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**Wolf 35-2623H
Confirmation Sampling
Project # 701530.137.01**

October 24, 2019

Prepared By:

Talon/ LPE
1811 East Mulberry Street
Fort Collins, CO 80524

Prepared For:

Whiting Oil and Gas Corporation



October 24 , 2019

Mr. Kyle Waggoner
Whiting Oil and Gas Corporation
56719 CR 127
New Raymer, CO 80742

**RE: Confirmation Sampling
Wolf 35-2623H
Weld County, Colorado
Project # 701530.137.01**

Mr. Waggoner:

On June 20, 2019, Talon/LPE conducted confirmation soil sampling at the Wolf 35-2623H (Site) in Weld County, Colorado. The purpose of the sampling event was to ensure that all hydrocarbon impacted soils had been removed to the extent required by the Colorado Oil and Gas Conservation Commission (COGCC) following cleanup activities of a produced water release. The site is identified by the COGCC as Spill/Release Point ID 465240.

On June 20, 2019, a total of five (5) grab samples (SW-N, SW-S, SW-W, SW-E, and BH-1) at depths of two (2) feet below ground surface (ft bgs) for the side walls, and two and a half (2.5) ft bgs for the bottom hole. A site map with the sample locations is presented in Figures 1 and 2.

The collected samples were analyzed for Total Petroleum Hydrocarbons (TPH) via Gasoline Range Organics (GRO) method EPA8260B and Diesel Range Organics (DRO) method 8015, for Benzene, Toluene, Ethyl-benzene, and Xylenes (BTEX) via method EPA8260B, and for inorganics (Electrical Conductivity (EC), Sodium Adsorption Ratio (SAR), and pH) via method USDA60 at Summit Scientific (Summit) in Golden, Colorado.

Analytical results for BH-1 and SW-S were above COGCC 910-1 concentration levels for pH. Analytical results for SW-W were above COGCC 910-1 concentration levels for TPH. Analytical Results for SW-N, and SW-E were below laboratory detection limits or COGCC table 910-1 concentration levels for BTEX, TPH, EC, SAR, and pH. Per Whiting request a background sample was collected on August 9, 2019. Analytical Results for the background sample were below laboratory detection



limits or COGCC table 910-1 concentration levels. A soil concentration map is presented in Figure 3, and a breakdown of the soil analytical data is presented in Table 1.

Based on the collected analytical data, further excavation was performed by Whiting contractors to depths of two and a half (2.5) ft bgs for sidewalls (SW-S, and SW-W), and three (3) ft bgs for BH-1. On August 19, 2019, Talon/LPE personnel collected three (3) grab samples (SW-S, SW-W, and BH-1). Analytical results for TPH were below COGCC 910-1 concentration levels in sample SW-W. Analytical results for pH in SW-S and BH-1 were above COGCC 910-1 concentration levels.

Based on the collected analytical data, further excavation was performed by Whiting contractors in the remaining areas with pH above COGCC 910-1 concentration levels. On September 30, 2019, Talon/LPE personnel collected two (2) grab samples (SW-S, and BH-1) and submitted them to Summit for analysis of pH. Analytical results for pH in SW-S, and BH-1 were below COGCC 910-1 concentration levels. Analytical results for all samples are below laboratory detections limits and COGCC 910-01 concentration levels. Analytical results are shown in Table 1 and Figure 3.

Following the excavations, Whiting contractors transported and disposed the excavated stockpile material at an approved landfill facility. Clean soil will be brought into the Site to backfill the excavated areas upon approval of this closure request.

Based upon the collected analytical data Talon/LPE believes that no further corrective action is necessary, and that Whiting can request closure from the COGCC. If you have any questions or comments, please do not hesitate to call me at (970) 818-5330.

Respectfully Submitted,

Levi Kirk
Environmental Scientist
Talon/LPE

Attachment 1
Figures



Drafted: 10/18/2019
1 in = 1,000 ft
Drafted By: JAI

Whiting Oil & Gas
Wolf 35-2623H Produced Water
Weld County, CO
Figure 2 - Aerial Map



