

# Summit Scientific

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741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

January 10, 2018

Colby Sterling  
Talon/LPE  
1811 E Mulberry  
Ft Collins, CO 80524  
RE: Horsetail 07 East CPB

Enclosed are the results of analyses for samples received by Summit Scientific on 01/03/18 16:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury  
President



Talon/LPE  
1811 E Mulberry  
Ft Collins CO, 80524

Project: Horsetail 07 East CPB

Project Number: 701530.124.01  
Project Manager: Colby Sterling

**Reported:**  
01/10/18 16:23

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-1@0'	1801023-01	Soil	01/03/18 12:15	01/03/18 16:15
SS-2@0'	1801023-02	Soil	01/03/18 12:20	01/03/18 16:15
SS-3@0'	1801023-03	Soil	01/03/18 12:25	01/03/18 16:15
SS-4@2"	1801023-04	Soil	01/03/18 12:30	01/03/18 16:15
SS-5@2"	1801023-05	Soil	01/03/18 12:35	01/03/18 16:15
SS-6@0'	1801023-06	Soil	01/03/18 12:40	01/03/18 16:15
SS-7@2"	1801023-07	Soil	01/03/18 12:45	01/03/18 16:15
SS-8@2"	1801023-08	Soil	01/03/18 12:50	01/03/18 16:15
SS-9@0'	1801023-09	Soil	01/03/18 12:55	01/03/18 16:15

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Talon/LPE  
1811 E Mulberry  
Ft Collins CO, 80524

Project: Horsetail 07 East CPB

Project Number: 701530.124.01  
Project Manager: Colby Sterling

Reported:  
01/10/18 16:23

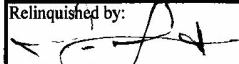
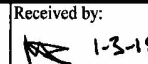
# Summit Scientific

1861623

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

Page 1 of 1

Client: Talon/LPE - Bill Whiting	Project Manager: Colby Sterling
Address: 1811 East Mulberry	E-Mail: csterling@talonlpe.com
City/State/Zip: Fort Collins, CO 80525	Project Name: Horsetail 07 East CPB
Phone: 970-818-5330 Fax:	Project Number: 701530.124.01
Sampler Name: Jason Leverton	

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:						Special Instructions			
				HCl	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	BTEX	GRO	DRO						
SS-1 @ 0'	1/3/2017	1215	1		x								x	x	x					
SS-2 @ 0'	1/3/2017	1220	1		x				x				x	x	x					
SS-3 @ 0'	1/3/2017	1225	1		x				x				x	x	x					
SS-4 @ 2"	1/3/2017	1230	1		x				x				x	x	x					
SS-5 @ 2"	1/3/2017	1235	1		x				x				x	x	x					
SS-6 @ 0'	1/3/2017	1240	1		x				x				x	x	x					
SS-7 @ 2"	1/3/2017	1245	1		x				x				x	x	x					
SS-8 @ 2"	1/3/2017	1250	1		x				x				x	x	x					
SS-9 @ 0'	1/3/2017	1255	1		x				x				x	x	x					
Relinquished by:  Date/Time: 1-3-18 16:15				Received by:  Date/Time: 1-3-18 16:15				Turn Around Time (Check)				Notes:								
								Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/>				ONLY								
								24 Hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/>												
								48 Hours <input type="checkbox"/>												
Relinquished by:				Received in Lab by:				Sample Integrity:												
								Temperature Upon Receipt: 7.4												
								Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>												

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Talon/LPE  
1811 E Mulberry  
Ft Collins CO, 80524

Project: Horsetail 07 East CPB

Project Number: 701530.124.01  
Project Manager: Colby Sterling

Reported:  
01/10/18 16:23

**Sample Receipt Checklist**

S2 Work Order: 1801023

Client: Talon Client Project ID: Horsetail 07 East CPB

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

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

Cooler ID					
Temp (°C)	<u>7.4</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? If yes, contact client and note in narrative.			<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):				
<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.				

