



September 23, 2015

Mr. Rick Allison  
Environmental Protection Specialist  
1120 Lincoln Street, Suite 801  
Denver, Colorado 80203

**RE: Supplemental Form 19 and Closure Request  
Synergy Resources  
South 6-21D  
Windsor, Colorado  
Spill/Release Point ID: 442088**

Dear Mr. Allison:

LT Environmental (LTE) has drafted this Additional Supplemental Form 19 and Closure Request for the South 6-21D (Site) release (Spill/Release Point ID:442088) on behalf of Synergy Resources Corporation (Synergy). The Site location is provided in Figure 1.

On June 10, 2015 Synergy discovered a production tank drain line was releasing condensate to the ground surface around and beneath a production tank at the Site. Synergy stopped the leak and submitted a Form 19 Spill/Release Report (Document Number 400853392) to the Colorado Oil and Gas Conservation Commission (COGCC) on June 15, 2015. Synergy estimates that between 1 and 5 barrels of condensate were released. The condensate release was confined to within the bermed tank battery area.

Synergy retained LTE to collect 1 soil sample (SS01@1.5) from 0 to 1.5 feet below ground surface (bgs) and within the limits of the release on June 8, 2015. LTE submitted the soil sample to Summit Scientific (Summit), of Golden Colorado for benzene, toluene, ethylbenzene, total xylenes (BTEX) and total petroleum hydrocarbon (TPH)-gasoline range organics (GRO) under the US Environmental Protection Agency (EPA) method 8260 and TPH-diesel range organics (DRO) under EPA method 8015. The initial soil sample location is provided on Figure 2.

The COGCC Table 910-1 lists the maximum allowable level for BTEX and TPH at 0.17 milligram per kilogram (mg/Kg), 85 mg/Kg, 100 mg/Kg, 175 mg/Kg, and 500 mg/Kg respectively. The initial surficial soil sample (SS01@1.5') exceeded the standard for benzene at a concentration of 2.5 mg/Kg and TPH at a concentration of 3,700 mg/Kg. Laboratory analytical results are reported in Table 1.

Synergy delineated the soils for hydrocarbon impacts using a photoionization detector (PID), excavated the impacted soils, and transported them to a waste management facility under waste manifest protocol for disposal. The extent of the excavation was approximately 12 feet in length, 8 feet wide and 5 feet deep. No groundwater was encountered during the excavation.





LTE returned to the Site and collected 2 confirmation soil samples (FS01@5' and FS02@5') from the floor of the excavation and submitted them to Summit for BTEX, TPH-GRO and TPH-DRO analysis on June 12, 2015. BTEX concentrations were reported as non-detect at or above the laboratory reporting limit for both confirmation soil samples. TPH was reported at a concentration of 271 mg/Kg for floor sample FS01@5' which is below the COGCC Table 910-1 MCL of 500 mg/Kg. TPH was reported as non-detect at or above the laboratory reporting limit for the floor sample FS02@5'. The sample locations are provided in Figure 2 and the laboratory analytical results are reported in Table 1.

A Supplemental Form 19 and Closure Request for the South 6-21D site was submitted to the COGCC on July 8, 2015. COGCC denied the request and asked that additional confirmation soil samples be collected from the excavation sidewalls. LTE returned to the Site and collected 4 sidewall confirmation soil samples (SW@2', NW@2', EW@2', and WW@2') from the excavation and submitted them to eAnalytics Laboratory of Loveland, Colorado for BTEX and TPH analysis on August 28, 2015. BTEX and TPH concentrations were reported as non-detect at or above the laboratory reporting limit for the additional confirmation soil samples. The sample locations are provided in Figure 2 and the laboratory analytical results are reported in Table 1.

The additional conformation soil samples collected from the excavation had TPH and BTEX concentrations below COGCC Table 910-1 MCLs. Based on these analytical results LTE respectfully requests that the COGCC grant a decision of No Further Action status for the Site.

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink that reads 'Jess Alexander'.

Jess Alexander  
Project Environmental Scientist

A handwritten signature in black ink that reads 'Steve Kahn'.