LEGEND

- Soil Sample

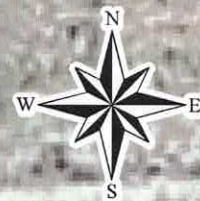


Drafted: 10/18/2019

1 in = 20 ft

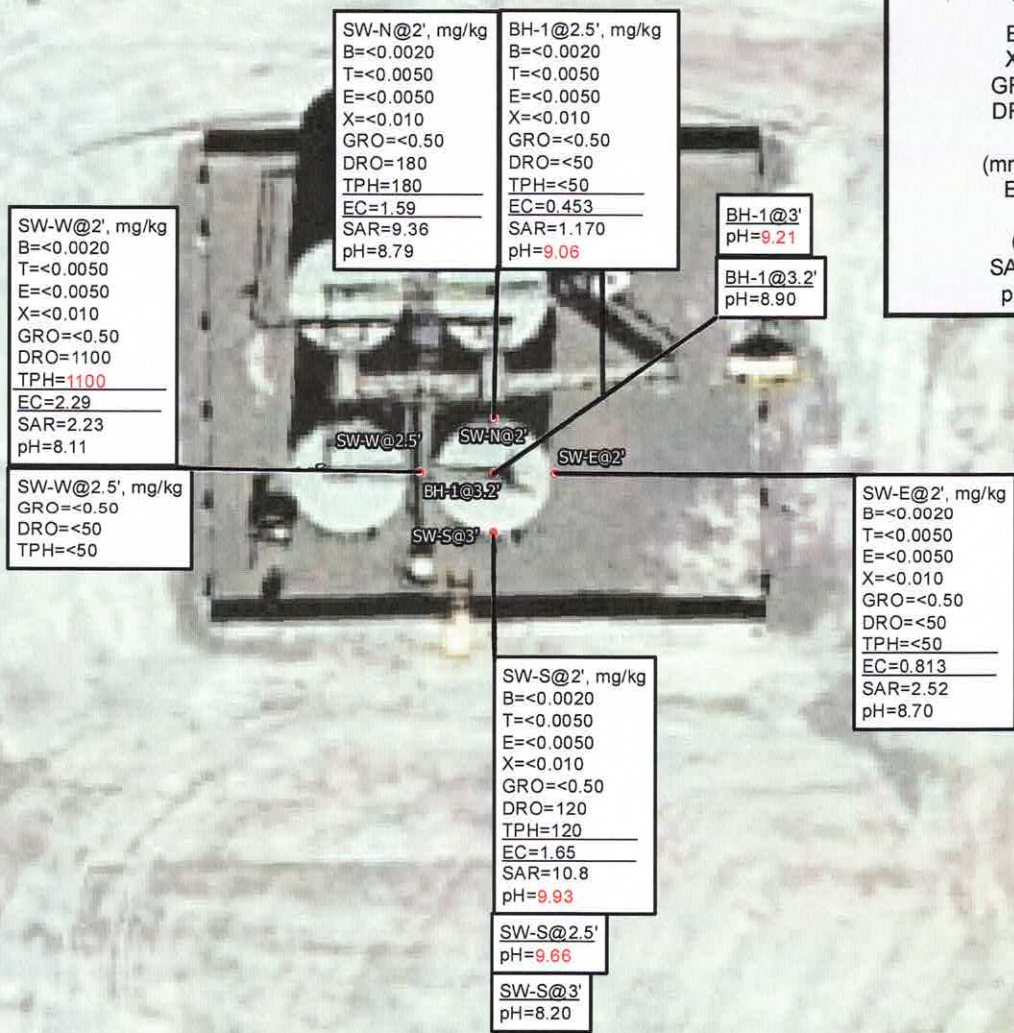
Drafted By: JAI

Whiting Oil & Gas
Wolf 35-2623H Produced Water
Weld County, CO
Figure 3 - Site Map



