene	ND		0.0010	0.00053	mg/L			02/05/21 14:20	2
Ethylbenzene	ND		0.0010	0.00071	mg/L			02/05/21 14:20	2
Toluene	ND		0.0010	0.00066	mg/L			02/05/21 14:20	2
Trichloroethylene	ND		0.0010	0.00058	mg/L			02/05/21 14:20	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		80 - 128		02/05/21 14:20	2
4-Bromofluorobenzene (Surr)	95		68 - 120		02/05/21 14:20	2
Dibromofluoromethane (Surr)	98		80 - 127		02/05/21 14:20	2
Toluene-d8 (Surr)	100		80 - 120		02/05/21 14:20	2

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alpha-Terpineol	ND		0.0096	0.0024	mg/L		02/06/21 13:11	02/09/21 15:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	97		27 - 159	02/06/21 13:11	02/09/21 15:23	1
2-Fluorobiphenyl (Surr)	87		33 - 120	02/06/21 13:11	02/09/21 15:23	1
2-Fluorophenol (Surr)	38		24 - 120	02/06/21 13:11	02/09/21 15:23	1
Nitrobenzene-d5 (Surr)	76		38 - 120	02/06/21 13:11	02/09/21 15:23	1
Phenol-d6 (Surr)	28		16 - 120	02/06/21 13:11	02/09/21 15:23	1
p-Terphenyl-d14 (Surr)	102		41 - 137	02/06/21 13:11	02/09/21 15:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzoic acid	ND		0.048	0.012	mg/L		02/04/21 10:10	02/09/21 18:34	1
Butyl benzyl phthalate	ND		0.0095	0.0024	mg/L		02/04/21 10:10	02/09/21 18:34	1
Dimethyl phthalate	ND		0.0095	0.0025	mg/L		02/04/21 10:10	02/09/21 18:34	1
Fluoranthene	ND		0.0095	0.0030	mg/L		02/04/21 10:10	02/09/21 18:34	1
Pyrene	ND		0.0095	0.0028	mg/L		02/04/21 10:10	02/09/21 18:34	1
m+p-Cresol	ND		9.5	2.1	ug/L		02/04/21 10:10	02/09/21 18:34	1
Phenol	ND		0.0095	0.0020	mg/L		02/04/21 10:10	02/09/21 18:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	37		15 - 138	02/04/21 10:10	02/09/21 18:34	1
Nitrobenzene-d5 (Surr)	73		56 - 123	02/04/21 10:10	02/09/21 18:34	1
2,4,6-Tribromophenol (Surr)	76		32 - 143	02/04/21 10:10	02/09/21 18:34	1
Phenol-d6 (Surr)	25		17 - 141	02/04/21 10:10	02/09/21 18:34	1

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1221	ND		0.00029	0.00011	mg/L		02/05/21 08:47	02/08/21 21:08	1
Aroclor 1232	ND		0.00029	0.00011	mg/L		02/05/21 08:47	02/08/21 21:08	1
Aroclor 1016	ND		0.00029	0.00011	mg/L		02/05/21 08:47	02/08/21 21:08	1
Aroclor 1242	ND		0.00029	0.00011	mg/L		02/05/21 08:47	02/08/21 21:08	1
Aroclor 1248	ND		0.00029	0.00011	mg/L		02/05/21 08:47	02/08/21 21:08	1
Aroclor 1254	ND		0.00029	0.000047	mg/L		02/05/21 08:47	02/08/21 21:08	1
Aroclor 1260	ND		0.00029	0.000047	mg/L		02/05/21 08:47	02/08/21 21:08	1

Client Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Client Sample ID: Stormwater_020221_SW3

Lab Sample ID: 440-278392-1

Date Collected: 02/02/21 03:30

Matrix: Water

Date Received: 02/02/21 14:15

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	61		20 - 154	02/05/21 08:47	02/08/21 21:08	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.3		0.11	0.055	mg/L			02/02/21 19:51	1
Nitrite as N	0.065	J	0.15	0.025	mg/L			02/02/21 19:51	1
Fluoride	0.96		0.50	0.25	mg/L			02/02/21 19:51	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		5.0	2.5	mg/L			02/02/21 21:39	10

Method: NO3NO2 Calc - Nitrogen, Nitrate-Nitrite

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	1.4		0.15	0.055	mg/L			02/03/21 10:49	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2.2		0.10	0.050	mg/L		02/09/21 08:55	02/11/21 16:27	1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.57		0.010	0.0050	mg/L		02/06/21 14:21	02/08/21 11:19	1
Antimony	0.0014	J	0.0020	0.00050	mg/L		02/06/21 14:21	02/08/21 11:19	1
Arsenic	0.0014		0.0010	0.00050	mg/L		02/06/21 14:21	02/08/21 11:19	1
Beryllium	ND		0.00050	0.00025	mg/L		02/06/21 14:21	02/08/21 11:19	1
Cadmium	0.0014		0.0010	0.00025	mg/L		02/06/21 14:21	02/08/21 11:19	1
Copper	0.0054		0.0020	0.00050	mg/L		02/06/21 14:21	02/08/21 11:19	1
Lead	0.00054	J	0.0010	0.00050	mg/L		02/06/21 14:21	02/08/21 11:19	1
Manganese	5.4		0.0050	0.0025	mg/L		02/06/21 14:21	02/08/21 11:14	5
Nickel	0.11		0.0020	0.00050	mg/L		02/06/21 14:21	02/08/21 11:19	1
Selenium	0.0021		0.0020	0.00050	mg/L		02/06/21 14:21	02/08/21 11:19	1
Silver	ND		0.0010	0.00050	mg/L		02/06/21 14:21	02/08/21 11:19	1
Zinc	0.12		0.020	0.0025	mg/L		02/06/21 14:21	02/08/21 11:19	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		02/11/21 10:44	02/11/21 17:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	ND		0.96	0.77	mg/L		02/08/21 09:35	02/08/21 17:12	1
Total Suspended Solids	31		3.3	1.7	mg/L			02/09/21 13:39	1
Phosphorus, Total	0.050		0.050	0.025	mg/L		02/11/21 16:35	02/11/21 17:38	1
Ammonia (as N)	3.8		0.50	0.10	mg/L		02/03/21 04:00	02/03/21 06:00	1
Chemical Oxygen Demand	14	J	20	10	mg/L			02/11/21 15:59	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	5.9		2.0	2.0	mg/L			02/03/21 12:55	1

Method Summary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	ECL 1
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	ECL 1
608.3	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	ECL 1
300.0	Anions, Ion Chromatography	MCAWW	TAL IRV
NO3NO2 Calc	Nitrogen, Nitrate-Nitrite	EPA	TAL IRV
200.7 Rev 4.4	Metals (ICP)	EPA	TAL IRV
200.8	Metals (ICP/MS)	EPA	TAL IRV
245.1	Mercury (CVAA)	EPA	TAL IRV
1664A	HEM and SGT-HEM	1664A	ECL 1
2540 D	TSS	SM21	TAL IRV
365.3	Phosphorus, Total	EPA	TAL IRV
SM 4500 NH3 D	Ammonia	SM	TAL IRV
SM 5220D	COD	SM	TAL IRV
SM5210B	BOD, 5 Day	SM	TAL IRV
1664A	HEM and SGT-HEM (Aqueous)	1664A	ECL 1
200.2	Preparation, Total Recoverable Metals	EPA	TAL IRV
245.1	Preparation, Mercury	EPA	TAL IRV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
365.2/365.3/365	Phosphorus, Total	MCAWW	TAL IRV
5030C	Purge and Trap	SW846	ECL 2
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	ECL 1
625	Liquid-Liquid Extraction	40CFR136A	ECL 1
SM 4500 NH3 B	Distillation, Ammonia	SM	TAL IRV

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

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"

SM21 = Standard Methods For The Examination Of Water And Wastewater, 21st Edition

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

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

Lab Chronicle

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Client Sample ID: Stormwater_020221_SW3

Lab Sample ID: 440-278392-1

Date Collected: 02/02/21 03:30

Matrix: Water

Date Received: 02/02/21 14:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	20 mL	20 mL	127088	02/05/21 14:20	UJHB	ECL 2
Total/NA	Prep	625			1046.1 mL	2 mL	127463	02/06/21 13:11	PQS1	ECL 1
Total/NA	Analysis	625.1		1			127958	02/09/21 15:23	N8CZ	ECL 1
Total/NA	Prep	3510C	RA		1047.4 mL	2 mL	126734	02/04/21 10:10	UM1W	ECL 1
Total/NA	Analysis	8270C	RA	1			128025	02/09/21 18:34	N8CZ	ECL 1
Total/NA	Prep	608			1049.5 mL	2 mL	127125	02/05/21 08:47	H1SH	ECL 1
Total/NA	Analysis	608.3		1			127722	02/08/21 21:08	UHHN	ECL 1
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	637633	02/02/21 19:51	NIH3	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	637634	02/02/21 19:51	NIH3	TAL IRV
Total/NA	Analysis	300.0	DL	10	5 mL	1.0 mL	637634	02/02/21 21:39	NIH3	TAL IRV
Total/NA	Analysis	NO3NO2 Calc		1			637770	02/03/21 10:49	K8ZG	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	638215	02/09/21 08:55	LZY7	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			638536	02/11/21 16:27	P1R	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	638082	02/06/21 14:21	VYQ5	TAL IRV
Total Recoverable	Analysis	200.8		5			638151	02/08/21 11:14	Y2WS	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	638082	02/06/21 14:21	VYQ5	TAL IRV
Total Recoverable	Analysis	200.8		1			638151	02/08/21 11:19	Y2WS	TAL IRV
Total/NA	Prep	245.1			20 mL	30 mL	638495	02/11/21 10:44	C0YH	TAL IRV
Total/NA	Analysis	245.1		1			638604	02/11/21 17:46	C0YH	TAL IRV
Total/NA	Prep	1664A			1045 mL	1000 mL	127569	02/08/21 09:35	UWEZ	ECL 1
Total/NA	Analysis	1664A		1			127745	02/08/21 17:12	F7UI	ECL 1
Total/NA	Analysis	2540 D		1	300 mL	1000 mL	638260	02/09/21 13:39	ZL7L	TAL IRV
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	638534	02/11/21 16:35	GG0B	TAL IRV
Total/NA	Analysis	365.3		1			638548	02/11/21 17:38	GG0B	TAL IRV
Total/NA	Prep	SM 4500 NH3 B			50 mL	50 mL	637725	02/03/21 04:00	YO8L	TAL IRV
Total/NA	Analysis	SM 4500 NH3 D		1			637735	02/03/21 06:00	YO8L	TAL IRV
Total/NA	Analysis	SM 5220D		1	2 mL	2 mL	638531	02/11/21 15:59	PN8W	TAL IRV
Total/NA	Analysis	SM5210B		1	300 mL	300 mL	637803	02/03/21 12:55	W0EF	TAL IRV

Laboratory References:

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

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

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

Lab Sample ID: MB 570-127088/7
Matrix: Water
Analysis Batch: 127088

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acrylonitrile	ND		0.0050	0.00087	mg/L			02/05/21 10:36	1
Benzene	ND		0.00050	0.00027	mg/L			02/05/21 10:36	1
Ethylbenzene	ND		0.00050	0.00036	mg/L			02/05/21 10:36	1
Toluene	ND		0.00050	0.00033	mg/L			02/05/21 10:36	1
Trichloroethylene	ND		0.00050	0.00029	mg/L			02/05/21 10:36	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	98		80 - 128		02/05/21 10:36	1
4-Bromofluorobenzene (Surr)	92		68 - 120		02/05/21 10:36	1
Dibromofluoromethane (Surr)	97		80 - 127		02/05/21 10:36	1
Toluene-d8 (Surr)	99		80 - 120		02/05/21 10:36	1

Lab Sample ID: LCS 570-127088/4
Matrix: Water
Analysis Batch: 127088

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Acrylonitrile	0.0100	0.0107		mg/L		107	53 - 130
Benzene	0.0100	0.0103		mg/L		103	80 - 120
Ethylbenzene	0.0100	0.0105		mg/L		105	80 - 120
Toluene	0.0100	0.0103		mg/L		103	80 - 120
Trichloroethylene	0.0100	0.0105		mg/L		105	80 - 120

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	101		80 - 128
4-Bromofluorobenzene (Surr)	101		68 - 120
Dibromofluoromethane (Surr)	103		80 - 127
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: LCSD 570-127088/5
Matrix: Water
Analysis Batch: 127088

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

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
		Result	Qualifier						
Acrylonitrile	0.0100	0.00954		mg/L		95	53 - 130	11	30
Benzene	0.0100	0.00971		mg/L		97	80 - 120	6	20
Ethylbenzene	0.0100	0.00964		mg/L		96	80 - 120	8	20
Toluene	0.0100	0.00958		mg/L		96	80 - 120	7	20
Trichloroethylene	0.0100	0.00983		mg/L		98	80 - 120	7	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	103		80 - 128
4-Bromofluorobenzene (Surr)	101		68 - 120
Dibromofluoromethane (Surr)	104		80 - 127
Toluene-d8 (Surr)	100		80 - 120

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

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

Lab Sample ID: 570-50258-A-1 MS
Matrix: Water
Analysis Batch: 127088

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

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Acrylonitrile	ND	F1	0.0800	0.119	F1	mg/L		148		68 - 134
Benzene	0.0053		0.0800	0.0916		mg/L		108		75 - 125
Ethylbenzene	0.10		0.0800	0.181		mg/L		102		75 - 125
Toluene	ND		0.0800	0.0860		mg/L		108		75 - 125
Trichloroethylene	ND		0.0800	0.0881		mg/L		110		75 - 125
MS MS										
Surrogate	%Recovery	Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)	97		80 - 128							
4-Bromofluorobenzene (Surr)	100		68 - 120							
Dibromofluoromethane (Surr)	103		80 - 127							
Toluene-d8 (Surr)	103		80 - 120							

Lab Sample ID: 570-50258-A-1 MSD
Matrix: Water
Analysis Batch: 127088

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

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						Limit	
Acrylonitrile	ND	F1	0.0800	0.120	F1	mg/L		150		68 - 134	1	20
Benzene	0.0053		0.0800	0.0870		mg/L		102		75 - 125	5	20
Ethylbenzene	0.10		0.0800	0.181		mg/L		102		75 - 125	0	20
Toluene	ND		0.0800	0.0829		mg/L		104		75 - 125	4	20
Trichloroethylene	ND		0.0800	0.0844		mg/L		106		75 - 125	4	20
MSD MSD												
Surrogate	%Recovery	Qualifier	Limits									
1,2-Dichloroethane-d4 (Surr)	94		80 - 128									
4-Bromofluorobenzene (Surr)	101		68 - 120									
Dibromofluoromethane (Surr)	101		80 - 127									
Toluene-d8 (Surr)	99		80 - 120									

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-127463/1-A
Matrix: Water
Analysis Batch: 127958

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127463

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Alpha-Terpineol	ND		0.010	0.0025	mg/L		02/06/21 13:11	02/09/21 14:27		1
MB MB										
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil	Fac			
2,4,6-Tribromophenol (Surr)	99		27 - 159	02/06/21 13:11	02/09/21 14:27		1			
2-Fluorobiphenyl (Surr)	88		33 - 120	02/06/21 13:11	02/09/21 14:27		1			
2-Fluorophenol (Surr)	49		24 - 120	02/06/21 13:11	02/09/21 14:27		1			
Nitrobenzene-d5 (Surr)	87		38 - 120	02/06/21 13:11	02/09/21 14:27		1			
Phenol-d6 (Surr)	33		16 - 120	02/06/21 13:11	02/09/21 14:27		1			
p-Terphenyl-d14 (Surr)	99		41 - 137	02/06/21 13:11	02/09/21 14:27		1			

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

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

Lab Sample ID: MB 570-126734/1-A
Matrix: Water
Analysis Batch: 126954

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126734

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzoic acid	ND		0.050	0.012	mg/L		02/03/21 20:18	02/04/21 19:17	1
Butyl benzyl phthalate	ND		0.010	0.0025	mg/L		02/03/21 20:18	02/04/21 19:17	1
Dimethyl phthalate	ND		0.010	0.0026	mg/L		02/03/21 20:18	02/04/21 19:17	1
Fluoranthene	ND		0.010	0.0031	mg/L		02/03/21 20:18	02/04/21 19:17	1
Pyrene	ND		0.010	0.0030	mg/L		02/03/21 20:18	02/04/21 19:17	1
m+p-Cresol	ND		10	2.2	ug/L		02/03/21 20:18	02/04/21 19:17	1
Phenol	ND		0.010	0.0021	mg/L		02/03/21 20:18	02/04/21 19:17	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol (Surr)	40		15 - 138	02/03/21 20:18	02/04/21 19:17	1
Nitrobenzene-d5 (Surr)	59		56 - 123	02/03/21 20:18	02/04/21 19:17	1
2,4,6-Tribromophenol (Surr)	78		32 - 143	02/03/21 20:18	02/04/21 19:17	1
Phenol-d6 (Surr)	28		17 - 141	02/03/21 20:18	02/04/21 19:17	1

Lab Sample ID: LCS 570-126734/2-A
Matrix: Water
Analysis Batch: 126954

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126734

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
Benzoic acid	0.100	0.0436	J	mg/L		44	0.1 - 125
Butyl benzyl phthalate	0.100	0.0896		mg/L		90	45 - 115
Dimethyl phthalate	0.100	0.0900		mg/L		90	25 - 125
Fluoranthene	0.100	0.0915		mg/L		92	55 - 115
Pyrene	0.100	0.0944		mg/L		94	50 - 130
m+p-Cresol	200	104		ug/L		52	30 - 110
Phenol	0.100	0.0379		mg/L		38	10 - 115

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
2-Fluorophenol (Surr)	44		15 - 138
Nitrobenzene-d5 (Surr)	69		56 - 123
2,4,6-Tribromophenol (Surr)	88		32 - 143
Phenol-d6 (Surr)	33		17 - 141

Lab Sample ID: LCSD 570-126734/3-A
Matrix: Water
Analysis Batch: 126954

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 126734

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
Benzoic acid	0.100	0.0504		mg/L		50	0.1 - 125	14	20
Butyl benzyl phthalate	0.100	0.0920		mg/L		92	45 - 115	3	20
Dimethyl phthalate	0.100	0.0925		mg/L		93	25 - 125	3	20
Fluoranthene	0.100	0.0950		mg/L		95	55 - 115	4	20
Pyrene	0.100	0.0957		mg/L		96	50 - 130	1	20
m+p-Cresol	200	102		ug/L		51	30 - 110	2	20
Phenol	0.100	0.0362		mg/L		36	10 - 115	5	23

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

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

Lab Sample ID: LCSD 570-126734/3-A
 Matrix: Water
 Analysis Batch: 126954

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 126734

Surrogate	LCS D %Recovery	LCS D Qualifier	Limits
2-Fluorophenol (Surr)	44		15 - 138
Nitrobenzene-d5 (Surr)	65		56 - 123
2,4,6-Tribromophenol (Surr)	94		32 - 143
Phenol-d6 (Surr)	32		17 - 141

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 570-127125/1-A
 Matrix: Water
 Analysis Batch: 127722

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 127125

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1221	ND		0.00010	0.000039	mg/L		02/05/21 08:47	02/08/21 20:15	1
Aroclor 1232	ND		0.00010	0.000039	mg/L		02/05/21 08:47	02/08/21 20:15	1
Aroclor 1016	ND		0.00010	0.000039	mg/L		02/05/21 08:47	02/08/21 20:15	1
Aroclor 1242	ND		0.00010	0.000039	mg/L		02/05/21 08:47	02/08/21 20:15	1
Aroclor 1248	ND		0.00010	0.000039	mg/L		02/05/21 08:47	02/08/21 20:15	1
Aroclor 1254	ND		0.00010	0.000017	mg/L		02/05/21 08:47	02/08/21 20:15	1
Aroclor 1260	ND		0.00010	0.000017	mg/L		02/05/21 08:47	02/08/21 20:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	51		20 - 154	02/05/21 08:47	02/08/21 20:15	1

Lab Sample ID: LCS 570-127125/4-A
 Matrix: Water
 Analysis Batch: 127722

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 127125

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aroclor 1016	0.000133	0.000129		mg/L		97	50 - 140
Aroclor 1260	0.000133	0.000134		mg/L		101	8 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	45		20 - 154

Lab Sample ID: LCSD 570-127125/5-A
 Matrix: Water
 Analysis Batch: 127722

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 127125

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Aroclor 1016	0.000133	0.000122		mg/L		92	50 - 140	6	36
Aroclor 1260	0.000133	0.000108		mg/L		81	8 - 140	21	38

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	42		20 - 154

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-637633/6
Matrix: Water
Analysis Batch: 637633

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			02/02/21 11:47	1
Nitrite as N	ND		0.15	0.025	mg/L			02/02/21 11:47	1

Lab Sample ID: LCS 440-637633/5
Matrix: Water
Analysis Batch: 637633

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	1.15		mg/L		102	90 - 110
Nitrite as N	1.52	1.44		mg/L		95	90 - 110

Lab Sample ID: 440-278392-1 MS
Matrix: Water
Analysis Batch: 637633

Client Sample ID: Stormwater_020221_SW3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.3		1.13	2.50		mg/L		105	80 - 120
Nitrite as N	0.065	J	1.52	1.57		mg/L		99	80 - 120

Lab Sample ID: 440-278392-1 MSD
Matrix: Water
Analysis Batch: 637633

Client Sample ID: Stormwater_020221_SW3
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	1.3		1.13	2.50		mg/L		105	80 - 120	0	20
Nitrite as N	0.065	J	1.52	1.57		mg/L		99	80 - 120	0	20

Lab Sample ID: MB 440-637634/6
Matrix: Water
Analysis Batch: 637634

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			02/02/21 11:47	1
Fluoride	ND		0.50	0.25	mg/L			02/02/21 11:47	1

Lab Sample ID: LCS 440-637634/5
Matrix: Water
Analysis Batch: 637634

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.90		mg/L		98	90 - 110
Fluoride	5.00	5.03		mg/L		101	90 - 110

Lab Sample ID: 440-278392-1 MS
Matrix: Water
Analysis Batch: 637634

Client Sample ID: Stormwater_020221_SW3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	28	E	5.00	33.9	E 4	mg/L		125	80 - 120
Fluoride	0.96		5.00	5.67		mg/L		94	80 - 120

Eurofins Calscience Irvine

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 440-278392-1 MSD
 Matrix: Water
 Analysis Batch: 637634

Client Sample ID: Stormwater_020221_SW3
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	28	E	5.00	34.0	E 4	mg/L		127	80 - 120	0	20
Fluoride	0.96		5.00	5.68		mg/L		94	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 440-638215/1-A
 Matrix: Water
 Analysis Batch: 638536

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 638215

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10	0.050	mg/L		02/09/21 08:55	02/11/21 16:10	1

Lab Sample ID: LCS 440-638215/2-A
 Matrix: Water
 Analysis Batch: 638536

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 638215

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.500	0.470		mg/L		94	85 - 115

Lab Sample ID: 440-278436-A-1-B MS
 Matrix: Water
 Analysis Batch: 638536

Client Sample ID: Matrix Spike
 Prep Type: Total Recoverable
 Prep Batch: 638215

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	ND		0.500	0.503		mg/L		101	70 - 130

Lab Sample ID: 440-278436-A-1-C MSD
 Matrix: Water
 Analysis Batch: 638536

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total Recoverable
 Prep Batch: 638215

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	ND		0.500	0.503		mg/L		101	70 - 130	0	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 440-638082/1-A
 Matrix: Water
 Analysis Batch: 638151

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 638082

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.010	0.0050	mg/L		02/06/21 14:21	02/08/21 11:36	1
Antimony	ND		0.0020	0.00050	mg/L		02/06/21 14:21	02/08/21 11:36	1
Arsenic	ND		0.0010	0.00050	mg/L		02/06/21 14:21	02/08/21 11:36	1
Beryllium	ND		0.00050	0.00025	mg/L		02/06/21 14:21	02/08/21 11:36	1
Cadmium	ND		0.0010	0.00025	mg/L		02/06/21 14:21	02/08/21 11:36	1
Copper	ND		0.0020	0.00050	mg/L		02/06/21 14:21	02/08/21 11:36	1
Lead	ND		0.0010	0.00050	mg/L		02/06/21 14:21	02/08/21 11:36	1
Manganese	ND		0.0010	0.00050	mg/L		02/06/21 14:21	02/08/21 11:36	1
Nickel	ND		0.0020	0.00050	mg/L		02/06/21 14:21	02/08/21 11:36	1
Selenium	ND		0.0020	0.00050	mg/L		02/06/21 14:21	02/08/21 11:36	1

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QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 440-638082/1-A
Matrix: Water
Analysis Batch: 638151

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 638082

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0010	0.00050	mg/L		02/06/21 14:21	02/08/21 11:36	1
Zinc	ND		0.020	0.0025	mg/L		02/06/21 14:21	02/08/21 11:36	1

Lab Sample ID: LCS 440-638082/2-A
Matrix: Water
Analysis Batch: 638151

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 638082

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	0.0800	0.0879		mg/L		110	85 - 115
Antimony	0.0800	0.0821		mg/L		103	85 - 115
Arsenic	0.0800	0.0784		mg/L		98	85 - 115
Beryllium	0.0800	0.0766		mg/L		96	85 - 115
Cadmium	0.0800	0.0786		mg/L		98	85 - 115
Copper	0.0800	0.0797		mg/L		100	85 - 115
Lead	0.0800	0.0753		mg/L		94	85 - 115
Manganese	0.0800	0.0788		mg/L		99	85 - 115
Nickel	0.0800	0.0797		mg/L		100	85 - 115
Selenium	0.0800	0.0787		mg/L		98	85 - 115
Silver	0.0800	0.0849		mg/L		106	85 - 115
Zinc	0.0800	0.0776		mg/L		97	85 - 115

Lab Sample ID: 440-278392-1 MS
Matrix: Water
Analysis Batch: 638151

Client Sample ID: Stormwater_020221_SW3
Prep Type: Total Recoverable
Prep Batch: 638082

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	0.57		0.0800	0.774	4	mg/L		256	70 - 130
Antimony	0.0014	J	0.0800	0.0855		mg/L		105	70 - 130
Arsenic	0.0014		0.0800	0.0826		mg/L		102	70 - 130
Beryllium	ND		0.0800	0.0741		mg/L		93	70 - 130
Cadmium	0.0014		0.0800	0.0781		mg/L		96	70 - 130
Copper	0.0054		0.0800	0.0814		mg/L		95	70 - 130
Lead	0.00054	J	0.0800	0.0746		mg/L		93	70 - 130
Nickel	0.11		0.0800	0.183		mg/L		92	70 - 130
Selenium	0.0021		0.0800	0.0840		mg/L		102	70 - 130
Silver	ND		0.0800	0.0800		mg/L		100	70 - 130
Zinc	0.12		0.0800	0.188		mg/L		91	70 - 130

Lab Sample ID: 440-278392-1 MSD
Matrix: Water
Analysis Batch: 638151

Client Sample ID: Stormwater_020221_SW3
Prep Type: Total Recoverable
Prep Batch: 638082

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	0.57		0.0800	0.696	4	mg/L		158	70 - 130	11	20
Antimony	0.0014	J	0.0800	0.0831		mg/L		102	70 - 130	3	20
Arsenic	0.0014		0.0800	0.0806		mg/L		99	70 - 130	2	20
Beryllium	ND		0.0800	0.0736		mg/L		92	70 - 130	1	20
Cadmium	0.0014		0.0800	0.0780		mg/L		96	70 - 130	0	20
Copper	0.0054		0.0800	0.0785		mg/L		91	70 - 130	4	20

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QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 440-278392-1 MSD
 Matrix: Water
 Analysis Batch: 638151

Client Sample ID: Stormwater_020221_SW3
 Prep Type: Total Recoverable
 Prep Batch: 638082

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.00054	J	0.0800	0.0731		mg/L		91	70 - 130	2	20
Nickel	0.11		0.0800	0.178		mg/L		85	70 - 130	3	20
Selenium	0.0021		0.0800	0.0817		mg/L		99	70 - 130	3	20
Silver	ND		0.0800	0.0770		mg/L		96	70 - 130	4	20
Zinc	0.12		0.0800	0.181		mg/L		82	70 - 130	4	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 440-638495/1-A
 Matrix: Water
 Analysis Batch: 638604

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 638495

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		02/11/21 10:44	02/11/21 17:41	1

Lab Sample ID: LCS 440-638495/2-A
 Matrix: Water
 Analysis Batch: 638604

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 638495

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00600	0.00576		mg/L		96	85 - 115

Lab Sample ID: 440-278392-1 MS
 Matrix: Water
 Analysis Batch: 638604

Client Sample ID: Stormwater_020221_SW3
 Prep Type: Total/NA
 Prep Batch: 638495

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00600	0.00567		mg/L		95	75 - 125

Lab Sample ID: 440-278392-1 MSD
 Matrix: Water
 Analysis Batch: 638604

Client Sample ID: Stormwater_020221_SW3
 Prep Type: Total/NA
 Prep Batch: 638495

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00600	0.00593		mg/L		99	75 - 125	4	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-127569/1-A
 Matrix: Water
 Analysis Batch: 127745

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 127569

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	ND		1.0	0.80	mg/L		02/08/21 09:35	02/08/21 17:12	1

Lab Sample ID: LCS 570-127569/2-A
 Matrix: Water
 Analysis Batch: 127745

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 127569

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM: Oil and Grease	40.0	40.00		mg/L		100	78 - 114

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QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: LCSD 570-127569/3-A
 Matrix: Water
 Analysis Batch: 127745

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 127569

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM: Oil and Grease	40.0	38.70		mg/L		97	78 - 114	3	18

Method: 2540 D - TSS

Lab Sample ID: MB 440-638260/1
 Matrix: Water
 Analysis Batch: 638260

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	0.50	mg/L			02/09/21 13:39	1

Lab Sample ID: LCS 440-638260/2
 Matrix: Water
 Analysis Batch: 638260

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	1000	973		mg/L		97	85 - 115

Lab Sample ID: 440-278474-A-2 DU
 Matrix: Water
 Analysis Batch: 638260

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	290		265		mg/L		7	10

Method: 365.3 - Phosphorus, Total

Lab Sample ID: MB 440-638534/1-A
 Matrix: Water
 Analysis Batch: 638548

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 638534

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus, Total	ND		0.050	0.025	mg/L		02/11/21 16:35	02/11/21 17:37	1

Lab Sample ID: LCS 440-638534/2-A
 Matrix: Water
 Analysis Batch: 638548

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 638534

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	0.500	0.512		mg/L		102	80 - 120

Lab Sample ID: 440-278234-C-1-B MS
 Matrix: Water
 Analysis Batch: 638548

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 638534

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	0.30	F1	0.500	0.546	F1	mg/L		50	75 - 125

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Method: 365.3 - Phosphorus, Total (Continued)

Lab Sample ID: 440-278234-C-1-C MSD
Matrix: Water
Analysis Batch: 638548

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 638534

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Phosphorus, Total	0.30	F1	0.500	0.541	F1	mg/L		49	75 - 125	1	20

Method: SM 4500 NH3 D - Ammonia

Lab Sample ID: MB 440-637725/2-A
Matrix: Water
Analysis Batch: 637735

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 637725

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ammonia (as N)	ND		0.50	0.10	mg/L		02/03/21 04:00	02/03/21 06:00	1

Lab Sample ID: LCS 440-637725/1-A
Matrix: Water
Analysis Batch: 637735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 637725

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Ammonia (as N)	2.50	2.25		mg/L		90	85 - 115

Lab Sample ID: 440-278428-A-1-A MS
Matrix: Water
Analysis Batch: 637735

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 637725

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				Limits
Ammonia (as N)	0.54		2.50	2.92		mg/L		95	75 - 125

Lab Sample ID: 440-278428-A-1-B MSD
Matrix: Water
Analysis Batch: 637735

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 637725

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Ammonia (as N)	0.54		2.50	2.79		mg/L		90	75 - 125	4	15

Lab Sample ID: 440-278428-B-1-A DU
Matrix: Water
Analysis Batch: 637735

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 637725

Analyte	Sample	Sample	Spike	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier		Result	Qualifier				
Ammonia (as N)	0.54			0.520		mg/L		4	15

Method: SM 5220D - COD

Lab Sample ID: MB 440-638531/4
Matrix: Water
Analysis Batch: 638531

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chemical Oxygen Demand	ND		20	10	mg/L			02/11/21 15:58	1

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Method: SM 5220D - COD (Continued)

Lab Sample ID: LCS 440-638531/5
Matrix: Water
Analysis Batch: 638531

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	201		mg/L		100	90 - 110

Lab Sample ID: 440-278195-A-1 MS
Matrix: Water
Analysis Batch: 638531

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
Chemical Oxygen Demand	ND		200	204		mg/L		102	70 - 120

Lab Sample ID: 440-278195-A-1 MSD
Matrix: Water
Analysis Batch: 638531

Client Sample ID: Matrix Spike Duplicate
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	192		mg/L		96	70 - 120	6	15

Method: SM5210B - BOD, 5 Day

Lab Sample ID: USB 440-637803/3
Matrix: Water
Analysis Batch: 637803

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

Analyte	USB Result	USB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			02/03/21 12:55	1