Steve Kahn, P.E.  
Principal

cc:

Attachments

Figure 1 – Site Location

Figure 2 – Site Map

Table 1 – Soil Sample Analytical Result

Laboratory Analytical Report



## FIGURES



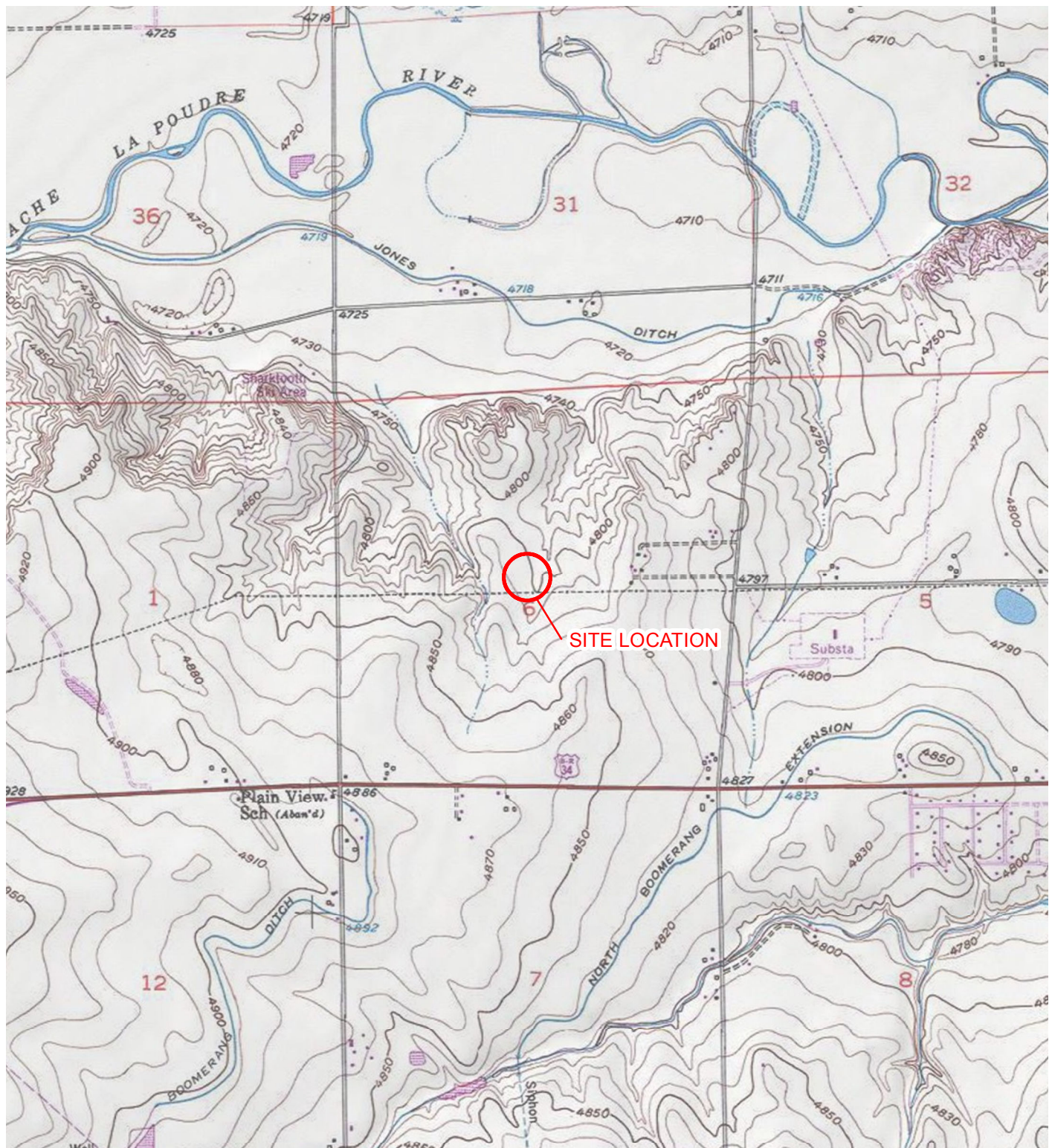
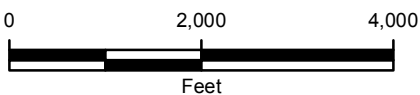