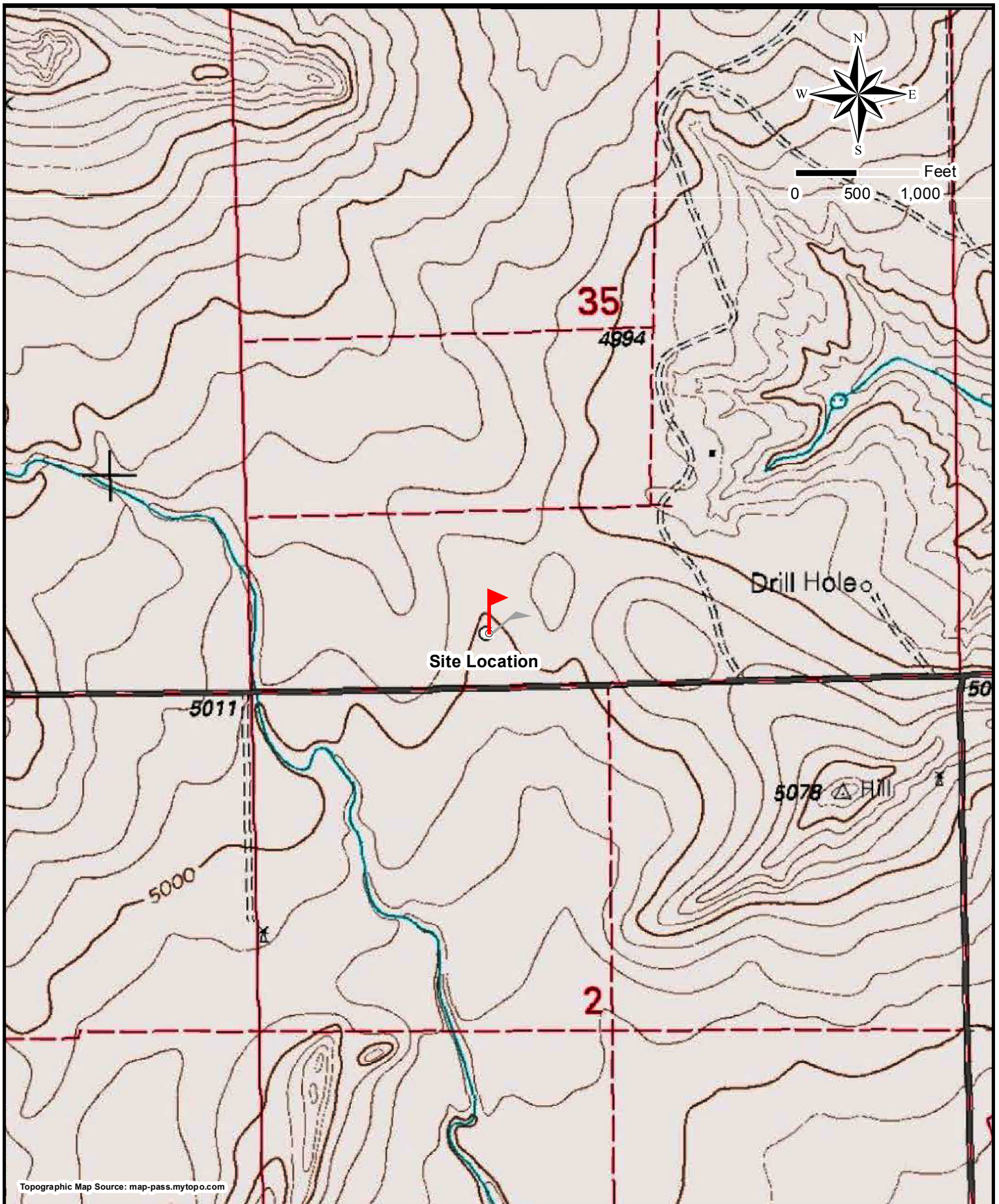
0 10 20 Feet

LEGEND	
•	Soil Sample
COGCC Concentration Levels	
(mg/kg)	
B	= 0.17
T	= 85
E	= 100
X	= 175
GRO	= NA
DRO	= NA
(mmhos/cm)	
EC	= <4
(Units)	
SAR	= <12
pH	= 6-9



Drafted: 10/22/2019
1 in = 20 ft
Drafted By: JAI

Whiting Oil & Gas
Wolf 35-2623H Produced Water
Weld County, CO
Figure 3 - Soil Concentration Map



Topographic Map Source: map-pass.mytopo.com



Drafted: 10/18/2019

1 in = 1,000 ft

Drafted By: JAI

Whiting Oil & Gas
Wolf 35-2623H Produced Water
Weld County, CO
Figure 1 - Topographic Map

Attachment 2 Tables



Table 1 - Soil Analytical Data

Whiting Oil & Gas Corporation
Wolf 35-2623H
Weld County, Colorado

Sample ID	Depth BGS in Feet	Date Sampled	Concentration (mg/kg)							mmhos/cm	Units	
			Benzene	Toluene	Ethylbenzene	Xylenes (Total)	GRO	DRO	TPH	EC	SAR	pH
COGCC Table 910-1 Concentration Levels			0.17	85	100	175	NA	NA	500	<4	<12	6-9
BH-1	2.5	6/20/2019	<0.0020	<0.0050	<0.0050	<0.010	<0.50	<50	<50	0.453	1.170	9.06
	3	8/19/2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.21
	3.2	9/30/2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.90
SWN	2	6/20/2019	<0.0020	<0.0050	<0.0050	<0.010	<0.50	180	180	1.59	9.36	8.79
SWS	2	6/20/2019	<0.0020	<0.0050	<0.0050	<0.010	<0.50	120	120	1.65	10.8	9.93
	2.5	8/19/2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.66
	3	9/30/2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.20
SWW	2	6/20/2019	<0.0020	<0.0050	<0.0050	<0.010	<0.50	1100	1100	2.29	2.23	8.11
	2.5	8/19/2019	NA	NA	NA	NA	<0.50	<50	<50	NA	NA	NA
SWE	2	6/20/2019	<0.0020	<0.0050	<0.0050	<0.010	<0.50	<50	<50	0.813	2.52	8.70
Background North	0	8/9/2019	<0.0020	<0.0050	<0.0050	<0.010	<0.50	<50	<50	0.418	1.76	8.32

mg/kg - milligrams per kilogram
mmhos/cm - millimhos per centimeter
< - Analytical result is less than the reporting limit
COGCC - Colorado Oil and Gas Conservation Commission

GRO - Gasoline Range Organics
DRO - Diesel Range Organics
TPH - Total Petroleum Hydrocarbons (Combined GRO/DRO)
EC - Electrical Conductivity

SAR - Sodium Adsorption Ratio
NA - Not Analyzed
BGS - Below Ground Surface

Attachment 3
Analytical Report

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 28, 2019

Jennifer Galles

Talon/LPE

1811 East Mulberry


Fort Collins, CO 80525

RE: Wolf 35-2623H

Work Order # 1906285

Enclosed are the results of analyses for samples received by Summit Scientific on 06/20/19 15:32. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink on a light blue background. The signature is written in a cursive style and reads "Muri Premer".

Muri Premer For Ben Shrewsbury

Laboratory Manager



Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
06/28/19 15:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-1@2.5'	1906285-01	Soil	06/20/19 12:50	06/20/19 15:32
SWN@2'	1906285-02	Soil	06/20/19 12:52	06/20/19 15:32
SWS@2'	1906285-03	Soil	06/20/19 12:58	06/20/19 15:32
SWW@2'	1906285-04	Soil	06/20/19 12:56	06/20/19 15:32
SWE@2'	1906285-05	Soil	06/20/19 12:59	06/20/19 15:32

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.

1906285

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

Page 1 of 1

Client:	Talon/LPE -Bill to Whiting	
Address:	1811 East Mulberry	
City/State/Zip:	Fort Collins, CO 80524	
Phone:	970-818-5330	Fax:
Sampler Name:	Levi Kirk	

Project Manager:	Jennifer Galles
E-Mail:	jgalles@talonlpe.com & jleverton@talonlpe.com
Project Name:	Wolf 35-2623H
Project Number:	701530.137.01

				Preservative				Matrix				Analyze For:										Special Instructions	
Sample Description	Date Sampled	Time Sampled	Number of Containers	HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	BTEX	GRO/DRO	EC	PH	SAR							
BH-1@2.5'	6/20/2019	12:50	1						x			x	x	x	x	x							
SWN@2'	6/20/2019	12:52	1						x			x	x	x	x	x							
SWS@2'	6/20/2019	12:58	1						x			x	x	x	x	x							
SWW@2'	6/20/2019	12:56	1						x			x	x	x	x	x							
SWE@2'	6/20/2019	12:59	1						x			x	x	x	x	x							
Relinquished by: <i>Sen V...</i> 1532 6-20-19				Date/Time: 6-20-19				Received by: <i>[Signature]</i> 06/20/19 1532				Date/Time: 06/20/19 1532				Turn Around Time (Check)							
																Same Day <input type="checkbox"/>				72 Hours <input type="checkbox"/>			
																24 Hours <input type="checkbox"/>				Standard <input checked="" type="checkbox"/>			
																48 Hours <input type="checkbox"/>							
Relinquished by:				Date/Time:				Received by:				Date/Time:				Sample Integrity:							
																Temperature Upon Receipt: 4.9							
																Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>							

Sample Receipt Checklist

1906285

S2 Work Order _____

Client: Talon/LPT Client Project ID: Wolf 35-26231Shipped Via: H.D. (P.U.) /FedEx/UPS/USPS/Other _____ Airbill #: _____Matrix (check all that apply): _____ Air ☒ Soil/Solid _____ Water _____ Other: _____
(Describe)

Temp (°C)	4.9
-----------	-----

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"/>			
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"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<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) ⁽¹⁾ ?				
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 ⁽¹⁾ ?			<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):				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

Custodian Printed Name or Initials

Signature of Custodian

Date/Time

1630



Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
06/28/19 15:44

BH-1@2.5'
1906285-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/20/19 12:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1906323	06/21/19	06/28/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/20/19 12:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		73.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		88.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/20/19 12:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1906322	06/21/19	06/22/19	EPA 8015M	

Date Sampled: **06/20/19 12:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		95.7 %	30-150		"	"	"	"	

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **06/20/19 12:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	6820	14.7	mg/kg dry	1	1906328	06/21/19	06/21/19	EPA 6020B	
Magnesium	706	7.34	"	"	"	"	"	"	