Lab Sample ID: LCS 440-637803/7
Matrix: Water
Analysis Batch: 637803

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	199	169		mg/L		85	85 - 115

Lab Sample ID: LCSD 440-637803/8
Matrix: Water
Analysis Batch: 637803

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Biochemical Oxygen Demand	199	170		mg/L		85	85 - 115	1	20

Lab Sample ID: LCSD 440-637803/9
Matrix: Water
Analysis Batch: 637803

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Biochemical Oxygen Demand	199	173		mg/L		87	85 - 115	2	20

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Method: SM5210B - BOD, 5 Day (Continued)

Lab Sample ID: 440-278405-G-1 DU
Matrix: Water
Analysis Batch: 637803

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	9.2		9.03		mg/L		2	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

QC Association Summary

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

GC/MS VOA

Analysis Batch: 127088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	8260B	
MB 570-127088/7	Method Blank	Total/NA	Water	8260B	
LCS 570-127088/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-127088/5	Lab Control Sample Dup	Total/NA	Water	8260B	
570-50258-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
570-50258-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 126734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1 - RA	Stormwater_020221_SW3	Total/NA	Water	3510C	
MB 570-126734/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-126734/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-126734/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 126954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-126734/1-A	Method Blank	Total/NA	Water	8270C	126734
LCS 570-126734/2-A	Lab Control Sample	Total/NA	Water	8270C	126734
LCSD 570-126734/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	126734

Prep Batch: 127463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	625	
MB 570-127463/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 127958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	625.1	127463
MB 570-127463/1-A	Method Blank	Total/NA	Water	625.1	127463

Analysis Batch: 128025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1 - RA	Stormwater_020221_SW3	Total/NA	Water	8270C	126734

GC Semi VOA

Prep Batch: 127125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	608	
MB 570-127125/1-A	Method Blank	Total/NA	Water	608	
LCS 570-127125/4-A	Lab Control Sample	Total/NA	Water	608	
LCSD 570-127125/5-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 127722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	608.3	127125
MB 570-127125/1-A	Method Blank	Total/NA	Water	608.3	127125
LCS 570-127125/4-A	Lab Control Sample	Total/NA	Water	608.3	127125
LCSD 570-127125/5-A	Lab Control Sample Dup	Total/NA	Water	608.3	127125

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QC Association Summary

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

HPLC/IC

Analysis Batch: 637633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	300.0	
MB 440-637633/6	Method Blank	Total/NA	Water	300.0	
LCS 440-637633/5	Lab Control Sample	Total/NA	Water	300.0	
440-278392-1 MS	Stormwater_020221_SW3	Total/NA	Water	300.0	
440-278392-1 MSD	Stormwater_020221_SW3	Total/NA	Water	300.0	

Analysis Batch: 637634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	300.0	
440-278392-1 - DL	Stormwater_020221_SW3	Total/NA	Water	300.0	
MB 440-637634/6	Method Blank	Total/NA	Water	300.0	
LCS 440-637634/5	Lab Control Sample	Total/NA	Water	300.0	
440-278392-1 MS	Stormwater_020221_SW3	Total/NA	Water	300.0	
440-278392-1 MSD	Stormwater_020221_SW3	Total/NA	Water	300.0	

Analysis Batch: 637770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	NO3NO2 Calc	

Metals

Prep Batch: 638082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total Recoverable	Water	200.2	
MB 440-638082/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-638082/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-278392-1 MS	Stormwater_020221_SW3	Total Recoverable	Water	200.2	
440-278392-1 MSD	Stormwater_020221_SW3	Total Recoverable	Water	200.2	

Analysis Batch: 638151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total Recoverable	Water	200.8	638082
440-278392-1	Stormwater_020221_SW3	Total Recoverable	Water	200.8	638082
MB 440-638082/1-A	Method Blank	Total Recoverable	Water	200.8	638082
LCS 440-638082/2-A	Lab Control Sample	Total Recoverable	Water	200.8	638082
440-278392-1 MS	Stormwater_020221_SW3	Total Recoverable	Water	200.8	638082
440-278392-1 MSD	Stormwater_020221_SW3	Total Recoverable	Water	200.8	638082

Prep Batch: 638215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total Recoverable	Water	200.2	
MB 440-638215/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-638215/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-278436-A-1-B MS	Matrix Spike	Total Recoverable	Water	200.2	
440-278436-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.2	

Prep Batch: 638495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	245.1	
MB 440-638495/1-A	Method Blank	Total/NA	Water	245.1	
LCS 440-638495/2-A	Lab Control Sample	Total/NA	Water	245.1	

Eurofins Calscience Irvine

QC Association Summary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Metals (Continued)

Prep Batch: 638495 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1 MS	Stormwater_020221_SW3	Total/NA	Water	245.1	
440-278392-1 MSD	Stormwater_020221_SW3	Total/NA	Water	245.1	

Analysis Batch: 638536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total Recoverable	Water	200.7 Rev 4.4	638215
MB 440-638215/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	638215
LCS 440-638215/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	638215
440-278436-A-1-B MS	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	638215
440-278436-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	638215

Analysis Batch: 638604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	245.1	638495
MB 440-638495/1-A	Method Blank	Total/NA	Water	245.1	638495
LCS 440-638495/2-A	Lab Control Sample	Total/NA	Water	245.1	638495
440-278392-1 MS	Stormwater_020221_SW3	Total/NA	Water	245.1	638495
440-278392-1 MSD	Stormwater_020221_SW3	Total/NA	Water	245.1	638495

General Chemistry

Prep Batch: 127569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	1664A	
MB 570-127569/1-A	Method Blank	Total/NA	Water	1664A	
LCS 570-127569/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 570-127569/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	

Analysis Batch: 127745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	1664A	127569
MB 570-127569/1-A	Method Blank	Total/NA	Water	1664A	127569
LCS 570-127569/2-A	Lab Control Sample	Total/NA	Water	1664A	127569
LCSD 570-127569/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	127569

Prep Batch: 637725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	SM 4500 NH3 B	
MB 440-637725/2-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 440-637725/1-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
440-278428-A-1-A MS	Matrix Spike	Total/NA	Water	SM 4500 NH3 B	
440-278428-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 NH3 B	
440-278428-B-1-A DU	Duplicate	Total/NA	Water	SM 4500 NH3 B	

Analysis Batch: 637735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	SM 4500 NH3 D	637725
MB 440-637725/2-A	Method Blank	Total/NA	Water	SM 4500 NH3 D	637725
LCS 440-637725/1-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 D	637725
440-278428-A-1-A MS	Matrix Spike	Total/NA	Water	SM 4500 NH3 D	637725
440-278428-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 NH3 D	637725

Eurofins Calscience Irvine

QC Association Summary

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

General Chemistry (Continued)

Analysis Batch: 637735 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278428-B-1-A DU	Duplicate	Total/NA	Water	SM 4500 NH3 D	637725

Analysis Batch: 637803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	SM5210B	
USB 440-637803/3	Method Blank	Total/NA	Water	SM5210B	
LCS 440-637803/7	Lab Control Sample	Total/NA	Water	SM5210B	
LCSD 440-637803/8	Lab Control Sample Dup	Total/NA	Water	SM5210B	
LCSD 440-637803/9	Lab Control Sample Dup	Total/NA	Water	SM5210B	
440-278405-G-1 DU	Duplicate	Total/NA	Water	SM5210B	

Analysis Batch: 638260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	2540 D	
MB 440-638260/1	Method Blank	Total/NA	Water	2540 D	
LCS 440-638260/2	Lab Control Sample	Total/NA	Water	2540 D	
440-278474-A-2 DU	Duplicate	Total/NA	Water	2540 D	

Analysis Batch: 638531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	SM 5220D	
MB 440-638531/4	Method Blank	Total/NA	Water	SM 5220D	
LCS 440-638531/5	Lab Control Sample	Total/NA	Water	SM 5220D	
440-278195-A-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
440-278195-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	

Prep Batch: 638534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	365.2/365.3/365	
MB 440-638534/1-A	Method Blank	Total/NA	Water	365.2/365.3/365	
LCS 440-638534/2-A	Lab Control Sample	Total/NA	Water	365.2/365.3/365	
440-278234-C-1-B MS	Matrix Spike	Total/NA	Water	365.2/365.3/365	
440-278234-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	365.2/365.3/365	

Analysis Batch: 638548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-278392-1	Stormwater_020221_SW3	Total/NA	Water	365.3	638534
MB 440-638534/1-A	Method Blank	Total/NA	Water	365.3	638534
LCS 440-638534/2-A	Lab Control Sample	Total/NA	Water	365.3	638534
440-278234-C-1-B MS	Matrix Spike	Total/NA	Water	365.3	638534
440-278234-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	365.3	638534

Definitions/Glossary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

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
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.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

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

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds 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
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)

Definitions/Glossary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

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Accreditation/Certification Summary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-278392-1

Laboratory: Eurofins Calscience Irvine

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

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-21
Arizona	State	AZ0671	10-14-21
California	Los Angeles County Sanitation Districts	10256	06-30-21
California	State	2706	06-30-21
Guam	State	21-003R	01-23-22
Hawaii	State	CA01531	01-29-22
Kansas	NELAP	E-10420	07-31-21
Nevada	State	CA015312021-5	07-31-21
Oregon	NELAP	4028 - 009	01-29-22
USDA	US Federal Programs	P330-21-00022	02-02-24
Washington	State	C900	09-03-21

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	20-003R	10-31-20 *
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Calscience Irvine

TestAmerica Irvine
 17461 Derian Ave
 Suite 100
 Irvine CA 92614
 phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL SERVICES

TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other

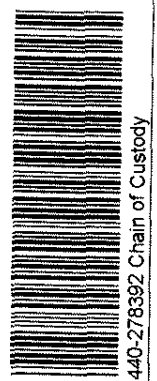
Client Contact
 Republic Services
 14747 San Fernando Road
 Sylmar CA 91342
 Phone (818) 362-2124
 FAX (818) 362-5854
 Project Name: Storm Water Event Sampling
 Site: Sunshine Canyon Landfill
 P O #

Project Manager: Tuong-Phu Ngo
 Tel/Fax 818-362-2096

Analysis Turnaround Time
 CALENDAR DAYS WORKING DAYS
 TAT if different from Below
 2 weeks
 1 week
 2 days
 1 day

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Oil & Grease (EPA 1664 HEM)	TSS (SM 2540-D)	Metals (EPA 200.7, 200.8, & 245.1)	α-Terpineol (EPA 625)	Ammonia as N (SM 4500D)	BOD (SM 5210B)	Semi-VOCs (SM 8270C), PCBs (EPA 608)	SM 8260B- project VOCs	Semivolatiles (SM8270)	Acrylonitrile (SM 8260b)	Chloride, fluoride, nitrate+nitrite (N)	Total phosphorus (EPA 365.3)	COD (SM 5220D)	
Stormwater_020221_SW3	02/02/21	3:30 PM	G	W	22	N	N	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown																					
Special Instructions/QC Requirements & Comments.															Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months						

2/2/21
 OO



440-278392 Chain of Custody

Site Contact: Dennis Montano
Lab Contact: Rossina Tomova

Date: 2/1/2021
 Carrier: Eurofins Calscience
 COC No. 1 of 1 COCs

Sampler: For Lab Use Only
 Walk-in Client: Lab Sampling
 Job / SDG No.

Sample Specific Notes:
 EPA 300.0
 Field pH = 6.80

Received by: *[Signature]* Date/Time: 2/2/21 10:40
 Received by: *[Signature]* Date/Time: 2/2/21 14:15
 Received in Laboratory by: *[Signature]* Date/Time: 2/2/21 14:15

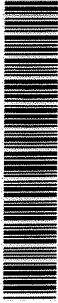
Company: Republic Services Sunshine Canyon Landfill
 Company: BT 2-2-21
 Company: BT 2-2-21

Cooler Temp. (°C): Obs'd. _____ Cor'd _____
 Therm ID No. _____

Form No. CA-C-WI-002, Rev 4.3, dated 12/05/2013

1-8/1-1-1293





Client Information (Sub Contract Lab)		Lab PM: Tomova, Rossina D	Carrier Tracking No(s):	GOC No: 440-166058-1
Shipping/Receiving		E-Mail Rossina.Tomova@Eurofins.com	State of Origin: California	Page: Page 1 of 1
Company Eurofins Calscience LLC		Job #: 440-278392-1		
Accreditations Required (See note)				
Due Date Requested: 2/15/2021		Analysis Requested		
TAT Requested (days):		Perform MS/MSD (Yes or No)		
City Garden Grove		Field Filtered Sample (Yes or No)		
State, Zip: CA, 92841		625_1/625_Prep (MOD) Custom List		
Phone: 714-895-5494(Tel) 714-894-7501(Fax)		608_3_PCB/608_Prep_PCB Standard 608 PCB list		
Email:		8270C/3510C (MOD) Custom 8270C Semi-Volatiles List		
Project #: Republisc-Sunshine Canyon - Stormwater		8260B_LL/5030C (MOD) Custom 8260B Volatiles List		
Site: Stormwater		8260B_LL/5030C_UP (MOD) Custom 8260B Volatiles List		
Sample Date		1664A/1664A_P_W HEM Only		
Sample Time		Total Number of Containers		
Sample Date 2/2/21		12		
Sample Time 03:30 Pacific		Special Instructions/Note.		
Preservation Code: Water				
Sample Type (C=comp, G=grab)				
Matrix (Water, Sewage, On-wastewater, Bio-tissue, Air-Aq)				

Sample Identification - Client ID (Lab ID)
Stormwater_012621_SW3 (440-278392-1)

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately if all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience

Possible Hazard Identification
Unconfirmed

Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 2

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

Empty Kit Relinquished by	Date/Time:	Method of Shipment:
Relinquished by	2/3/21 10:57	Company FC-1P
Relinquished by	Date/Time:	Company
Relinquished by	Date/Time:	Company

Custody Seals Intact:
 Yes No Seal No. _____
 Cooler Temperature(s) °C and Other Remarks: 37/2-6526



Login Sample Receipt Checklist

Client: Republic Services Inc

Job Number: 440-278392-1

Login Number: 278392

List Number: 1

Creator: Escalante, Maria I

List Source: Eurofins Irvine

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.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 (excluding tests with immediate HTs)	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	



Login Sample Receipt Checklist

Client: Republic Services Inc

Job Number: 440-278392-1

Login Number: 278392

List Number: 2

Creator: Koopman, Jennifer

List Source: Eurofins Calscience

List Creation: 02/03/21 05:27 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-280664-1

Client Project/Site: Republic-Sunshine Canyon - Stormwater

For:

Republic Services Inc
14747 San Fernando Road
Sylmar, California 91342

Attn: Mr. Tuong-Phu Ngo



Authorized for release by:
3/30/2021 1:25:21 PM

Rossina Tomova, Project Manager I
(949)260-3276
Rossina.Tomova@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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



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Sample Summary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-280664-1	Stormwater_03162021_SW4	Water	03/16/21 13:00	03/17/21 14:30	

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Case Narrative

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Job ID: 440-280664-1

Laboratory: Eurofins Calscience Irvine

Narrative

**Job Narrative
440-280664-1**

Comments

No additional comments.

Receipt

The sample was received on 3/17/2021 2:30 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.3° C.

GC/MS VOA

Method 8260B: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: Stormwater_03162021_SW4 (440-280664-1). Elevated reporting limits (RLs) are provided.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-137080.

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

GC/MS Semi VOA

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

HPLC/IC

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

GC Semi VOA

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

Metals

Method 200.8: The method blank for preparation batch 440-641915 and analytical batch 440-641958 contained Zinc above the method detection limit (MDL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

General Chemistry

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

Organic Prep

Method 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-137758. LCS/LCSD performed to meet QC requirements.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-137840. LCS/LCSD performed to meet QC requirement.

Method 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-137839. LCS/LCSD performed to meet QC requirement.

Method 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-137457. LCS/LCSD was performed to meet QC requirement.

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

VOA Prep

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

Client Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Client Sample ID: Stormwater_03162021_SW4

Lab Sample ID: 440-280664-1

Date Collected: 03/16/21 13:00

Matrix: Water

Date Received: 03/17/21 14:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrylonitrile	ND		0.010	0.0017	mg/L			03/19/21 13:59	2
Benzene	ND		0.0010	0.00053	mg/L			03/19/21 13:59	2
Ethylbenzene	ND		0.0010	0.00071	mg/L			03/19/21 13:59	2
Toluene	ND		0.0010	0.00066	mg/L			03/19/21 13:59	2
Trichloroethylene	ND		0.0010	0.00058	mg/L			03/19/21 13:59	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		68 - 135		03/19/21 13:59	2
4-Bromofluorobenzene (Surr)	97		71 - 120		03/19/21 13:59	2
Dibromofluoromethane (Surr)	100		80 - 120		03/19/21 13:59	2
Toluene-d8 (Surr)	103		80 - 120		03/19/21 13:59	2

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alpha-Terpineol	ND		0.0095	0.0023	mg/L		03/20/21 09:56	03/22/21 15:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	82		27 - 159	03/20/21 09:56	03/22/21 15:49	1
2-Fluorobiphenyl (Surr)	78		33 - 120	03/20/21 09:56	03/22/21 15:49	1
2-Fluorophenol (Surr)	37		24 - 120	03/20/21 09:56	03/22/21 15:49	1
Nitrobenzene-d5 (Surr)	66		38 - 120	03/20/21 09:56	03/22/21 15:49	1
Phenol-d6 (Surr)	24		16 - 120	03/20/21 09:56	03/22/21 15:49	1
p-Terphenyl-d14 (Surr)	85		41 - 137	03/20/21 09:56	03/22/21 15:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzoic acid	ND		0.048	0.012	mg/L		03/23/21 06:27	03/24/21 18:36	1
Butyl benzyl phthalate	ND		0.0096	0.0024	mg/L		03/23/21 06:27	03/24/21 18:36	1
Dimethyl phthalate	ND		0.0096	0.0025	mg/L		03/23/21 06:27	03/24/21 18:36	1
Fluoranthene	ND		0.0096	0.0030	mg/L		03/23/21 06:27	03/24/21 18:36	1
Pyrene	ND		0.0096	0.0028	mg/L		03/23/21 06:27	03/24/21 18:36	1
m+p-Cresol	ND		9.6	2.1	ug/L		03/23/21 06:27	03/24/21 18:36	1
Phenol	ND		0.0096	0.0020	mg/L		03/23/21 06:27	03/24/21 18:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	35		20 - 120	03/23/21 06:27	03/24/21 18:36	1
Nitrobenzene-d5 (Surr)	67		31 - 120	03/23/21 06:27	03/24/21 18:36	1
2,4,6-Tribromophenol (Surr)	65		27 - 140	03/23/21 06:27	03/24/21 18:36	1
Phenol-d6 (Surr)	21		20 - 120	03/23/21 06:27	03/24/21 18:36	1

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1221	ND		0.00029	0.00011	mg/L		03/23/21 05:56	03/24/21 18:08	1
Aroclor 1232	ND		0.00029	0.00011	mg/L		03/23/21 05:56	03/24/21 18:08	1
Aroclor 1016	ND		0.00029	0.00011	mg/L		03/23/21 05:56	03/24/21 18:08	1
Aroclor 1242	ND		0.00029	0.00011	mg/L		03/23/21 05:56	03/24/21 18:08	1
Aroclor 1248	ND		0.00029	0.00011	mg/L		03/23/21 05:56	03/24/21 18:08	1
Aroclor 1254	ND		0.00029	0.000048	mg/L		03/23/21 05:56	03/24/21 18:08	1
Aroclor 1260	ND		0.00029	0.000048	mg/L		03/23/21 05:56	03/24/21 18:08	1

Client Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Client Sample ID: Stormwater_03162021_SW4

Lab Sample ID: 440-280664-1

Date Collected: 03/16/21 13:00

Matrix: Water

Date Received: 03/17/21 14:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	83		20 - 154	03/23/21 05:56	03/24/21 18:08	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.2		0.11	0.055	mg/L			03/17/21 20:47	1
Nitrite as N	0.088	J	0.15	0.025	mg/L			03/17/21 20:47	1
Fluoride	0.81		0.50	0.25	mg/L			03/17/21 20:47	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20		2.5	1.3	mg/L			03/17/21 22:15	5

Method: NO3NO2 Calc - Nitrogen, Nitrate-Nitrite

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	1.3		0.15	0.055	mg/L			03/25/21 09:12	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	4.4		0.10	0.050	mg/L		03/23/21 10:37	03/24/21 12:24	1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2.3		0.010	0.0050	mg/L		03/22/21 09:11	03/22/21 14:28	1
Antimony	0.0011	J	0.0020	0.00050	mg/L		03/22/21 09:11	03/22/21 14:28	1
Arsenic	0.0023		0.0010	0.00050	mg/L		03/22/21 09:11	03/22/21 14:28	1
Beryllium	ND		0.00050	0.00025	mg/L		03/22/21 09:11	03/22/21 17:35	1
Cadmium	0.0015		0.0010	0.00025	mg/L		03/22/21 09:11	03/22/21 14:28	1
Copper	0.012		0.0020	0.00050	mg/L		03/22/21 09:11	03/22/21 14:28	1
Lead	0.0022		0.0010	0.00050	mg/L		03/22/21 09:11	03/22/21 14:28	1
Manganese	2.2		0.0010	0.00050	mg/L		03/22/21 09:11	03/22/21 14:28	1
Nickel	0.078		0.0020	0.00050	mg/L		03/22/21 09:11	03/22/21 14:28	1
Selenium	0.0024		0.0020	0.00050	mg/L		03/22/21 09:11	03/22/21 14:28	1
Silver	ND		0.0010	0.00050	mg/L		03/22/21 09:11	03/22/21 14:28	1
Zinc	0.059	B	0.020	0.0025	mg/L		03/22/21 09:11	03/22/21 14:28	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		03/29/21 10:45	03/29/21 18:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	1.2		0.96	0.77	mg/L		03/22/21 15:52	03/23/21 17:41	1
Total Suspended Solids	39		2.5	1.3	mg/L			03/18/21 18:36	1
Phosphorus, Total	0.20		0.050	0.025	mg/L		03/26/21 15:09	03/26/21 16:54	1
Ammonia (as N)	0.66		0.50	0.10	mg/L		03/18/21 04:30	03/18/21 05:30	1
Chemical Oxygen Demand	32		20	10	mg/L			03/24/21 14:32	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	6.1		2.0	2.0	mg/L			03/18/21 10:02	1

Method Summary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	ECL 1
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	ECL 1
608.3	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	ECL 1
300.0	Anions, Ion Chromatography	MCAWW	TAL IRV
NO3NO2 Calc	Nitrogen, Nitrate-Nitrite	EPA	TAL IRV
200.7 Rev 4.4	Metals (ICP)	EPA	TAL IRV
200.8	Metals (ICP/MS)	EPA	TAL IRV
245.1	Mercury (CVAA)	EPA	TAL IRV
1664A	HEM and SGT-HEM	1664A	ECL 1
2540 D	TSS	SM21	TAL IRV
365.3	Phosphorus, Total	EPA	TAL IRV
SM 4500 NH3 D	Ammonia	SM	TAL IRV
SM 5220D	COD	SM	TAL IRV
SM5210B	BOD, 5 Day	SM	TAL IRV
1664A	HEM and SGT-HEM (Aqueous)	1664A	ECL 1
200.2	Preparation, Total Recoverable Metals	EPA	TAL IRV
245.1	Preparation, Mercury	EPA	TAL IRV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
365.2/365.3/365	Phosphorus, Total	MCAWW	TAL IRV
5030C	Purge and Trap	SW846	ECL 2
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	ECL 1
625	Liquid-Liquid Extraction	40CFR136A	ECL 1
SM 4500 NH3 B	Distillation, Ammonia	SM	TAL IRV

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

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"

SM21 = Standard Methods For The Examination Of Water And Wastewater, 21st Edition

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

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

Lab Chronicle

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Client Sample ID: Stormwater_03162021_SW4

Lab Sample ID: 440-280664-1

Date Collected: 03/16/21 13:00

Matrix: Water

Date Received: 03/17/21 14:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	20 mL	20 mL	137080	03/19/21 13:59	A1W	ECL 2
Total/NA	Prep	625			1048.8 mL	2 mL	137457	03/20/21 09:56	UM1W	ECL 1
Total/NA	Analysis	625.1		1			137690	03/22/21 15:49	N8CZ	ECL 1
Total/NA	Prep	3510C			1046.8 mL	2 mL	137840	03/23/21 06:27	H1SH	ECL 1
Total/NA	Analysis	8270C		1			138299	03/24/21 18:36	N8CZ	ECL 1
Total/NA	Prep	608			1045.2 mL	2 mL	137839	03/23/21 05:56	H1SH	ECL 1
Total/NA	Analysis	608.3		1			138238	03/24/21 18:08	UHHN	ECL 1
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	641542	03/17/21 20:47	NIH3	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	641543	03/17/21 20:47	NIH3	TAL IRV
Total/NA	Analysis	300.0	DL	5	5 mL	1.0 mL	641543	03/17/21 22:15	NIH3	TAL IRV
Total/NA	Analysis	NO3NO2 Calc		1			642324	03/25/21 09:12	K8ZG	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	642048	03/23/21 10:37	LZY7	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			642240	03/24/21 12:24	P1R	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	641915	03/22/21 09:11	LZY7	TAL IRV
Total Recoverable	Analysis	200.8		1			641958	03/22/21 14:28	SQ5O	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	641915	03/22/21 09:11	LZY7	TAL IRV
Total Recoverable	Analysis	200.8		1			641985	03/22/21 17:35	SQ5O	TAL IRV
Total/NA	Prep	245.1			20 mL	30 mL	642580	03/29/21 10:45	C0YH	TAL IRV
Total/NA	Analysis	245.1		1			642675	03/29/21 18:15	C0YH	TAL IRV
Total/NA	Prep	1664A			1040 mL	1000 mL	137758	03/22/21 15:52	UYUW	ECL 1
Total/NA	Analysis	1664A		1			138118	03/23/21 17:41	L6IE	ECL 1
Total/NA	Analysis	2540 D		1	400 mL	1000 mL	641760	03/18/21 18:36	ZL7L	TAL IRV
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	642481	03/26/21 15:09	GG0B	TAL IRV
Total/NA	Analysis	365.3		1			642494	03/26/21 16:54	GG0B	TAL IRV
Total/NA	Prep	SM 4500 NH3 B			50 mL	50 mL	641664	03/18/21 04:30	YO8L	TAL IRV
Total/NA	Analysis	SM 4500 NH3 D		1			641666	03/18/21 05:30	YO8L	TAL IRV
Total/NA	Analysis	SM 5220D		1	2 mL	2 mL	642243	03/24/21 14:32	PN8W	TAL IRV
Total/NA	Analysis	SM5210B		1	300 mL	300 mL	641693	03/18/21 10:02	W0EF	TAL IRV

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
 ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494
 TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

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

Lab Sample ID: MB 570-137080/7
Matrix: Water
Analysis Batch: 137080

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrylonitrile	ND		0.0050	0.00087	mg/L			03/19/21 12:30	1
Benzene	ND		0.00050	0.00027	mg/L			03/19/21 12:30	1
Ethylbenzene	ND		0.00050	0.00036	mg/L			03/19/21 12:30	1
Toluene	ND		0.00050	0.00033	mg/L			03/19/21 12:30	1
Trichloroethylene	ND		0.00050	0.00029	mg/L			03/19/21 12:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		68 - 135		03/19/21 12:30	1
4-Bromofluorobenzene (Surr)	97		71 - 120		03/19/21 12:30	1
Dibromofluoromethane (Surr)	97		80 - 120		03/19/21 12:30	1
Toluene-d8 (Surr)	99		80 - 120		03/19/21 12:30	1

Lab Sample ID: LCS 570-137080/4
Matrix: Water
Analysis Batch: 137080

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acrylonitrile	0.0100	0.00878		mg/L		88	58 - 123
Benzene	0.0100	0.0105		mg/L		105	80 - 120
Ethylbenzene	0.0100	0.0109		mg/L		109	80 - 120
Toluene	0.0100	0.0104		mg/L		104	80 - 120
Trichloroethylene	0.0100	0.0104		mg/L		104	80 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		68 - 135
4-Bromofluorobenzene (Surr)	103		71 - 120
Dibromofluoromethane (Surr)	99		80 - 120
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: LCSD 570-137080/5
Matrix: Water
Analysis Batch: 137080

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acrylonitrile	0.0100	0.00954		mg/L		95	58 - 123	8	30
Benzene	0.0100	0.00996		mg/L		100	80 - 120	5	20
Ethylbenzene	0.0100	0.0103		mg/L		103	80 - 120	6	20
Toluene	0.0100	0.00978		mg/L		98	80 - 120	7	20
Trichloroethylene	0.0100	0.0101		mg/L		101	80 - 123	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		68 - 135
4-Bromofluorobenzene (Surr)	104		71 - 120
Dibromofluoromethane (Surr)	98		80 - 120
Toluene-d8 (Surr)	100		80 - 120

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-137457/1-A
Matrix: Water
Analysis Batch: 137690

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 137457

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alpha-Terpineol	ND		0.010	0.0025	mg/L		03/20/21 09:56	03/22/21 13:36	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	79		27 - 159				03/20/21 09:56	03/22/21 13:36	1
2-Fluorobiphenyl (Surr)	75		33 - 120				03/20/21 09:56	03/22/21 13:36	1
2-Fluorophenol (Surr)	39		24 - 120				03/20/21 09:56	03/22/21 13:36	1
Nitrobenzene-d5 (Surr)	71		38 - 120				03/20/21 09:56	03/22/21 13:36	1
Phenol-d6 (Surr)	26		16 - 120				03/20/21 09:56	03/22/21 13:36	1
p-Terphenyl-d14 (Surr)	90		41 - 137				03/20/21 09:56	03/22/21 13:36	1

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

Lab Sample ID: MB 570-137840/1-A
Matrix: Water
Analysis Batch: 138301

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 137840

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzoic acid	0.0126	J	0.050	0.012	mg/L		03/23/21 06:26	03/24/21 14:00	1
Butyl benzyl phthalate	ND		0.010	0.0025	mg/L		03/23/21 06:26	03/24/21 14:00	1
Dimethyl phthalate	ND		0.010	0.0026	mg/L		03/23/21 06:26	03/24/21 14:00	1
Fluoranthene	ND		0.010	0.0031	mg/L		03/23/21 06:26	03/24/21 14:00	1
Pyrene	ND		0.010	0.0030	mg/L		03/23/21 06:26	03/24/21 14:00	1
m+p-Cresol	ND		10	2.2	ug/L		03/23/21 06:26	03/24/21 14:00	1
Phenol	ND		0.010	0.0021	mg/L		03/23/21 06:26	03/24/21 14:00	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	36		20 - 120				03/23/21 06:26	03/24/21 14:00	1
Nitrobenzene-d5 (Surr)	67		31 - 120				03/23/21 06:26	03/24/21 14:00	1
2,4,6-Tribromophenol (Surr)	66		27 - 140				03/23/21 06:26	03/24/21 14:00	1
Phenol-d6 (Surr)	24		20 - 120				03/23/21 06:26	03/24/21 14:00	1

Lab Sample ID: LCS 570-137840/2-A
Matrix: Water
Analysis Batch: 138301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 137840

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzoic acid	0.100	0.0322	J	mg/L		32	20 - 120
Butyl benzyl phthalate	0.100	0.102		mg/L		102	67 - 120
Dimethyl phthalate	0.100	0.0926		mg/L		93	63 - 120
Fluoranthene	0.100	0.0918		mg/L		92	68 - 120
Pyrene	0.100	0.0981		mg/L		98	66 - 120
m+p-Cresol	200	127		ug/L		63	44 - 120
Phenol	0.100	0.0342		mg/L		34	25 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2-Fluorophenol (Surr)	44		20 - 120				
Nitrobenzene-d5 (Surr)	75		31 - 120				
2,4,6-Tribromophenol (Surr)	78		27 - 140				

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

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

Lab Sample ID: LCS 570-137840/2-A
Matrix: Water
Analysis Batch: 138301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 137840

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Phenol-d6 (Surr)	30		20 - 120

Lab Sample ID: LCSD 570-137840/3-A
Matrix: Water
Analysis Batch: 138301

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 137840

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
Benzoic acid	0.100	0.0302	J	mg/L		30	20 - 120	6	21
Butyl benzyl phthalate	0.100	0.0975		mg/L		97	67 - 120	4	20
Dimethyl phthalate	0.100	0.0864		mg/L		86	63 - 120	7	20
Fluoranthene	0.100	0.0867		mg/L		87	68 - 120	6	20
Pyrene	0.100	0.0928		mg/L		93	66 - 120	5	20
m+p-Cresol	200	109		ug/L		55	44 - 120	15	20
Phenol	0.100	0.0314		mg/L		31	25 - 120	8	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2-Fluorophenol (Surr)	40		20 - 120
Nitrobenzene-d5 (Surr)	69		31 - 120
2,4,6-Tribromophenol (Surr)	73		27 - 140
Phenol-d6 (Surr)	27		20 - 120

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 570-137839/1-A
Matrix: Water
Analysis Batch: 138238