IMAGE COURTESY OF ESRI/USGS

**LEGEND**

 SITE LOCATION



**FIGURE 1**  
**SITE LOCATION MAP**  
**SOUTH 6-21D**  
**WELD COUNTY, COLORADO**  
**SYNERGY RESOURCES CORPORATION**





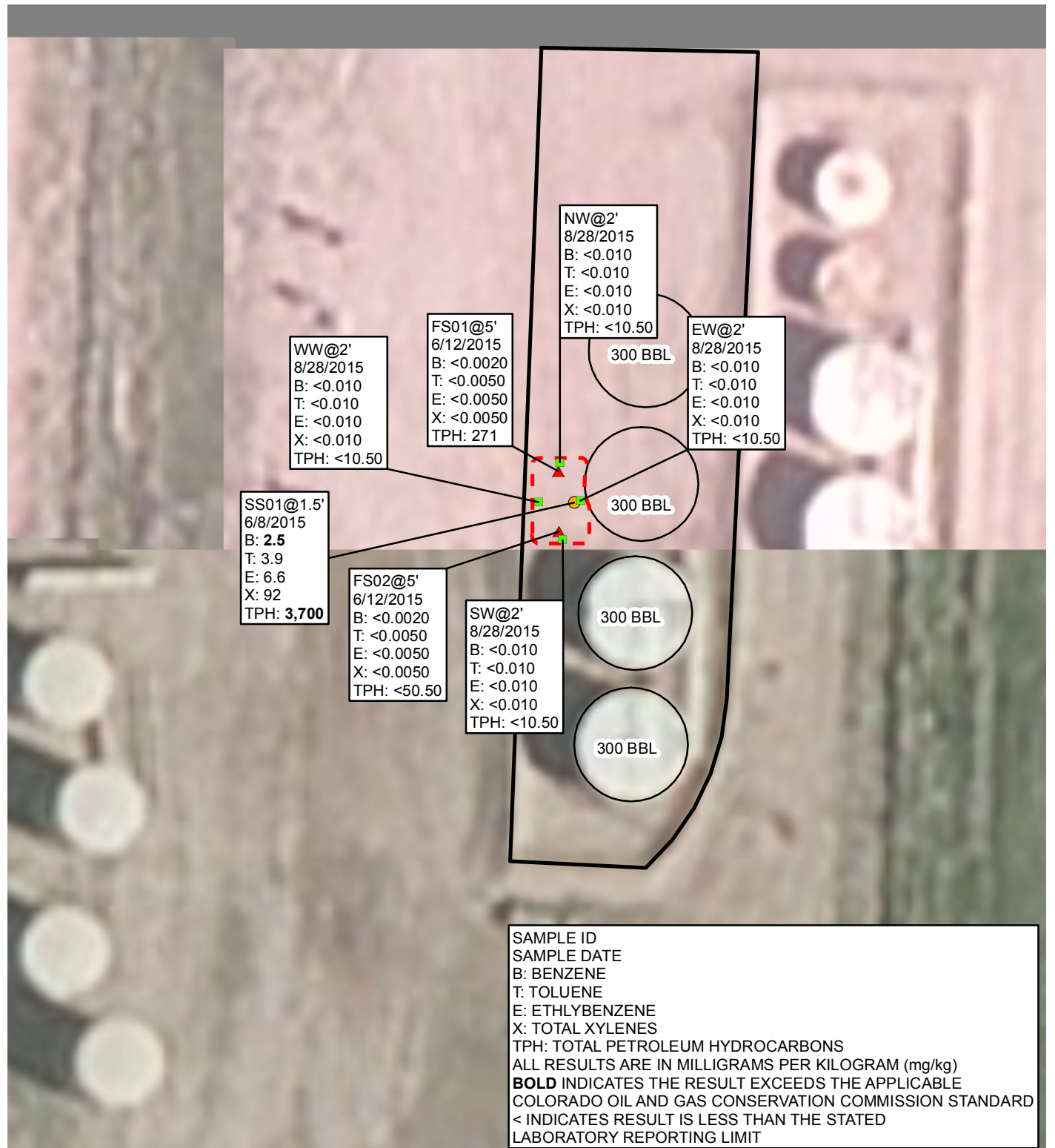
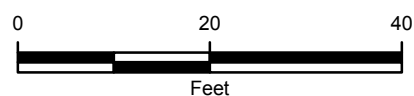


IMAGE COURTESY OF ESRI

## LEGEND

- SIDEWALL SAMPLE
- ▲ FLOOR SOIL SAMPLE
- SURFACE SOIL SAMPLE
- APPROXIMATE EXCAVATION EXTENT
- BERM
- BBL: BARREL



**FIGURE 2**  
**EXCAVATION SITE MAP**  
**SOUTH 6-21D**  
**WELD COUNTY, COLORADO**

**SYNERGY RESOURCES CORPORATION**





## TABLES



TABLE 1

**EXCAVATION SOIL ANALYTICAL RESULTS  
SOUTH 6-21D TANK BATTERY  
WELD COUNTY, COLORADO  
SYNERGY RESOURCES CORPORATION**