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H
Project Number: 701530.137.01
Project Manager: Jennifer Galles

Reported:
06/28/19 15:44

BH-1@2.5'
1906285-01 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Sodium	381	7.34	mg/kg dry	1	1906328	06/21/19	06/21/19	EPA 6020B
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Calculated Analysis

Date Sampled: **06/20/19 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.17	0.100	units	1	1906387	06/26/19	06/26/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/20/19 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	68.2		%	1	1906318	06/21/19	06/21/19	Calculation	
pH	9.06		pH Units	"	1906317	06/21/19	06/21/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **06/20/19 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.453	0.0100	mmhos/cm	1	1906316	06/21/19	06/21/19	EPA 120.1	

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1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
06/28/19 15:44

SWN@2'
1906285-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/20/19 12:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1906323	06/21/19	06/28/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/20/19 12:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		77.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		86.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/20/19 12:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	180	50	mg/kg	1	1906322	06/21/19	06/22/19	EPA 8015M	

Date Sampled: **06/20/19 12:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		108 %	30-150		"	"	"	"	

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **06/20/19 12:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	3390	14.5	mg/kg dry	1	1906328	06/21/19	06/21/19	EPA 6020B	
Magnesium	415	7.26	"	"	"	"	"	"	
Sodium	2170	7.26	"	"	"	"	"	"	

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

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Reported:
06/28/19 15:44

SWN@2'
1906285-02 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Calculated Analysis

Date Sampled: **06/20/19 12:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	9.36	0.100	units	1	1906387	06/26/19	06/26/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/20/19 12:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	68.9		%	1	1906318	06/21/19	06/21/19	Calculation	
pH	8.79		pH Units	"	1906317	06/21/19	06/21/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **06/20/19 12:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.59	0.0100	mmhos/cm	1	1906316	06/21/19	06/21/19	EPA 120.1	

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
06/28/19 15:44

SWS@2'
1906285-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/20/19 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1906323	06/21/19	06/28/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/20/19 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		75.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		86.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/20/19 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	120	50	mg/kg	1	1906322	06/21/19	06/22/19	EPA 8015M	

Date Sampled: **06/20/19 12:58**

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

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **06/20/19 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	4470	13.2	mg/kg dry	1	1906328	06/21/19	06/21/19	EPA 6020B	
Magnesium	311	6.60	"	"	"	"	"	"	
Sodium	2760	6.60	"	"	"	"	"	"	

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H
Project Number: 701530.137.01
Project Manager: Jennifer Galles

Reported:
06/28/19 15:44

SWS@2'
1906285-03 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Calculated Analysis

Date Sampled: **06/20/19 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	10.8	0.100	units	1	1906387	06/26/19	06/26/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/20/19 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	75.7		%	1	1906318	06/21/19	06/21/19	Calculation	
pH	9.93		pH Units	"	1906317	06/21/19	06/21/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **06/20/19 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.65	0.0100	mmhos/cm	1	1906316	06/21/19	06/21/19	EPA 120.1	

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
06/28/19 15:44

SWW@2'
1906285-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/20/19 12:56**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	1906323	06/21/19	06/28/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/20/19 12:56**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		80.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		88.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.3 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/20/19 12:56**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	1100	50	mg/kg	1	1906322	06/21/19	06/22/19	EPA 8015M	

Date Sampled: **06/20/19 12:56**

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

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **06/20/19 12:56**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	6030	12.9	mg/kg dry	1	1906328	06/21/19	06/21/19	EPA 6020B	
Magnesium	485	6.44	"	"	"	"	"	"	
Sodium	669	6.44	"	"	"	"	"	"	

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
06/28/19 15:44

SWW@2'
1906285-04 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Calculated Analysis

Date Sampled: **06/20/19 12:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.23	0.100	units	1	1906387	06/26/19	06/26/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/20/19 12:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	77.7		%	1	1906318	06/21/19	06/21/19	Calculation	
pH	8.11		pH Units	"	1906317	06/21/19	06/21/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **06/20/19 12:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.29	0.0100	mmhos/cm	1	1906316	06/21/19	06/21/19	EPA 120.1	

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
06/28/19 15:44

SWE@2'
1906285-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/20/19 12:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1906323	06/21/19	06/28/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/20/19 12:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		76.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		88.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/20/19 12:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1906322	06/21/19	06/22/19	EPA 8015M	

Date Sampled: **06/20/19 12:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		100 %	30-150		"	"	"	"	

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **06/20/19 12:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	2580	12.6	mg/kg dry	1	1906328	06/21/19	06/21/19	EPA 6020B	
Magnesium	283	6.29	"	"	"	"	"	"	
Sodium	506	6.29	"	"	"	"	"	"	