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 137839

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aroclor 1221	ND		0.00030	0.00012	mg/L		03/23/21 05:56	03/24/21 17:32	1
Aroclor 1232	ND		0.00030	0.00012	mg/L		03/23/21 05:56	03/24/21 17:32	1
Aroclor 1016	ND		0.00030	0.00012	mg/L		03/23/21 05:56	03/24/21 17:32	1
Aroclor 1242	ND		0.00030	0.00012	mg/L		03/23/21 05:56	03/24/21 17:32	1
Aroclor 1248	ND		0.00030	0.00012	mg/L		03/23/21 05:56	03/24/21 17:32	1
Aroclor 1254	ND		0.00030	0.000050	mg/L		03/23/21 05:56	03/24/21 17:32	1
Aroclor 1260	ND		0.00030	0.000050	mg/L		03/23/21 05:56	03/24/21 17:32	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr)	90		20 - 154	03/23/21 05:56	03/24/21 17:32	1

Lab Sample ID: LCS 570-137839/4-A
Matrix: Water
Analysis Batch: 138238

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 137839

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Aroclor 1016	0.000400	0.000558		mg/L		140	50 - 140
Aroclor 1260	0.000400	0.000516		mg/L		129	8 - 140

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 570-137839/4-A
Matrix: Water
Analysis Batch: 138238

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 137839

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr)	82		20 - 154

Lab Sample ID: LCSD 570-137839/5-A
Matrix: Water
Analysis Batch: 138238

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 137839

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Aroclor 1016	0.000400	0.000534		mg/L		134	50 - 140	4	36	
Aroclor 1260	0.000400	0.000508		mg/L		127	8 - 140	2	38	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr)	85		20 - 154

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-641542/6
Matrix: Water
Analysis Batch: 641542

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Nitrate as N	ND		0.11	0.055	mg/L		03/17/21 12:49	1	
Nitrite as N	ND		0.15	0.025	mg/L		03/17/21 12:49	1	

Lab Sample ID: LCS 440-641542/5
Matrix: Water
Analysis Batch: 641542

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	RPD
Nitrate as N	1.13	1.12		mg/L		99	90 - 110	
Nitrite as N	1.52	1.54		mg/L		101	90 - 110	

Lab Sample ID: 440-280664-1 MS
Matrix: Water
Analysis Batch: 641542

Client Sample ID: Stormwater_03162021_SW4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.	
									Limits	RPD
Nitrate as N	1.2		1.13	2.28		mg/L		97	80 - 120	
Nitrite as N	0.088	J	1.52	1.72		mg/L		107	80 - 120	

Lab Sample ID: 440-280664-1 MSD
Matrix: Water
Analysis Batch: 641542

Client Sample ID: Stormwater_03162021_SW4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec.		RPD
									Limits	RPD	
Nitrate as N	1.2		1.13	2.29		mg/L		98	80 - 120	0	20
Nitrite as N	0.088	J	1.52	1.74		mg/L		108	80 - 120	1	20

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 440-641543/6
Matrix: Water
Analysis Batch: 641543

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			03/17/21 12:49	1
Fluoride	ND		0.50	0.25	mg/L			03/17/21 12:49	1

Lab Sample ID: LCS 440-641543/5
Matrix: Water
Analysis Batch: 641543

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.99		mg/L		100	90 - 110
Fluoride	5.00	5.01		mg/L		100	90 - 110

Lab Sample ID: 440-280664-1 MS
Matrix: Water
Analysis Batch: 641543

Client Sample ID: Stormwater_03162021_SW4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	22	E	5.00	28.5	E 4	mg/L		122	80 - 120
Fluoride	0.81		5.00	5.53		mg/L		94	80 - 120

Lab Sample ID: 440-280664-1 MSD
Matrix: Water
Analysis Batch: 641543

Client Sample ID: Stormwater_03162021_SW4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	22	E	5.00	28.5	E 4	mg/L		124	80 - 120	0	20
Fluoride	0.81		5.00	5.61		mg/L		96	80 - 120	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 440-642048/1-A
Matrix: Water
Analysis Batch: 642240

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 642048

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10	0.050	mg/L		03/23/21 10:37	03/24/21 12:12	1

Lab Sample ID: LCS 440-642048/2-A
Matrix: Water
Analysis Batch: 642240

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 642048

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.500	0.461		mg/L		92	85 - 115

Lab Sample ID: 440-280817-O-4-B MS
Matrix: Water
Analysis Batch: 642240

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 642048

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	1.3		0.500	1.76		mg/L		94	70 - 130

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 440-280817-O-4-C MSD
 Matrix: Water
 Analysis Batch: 642240

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total Recoverable
 Prep Batch: 642048

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	1.3		0.500	1.69		mg/L		81	70 - 130	4	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 440-641915/1-A
 Matrix: Water
 Analysis Batch: 641958

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 641915

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.010	0.0050	mg/L		03/22/21 09:11	03/22/21 14:23	1
Antimony	ND		0.0020	0.00050	mg/L		03/22/21 09:11	03/22/21 14:23	1
Arsenic	ND		0.0010	0.00050	mg/L		03/22/21 09:11	03/22/21 14:23	1
Cadmium	ND		0.0010	0.00025	mg/L		03/22/21 09:11	03/22/21 14:23	1
Copper	ND		0.0020	0.00050	mg/L		03/22/21 09:11	03/22/21 14:23	1
Lead	ND		0.0010	0.00050	mg/L		03/22/21 09:11	03/22/21 14:23	1
Manganese	ND		0.0010	0.00050	mg/L		03/22/21 09:11	03/22/21 14:23	1
Nickel	ND		0.0020	0.00050	mg/L		03/22/21 09:11	03/22/21 14:23	1
Selenium	ND		0.0020	0.00050	mg/L		03/22/21 09:11	03/22/21 14:23	1
Silver	ND		0.0010	0.00050	mg/L		03/22/21 09:11	03/22/21 14:23	1
Zinc	0.00292	J	0.020	0.0025	mg/L		03/22/21 09:11	03/22/21 14:23	1

Lab Sample ID: MB 440-641915/1-A
 Matrix: Water
 Analysis Batch: 641985

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 641915

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.00050	0.00025	mg/L		03/22/21 09:11	03/22/21 17:31	1

Lab Sample ID: LCS 440-641915/2-A
 Matrix: Water
 Analysis Batch: 641958

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 641915

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	0.0800	0.0809		mg/L		101	85 - 115
Antimony	0.0800	0.0880		mg/L		110	85 - 115
Arsenic	0.0800	0.0804		mg/L		101	85 - 115
Cadmium	0.0800	0.0793		mg/L		99	85 - 115
Copper	0.0800	0.0826		mg/L		103	85 - 115
Lead	0.0800	0.0835		mg/L		104	85 - 115
Manganese	0.0800	0.0823		mg/L		103	85 - 115
Nickel	0.0800	0.0827		mg/L		103	85 - 115
Selenium	0.0800	0.0798		mg/L		100	85 - 115
Silver	0.0800	0.0806		mg/L		101	85 - 115
Zinc	0.0800	0.0792		mg/L		99	85 - 115

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 440-641915/2-A
Matrix: Water
Analysis Batch: 641985

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 641915

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Beryllium	0.0800	0.0769		mg/L		96	85 - 115

Lab Sample ID: 440-280664-1 MS
Matrix: Water
Analysis Batch: 641958

Client Sample ID: Stormwater_03162021_SW4
Prep Type: Total Recoverable
Prep Batch: 641915

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Aluminum	2.3		0.0800	2.65	4	mg/L		400	70 - 130
Antimony	0.0011	J	0.0800	0.0879		mg/L		108	70 - 130
Arsenic	0.0023		0.0800	0.0849		mg/L		103	70 - 130
Cadmium	0.0015		0.0800	0.0805		mg/L		99	70 - 130
Copper	0.012		0.0800	0.0925		mg/L		101	70 - 130
Lead	0.0022		0.0800	0.0842		mg/L		103	70 - 130
Manganese	2.2		0.0800	2.32	4	mg/L		133	70 - 130
Nickel	0.078		0.0800	0.159		mg/L		101	70 - 130
Selenium	0.0024		0.0800	0.0821		mg/L		100	70 - 130
Silver	ND		0.0800	0.0775		mg/L		97	70 - 130
Zinc	0.059	B	0.0800	0.131		mg/L		89	70 - 130

Lab Sample ID: 440-280664-1 MS
Matrix: Water
Analysis Batch: 641985

Client Sample ID: Stormwater_03162021_SW4
Prep Type: Total Recoverable
Prep Batch: 641915

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Beryllium	ND		0.0800	0.0740		mg/L		92	70 - 130

Lab Sample ID: 440-280664-1 MSD
Matrix: Water
Analysis Batch: 641958

Client Sample ID: Stormwater_03162021_SW4
Prep Type: Total Recoverable
Prep Batch: 641915

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aluminum	2.3		0.0800	2.62	4	mg/L		364	70 - 130	1	20
Antimony	0.0011	J	0.0800	0.0866		mg/L		107	70 - 130	2	20
Arsenic	0.0023		0.0800	0.0833		mg/L		101	70 - 130	2	20
Cadmium	0.0015		0.0800	0.0789		mg/L		97	70 - 130	2	20
Copper	0.012		0.0800	0.0907		mg/L		98	70 - 130	2	20
Lead	0.0022		0.0800	0.0823		mg/L		100	70 - 130	2	20
Manganese	2.2		0.0800	2.25	4	mg/L		50	70 - 130	3	20
Nickel	0.078		0.0800	0.157		mg/L		99	70 - 130	1	20
Selenium	0.0024		0.0800	0.0805		mg/L		98	70 - 130	2	20
Silver	ND		0.0800	0.0739		mg/L		92	70 - 130	5	20
Zinc	0.059	B	0.0800	0.130		mg/L		88	70 - 130	1	20

Lab Sample ID: 440-280664-1 MSD
Matrix: Water
Analysis Batch: 641985

Client Sample ID: Stormwater_03162021_SW4
Prep Type: Total Recoverable
Prep Batch: 641915

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Beryllium	ND		0.0800	0.0729		mg/L		91	70 - 130	1	20

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QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 440-642580/1-A
Matrix: Water
Analysis Batch: 642675

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 642580

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		03/29/21 10:45	03/29/21 17:55	1

Lab Sample ID: LCS 440-642580/2-A
Matrix: Water
Analysis Batch: 642675

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 642580

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00600	0.00644		mg/L		107	85 - 115

Lab Sample ID: 440-280744-A-1-A MS
Matrix: Water
Analysis Batch: 642675

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 642580

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00600	0.00634		mg/L		106	75 - 125

Lab Sample ID: 440-280744-A-1-B MSD
Matrix: Water
Analysis Batch: 642675

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 642580

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00600	0.00624		mg/L		104	75 - 125	1	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-137758/1-A
Matrix: Water
Analysis Batch: 138118

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 137758

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	ND		1.0	0.80	mg/L		03/22/21 15:52	03/23/21 17:41	1

Lab Sample ID: LCS 570-137758/2-A
Matrix: Water
Analysis Batch: 138118

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 137758

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM: Oil and Grease	40.0	37.00		mg/L		92	78 - 114

Lab Sample ID: LCSD 570-137758/3-A
Matrix: Water
Analysis Batch: 138118

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 137758

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM: Oil and Grease	40.0	40.20		mg/L		101	78 - 114	8	18

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Method: 2540 D - TSS

Lab Sample ID: MB 440-641760/1
Matrix: Water
Analysis Batch: 641760

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	0.50	mg/L			03/18/21 18:36	1

Lab Sample ID: LCS 440-641760/2
Matrix: Water
Analysis Batch: 641760

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	1000	994		mg/L		99	85 - 115

Lab Sample ID: 440-280647-B-4 DU
Matrix: Water
Analysis Batch: 641760

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	28		27.3		mg/L		2	10

Method: 365.3 - Phosphorus, Total

Lab Sample ID: MB 440-642481/1-A
Matrix: Water
Analysis Batch: 642494

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 642481

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus, Total	ND		0.050	0.025	mg/L		03/26/21 15:09	03/26/21 16:52	1

Lab Sample ID: LCS 440-642481/2-A
Matrix: Water
Analysis Batch: 642494

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 642481

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	0.500	0.490		mg/L		98	80 - 120

Lab Sample ID: 440-280647-A-7-E MS
Matrix: Water
Analysis Batch: 642494

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 642481

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	0.28		0.500	0.739		mg/L		92	75 - 125

Lab Sample ID: 440-280647-A-7-F MSD
Matrix: Water
Analysis Batch: 642494

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 642481

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phosphorus, Total	0.28		0.500	0.715		mg/L		88	75 - 125	3	20

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Method: SM 4500 NH3 D - Ammonia

Lab Sample ID: MB 440-641664/2-A
 Matrix: Water
 Analysis Batch: 641666

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 641664

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.50	0.10	mg/L		03/18/21 04:30	03/18/21 05:30	1

Lab Sample ID: LCS 440-641664/1-A
 Matrix: Water
 Analysis Batch: 641666

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 641664

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	2.50	2.28		mg/L		91	85 - 115

Lab Sample ID: 440-280695-A-1-A MS
 Matrix: Water
 Analysis Batch: 641666

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 641664

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.56		2.50	2.92		mg/L		94	75 - 125

Lab Sample ID: 440-280695-A-1-B MSD
 Matrix: Water
 Analysis Batch: 641666

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total/NA
 Prep Batch: 641664

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	0.56		2.50	2.80		mg/L		89	75 - 125	4	15

Lab Sample ID: 440-280695-B-1-A DU
 Matrix: Water
 Analysis Batch: 641666

Client Sample ID: Duplicate
 Prep Type: Total/NA
 Prep Batch: 641664

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ammonia (as N)	0.56		0.563		mg/L		0	15

Method: SM 5220D - COD

Lab Sample ID: MB 440-642243/3
 Matrix: Water
 Analysis Batch: 642243

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			03/24/21 14:29	1

Lab Sample ID: LCS 440-642243/4
 Matrix: Water
 Analysis Batch: 642243

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	190		mg/L		95	90 - 110

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Method: SM 5220D - COD (Continued)

Lab Sample ID: 440-280765-N-9 MS
Matrix: Water
Analysis Batch: 642243

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
Chemical Oxygen Demand	ND		200	187		mg/L		94	70 - 120

Lab Sample ID: 440-280765-N-9 MSD
Matrix: Water
Analysis Batch: 642243

Client Sample ID: Matrix Spike Duplicate
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	182		mg/L		91	70 - 120	3	15

Lab Sample ID: 440-280932-B-1 DU
Matrix: Water
Analysis Batch: 642243

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chemical Oxygen Demand	66		73.9		mg/L		11	15

Method: SM5210B - BOD, 5 Day

Lab Sample ID: USB 440-641693/3
Matrix: Water
Analysis Batch: 641693

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

Analyte	USB Result	USB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			03/18/21 10:02	1

Lab Sample ID: LCS 440-641693/7
Matrix: Water
Analysis Batch: 641693

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	199	190		mg/L		96	85 - 115

Lab Sample ID: LCSD 440-641693/8
Matrix: Water
Analysis Batch: 641693

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Biochemical Oxygen Demand	199	179		mg/L		90	85 - 115	6	20

Lab Sample ID: LCSD 440-641693/9
Matrix: Water
Analysis Batch: 641693

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Biochemical Oxygen Demand	199	180		mg/L		91	85 - 115	5	20

QC Sample Results

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Method: SM5210B - BOD, 5 Day (Continued)

Lab Sample ID: 440-280707-A-1 DU
Matrix: Water
Analysis Batch: 641693

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	9.6		10.1		mg/L		5	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

QC Association Summary

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

GC/MS VOA

Analysis Batch: 137080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	8260B	
MB 570-137080/7	Method Blank	Total/NA	Water	8260B	
LCS 570-137080/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-137080/5	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 137457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	625	
MB 570-137457/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 137690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	625.1	137457
MB 570-137457/1-A	Method Blank	Total/NA	Water	625.1	137457

Prep Batch: 137840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	3510C	
MB 570-137840/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-137840/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-137840/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 138299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	8270C	137840

Analysis Batch: 138301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-137840/1-A	Method Blank	Total/NA	Water	8270C	137840
LCS 570-137840/2-A	Lab Control Sample	Total/NA	Water	8270C	137840
LCSD 570-137840/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	137840

GC Semi VOA

Prep Batch: 137839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	608	
MB 570-137839/1-A	Method Blank	Total/NA	Water	608	
LCS 570-137839/4-A	Lab Control Sample	Total/NA	Water	608	
LCSD 570-137839/5-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 138238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	608.3	137839
MB 570-137839/1-A	Method Blank	Total/NA	Water	608.3	137839
LCS 570-137839/4-A	Lab Control Sample	Total/NA	Water	608.3	137839
LCSD 570-137839/5-A	Lab Control Sample Dup	Total/NA	Water	608.3	137839

QC Association Summary

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

HPLC/IC

Analysis Batch: 641542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	300.0	
MB 440-641542/6	Method Blank	Total/NA	Water	300.0	
LCS 440-641542/5	Lab Control Sample	Total/NA	Water	300.0	
440-280664-1 MS	Stormwater_03162021_SW4	Total/NA	Water	300.0	
440-280664-1 MSD	Stormwater_03162021_SW4	Total/NA	Water	300.0	

Analysis Batch: 641543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	300.0	
440-280664-1 - DL	Stormwater_03162021_SW4	Total/NA	Water	300.0	
MB 440-641543/6	Method Blank	Total/NA	Water	300.0	
LCS 440-641543/5	Lab Control Sample	Total/NA	Water	300.0	
440-280664-1 MS	Stormwater_03162021_SW4	Total/NA	Water	300.0	
440-280664-1 MSD	Stormwater_03162021_SW4	Total/NA	Water	300.0	

Analysis Batch: 642324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	NO3NO2 Calc	

Metals

Prep Batch: 641915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total Recoverable	Water	200.2	
MB 440-641915/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-641915/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-280664-1 MS	Stormwater_03162021_SW4	Total Recoverable	Water	200.2	
440-280664-1 MSD	Stormwater_03162021_SW4	Total Recoverable	Water	200.2	

Analysis Batch: 641958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total Recoverable	Water	200.8	641915
MB 440-641915/1-A	Method Blank	Total Recoverable	Water	200.8	641915
LCS 440-641915/2-A	Lab Control Sample	Total Recoverable	Water	200.8	641915
440-280664-1 MS	Stormwater_03162021_SW4	Total Recoverable	Water	200.8	641915
440-280664-1 MSD	Stormwater_03162021_SW4	Total Recoverable	Water	200.8	641915

Analysis Batch: 641985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total Recoverable	Water	200.8	641915
MB 440-641915/1-A	Method Blank	Total Recoverable	Water	200.8	641915
LCS 440-641915/2-A	Lab Control Sample	Total Recoverable	Water	200.8	641915
440-280664-1 MS	Stormwater_03162021_SW4	Total Recoverable	Water	200.8	641915
440-280664-1 MSD	Stormwater_03162021_SW4	Total Recoverable	Water	200.8	641915

Prep Batch: 642048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total Recoverable	Water	200.2	
MB 440-642048/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-642048/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-280817-O-4-B MS	Matrix Spike	Total Recoverable	Water	200.2	

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QC Association Summary

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Metals (Continued)

Prep Batch: 642048 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280817-O-4-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.2	

Analysis Batch: 642240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total Recoverable	Water	200.7 Rev 4.4	642048
MB 440-642048/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	642048
LCS 440-642048/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	642048
440-280817-O-4-B MS	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	642048
440-280817-O-4-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	642048

Prep Batch: 642580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	245.1	
MB 440-642580/1-A	Method Blank	Total/NA	Water	245.1	
LCS 440-642580/2-A	Lab Control Sample	Total/NA	Water	245.1	
440-280744-A-1-A MS	Matrix Spike	Total/NA	Water	245.1	
440-280744-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 642675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	245.1	642580
MB 440-642580/1-A	Method Blank	Total/NA	Water	245.1	642580
LCS 440-642580/2-A	Lab Control Sample	Total/NA	Water	245.1	642580
440-280744-A-1-A MS	Matrix Spike	Total/NA	Water	245.1	642580
440-280744-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	642580

General Chemistry

Prep Batch: 137758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	1664A	
MB 570-137758/1-A	Method Blank	Total/NA	Water	1664A	
LCS 570-137758/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 570-137758/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	

Analysis Batch: 138118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	1664A	137758
MB 570-137758/1-A	Method Blank	Total/NA	Water	1664A	137758
LCS 570-137758/2-A	Lab Control Sample	Total/NA	Water	1664A	137758
LCSD 570-137758/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	137758

Prep Batch: 641664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	SM 4500 NH3 B	
MB 440-641664/2-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 440-641664/1-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
440-280695-A-1-A MS	Matrix Spike	Total/NA	Water	SM 4500 NH3 B	
440-280695-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 NH3 B	
440-280695-B-1-A DU	Duplicate	Total/NA	Water	SM 4500 NH3 B	

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QC Association Summary

Client: Republic Services Inc
Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

General Chemistry

Analysis Batch: 641666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	SM 4500 NH3 D	641664
MB 440-641664/2-A	Method Blank	Total/NA	Water	SM 4500 NH3 D	641664
LCS 440-641664/1-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 D	641664
440-280695-A-1-A MS	Matrix Spike	Total/NA	Water	SM 4500 NH3 D	641664
440-280695-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 NH3 D	641664
440-280695-B-1-A DU	Duplicate	Total/NA	Water	SM 4500 NH3 D	641664

Analysis Batch: 641693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	SM5210B	
USB 440-641693/3	Method Blank	Total/NA	Water	SM5210B	
LCS 440-641693/7	Lab Control Sample	Total/NA	Water	SM5210B	
LCSD 440-641693/8	Lab Control Sample Dup	Total/NA	Water	SM5210B	
LCSD 440-641693/9	Lab Control Sample Dup	Total/NA	Water	SM5210B	
440-280707-A-1 DU	Duplicate	Total/NA	Water	SM5210B	

Analysis Batch: 641760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	2540 D	
MB 440-641760/1	Method Blank	Total/NA	Water	2540 D	
LCS 440-641760/2	Lab Control Sample	Total/NA	Water	2540 D	
440-280647-B-4 DU	Duplicate	Total/NA	Water	2540 D	

Analysis Batch: 642243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	SM 5220D	
MB 440-642243/3	Method Blank	Total/NA	Water	SM 5220D	
LCS 440-642243/4	Lab Control Sample	Total/NA	Water	SM 5220D	
440-280765-N-9 MS	Matrix Spike	Total/NA	Water	SM 5220D	
440-280765-N-9 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
440-280932-B-1 DU	Duplicate	Total/NA	Water	SM 5220D	

Prep Batch: 642481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	365.2/365.3/365	
MB 440-642481/1-A	Method Blank	Total/NA	Water	365.2/365.3/365	
LCS 440-642481/2-A	Lab Control Sample	Total/NA	Water	365.2/365.3/365	
440-280647-A-7-E MS	Matrix Spike	Total/NA	Water	365.2/365.3/365	
440-280647-A-7-F MSD	Matrix Spike Duplicate	Total/NA	Water	365.2/365.3/365	

Analysis Batch: 642494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-280664-1	Stormwater_03162021_SW4	Total/NA	Water	365.3	642481
MB 440-642481/1-A	Method Blank	Total/NA	Water	365.3	642481
LCS 440-642481/2-A	Lab Control Sample	Total/NA	Water	365.3	642481
440-280647-A-7-E MS	Matrix Spike	Total/NA	Water	365.3	642481
440-280647-A-7-F MSD	Matrix Spike Duplicate	Total/NA	Water	365.3	642481

Definitions/Glossary

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Qualifiers

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
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.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
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.
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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Republic Services Inc
 Project/Site: Republic-Sunshine Canyon - Stormwater

Job ID: 440-280664-1

Laboratory: Eurofins Calscience Irvine

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

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-21
Arizona	State	AZ0671	10-14-21
California	Los Angeles County Sanitation Districts	10256	06-30-21
California	State	2706	06-30-21
Guam	State	21-003R	01-23-22
Hawaii	State	CA01531	01-29-22
Kansas	NELAP	E-10420	07-31-21
Nevada	State	CA015312021-5	07-31-21
Oregon	NELAP	4028 - 009	01-29-22
USDA	US Federal Programs	P330-21-00022	02-02-24
Washington	State	C900	09-03-21

Laboratory: Eurofins Calscience LLC

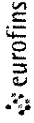
All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	20-003R	10-31-20 *
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



Chain of Custody Record



Client Information Client Contact: Tuong-Phu Ngo Phone: 818-480-0021		Lab P.M.: Rossina Tomova E-Mail: Rossina.Tomova@Eurofins.com		Carter Tracking No(s): Job #:		COC No: Page: Page 1 of 1	
Company: Republic Services Address: 14747 San Fernando Road City: Sylmar State/Zip: CA, 91342 Phone: 818-362-2096 Email: trng@republicservices.com Project Name: SCL Storm Water Site: Sunshine Canyon Landfill		Due Date Requested: TAT Requested (days): Standard 2 Weeks PO #: _____ WO #: _____ Project #: _____ SSO#: _____		Analysis Requested <input checked="" type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Oil & Grease (EPA 1664 HEM) <input checked="" type="checkbox"/> TSS (SM 2540-D) <input checked="" type="checkbox"/> Metals (EPA 200.7 200.8, & 245.1) <input checked="" type="checkbox"/> a-Terpineol (EPA 825) <input checked="" type="checkbox"/> Ammonia as N (SM 4500) <input checked="" type="checkbox"/> BOD (SM 5210B) <input checked="" type="checkbox"/> Semi-VOCs (SM 8270C), PCBs (EPA 608) <input checked="" type="checkbox"/> SM 8260B- Project VOCs <input checked="" type="checkbox"/> Semivolatiles (SM 8270) <input checked="" type="checkbox"/> Acrylonitrile (SM 8260b) <input checked="" type="checkbox"/> Chloride, fluoride, nitrate+nitrite (N) <input checked="" type="checkbox"/> Total phosphorus (EPA 355.3) <input checked="" type="checkbox"/> COD (SM 5220D) <input checked="" type="checkbox"/> Total Number of Containers		Preservation Codes: A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSO4 F MeOH G Amchlor H Ascorbic Acid I Ice J DI Water K EDTA L EDA Other: _____ M Hexane N None O AsNaO2 P Na2OAS Q Na2SO3 R Na2SO4 S H2SO4 T TSP Dodecylhydrate U Acetone V MCAA W pH 4-5 Z other (specify)	
Sample Identification Stormwater_03162021 SW4		Sample Date: 3/16/21	Sample Time: 1:00 PM	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Solid, O=Other)	Special Instructions/Note: EPA 200.0 Field pH: 6.80 12/1/15	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I II III, IV Other (specify) EDD to Trihydro Project/Direct Database							
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: Tuong-Phu Ngo Date/Time: 3-16-2021 3:00 PM PST Company: Republic Services Relinquished by: _____ Date/Time: 3-17-21 14:30 Company: B-T Relinquished by: _____ Date/Time: _____ Company: _____ Custody Seals Intact: _____ Custody Seal No. _____ A Yes Δ No							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: _____ Method of Shipment: Lab Courier Received by: _____ Date/Time: 3-17-21 9:20 Company: B-T Received by: _____ Date/Time: 3/17/21 14:30 Company: B-T Received by: _____ Date/Time: _____ Company: _____ Cooler Temperature(s) °C and Other Remarks: Temp 16/13/12.9							



Chain of Custody Record



Client Information (Sub Contract Lab)			Sampler:	Lab PM:	Carrier Tracking No(s):
Client Contact: Shipping/Receiving			Phone:	Tomova, Rossina D	COC No: 440-1671011
Company: Eurofins Calsciencce LLC			E-Mail:	Rossina Tomova@Eurofinset.com	Page: Page 1 of 1
Address: 7440 Lincoln Way,			Accreditations Required (See note): 440-280664-1		
City: Garden Grove			Analysis Requested		
State, Zip: CA, 92841			M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - EDA Z - other (specify)		
Phone: 714-895-5494(Tel) 714-894-7501(Fax)			Preservation Codes		
Email:			A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		
Project Name: Republic-Sunshine Canyon - Stormwater			Total Number of Containers		
Site: Stormwater_03162021_SW4 (440-280664-1)			12		
Special Instructions/Note:			Special Instructions/Note:		
Due Date Requested: 3/30/2021			Field Filtered Sample (Yes or No)		
TAT Requested (days):			Perform MS/MSD (Yes or No)		
PO #:			625_1/625_Prep (MOD) Custom List		
WC #:			608_3_PCB/608_Prep_PCB Standard 608 PCB list		
Project #: 44003139			8270C/3510C (MOD) Custom 8270C Semi-Volatiles List		
SSOW#:			8260B_1/L/5030C_UP (MOD) Custom 8260B Volatiles List		
Sample Date			1664A/1664A_P_W HEM Only List		
Sample Time			13:00 Pacific		
Sample Type (C=comp, G=grab)			Water		
Matrix (Water, Solid, Other)			Preservation Code:		

Note: Since laboratory accreditations are subject to change, Eurofins Calsciencce places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calsciencce laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calsciencce attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calsciencce.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank, 2

Special Instructions/QC Requirements

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

Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by:	Date:	Received by:	Date/Time:
Relinquished by:	3-18-21 11:30	Company: K-FAC	3/18/21 11:30
Relinquished by:		Company:	
Relinquished by:		Company:	
Custody Seals Intact:	Custody Seal No	Cooler Temperature(s) °C and Other Remarks:	
Δ Yes Δ No	N/A	3-7/26 5/6	

Login Sample Receipt Checklist

Client: Republic Services Inc

Job Number: 440-280664-1

Login Number: 280664

List Number: 1

Creator: Escalante, Maria I

List Source: Eurofins Irvine

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.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 (excluding tests with immediate HTs)	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	



Login Sample Receipt Checklist

Client: Republic Services Inc

Job Number: 440-280664-1

Login Number: 280664

List Number: 2

Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience

List Creation: 03/18/21 04:23 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX C

MONTHLY VADOSE ZONE GAS MONITORING REPORTS

SUNSHINE CANYON CITY PERIMETER PROBE MONITORING DATA

TECHNICIAN: <u>A Pomo</u>		TEMPERATURE: <u>66</u>		BARO. PRESSURE: <u>27.98</u>					
GEM SERIAL #: <u>G500485</u>		WEATHER CONDITIONS: <u>SUNNY, WINDS</u>							
PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
213									
A-13	1-19-21	742	+0.07	0	1.4	17.2	81.5	2	
B-29	1-19-21	744	+1.39	0	.1	17.0	82.9	2	
C-45	1-19-21	746	-.13	.1	.1	19.2	80.6	3	
D-61	1-19-21	750	-.29	0	.1	21.0	78.9	4	
E-77	1-19-21	754	-5.61	0	.1	20.9	79.0	4	
214									
A-13	1-19-21	807	-.37	0	.6	20.6	78.8	2	
B-30	1-19-21	809	-11.31	0	.1	20.9	79.0	2	
C-48	1-19-21	811	-15.44	0	.8	20.3	78.9	3	
215									
A-13	1-19-21	833	+0.02	0	4.7	9.8	85.5	2	
B-30	1-19-21	835	+0.02	0	5.5	10.5	84.0	2	
C-47	1-19-21	838	0	0	.1	20.7	79.2	3	
D-64	1-19-21	842	-.28	0	.6	19.7	79.7	4	
E-81	1-19-21	845	+1.14	0	3.9	11.8	84.3	4	
216									
A-14	1-19-21	902	+1.13	0	.1	18.0	81.9	2	
B-43	1-19-21	904	0	0	.1	20.7	79.2	2	
C-62	1-19-21	907	-0.01	0	8.4	5.8	85.8	3	
D-86	1-19-21	911	-.01	0	.4	20.0	79.6	4	
E-110	1-19-21	915	-.05	0	1.7	18.1	80.2	4	
217									
A-13	1-19-21	932	-.10	0	4.3	17.3	78.4	2	
B-30	1-19-21	934	+0.09	0	2.1	19.0	78.9	2	
218R									
A-11	1-19-21	944	0	0	19.1	3.7	79.2	2	
B-26.5	1-19-21	946	-.39	0	22.6	5.1	72.3	2	
B-30	1-19-21	948	+0.05	0	65.9	3.9	30.2	2	
219									
A-13	1-19-21	1013	+0.05	0	.8	20.1	79.1	2	
B-64	1-19-21	1015	+1.1	0	4.8	17.0	78.2	2	
C-115	1-19-21	1018	+0.02	0	2.2	17.0	80.8	3	
D-166	1-19-21	1022	+0.05	0	.6	20.0	79.4	4	
E-217	1-19-21	1026	+0.04	0	4.0	14.3	81.7	4	

SCS SIGNATURE: 