Soil Sample	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	TPH (mg/kg)
SS01@1.5'	6/8/2015	<b>2.5</b>	3.9	6.6	92	2,500.0	1,200	<b>3,700</b>
FS01@5'	6/12/2015	<0.0020	<0.0050	<0.0050	<0.0050	51	220	271
FS02@5'	6/12/2015	<0.0020	<0.0050	<0.0050	<0.0050	<0.50	<50	<50.50
SW@2'	8/28/2015	<0.010	<0.010	<0.010	<0.010	-	-	<10.50
NW@2'	8/28/2015	<0.010	<0.010	<0.010	<0.010	-	-	<10.50
EW@2'	8/28/2015	<0.010	<0.010	<0.010	<0.010	-	-	<10.50
WW@2	8/28/2015	<0.010	<0.010	<0.010	<0.010	-	-	<10.50
<b>COGCC Table 910-1 Standard</b>		<b>0.17</b>	<b>85</b>	<b>100</b>	<b>175</b>	<b>--</b>	<b>--</b>	<b>500</b>

**NOTES:**

COGCC - Colorado Oil and Gas Conservation Commission

Benzene, toluene, ethylbenzene, total xylenes, and naphthalene analyzed by EPA Method 8260B

DRO - diesel range organics analyzed by EPA Method 8015

GRO - gasoline range organics analyzed by EPA Method 8260B

mg/kg - milligrams per kilogram

TPH - total petroleum hydrocarbons is the sum of GRO and DRO

**Bold** indicates the result exceeds the applicable standard

< - indicates result is less than the stated laboratory reporting limit

-- - not applicable



## **LABORATORY ANALYTICAL REPORT**





# Summit Scientific

---

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

June 10, 2015

Jess Alexander  
LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada, CO 80003  
RE: South 6-21D

Enclosed are the results of analyses for samples received by Summit Scientific on 06/09/15 08:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury  
President





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

Project: South 6-21D

Project Number: [none]  
Project Manager: Jess Alexander

**Reported:**  
06/10/15 08:13

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01@1.5	1506078-01	Soil	06/08/15 17:45	06/09/15 08:25

Summit Scientific

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

*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.*





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

Project: South 6-21D

Project Number: [none]  
Project Manager: Jess Alexander

Reported:  
06/10/15 08:13

# Summit Scientific

S<sub>2</sub>

1506078

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

Page 1 of 1

Client: LT Environmental, Inc.

Project Manager: Jess Alexander

Address: 4600 West 60th Ave

E-Mail: jalexander@LTEnv.com

City/State/Zip: Arvada, CO 80003

Phone: 303-433-9788

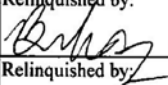
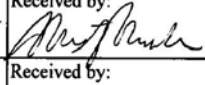
Fax: 303-433-1432

Project Name: South 6-21D

Sampler Name: Brandon Finn

Project Number:

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	DRO	GRU		
1	SSO1@1.5	06/09/2015	1745	1			X			X				X	X	X	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Relinquished by: 	Date/Time: 06/09/2015 0825	Received by: 	Date/Time: 6/9/2015 8:25	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours — 24 hours — Standard — 48 hours —	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity: Temperature Upon Receipt: 4.6 Intact: <input checked="" type="radio"/> Yes No	
Relinquished by:	Date/Time:	Received by:	Date/Time:		

www.s2scientific.com

Summit Scientific

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

Project: South 6-21D  
Project Number: [none]  
Project Manager: Jess Alexander

**Reported:**  
06/10/15 08:13

**Sample Receipt Checklist**

S2 Work Order: 1506078



Summit Scientific

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

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

Project: South 6-21D  
Project Number: [none]  
Project Manager: Jess Alexander

Reported:  
06/10/15 08:13

**SS01@1.5**  
**1506078-01 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/08/15 17:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	1200	50	mg/kg	1	1506103	06/09/15	06/09/15	8015M	

Date Sampled: **06/08/15 17:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		126 %	30-150		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **06/08/15 17:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	2.5	0.20	mg/kg	100	1506102	06/09/15	06/09/15	EPA 8260B	
Toluene	3.9	0.50	"	"	"	"	"	"	
Ethylbenzene	6.6	0.50	"	"	"	"	"	"	
Xylenes (total)	92	0.50	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	2500	50	"	"	"	"	"	"	

Date Sampled: **06/08/15 17:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		96.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		113 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		120 %	21-167		"	"	"	"	