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
06/28/19 15:44

SWE@2'
1906285-05 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Calculated Analysis

Date Sampled: **06/20/19 12:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.52	0.100	units	1	1906387	06/26/19	06/26/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/20/19 12:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	79.5		%	1	1906318	06/21/19	06/21/19	Calculation	
pH	8.70		pH Units	"	1906317	06/21/19	06/21/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **06/20/19 12:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.813	0.0100	mmhos/cm	1	1906316	06/21/19	06/21/19	EPA 120.1	

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
06/28/19 15:44

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 1906323 - EPA 5030 Soil MS

Blank (1906323-BLK1)

Prepared: 06/21/19 Analyzed: 06/26/19

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0324		"	0.0400		81.0	23-173			
Surrogate: Toluene-d8	0.0369		"	0.0400		92.3	20-170			
Surrogate: 4-Bromofluorobenzene	0.0370		"	0.0400		92.5	21-167			

LCS (1906323-BS1)

Prepared: 06/21/19 Analyzed: 06/26/19

Benzene	0.101	0.0020	mg/kg	0.100		101	70-130			
Toluene	0.105	0.0050	"	0.100		105	70-130			
Ethylbenzene	0.113	0.0050	"	0.100		113	70-130			
m,p-Xylene	0.225	0.010	"	0.200		113	70-130			
o-Xylene	0.112	0.0050	"	0.100		112	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0335		"	0.0400		83.7	23-173			
Surrogate: Toluene-d8	0.0383		"	0.0400		95.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0368		"	0.0400		91.9	21-167			

Matrix Spike (1906323-MS1)

Source: 1906277-01

Prepared: 06/21/19 Analyzed: 06/26/19

Benzene	0.112	0.0020	mg/kg	0.100	ND	112	70-130			
Toluene	0.114	0.0050	"	0.100	ND	114	70-130			
Ethylbenzene	0.125	0.0050	"	0.100	ND	125	70-130			
m,p-Xylene	0.252	0.010	"	0.200	ND	126	70-130			
o-Xylene	0.124	0.0050	"	0.100	ND	124	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0322		"	0.0400		80.5	23-173			
Surrogate: Toluene-d8	0.0380		"	0.0400		94.9	20-170			
Surrogate: 4-Bromofluorobenzene	0.0374		"	0.0400		93.4	21-167			

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H
Project Number: 701530.137.01
Project Manager: Jennifer Galles

Reported:
06/28/19 15:44

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 1906323 - EPA 5030 Soil MS

Matrix Spike Dup (1906323-MSD1)		Source: 1906277-01			Prepared: 06/21/19 Analyzed: 06/26/19					
Benzene	0.118	0.0020	mg/kg	0.100	ND	118	70-130	5.02	30	
Toluene	0.115	0.0050	"	0.100	ND	115	70-130	0.157	30	
Ethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130	21.2	30	
m,p-Xylene	0.232	0.010	"	0.200	ND	116	70-130	8.18	30	
o-Xylene	0.101	0.0050	"	0.100	ND	101	70-130	20.5	30	
Surrogate: 1,2-Dichloroethane-d4	0.0329		"	0.0400		82.3	23-173			
Surrogate: Toluene-d8	0.0375		"	0.0400		93.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0365		"	0.0400		91.3	21-167			

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
06/28/19 15:44

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1906322 - EPA 3550A

Blank (1906322-BLK1)

Prepared: 06/21/19 Analyzed: 06/22/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1906322-BS1)

Prepared: 06/21/19 Analyzed: 06/22/19

C10-C28 (DRO) 490 50 mg/kg 500 97.9 70-130

Matrix Spike (1906322-MS1)

Source: 1906285-01

Prepared: 06/21/19 Analyzed: 06/22/19

C10-C28 (DRO) 449 50 mg/kg 500 33.3 83.2 70-130

Matrix Spike Dup (1906322-MSD1)

Source: 1906285-01

Prepared: 06/21/19 Analyzed: 06/22/19

C10-C28 (DRO) 439 50 mg/kg 500 33.3 81.1 70-130 2.36 20

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
06/28/19 15:44

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis - Quality Control

Summit Scientific

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

Batch 1906328 - General Preparation

Blank (1906328-BLK1)

Prepared & Analyzed: 06/21/19

Calcium	ND	10.0	mg/kg wet
Magnesium	ND	5.00	"
Sodium	ND	5.00	"

LCS (1906328-BS1)

Prepared & Analyzed: 06/21/19

Calcium	426	10.0	mg/kg wet	500	85.1	70-130
Magnesium	575	5.00	"	500	115	70-130
Sodium	490	5.00	"	500	98.1	70-130