LEA SIGNATURE _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
220									
A-14	01/19/21	11:25	+0.49	0.0	1.9	18.9	79.2	2	
B-40	01/19/21	11:27	-0.05	0.0	5.2	15.3	79.5	2	
C-87	01/19/21	11:30	+0.30	0.0	7.0	13.1	79.9	3	
D-124	01/19/21	11:34	+0.51	0.0	6.9	10.3	82.8	4	
E-158	01/19/21	11:38	+0.08	0.0	3.7	15.2	81.2	4	
220B									
A-14	01/19/21	10:29	-0.02	0.0	1.4	18.4	80.2	2	
B-38	01/19/21	10:31	-0.05	0.0	0.1	20.3	79.6	2	
C-62	01/19/21	10:33	-0.36	0.0	5.4	12.7	81.9	3	
D-86	01/19/21	10:37	-0.19	0.0	3.2	12.3	80.5	4	
E-110	01/19/21	10:41	-0.18	0.0	2.4	17.1	80.4	4	
221									
A-13	01/19/21	8:58	+0.05	0.0	1.9	15.4	82.7	2	
B-56	01/19/21	9:00	-0.10	0.0	7.8	3.7	88.6	2	
C-99	01/19/21	9:03	+0.10	0.1	10.9	0.9	88.2	3	
D-142	01/19/21	9:06	-0.06	0.0	0.1	20.8	79.2	4	
E-185	01/19/21	9:10	-0.03	0.0	3.8	10.1	86.0	4	
222									
A-13	01/19/21	9:34	-0.06	0.0	3.1	16.6	80.3	2	
B-54.8	01/19/21	9:36	+0.01	0.0	0.1	20.5	79.4	2	
C-96.5	01/19/21	9:38	-0.10	0.0	0.4	20.1	79.5	3	
D-138.3	01/19/21	9:40	+0.14	0.3	5.7	10.7	83.2	4	
E-180	01/19/21	9:45	+3.00	0.0	6.4	0.0	93.6	4	
223									
A-13	01/19/21	8:20	-0.04	0.0	5.7	9.5	84.8	2	
B-37.5	01/19/21	8:22	-0.07	0.0	7.3	8.8	83.9	2	
C-62	01/19/21	8:25	-0.38	0.0	5.3	12.2	82.5	3	
D-86.5	01/19/21	8:29	-0.24	0.0	2.3	16.6	81.1	4	
E-111	01/19/21	8:34	+0.03	0.0	3.8	14.5	81.7	4	
224									
A-13	01/19/21	7:45	-0.31	0.0	1.2	17.9	80.9	2	
B-67.5	01/19/21	7:45	-0.05	0.0	6.5	4.8	88.6	2	
C-122	01/19/21	7:51	-0.17	0.4	8.1	2.5	89.0	3	
D-177.5	01/19/21	7:54	-10.09	0.0	0.1	20.9	79.0	4	
E-232	01/19/21	7:59	-5.62	0.0	0.1	20.9	79.0	4	

SCS SIGNATURE:



LEA SIGNATURE: _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
225									
A-13	1-19	9:22	0.18	0.0	0.3	20.9	78.9	2	
B-72	1-19	9:24	-3.01	0.0	0.1	21.0	78.7	2	
C-1131	1-19	9:27	-5.92	0.0	6.3	20.8	78.9	3	
D-190	1-19	9:30	-6.66	0.0	0.2	21.0	78.8	4	
E-244	1-19	9:34	-6.42	0.0	0.7	20.5	78.8	4	
226									
A-13	1-19	7:59	-8.0	0.0	0.1	20.9	79.0	2	
B-64	1-19	8:01	-9.17	0.0	0.3	20.8	78.9	2	
C-114	1-19	8:04	-7.01	0.0	0.2	20.9	78.8	3	
D-164	1-19	8:10	-7.10	0.0	0.1	20.9	79.0	4	
E-208	1-19	8:12	-7.84	0.0	0.1	21.0	78.9	4	
227									
A-13	1-19	8:24	.27	0.0	4.7	0.8	94.4	2	
B-48.7	1-19	10:35	2.47	0.6	5.5	0.3	93.5	2	
C-84.4	1-19	9:11	.14	0.0	3.9	5.0	91.0	3	
D-114	1-19	8:30	3.06	0.0	4.2	0.0	95.8	4	
E-115.7	1-19	9:07	1.27	0.0	1.1	3.6	95.3	4	
228									
A-13	1-19	8:47	.14	0.0	0.8	18.7	80.5	2	
B-63	1-19	8:49	2.62	0.0	7.3	2.7	90.0	2	
C-113	1-19	10:45	1.45	0.6	7.2	0.3	91.8	3	
D-163	1-19	8:56	0.12	0.0	5.2	0.7	94.1	4	
E-213	1-19	8:53	2.08	0.0	5.0	3.5	91.5	4	
229									
A-13	1-19	7:34	-2.24	0.0	0.4	21.0	78.6	2	
B-48.7	1-19	7:36	.24	0.0	0.2	21.0	78.8	2	
C-84.4	1-19	7:38	-2.24	0.0	0.4	20.5	79.0	3	
D-114	1-19	7:40	-11.51	0.0	1.7	16.9	81.4	4	
E-155.7	1-19	7:45	-20.15	6.0	0.3	21.0	78.9	4	
230									
A-16								2	REMOVED DUE TO CONSTRUCTION
B-33								2	REMOVED DUE TO CONSTRUCTION
C-50								3	REMOVED DUE TO CONSTRUCTION
231									
A-13								2	REMOVED DUE TO CONSTRUCTION
B-26								2	REMOVED DUE TO CONSTRUCTION
C-39								3	REMOVED DUE TO CONSTRUCTION
D-51								4	REMOVED DUE TO CONSTRUCTION
E-66								4	REMOVED DUE TO CONSTRUCTION

SCS SIGNATURE: _____



LEA SIGNATURE: _____

SUNSHINE CANYON COUNTY PERIMETER PROBE MONITORING DATA

TECHNICIAN: <u>ABOMO/JAKE</u>		TEMPERATURE: <u>65</u>		BARO. PRESSURE: <u>28.08</u>					
GEM SERIAL #: <u>G500485</u>		WEATHER CONDITIONS: <u>SUNNY</u>							
PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
202									
A-10								2	REMOVED DUE TO CONSTRUCTION
B-25								2	REMOVED DUE TO CONSTRUCTION
C-38								3	REMOVED DUE TO CONSTRUCTION
203									
A-10	1-21-21	930	0	.1	1.5	18.9	79.6	2	
B-25	1-21-21	932	-0.01	.1	2.8	18.1	79.0	2	
C-40	1-21-21	935	-0.2	.1	1.6	19.2	79.2	3	
206									
A-10	1-21-21	1006	+1.19	0	10.5	8.7	80.8	2	
B-25	1-21-21	1008	+1.17	0	13.3	7.7	79.0	2	
C-40	1-21-21	1010	+2.21	0	18.1	1.6	78.3	3	
207									
A-10	1-21-21	1024	-5.6	.1	.6	19.6	79.7	2	
B-25	1-21-21	1026	-6.61	0	.3	20.2	79.5	2	
C-40	1-21-21	1028	-12.30	0	.1	20.3	79.6	3	
208									
A-9.1	1-21-21	945	+2.01	0	.1	20.6	79.1	2	
B-25	1-21-21	947	+0.9	0	4.0	17.1	78.9	2	
C-40	1-21-21	949	+1.11	0	5.4	14.0	80.6	3	
210									
A-10	1-21-21	835	-1.22	0	.2	20.8	79.0	2	
B-25	1-21-21	837	+1.02	0	.1	20.8	79.1	2	
C-39	1-21-21	839	-1.11	0	.1	20.8	79.1	3	
242									
C-42	1-21-21	847	+1.01	0	1.7	15.8	82.5	3	
D-60	1-21-21	850	+1.14	0	7.2	7.0	85.8	4	
E-78	1-21-21	857	+1.13	0	3.8	10.1	86.1	4	
243									
A-11	1-21-21	806	+1.3	.1	3.0	15.4	81.5	2	
B-20	1-21-21	808	-1.74	.1	4.1	10.0	85.8	2	
C-33	1-21-21	811	-1.27	.1	3.7	10.5	85.9	3	

SCS SIGNATURE: 

LEA SIGNATURE _____

SUNSHINE CANYON - COUNTY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
244									
A-11	1-21-21	916	-0.12	0	14.7	3.3	82.0	2	
B-21	1-21-21	918	-0.04	0	9.9	11.0	79.1	2	
C-36	1-21-21	920	-0.09	0	13.3	9.2	77.5	3	
245									
A-11	1-21-21	827	+0.07	.1	11.0	7.1	81.8	2	
B-20	1-21-21	830	-0.3	.2	7.6	17.3	78.9	2	
C-35	1-21-21	834	-0.43	.1	16.8	5.7	77.5	3	
D-50	1-21-21	839	-0.06	.2	15.4	4.0	80.5	4	
E-64	1-21-21	844	-0.63	0	.3	20.8	78.9	4	
246									
A-9								2	REMOVED DUE TO CONSTRUCTION
B-16								2	REMOVED DUE TO CONSTRUCTION
205R									
A-11	1-21-21	737	+0.03	.1	5.9	17.5	80.5	2	
B-20	1-21-21	741	+0.11	.1	11.1	10.0	78.9	2	
C-33	1-21-21	1123	-0.06	1.4	44.1	0	54.5	3	
D-48	1-21-21	1126	-0.08	1.9	46.4	0	51.7	4	
E-62	1-21-21	754	-0.46	0.2	23.2	.9	75.8	4	
239									
A-11	1-21-21	804	+0.08	0	15.2	14.1	70.7	2	
B-20	1-21-21	806	-0.02	0	.1	20.9	79.0	2	
C-35	1-21-21	808	+0.05	0	.1	21.0	78.9	3	
D-50	1-21-21	811	+0.06	0	.1	21.0	78.9	4	
E-64	1-21-21	815	+0.09	0	.1	21.0	78.9	4	
240									
A-11	1-21-21	739	+0.13	0	8.1	14.4	77.5	2	
B-20	1-21-21	741	+0.06	0	1.0	19.7	79.3	2	
C-33	1-21-21	743	-0.06	0	.1	20.5	79.4	3	
D-49	1-21-21	746	-0.04	0	.2	20.5	79.3	4	
E-61	1-21-21	750	0	.1	.1	20.7	79.1	4	

SCS SIGNATURE



LEA SIGNATURE: _____

SUNSHINE CANYON CITY PERIMETER PROBE MONITORING DATA

J. V. V. R. H. T. O

TECHNICIAN: <u>A. Romo</u>		TEMPERATURE: <u>61°</u>		BARO. PRESSURE: <u>23.28</u>					
SEM SERIAL #: <u>G500485</u>		WEATHER CONDITIONS: <u>Cloudy</u>							
PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
213									
A-13	2-15-21	755	-0.36	0	1.4	18.9	79.7	2	
B-29	2-15-21	757	-0.33	0	.1	19.5	80.4	2	
C-45	2-15-21	759	-1.53	0	.1	21.0	78.9	3	
D-61	2-15-21	804	-0.24	0	.1	20.8	79.1	4	
E-77	2-15-21	838	-0.21	0	.1	20.8	79.1	4	
214									
A-13	2-15-21	845	-0.21	0	.6	20.6	78.8	2	
B-30	2-15-21	847	-17.49	0	.1	21.0	78.9	2	
C-48	2-15-21	849	-18.48	0	.7	19.1	80.2	3	
215									
A-13	2-15-21	858	-0.52	0	.2	21.0	78.8	2	
B-30	2-15-21	900	-0.17	0	3.9	12.0	84.1	2	
C-47	2-15-21	902	-0.17	0	.1	21.1	78.8	3	
D-64	2-15-21	905	-0.12	0	.2	20.5	79.3	4	
E-81	2-15-21	909	-0.12	0	2.7	14.4	82.9	4	
216									
A-14	2-15-21	945	-0.17	0	.1	20.9	79.0	2	
B-43	2-15-21	947	-0.33	0	.1	20.9	79.0	2	
C-62	2-15-21	949	-0.16	0	.1	20.9	79.0	3	
D-86	2-15-21	952	+0.04	0	.1	20.9	79.0	4	
E-110	2-15-21	956	+0.04	0	2.8	14.1	83.1	4	
217									
A-13	2-15-21	1015	-0.27	0	3.9	17.6	78.5	2	
B-30	2-15-21	1017	-0.07	0	1.7	19.1	79.2	2	
218R									
A-11	2-15-21	1028	-0.22	0	20.8	.1	79.1	2	
B-26.5	2-15-21	1030	-0.08	0	25.2	2.7	72.1	2	
B-30	2-15-21	1032	-0.21	0	74.4	1.7	23.9	2	
219									
A-13	2-15-21	1048	-0.14	0	.9	19.4	79.7	2	
B-64	2-15-21	1050	-0.06	0	.1	20.7	79.7	2	
C-115	2-15-21	1052	-0.11	0	1.8	17.3	80.9	3	
D-166	2-15-21	1055	-0.11	0	.5	19.8	79.7	4	
E-217	2-15-21	1059	-0.08	0	4.2	13.0	82.8	4	

SCS SIGNATURE: Albert Romo

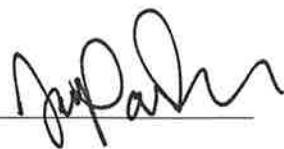
LEA SIGNATURE _____

John Palos
Probe
2/15/21

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
220									
A-14	2/15/21	11:09	-0.16	0.0	1.4	19.4	79.2	2	
B-40	2/15/21	11:11	-0.01	0.0	0.1	20.9	79.0	2	
C-87	2/15/21	11:13	-0.03	0.0	0.4	20.6	79.0	3	
D-124	2/15/21	11:16	+0.02	0.0	0.1	20.9	79.0	4	
E-158	2/15/21	11:21	-0.26	0.0	0.3	20.7	79.0	4	
220B									
A-14	2/15/21	10:39	0.02	0.0	1.0	20.1	79.0	2	
B-38	2/15/21	10:42	0.17	0.0	0.1	20.8	79.1	2	
C-62	2/15/21	10:45	-0.16	0.0	4.0	15.7	80.4	3	
D-86	2/15/21	10:48	0.14	0.0	2.1	16.1	79.7	4	
E-110	2/15/21	10:52	-0.03	0.0	1.7	16.6	79.7	4	
221									
A-13	2/15/21	9:35	+0.08	0.0	0.5	20.7	79.8	2	
B-56	2/15/21	9:38	-0.02	0.0	0.2	20.8	79.0	2	
C-99	2/15/21	9:41	0.11	0.0	0.4	20.7	79.8	3	
D-142	2/15/21	9:44	0.03	0.0	0.1	20.9	79.1	4	
E-185	2/15/21	9:49	-0.02	0.0	0.3	20.5	79.2	4	
222									
A-13	2/15/21	10:11	+0.02	0.0	2.0	16.8	79.2	2	
B-54.8	2/15/21	10:13	-0.10	0.0	0.1	20.9	79.0	2	
C-96.5	2/15/21	10:16	-0.00	0.0	0.2	20.8	79.0	3	
D-138.3	2/15/21	10:20	0.06	0.0	1.8	16.9	79.2	4	
E-180	2/15/21	10:25	-0.77	0.0	3.1	16.7	80.2	4	
223									
A-13	2/15/21	9:05	+0.07	0.0	5.1	12.9	82.0	2	
B-37.5	2/15/21	9:07	+0.04	0.0	6.2	8.3	83.5	2	
C-62	2/15/21	9:10	+0.05	0.0	1.6	18.3	80.1	3	
D-86.5	2/15/21	9:13	0.01	0.0	2.2	17.5	80.3	4	
E-111	2/15/21	9:17	0.17	0.0	2.3	17.3	80.4	4	
224									
A-13	2/15/21	8:31	-0.03	0.0	0.4	19.8	79.8	2	
B-67.5	2/15/21	8:37	+0.02	0.0	0.1	20.5	79.4	2	
C-122	2/15/21	8:40	-0.10	0.0	0.1	20.8	79.1	3	
D-177.5	2/15/21	8:43	13.92	-0.0	0.1	20.9	79.0	4	
E-232	2/15/21	8:49	10.21	0.0	0.1	20.9	79.0	4	

SCS SIGNATURE:



LEA SIGNATURE: _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
225	2-15-21								
A-13	2-15-21	9:15	-0.11	0.0	0.1	20.8	79.1	2	
B-72	2-15-21	9:18	-4.05	0.0	0.5	20.2	79.3	2	
C-1131	2-15-21	9:21	-9.33	0.0	0.7	19.6	79.7	3	
D-190	2-15-21	9:25	-10.20	0.0	0.1	20.5	79.3	4	
E-244	2-15-21	9:30	-10.23	0.0	0.1	20.4	79.5	4	
226									
A-13	2-15-21	8:25	+0.1	0.0	0.1	21.1	78.8	2	
B-64	2-15-21	8:28	-10.22	0.0	0.2	21.1	78.7	2	
C-114	2-15-21	8:12	-10.78	0.0	0.2	21.2	78.6	3	
D-164	2-15-21	8:16	-11.21	0.0	0.1	21.4	78.5	4	
E-208	2-15-21	8:20	-12.10	0.0	0.3	21.3	78.4	4	
227									
A-13	2-15-21	8:26	0.0	0.0	0.1	21.5	78.4	2	
B-48.7	2-15-21	8:29	-0.98	0.0	2.5	13.2	84.3	2	
C-84.4	2-15-21	8:33	-1.06	0.0	0.1	21.4	78.5	3	
D-114	2-15-21	8:37	-0.81	0.0	0.1	21.3	78.5	4	
E-115.7	2-15-21	8:52	-0.35	0.0	1.5	18.3	80.2	4	
228									
A-13	2-15-21	8:48	-0.04	0.0	0.1	21.0	78.9	2	
B-63	2-15-21	8:50	-0.82	0.0	2.4	14.9	82.8	2	
C-113	2-15-21	8:53	-0.43	0.0	0.2	20.9	78.9	3	
D-163	2-15-21	8:57	-0.61	0.0	0.9	20.2	79.0	4	
E-213	2-15-21	9:01	-0.62	0.0	1.8	17.2	81.0	4	
229									
A-13	2-15-21	7:42	-0.98	0.0	2.0	16.6	81.4	2	
B-48.7	2-15-21	7:44	-0.52	0.0	0.3	20.0	79.7	2	
C-84.4	2-15-21	7:47	-4.75	0.0	0.4	19.9	79.7	3	
D-114	2-15-21	7:52	-14.67	0.0	1.5	17.0	81.4	4	
E-155.7	2-15-21	7:57	-22.78	0.0	0.3	20.4	79.2	4	
230									
A-16								2	REMOVED DUE TO CONSTRUCTION
B-33								2	REMOVED DUE TO CONSTRUCTION
C-50								3	REMOVED DUE TO CONSTRUCTION
231									
A-13								2	REMOVED DUE TO CONSTRUCTION
B-26								2	REMOVED DUE TO CONSTRUCTION
C-39								3	REMOVED DUE TO CONSTRUCTION
D-51								4	REMOVED DUE TO CONSTRUCTION
E-66								4	REMOVED DUE TO CONSTRUCTION

SCS SIGNATURE:



LEA SIGNATURE:

SUNSHINE CANYON COUNTY PERIMETER PROBE MONITORING DATA

TECHNICIAN: Jake Vignato		TEMPERATURE: 61'		BARO. PRESSURE: 28.32					
SEM SERIAL #: G 506463		WEATHER CONDITIONS: Sunny							
PROBE NUMBER	DATE	TIME	PRESSURE (-/+)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
202									
A-10								2	REMOVED DUE TO CONSTRUCTION
B-25								2	REMOVED DUE TO CONSTRUCTION
C-38								3	REMOVED DUE TO CONSTRUCTION
203									
A-10	2-18-21	1:23	-01	0	1.7	19.2	79.1	2	
B-25	2-18-21	1:26	-11	0	2.9	18.2	78.9	2	
C-40	2-18-21	1:35	-03	0	3.9	17.5	78.2	3	
206									
A-10	2-18-21	3:14	.01	0	.1	20.6	79.2	2	
B-25	2-18-21	3:23	-01	0	11.0	11.9	77.1	2	
C-40	2-18-21	3:26	-15	0	17.7	8.5	73.7	3	
207									
A-10	2-18-21	1:53	-84	0	0	20.9	79.1	2	
B-25	2-18-21	1:57	-6.11	0	.3	20.5	79.1	2	
C-40	2-18-21	1:59	-41	0	0	20.8	79.1	3	
208									
A-9.1	2-18-21	1:39	-01	0	1.8	20.9	77.3	2	
B-25	2-18-21	1:41	-03	0	4.4	20.9	77.3	2	
C-40	2-18-21	1:44	-40	0	6.4	17.8	72.8	3	
210									
A-10	2-18-21	3:00	-32	0	.01	20.9	82.5	2	
B-25	2-18-21	3:02	-3.45	0	.07	20.4	85.5	2	
C-39	2-18-21	3:05	-6.86	0	.01	20.3	84.8	3	
242									
C-42	2-18-21	8:39	.06	0	1.5	15.9	82.5	3	
D-60	2-18-21	8:44	.05	0	7.9	16.6	85.5	4	
E-78	2-18-21	8:49	.04	0	4.3	10.8	84.8	4	
243									
A-11	2-18-21	9:56	-63	0	4.7	9.8	85.5	2	
B-20	2-18-21	9:58	-35	0	.5	20.0	79.5	2	
C-33	2-18-21	10:01	-1.36	0	.8	18.9	80.3	3	

SCS SIGNATURE: Jake Vignato

LEA SIGNATURE: _____

SUNSHINE CANYON - COUNTY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
244									
A-11	2-18-21	8:59	-0.26	0.0	9.5	9.5	81.0	2	
B-21	2-18-21	9:03	-0.46	0.0	19.4	0.1	80.5	2	
C-36	2-18-21	9:06	-1.26	0.0	22.1	10.8	77.1	3	
245									
A-11	2-18-21	10:08	+0.05	0.0	7.4	11.8	80.7	2	
B-20	2-18-21	10:11	-0.16	0.0	2.2	20.3	77.5	2	
C-35	2-18-21	10:15	-0.52	0.0	17.0	4.8	78.3	3	
D-50	2-18-21	10:19	-0.40	0.0	14.6	4.4	81.1	4	
E-64	2-18-21	10:24	-0.38	0.0	0.1	20.9	79.0	4	
246									
A-9								2	REMOVED DUE TO CONSTRUCTION
B-16								2	REMOVED DUE TO CONSTRUCTION
205R									
A-11	2-18-21	9:27	-0.15	0.0	6.6	11.2	82.2	2	
B-20	2-18-21	9:29	-0.71	0.0	0.2	20.0	79.8	2	
C-33	2-18-21	9:32	-1.11	0.7	24.4	4.3	64.6	3	
D-48	2-18-21	9:36	-0.71	1.0	29.3	6.2	63.4	4	
E-62	2-18-21	9:40	-2.72	0.0	21.2	1.1	77.8	4	
239									
A-11	2-18-21	8:06	0.06	0.0	20.2	11.1	68.7	2	
B-20	2-18-21	8:09	-1.22	0.0	0.2	21.3	78.5	2	
C-35	2-18-21	8:15	-0.03	0.0	0.2	20.9	78.9	3	
D-50	2-18-21	8:19	-1.26	0.0	0.2	20.7	79.1	4	
E-64	2-18-21	8:23	-1.14	0.0	0.2	20.6	79.2	4	
240									
A-11	2-18-21	7:56	+0.03	0.0	9.1	11.5	79.4	2	
B-20	2-18-21	7:58	+1.75	0.0	0.9	19.9	79.3	2	
C-33	2-18-21	7:41	-0.42	0.0	0.2	20.7	79.2	3	
D-49	2-18-21	7:45	-1.10	0.0	0.3	20.8	78.9	4	
E-61	2-18-21	7:50	-0.42	0.0	0.2	20.9	78.9	4	

SCS SINGATURE:



LEA SIGNATURE:


 G. Kosikarin

SUNSHINE CANYON CITY PERIMETER PROBE MONITORING DATA

Marcos Martinez

TECHNICIAN: A. ROMO		TEMPERATURE: 70		BARO. PRESSURE: 28.09					
SEM SERIAL #: G500485		WEATHER CONDITIONS: SUNNY							
PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
213									
A-13	3-23-21	816	-1.10	0	1.4	19.0	79.6	2	
B-29	3-23-21	819	-1.12	0	.6	18.4	81.0	2	
C-45	3-23-21	821	-1.29	0	.1	21.0	78.9	3	
D-61	3-23-21	824	-1.10	0	.1	20.9	79.0	4	
E-77	3-23-21	829	-6.88	0	.1	20.9	79.0	4	
214									
A-13	3-23-21	838	-1.10	0	.4	19.9	79.7	2	
B-30	3-23-21	840	-1.12	0	.2	20.5	79.3	2	
C-48	3-23-21	841	-2.78	0	.5	20.9	78.6	3	
215									
A-13	3-23-21	906	-5.75	0	4.6	12.5	82.9	2	
B-30	3-23-21	908	-3.36	0	5.6	6.2	88.2	2	
C-47	3-23-21	910	-0.04	0	.1	20.9	79.0	3	
D-64	3-23-21	915	-1.13	0	.4	20.6	79.5	4	
E-81	3-23-21	917	-0.05	0	3.4	12.3	84.3	4	
216									
A-14	3-23-21	933	-1.09	0	.1	20.7	79.2	2	
B-43	3-23-21	935	-1.05	0	2.9	16.0	81.7	2	
C-62	3-23-21	939	+0.05	0	8.0	6.3	85.7	3	
D-86	3-23-21	942	-1.01	0	1.1	18.0	80.9	4	
E-110	3-23-21	946	-6.54	0	1.3	18.5	80.2	4	
217									
A-13	3-23-21	1004	-1.03	0	3.5	18.0	78.5	2	
B-30	3-23-21	1006	-1.02	0	2.1	19.1	78.8	2	
218R									
A-11	3-23-21	1022	+1.01	0	20.0	1.2	78.8	2	
B-26.5	3-23-21	1024	+1.0	0	15.2	10.3	74.5	2	
B-30	3-23-21	1026	-1.02	0	63.2	4.2	32.6	2	
219									
A-13	3-23-21	1043	+1.35	0	1.2	18.2	80.6	2	
B-64	3-23-21	1045	+1.01	0	8.7	5.2	86.1	2	
C-115	3-23-21	1047	+1.01	0	2.3	16.2	81.5	3	
D-166	3-23-21	1050	-1.05	0	.6	19.8	79.6	4	
E-217	3-23-21	1051	+1.01	0	3.8	13.5	82.7	4	

SCS SIGNATURE: _____



LEA SIGNATURE _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
220									
A-14	3/23	8:40	+ .13	0.0	1.5	19.1	79.3	2	
B-40	3/23	8:42	+ .05	0.0	3.0	17.8	79.1	2	
C-87	3/23	8:46	+ .07	0.0	6.5	14.1	79.3	3	
D-124	3/23	8:50	+ .01	0.0	0.1	26.9	79.0	4	
E-158	3/23	8:55	+ .08	0.0	3.8	15.3	80.9	4	
220B									
A-14	3/23	9:16	+ .10	0.0	3.6	14.4	81.9	2	
B-38	3/23	9:19	+ .08	0.0	10.4	1.1	88.5	2	
C-62	3/23	9:23	+ .08	0.0	11.0	0.5	88.6	3	
D-86	3/23	9:27	- .06	0.0	9.2	4.5	86.3	4	
E-110	3/23	9:32	+ .07	0.0	5.2	11.8	83.0	4	
221									
A-13	3/23	9:48	+ .09	0.1	2.2	9.8	87.9	2	
B-56	3/23	9:50	+ .05	0.1	8.8	0.5	90.6	2	
C-99	3/23	9:54	+ .13	0.1	11.4	0.0	88.5	3	
D-142	3/23	9:58	+ .15	0.1	4.8	10.8	84.3	4	
E-185	3/23	10:03	+ .16	0.0	4.2	9.2	86.6	4	
222									
A-13	3/23	10:14	+ .08	0.0	3.6	16.2	80.2	2	
B-54.8	3/23	10:17	+ .05	0.0	7.0	7.0	85.9	2	
C-96.5	3/23	10:20	+ .08	0.0	0.3	20.4	79.3	3	
D-138.3	3/23	10:25	+ .11	0.0	3.9	14.1	82.0	4	
E-180	3/23	10:29	+ 1.94	0.0	6.4	1.9	91.7	4	
223									
A-13	3/23	10:58	+ .07	0.1	4.8	12.0	83.1	2	
B-37.5	3/23	11:00	+ .05	0.0	9.3	6.8	83.9	2	
C-62	3/23	11:04	+ .06	0.1	11.1	6.0	82.9	3	
D-86.5	3/23	11:08	+ .02	0.1	1.9	16.8	81.2	4	
E-111	3/23	11:12	- .08	0.1	3.2	15.3	81.4	4	
224									
A-13	3/23	1:21	+ .05	0.0	0.9	18.3	80.7	2	
B-67.5	3/23	1:23	+ .02	0.1	5.0	6.3	88.7	2	
C-122	3/23	1:27	+ .04	0.3	5.3	5.6	88.8	3	
D-177.5	3/23	1:32	- 9.66	0.0	0.1	20.5	79.4	4	
E-232	3/23	1:36	- 5.76	0.0	0.1	20.6	79.4	4	

SCS SIGNATURE: _____

LEA SIGNATURE: _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
225									
A-13	3/23	1:48	-0.02	0.0	0.0	20.6	79.3	2	
B-72	3/23	1:50	-0.49	0.0	0.6	19.9	79.6	2	
C-1131	3/23	1:53	-7.82	0.0	1.0	19.3	79.7	3	
D-190	3/23	1:57	-7.90	0.0	0.0	21.0	79.0	4	
E-244	3/23	2:03	-0.02	0.0	0.0	20.9	79.1	4	
229									
A-13	3/23	2:16	-0.43	0.1	1.4	15.0	83.6	2	
B-64	3/23	2:18	+1.03	0.1	1.0	17.0	81.9	2	
C-114	3/23	2:22	-2.67	0.0	0.1	20.9	79.1	3	
D-164	3/23	2:27	-12.62	0.0	1.1	16.3	82.6	4	
E-208	3/23	2:31	-2.38	0.0	0.3	19.8	79.8	4	
227									
A-13	3/23	3:06	+0.07	0.0	3.8	1.7	94.5	2	
B-48.7	3/23	3:09	+1.79	0.0	5.4	0.0	94.5	2	
C-84.4	3/23	3:13	+1.07	0.0	4.5	0.7	94.8	3	
D-114	3/23	3:17	+1.79	0.1	3.4	0.0	96.6	4	
E-115.7	3/23	3:22	+1.14	0.2	4.5	0.0	95.3	4	
228									
A-13	3/23	3:37	-0.1	0.9	18.6	0.1	80.4	2	
B-63	3/23	3:39	+2.41	0.1	2.7	13.1	84.1	2	
C-113	3/23	3:43	+1.52	0.7	7.3	0.0	92.0	3	
D-163	3/23	3:47	+0.07	0.0	3.3	2.3	94.4	4	
E-213	3/23	3:52	+1.24	0.0	5.0	0.0	94.9	4	
226									
A-13	3/23	2:42	+0.01	0.0	0.1	20.7	79.2	2	
B-48.7	3/23	2:45	-9.15	0.0	0.2	20.7	79.0	2	
C-84.4	3/23	2:49	-8.59	0.0	0.2	20.8	79.0	3	
D-114	3/23	2:54	-0.02	0.0	0.0	20.9	79.1	4	
E-155.7	3/23	3:00	-9.37	0.0	0.2	20.9	79.0	4	
230									
A-16								2	REMOVED DUE TO CONSTRUCTION
B-33								2	REMOVED DUE TO CONSTRUCTION
C-50								3	REMOVED DUE TO CONSTRUCTION
231									
A-13								2	REMOVED DUE TO CONSTRUCTION
B-26								2	REMOVED DUE TO CONSTRUCTION
C-39								3	REMOVED DUE TO CONSTRUCTION
D-51								4	REMOVED DUE TO CONSTRUCTION
E-65								4	REMOVED DUE TO CONSTRUCTION


SCS SIGNATURE: _____

LEA SIGNATURE: _____

SUNSHINE CANYON COUNTY PERIMETER PROBE MONITORING DATA

TECHNICIAN: A. ROMO		TEMPERATURE: 66		BARO. PRESSURE: 28.91					
GEM SERIAL #: G500485		WEATHER CONDITIONS: OVERCAST							
G503926									
PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
202									
A-10								2	REMOVED DUE TO CONSTRUCTION
B-25								2	REMOVED DUE TO CONSTRUCTION
C-38								3	REMOVED DUE TO CONSTRUCTION
203									
A-10	3-25-21	859	+1.07	0	2.3	19.1	78.7	2	
B-25	3-25-21	961	+2.8	0	3.5	19.2	78.4	2	
C-40	3-25-21	963	+3.35	0	3.9	17.7	78.4	3	
206									
A-10	3-25-21	1345	-1.03	0	6.7	13.5	79.8	2	
B-25	3-25-21	1347	+1.04	0	10.0	12.4	77.6	2	
C-40	3-25-21	1349	+1.01	0	16.7	9.3	74.0	3	
207									
A-10	3-25-21	1407	-1.60	0	.5	20.7	78.8	2	
B-25	3-25-21	1409	-1.01	0	.1	20.9	79.0	2	
C-40	3-25-21	1411	-12.21	.1	.1	20.9	78.9	3	
208									
A-9.1	3-25-21	1328	+1.01	0	.1	20.9	79.0	2	
B-25	3-25-21	1330	+1.04	0	4.2	18.4	77.4	2	
C-40	3-25-21	1332	+1.08	0	7.0	13.6	77.4	3	
210									
A-10	3-25-21	1034	-1.13	0	.3	20.2	79.5	2	
B-25	3-25-21	1036	-1.12	0	.2	20.2	79.6	2	
C-39	3-25-21	1038	-1.49	0	.1	20.1	79.8	3	
242									
C-42	3-25-21	1048	-1.16	0	2.7	13.5	83.8	3	
D-60	3-25-21	1051	-1.26	0	7.9	7.1	85.0	4	
E-78	3-25-21	1055	+1.05	0	5.6	7.0	87.4	4	
243									
A-11	3-25-21	938	+1.05	0	9.5	1.6	88.9	2	
B-20	3-25-21	941	0	0	7.7	4.0	88.3	2	
C-33	3-25-21	943	-1.16	0	4.5	6.9	88.7	3	

SCS SIGNATURE:

 JOHN FALVO

LEA SIGNATURE _____

SUNSHINE CANYON - COUNTY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
244									
A-11	3-25-21	1116	-0.32	0	14.5	5.0	80.5	2	
B-21	3-25-21	1118	-0.15	.1	17.0	5.8	77.1	2	
C-36	3-25-21	1120	-0.14	0	12.8	10.7	76.5	3	
245									
A-11	3-25-21	825	+0.06	0	13.2	5.1	81.7	2	
B-20	3-25-21	827	+0.07	0	19.5	4.8	75.7	2	
C-35	3-25-21	830	+0.05	0	22.7	.8	76.5	3	
D-50	3-25-21	834	+0.04	0	18.8	.6	80.6	4	
E-64	3-25-21	838	+0.04	0	9.9	7.1	83.0	4	
246									
A-9								2	REMOVED DUE TO CONSTRUCTION
B-16								2	REMOVED DUE TO CONSTRUCTION
205R									
A-11	3-25-21	957	+0.07	0	8.0	11.4	80.6	2	
B-20	3-25-21	958	+0.31	0	19.4	3.8	76.8	2	
C-33	3-25-21	1000	-0.12	1.0	33.8	4.7	60.5	3	
D-48	3-25-21	1004	-0.28	2.0	45.5	0	52.6	4	
E-62	3-25-21	1009	-0.44	0	23.2	.5	76.2	4	
239									
A-11	3-25-21	847	-0.12	0	15.0	14.3	70.7	2	
B-20	3-25-21	849	-0.08	0	.1	20.9	79.0	2	
C-35	3-25-21	851	-0.14	0	.1	21.0	78.9	3	
D-50	3-25-21	854	-0.14	0	.1	21.0	78.9	4	
E-64	3-25-21	858	-0.09	0	.1	20.9	79.0	4	
240									
A-11	3-25-21	816	-0.07	0	6.2	17.3	76.5	2	
B-20	3-25-21	818	-0.35	0	1.1	20.0	78.9	2	
C-33	3-25-21	820	-0.15	0	.1	20.9	79.0	3	
D-49	3-25-21	823	-0.10	0	.2	20.9	78.9	4	
E-61	3-25-21	827	+0.21	.1	.1	20.9	78.9	4	

SCS SIGNATURE:

 JOHN PALOS

LEA SIGNATURE: _____

SUNSHINE CANYON CITY PERIMETER PROBE MONITORING DATA

TECHNICIAN: <u>MARCOS M.</u>		TEMPERATURE: <u>71'</u>		BARO. PRESSURE: <u>28.05</u>					
GEM SERIAL #: <u>6506081</u>		WEATHER CONDITIONS: <u>SUNNY</u>							
PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
213									
A-13	4/20	8:12	-0.10	0.0	0.6	19.4	80.0	2	
B-29	4/20	8:14	-0.09	0.0	0.1	20.3	79.6	2	
C-45	4/20	8:18	-0.83	0.0	0.1	20.5	79.4	3	
D-61	4/20	8:22	-1.14	0.0	0.1	20.6	79.3	4	
E-77	4/20	8:26	-11.99	0.0	0.1	20.6	79.3	4	
214									
A-13	4/20	9:03	+0.41	0.0	0.4	20.7	80.8	2	
B-30	4/20	9:10	+0.81	0.0	0.0	21.0	78.9	2	
C-48	4/20	9:14	-9.44	0.0	1.5	19.3	79.2	3	
215									
A-13	4/20	8:43	-0.13	0.0	0.1	20.8	79.1	2	
B-30	4/20	8:46	-0.16	0.0	5.1	7.2	87.8	2	
C-47	4/20	8:49	+0.02	0.0	0.3	12.2	84.5	3	
D-64	4/20	8:53	+0.02	0.0	0.4	20.5	79.2	4	
E-81	4/20	8:59	-0.01	0.0	0.0	20.8	79.0	4	
216									
A-14	4/20	9:25	-0.15	0.0	0.0	20.8	79.1	2	
B-43	4/20	9:27	-0.16	0.0	2.1	16.1	81.7	2	
C-62	4/20	9:31	-0.18	0.0	3.2	13.8	83.0	3	
D-86	4/20	9:35	-0.18	0.0	0.2	20.5	79.3	4	
E-110	4/20	9:39	-0.16	0.0	1.8	16.3	81.8	4	
217									
A-13	4/20	10:04	-0.01	0.0	5.3	15.6	79.1	2	
B-30	4/20	10:08	-0.19	0.0	3.3	17.3	79.4	2	
218R									
A-11	4/20	10:29	-0.18	0.1	19.7	0.8	79.4	2	
B-26.5	4/20	10:31	-0.15	0.1	19.1	6.1	74.7	2	
B-30	4/20	10:33	-0.17	0.1	56.8	5.8	37.3	2	
219									
A-13	4/20	10:50	-0.21	0.0	0.9	18.5	80.5	2	
B-64	4/20	10:52	-0.20	0.0	0.2	19.6	80.1	2	
C-115	4/20	10:54	+0.08	0.0	1.4	16.9	81.7	3	
D-166	4/20	10:58	+0.05	0.0	0.9	18.2	80.9	4	
E-217	4/20	11:00	-0.03	0.0	1.5	16.9	81.6	4	

SCS SIGNATURE: 

LEA SIGNATURE _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
220									
A-14	4/20/21	11:05	+0.02	0.0	1.1	19.6	79.3	2	
B-40	4/20/21	11:07	-0.04	0.0	0.0	20.9	79.0	2	
C-87	4/20/21	11:09	-0.02	0.0	0.4	20.5	79.1	3	
D-124	4/20/21	11:12	+0.03	0.0	0.0	20.9	79.1	4	
E-158	4/20/21	11:16	-0.02	0.0	0.0	20.8	79.2	4	
220B									
A-14	4/20/21	10:11	+0.01	0.0	0.8	19.5	79.6	2	
B-38	4/20/21	10:13	-0.03	0.0	7.9	4.5	87.6	2	
C-62	4/20/21	10:15	-0.04	0.0	4.6	13.9	81.5	3	
D-86	4/20/21	10:18	-0.08	0.0	2.5	17.5	80.0	4	
E-110	4/20/21	10:21	-0.10	0.0	1.9	18.2	79.9	4	
221									
A-13	4/20/21	8:55	+0.01	0.0	0.9	16.2	82.9	2	
B-56	4/20/21	8:57	-0.03	0.0	0.9	17.1	81.9	2	
C-99	4/20/21	9:00	-0.04	0.0	10.1	0.9	89.0	3	
D-142	4/20/21	9:03	+0.17	0.0	0.4	15.7	82.9	4	
E-185	4/20/21	9:08	+0.04	0.0	2.6	13.0	84.4	4	
222									
A-13	4/20/21	9:23	+0.01	0.0	1.7	18.4	79.9	2	
B-54.8	4/20/21	9:25	-0.16	0.0	0.1	20.4	79.5	2	
C-96.5	4/20/21	9:27	+0.05	0.0	0.2	20.3	79.5	3	
D-138.3	4/20/21	9:31	+0.02	0.0	1.5	18.4	80.7	4	
E-180	4/20/21	9:35	+0.23	0.0	5.8	4.4	89.8	4	
223									
A-13	4/20/21	8:20	+0.01	0.0	5.3	12.4	82.3	2	
B-37.5	4/20/21	8:23	-0.01	0.0	10.4	5.8	83.9	2	
C-62	4/20/21	8:25	+0.02	0.0	5.4	11.8	82.7	3	
D-86.5	4/20/21	8:28	-0.02	0.0	2.0	17.4	80.6	4	
E-111	4/20/21	8:31	+0.03	0.0	2.9	16.0	81.1	4	
224									
A-13	4/20/21	7:46	+0.04	0.0	0.9	19.7	79.4	2	
B-67.5	4/20/21	7:49	-0.09	0.0	1.2	14.9	83.9	2	
C-122	4/20/21	7:52	+0.02	0.0	0.3	19.8	79.9	3	
D-177.5	4/20/21	7:55	-0.19	0.0	0.1	20.5	79.4	4	
E-232	4/20/21	7:59	-7.37	0.0	0.1	20.6	79.3	4	

SCS SIGNATURE:



LEA SIGNATURE: _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
225									
A-13	4-20-21	10:07	-1.09	0.0	0.0	20.3	79.0	2	
B-72	4-20-21	10:10	-3.46	0.0	0.1	20.4	79.5	2	
C-1131	4-20-21	10:13	-9.57	0.0	0.5	20.2	79.5	3	
D-190	4-20-21	10:17	-9.46	0.0	0.0	20.5	79.5	4	
E-244	4-20-21	10:21	-9.77	0.0	0.0	20.5	79.5	4	
226									
A-13	4-20-21	9:08	0.04	0.0	0.1	20.9	79.0	2	
B-64	4-20-21	9:10	-10.51	0.0	0.1	21.0	79.0	2	
C-114	4-20-21	9:13	-10.46	0.0	0.1	20.9	79.0	3	
D-164	4-20-21	9:17	-11.96	0.0	0.0	20.9	79.0	4	
E-208	4-20-21	9:21	-11.66	0.0	0.1	20.9	79.0	4	
227									
A-13	4-20-21	9:27	0.03	0.0	0.9	17.4	81.7	2	
B-48.7	4-20-21	9:29	-0.11	0.0	3.5	8.6	87.9	2	
C-84.4	4-20-21	9:32	-0.12	0.0	2.6	11.2	86.2	3	
D-114	4-20-21	9:36	-0.14	0.0	2.3	8.9	89.4	4	
E-115.7	4-20-21	9:40	-0.25	0.0	2.1	8.8	89.1	4	
228									
A-13	4-20-21	9:46	0.19	0.0	0.2	10.0	89.2	2	
B-63	4-20-21	9:48	0.01	0.0	2.5	19.9	85.2	2	
C-113	4-20-21	9:51	0.18	0.0	2.2	9.8	88.0	3	
D-163	4-20-21	9:55	0.14	0.0	2.3	12.5	85.1	4	
E-213	4-20-21	10:00	0.03	0.0	3.7	6.7	89.6	4	
229									
A-13	4-20-21	8:49	-0.53	0.0	0.1	20.9	79.0	2	
B-48.7	4-20-21	8:51	-0.50	0.0	0.2	20.8	79.0	2	
C-84.4	4-20-21	8:54	-3.96	0.0	0.1	20.7	79.1	3	
D-114	4-20-21	8:58	-14.24	0.0	0.4	17.6	81.0	4	
E-155.7	4-20-21	9:02	-23.14	0.0	0.1	20.9	79.0	4	
230									
A-16								2	REMOVED DUE TO CONSTRUCTION
B-33								2	REMOVED DUE TO CONSTRUCTION
C-50								3	REMOVED DUE TO CONSTRUCTION
231									
A-13								2	REMOVED DUE TO CONSTRUCTION
B-26								2	REMOVED DUE TO CONSTRUCTION
C-39								3	REMOVED DUE TO CONSTRUCTION
D-51								4	REMOVED DUE TO CONSTRUCTION
E-66								4	REMOVED DUE TO CONSTRUCTION

SCS SIGNATURE: _____



LEA SIGNATURE: _____

SUNSHINE CANYON COUNTY PERIMETER PROBE MONITORING DATA

TECHNICIAN: <u>AKOMP</u>		TEMPERATURE: <u>78</u>		BARO. PRESSURE: <u>28.18</u>					
GEM SERIAL #: <u>G506485</u>				WEATHER CONDITIONS: <u>JUNNY</u>					
PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
202									
A-10								2	REMOVED DUE TO CONSTRUCTION
B-25								2	REMOVED DUE TO CONSTRUCTION
C-38								3	REMOVED DUE TO CONSTRUCTION
203									
A-10	4-29-21	2:02	-0.10	0.0	1.4	19.7	78.9	2	
B-25	4-29-21	2:04	-0.20	0.0	2.2	18.4	79.4	2	
C-40	4-29-21	2:07	-0.12	0.0	1.2	19.5	79.2	3	
206									
A-10	4-29-21	1047	+0.34	0	6.2	14.4	79.4	2	
B-25	4-29-21	1044	+0.37	0	9.6	12.0	78.4	2	
C-40	4-29-21	1046	+0.31	0	15.6	8.8	75.6	3	
207									
A-10	4-29-21	1108	-0.62	.1	.3	20.9	78.9	2	
B-25	4-29-21	1112	-0.55	0	0	20.9	79.1	2	
C-40	4-29-21	1116	-15.99	0	0	20.9	79.1	3	
208									
A-9.1	4-29-21	1025	+0.37	0	0	20.5	79.5	2	
B-25	4-29-21	1027	+0.35	0	5.1	15.5	77.4	2	
C-40	4-29-21	1029	+0.30	0	6.2	13.4	80.4	3	
210									
A-10	4-29-21	937	+0.11	0	.1	20.8	79.1	2	
B-25	4-29-21	939	+0.20	0	.1	20.8	79.1	2	
C-39	4-29-21	941	+0.15	0	0	20.6	79.4	3	
242									
C-42	4-29-21	949	+0.26	0	1.4	16.5	82.1	3	
D-60	4-29-21	952	+0.26	0	6.1	8.3	85.6	4	
E-78	4-29-21	956	+0.29	0	3.4	14.0	82.6	4	
243									
A-11	4-29-21	8:55	-0.25	0.0	10.1	0.1	81.7	2	
B-20	4-29-21	8:57	-1.04	0.0	5.4	9.8	84.8	2	
C-33	4-29-21	9:00	-0.50	0.0	4.2	11.0	84.2	3	

SCS SIGNATURE: 

LEA SIGNATURE _____



SUNSHINE CANYON CITY PERIMETER PROBE MONITORING DATA

TECHNICIAN: <u>AMANDO MARTINEZ</u>		TEMPERATURE: <u>81°F</u>		BARO. PRESSURE: <u>29.95"</u>					
GEM SERIAL #: <u>G503926</u>		WEATHER CONDITIONS: <u>SUNNY</u>							
PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
213									
A-13	5/25/21	13:25	+0.01	⊖	1.6	17.9	80.5	2	
B-29	5/25/21	13:29	+0.05	⊖	0.0	20.6	79.4	2	
C-45	5/25/21	13:33	-1.89	⊖	0.0	20.4	79.6	3	
D-61	5/25/21	13:38	-1.59	⊖	0.0	20.2	79.8	4	
E-77	5/25/21	13:43	-18.76	⊖	0.0	20.2	79.8	4	
214									
A-13	5/25/21	10:40	-0.03	⊖	4.1	14.0	81.8	2	
B-30	5/25/21	10:45	-12.91	⊖	0.0	20.7	79.3	2	
C-48	5/25/21	10:49	-15.44	⊖	1.1	19.5	79.4	3	
215									
A-13	5/25/21	11:00	-0.01	⊖	3.3	12.5	84.2	2	
B-30	5/25/21	11:03	+0.01	⊖	3.8	12.6	83.6	2	
C-47	5/25/21	11:11	-0.01	⊖	0.0	21.0	79.0	3	
D-64	5/25/21	11:15	+0.02	⊖	0.2	21.4	79.4	4	
E-81	5/25/21	11:19	-0.01	⊖	2.0	18.8	82.2	4	
216									
A-14	5/25/21	10:05	+0.04	⊖	1.4	18.0	80.6	2	
B-43	5/25/21	10:08	+0.05	⊖	1.1	17.5	81.4	2	
C-62	5/25/21	10:12	+0.01	⊖	0.9	17.8	81.3	3	
D-86	5/25/21	11:30	-0.01	⊖	0.0	20.7	79.3	4	
E-110	5/25/21	11:35	-0.02	⊖	1.9	15.9	82.3	4	
217									
A-13	5/25/21	9:46	+0.05	⊖	5.8	15.3	78.9	2	
B-30	5/25/21	9:49	-0.02	⊖	4.0	16.8	79.2	2	
218R									
A-11	5/25/21	8:38	+0.08	⊖	23.5	0.0	76.5	2	
B-26.5	5/25/21	8:42	+0.06	⊖	23.2	3.8	73.0	2	
B-30	5/25/21	8:46	-0.67	⊖	34.9	12.0	53.1	2	
219									
A-13	5/25/21	8:02	-0.04	⊖	1.9	16.7	81.3	2	
B-64	5/25/21	8:08	-0.02	⊖	10.7	1.4	87.9	2	
C-115	5/25/21	8:12	-0.05	⊖	2.8	14.4	82.8	3	
D-166	5/25/21	8:17	-0.05	⊖	1.5	17.3	81.2	4	
E-217	5/25/21	8:22	-0.04	⊖	5.4	10.0	84.6	4	

SCS SIGNATURE: AMANDO MARTINEZ

LEA SIGNATURE _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
220									
A-14	5/25/21	11:09	+0.23	0.0	1.1	19.8	79.2	2	
B-40	5/25/21	11:10	+0.26	0.0	0.0	21.1	78.9	2	
C-87	5/25/21	11:12	+0.11	0.0	0.6	20.9	78.5	3	
D-124	5/25/21	11:16	+0.21	0.0	0.0	20.9	79.1	4	
E-158	5/25/21	11:20	+0.26	0.0	0.0	20.8	79.2	4	
220B									
A-14	5/25/21	10:22	+0.21	0.0	0.6	20.2	79.2	2	
B-38	5/25/21	10:24	+0.23	0.0	0.1	21.0	78.9	2	
C-62	5/25/21	10:26	+0.13	0.0	3.7	15.3	81.0	3	
D-86	5/25/21	10:29	+0.19	0.0	1.9	18.2	79.8	4	
E-110	5/25/21	10:32	+0.22	0.0	1.3	19.0	79.7	4	
221									
A-13	5/25/21	8:53	+0.10	0.0	0.1	20.7	79.2	2	
B-56	5/25/21	8:54	0.09	0.0	0.3	19.8	79.9	2	
C-99	5/25/21	8:56	+0.10	0.0	0.8	19.4	79.8	3	
D-142	5/25/21	8:59	+0.07	0.0	0.0	20.6	79.4	4	
E-185	5/25/21	9:04	+0.14	0.0	0.8	18.1	81.1	4	
222									
A-13	5/25/21	9:27	+0.21	0.0	0.9	19.4	79.6	2	
B-54.8	5/25/21	9:28	+0.08	0.0	0.0	20.8	79.2	2	
C-96.5	5/25/21	9:30	+0.10	0.0	0.1	20.7	79.2	3	
D-138.3	5/25/21	9:34	+0.14	0.0	0.5	20.0	79.5	4	
E-180	5/25/21	9:38	+0.04	0.0	2.6	16.6	80.7	4	
223									
A-13	5/25/21	8:17	+0.19	0.0	5.2	11.4	83.4	2	
B-37.5	5/25/21	8:19	+0.01	0.0	5.6	11.5	82.9	2	
C-62	5/25/21	8:21	+0.15	0.0	2.8	15.5	81.7	3	
D-86.5	5/25/21	8:24	+0.15	0.0	1.9	17.5	80.7	4	
E-111	5/25/21	8:29	-0.03	0.0	2.6	16.2	81.2	4	
224									
A-13	5/25/21	7:43	-0.08	0.0	0.1	20.5	79.4	2	
B-67.5	5/25/21	7:45	-0.01	0.0	0.0	20.6	79.4	2	
C-122	5/25/21	7:48	-0.16	0.0	0.0	20.6	79.4	3	
D-177.5	5/25/21	7:51	-0.14	0.0	0.0	20.6	79.4	4	
E-232	5/25/21	7:56	-0.78	0.0	0.0	20.6	79.4	4	

SCS SIGNATURE:



LEA SIGNATURE: _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

JAXE Vukobro

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
225									
A-13	5-25	10:12	.39	0.2	Ø	20.9	78.9	2	
B-72	5-25	10:14	-3.44	0.0	Ø	20.8	79.2	2	
C-1131	5-25	10:17	-7.94	0.0	Ø	20.6	79.4	3	
D-190	5-25	10:21	-9.33	0.0	Ø	20.4	79.6	4	
E-244	5-25	10:25	-3.48	0.0	Ø	20.4	79.7	4	
226									
A-13	5-25	8:11	.15	Ø	0.2	20.7	79.1	2	
B-64	5-25	8:13	-10.38	Ø	0.1	20.9	79.1	2	
C-114	5-25	8:17	-10.47	Ø	Ø	20.9	79.1	3	
D-164	5-25	8:24	.96	Ø	Ø	20.9	79.1	4	
E-208	5-25	8:25	-11.15	Ø	0.4	20.3	79.3	4	
227									
A-13	5-25	8:33	.13	Ø	0.4	20.2	79.4	2	
B-48.7	5-25	8:35	-0.3	Ø	0.5	19.8	79.8	2	
C-84.4	5-25	8:40	-0.12	Ø	0.5	20.0	79.6	3	
D-114	5-25	8:46	0.01	Ø	0.7	19.6	79.6	4	
E-115.7	5-25	8:50	-0.19	Ø	0.3	20.5	79.2	4	
228									
A-13	5-25	9:08	.31	Ø	0.9	19.5	79.6	2	
B-63	5-25	9:11	-0.04	Ø	1.9	15.6	82.5	2	
C-113	5-25	9:14	0.04	Ø	0.1	20.6	79.2	3	
D-163	5-25	9:19	-0.14	Ø	0.4	20.2	79.4	4	
E-213	5-25	9:24	-0.19	Ø	1.3	17.9	80.8	4	
229									
A-13	5-25	7:41	-1.43	Ø	2.3	15.0	82.7	2	
B-48.7	5-25	7:44	-.24	Ø	1.9	13.8	84.3	2	
C-84.4	5-25	7:47	-.84	Ø	0.1	20.5	79.4	3	
D-114	5-25	7:51	-13.82	Ø	1.8	16.2	82.0	4	
E-155.7	5-25	7:5	-22.84	Ø	0.1	20.7	79.3	4	
230									
A-16								2	REMOVED DUE TO CONSTRUCTION
B-33								2	REMOVED DUE TO CONSTRUCTION
C-50								3	REMOVED DUE TO CONSTRUCTION
231									
A-13								2	REMOVED DUE TO CONSTRUCTION
B-26								2	REMOVED DUE TO CONSTRUCTION
C-39								3	REMOVED DUE TO CONSTRUCTION
D-51								4	REMOVED DUE TO CONSTRUCTION
E-66								4	REMOVED DUE TO CONSTRUCTION

SCS SIGNATURE: _____



LEA SIGNATURE: _____

SUNSHINE CANYON COUNTY PERIMETER PROBE MONITORING DATA

TECHNICIAN: <u>AMANDO MARTINEZ</u>		TEMPERATURE: <u>70°F</u>		BARO. PRESSURE: <u>30.04"</u>					
GEM SERIAL # <u>G503926</u>		WEATHER CONDITIONS: <u>Sunny</u>							
PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
202									
A-10								2	REMOVED DUE TO CONSTRUCTION
B-25								2	REMOVED DUE TO CONSTRUCTION
C-38								3	REMOVED DUE TO CONSTRUCTION
203									
A-10	5/27/21	10:28	+0.05	Ø	1.9	18.9	79.2	2	
B-25	5/27/21	10:31	+0.05	Ø	3.7	17.2	79.1	2	
C-40	5/27/21	10:35	+0.05	Ø	2.4	18.3	79.3	3	
206									
A-10	5/27/21	10:16	+0.21	Ø	0.4	20.6	79.0	2	
B-25	5/27/21	10:18	+0.23	Ø	10.3	11.5	78.2	2	
C-40	5/27/21	10:20	+0.16	Ø	15.1	9.4	75.5	3	
207									
A-10	5-27/21	1:56	-0.82	0.2	0.4	20.0	79.4	2	
B-25	5-27/21	1:58	-3.28	0.2	0.2	20.0	79.6	2	
C-40	5-27/21	2:01	0.15	0.2	0.1	20.1	79.6	3	
208									
A-9.1	5/27/21	10:04	+0.19	Ø	1.3	8.9	89.7	2	
B-25	5/27/21	10:06	+0.15	Ø	0.2	19.8	80.0	2	
C-40	5/27/21	10:10	+0.16	Ø	0.4	20.4	79.2	3	
210									
A-10	5/27/21	8:50	-0.14	Ø	0.1	20.7	79.3	2	
B-25	5/27/21	8:52	+0.05	Ø	0.1	20.6	79.3	2	
C-39	5/27/21	8:55	+0.04	Ø	0.1	20.5	79.4	3	
242									
C-42	5/27/21	9:07	+0.17	Ø	2.6	14.6	82.8	3	
D-60	5/27/21	9:11	+0.13	Ø	7.8	5.9	86.3	4	
E-78	5/27/21	9:16	+0.17	Ø	4.9	9.7	85.5	4	
243									
A-11	5/27/21	8:30	+0.10	0.1	10.8	0.1	89.0	2	
B-20	5/27/21	8:34	+0.01	Ø	9.2	7.0	83.8	2	
C-33	5/27/21	8:39	+0.05	Ø	8.8	8.2	83.0	3	

SCS SIGNATURE: AMANDO MARTINEZ

LEA SIGNATURE _____

SUNSHINE CANYON - COUNTY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
244									
A-11	5/27/21	9:34	+0.10	Ø	16.4	1.4	82.2	2	
B-21	5/27/21	9:36	+0.17	Ø	17.7	3.9	78.6	2	
C-36	5/27/21	9:40	+0.07	Ø	19.6	5.1	75.3	3	
245									
A-11	5/27/21	8:56	+0.02	Ø	12.4	6.3	81.3	2	
B-20	5/27/21	8:59	+0.06	Ø	9.2	13.1	77.7	2	
C-35	5/27/21	9:03	+0.06	Ø	18.8	4.2	77.1	3	
D-50	5/27/21	9:08	+0.06	Ø	18.2	0.7	81.1	4	
E-64	5/27/21	9:12	+0.01	Ø	0.2	21.0	78.8	4	
246									
A-9								2	REMOVED DUE TO CONSTRUCTION
B-16								2	REMOVED DUE TO CONSTRUCTION
205R									
A-11	5/27/21	7:52	+0.08	Ø	7.4	13.6	79.0	2	
B-20	5/27/21	7:55	+0.07	Ø	20.7	1.8	77.5	2	
C-33	5/27/21	7:59	-0.03	1.5	43.5	0.1	54.9	3	
D-48	5/27/21	8:05	+0.05	2.3	47.3	0.0	50.4	4	
E-62	5/27/21	8:11	+0.02	Ø	14.7	7.6	77.7	4	
239									
A-11	5/27/21	8:20	+0.04	Ø	10.5	16.4	73.1	2	
B-20	5/27/21	8:22	+0.11	Ø	0.1	20.9	79.1	2	
C-35	5/27/21	8:25	+0.09	Ø	0.0	20.9	79.1	3	
D-50	5/27/21	8:30	+0.12	Ø	0.0	20.9	79.1	4	
E-64	5/27/21	8:34	+0.05	Ø	0.1	20.9	79.0	4	
240									
A-11	5/27/21	7:50	+0.02	Ø	2.20	19.2	78.8	2	
B-20	5/27/21	7:52	+0.02	Ø	0.8	20.2	79.0	2	
C-33	5/27/21	7:55	-0.02	Ø	0.1	20.8	79.1	3	
D-49	5/27/21	7:59	+0.08	Ø	0.1	20.8	79.1	4	
E-61	5/27/21	8:03	+0.06	Ø	0.1	20.8	79.0	4	

SCS SINGNATURE: AMANDO MARTINEZ

LEA SIGNATURE: _____

SUNSHINE CANYON CITY PERIMETER PROBE MONITORING DATA

TECHNICIAN: <u>MARCOS M</u>		TEMPERATURE: <u>77</u>		BARO. PRESSURE: <u>28.76</u>					
GEM SERIAL #: <u>504643</u>		WEATHER CONDITIONS: <u>SUNNY</u>							
PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
213									
A-13	6/22	8:04	0.05	0.0	0.1	19.9	80.0	2	
B-29	6/22	8:06	0.06	0.0	0.0	20.0	79.9	2	
C-45	6/22	8:09	-2.64	0.0	0.1	20.1	79.9	3	
D-61	6/22	8:12	-3.95	0.0	0.1	20.2	79.8	4	
E-77	6/22	8:17	-22.1	0.0	0.1	20.4	79.6	4	
214									
A-13	6/22	8:27	0.10	0.1	0.1	20.7	79.3	2	
B-30	6/22	8:29	-13.40	0.0	0.0	20.8	79.2	2	
C-48	6/22	8:32	-16.61	0.0	0.9	19.8	79.3	3	
215									
A-13	6/22	8:50	.03	0.0	0.8	20.1	79.1	2	
B-30	6/22	8:52	0.03	0.0	0.2	19.0	81.0	2	
C-47	6/22	8:55	0.02	0.0	3.7	11.9	84.4	3	
D-64	6/22	8:59	0.06	0.0	0.4	20.3	79.3	4	
E-81	6/22	9:02	0.04	0.0	5.5	7.6	87.0	4	
216									
A-14	6/22	9:18	0.00	0.0	0.0	19.5	80.4	2	
B-43	6/22	9:24	0.01	0.0	0.0	20.9	79.1	2	
C-62	6/22	9:27	0.02	0.0	0.0	20.9	79.1	3	
D-86	6/22	9:30	-5.01	0.0	0.0	20.9	79.1	4	
E-110	6/22	9:33	-4.15	0.0	1.1	18.2	80.6	4	
217									
A-13	6/22	9:59	0.03	0.0	1.3	18.2	80.5	2	
B-30	6/22	10:05	-2.02	0.0	1.0	19.6	79.4	2	
218R									
A-11	6/22	10:17	0.01	0.0	0.2	20.5	79.3	2	
B-26.5	6/22	10:19	0.03	0.0	15.6	9.2	75.2	2	
B-30	6/22	10:21	0.09	0.0	46.7	9.1	44.3	2	
219									
A-13	6/22	10:38	0.16	0.0	1.0	18.8	80.2	2	
B-64	6/22	10:40	0.06	0.0	0.1	20.3	79.6	2	
C-115	6/22	10:43	-.08	0.0	2.0	16.1	81.9	3	
D-166	6/22	10:47	0.01	0.0	0.8	18.8	80.4	4	
E-217	6/22	10:50	0.02	0.0	0.3	19.7	79.9	4	

SCS SIGNATURE: _____

LEA SIGNATURE _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
220									
A-14	6/22/21	10:50	+0.00	0.0	1.0	20.0	79.0	2	
B-40	6/22/21	10:51	+0.00	0.0	0.0	21.0	79.0	2	
C-87	6/22/21	10:53	+0.01	0.0	0.1	21.0	78.9	3	
D-124	6/22/21	10:55	+0.02	0.0	0.0	20.9	79.1	4	
E-158	6/22/21	10:59	+0.03	0.0	0.0	20.8	79.2	4	
220B									
A-14	6/22/21	10:08	+0.06	0.0	0.4	20.7	78.9	2	
B-38	6/22/21	10:10	-0.56	0.0	0.3	20.7	79.1	2	
C-62	6/22/21	10:12	+0.37	0.0	4.1	13.4	82.6	3	
D-86	6/22/21	10:15	-0.00	0.0	6.3	9.2	84.5	4	
E-110	6/22/21	10:18	-0.33	0.0	1.5	19.1	79.4	4	
221									
A-13	6/22/21	8:48	+0.25	0.0	0.1	20.9	79.0	2	
B-56	6/22/21	8:49	+0.13	0.0	0.1	20.9	79.0	2	
C-99	6/22/21	8:51	+0.06	0.0	2.0	15.7	82.3	3	
D-142	6/22/21	8:53	+0.07	0.0	0.2	20.4	79.4	4	
E-185	6/22/21	8:58	-0.16	0.0	0.7	18.6	80.7	4	
222									
A-13	6/22/21	9:23	+0.05	0.0	0.8	19.6	79.6	2	
B-54.8	6/22/21	9:24	-0.12	0.0	0.0	20.8	79.2	2	
C-96.5	6/22/21	9:26	+0.24	0.0	0.2	20.6	79.2	3	
D-138.3	6/22/21	9:29	-0.14	0.0	0.5	20.1	79.3	4	
E-180	6/22/21	9:33	-0.37	0.0	3.0	16.3	80.7	4	
223									
A-13	6/22/21	8:11	+0.08	0.0	4.5	12.3	83.2	2	
B-37.5	6/22/21	8:12	+0.07	0.0	4.4	12.6	83.0	2	
C-62	6/22/21	8:14	+0.06	0.0	4.4	12.7	82.9	3	
D-86.5	6/22/21	8:17	+0.03	0.0	2.2	17.1	80.6	4	
E-111	6/22/21	8:21	-0.00	0.0	3.1	15.6	81.3	4	
224									
A-13	6/22/21	7:35	+0.07	0.0	0.1	21.0	78.9	2	
B-67.5	6/22/21	7:37	-0.22	0.0	0.1	21.0	78.9	2	
C-122	6/22/21	7:39	-0.15	0.0	0.1	20.9	79.0	3	
D-177.5	6/22/21	7:43	-0.19	0.0	0.1	20.8	79.1	4	
E-232	6/22/21	7:47	-7.63	0.0	0.1	20.8	79.1	4	

SCS SINGNATURE:



LEA SIGNATURE: _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
225									
A-13	6/22/21	7:56	-0.04	0	0.8	19.9	79.4	2	
B-72	6/22/21	8:00	-3.48	0	0.4	20.0	79.5	2	
C-1131	6/22/21	8:05	-8.77	0	1.0	19.3	79.7	3	
D-190	6/22/21	8:10	-9.84	0	0.1	20.1	79.9	4	
E-244	6/22/21	8:14	-8.90	0	0.1	19.9	80.0	4	
226									
A-13	6/22/21	8:30	+0.15	0	0.6	19.6	79.8	2	
B-64	6/22/21	8:34	-10.44	0	0.1	20.3	79.6	2	
C-114	6/22/21	8:38	-10.98	0	0.0	20.4	79.6	3	
D-164	6/22/21	8:43	-9.06	0	0.0	20.5	79.5	4	
E-208	6/22/21	8:48	-11.01	0	0.3	20.1	79.5	4	
227									
A-13	6/22/21	9:00	+0.19	0	0.2	20.0	79.8	2	
B-48.7	6/22/21	9:03	-0.21	0	0.3	20.1	79.6	2	
C-84.4	6/22/21	9:07	+0.11	0	1.0	18.9	80.0	3	
D-114	6/22/21	9:12	-0.23	0	0.9	19.3	79.8	4	
E-115.7	6/22/21	9:17	+0.12	0	0.7	18.9	80.4	4	
228									
A-13	6/22/21	9:34	+0.26	0	0.9	19.6	79.5	2	
B-63	6/22/21	9:37	+0.20	0	2.9	13.1	84.0	2	
C-113	6/22/21	9:44	+0.15	0	0.1	20.8	79.0	3	
D-163	6/22/21	9:48	-0.01	0	0.5	20.5	79.0	4	
E-213	6/22/21	10:48	+0.24	0	0.0	20.7	79.3	4	
229									
A-13	6/22/21	10:18	-0.34	0	1.8	16.9	81.3	2	
B-48.7	6/22/21	10:21	+0.07	0	1.9	13.7	84.4	2	
C-84.4	6/22/21	10:25	-4.15	0	0.0	20.9	79.0	3	
D-114	6/22/21	10:30	-14.29	0	1.4	17.7	80.9	4	
E-155.7	6/22/21	10:35	-23.15	0	0.6	19.6	79.9	4	
230									
A-16								2	REMOVED DUE TO CONSTRUCTION
B-33								2	REMOVED DUE TO CONSTRUCTION
C-50								3	REMOVED DUE TO CONSTRUCTION
231									
A-13								2	REMOVED DUE TO CONSTRUCTION
B-26								2	REMOVED DUE TO CONSTRUCTION
C-39								3	REMOVED DUE TO CONSTRUCTION
D-51								4	REMOVED DUE TO CONSTRUCTION
E-66								4	REMOVED DUE TO CONSTRUCTION

SCS SIGNATURE: AMANDO MARTINEZ

LEA SIGNATURE: _____

SUNSHINE CANYON COUNTY PERIMETER PROBE MONITORING DATA

ALBERT RANO

TECHNICIAN: JACOB VIDIRILO		TEMPERATURE: 73		BARO. PRESSURE: 28.64					
GEM SERIAL #: 503926		WEATHER CONDITIONS: SUNNY							
PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
202									
A-10								2	REMOVED DUE TO CONSTRUCTION
B-25								2	REMOVED DUE TO CONSTRUCTION
C-38								3	REMOVED DUE TO CONSTRUCTION
203									
A-10	6-24-21	752	0	0	.1	20.7	79.2	2	
B-25	6-24-21	754	.5	0	4.2	17.1	78.7	2	
C-40	6-24-21	758	0	0	1.5	19.1	79.4	3	
206									
A-10	6-24-21	1106	+1.9	0	8.8	11.0	80.2	2	
B-25	6-24-21	1108	+3.3	0	10.9	9.3	79.8	2	
C-40	6-24-21	1110	+0.7	0	18.0	6.3	75.7	3	
207									
A-10	6-24-21	1125	+3.5	0	.2	19.4	80.4	2	
B-25	6-24-21	1127	+3.6	0	.2	20.1	79.7	2	
C-40	6-24-21	1130	+2.3	0	0	20.3	79.7	3	
208									
A-9.1	6-24-21	1049	-5.6	0	.1	19.8	80.1	2	
B-25	6-24-21	1049	+1.7	0	6.0	14.4	79.5	2	
C-40	6-24-21	1051	+2.3	0	7.0	12.8	80.5	3	
210									
A-10	6-24-21	939	+0.8	0	.1	20.4	79.5	2	
B-25	6-24-21	941	+0.4	0	.1	20.4	79.5	2	
C-39	6-24-21	943	+1.0	0	0	20.4	79.6	3	
242									
C-42	6-24-21	1003	+0.2	0	4.9	11.0	84.1	3	
D-60	6-24-21	1006	+1.8	0	2.9	14.0	83.1	4	
E-78	6-24-21	1010	+1.7	0	5.1	9.4	85.5	4	
243									
A-11	6-24-21	847	-3.4	0	2.6	16.1	81.3	2	
B-20	6-24-21	849	-7.6	0	4.8	13.0	82.2	2	
C-33	6-24-21	852	-4.16	0	5.3	12.6	82.0	3	

SCS SIGNATURE: _____

LEA SIGNATURE _____

SUNSHINE CANYON - COUNTY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
244									
A-11	6-21-21	1032	+28	0	14.7	3.3	82.0	2	
B-21	6-24-21	1034	+19	0	8.1	12.4	79.5	2	
C-36	6-24-21	1036	+19	0	12.4	10.0	79.6	3	
245									
A-11	6-24-21	909	-18	0	12.2	6.1	81.6	2	
B-20	6-24-21	912	-31	0	10.5	7.0	72.4	2	
C-35	6-24-21	916	-81	0	21.9	.7	77.4	3	
D-50	6-24-21	921	-54	0	16.8	2.2	81.0	4	
E-64	6-24-21	925	-48	0	.2	20.1	79.7	4	
246									
A-9								2	REMOVED DUE TO CONSTRUCTION
B-16								2	REMOVED DUE TO CONSTRUCTION
205R									
A-11	6-24-21	817	+06	0	5.5	14.5	22.9	2	
B-20	6-24-21	819	-32	0	4.5	16.1	79.4	2	
C-33	6-24-21	822	-31	.5	22.6	10.0	66.9	3	
D-48	6-24-21	824	-60	2.0	45.6	.1	52.3	4	
E-62	6-24-21	829	-84	0	14.4	10.6	75.0	4	
239									
A-11	6-24-21	903	+09	0	17.3	12.6	70.1	2	
B-20	6-24-21	905	+09	0	.1	20.0	79.9	2	
C-35	6-24-21	907	+03	0	0	20.2	79.9	3	
D-50	6-24-21	910	+23	0	0	20.1	79.9	4	
E-64	6-24-21	914	+11	0	.1	20.0	79.9	4	
240									
A-11	6-24-21	839	-08	0	3.0	18.1	78.9	2	
B-20	6-24-21	841	-01	0	.9	19.9	79.2	2	
C-33	6-24-21	843	+08	0	.1	20.6	79.3	3	
D-49	6-24-21	846	+04	0	.2	20.3	79.5	4	
E-61	6-24-21	850	+08	0.1	.1	20.2	79.6	4	

SCS SINGATURE



LEA SIGNATURE: _____

—

SUNSHINE CANYON COUNTY PERIMETER PROBE MONITORING DATA

TECHNICIAN: Jake Vivirito		TEMPERATURE:		BARO. PRESSURE: 28.07"					
GEM SERIAL #: 505926		WEATHER CONDITIONS: Sunny							
PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
202R									
A	6-24	10:22	0.0	Ø	11.2	0.2	88.6	2	
B	6-24	10:25	-1.90	Ø	0.6	19.4	80.0	2	
C	6-24	10:29	-0.54	Ø	Ø	20.8	79.1	3	
								3	

SCS SIGNATURE: 

LEA SIGNATURE _____

APPENDIX D

NPDES CERTIFICATION OF COMPLETION

August 15, 2021

Operating Records
Sunshine Canyon Landfill
14747 San Fernando Road
Sylmar, CA 91342

Please be advised that all standard observations for the landfill were done in accordance with the NPDES monitoring and reporting requirements. Records of observations are kept at the Sunshine Canyon Landfill's Operating Records and are submitted to the RWQCB in the storm water table due annually by July 1st.

Sincerely,

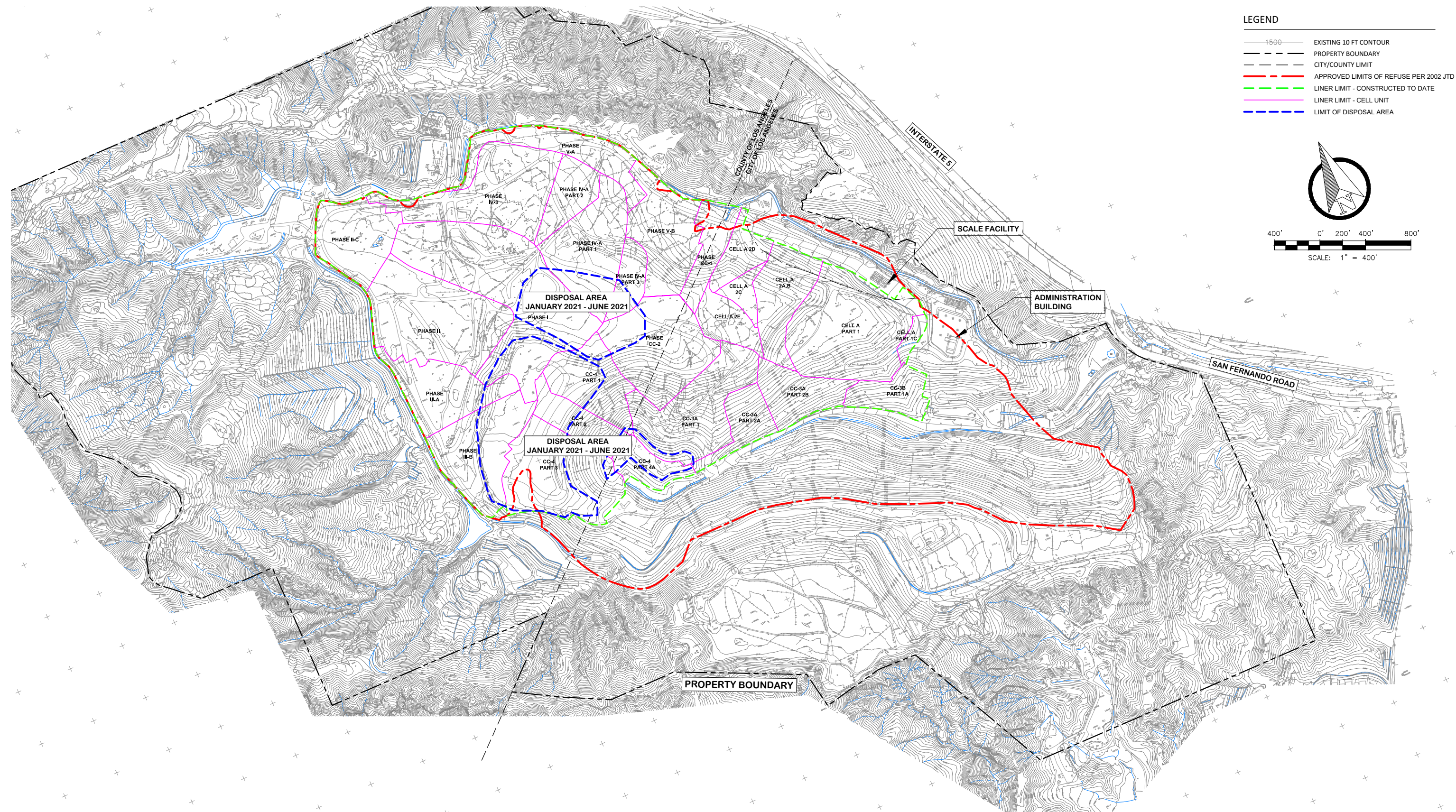
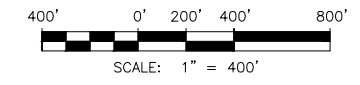
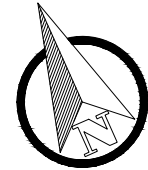


Chris Coyle
General Manager
Sunshine Canyon Landfill

APPENDIX E

WASTE PLACEMENT AREAS

- LEGEND**
- 1500 EXISTING 10 FT CONTOUR
 - PROPERTY BOUNDARY
 - CITY/COUNTY LIMIT
 - APPROVED LIMITS OF REFUSE PER 2002 JTD
 - LINER LIMIT - CONSTRUCTED TO DATE
 - LINER LIMIT - CELL UNIT
 - LIMIT OF DISPOSAL AREA



N:\SUNSHINE CANYON\SDO\1006\DWG - SEMIANNUAL GW MONITORING REPORT\DWG SETS\SDO20-1006-SCL-2021H1 - SEMIANNUAL GW REPORT.DWG August 13, 2021 - 1:09 PM BY: CLA USER

This drawing has not been published but rather has been prepared by Geo-Logic Associates, Inc. for use by the client named in the title block, solely in respect of the construction operation, and maintenance of the facility named in the title block. Geo-Logic Associates, Inc. shall not be liable for the use of this drawing on any other facility or for any other purpose.

ISSUED FOR REVIEW
REFERENCE AERIAL TOPO BASED ON FEBRUARY 13, 2020 AERIAL SURVEY BY COOPER AERIAL SURVEYS CO.

REV. NO.	DATE	DESCRIPTION	APPROVED BY

DATE OF ISSUE: AUGUST 2021
 DESIGNED BY: C. BARRETT
 DRAWN BY: J. AMAYA
 CHECKED BY: K. WELCHANS
 APPROVED BY: C. BARRETT



Geo-Logic ASSOCIATES
 2777 EAST GUAISTI ROAD
 SUITE 1
 ONTARIO, CA 91761
 (909) 626-2282
 www.geo-logic.com

REPUBLIC SERVICES
 SUNSHINE CANYON LANDFILL
 14747 SAN FERNANDO ROAD
 SYLMAR, CA. 91342

SUNSHINE CANYON LANDFILL
 SEMIANNUAL GROUNDWATER
 MONITORING REPORT
 SYLMAR, CALIFORNIA
 DISPOSAL AREAS - JAN 2021 THRU JUNE 2020

DWG NO. **1**
 PROJECT NO. S020.1006

APPENDIX F

WASTE ACCEPTANCE REPORTS



Republic Services

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

Waste Profile #
5123153583

Expiration Date
3/5/2022

I. Decision Request:

Initial Recertification Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: Medical Waste Services LLC

Generator Site Address: 7321 Quimby Street

City: Paramount

County:

State: CA

Zip:

Name of Waste: Treated Medical Waste Treated APHIS Foreign Garbage FDA Confiscated Materials

Estimated Annual Volume: 2100 Tons

II. Special Waste Department Decision:

Approved Rejected

Management Method(s): Landfill Solidification Bioremediation Deep Well Transfer Facility

Problematic Special Waste according to Republic? Yes No

If yes, which one?

Approved by Special Waste Review Committee? Yes No Not Applicable

Precautions, Conditions or Limitations on Approval

The generator must comply with all Federal, State and Local regulations regarding Disinfected (Steam Sterilized, Microwaved, Treated) Medical/APHIS Waste.

With each shipment the generator must provide a Certification demonstrating the waste has been autoclaved (Certificate of Treatment).

This material must be buried immediately upon receipt at the landfill.

Special Waste Analyst Signature: Holly Wilson
Date: 2/4/2021

Name (Printed): Holly Wilson

III. Facility Decision:

Approved Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee:
Date: 2/4/2021

Name (Printed): CHRIS COYLE

Special Waste Profile - Recertification



Disposal Facility:

Waste Profile #:

Sales Rep #:

I. Generator Information

Generator Name:

Generator Site Address:

City: County: State: Zip:

State ID/Reg No: State Approval/Waste Code: NAICS:

Generator Mailing Address (if different)

City: County: State: Zip:

Generator Contact Name: Email:

Phone Number: Ext: Fax Number:

II. Waste Stream Information

Name of Waste:

Check Section 1 or 2 below

- There has been a change** in the characteristics of the waste stream due to the following:
 - Change of a raw material used in the waste generating process.
 - Change in the waste generating process itself.
 - Change in a physical characteristic of the waste.
 - New information has been documented concerning the human health effects of exposure to the waste.

If any of these changes have occurred, a new profile sheet must be completed, and new analysis and/or SDS must be provided as appropriate.
- There have been no changes** that would alter the physical characteristics of the special waste stream.
Updated analytical may be required.

III. Representative Sample Certification

No Sample Taken

Sample Taken Type of Sample

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? Yes No

Sample Date: Sample ID Numbers:

Special Waste Profile - Recertification



IV. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original."

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

Erik T. Nelson

Authorized Representative Name
(Printed)

Director Of Operations

Title
(Printed)

Medical Waste Services, LLC

Company Name

A handwritten signature in black ink, appearing to read "Erik T. Nelson", written over a horizontal line.

Authorized Representative Signature

2-3-2021

Date



Republic Services

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

Waste Profile # 51231811891	Expiration Date 7/18/2024
--------------------------------	------------------------------

I. Decision Request: Initial Recertification Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: PORT OF LOS ANGELES

Generator Site Address: C&M BERTH 161

City: WILMINGTON	County: <input type="text"/>	State: CA	Zip: <input type="text"/>
------------------	------------------------------	-----------	---------------------------

Name of Waste: EMPTY PAINT CANS

Estimated Annual Volume: 30 Cubic Yards

II. Special Waste Department Decision: Approved Rejected

Management Method(s): Landfill Solidification Bioremediation Deep Well Transfer Facility

Problematic Special Waste according to Republic? Yes No

If yes, which one?

Approved by Special Waste Review Committee? Yes No Not Applicable

Precautions, Conditions or Limitations on Approval

This approval is limited to the EMPTY PAINT CANS of the SIX products on the PAINT SHOP SDSs LIST provided by Manny Ramirez on July 17, 2018 with the Special Waste Profile; free liquids are not permitted for landfill disposal [40 CFR 258.28]:

1. Acrylic High Gloss Enamel, Vista Paint Corp.
2. Compliant Cleaning Solvent, Pacific Coast Lacquer
3. 6000, White W/B Acrylic Traffic Paint, Pervo Paint
4. Amercoat 235 Haze Gray F/S 26270 235B2904 Resin, Ameron International
5. 3415 Easyepoxy Sunflower Yellow, Kop-Coat, Inc.
6. Carefree Earth Coat Flat White-P, Vista Paint Corp.

Special Waste Analyst Signature: *Joseph M. Sorokach*

Name (Printed): Joseph Sorokach

Date: 4/20/2021

III. Facility Decision: Approved Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: _____
Date: 4/20/2021

Name (Printed): _____

Special Waste Profile - Recertification



Disposal Facility: 5123 Sunshine Canyon Landfill CA



Waste Profile #: 51231811891

Sales Rep #: 585

I. Generator Information

Generator Name: Port of Los Angeles

Generator Site Address: C & M Berth 161

City: Wilmington

County: Los Angeles

State: California



Zip: 90744

State ID/Reg No:

State Approval/Waste Code:

NAICS:

Generator Mailing Address (if different)

City:

County:

State: --Select State--

Zip:

Generator Contact Name: Lawrence Fang

Email: lfang@portla.org

Phone Number: 310-513-3493

Ext:

Fax Number:

II. Waste Stream Information

Name of Waste: Empty paint cans

Check Section 1 or 2 below

- There has been a change** in the characteristics of the waste stream due to the following:
 - Change of a raw material used in the waste generating process.
 - Change in the waste generating process itself.
 - Change in a physical characteristic of the waste.
 - New information has been documented concerning the human health effects of exposure to the waste.

If any of these changes have occurred, a new profile sheet must be completed, and new analysis and/or SDS must be provided as appropriate.
- There have been no changes** that would alter the physical characteristics of the special waste stream.
Updated analytical may be required.

III. Representative Sample Certification

No Sample Taken

Sample Taken Type of Sample --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? Yes No

Sample Date:

Sample ID Numbers:

IV. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original."

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

Lawrence Fang	Environmental Specialist	Port of Los Angeles
Authorized Representative Name (Printed)	Title (Printed)	Company Name
		4/19/21
Authorized Representative Signature		Date



Republic Services

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

Waste Profile # 5123181636		Expiration Date 5/5/2024	
I. Decision Request: <input type="checkbox"/> Initial <input checked="" type="checkbox"/> Recertification <input type="checkbox"/> Change			
Disposal Facility: 5123 - Sunshine Canyon Landfill			
Generator Name: Los Angeles County Fire			
Generator Site Address: 12605 Osborne St			
City: Pacoima	County:	State: CA	Zip:
Name of Waste: Los Angeles Fire Department Fire Fighter Garments			
Estimated Annual Volume: 5 Tons			

II. Special Waste Department Decision: Approved Rejected


Management Method(s): Landfill Solidification Bioremediation Deep Well Transfer Facility

Problematic Special Waste according to Republic? Yes No

If yes, which one? _____

Approved by Special Waste Review Committee? Yes No Not Applicable

Precautions, Conditions or Limitations on Approval

Special Waste Analyst Signature: 
Date: 5/5/2021

Name (Printed): KEITH DIAMANTI

III. Facility Decision: Approved Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: 
Date: 5/5/2021

Name (Printed): Chris Coyle



Republic Services

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

Waste Profile #
5123181636

Expiration Date
5/5/2024

I. Decision Request:

Initial Recertification Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: Los Angeles County Fire

Generator Site Address: 12605 Osborne St

City: Pacoima

County:

State: CA

Zip:

Name of Waste: Los Angeles Fire Department Fire Fighter Garments

Estimated Annual Volume: 5 Tons

II. Special Waste Department Decision:

Approved Rejected

Management Method(s): Landfill Solidification Bioremediation Deep Well Transfer Facility

Problematic Special Waste according to Republic?

Yes No

If yes, which one?

Approved by Special Waste Review Committee?

Yes No Not Applicable

Precautions, Conditions or Limitations on Approval

Special Waste Analyst Signature: 

Date: 5/5/2021

Name (Printed): KEITH DIAMANTI

III. Facility Decision:

Approved Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: _____

Name (Printed): _____

Date: 5/5/2021

Special Waste Profile - Recertification



Disposal Facility: Waste Profile #:
Sales Rep #:

I. Generator Information

Generator Name:
Generator Site Address:
City: County: State: Zip:
State ID/Reg No: State Approval/Waste Code: NAICS:
Generator Mailing Address (if different)
City: County: State: Zip:
Generator Contact Name: Email:
Phone Number: Ext: Fax Number:

II. Waste Stream Information

Name of Waste:

Check Section 1 or 2 below

- There has been a change** in the characteristics of the waste stream due to the following:
 - Change of a raw material used in the waste generating process.
 - Change in the waste generating process itself.
 - Change in a physical characteristic of the waste.
 - New information has been documented concerning the human health effects of exposure to the waste.

If any of these changes have occurred, a new profile sheet must be completed, and new analysis and/or SDS must be provided as appropriate.
- There have been no changes** that would alter the physical characteristics of the special waste stream.
Updated analytical may be required.

III. Representative Sample Certification

No Sample Taken
 Sample Taken Type of Sample
Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? Yes No
Sample Date: Sample ID Numbers:

Special Waste Profile - Recertification



IV. Certification

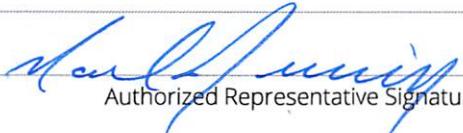
I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original."

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

Raul Jimenez	Warehouse Manager	Los Angeles County Fire Department
Authorized Representative Name (Printed)	Title (Printed)	Company Name
		5/5/2021
Authorized Representative Signature		Date



Republic Services

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

Waste Profile # 51232121798	Expiration Date 1/19/2022
--------------------------------	------------------------------

I. Decision Request: Initial Recertification Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: BUMBLE BEE FOODS LLC

Generator Site Address: 13100 ARTIC CIR

City: SANTA FE SPRINGS

County:

State: CA

Zip:

Name of Waste: CANNED FOODS

Estimated Annual Volume: 300,000 Pounds

II. Special Waste Department Decision: Approved Rejected

Management Method(s): Landfill Solidification Bioremediation Deep Well Transfer Facility

Problematic Special Waste according to Republic? Yes No

If yes, which one?

Approved by Special Waste Review Committee? Yes No Not Applicable

Precautions, Conditions or Limitations on Approval

The waste described on this Generator Waste Profile Sheet must be in non-leaking consumer sized containers (small containers similar in size to that normally found in household waste). Per 40 CFR 258.28(b)(1) (Liquid Restrictions).

Special Waste Analyst Signature:

Name (Printed): KEITH DIAMANTI

Date: 1/19/2021

III. Facility Decision: Approved Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: _____

Name (Printed): _____

Date: 1/19/2021

Special Waste Profile



Disposal Facility 5123 Sunshine Canyon and CA

Waste Profile # 5123 21 21798

Sales Rep #

I. Generator Information

Generator Name **Bumble Bee Foods, LLC**

Generator Site Address **13100 Artic Circle**

City **Santa Fe Springs** County **Los Angeles** State **California** Zip **90670**

State ID/Reg No. State Approval/Waste Code NAICS # **311999**

Generator Mailing Address (different) **280 10th ave**

City **San Diego** County **San Diego** State **California** Zip **92101**

Generator Contact Name **Peter Gach** Email **Peter.gach@bumblebee.com**

Phone Number **619 380 0004** Ext. Fax Number

II. Billing Information

Billing To **Bumble Bee Foods, LLC** Contact Name **Peter Gach**

Billing Address **280 10th Ave** Email **Peter.gach@bumblebee.com**

City **San Diego** State **California** Zip **92101** Phone **619-380-0004**

III. Waste Stream Information

Name of Waste **Canned Foods**

Process Generating Waste **Canned Tuna - Consumer Quantity - non leaking Quality issue**

Type of Waste Industrial Process Waste Physically State Semi-Solid Method of Shipment Other

Estimated Volume **300,000** Volume Type **Pounds**

Frequency One-time Event (single project) Disposal Consideration and

IV. Representative Sample Certification

No Sample Taken

Sample Taken Type of Sample --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? Yes No

Sample Date

Sample ID Numbers or SDS

Remember to attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

V. Physical Characteristics of Waste

Characteristic Components (must equal 100%)

% By Weight (out of 100% - ranges acceptable)

1	Tuna	80
2	Vegetable Oil	18
3	Vegetable Broth	0-2
4	Salt	0-2
5		

Color	Odor (describe)	Does Waste Contain Requirements?	% Solids	pH	Ash Point
silver cans	none	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	100	6.2	n/s

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

RCRA Regulatory Questions

- Does this waste or generation process contain a regulated constituent as follows: Pesticides and/or herbicides, Color, Etc., epoxides, dioxins, Mercury, Toxaphene, 2,4-D, or 2,4,5-TSPS as defined 40 CFR 261.33? Yes No
- Does this waste contain a trace sulfide (generally 500 ppm) or a trace cyanide (generally 250 ppm) [see also 40 CFR 261.23(a)(5)]? Yes No
- Does this waste contain a regulated constituent as follows: Polycyclic aromatic hydrocarbons (PAHs) as defined 40 CFR Part 761? Yes No
- Does this waste contain a constituent as follows: Hazardous waste as defined 40 CFR 261.31, 261.32, 261.33, including RCRA F-listed Solvents? Yes No
- Is this waste being stored under 40 CFR 260.20 and 260.22? Yes, as a condition of a decision on the waste as published in the Federal Register Yes No
- Does this waste exhibit a hazardous Characteristic as defined by Federal and/or State regulations? Yes, describe the applicable waste code and specify the waste substance as defined by Federal, State or local? Yes No
- Does this waste contain a regulated constituent as follows: 2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD), or any other dioxin as defined 40 CFR 261.31? Yes No
- Is this a regulated Medical or Toxic Waste as defined by Federal and/or State regulations? Yes No
- Is this a regulated Radioactive Waste as defined by Federal and/or State regulations? Yes No
- Is this solid waste a hazardous waste according to 40 CFR 261.4(b)? Yes, please provide the corresponding regulation Yes No

Republic Services Waste Handling Questions

- Does this waste generate a waste management fee/milestone? Yes No
- Does this waste come from a manufacturer? Yes No
- Is this waste generated at a State or Federal Superfund site or subject to CERCLA? Yes No
- Is this waste from a TSD activity, TSD facility or contractor (employee or contractor)? Yes No
- If yes to the above questions, please provide clarification

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

PETER GACH

Authorized Representative Name
(Printed)

DIRECTOR OF LOGISTICS

Title
(Printed)

BUMBLEBEE SEAFOODS

Company Name

Peter Gach

Representative Signature

1/19/2021

Date



SPECIAL WASTE SERVICE AGREEMENT NON-HAZARDOUS WASTES

Special Waste Profile Number: 5123 21 21798

Generator Billing Information

Name: BUMBLE BEE FOODS LLC (ACCT TBD)
Address: 280 10TH AVE
City: SAN DIEGO
State: CA Zip: 92101
Phone: 619.380.0004 Fax: _____
Contact: PETER GACH

Republic Waste Location (Company)

SUNSHINE CANYON LANDFILL (5123)
14747 SAN FERNANDO RD
SYLMAR, CA 91342
818.362.2141

Project: FOOD PRODUCTS County and State of Origin: LOS ANGELES, CA

Additional Information: SITE: 13100 ARTIC CIR, SANTA FE SPRINGS, CA

1. **Special Waste Service.** Subject to the terms and conditions contained herein, the Company and the Generator agree to be legally bound hereby, and the Company agrees to accept at its facility identified above ("Facility"), Acceptable Waste (as defined in Section 6) delivered by Generator.

2. (A) **Rates for Disposal:**

<u>Waste</u>	<u>Disposal Method</u>	<u>Disposal Rate:</u>	<u>Fees / Taxes / Misc.</u>	<u>Transportation</u>
FOOD PRODUCTS	LANDFILL			N/A
N/A	N/A	N/A	N/A	N/A

INVOICE AND LATE FEES APPLY | A COMPLETED SIGNED MANIFEST IS REQUIRED FOR EACH PROFILED APPROVED LOAD RECEIVED AT SUNSHINE CANYON LANDFILL | FUEL AND ENVIRONMENTAL FEES MAY APPLY

PROFILE EXPIRES 1/19/2022 | MATERIAL CODE XD-FOOD WASTE | EAV 300,000 POUNDS

Generator shall also be liable for all taxes, fees, or other charges imposed by federal, state, local or provincial laws and regulations.

Cannot Exceed Daily Volume of 300,000 POUNDS Without Prior Approval of Company.

(B) **Incorporation by Reference.** In addition to Special Waste Profile(s), the following documents are incorporated by reference into this Agreement as if fully set forth herein.

1)N/A

2)N/A

3. **Term of Agreement.** This Agreement is effective for 12 months, commencing 1/19/2021 and shall automatically be renewed for a similar term thereafter unless either party shall give written notice (via certified mail) of termination to the other party at least thirty (30) days before the expiration of the then-current term.

THE COMPANY AND THE GENERATOR, IN CONSIDERATION OF THE MUTUAL OBLIGATIONS CONTAINED HEREIN, AGREE THAT THIS IS A LEGALLY BINDING AGREEMENT WHICH IS SUBJECT TO THE TERMS AND CONDITIONS SET FORTH ON THIS PAGE AND ON THE REVERSE SIDE OF THIS DOCUMENT. IN ADDITION, THE GENERATOR IS CERTIFYING THE ATTACHED TERMS AND CONDITIONS HAVE BEEN REVIEWED AND INITIALLED AT THE BOTTOM OF THE PAGE.