Summit Scientific

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

Project: South 6-21D  
Project Number: [none]  
Project Manager: Jess Alexander

Reported:  
06/10/15 08:13

**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 1506103 - EPA 3550A**

**Blank (1506103-BLK1)**

Prepared & Analyzed: 06/09/15

C10-C28 (DRO) ND 50 mg/kg

Surrogate: o-Terphenyl 12.3 " 12.2 101 30-150

**LCS (1506103-BS1)**

Prepared & Analyzed: 06/09/15

C10-C28 (DRO) 485 50 mg/kg 501 96.9 73-134

Surrogate: o-Terphenyl 12.7 " 12.2 104 30-150

**Matrix Spike (1506103-MS1)**

Source: 1506079-01

Prepared & Analyzed: 06/09/15

C10-C28 (DRO) 494 50 mg/kg 492 27.9 94.8 50-148

Surrogate: o-Terphenyl 12.3 " 12.0 103 30-150

**Matrix Spike Dup (1506103-MSD1)**

Source: 1506079-01

Prepared & Analyzed: 06/09/15

C10-C28 (DRO) 472 50 mg/kg 496 27.9 89.6 50-148 4.56 13

Surrogate: o-Terphenyl 12.3 " 12.1 102 30-150

Summit Scientific

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

Project: South 6-21D  
Project Number: [none]  
Project Manager: Jess Alexander

Reported:  
06/10/15 08:13

**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 1506102 - EPA 5030 Soil MS**

**Blank (1506102-BLK1)**

Prepared & Analyzed: 06/09/15

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	0.0374		"	0.0396		94.5	23-173			
Surrogate: Toluene-d8	0.0384		"	0.0400		96.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		96.9	21-167			

**LCS (1506102-BS1)**

Prepared & Analyzed: 06/09/15

Benzene	0.108	0.0020	mg/kg	0.100		108	58-130			
Toluene	0.0995	0.0050	"	0.100		99.5	61-134			
Ethylbenzene	0.104	0.0050	"	0.0992		104	74-139			
m,p-Xylene	0.215	0.010	"	0.200		108	73-137			
o-Xylene	0.106	0.0050	"	0.0984		108	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0377		"	0.0396		95.3	23-173			
Surrogate: Toluene-d8	0.0384		"	0.0400		96.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0382		"	0.0400		95.4	21-167			

**Matrix Spike (1506102-MS1)**

Source: 1506079-01

Prepared & Analyzed: 06/09/15

Benzene	0.109	0.0020	mg/kg	0.100	ND	109	30-131			
Toluene	0.100	0.0050	"	0.100	ND	100	30-134			
Ethylbenzene	0.104	0.0050	"	0.0992	ND	105	22-153			
m,p-Xylene	0.214	0.010	"	0.200	0.00609	104	10-159			
o-Xylene	0.106	0.0050	"	0.0984	ND	107	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0399		"	0.0396		101	23-173			
Surrogate: Toluene-d8	0.0385		"	0.0400		96.2	20-170			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.0	21-167			

Summit Scientific

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

Project: South 6-21D

Project Number: [none]  
Project Manager: Jess Alexander

Reported:  
06/10/15 08:13

**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 1506102 - EPA 5030 Soil MS**

Matrix Spike Dup (1506102-MSD1)		Source: 1506079-01			Prepared & Analyzed: 06/09/15					
Benzene	0.107	0.0020	mg/kg	0.100	ND	107	30-131	1.83	34	
Toluene	0.0986	0.0050	"	0.100	ND	98.6	30-134	1.60	30	
Ethylbenzene	0.102	0.0050	"	0.0992	ND	103	22-153	2.18	24	
m,p-Xylene	0.212	0.010	"	0.200	0.00609	103	10-159	1.20	68	
o-Xylene	0.105	0.0050	"	0.0984	ND	107	31-151	0.626	38	
Surrogate: 1,2-Dichloroethane-d4	0.0395		"	0.0396		99.7	23-173			
Surrogate: Toluene-d8	0.0385		"	0.0400		96.2	20-170			
Surrogate: 4-Bromofluorobenzene	0.0379		"	0.0400		94.7	21-167			

Summit Scientific

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

Project: South 6-21D

Project Number: [none]  
Project Manager: Jess Alexander

**Reported:**  
06/10/15 08:13

### 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

---

Summit Scientific

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



# Summit Scientific

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741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

June 19, 2015

Jess Alexander  
LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada, CO 80003  
RE: South 6-21D

Enclosed are the results of analyses for samples received by Summit Scientific on 06/12/15 17:37. 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  
President





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

Project: South 6-21D

Project Number: [none]  
Project Manager: Jess Alexander

**Reported:**  
06/19/15 13:19

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FS01@5'	1506123-01	Soil	06/12/15 16:00	06/12/15 17:37
FS02@5'	1506123-02	Soil	06/12/15 16:00	06/12/15 17:37

