

Summit Scientific

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January 12, 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 01/11/18 15:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury For Ben Shrewsbury
Laboratory Manager



Talon/LPE
1811 E Mulberry
Ft Collins CO, 80524

Project: Horsetail 07 East CPB

Project Number: 701530.124.01
Project Manager: Colby Sterling

Reported:
01/12/18 16:58

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-11@6"	1801125-01	Soil	01/11/18 11:40	01/11/18 15:15

Summit Scientific

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1801125

Sample Receipt Checklist

S2 Work Order: _____

Client: Talon Client Project ID: Horsetail 07 East CPB

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

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

Cooler ID				
Temp (°C)	5.5			

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 ⁽¹⁾ ?				
NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.	X			
Were all samples received intact ⁽¹⁾ ?	X			
Was adequate sample volume provided ⁽¹⁾ ?	X			
If custody seals are present, are they intact ⁽¹⁾ ?			X	
Are short holding time analytes or samples with HTs due within 48 hours present?			X	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	X			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	X			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	X			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	X			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			X	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?			X	
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⁾ ?			X	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?			X	
Additional Comments (if any):				

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

Murip.
Custodian Printed Name

MP 1-11-18
Signature or Initials of Custodian

16:00
Date/Time



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Ft Collins CO, 80524

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SS-11@6''
1801125-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/11/18 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1801118	01/11/18	01/12/18	8015M	

Date Sampled: **01/11/18 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		122 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/11/18 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1801117	01/11/18	01/12/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **01/11/18 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		88.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	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 1801118 - EPA 3550A

Blank (1801118-BLK1)				Prepared & Analyzed: 01/11/18							
C10-C28 (DRO)	ND	50	mg/kg								
<i>Surrogate: o-Terphenyl</i>	14.5		"	12.5		116	30-150				
LCS (1801118-BS1)				Prepared & Analyzed: 01/11/18							
C10-C28 (DRO)	529	50	mg/kg	499		106	73-134				
<i>Surrogate: o-Terphenyl</i>	12.3		"	12.5		98.5	30-150				
Matrix Spike (1801118-MS1)				Source: 1801120-01		Prepared & Analyzed: 01/11/18					
C10-C28 (DRO)	620	50	mg/kg	499	46.8	115	50-148				
<i>Surrogate: o-Terphenyl</i>	17.1		"	12.5		137	30-150				
Matrix Spike Dup (1801118-MSD1)				Source: 1801120-01		Prepared & Analyzed: 01/11/18					
C10-C28 (DRO)	611	50	mg/kg	499	46.8	113	50-148	1.42		20	
<i>Surrogate: o-Terphenyl</i>	14.2		"	12.5		114	30-150				

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Volatile Organic Compounds by EPA Method 8260B - Quality Control
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Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1801117 - EPA 5030 Soil MS

Blank (1801117-BLK1)

Prepared & Analyzed: 01/11/18

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>0.0338</i>		<i>"</i>	<i>0.0400</i>		<i>84.4</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0401</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0403</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>21-167</i>			

LCS (1801117-BS1)

Prepared & Analyzed: 01/11/18

Benzene	0.101	0.0020	mg/kg	0.100		101	58-130			
Toluene	0.105	0.0050	"	0.100		105	61-134			
Ethylbenzene	0.113	0.0050	"	0.0992		114	74-139			
m,p-Xylene	0.215	0.010	"	0.200		108	73-137			
o-Xylene	0.107	0.0050	"	0.0980		109	73-141			
Xylenes (total)	0.321	0.0050	"				30-150			
Gasoline Range Hydrocarbons	2.81	0.50	"				30-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0361</i>		<i>"</i>	<i>0.0400</i>		<i>90.2</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>0.0396</i>		<i>"</i>	<i>0.0400</i>		<i>99.0</i>	<i>21-167</i>			

Matrix Spike (1801117-MS1)

Source: 1801120-01

Prepared & Analyzed: 01/11/18

Benzene	0.109	0.0020	mg/kg	0.100	ND	109	30-131			
Toluene	0.111	0.0050	"	0.100	ND	111	30-134			
Ethylbenzene	0.129	0.0050	"	0.0992	ND	130	22-153			
m,p-Xylene	0.242	0.010	"	0.200	ND	121	10-159			
o-Xylene	0.117	0.0050	"	0.0980	ND	120	31-151			
Xylenes (total)	0.360	0.0050	"		ND		30-150			
Gasoline Range Hydrocarbons	13.2	0.50	"		11.8		30-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0360</i>		<i>"</i>	<i>0.0400</i>		<i>90.0</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>0.0420</i>		<i>"</i>	<i>0.0400</i>		<i>105</i>	<i>21-167</i>			

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Volatile Organic Compounds by EPA Method 8260B - Quality Control
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Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1801117 - EPA 5030 Soil MS

Matrix Spike Dup (1801117-MSD1)	Source: 1801120-01			Prepared & Analyzed: 01/11/18						
Benzene	0.108	0.0020	mg/kg	0.100	ND	108	30-131	1.10	34	
Toluene	0.110	0.0050	"	0.100	ND	110	30-134	0.731	30	
Ethylbenzene	0.128	0.0050	"	0.0992	ND	129	22-153	1.17	24	
m,p-Xylene	0.242	0.010	"	0.200	ND	121	10-159	0.00	68	
o-Xylene	0.118	0.0050	"	0.0980	ND	121	31-151	0.866	38	
Xylenes (total)	0.361	0.0050	"		ND		30-150	0.283	20	
Gasoline Range Hydrocarbons	15.6	0.50	"		11.8		30-150	16.3	20	
<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>0.0392</i>		<i>"</i>	<i>0.0400</i>		<i>98.0</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0400</i>		<i>"</i>	<i>0.0400</i>		<i>99.9</i>	<i>21-167</i>			

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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