GENERATOR

SIGNATURE (AUTHORIZED REPRESENTATIVE)
Jill Donoghue, VP- Logistics

NAME AND TITLE (PLEASE PRINT)
2/3/2021

DATE

REPUBLIC SERVICES/COMPANY

SIGNATURE (AUTHORIZED REPRESENTATIVE)
EDWARD ANTOLIN, MESE

NAME AND TITLE (PLEASE PRINT)
2/4/2021

DATE

Terms and Conditions of Special Waste Service Agreement

4. **The Agreement.** This agreement of the parties ("Agreement") for the disposal of Acceptable Waste shall consist of this Agreement, riders to the Agreement (if any), any Special Waste Profiles (including any approved changes and re-certifications) and any Application, permit and approval that may be applicable to the disposal of such Acceptable Waste ("Acceptable Waste Documentation").
 5. **Waste Accepted at Facility.** Generator represents, warrants and covenants that the waste delivered to Company at its Facility hereunder will be Acceptable Waste and will not contain any unacceptable quantity of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances, as defined by applicable federal, state, local or provincial laws or regulations. Any waste which does not meet these requirements shall hereinafter be referred to as "Unacceptable Waste". The Generator shall in all matters relating to the collection, transportation and disposal of the Acceptable Waste hereunder, comply with all applicable federal, state and local laws, regulations, rules and orders regarding the same (collectively, "Applicable Laws").
 6. **Acceptable Waste.** Only waste that satisfies each of the following criteria shall be accepted for disposal at the Facility ("Acceptable Waste"): (a) the waste conforms to the description set forth in the Acceptable Waste Documentation; (b) the waste does not contain any Unacceptable Waste; (c) the waste is accurately reflected on any Special Waste Profile(s) as directed by the Company pursuant to Section 7; (d) the waste is acceptable for disposal at the Facility under all Applicable Laws; and (e) the transportation to and disposal of the waste at the Facility is otherwise in accordance with this Agreement. The parties may incorporate additional Acceptable Waste as part of this Agreement if prior to delivery of such Waste to Company, Generator has provided an Application for such Acceptable Waste and Company has approved disposal of such Acceptable Waste within the limitations and conditions contained in Company's written notice of approval of Special Waste Disposal. Title to and liability for any and all Acceptable Waste handled or disposed of by Company shall at all times remain with Generator and Broker (if a Broker is involved).
 7. **Rights of Refusal/Rejection.** The Generator shall inspect all waste at the place(s) of collection and shall remove any and all Unacceptable Waste. Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility including if the Company believes (a) Generator has breached (or is breaching) its representations, warranties, covenants or agreements in this Agreement or any Acceptable Waste Documentation, or any Applicable Laws; or (b) that the waste contains Unacceptable Waste. The Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility if the Company has reason to believe, in its sole discretion, that the waste: (1) emits excessive odors; (2) negatively impacts operations at the Facility. Company shall have the right to inspect all vehicles and containers of waste haulers, including the Generator's vehicles, in order to determine whether the waste is Acceptable Waste pursuant to this Agreement and all Applicable Laws. The Company's exercise, or failure to exercise, its rights hereunder shall not operate to relieve the Generator of its responsibilities or liability under this Agreement.
 8. **Limited License to Enter.** This Agreement provides Generator with a license to enter the Facility for the limited purpose of, and only to the extent necessary for, off-loading Acceptable Waste at the Facility in the manner directed by Company. Except in an emergency, Generator's personnel shall not leave the immediate vicinity of their vehicle. After off-loading the Acceptable Waste, Generator's personnel shall promptly leave the Facility. Under no circumstances shall Generator or its personnel engage in any scavenging of waste or other materials at the Facility. The Company reserves the right to make and enforce reasonable rules and regulations concerning the operation of the Facility, the conduct of the drivers and others on the Facility premises, quantities and sources of waste, and any other matters necessary or desirable for the safe, legal and efficient operation of the Facility including, but not limited to, speed limits on haul roads imposed by the Company, and the wearing of hard hats and other personal protection equipment by all individuals allowed on the Facility premises. Generator agrees to conform to such rules and regulations as they may be established and amended from time to time. Company may refuse to accept waste from and shall deny an entrance license to, any of Generator's personnel whom Company believes is under the influence of alcohol or other chemical substances. Generator shall be solely responsible for its employees and subcontractors performing their obligations in a safe manner when at the facility of Company.
 9. **Charges and Payment.** Payment shall be made by Generator within thirty (30) days after receipt of invoice from Company. If any amount is overdue, the Company may terminate this Agreement. Generator agrees to pay a finance charge equal to the maximum interest rate permitted by law. Generator shall be liable for all taxes, fees, or other charges imposed upon the disposal of the Acceptable Waste by federal, state, local or provincial laws and regulations. Company, from time to time, may modify its rates upon thirty (30) days written notice to Generator. For the purposes of this section, written notice may be provided via email, certified mail, or overnight courier.
 10. **Termination.** Company shall have the right to immediately terminate and/or suspend this Agreement upon the occurrence of any of the following events of default: (a) Generator's failure to timely pay any amounts due under this Agreement to Company; (b) Generator's breach of any of its obligations, representations, warranties or covenants under this Agreement or any Acceptable Waste Documentation; or (c) the filing of a voluntary or involuntary petition for reorganization or bankruptcy against Generator. Generator shall be liable for any losses, claims, expenses and damages incurred by Company as a result of suspension or termination hereunder. Generator's obligations, representations, warranties and covenants regarding the Acceptable Waste delivered and all indemnities contained in this Agreement shall survive expiration and termination of this Agreement. Additionally, Company shall have the right to terminate this Agreement for convenience at any time on 30 days' notice to Generator.
 11. **Driver's Knowledge and Authority.** Generator represents, warrants and covenants that its drivers who deliver Acceptable Waste to Company's Facility have been advised by Generator of the Company's prohibition on deliveries of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances or any other Unacceptable Waste to the Facility of Company's restrictions on deliveries of Special Waste to the Facility, of the definitions of "Hazardous Waste and Hazardous Substances" as provided by applicable federal, state and local law, rules and regulations and "Special Waste" as provided herein, and of the terms of this license to enter Company's Facility.
 12. **Indemnification.** Generator shall indemnify, defend and hold harmless the Company and its subsidiaries, affiliates and parent corporations, as applicable and their respective officers, directors, lenders, employees, subcontractors and agents from and against any and all claims, suits, losses, liabilities, assessments, damages, fines, costs and expenses, including reasonable attorneys fees arising under federal, state or local laws, regulations or ordinances, or relating to the (a) the transportation to and/or disposal of any Unacceptable Waste at the Facility, whether or not Generator or Company was negligent in failing to identify the Unacceptable Waste; (b) the reloading and/or removal of Unacceptable Waste at the Facility; (c) any penalties, fines or remediation activities incurred by or imposed as the result of the transportation and/or disposal of Unacceptable Waste; (d) any increased inspection, testing, study and analysis costs made necessary due to reasonable concerns of Company as to the content of the waste transported and/or disposed of at the Facility following discovery of potentially Unacceptable Waste; and (e) the Company's inability to use the Facility due to the presence of Unacceptable Waste including without limitation any consequential damages. Company may also, in its sole discretion, require Generator to promptly remove the Unacceptable Waste at Generator's sole expense. This indemnification and other obligations stated in this paragraph shall survive the termination of this Agreement.
 13. **Insurance.** Generator shall maintain in full force and effect throughout the term of this Agreement the following types of insurance in at least the amounts specified below:

Coverages	Minimum Amounts of Insurance
Worker's Compensation	Statutory
Employer's Liability	\$1,000,000
General Liability	\$1,000,000 combined single limit
Automobile Liability (if Generator hauling)	\$1,000,000 combined single limit
- General Liability (including the Umbrella/Excess policy) must include Contractual Liability coverage specifically covering Generator's indemnification of Company, and (ii) The Commercial General Liability, Automobile Liability and the Umbrella/Excess Liability policies must be written on an "occurrence form". Said policies shall not thereafter be canceled, be permitted to expire or laps, or be changed without 30 days advance written notice has been given to Company. With the exception of workers' compensation, Company shall be shown as additional insureds under all of the insurance policies required by this Section 13. The policies required by this Section 13 shall be primary and non-contributory with respect to Company, and the insurance providers shall agree to waive their rights of subrogation against Company.
14. **Failure to Perform.** Except for Generator's obligation to pay amounts due to Company, neither party hereto shall be liable for its failure to perform hereunder due to circumstances not its fault and beyond its reasonable control, including, but not limited to, strikes or other labor disputes, riots, protests, civil disturbances or sabotage, changes in law, fires, floods, compliance with government requests, explosions, accidents, weather, lack of required natural resources, or acts of God affecting either party hereto. In the event of any of the circumstances provided for in the preceding sentence, including, but not limited to, whether any federal, state or local court or governmental authority takes any action which would (i) close or restrict operations at the Facility, (ii) limit the quantity or prohibit the disposal of Acceptable Waste at the Facility, or (iii) limit the ability of or prohibit Generator from delivering Acceptable Waste to the Facility, the Company shall have the right, at its option, to reduce, suspend or terminate Generator's access to the Facility immediately, without prior notice and without any additional liabilities between the parties, other than Generator's payment obligation hereunder. Neither Party is required hereunder to settle any labor dispute against its own best judgment.
 15. **Assignment.** Generator may not assign, transfer or otherwise vest in any other Company, entity or person, in whole or in part, any of its rights or obligations under the Agreement without the prior written consent of the Company, provided, however, that the Company may without any such prior written consent, assign its rights and/or obligations under the Agreement to a subsidiary or affiliate corporation.
 16. **Right of Disposal.** This Agreement does not grant any rights to dispose of waste other than in accordance herewith.
 17. **Continuing Compliance.** The Generator has a continuing obligation to inform the Company of any new information, or information not previously provided to the Company by Generator which may affect the acceptability of the waste by the Company. Further, the Generator shall comply with all Company requests for evidence of Generator's continuing compliance with the terms of the Agreement including but not limited to the following: (i) providing new, updated Special Waste profiles on the waste(s) offered for disposal or, (ii) providing appropriate certification that the waste being offered for disposal is accurately reflected by the appropriate Special Waste Profile or, (iii) re-sample the waste at Generator's expense if reasonable cause exists as to its acceptability under the terms of this Agreement or, (iv) allow the Company to re-sample the waste at Generator's expense if reasonable cause exists as to its acceptability under the terms of this Agreement or any Acceptable Waste Documentation.
 18. **Miscellaneous.**
 - (A) This Agreement shall be governed by the laws of the State in which the Facility is located.
 - (B) No waiver of a breach of any of the obligations contained in the Agreement shall be construed to be a waiver of any prior or succeeding breach of the same obligation or of any other obligation of this Agreement.
 - (C) Unless otherwise provided for herein, no modification, release, discharge or waiver of any provision or obligation hereof shall be of any force, or effect, unless in writing signed by all parties to this Agreement.
 - (D) Generator shall treat as confidential and not disclose to others during or subsequent to the terms of this Agreement, except as is necessary to perform this Agreement, or to comply with any applicable law or regulation any information (including any technical information, experience or date) regarding the Company's plans, programs, plants, processes, products, costs, equipment or operations which may come within the knowledge of the Generator or its employees in the performance of this Agreement, without in each instance securing the prior written consent of the other Company.
 - (E) If any term, phrase, obligation or provision of this Agreement shall be held to be invalid, illegal or unenforceable in any respect, this Agreement shall remain in effect and be construed without regard to such term, phrase, obligation or provision.
 - (F) This Agreement constitutes the entire understanding between the parties, replacing and amending any prior agreements between the parties, and shall be binding upon all parties hereto, their successors, heirs, representatives and assigns. Any provision, term or condition in any acknowledgement, purchase order or other response by Generator which is in addition to or different from the provisions of this Agreement shall be deemed objected to by the Company and shall be of no effect.
 - (G) Generator represents, warrants and covenants that it is and, during the term of this Agreement will remain, in compliance with and will perform its obligations pursuant to all applicable laws and regulations and shall indemnify, defend and hold harmless the Company from any breach thereof.
 - (H) It is the understanding and agreement of the parties that the Company is an independent contractor, and is not an agent, nor an authorized representative of the Generator.
 - (I) Company may provide any of the Services covered by this Agreement through any of its affiliates or subcontractors, provided that Company shall remain responsible for the performance of all such services and obligations in accordance with this Agreement
 20. **Notices.** Unless otherwise provided herein, all notices herein provided for shall be considered as having been given upon being placed in the mail, certified postage prepaid addressed to the Company or Generator at the address herein set forth in this Agreement or to such other address as may be given to the other party in writing.
 21. **Liquidated Damages.** If Generator terminates this Agreement before its expiration other than as a result of a breach by Company, Generator shall pay Company an amount equal to the most recent month's monthly charges multiplied by the lesser of (a) six months or (b) the number of months remaining in the term. Generator acknowledges that in the event of such a termination, actual damages to Company would be uncertain and difficult to ascertain, such amount is the best, reasonable and objective estimate of the actual damages to Company, such amount does not constitute a penalty, and such amount is reasonable under the circumstances. Any amount payable under this paragraph shall be in addition to amounts already owing under this Agreement.

All insurance will be by insurers authorized to do business in the state in which the Facility is located. Generator shall deliver the Certificates of Insurance evidencing the foregoing policies to Company before Generator delivers any waste to the Facility pursuant to this Agreement. In addition, the (i) Commercial

GENERATOR: _____

REPUBLIC SERVICES/COMPANY: _____

December 2018

MUTUAL CONFIDENTIALITY AGREEMENT

This Mutual Confidentiality Agreement (the “Agreement”) is entered into this 13th day of January, 2021 (“Effective Date”) by Bumble Bee Foods, LLC., a Delaware limited liability company, with its principal place of business at 280 10th Avenue, San Diego, California 92101 (“Bumble Bee”) and Sunshine Canyon Landfill/Republic Services, 14747 San Fernando Road, Sylmar CA 91342 (“Vendor”).

WHEREAS, in order to pursue a potential business relationship (a “Potential Relationship”), Bumble Bee and Vendor recognize that there is a need to disclose to each other certain confidential information of each party to be used solely for the purpose of evaluating this Potential Relationship; and

WHEREAS, in contemplation of the Potential Relationship, the parties will be providing certain Information (as defined below) which is non-public, confidential and/or proprietary in nature to the other party and the parties agree that such Information shall be kept confidential in accordance with the terms hereof.

NOW THEREFORE, the parties agree as follows:

1. As used herein, “Information” shall include all information and documents (including without limitation, information relating to trade secrets, marketing strategies, product development, production processes, formulae, ingredients, patent, patent application, specifications, and information of third parties with respect to which the Disclosing Party (defined herein) is obligated to maintain confidentiality), whether in written or oral form, that have been furnished by a party or its Representatives (defined herein) or that become available as a result of access provided by a party or its affiliates (the “Disclosing Party”) to the other party or its Representatives (the “Receiving Party”), whether furnished before or after the Effective Date of this Agreement, together with all analyses, compilations, data studies or other documents prepared by the Receiving Party or by its Representatives containing, or based in whole or in part on any such furnished information or reflecting the Receiving Party’s review or assessment of, the furnished Information. Notwithstanding the foregoing, Information does not include any information that (i) is or becomes generally and lawfully available and known to the public other than as a result of an unauthorized disclosure directly or indirectly by the Receiving Party, its Representatives, or any third party owing an obligation of confidentiality to the Disclosing party; (ii) becomes lawfully available to the Receiving Party on a nonconfidential basis from a source, other than the Disclosing Party or one of its Representatives, that it is not bound by a confidentiality agreement with or other contractual, legal or fiduciary obligation of confidentiality to the Disclosing Party or any other party with respect to any portion of the Information, (iii) was lawfully known to the Receiving Party on a nonconfidential basis prior to its disclosure to the Receiving Party by the Disclosing Party or one of its Representatives and the Receiving Party has records or other documentation to evidence such prior knowledge; or (iv) is independently developed by or on behalf of Receiving Party without use of or reference to Information and the Receiving Party has records or other documentation to evidence such independent development.

2. The Information will be kept confidential and will not, without the prior written consent of the Disclosing Party, be disclosed by the Receiving Party or any of its officers, directors, managers, employees, stockholders, members, partners, affiliates or other representatives (“Representatives”), in any manner whatsoever, in whole or in part, and will not be used by the Receiving Party or its Representatives directly or indirectly for any purpose other than evaluating a Potential Relationship. Moreover, the Receiving Party agrees to transmit the Information only to those Representatives who need to know the Information for the purpose of evaluating a Potential Relationship,

who are informed by the Receiving Party of the confidential nature of the Information and are bound to protect the received Information from unauthorized use and disclosure under the terms of a written agreement or other duty of confidentiality, in each case, containing covenants at least as restrictive as those contained herein. The Receiving Party will not attempt to disassemble, reverse engineer, or otherwise process any Information in a manner that may reveal trade secrets or other Information.

3. Without the Disclosing Party's prior written consent, the Receiving Party and its Representatives will not disclose to any other person (other than as authorized pursuant to Section 2, above) that the Information has been made available, that investigations, discussions or negotiations are taking place concerning a possible Potential Relationship or any of the terms, conditions or other facts with respect to any such possible Potential Relationship, including the status thereof. The term "person" as used in this Agreement shall be interpreted to include without limitation, the media and any corporation, company, group, partnership or individual.

4. Except as is necessary for Receiving Party to comply with legal obligations, the Information and all copies thereof will be returned or, at Receiving party's option, destroyed immediately, without retaining any copies thereof except for any copies retained for legal or archive purposes, (a) if the Receiving Party determines not to proceed with a Potential Relationship or (b) at any earlier time that the Disclosing Party so requests. Notwithstanding the return of the Information, the Receiving Party and its Representatives will continue to be bound by their obligations hereunder.

5. In the event that the Receiving Party or any of its Representatives is requested or becomes legally compelled (by oral questions, interrogatories, request for information or documents, subpoena, criminal or civil investigative demand or similar process) by any court, regulatory agency, governmental authority, or other similar authority, to disclose any of the Information, the Receiving Party will provide the Disclosing Party with prompt written notice so that the Disclosing Party may seek (with the Receiving Party's cooperation, if so requested by the Disclosing Party) a protective order or other appropriate remedy and/or waive compliance with the provisions of this Agreement. In the event that such protective order or other remedy is not obtained, or that the Disclosing Party waives compliance with the provisions of this Agreement, the Receiving Party will furnish only that portion of the Information that it is advised by opinion of counsel is legally required and will exercise its best efforts to obtain reliable assurance that confidential treatment will be accorded the Information.

6. The Receiving Party agrees that any breach of this Agreement will cause the Disclosing Party or its Representatives substantial and irreparable harm, the amount of which will be difficult to measure, and therefore, in the event of any such breach, in addition to such other remedies that may be available, Disclosing party or its Representatives (as applicable) will have the right to injunctive relief, without the posting of any bond or security therefor. Receiving Party agrees that there is no adequate remedy at law for any breach of this Agreement, and thereby waives as a defense to injunctive relief that there is an adequate remedy at law. Such remedies shall not be deemed to be the exclusive remedies for a breach of this Agreement by Receiving Party or its Representatives but shall be in addition to all other remedies available at law or in equity. If any legal action is brought for the enforcement of the Agreement, or because of an alleged dispute, breach, default or misrepresentation in connection with any of the provisions of this Agreement, the prevailing party or parties shall be entitled to recover its reasonable attorneys' fees and other costs incurred in such legal action, in addition to any other relief to which he, it or they may be entitled.

7. It is further understood and agreed that no failure or delay by the Disclosing Party in exercising any right, power or privilege under this Agreement shall operate as a waiver thereof nor shall any single or partial exercise thereof preclude any other or further exercise of any right, power or privilege hereunder. The waiver of any provision of this Agreement may only be effected by a writing signed by the

party against whom enforcement of the waiver is sought. No waiver of any of the provisions of this Agreement will be deemed a waiver of any other provisions hereof (whether similar or not), nor will any such waiver constitute a continuing waiver unless expressly so provided. Any modifications of this Agreement must be in a writing signed by both parties.

8. This Agreement will expire three (3) years from the date of this Agreement or three (3) years after termination of the definitive agreement (if any) related to the Potential Relationship, whichever is later; provided that, notwithstanding the foregoing, the parties shall be obligated to protect the Information (and the non-disclosure and non-use obligations herein shall continue to apply) until the Information is no longer considered confidential pursuant to Section 1 of this Agreement and obligations with respect to Information that constitute trade secrets will continue for so long as such Information is eligible for trade secret protection under applicable law.

9. This Agreement shall be governed by and construed in accordance with the laws of the State of California, without regards to its conflict of laws principles that may result in the application of the laws of another jurisdiction. For any legal action arising out of or related to this agreement, the parties (i) agree that the federal or state courts seated within San Diego County, California, shall have exclusive jurisdiction, and (ii) waive any challenge to personal jurisdiction, venue, inconvenient forum, or other challenge to such courts.

10. Each of the parties represents and warrants that: (a) the execution, delivery and performance of this Agreement (i) has been duly authorized and represents its legal, valid and binding obligation, enforceable in accordance with its terms and (ii) does not contravene any contractual obligation or restriction binding upon or affecting such party; and (b) it has the corporate or other requisite authority to enter into this Agreement and perform its obligations hereunder. Neither party makes any representation or warranty as to the completeness, accuracy or reliability of any Information. Each party agrees to indemnify and hold harmless the other party and its Representatives harmless from any damages, loss, cost, cause of action, expense or liability (including reasonable attorneys' fees, other costs incurred, and the cost of enforcing this indemnity) arising out of or resulting from the breach of this agreement, including any such damages, loss, cost, cause of action, expense or liability resulting from any disclosure by the Receiving Party of a third party's confidential information in breach of this Agreement.

11. This Agreement does not grant and shall not be construed as granting to either party a license or any rights under any patent, trademark, copyright, or trade secret of Disclosing Party beyond that which is necessary for the purposes of this Agreement.

12. Nothing in this Agreement, nor any meetings or conversations with respect to a Potential Relationship or whatever Information is exchanged, shall impose an obligation on either party to consummate an agreement with the other party or to enter into any negotiations with respect thereto or to continue to disclose Information to the other party. No contract or agreement providing for a Potential Relationship shall be deemed to exist unless and until a definitive agreement has been executed and delivered by each of the parties thereto. Each party further acknowledges that neither this Agreement nor any meetings and communications of the parties relating to the same subject matter shall (a) constitute an offer, request, or contract with the other involving a buyer-seller relationship, joint-venture, alliance, investment or partnership relationship, or (b) restrict the right of either party to make any market entry into the other party's market area or to compete, directly or indirectly, with the other party so long as the confidentiality and non-use provisions of this Agreement are followed. The parties expressly agree that any money, expenses or losses expended or incurred by either party in preparation for, or as a result of, this Agreement or the parties' meetings and communications, is at such party's sole cost and expense.

13. This Agreement constitutes the entire agreement between the parties hereto with respect to its subject matter and supersedes any and all prior agreements, discussions, negotiations, arrangements, or understandings, whether written, oral or implied, with respect to the subject matter of this Agreement. This Agreement may not be modified or amended without the prior written consent of each party.

14. This Agreement may be executed in one or more counterparts, each of which will be deemed to be an original, but all of which shall constitute the same agreement. For purposes of this Agreement, a facsimile or .pdf of a party's signature printed by a receiving facsimile or printer will be deemed an original signature.

15. Nothing expressed or referred to in this Agreement shall be construed to give any person other than the parties and their Representatives (as applicable) and, to the extent set forth herein, their respective successors, and permitted assigns) any legal or equitable right, remedy, or claim under or with respect to this Agreement or any provision hereof.

16. Neither party may assign its rights hereunder without the express written consent of the other party, other than to an affiliate, subsidiary or acquirer of all or substantially all of a party's assets or equity securities.

17. This Agreement shall be deemed to be jointly drafted by the parties, and no ambiguity is to be construed against one party over the other.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives.

BUMBLE BEE FOODS, LLC

By:
Name: Jill Donoghue
Title: VP - Logistics

Sunshine Canyon Landfill/Republic Services

By: *Edward Antolin*
Name: Edward Antolin
Title: Manufacturing and Environmental Services Executive



Republic Services

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

Waste Profile #
51232122686

Expiration Date
2/8/2024

I. Decision Request:

Initial Recertification Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: ORANGE TRADERS LLC

Generator Site Address: 10500 LAKELINE MALL DRIVE #5406

City: AUSTIN

County:

State: TX

Zip:

Name of Waste: VEGETABLE DISPOSAL

Estimated Annual Volume: 1 Tons

II. Special Waste Department Decision: Approved Rejected

Management Method(s): Landfill Solidification Bioremediation Deep Well Transfer Facility

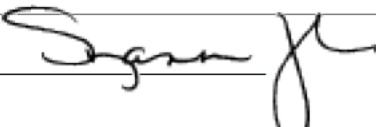
Problematic Special Waste according to Republic? Yes No

If yes, which one?

Approved by Special Waste Review Committee? Yes No Not Applicable

Precautions, Conditions or Limitations on Approval

This material must be buried immediately upon receipt at the landfill.

Special Waste Analyst Signature: 

Name (Printed): Suzanne Glass

Date: 2/8/2021

III. Facility Decision: Approved Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: _____
Date: 2/8/2021

Name (Printed): _____

Special Waste Profile



Disposal Facility: 4533 Borrego Springs Landfill CA
5123 Sunshine Canyon Landfill, CA
MP 1/28/21

Waste Profile #: 51232122686
Sales Rep #:

I. Generator Information

Generator Name: Orange Traders LLC
Generator Site Address: 10500 Lakeline Mall drive # 5406
City: Austin County: Williamson State: Texas Zip: 78717
State ID/Reg No: State Approval/Waste Code: NAICS #:
Generator Mailing Address (if different)
City: County: State: --Select State-- Zip:
Generator Contact Name: Mehul Patel MP 2/16/21 Email: mehul0513@gmail.com
Phone Number: 845-616-2436 Ext: Fax Number:

II. Billing Information

Bill To: Orange Traders LLC Contact Name: Mehul Patel
Billing Address: 10500 Lakeline Mall Drive # 5406 Email: mehul0513@gmail.com
City: Austin State: Texas Zip: 78717 Phone: 845-616-2436

III. Waste Stream Information

Name of Waste: Vegetable Disposale
Process Generating Waste: Disposing vegetables as they are old. They are packed individually in box
MP 2/16/21
Type of Waste: Industrial Process Waste Physical State: Solid Method of Shipment: Bagged
Estimated Volume: 1 Volume Type: Tons
Frequency: On-going Waste Stream Disposal Consideration: Landfill

IV. Representative Sample Certification

No Sample Taken
 Sample Taken Type of Sample --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? Yes No

Sample Date: Sample ID Numbers or SDS:

Remember to attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

Special Waste Profile



V. Physical Characteristics of Waste

Characteristic Components (must equal 100%):

% By Weight (out of 100% - ranges acceptable):

1. Vegetables	100
2.	
3.	
4.	
5.	

Color: Odor (describe): Does Waste Contain Free Liquids? Yes No % Solids: pH: Flash Point: °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

RCRA Regulatory Questions

- Does this waste or generating process contain regulated concentrations of the following Pesticides and/ or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33? Yes No
- Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261.23(a)(5)]? Yes No
- Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761? Yes No
- Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents? Yes No
- Has this waste been delisted under 40 CFR 260.20 and 260.22? If yes, attach the final decision to delist the waste as published in the Federal Register. Yes No
- Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations? If Yes, identify the applicable waste code and specify if the waste is hazardous as defined by Federal, State or both? Yes No
- Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCDD), or any other dioxin as defined in 40 CFR 261.31? Yes No
- Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations? Yes No
- Is this a regulated Radioactive Waste as defined by Federal and/or State regulations? Yes No
- Is this a solid waste that is not a hazardous waste in accordance with 40 CFR 261.4(b)? If yes, please provide the corresponding regulatory citation. Yes No

Republic Services Waste Handling Questions

- Does this waste generate heat or react when contacted with water/moisture? Yes No
- Does the waste contain sulfur or sulfur by-products? Yes No
- Is this waste generated at a State or Federal Superfund cleanup site subject to regulation under CERCLA? Yes No MP 2/4/21
- Is this waste from a TSD facility, TSD-like facility or consolidator (i.e. multiple wastes/multiple generators)? Yes No
- If yes to the above question, please provide clarification.

Special Waste Profile



VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

Mehul Patel

Authorized Representative Name
(Printed)

Owner

Title
(Printed)

Orange Traders LLC

Company Name

 MP | 2/8/21

Representative Signature

2/8/21 MP 2/8/21

Date

Storm, Samantha

From: Coyle, Chris
Sent: Tuesday, February 9, 2021 9:07 AM
To: Storm, Samantha
Cc: Kidd, Kelly - Stockton
Subject: RE: SWSA For Your Approval
Attachments: Chris Coyle-Signatures.pdf

Hi Samantha,

Approved. Can you snip my signature off the attached and add please?

Thanks

Chris Coyle

General Manager
Sunshine Canyon Landfill

14747 San Fernando Road
Sylmar, CA 91342

e ccoyle@republicservices.com

o 818.362.2141 c 480.369.0024

f 818.362.5484 w RepublicServices.com



We'll handle it from here.*

From: Storm, Samantha <SVega2@republicservices.com>
Sent: Tuesday, February 9, 2021 7:47 AM
To: Coyle, Chris <CCoyle@republicservices.com>
Cc: Kidd, Kelly - Stockton <KKidd@republicservices.com>
Subject: SWSA For Your Approval

Good morning Chris,

Attached is the signed service agreement for your approval. Can you please wet sign if possible as I do not have a stamp.

Thank you.



SPECIAL WASTE SERVICE AGREEMENT NON-HAZARDOUS WASTES

Special Waste Profile Number: 51232122686

Generator Billing Information

Name: Orange Traders LLC
Address: 10500 Lakeline Mall Drive #5406
City: Austin
State: CA Zip: 78717
Phone: 845-616-2436 Fax: _____
Contact: Mehul Patel

Sunshine Canyon Landfill (5123)

14747 San Fernando Rd
Sylmar, CA 91342
818-833-6500

Project: 1050 Lakeline Mall Drive #5406, Austin TX County and State
78717 of Origin: _____

Additional Information: _____

1. **Special Waste Service.** Subject to the terms and conditions contained herein, the Company and the Generator agree to be legally bound hereby, and the Company agrees to accept at its facility identified above ("Facility"), Acceptable Waste (as defined in Section 6) delivered by Generator.

2. (A) **Rates for Disposal:**

<u>Waste</u>	<u>Disposal Method</u>	<u>Disposal Rate:</u>	<u>Fees / Taxes / Misc.</u>	<u>Transportation</u>
<u>Vegetable Disposal</u>	<u>Landfill</u>	<u>[REDACTED]</u>	<u>Fees Apply See Below</u>	_____

Additional Information: [REDACTED]

Generator shall also be liable for all taxes, fees, or other charges imposed by federal, state, local or provincial laws and regulations.

Cannot Exceed Daily Volume of _____ Without Prior Approval of Company.

(B) **Incorporation by Reference.** In addition to Special Waste Profile(s), the following documents are incorporated by reference into this Agreement as if fully set forth herein.

1) Terms and Conditions of Generator Special Waste Service Agreement.Doc

2) _____

3. **Term of Agreement.** This Agreement is effective for 12 months, commencing 02/08/21 and shall automatically be renewed for a similar term thereafter unless either party shall give written notice (via certified mail) of termination to the other party at least thirty (30) days before the expiration of the then-current term.

THE COMPANY AND THE GENERATOR, IN CONSIDERATION OF THE MUTUAL OBLIGATIONS CONTAINED HEREIN, AGREE THAT THIS IS A LEGALLY BINDING AGREEMENT WHICH IS SUBJECT TO THE TERMS AND CONDITIONS SET FORTH ON THIS PAGE AND ON THE REVERSE SIDE OF THIS DOCUMENT. IN ADDITION, THE GENERATOR IS CERTIFYING THE ATTACHED TERMS AND CONDITIONS HAVE BEEN REVIEWED AND INITIALLED AT THE BOTTOM OF THE PAGE.

