

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

November 16, 2017

Bryan Paraspolo
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: HPD - Platteville

Enclosed are the results of analyses for samples received by Summit Scientific on 11/09/17 12:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, cursive script.

Paul Shrewsbury For Ben Shrewsbury
Laboratory Manager



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

Project: HPD - Platteville
Project Number: 036217011
Project Manager: Bryan Paraspolo

Reported:
11/16/17 16:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HPD08A	1711130-01	Soil	11/09/17 00:00	11/09/17 12:30

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

A handwritten signature in black ink, appearing to be 'MSM'.

Summit Scientific

S₂

1711130

741 Corporate Circle, Suite J ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933

Client: LT ENVIRONMENTAL

Project Manager: BRYAN PARASPOLO

Page 1 of 1

Address: 4600 W 100th AVE

E-Mail: BPARASPOLO@LTENV.COM

City/State/Zip: ARVADA CO 80003

Phone: 303 433 9788 Fax: _____

Project Name: HPD-PLATTEVILLE SR

Sampler Name: B. PARASPOLO

Project Number: 030217011

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions
					HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	BTEX	TPH							
1	HPD08A	11/9/17		2			X			X			X	X							
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished by: [Signature] Date/Time: 11/9/17 1225

Received by: _____ Date/Time: _____

Turn Around Time (Check)

Same Day _____ 72 hours _____

24 hours _____ Standard X

48 hours _____

Sample Integrity:

Temperature Upon Receipt: 11.1

Intact: Yes No

Notes:

m 10

Relinquished by: _____ Date/Time: _____

Received by: _____ Date/Time: _____

Relinquished by: _____ Date/Time: _____

Received by: [Signature] Date/Time: 11-9-17 1230

1711130

Sample Receipt Checklist

S2 Work Order: _____

Client: LTE Client Project ID: H2D-platterville JAShipped Via: SLD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: _____

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

Cooler ID					
Temp (°C)	<u>11.1</u>				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

Custodian Printed Name

Signature or Initials of Custodian

Date/Time

11-9-17 1230



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11/16/17 16:25

HPD08A
1711130-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/09/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1711161	11/10/17	11/14/17	8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/09/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		109 %	70-130		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/09/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1711128	11/10/17	11/11/17	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/09/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		115 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	21-167		"	"	"	"	

Summit Scientific

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Project: HPD - Platteville
Project Number: 036217011
Project Manager: Bryan Paraspolo

Reported:
11/16/17 16:25

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1711161 - EPA 3550A

Blank (1711161-BLK1)

Prepared: 11/10/17 Analyzed: 11/11/17

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

Surrogate: o-Terphenyl	12.4		"	12.5	99.2	70-130
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LCS (1711161-BS1)

Prepared: 11/10/17 Analyzed: 11/11/17

C10-C28 (DRO)	495	50	mg/kg
C28-C36 (ORO)	19.6	50	"

Surrogate: o-Terphenyl	13.2		"	12.5	106	70-130
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Matrix Spike (1711161-MS1)

Source: 1711119-01

Prepared: 11/10/17 Analyzed: 11/11/17

C10-C28 (DRO)	498	50	mg/kg
C28-C36 (ORO)	ND	50	"

Surrogate: o-Terphenyl	13.0		"	12.5	104	70-130
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Matrix Spike Dup (1711161-MSD1)

Source: 1711119-01

Prepared: 11/10/17 Analyzed: 11/11/17

C10-C28 (DRO)	484	50	mg/kg	499	9.35	95.2	50-150	2.71	20
C28-C36 (ORO)	ND	50	"		5.84		50-150		20

Surrogate: o-Terphenyl	13.2		"	12.5	105	70-130
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Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 1711128 - EPA 5030 Soil MS

Blank (1711128-BLK1)

Prepared & Analyzed: 11/10/17

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0487		"	0.0400		122	23-173			
Surrogate: Toluene-d8	0.0380		"	0.0400		95.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0426		"	0.0400		107	21-167			

LCS (1711128-BS1)

Prepared & Analyzed: 11/10/17

Benzene	0.0677	0.0020	mg/kg	0.100		67.7	58-130			
Toluene	0.0765	0.0050	"	0.100		76.5	61-134			
Ethylbenzene	0.0898	0.0050	"	0.0992		90.5	74-139			
m,p-Xylene	0.173	0.010	"	0.200		86.9	73-137			
o-Xylene	0.109	0.0050	"	0.0980		111	73-141			
Xylenes (total)	0.282	0.0050	"				30-150			
Gasoline Range Hydrocarbons	1.09	0.50	"				30-150			
Surrogate: 1,2-Dichloroethane-d4	0.0470		"	0.0400		118	23-173			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0615		"	0.0400		154	21-167			

Matrix Spike (1711128-MS1)

Source: 1711090-02

Prepared & Analyzed: 11/10/17

Benzene	0.0613	0.0020	mg/kg	0.100	ND	61.3	30-131			
Toluene	0.0496	0.0050	"	0.100	ND	49.6	30-134			
Ethylbenzene	0.133	0.0050	"	0.0992	0.0671	66.8	22-153			
m,p-Xylene	14.0	0.010	"	0.200	12.8	610	10-159			E
o-Xylene	4.33	0.0050	"	0.0980	3.88	456	31-151			E
Xylenes (total)	18.3	0.0050	"		16.7		30-150			
Gasoline Range Hydrocarbons	774	0.50	"		55.0		30-150			
Surrogate: 1,2-Dichloroethane-d4	0.0512		"	0.0400		128	23-173			
Surrogate: Toluene-d8	0.0312		"	0.0400		78.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.582		"	0.0400		NR	21-167			S-02

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

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

Batch 1711128 - EPA 5030 Soil MS

Matrix Spike Dup (1711128-MSD1)		Source: 1711090-02			Prepared & Analyzed: 11/10/17					
Benzene	0.0614	0.0020	mg/kg	0.100	ND	61.4	30-131	0.196	34	
Toluene	0.0623	0.0050	"	0.100	ND	62.3	30-134	22.7	30	
Ethylbenzene	0.131	0.0050	"	0.0992	0.0671	64.4	22-153	1.82	24	
m,p-Xylene	14.2	0.010	"	0.200	12.8	694	10-159	1.18	68	E
o-Xylene	4.29	0.0050	"	0.0980	3.88	420	31-151	0.818	38	E
Xylenes (total)	18.5	0.0050	"		16.7		30-150	0.713	20	
Gasoline Range Hydrocarbons	693	0.50	"		55.0		30-150	11.1	20	
Surrogate: 1,2-Dichloroethane-d4	0.0578		"	0.0400		144	23-173			
Surrogate: Toluene-d8	0.0314		"	0.0400		78.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.523		"	0.0400		NR	21-167			S-02

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Notes and Definitions

S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
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