Summit Scientific

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

Project: South 6-21D

Project Number: [none]  
Project Manager: Jess Alexander

Reported:  
06/19/15 13:19

# Summit Scientific

S<sub>2</sub>

1506123

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

Client: LTE Project Manager: Steve Kahn, Jess Alexander Page 1 of 1  
Address: 4600 W 60th Avenue E-Mail: skahn@ltenv.com, jalexander@ltenv.com  
City/State/Zip: Arvada, CO 80003  
Phone: 303 433 9788 Fax: Project Name: South 6-21D  
Sampler Name: B. Finn Project Number:

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	GR	DR			
1	F501 @ 5'	06/12/15	1000	1			X			X			X	X	X			
2	F502 @ 5'	↓	↓	1			X			X			X	X	X			
3	F503 @ 5'	↓	↓	3			X		X				X	X	X			Put on hold
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Relinquished by: <u>B. Finn</u>	Date/Time: <u>06/12/2015 1737</u>	Received by: <u>Ramona Ferguson</u>	Date/Time: <u>6/12/15 1737</u>	Turn Around Time (Check)	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input type="checkbox"/>	8 n ice
				24 hours <input type="checkbox"/>	
				48 hours <input type="checkbox"/>	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:	
				Temperature Upon Receipt: <u>9.5°C</u>	
				Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	

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Summit Scientific

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

Project: South 6-21D

Project Number: [none]  
Project Manager: Jess Alexander

Reported:  
06/19/15 13:19

### Sample Receipt Checklist

S2 Work Order: 1506123

Client: LTE

Client Project ID: South 6-21D

Shipped Via: Hand delivered  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: \_\_\_\_\_

Matrix (check all that apply):    Air    ☒ Soil/Solid    ☒ Water    Other: \_\_\_\_\_  
(Describe)

Cooler ID					
Temp (°C)	<u>9.5 c</u>				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.				
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? If yes, contact client and note in narrative.		<input checked="" type="checkbox"/>		
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ?			<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, etc.				
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ?			<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

Melissa Sherman  
Custodian Printed Name

[Signature]  
Signature or Initials of Custodian

6-15-15  
Date/Time





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

Project: South 6-21D

Project Number: [none]  
Project Manager: Jess Alexander

**Reported:**  
06/19/15 13:19

**FS01@5'**  
**1506123-01 (Soil)**

### Summit Scientific

#### Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 06/12/15 16:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	220	50	mg/kg	1	1506184	06/15/15	06/17/15	8015M	

Date Sampled: 06/12/15 16:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		113 %	30-150		"	"	"	"	

#### Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 06/12/15 16:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1506180	06/15/15	06/18/15	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	51	0.50	"	"	"	"	"	"	

Date Sampled: 06/12/15 16:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %	21-167		"	"	"	"	

Summit Scientific

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

Project: South 6-21D

Project Number: [none]  
Project Manager: Jess Alexander

**Reported:**  
06/19/15 13:19

**FS02@5'**  
**1506123-02 (Soil)**

### Summit Scientific

#### Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 06/12/15 16:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1506184	06/15/15	06/17/15	8015M	

Date Sampled: 06/12/15 16:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		105 %	30-150		"	"	"	"	

#### Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 06/12/15 16:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1506180	06/15/15	06/18/15	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 06/12/15 16:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Summit Scientific

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

Project: South 6-21D  
Project Number: [none]  
Project Manager: Jess Alexander

**Reported:**  
06/19/15 13:19

**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 1506184 - EPA 3550A**

**Blank (1506184-BLK1)**

Prepared: 06/15/15 Analyzed: 06/16/15

C10-C28 (DRO) ND 50 mg/kg

Surrogate: o-Terphenyl 14.8 " 12.2 121 30-150

**LCS (1506184-BS1)**

Prepared: 06/15/15 Analyzed: 06/16/15

C10-C28 (DRO) 594 50 mg/kg 501 119 73-134

Surrogate: o-Terphenyl 14.2 " 12.2 116 30-150

**Matrix Spike (1506184-MS1)**

**Source: 1506136-01**

Prepared: 06/15/15 Analyzed: 06/16/15

C10-C28 (DRO) 440 50 mg/kg 477 18.1 88.5 50-148

Surrogate: o-Terphenyl 12.2 " 11.6 105 30-150

**Matrix Spike Dup (1506184-MSD1)**

**Source: 1506136-01**

Prepared: 06/15/15 Analyzed: 06/16/15

C10-C28 (DRO) 457 50 mg/kg 491 18.1 89.3 50-148 3.68 13

Surrogate: o-Terphenyl 12.4 " 12.0 104 30-150

Summit Scientific

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

Project: South 6-21D  
Project Number: [none]  
Project Manager: Jess Alexander

Reported:  
06/19/15 13:19

**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 1506180 - EPA 5030 Soil MS**

**Blank (1506180-BLK1)**

Prepared: 06/15/15 Analyzed: 06/16/15

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	0.0397		"	0.0396		100	23-173			
Surrogate: Toluene-d8	0.0379		"	0.0400		94.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0395		"	0.0400		98.8	21-167			

**LCS (1506180-BS1)**

Prepared: 06/15/15 Analyzed: 06/16/15

Benzene	0.111	0.0020	mg/kg	0.100		111	58-130			
Toluene	0.0996	0.0050	"	0.100		99.6	61-134			
Ethylbenzene	0.104	0.0050	"	0.0992		105	74-139			
m,p-Xylene	0.212	0.010	"	0.200		106	73-137			
o-Xylene	0.108	0.0050	"	0.0984		109	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0397		"	0.0396		100	23-173			
Surrogate: Toluene-d8	0.0385		"	0.0400		96.3	20-170			
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	21-167			

**Matrix Spike (1506180-MS1)**

Source: 1506117-11

Prepared: 06/15/15 Analyzed: 06/16/15

Benzene	0.111	0.0020	mg/kg	0.0980	ND	113	30-131			
Toluene	0.0991	0.0050	"	0.0980	ND	101	30-134			
Ethylbenzene	0.104	0.0050	"	0.0973	ND	107	22-153			
m,p-Xylene	0.212	0.010	"	0.196	ND	108	10-159			
o-Xylene	0.108	0.0050	"	0.0965	ND	112	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0409		"	0.0388		105	23-173			
Surrogate: Toluene-d8	0.0381		"	0.0392		97.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0378		"	0.0392		96.4	21-167			

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.





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

Project: South 6-21D  
Project Number: [none]  
Project Manager: Jess Alexander

Reported:  
06/19/15 13:19

**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 1506180 - EPA 5030 Soil MS**

Matrix Spike Dup (1506180-MSD1)		Source: 1506117-11			Prepared: 06/15/15		Analyzed: 06/16/15			
Benzene	0.106	0.0020	mg/kg	0.0962	ND	110	30-131	4.44	34	
Toluene	0.0957	0.0050	"	0.0962	ND	99.5	30-134	3.47	30	
Ethylbenzene	0.102	0.0050	"	0.0954	ND	107	22-153	2.34	24	
m,p-Xylene	0.207	0.010	"	0.192	ND	108	10-159	2.35	68	
o-Xylene	0.106	0.0050	"	0.0946	ND	112	31-151	2.24	38	
Surrogate: 1,2-Dichloroethane-d4	0.0378		"	0.0381		99.3	23-173			
Surrogate: Toluene-d8	0.0371		"	0.0385		96.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0374		"	0.0385		97.4	21-167			

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.





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

Project: South 6-21D

Project Number: [none]  
Project Manager: Jess Alexander

**Reported:**  
06/19/15 13:19

### 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

---

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'.



# Test Report



September 3, 2015

Client: LT Environmental

Project: South 6-21D

Lab ID: 3841

Date Samples Received: 9/1/2015

Number of Samples: 4

Sample Condition: Samples arrived intact and in appropriate sample containers

Sample Temperature: Within acceptable range of 2-6° C, or as specified in EPA Method

The quality control procedures associated with the requested analyses were satisfactorily passed before the samples were run.

Thank you for allowing eAnalytics Laboratory to provide laboratory services for you.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Dieken".

Christopher Dieken  
Quality Assurance Manager

A handwritten signature in black ink, appearing to read "Todd Rhea".

Todd Rhea  
Laboratory Manager

**eAnalytics Laboratory**

4130 Clydesdale Parkway Loveland CO 80538



## Chain of Custody

# eANALYTICS

## LABORATORY

Chain of Custody Form

eANALYTICS LABORATORY			
1767 Rocky Mountain Avenue Loveland CO 80538		Phone: (970) 667-6975	
		Fax: (970) 669-0941	
		www.eAnalyticsLab.com	
<b>CLIENT INFORMATION</b> (*New Clients please fill out completely)		<b>ANALYSIS INFORMATION</b> (Select analysis by checking box on corresponding sample line)	
Company: <u>LTE</u>		Number of Containers Matrix (S) Soil (W) Water (V) Vapor (O) Other BTEX GRO DRO	
Project: <u>South G-21D</u>			
Project Manager: <u>Jess Alexander</u>			
Sampler: <u>Jess Alexander</u>			
Phone/Email: <u>720-202-8879 / jalexander@ltenv.com</u>			
Address: <u>4600 W. 60th Ave</u> <u>Arvada, CO 80003</u>		Other Instructions	
Lab ID	Sample Name	Sampling Date/Time	
1	SW@2'	8/29/15 1000 AM	
2	NW@2'	1010 AM	
3	EW@2'	1020 AM	
4	WW@2'	1030 AM	
		AM / PM	
		AM / PM	
		AM / PM	
		AM / PM	
		AM / PM	
		AM / PM	
		AM / PM	
		AM / PM	
		AM / PM	
		AM / PM	
		AM / PM	
		AM / PM	
<b>Comments:</b>			
<b>Turnaround Time (Business Days)</b> TAT begins when sample is received by eANALYTICS <input type="radio"/> Normal (5-10 Days) <input checked="" type="radio"/> 3 Day (25%) <input type="radio"/> 2 Day (50%) <input type="radio"/> 1 Day (100%) <input type="radio"/> Same Day (300%)		<b>Record of Custody</b> Relinquished by: <u>Jess Alexander</u> Date: <u>8/31/15</u> Company: <u>LTE</u> Time: <u>1400 AM EST</u> Received by: <u>Ronald M. Estu</u> Date: <u>8/31/15</u> Company: <u>Executive course</u> Time: <u>1400 AM EST</u> Relinquished by: <u>Ronald M. Estu</u> Date: <u>9/1/15</u> Company: <u>EAC</u> Time: <u>1125 AM EST</u> Received by: <u>[Signature]</u> Date: <u>9/1/15</u> Company: <u>eANALYTICS</u> Time: <u>1125 AM EST</u>	
<b>Colorado OPS Project:</b> Yes / No <b>For eANALYTICS Use</b> Samples Received Intact: <u>Yes</u> / No Received Within Temperature Range (2-6°C): <u>Yes</u> / No Sample Preservative: <u>Ice</u> / None / Acid / Other			

WO # 3841

eANALYTICS: Environmental testing made Easy

Page \_\_\_ of \_\_\_

eAnalytics Laboratory

4130 Clydesdale Parkway Loveland CO 80538



**e**ANALYTICS  
LABORATORY

Client: LT Environmental

Lab ID: 3841

Project: South 6-21D

Analysis: BTEX / TVPH  
TEPHMethod: EPA8260  
EPA8015

Sample Name	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TVPH	TEPH	Date Sampled	Date Analyzed	Lab ID	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg				
SW @ 2'	<0.010	<0.010	<0.010	<0.010	<0.50	<10.0	08/28/15	09/01/15	3841	1
NW @ 2'	<0.010	<0.010	<0.010	<0.010	<0.50	<10.0	08/28/15	09/01/15	3841	2
EW @ 2'	<0.010	<0.010	<0.010	<0.010	<0.50	<10.0	08/28/15	09/01/15	3841	3
WW @ 2'	<0.010	<0.010	<0.010	<0.010	<0.50	<10.0	08/28/15	09/01/15	3841	4

**eAnalytics Laboratory**

4130 Clydesdale Parkway Loveland CO 80538



**e**ANALYTICS  
LABORATORY

Client: LT Environmental

Lab ID: 3841

Project: South 6-21D

Method: EPA8260

Sample Name	Dibromo- fluoromethane % Recovery	1,2 Dichloro- ethane-D4 % Recovery	Toluene-D8 % Recovery	4-Bromo- fluorobenzene % Recovery	Date Sampled	Date Analyzed	Lab ID
SW @ 2'	105	91	98	95	08/28/15	09/01/15	3841 1
NW @ 2'	100	97	100	101	08/28/15	09/01/15	3841 2
EW @ 2'	96	99	94	94	08/28/15	09/01/15	3841 3
WW @ 2'	90	95	94	91	08/28/15	09/01/15	3841 4

**eAnalytics Laboratory**

4130 Clydesdale Parkway Loveland CO 80538



**e**ANALYTICS  
LABORATORY

Client: LT Environmental

Lab ID: 3841

Project: South 6-21D

Analysis: BTEX / TVPH  
TEPHMethod: EPA8260  
EPA8015

Sample Name	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TVPH	TEPH	Date Analyzed	Lab ID	
	% Rec	% Rec	% Rec	% Rec	% Rec	% Rec			
Laboratory Control Sample (70-130%)	102	104	92	99	100	87	09/01/15	LCS	3841 1
Method Blank	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 10.0	09/01/15	MB	3841 1
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg			

**eAnalytics Laboratory**

4130 Clydesdale Parkway Loveland CO 80538