Murphy  
Custodian Printed Name

MS 1-3-18  
Signature or Initials of Custodian

17:50  
Date/Time



Talon/LPE  
1811 E Mulberry  
Ft Collins CO, 80524

Project: Horsetail 07 East CPB

Project Number: 701530.124.01  
Project Manager: Colby Sterling

**Reported:**  
01/10/18 16:23

**SS-1@0'**  
**1801023-01 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/03/18 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1801036	01/04/18	01/05/18	8015M	

Date Sampled: **01/03/18 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		82.7 %	30-150		"	"	"	"	

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

Date Sampled: **01/03/18 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1801037	01/04/18	01/05/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **01/03/18 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		92.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

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Talon/LPE  
1811 E Mulberry  
Ft Collins CO, 80524

Project: Horsetail 07 East CPB  
Project Number: 701530.124.01  
Project Manager: Colby Sterling

**Reported:**  
01/10/18 16:23

**SS-2@0'**  
**1801023-02 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/03/18 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>380</b>	50	mg/kg	1	1801036	01/04/18	01/05/18	8015M	

Date Sampled: **01/03/18 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		103 %	30-150		"	"	"	"	

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

Date Sampled: **01/03/18 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1801038	01/04/18	01/04/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>0.72</b>	0.50	"	"	"	"	"	"	

Date Sampled: **01/03/18 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99.2 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.8 %	21-167		"	"	"	"	

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Talon/LPE  
1811 E Mulberry  
Ft Collins CO, 80524

Project: Horsetail 07 East CPB

Project Number: 701530.124.01  
Project Manager: Colby Sterling

**Reported:**  
01/10/18 16:23

**SS-3@0'**  
**1801023-03 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/03/18 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1801036	01/04/18	01/05/18	8015M	

Date Sampled: **01/03/18 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		92.8 %	30-150		"	"	"	"	

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

Date Sampled: **01/03/18 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1801038	01/04/18	01/04/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>0.65</b>	0.50	"	"	"	"	"	"	

Date Sampled: **01/03/18 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

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1811 E Mulberry  
Ft Collins CO, 80524

Project: Horsetail 07 East CPB

Project Number: 701530.124.01  
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**Reported:**  
01/10/18 16:23

**SS-4@2"**  
**1801023-04 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/03/18 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1801036	01/04/18	01/05/18	8015M	

Date Sampled: **01/03/18 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		77.1 %	30-150		"	"	"	"	

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

Date Sampled: **01/03/18 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1801038	01/04/18	01/04/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **01/03/18 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		92.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.9 %	21-167		"	"	"	"	

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Talon/LPE  
1811 E Mulberry  
Ft Collins CO, 80524

Project: Horsetail 07 East CPB

Project Number: 701530.124.01  
Project Manager: Colby Sterling

**Reported:**  
01/10/18 16:23

**SS-5@2"**  
**1801023-05 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/03/18 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>250</b>	50	mg/kg	1	1801036	01/04/18	01/05/18	8015M	

Date Sampled: **01/03/18 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		83.5 %	30-150		"	"	"	"	

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

Date Sampled: **01/03/18 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1801038	01/04/18	01/05/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>5.5</b>	0.50	"	"	"	"	"	"	

Date Sampled: **01/03/18 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		100 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.4 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.0 %	21-167		"	"	"	"	

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Talon/LPE  
1811 E Mulberry  
Ft Collins CO, 80524

Project: Horsetail 07 East CPB  
Project Number: 701530.124.01  
Project Manager: Colby Sterling

**Reported:**  
01/10/18 16:23

**SS-6@0'**  
**1801023-06 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/03/18 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>57</b>	50	mg/kg	1	1801036	01/04/18	01/05/18	8015M	

Date Sampled: **01/03/18 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		99.0 %	30-150		"	"	"	"	

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

Date Sampled: **01/03/18 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1801038	01/04/18	01/05/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>3.8</b>	0.50	"	"	"	"	"	"	

Date Sampled: **01/03/18 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99.8 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		102 %	21-167		"	"	"	"	

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1811 E Mulberry  
Ft Collins CO, 80524

Project: Horsetail 07 East CPB

Project Number: 701530.124.01  
Project Manager: Colby Sterling

**Reported:**  
01/10/18 16:23

**SS-7@2"**  
**1801023-07 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/03/18 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1801036	01/04/18	01/05/18	8015M	

Date Sampled: **01/03/18 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		81.9 %	30-150		"	"	"	"	

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

Date Sampled: **01/03/18 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1801038	01/04/18	01/05/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **01/03/18 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.4 %	21-167		"	"	"	"	

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1811 E Mulberry  
Ft Collins CO, 80524

Project: Horsetail 07 East CPB

Project Number: 701530.124.01  
Project Manager: Colby Sterling

**Reported:**  
01/10/18 16:23

**SS-8@2"**  
**1801023-08 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/03/18 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>240</b>	50	mg/kg	1	1801036	01/04/18	01/05/18	8015M	

Date Sampled: **01/03/18 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		78.7 %	30-150		"	"	"	"	

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

Date Sampled: **01/03/18 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1801038	01/04/18	01/05/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>6.9</b>	0.50	"	"	"	"	"	"	

Date Sampled: **01/03/18 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.8 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.6 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		101 %	21-167		"	"	"	"	

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1811 E Mulberry  
Ft Collins CO, 80524

Project: Horsetail 07 East CPB  
Project Number: 701530.124.01  
Project Manager: Colby Sterling

**Reported:**  
01/10/18 16:23

**SS-9@0'**  
**1801023-09 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/03/18 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>210</b>	50	mg/kg	1	1801036	01/04/18	01/05/18	8015M	

Date Sampled: **01/03/18 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		116 %	30-150		"	"	"	"	

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

Date Sampled: **01/03/18 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1801038	01/04/18	01/05/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>12</b>	0.50	"	"	"	"	"	"	

Date Sampled: **01/03/18 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.7 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.7 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		99.4 %	21-167		"	"	"	"	

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Talon/LPE  
1811 E Mulberry  
Ft Collins CO, 80524

Project: Horsetail 07 East CPB  
Project Number: 701530.124.01  
Project Manager: Colby Sterling

**Reported:**  
01/10/18 16:23

**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 1801036 - EPA 3550A**

<b>Blank (1801036-BLK1)</b>				Prepared: 01/04/18 Analyzed: 01/05/18							
C10-C28 (DRO)	ND	50	mg/kg								
Surrogate: <i>o</i> -Terphenyl	13.9		"	12.5		111	30-150				
<b>LCS (1801036-BS1)</b>				Prepared: 01/04/18 Analyzed: 01/05/18							
C10-C28 (DRO)	590	50	mg/kg	499		118	73-134				
Surrogate: <i>o</i> -Terphenyl	17.0		"	12.5		136	30-150				
<b>Matrix Spike (1801036-MS1)</b>				<b>Source: 1801023-01</b>		Prepared: 01/04/18 Analyzed: 01/05/18					
C10-C28 (DRO)	591	50	mg/kg	499	12.0	116	50-148				
Surrogate: <i>o</i> -Terphenyl	13.3		"	12.5		106	30-150				
<b>Matrix Spike Dup (1801036-MSD1)</b>				<b>Source: 1801023-01</b>		Prepared: 01/04/18 Analyzed: 01/05/18					
C10-C28 (DRO)	620	50	mg/kg	499	12.0	122	50-148	4.73		20	
Surrogate: <i>o</i> -Terphenyl	13.2		"	12.5		105	30-150				

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Talon/LPE  
1811 E Mulberry  
Ft Collins CO, 80524

