

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 31, 2019

Jeremy Pike

LT Environmental, Inc.

4600 West 60th Avenue

Arvada, CO 80003

RE: Vic 1

Work Order # 1907354

Enclosed are the results of analyses for samples received by Summit Scientific on 07/30/19 14:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury For Ben Shrewsbury

Laboratory Manager



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: Vic 1

Project Number: 027318139
Project Manager: Jeremy Pike

Reported:
07/31/19 06:13

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS08@22'	1907354-01	Soil	07/30/19 10:00	07/30/19 14:30
SS09@17'	1907354-02	Soil	07/30/19 13:00	07/30/19 14:30

Summit Scientific

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Summit Scientific

1907354

S₂

4653 Table Mountain Drive ♦ Golden, Colorado 80403
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Page 1 of 1

Client: LT environmental inc

Project Manager: Jeremy Pike

Address: 4600 w 60th Ave

E-Mail: J.Pike @ Ltenv.com

City/State/Zip: arvada CO 80003

Phone: 303-433-9288

Project Name: Vic 1

Sampler Name: Drew Bullinger

Project Number: 027318139

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested				Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	G	BTEX	TPH	DRO		
1	SS08 @ 22'	7/30/19	10:00	2			X			X				X	X			
2	SS09 @ 17'	7/30/19	13:00	2			X			X				X	X			
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time (Check)	Notes:
<u>Drew Bullinger</u>	<u>7/30/19</u> <u>14:30</u>	<u>7-30-19</u>	<u>14:30</u>	Same Day <input checked="" type="checkbox"/> 72 hours <input type="checkbox"/>	
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours <input type="checkbox"/> Standard <input type="checkbox"/>	
Relinquished by:	Date/Time:	Received by:	Date/Time:	48 hours <input type="checkbox"/>	Sample Integrity:
				Temperature Upon Receipt: <u>3.5</u>	
				Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	

Sample Receipt Checklist

S2 Work Order 1907354

Client: LT Environmental Client Project ID: Vic 1

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other _____ Airbill #: _____

Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

Temp (°C)	3.5
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Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	✓			On Ice
Were all samples received intact ⁽¹⁾ ?	✓			
Was adequate sample volume provided ⁽¹⁾ ?	✓			
If custody seals are present, are they intact ⁽¹⁾ ?			✓	
Are samples with holding times due within 48 hours sample due within 48 hours present?	✓			Same Day TAT
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	✓			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	✓			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	✓			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			✓	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

MP
Custodian Printed Name or Initials

Muri Premer
Signature of Custodian

7/30/19
Date/Time



LT Environmental, Inc.
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Arvada CO, 80003

Project: Vic 1

Project Number: 027318139
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SS08@22'
1907354-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/19 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1907417	07/30/19	07/30/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/30/19 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		75.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		91.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.3 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/19 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1907403	07/30/19	07/30/19	EPA 8015M	

Date Sampled: **07/30/19 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		111 %	30-150		"	"	"	"	

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Project: Vic 1
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Reported:
07/31/19 06:13

SS09@17'
1907354-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/19 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0099	0.0020	mg/kg	1	1907417	07/30/19	07/30/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.017	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/30/19 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		54.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		89.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/19 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1907403	07/30/19	07/30/19	EPA 8015M	

Date Sampled: **07/30/19 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		109 %	30-150		"	"	"	"	

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1907417 - EPA 5030 Soil MS

Blank (1907417-BLK1)

Prepared: 07/30/19 Analyzed: 07/31/19

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0236		"	0.0400		59.0	23-173			
Surrogate: Toluene-d8	0.0356		"	0.0400		89.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0356		"	0.0400		89.1	21-167			

LCS (1907417-BS1)

Prepared: 07/30/19 Analyzed: 07/31/19

Benzene	0.0791	0.0020	mg/kg	0.100		79.1	70-130			
Toluene	0.0841	0.0050	"	0.100		84.1	70-130			
Ethylbenzene	0.112	0.0050	"	0.100		112	70-130			
m,p-Xylene	0.233	0.010	"	0.200		117	70-130			
o-Xylene	0.100	0.0050	"	0.100		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0252		"	0.0400		62.9	23-173			
Surrogate: Toluene-d8	0.0368		"	0.0400		92.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0364		"	0.0400		90.9	21-167			

Matrix Spike (1907417-MS1)

Source: 1907354-01

Prepared: 07/30/19 Analyzed: 07/31/19

Benzene	0.0794	0.0020	mg/kg	0.100	ND	79.4	70-130			
Toluene	0.0856	0.0050	"	0.100	ND	85.6	70-130			
Ethylbenzene	0.113	0.0050	"	0.100	ND	113	70-130			
m,p-Xylene	0.231	0.010	"	0.200	ND	115	70-130			
o-Xylene	0.100	0.0050	"	0.100	ND	100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0246		"	0.0400		61.4	23-173			
Surrogate: Toluene-d8	0.0371		"	0.0400		92.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0361		"	0.0400		90.2	21-167			

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Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1907417 - EPA 5030 Soil MS

Matrix Spike Dup (1907417-MSD1)

Source: 1907354-01

Prepared: 07/30/19 Analyzed: 07/31/19

Benzene	0.0810	0.0020	mg/kg	0.100	ND	81.0	70-130	1.98	30	
Toluene	0.0873	0.0050	"	0.100	ND	87.3	70-130	1.94	30	
Ethylbenzene	0.111	0.0050	"	0.100	ND	111	70-130	2.00	30	
m,p-Xylene	0.226	0.010	"	0.200	ND	113	70-130	2.14	30	
o-Xylene	0.100	0.0050	"	0.100	ND	100	70-130	0.120	30	
Surrogate: 1,2-Dichloroethane-d4	0.0271		"	0.0400		67.6	23-173			
Surrogate: Toluene-d8	0.0379		"	0.0400		94.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0356		"	0.0400		89.0	21-167			

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Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1907403 - EPA 3550A

Blank (1907403-BLK1)

Prepared & Analyzed: 07/30/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1907403-BS1)

Prepared & Analyzed: 07/30/19

C10-C28 (DRO) 545 50 mg/kg 500 109 70-130

Matrix Spike (1907403-MS1)

Source: 1907354-01

Prepared & Analyzed: 07/30/19

C10-C28 (DRO) 572 50 mg/kg 500 34.7 107 70-130

Matrix Spike Dup (1907403-MSD1)

Source: 1907354-01

Prepared: 07/30/19 Analyzed: 07/31/19

C10-C28 (DRO) 573 50 mg/kg 500 34.7 108 70-130 0.177 20

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Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference