

# Summit Scientific

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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,



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

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Summit Scientific

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# Summit Scientific

S<sub>2</sub>

1711130

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

Page 1 of 1

Client: LT ENVIRONMENTAL Project Manager: BRIAN PARASPOLO  
 Address: 4600 W 60<sup>th</sup> AVE E-Mail: B.PARASPOLO@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 <sub>3</sub>	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: <u>[Signature]</u> Date/Time: <u>11/9/17 1225</u>	Received by: _____ Date/Time: _____	Turn Around Time (Check) Same Day _____ 72 hours _____ 24 hours _____ Standard <u>X</u> 48 hours _____ Sample Integrity: Temperature Upon Receipt: <u>11.1</u> Intact: <u>Yes</u> No	Notes: <u>see 10</u>
Relinquished by: _____ Date/Time: _____	Received by: _____ Date/Time: _____		
Relinquished by: _____ Date/Time: _____	Received by: <u>[Signature]</u> Date/Time: <u>11-9-17 12:30</u>		

1711130

Sample Receipt Checklist

S2 Work Order: \_\_\_\_\_

Client: LTE Client Project ID: H2D - platterville JA

Shipped Via: HL Airbill #: \_\_\_\_\_  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

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 <sup>(1)</sup> ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>			
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact <sup>(1)</sup> ?			<input checked="" type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? Record the pH in Comments.			<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?			<input checked="" type="checkbox"/>	
Additional Comments (if any):				
<b><sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.</b>				

PS  
Custodian Printed Name

[Signature]  
Signature or Initials of Custodian

11-9-17 1230  
Date/Time



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

**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: <i>o</i> -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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Arvada CO, 80003

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**Reported:**  
11/16/17 16:25

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

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

**Batch 1711161 - EPA 3550A**

<b>Blank (1711161-BLK1)</b>			Prepared: 11/10/17 Analyzed: 11/11/17								
C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
<i>Surrogate: o-Terphenyl</i>	12.4		"	12.5		99.2	70-130				
<b>LCS (1711161-BS1)</b>			Prepared: 11/10/17 Analyzed: 11/11/17								
C10-C28 (DRO)	495	50	mg/kg	499		99.1	50-150				
C28-C36 (ORO)	19.6	50	"				50-150				
<i>Surrogate: o-Terphenyl</i>	13.2		"	12.5		106	70-130				
<b>Matrix Spike (1711161-MS1)</b>			<b>Source: 1711119-01</b>		Prepared: 11/10/17 Analyzed: 11/11/17						
C10-C28 (DRO)	498	50	mg/kg	499	9.35	97.9	50-150				
C28-C36 (ORO)	ND	50	"		5.84		50-150				
<i>Surrogate: o-Terphenyl</i>	13.0		"	12.5		104	70-130				
<b>Matrix Spike Dup (1711161-MSD1)</b>			<b>Source: 1711119-01</b>		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		
<i>Surrogate: o-Terphenyl</i>	13.2		"	12.5		105	70-130				

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Reported:  
11/16/17 16:25

**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 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	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0487</i>		<i>"</i>	<i>0.0400</i>		<i>122</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0380</i>		<i>"</i>	<i>0.0400</i>		<i>95.1</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0426</i>		<i>"</i>	<i>0.0400</i>		<i>107</i>	<i>21-167</i>			

**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			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0470</i>		<i>"</i>	<i>0.0400</i>		<i>118</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0399</i>		<i>"</i>	<i>0.0400</i>		<i>99.7</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0615</i>		<i>"</i>	<i>0.0400</i>		<i>154</i>	<i>21-167</i>			

**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			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0512</i>		<i>"</i>	<i>0.0400</i>		<i>128</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0312</i>		<i>"</i>	<i>0.0400</i>		<i>78.1</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.582</i>		<i>"</i>	<i>0.0400</i>		<i>NR</i>	<i>21-167</i>			S-02

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11/16/17 16:25

**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 1711128 - EPA 5030 Soil MS**

<b>Matrix Spike Dup (1711128-MSD1)</b>	<b>Source: 1711090-02</b>			<b>Prepared &amp; Analyzed: 11/10/17</b>						
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	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0578</i>		<i>"</i>	<i>0.0400</i>		<i>144</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0314</i>		<i>"</i>	<i>0.0400</i>		<i>78.6</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.523</i>		<i>"</i>	<i>0.0400</i>		<i>NR</i>	<i>21-167</i>			<i>S-02</i>

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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