Project: Horsetail 07 East CPB

Project Number: 701530.124.01  
Project Manager: Colby Sterling

Reported:  
01/10/18 16:23

**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 1801037 - EPA 5030 Soil MS**

**Blank (1801037-BLK1)**

Prepared & Analyzed: 01/04/18

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>0.0356</i>		<i>"</i>	<i>0.0400</i>		<i>89.0</i>		<i>23-173</i>		
<i>Surrogate: Toluene-d8</i>	<i>0.0396</i>		<i>"</i>	<i>0.0400</i>		<i>99.0</i>		<i>20-170</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0391</i>		<i>"</i>	<i>0.0400</i>		<i>97.7</i>		<i>21-167</i>		

**LCS (1801037-BS1)**

Prepared & Analyzed: 01/04/18

Benzene	0.105	0.0020	mg/kg	0.100		105		58-130		
Toluene	0.111	0.0050	"	0.100		111		61-134		
Ethylbenzene	0.120	0.0050	"	0.0992		121		74-139		
m,p-Xylene	0.225	0.010	"	0.200		113		73-137		
o-Xylene	0.114	0.0050	"	0.0980		116		73-141		
Xylenes (total)	0.339	0.0050	"					30-150		
Gasoline Range Hydrocarbons	3.01	0.50	"					30-150		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0360</i>		<i>"</i>	<i>0.0400</i>		<i>89.9</i>		<i>23-173</i>		
<i>Surrogate: Toluene-d8</i>	<i>0.0405</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>		<i>20-170</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0389</i>		<i>"</i>	<i>0.0400</i>		<i>97.3</i>		<i>21-167</i>		

**Matrix Spike (1801037-MS1)**

Source: 1801011-05

Prepared & Analyzed: 01/04/18

Benzene	0.105	0.0020	mg/kg	0.100	ND	105		30-131		
Toluene	0.110	0.0050	"	0.100	ND	110		30-134		
Ethylbenzene	0.123	0.0050	"	0.0992	ND	124		22-153		
m,p-Xylene	0.231	0.010	"	0.200	ND	116		10-159		
o-Xylene	0.117	0.0050	"	0.0980	ND	120		31-151		
Xylenes (total)	0.348	0.0050	"		ND			30-150		
Gasoline Range Hydrocarbons	3.08	0.50	"		ND			30-150		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0376</i>		<i>"</i>	<i>0.0400</i>		<i>94.1</i>		<i>23-173</i>		
<i>Surrogate: Toluene-d8</i>	<i>0.0402</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>		<i>20-170</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0392</i>		<i>"</i>	<i>0.0400</i>		<i>98.1</i>		<i>21-167</i>		

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Talon/LPE  
1811 E Mulberry  
Ft Collins CO, 80524

Project: Horsetail 07 East CPB

Project Number: 701530.124.01  
Project Manager: Colby Sterling

Reported:  
01/10/18 16:23

**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 1801037 - EPA 5030 Soil MS**

**Matrix Spike Dup (1801037-MSD1)**

Source: 1801011-05

Prepared & Analyzed: 01/04/18

Benzene	0.108	0.0020	mg/kg	0.100	ND	108	30-131	2.53	34
Toluene	0.112	0.0050	"	0.100	ND	112	30-134	1.05	30
Ethylbenzene	0.125	0.0050	"	0.0992	ND	126	22-153	1.99	24
m,p-Xylene	0.235	0.010	"	0.200	ND	118	10-159	2.07	68
o-Xylene	0.121	0.0050	"	0.0980	ND	123	31-151	3.00	38
Xylenes (total)	0.356	0.0050	"		ND		30-150	2.39	20
Gasoline Range Hydrocarbons	3.15	0.50	"		ND		30-150	2.23	20
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0370</i>		<i>"</i>	<i>0.0400</i>		<i>92.5</i>	<i>23-173</i>		
<i>Surrogate: Toluene-d8</i>	<i>0.0404</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>20-170</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0394</i>		<i>"</i>	<i>0.0400</i>		<i>98.6</i>	<i>21-167</i>		

**Batch 1801038 - EPA 5030 Soil MS**

**Blank (1801038-BLK1)**

Prepared & Analyzed: 01/04/18

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>0.0399</i>		<i>"</i>	<i>0.0400</i>		<i>99.8</i>	<i>23-173</i>		
<i>Surrogate: Toluene-d8</i>	<i>0.0400</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>	<i>20-170</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0381</i>		<i>"</i>	<i>0.0400</i>		<i>95.2</i>	<i>21-167</i>		

**LCS (1801038-BS1)**

Prepared & Analyzed: 01/04/18

Benzene	0.102	0.0020	mg/kg	0.100		102	58-130		
Toluene	0.102	0.0050	"	0.100		102	61-134		
Ethylbenzene	0.103	0.0050	"	0.0992		104	74-139		
m,p-Xylene	0.207	0.010	"	0.200		104	73-137		
o-Xylene	0.104	0.0050	"	0.0980		106	73-141		
Xylenes (total)	0.312	0.0050	"				30-150		
Gasoline Range Hydrocarbons	5.62	0.50	"				30-150		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0415</i>		<i>"</i>	<i>0.0400</i>		<i>104</i>	<i>23-173</i>		
<i>Surrogate: Toluene-d8</i>	<i>0.0409</i>		<i>"</i>	<i>0.0400</i>		<i>102</i>	<i>20-170</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0405</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>21-167</i>		

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Ft Collins CO, 80524

Project: Horsetail 07 East CPB

Project Number: 701530.124.01  
Project Manager: Colby Sterling

Reported:  
01/10/18 16:23

**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 1801038 - EPA 5030 Soil MS**

**Matrix Spike (1801038-MS1)**

Source: 1801023-02

Prepared & Analyzed: 01/04/18

Benzene	0.0887	0.0020	mg/kg	0.100	ND	88.7	30-131			
Toluene	0.0827	0.0050	"	0.100	ND	82.7	30-134			
Ethylbenzene	0.0766	0.0050	"	0.0992	ND	77.2	22-153			
m,p-Xylene	0.150	0.010	"	0.200	ND	75.2	10-159			
o-Xylene	0.0769	0.0050	"	0.0980	ND	78.5	31-151			
Xylenes (total)	0.227	0.0050	"		ND		30-150			
Gasoline Range Hydrocarbons	4.26	0.50	"		0.717		30-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0420</i>		<i>"</i>	<i>0.0400</i>		<i>105</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0391</i>		<i>"</i>	<i>0.0400</i>		<i>97.8</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0393</i>		<i>"</i>	<i>0.0400</i>		<i>98.2</i>	<i>21-167</i>			

**Matrix Spike Dup (1801038-MSD1)**

Source: 1801023-02

Prepared & Analyzed: 01/04/18

Benzene	0.0841	0.0020	mg/kg	0.100	ND	84.1	30-131	5.38	34	
Toluene	0.0779	0.0050	"	0.100	ND	77.9	30-134	6.01	30	
Ethylbenzene	0.0735	0.0050	"	0.0992	ND	74.1	22-153	4.12	24	
m,p-Xylene	0.144	0.010	"	0.200	ND	72.3	10-159	3.89	68	
o-Xylene	0.0743	0.0050	"	0.0980	ND	75.8	31-151	3.49	38	
Xylenes (total)	0.219	0.0050	"		ND		30-150	3.76	20	
Gasoline Range Hydrocarbons	4.64	0.50	"		0.717		30-150	8.48	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0413</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0395</i>		<i>"</i>	<i>0.0400</i>		<i>98.7</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0398</i>		<i>"</i>	<i>0.0400</i>		<i>99.4</i>	<i>21-167</i>			

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Ft Collins CO, 80524

Project: Horsetail 07 East CPB

Project Number: 701530.124.01  
Project Manager: Colby Sterling

**Reported:**  
01/10/18 16:23

### 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