GENERATOR

[Signature]
SIGNATURE (AUTHORIZED REPRESENTATIVE)

Mehul Patel owner
NAME AND TITLE (PLEASE PRINT)

2/8/21
DATE

REPUBLIC SERVICES/COMPANY

SIGNATURE (AUTHORIZED REPRESENTATIVE)

Edward Antolin, Special Waste Sales Representative
NAME AND TITLE (PLEASE PRINT)

DATE

Terms and Conditions of Special Waste Service Agreement

4. **The Agreement.** This agreement of the parties ("Agreement") for the disposal of Acceptable Waste shall consist of this Agreement, riders to the Agreement (if any), any Special Waste Profiles (including any approved changes and re-certifications) and any Application, permit and approval that may be applicable to the disposal of such Acceptable Waste ("Acceptable Waste Documentation").
5. **Waste Accepted at Facility.** Generator represents, warrants and covenants that the waste delivered to Company at its Facility hereunder will be Acceptable Waste and will not contain any unacceptable quantity of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances, as defined by applicable federal, state, local or provincial laws or regulations. Any waste which does not meet these requirements shall hereinafter be referred to as "Unacceptable Waste". The Generator shall in all matters relating to the collection, transportation and disposal of the Acceptable Waste hereunder, comply with all applicable federal, state and local laws, regulations, rules and orders regarding the same (collectively, "Applicable Laws").
6. **Acceptable Waste.** Only waste that satisfies each of the following criteria shall be accepted for disposal at the Facility ("Acceptable Waste"): (a) the waste conforms to the description set forth in the Acceptable Waste Documentation; (b) the waste does not contain any Unacceptable Waste; (c) the waste is accurately reflected on any Special Waste Profile(s) as directed by the Company pursuant to Section 7; (d) the waste is acceptable for disposal at the Facility under all Applicable Laws; and (e) the transportation to and disposal of the waste at the Facility is otherwise in accordance with this Agreement. The parties may incorporate additional Acceptable Waste as part of this Agreement if prior to delivery of such Waste to Company, Generator has provided an Application for such Acceptable Waste and Company has approved disposal of such Acceptable Waste within the limitations and conditions contained in Company's written notice of approval of Special Waste Disposal. Title to and liability for any and all Acceptable Waste handled or disposed of by Company shall at all times remain with Generator and Broker (if a Broker is involved).
7. **Rights of Refusal/Rejection.** The Generator shall inspect all waste at the place(s) of collection and shall remove any and all Unacceptable Waste. Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility including if the Company believes (a) Generator has breached (or is breaching) its representations, warranties, covenants or agreements in this Agreement or any Acceptable Waste Documentation, or any Applicable Laws; or (b) that the waste contains Unacceptable Waste. The Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility if the Company has reason to believe, in its sole discretion, that the waste: (1) emits excessive odors; and/or (2) negatively impacts operations at the Facility. Company shall have the right to inspect all vehicles and containers of waste haulers, including the Generator's vehicles, in order to determine whether the waste is Acceptable Waste pursuant to this Agreement and all Applicable Laws. The Company's exercise, or failure to exercise, its rights hereunder shall not operate to relieve the Generator of its responsibilities or liability under this Agreement.
8. **Limited License to Enter.** This Agreement provides Generator with a license to enter the Facility for the limited purpose of, and only to the extent necessary for, off-loading Acceptable Waste at the Facility in the manner directed by Company. Except in an emergency, Generator's personnel shall not leave the immediate vicinity of their vehicle. After off-loading the Acceptable Waste, Generator's personnel shall promptly leave the Facility. Under no circumstances shall Generator or its personnel engage in any scavenging of waste or other materials at the Facility. The Company reserves the right to make and enforce reasonable rules and regulations concerning the operation of the Facility, the conduct of the drivers and others on the Facility premises, quantities and sources of waste, and any other matters necessary or desirable for the safe, legal and efficient operation of the Facility including, but not limited to, speed limits on haul roads imposed by the Company, and the wearing of hard hats and other personal protection equipment by all individuals allowed on the Facility premises. Generator agrees to conform to such rules and regulations as they may be established and amended from time to time. Company may refuse to accept waste from and shall deny an entrance license to, any of Generator's personnel whom Company believes is under the influence of alcohol or other chemical substances. Generator shall be solely responsible for its employees and subcontractors performing their obligations in a safe manner when at the facility of Company.
9. **Charges and Payment.** Payment shall be made by Generator within thirty (30) days after receipt of invoice from Company. If any amount is overdue, the Company may terminate this Agreement. Generator agrees to pay a finance charge equal to the maximum interest rate permitted by law. Generator shall be liable for all taxes, fees, or other charges imposed upon the disposal of the Acceptable Waste by federal, state, local or provincial laws and regulations. Company, from time to time, may modify its rates upon thirty (30) days written notice to Generator. For the purposes of this section, written notice may be provided via email, certified mail, or overnight courier.
10. **Termination.** Company shall have the right to immediately terminate and/or suspend this Agreement upon the occurrence of any of the following events of default: (a) Generator's failure to timely pay any amounts due under this Agreement to Company; (b) Generator's breach of any of its obligations, representations, warranties or covenants under this Agreement or any Acceptable Waste Documentation; or (c) the filing of a voluntary or involuntary petition for reorganization or bankruptcy against Generator. Generator shall be liable for any losses, claims, expenses and damages incurred by Company as a result of suspension or termination hereunder. Generator's obligations, representations, warranties and covenants regarding the Acceptable Waste delivered and all indemnities contained in this Agreement shall survive expiration and termination of this Agreement. Additionally, Company shall have the right to terminate this Agreement for convenience at any time on 30 days' notice to Generator.
11. **Driver's Knowledge and Authority.** Generator represents, warrants and covenants that its drivers who deliver Acceptable Waste to Company's Facility have been advised by Generator of the Company's prohibition on deliveries of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances or any other Unacceptable Waste to the Facility of Company's restrictions on deliveries of Special Waste to the Facility, of the definitions of "Hazardous Waste and Hazardous Substances" as provided by applicable federal, state and local law, rules and regulations and "Special Waste" as provided herein, and of the terms of this license to enter Company's Facility.
12. **Indemnification.** Generator shall indemnify, defend and hold harmless the Company and its subsidiaries, affiliates and parent corporations, as applicable and their respective officers, directors, lenders, employees, subcontractors and agents from and against any and all claims, suits, losses, liabilities, assessments, damages, fines, costs and expenses, including reasonable attorneys fees arising under federal, state or local laws, regulations or ordinances, or relating to the (a) the transportation to and/or disposal of any Unacceptable Waste at the Facility, whether or not Generator or Company was negligent in failing to identify the Unacceptable Waste; (b) the reloading and/or removal of Unacceptable Waste at the Facility; (c) any penalties, fines or remediation activities incurred by or imposed as the result of the transportation and/or disposal of Unacceptable Waste; (d) any increased inspection, testing, study and analysis costs made necessary due to reasonable concerns of Company as to the content of the waste transported and/or disposed of at the Facility following discovery of potentially Unacceptable Waste; and (e) the Company's inability to use the Facility due to the presence of Unacceptable Waste including without limitation any consequential damages. Company may also, in its sole discretion, require Generator to promptly remove the Unacceptable Waste at Generator's sole expense. This indemnification and other obligations stated in this paragraph shall survive the termination of this Agreement.
13. **Insurance.** Generator shall maintain in full force and effect throughout the term of this Agreement the following types of insurance in at least the amounts specified below:

Coverages	Minimum Amounts of Insurance
Worker's Compensation	Statutory
Employer's Liability	\$1,000,000
General Liability	\$1,000,000 combined single limit
Automobile Liability (if Generator hauling)	\$1,000,000 combined single limit

All insurance will be by insurers authorized to do business in the state in which the Facility is located. Generator shall deliver the Certificates of Insurance evidencing the foregoing policies to Company before Generator delivers any waste to the Facility pursuant to this Agreement. In addition, the (i) Commercial

General Liability (including the Umbrella/Excess policy) policy must include Contractual Liability coverage specifically covering Generator's indemnification of Company, and (ii) The Commercial General Liability, Automobile Liability and the Umbrella/Excess Liability policies must be written on an "occurrence form". Said policies shall not thereafter be canceled, be permitted to expire or laps, or be changed without 30 days advance written notice has been given to Company. With the exception of workers' compensation, Company shall be shown as additional insureds under all of the insurance policies required by this Section 13. The policies required by this Section 13 shall be primary and non-contributory with respect to Company, and the insurance providers shall agree to waive their rights of subrogation against Company.

14. **Failure to Perform.** Except for Generator's obligation to pay amounts due to Company, neither party hereto shall be liable for its failure to perform hereunder due to circumstances not its fault and beyond its reasonable control, including, but not limited to, strikes or other labor disputes, riots, protests, civil disturbances or sabotage, changes in law, fires, floods, compliance with government requests, explosions, accidents, weather, lack of required natural resources, or acts of God affecting either party hereto. In the event of any of the circumstances provided for in the preceding sentence, including, but not limited to, whether any federal, state or local court or governmental authority takes any action which would (i) close or restrict operations at the Facility, (ii) limit the quantity or prohibit the disposal of Acceptable Waste at the Facility, or (iii) limit the ability of or prohibit Generator from delivering Acceptable Waste to the Facility, the Company shall have the right, at its option, to reduce, suspend or terminate Generator's access to the Facility immediately, without prior notice and without any additional liabilities between the parties, other than Generator's payment obligation hereunder. Neither Party is required hereunder to settle any labor dispute against its own best judgment.
15. **Assignment.** Generator may not assign, transfer or otherwise vest in any other Company, entity or person, in whole or in part, any of its rights or obligations under the Agreement without the prior written consent of the Company, provided, however, that the Company may without any such prior written consent, assign its rights and/or obligations under the Agreement to a subsidiary or affiliate corporation.
16. **Right of Disposal.** This Agreement does not grant any rights to dispose of waste other than in accordance herewith.
17. **Continuing Compliance.** The Generator has a continuing obligation to inform the Company of any new information, or information not previously provided to the Company by Generator which may affect the acceptability of the waste by the Company. Further, the Generator shall comply with all Company requests for evidence of Generator's continuing compliance with the terms of the Agreement including but not limited to the following: (i) providing new, updated Special Waste profiles on the waste(s) offered for disposal or, (ii) providing appropriate certification that the waste being offered for disposal is accurately reflected by the appropriate Special Waste Profile or, (iii) re-sample the waste at Generator's expense if reasonable cause exists as to its acceptability under the terms of this Agreement or, (iv) allow the Company to re-sample the waste at Generator's expense if reasonable cause exists as to its acceptability under the terms of this Agreement or any Acceptable Waste Documentation.
18. **Miscellaneous.**
 - (A) This Agreement shall be governed by the laws of the State in which the Facility is located.
 - (B) No waiver of a breach of any of the obligations contained in the Agreement shall be construed to be a waiver of any prior or succeeding breach of the same obligation or of any other obligation of this Agreement.
 - (C) Unless otherwise provided for herein, no modification, release, discharge or waiver of any provision or obligation hereof shall be of any force, or effect, unless in writing signed by all parties to this Agreement.
 - (D) Generator shall treat as confidential and not disclose to others during or subsequent to the terms of this Agreement, except as is necessary to perform this Agreement, or to comply with any applicable law or regulation any information (including any technical information, experience or data) regarding the Company's plans, programs, plants, processes, products, costs, equipment or operations which may come within the knowledge of the Generator or its employees in the performance of this Agreement, without in each instance securing the prior written consent of the other Company.
 - (E) If any term, phrase, obligation or provision of this Agreement shall be held to be invalid, illegal or unenforceable in any respect, this Agreement shall remain in effect and be construed without regard to such term, phrase, obligation or provision.
 - (F) This Agreement constitutes the entire understanding between the parties, replacing and amending any prior agreements between the parties, and shall be binding upon all parties hereto, their successors, heirs, representatives and assigns. Any provision, term or condition in any acknowledgement, purchase order or other response by Generator which is in addition to or different from the provisions of this Agreement shall be deemed objected to by the Company and shall be of no effect.
 - (G) Generator represents, warrants and covenants that it is and, during the term of this Agreement will remain, in compliance with and will perform its obligations pursuant to all applicable laws and regulations and shall indemnify, defend and hold harmless the Company from any breach thereof.
 - (H) It is the understanding and agreement of the parties that the Company is an independent contractor, and is not an agent, nor an authorized representative of the Generator.
 - (I) Company may provide any of the Services covered by this Agreement through any of its affiliates or subcontractors, provided that Company shall remain responsible for the performance of all such services and obligations in accordance with this Agreement.
20. **Notices.** Unless otherwise provided herein, all notices herein provided for shall be considered as having been given upon being placed in the mail, certified postage prepaid addressed to the Company or Generator at the address herein set forth in this Agreement or to such other address as may be given to the other party in writing.
21. **Liquidated Damages.** If Generator terminates this Agreement before its expiration other than as a result of a breach by Company, Generator shall pay Company an amount equal to the most recent month's monthly charges multiplied by the lesser of (a) six months or (b) the number of months remaining in the term. Generator acknowledges that in the event of such a termination, actual damages to Company would be uncertain and difficult to ascertain, such amount is the best, reasonable and objective estimate of the actual damages to Company, such amount does not constitute a penalty, and such amount is reasonable under the circumstances. Any amount payable under this paragraph shall be in addition to amounts already owing under this Agreement.

Generator: MP 2/8/21

REPUBLIC SERVICES/COMPANY: _____

Storm, Samantha

From: Antolin, Edward
Sent: Tuesday, February 9, 2021 12:44 AM
To: Storm, Samantha
Subject: RE: SWSA For Your Approval

Approved, thank you



We'll handle it from here.™

Edward Antolin Manufacturing and Environmental Services Executive

2531 East 67th Street, Long Beach, CA 90805

[e eantolin@republicservices.com](mailto:eamtolin@republicservices.com)

[o 818-274-9554](tel:818-274-9554)

[f 866-428-5795](tel:866-428-5795) [w republicservices.com](http://w.republicservices.com)

From: Storm, Samantha <SVega2@republicservices.com>
Sent: Monday, February 08, 2021 3:44 PM
To: Antolin, Edward <EAntolin@republicservices.com>
Cc: Kidd, Kelly - Stockton <KKidd@republicservices.com>
Subject: SWSA For Your Approval

Ed,

Please see the attached signed agreement for your approval.

Thank you.



Republic Services

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

Waste Profile # 51232123601		Expiration Date 3/3/2022	
I. Decision Request: <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Recertification <input type="checkbox"/> Change			
Disposal Facility: 5123 - Sunshine Canyon Landfill			
Generator Name: CALSTATE PIPELINE INC			
Generator Site Address: BEVERLY BLVD AND AMBERWOOD AVE			
City: PICO RIVERA	County: _____	State: CA	Zip: _____
Name of Waste: SAND/SILT			
Estimated Annual Volume: 15 Cubic Yards			

II. Special Waste Department Decision: Approved Rejected

Management Method(s): Landfill Solidification Bioremediation Deep Well Transfer Facility

Problematic Special Waste according to Republic? Yes No

If yes, which one? _____

Approved by Special Waste Review Committee? Yes No Not Applicable

Precautions, Conditions or Limitations on Approval

Special Waste Analyst Signature:

Date: 3/4/2021

Name (Printed): KEITH DIAMANTI

III. Facility Decision: Approved Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee:

Date: 3/4/2021

Name (Printed): Chris Coffey

Special Waste Profile



Disposal Facility: 5123 Sunshine Canyon Landfill CA

Waste Profile #: 5123 21 23601

Sales Rep #:

I. Generator Information

Generator Name: Calstate Pipeline Inc

Generator Site Address: Beverly Blvd and Amberwood Ave

City: Pico Rivera County: Los Angeles State: California Zip: 90660

State ID/Reg No: NA State Approval/Waste Code: NA NAICS #:

Generator Mailing Address: (if different) 5029 Bleecker St #201

City: Baldwin Park County: Los Angeles State: California Zip: 91706

Generator Contact Name: Michael Grbavac Email: michael@calstatepipeline.com

Phone Number: 626-343-9200 Ext: Fax Number: 626-226-5765

II. Billing Information

Bill To: Calstate Pipeline Inc Contact Name: Michael Grbavac

Billing Address: 5029 Bleecker St #201 Email: michael@calstatepipeline.com

City: Baldwin Park State: California Zip: 91706 Phone: 626-226-5765

III. Waste Stream Information

Name of Waste: Sand/Silt

Process Generating Waste: Cleaning out of a Los Angeles County Sanitation district sewer main.

Type of Waste: Industrial Process Waste Physical State: Semi-Solid Method of Shipment: Bulk

Estimated Volume: 15 Volume Type: Cubic Yards

Frequency: One-time Event (single project) Disposal Consideration: Landfill

IV. Representative Sample Certification

No Sample Taken

Sample Taken Type of Sample Composite Sample

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? Yes No

Sample Date: 8-31-2020
2-26-21

Sample ID Numbers or SDS: LACSD Unit H SA
LACSD

Remember to attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

V. Physical Characteristics of Waste

Characteristic Components (must equal 100%):

1.
2.
3.
4.
5.

% By Weight (out of 100% - ranges acceptable):

- | | | |
|-----|--|--|
| 100 | | |
| | | |
| | | |
| | | |
| | | |

Color:

Odor (describe):

Does Waste Contain Free Liquids?

Yes No

% Solids:

pH:

Flash Point:

°F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

RCRA Regulatory Questions

1. Does this waste or generating process contain regulated concentrations of the following Pesticides and/ or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33? Yes No
2. Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261.23(a)(5)]? Yes No
3. Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761? Yes No
4. Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents? Yes No
5. Has this waste been delisted under 40 CFR 260.20 and 260.22? If yes, attach the final decision to delist the waste as published in the Federal Register. Yes No
6. Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations? If Yes, identify the applicable waste code and specify if the waste is hazardous as defined by Federal, State or both? Yes No
7. Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCDD), or any other dioxin as defined in 40 CFR 261.31? Yes No
8. Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations? Yes No
9. Is this a regulated Radioactive Waste as defined by Federal and/or State regulations? Yes No
10. Is this a solid waste that is not a hazardous waste in accordance with 40 CFR 261.4(b)? If yes, please provide the corresponding regulatory citation. Yes No

Republic Services Waste Handling Questions

1. Does this waste generate heat or react when contacted with water/moisture? Yes No
2. Does the waste contain sulfur or sulfur by-products? Yes No
3. Is this waste generated at a State or Federal Superfund cleanup site subject to regulation under CERCLA? Yes No
- 4a. Is this waste from a TSD facility, TSD-like facility or consolidator (i.e. multiple wastes/multiple generators)? Yes No
- 4b. If yes to the above question, please provide clarification.

Special Waste Profile



VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

Michael Grbavac

Authorized Representative Name
(Printed)

Project Manager

Title
(Printed)

Calstate Pipeline Inc

Company Name

A handwritten signature in blue ink, appearing to read "Michael Grbavac", written over a white rectangular background.

Representative Signature

3-3-21

Date

Enviro - Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: September 9, 2020

Mr. Adam Tovan
Cal State Pipeline Inc.
5029 Bleecker St.
Baldwin Park, CA 91706
Tel: (626) 523-2004 E-Mail: Adam@CalStatePipeLine.com

Project: **LACSD / Unit H SA**
Lab I.D.: **200901-24**

Dear Mr. Tovan:

The **analytical results** for the solid sample, received by our lab on September 1, 2020, are attached. The sample was received chilled, intact, and accompanying chain of custody.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,



Curtis Desilets
Vice President/Program Manager



Andy Wang
Laboratory Manager

Enviro - Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: Cal State Pipeline Inc.
5029 Bleecker St.
Baldwin Park, CA 91706
Tel: (626) 523-2004 E-Mail: Adam@CalStatePipeLine.com

PROJECT: LACSD / Unit H SA
MATRIX: SOIL DATE RECEIVED: 09/01/20
SAMPLING DATE: 08/31/20 DATE ANALYZED: 09/02/20
REPORT TO: MR. ADAM TOVAN DATE REPORTED: 09/09/20

SAMPLE I.D.: LACSD Unit H SA LAB I.D.: 200901-24

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

Table with 7 columns: ELEMENT ANALYZED, SAMPLE RESULT, PQL, DF, TTLC LIMIT, STLC LIMIT, EPA METHOD. Lists various elements like Antimony, Arsenic, Barium, etc., with their respective values and limits.

COMMENTS

DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5
* = STLC analysis for the metal is recommended (if marked)
** = Additional Analysis required, please call to discuss (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
-- = Not analyzed/not requested

Data Reviewed and Approved by: [Signature]
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: Cal State Pipeline Inc.
5029 Bleecker St.
Baldwin Park, CA 91706
Tel: (626) 523-2004 E-Mail: Adam@CalStatePipeLine.com

PROJECT: LACSD / Unit H SA
MATRIX: SOIL DATE RECEIVED: 09/01/20
SAMPLING DATE: 08/31/20 DATE ANALYZED: 09/02/20
REPORT TO: MR. ADAM TOVAN DATE REPORTED: 09/09/20

METHOD BLANK FOR LAB I.D.: 200901-24

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

Table with 7 columns: ELEMENT ANALYZED, SAMPLE RESULT, PQL, DF, TTLC LIMIT, STLC LIMIT, EPA METHOD. Lists various elements like Antimony, Arsenic, Barium, etc., with their respective limits and methods.

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Actual Detection Limit = PQL X DF
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TTLC = Total Threshold Limit Concentration
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* = STLC analysis for the metal is recommended (if marked)
** = Additional Analysis required, please call to discuss (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
-- = Not analyzed/not requested

Data Reviewed and Approved by: [Signature]
CAL-DHS ELAP CERTIFICATE No.: 1555

QA/QC for Metals Analysis --TTLC--SOLID/SOIL MATRIX

Matrix Spike/ Matrix Spike Duplicate/ LCS :

ANALYSIS DATE: 9/2/2020

Unit : mg/Kg(ppm)

Analysis	Spk.Sample ID	CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Arsenic(As)	200901-30	50.0	103	PASS	5.96	50.0	49.4	87%	49.9	88%	1%
Lead(Pb)	200901-30	50.0	101	PASS	6.01	50.0	52.8	94%	55.3	99%	5%
Nickel(Ni)	200901-30	50.0	104	PASS	15.9	50.0	62.4	93%	62.9	94%	1%

ANALYSIS DATE. : 9/2/2020

Analysis	Spk.Sample ID	CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Mercury (Hg)	200901-47	0.125	96	PASS	0.037	0.125	0.141	83%	0.137	80%	4%

MS/MSD Status:

Analysis	%MS	%MSD	%LCS	%RPD
Arsenic(As)	PASS	PASS	PASS	PASS
Lead(Pb)	PASS	PASS	PASS	PASS
Nickel(Ni)	PASS	PASS	PASS	PASS
Mercury (Hg)	PASS	PASS	PASS	PASS
Accepted Range	75 ~ 125	75 ~ 125	85 ~ 115	0 ~ 20

ANALYST: _____

FINAL REVIEWER: _____

Enviro - Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: Cal State Pipeline Inc.
5029 Bleecker St.
Baldwin Park, CA 91706
Tel: (626) 523-2004 E-Mail: Adam@CalStatePipeLine.com

PROJECT: LACSD / Unit H SA
MATRIX: SOIL DATE RECEIVED: 09/01/20
SAMPLING DATE: 08/31/20 DATE ANALYZED: 09/02/20
REPORT TO: MR. ADAM TOVAN DATE REPORTED: 09/09/20

SAMPLE I.D.: LACSD Unit H SA LAB I.D.: 200901-24

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 1 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

Table with 3 columns: PARAMETER, SAMPLE RESULT, PQL X1. Lists various chemical compounds and their results (mostly ND) and PQL values.

----- TO BE CONTINUED ON PAGE #2 -----

DATA REVIEWED AND APPROVED BY: [Signature]

Enviro - Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: Cal State Pipeline Inc.
5029 Bleecker St.
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PROJECT: LACSD / Unit H SA
MATRIX: SOIL DATE RECEIVED: 09/01/20
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SAMPLE I.D.: LACSD Unit H SA LAB I.D.: 200901-24

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 2 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

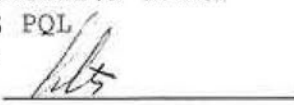
PARAMETER	SAMPLE RESULT	PQL X1
1,3-DICHLOROPROPANE	ND	0.005
2,2-DICHLOROPROPANE	ND	0.005
1,1-DICHLOROPROPENE	ND	0.005
CIS-1,3-DICHLOROPROPENE	ND	0.005
TRANS-1,3-DICHLOROPROPENE	ND	0.005
ETHYLBENZENE	ND	0.005
2-HEXANONE	ND	0.020
HEXACHLOROBUTADIENE	ND	0.005
ISOPROPYLBENZENE	ND	0.005
4-ISOPROPYLTOLUENE	ND	0.005
4-METHYL-2-PENTANONE (MIBK)	ND	0.020
METHYL tert-BUTYL ETHER (MTBE)	ND	0.005
METHYLENE CHLORIDE	ND	0.010
NAPHTHALENE	ND	0.005
N-PROPYLBENZENE	ND	0.005
STYRENE	ND	0.005
1,1,1,2-TETRACHLOROETHANE	ND	0.005
1,1,2,2-TETRACHLOROETHANE	ND	0.005
TETRACHLOROETHENE (PCE)	ND	0.005
TOLUENE	ND	0.005
1,2,3-TRICHLOROBENZENE	ND	0.005
1,2,4-TRICHLOROBENZENE	ND	0.005
1,1,1-TRICHLOROETHANE	ND	0.005
1,1,2-TRICHLOROETHANE	ND	0.005
TRICHLOROETHENE (TCE)	ND	0.005
TRICHLOROFLUOROMETHANE	ND	0.005
1,2,3-TRICHLOROPROPANE	ND	0.005
1,2,4-TRIMETHYLBENZENE	ND	0.005
1,3,5-TRIMETHYLBENZENE	ND	0.005
VINYL CHLORIDE	ND	0.005
M/P-XYLENE	ND	0.010
O-XYLENE	ND	0.005

COMMENTS PQL = PRACTICAL QUANTITATION LIMIT

ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY:

CAL-DHS CERTIFICATE # 1555



Enviro - Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

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5029 Bleecker St.
Baldwin Park, CA 91706
Tel: (626) 523-2004 E-Mail: Adam@CalStatePipeLine.com


PROJECT: LACSD / Unit H SA
MATRIX: SOIL
SAMPLING DATE: 08/31/20
REPORT TO: MR. ADAM TOVAN
DATE RECEIVED: 09/01/20
DATE ANALYZED: 09/02/20
DATE REPORTED: 09/09/20

METHOD BLANK FOR LAB I.D.: 200901-24

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 1 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL X1
ACETONE	ND	0.020
BENZENE	ND	0.005
BROMOBENZENE	ND	0.005
BROMOCHLOROMETHANE	ND	0.005
BROMODICHLOROMETHANE	ND	0.005
BROMOFORM	ND	0.005
BROMOMETHANE	ND	0.005
2-BUTANONE (MEK)	ND	0.020
N-BUTYLBENZENE	ND	0.005
SEC-BUTYLBENZENE	ND	0.005
TERT-BUTYLBENZENE	ND	0.005
CARBON DISULFIDE	ND	0.010
CARBON TETRACHLORIDE	ND	0.005
CHLOROBENZENE	ND	0.005
CHLOROETHANE	ND	0.005
CHLOROFORM	ND	0.005
CHLOROMETHANE	ND	0.005
2-CHLOROTOLUENE	ND	0.005
4-CHLOROTOLUENE	ND	0.005
DIBROMOCHLOROMETHANE	ND	0.005
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.005
1,2-DIBROMOETHANE	ND	0.005
DIBROMOMETHANE	ND	0.005
1,2-DICHLOROBENZENE	ND	0.005
1,3-DICHLOROBENZENE	ND	0.005
1,4-DICHLOROBENZENE	ND	0.005
DICHLORODIFLUOROMETHANE	ND	0.005
1,1-DICHLOROETHANE	ND	0.005
1,2-DICHLOROETHANE	ND	0.005
1,1-DICHLOROETHENE	ND	0.005
CIS-1,2-DICHLOROETHENE	ND	0.005
TRANS-1,2-DICHLOROETHENE	ND	0.005
1,2-DICHLOROPROPANE	ND	0.005

----- TO BE CONTINUED ON PAGE #2 -----

DATA REVIEWED AND APPROVED BY: 

Enviro - Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

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ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 2 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL X1
1,3-DICHLOROPROPANE	ND	0.005
2,2-DICHLOROPROPANE	ND	0.005
1,1-DICHLOROPROPENE	ND	0.005
CIS-1,3-DICHLOROPROPENE	ND	0.005
TRANS-1,3-DICHLOROPROPENE	ND	0.005
ETHYLBENZENE	ND	0.005
2-HEXANONE	ND	0.020
HEXACHLOROBUTADIENE	ND	0.005
ISOPROPYLBENZENE	ND	0.005
4-ISOPROPYLTOLUENE	ND	0.005
4-METHYL-2-PENTANONE (MIBK)	ND	0.020
METHYL tert-BUTYL ETHER (MTBE)	ND	0.005
METHYLENE CHLORIDE	ND	0.010
NAPHTHALENE	ND	0.005
N-PROPYLBENZENE	ND	0.005
STYRENE	ND	0.005
1,1,1,2-TETRACHLOROETHANE	ND	0.005
1,1,2,2-TETRACHLOROETHANE	ND	0.005
TETRACHLOROETHENE (PCE)	ND	0.005
TOLUENE	ND	0.005
1,2,3-TRICHLOROBENZENE	ND	0.005
1,2,4-TRICHLOROBENZENE	ND	0.005
1,1,1-TRICHLOROETHANE	ND	0.005
1,1,2-TRICHLOROETHANE	ND	0.005
TRICHLOROETHENE (TCE)	ND	0.005
TRICHLOROFLUOROMETHANE	ND	0.005
1,2,3-TRICHLOROPROPANE	ND	0.005
1,2,4-TRIMETHYLBENZENE	ND	0.005
1,3,5-TRIMETHYLBENZENE	ND	0.005
VINYL CHLORIDE	ND	0.005
M/P-XYLENE	ND	0.010
O-XYLENE	ND	0.005

COMMENTS PQL = PRACTICAL QUANTITATION LIMIT

ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY:

CAL-DHS CERTIFICATE # 1555



Enviro-Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766

Tel (909)590-5905

Fax (909)590-5907

8260B QA/QC Report

Date Analyzed: 9/2/2020

Matrix: Solid/Soil/Liquid

Machine: D

Unit: mg/Kg (PPM)

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 200826-30 MS/MSD

Analyte	S.R.	spk conc	MS	%RC	MSD	%RC	%RPD	ACP %RC	ACP RPD
Benzene	0	0.050	0.060	120%	0.060	120%	0%	75-125	0-20
Chlorobenzene	0	0.050	0.058	116%	0.059	118%	2%	75-125	0-20
1,1-Dichloroethene	0	0.050	0.059	118%	0.061	122%	4%	75-125	0-20
Toluene	0	0.050	0.058	116%	0.058	116%	0%	75-125	0-20
Trichloroethene (TCE)	0	0.050	0.060	120%	0.061	122%	2%	75-125	0-20

Lab Control Spike (LCS):

Analyte	spk conc	LCS	%RC	ACP %RC
Benzene	0.050	0.056	112%	75-125
Chlorobenzene	0.050	0.054	108%	75-125
Chloroform	0.050	0.053	106%	75-125
1,1-Dichloroethene	0.050	0.056	112%	75-125
Ethylbenzene	0.050	0.055	110%	75-125
o-Xylene	0.050	0.055	110%	75-125
m,p-Xylene	0.100	0.114	114%	75-125
Toluene	0.050	0.054	108%	75-125
1,1,1-Trichloroethane	0.050	0.057	114%	75-125
Trichloroethene (TCE)	0.050	0.055	110%	75-125

Surrogate Recovery	spk conc	ACP %RC	MB %RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.			M-BLK	200826-30	200826-31	200826-32	200826-33	200826-34	200826-35
Dibromofluoromethane	50.0	70-130	99%	44*	41*	55*	31*	40*	39*
Toluene-d8	50.0	70-130	100%	100%	99%	103%	99%	100%	107%
4-Bromofluorobenzene	50.0	70-130	97%	98%	95%	102%	98%	98%	103%

Surrogate Recovery	spk conc	ACP %RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.			200826-36	200826-37	200831-42	200831-43	200831-44	200831-45	200831-46
Dibromofluoromethane	50.0	70-130	39*	37*	101%	100%	100%	100%	99%
Toluene-d8	50.0	70-130	104%	101%	103%	104%	102%	102%	123%
4-Bromofluorobenzene	50.0	70-130	101%	96%	94%	94%	98%	99%	45*

Surrogate Recovery	spk conc	ACP %RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.			200831-47	200831-48	200901-24				
Dibromofluoromethane	50.0	70-130	101%	99%	106%				
Toluene-d8	50.0	70-130	100%	136*	98%				
4-Bromofluorobenzene	50.0	70-130	99%	36*	97%				

* = Surrogate fail due to matrix interference; LCS, MS, MSD are in control therefore the analysis is in control.

S.R. = Sample Results

spk conc = Spike Concentration

MS = Matrix Spike

%RC = Percent Recovery

ACP %RC = Accepted Percent Recovery

MSD = Matrix Spike Duplicate

Analyzed/Reviewed By: [Signature]

Final Reviewer: [Signature]

Enviro - Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: Cal State Pipeline Inc.
5029 Bleecker St.
Baldwin Park, CA 91706
Tel: (626) 523-2004 E-Mail: Adam@CalStatePipeLine.com

PROJECT: LACSD / Unit H SA

MATRIX: SOIL
SAMPLING DATE: 08/31/20
REPORT TO: MR. ADAM TOVAN
DATE RECEIVED: 09/01/20
DATE EXTRACTED: 09/03/20
DATE ANALYZED: 09/04/20
DATE REPORTED: 09/09/20

SAMPLE I.D.: LACSD Unit H SA

LAB I.D.: 200901-24

SEMI-VOLATILE ORGANICS, EPA 8270C, PAGE 1 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Acenaphthene	ND	0.50
Acenaphthylene	ND	0.50
Anthracene	ND	0.50
Benzo(a)anthracene	ND	0.50
Benzo(b)fluoranthene	ND	0.50
Benzo(a)pyrene	ND	0.50
Benzo(g,h,i)perylene	ND	0.50
Benzo(k)fluoranthene	ND	0.50
Benzoic Acid	ND	2.50
Benzyl Alcohol	ND	0.50
Bis(2-Chloroethoxy)methane	ND	0.50
Bis(2-Chloroethyl)ether	ND	0.50
Bis(2-Chloroisopropyl)ether	ND	0.50
Bis(2-Ethylhexyl)Phthalate	0.899	0.50
4-Bromophenyl Phenyl Ether	ND	0.50
Butylbenzylphthalate	ND	0.50
4-Chloro-3-Methylphenol	ND	0.50
4-Chloroaniline	ND	0.50
2-Chloronaphthalene	ND	0.50
2-Chlorophenol	ND	0.50
4-Chlorophenyl Phenyl Ether	ND	0.50
Chrysene	ND	0.50
Di-n-butylphthalate	ND	0.50
Di-n-octylphthalate	ND	0.50
Dibenzo(a,h)anthracene	ND	0.50
Dibenzofuran	ND	0.50
1,2-Dichlorobenzene	ND	0.50
1,3-Dichlorobenzene	ND	0.50
1,4-Dichlorobenzene	ND	0.50
3,3-Dichlorobenzidine	ND	0.50
2,4-Dichlorophenol	ND	0.50
Diethyl Phthalate	ND	0.50
2,4-Dimethylphenol	ND	0.50
Dimethyl Phthalate	ND	0.50

----- TO BE CONTINUED ON PAGE #2 -----

DATA REVIEWED AND APPROVED BY: 

Enviro - Chem, Inc.

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SEMI-VOLATILE ORGANICS, EPA 8270C, PAGE 2 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

Table with 3 columns: PARAMETER, SAMPLE RESULT, PQL X1. Lists various organic compounds and their results (mostly ND) and PQL values (0.50).

COMMENTS PQL = PRACTICAL QUANTITATION LIMIT

ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY:

CAL-DHS CERTIFICATE # 1555

Handwritten signature/initials over a line.