Duplicate (1906328-DUP1)

Source: 1906285-01

Prepared & Analyzed: 06/21/19

Calcium	7300	14.7	mg/kg dry	6820	6.86	20
Magnesium	683	7.34	"	706	3.35	20
Sodium	366	7.34	"	381	4.01	20

Matrix Spike (1906328-MS1)

Source: 1906285-01

Prepared & Analyzed: 06/21/19

Calcium	7560	14.7	mg/kg dry	734	6820	100	70-130
Magnesium	1310	7.34	"	734	706	82.4	70-130
Sodium	1140	7.34	"	734	381	104	70-130

Matrix Spike Dup (1906328-MSD1)

Source: 1906285-01

Prepared & Analyzed: 06/21/19

Calcium	7670	14.7	mg/kg dry	734	6820	116	70-130	1.48	25
Magnesium	1370	7.34	"	734	706	89.8	70-130	4.08	25
Sodium	1250	7.34	"	734	381	119	70-130	9.34	25

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
06/28/19 15:44

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

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

Batch 1906317 - General Preparation

LCS (1906317-BS1)

Prepared & Analyzed: 06/21/19

pH	9.43	pH Units	9.23	102	95-105
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Duplicate (1906317-DUP1)

Source: 1906285-01

Prepared & Analyzed: 06/21/19

pH	9.09	pH Units	9.06	0.331	20
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Batch 1906318 - General Preparation

Duplicate (1906318-DUP1)

Source: 1906278-01

Prepared & Analyzed: 06/21/19

% Solids	93.7	%	93.4	0.321	20
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Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
06/28/19 15:44

Specific Conductance by EPA Method 120.1 - Quality Control

Summit Scientific

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

Batch 1906316 - General Preparation

Blank (1906316-BLK1)

Prepared & Analyzed: 06/21/19

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (1906316-BS1)

Prepared & Analyzed: 06/21/19

Specific Conductance (EC) 0.754 0.0100 mmhos/cm 0.750 101 90-110

Duplicate (1906316-DUP1)

Source: 1906285-01

Prepared & Analyzed: 06/21/19

Specific Conductance (EC) 0.458 0.0100 mmhos/cm 0.453 1.05 20

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01
Project Manager: Jennifer Galles

Reported:
06/28/19 15:44

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

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 16, 2019

Jennifer Galles

Talon/LPE

1811 East Mulberry

Fort Collins, CO 80525

RE: Wolf 35-2623H

Work Order # 1908111

Enclosed are the results of analyses for samples received by Summit Scientific on 08/09/19 15:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink on a light blue background. The signature is written in a cursive style and reads "Muri Premer".

Muri Premer For Ben Shrewsbury

Laboratory Manager



Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
08/16/19 10:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Background North@0'	1908111-01	Soil	08/09/19 12:45	08/09/19 15:00

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.

Summit Scientific

Page 1 of 1

Project Manager:	Jennifer Galles
E-Mail:	jgalles@talonlpe.com & jleverton@talonlpe.com
Project Name:	Wolf 35-2623H
Project Number:	701530.137.01

www.s2scientific.com

Sample Receipt Checklist

S2 Work Order 190814

Client: TALON LPE Client Project ID: WOLF 35-26234

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other Airbill #: _____

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

Temp (°C)	7.4
-----------	-----

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	X			ON ICE
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 samples with holding times due within 48 hours sample 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⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			X	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			X	
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.

Muri P.
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

8-9-19 16:10
Date/Time



Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H
Project Number: 701530.137.01
Project Manager: Jennifer Galles

Reported:
08/16/19 10:45

Background North@0'
1908111-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/09/19 12:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1908129	08/12/19	08/13/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/09/19 12:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		86.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		86.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/09/19 12:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1908130	08/12/19	08/13/19	EPA 8015M	

Date Sampled: **08/09/19 12:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		107 %	30-150		"	"	"	"	

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **08/09/19 12:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	823	12.7	mg/kg dry	1	1908180	08/14/19	08/14/19	EPA 6020B	
Magnesium	206	6.35	"	"	"	"	"	"	

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H
Project Number: 701530.137.01
Project Manager: Jennifer Galles

Reported:
08/16/19 10:45

Background North@0'
1908111-01 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Sodium	218	6.35	mg/kg dry	1	1908180	08/14/19	08/14/19	EPA 6020B
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Calculated Analysis

Date Sampled: **08/09/19 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.76	0.100	units	1	1908205	08/16/19	08/16/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/09/19 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	78.8		%	1	1908162	08/14/19	08/14/19	Calculation	
pH	8.32		pH Units	"	1908164	08/14/19	08/14/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **08/09/19 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.418	0.0100	mmhos/cm	1	1908163	08/14/19	08/14/19	EPA 120.1	

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.



Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
08/16/19 10:45

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 1908129 - EPA 5030 Soil MS

Blank (1908129-BLK1)

Prepared: 08/12/19 Analyzed: 08/13/19

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0356		"	0.0400		89.0	23-173			
Surrogate: Toluene-d8	0.0338		"	0.0400		84.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0375		"	0.0400		93.8	21-167			

LCS (1908129-BS1)

Prepared: 08/12/19 Analyzed: 08/14/19

Benzene	0.0750	0.0020	mg/kg	0.100		75.0	70-130			
Toluene	0.0758	0.0050	"	0.100		75.8	70-130			
Ethylbenzene	0.0805	0.0050	"	0.100		80.5	70-130			
m,p-Xylene	0.155	0.010	"	0.200		77.4	70-130			
o-Xylene	0.0761	0.0050	"	0.100		76.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0346		"	0.0400		86.5	23-173			
Surrogate: Toluene-d8	0.0362		"	0.0400		90.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.7	21-167			

Matrix Spike (1908129-MS1)

Source: 1908111-01

Prepared: 08/12/19 Analyzed: 08/14/19

Benzene	0.0745	0.0020	mg/kg	0.100	ND	74.5	70-130			
Toluene	0.0752	0.0050	"	0.100	0.00417	71.0	70-130			
Ethylbenzene	0.0824	0.0050	"	0.100	ND	82.4	70-130			
m,p-Xylene	0.157	0.010	"	0.200	ND	78.5	70-130			
o-Xylene	0.0788	0.0050	"	0.100	ND	78.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0348		"	0.0400		87.1	23-173			
Surrogate: Toluene-d8	0.0355		"	0.0400		88.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0369		"	0.0400		92.2	21-167			

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
08/16/19 10:45

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 1908129 - EPA 5030 Soil MS

Matrix Spike Dup (1908129-MSD1)		Source: 1908111-01			Prepared: 08/12/19 Analyzed: 08/14/19					
Benzene	0.0725	0.0020	mg/kg	0.100	ND	72.5	70-130	2.74	30	
Toluene	0.0859	0.0050	"	0.100	0.00417	81.8	70-130	13.4	30	
Ethylbenzene	0.0796	0.0050	"	0.100	ND	79.6	70-130	3.52	30	
m,p-Xylene	0.153	0.010	"	0.200	ND	76.4	70-130	2.79	30	
o-Xylene	0.0765	0.0050	"	0.100	ND	76.5	70-130	2.98	30	
Surrogate: 1,2-Dichloroethane-d4	0.0354		"	0.0400		88.4	23-173			
Surrogate: Toluene-d8	0.0352		"	0.0400		87.9	20-170			
Surrogate: 4-Bromofluorobenzene	0.0362		"	0.0400		90.4	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.



Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
08/16/19 10:45

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1908130 - EPA 3550A

Blank (1908130-BLK1)

Prepared: 08/12/19 Analyzed: 08/13/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1908130-BS1)

Prepared: 08/12/19 Analyzed: 08/13/19

C10-C28 (DRO) 515 50 mg/kg 500 103 70-130

Matrix Spike (1908130-MS1)

Source: 1908111-01

Prepared: 08/12/19 Analyzed: 08/13/19

C10-C28 (DRO) 511 50 mg/kg 500 15.5 99.0 70-130

Matrix Spike Dup (1908130-MSD1)

Source: 1908111-01

Prepared: 08/12/19 Analyzed: 08/13/19

C10-C28 (DRO) 549 50 mg/kg 500 15.5 107 70-130 7.18 20

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.



Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
08/16/19 10:45

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis - Quality Control

Summit Scientific

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

Batch 1908180 - General Preparation

Blank (1908180-BLK1)

Prepared & Analyzed: 08/14/19

Calcium	ND	10.0	mg/kg wet
Magnesium	ND	5.00	"
Sodium	ND	5.00	"

LCS (1908180-BS1)

Prepared & Analyzed: 08/14/19

Calcium	528	10.0	mg/kg wet	500	106	70-130
Magnesium	554	5.00	"	500	111	70-130
Sodium	534	5.00	"	500	107	70-130

Duplicate (1908180-DUP1)

Source: 1908111-01

Prepared & Analyzed: 08/14/19

Calcium	978	12.7	mg/kg dry	823	17.2	20
Magnesium	210	6.35	"	206	2.16	20
Sodium	206	6.35	"	218	5.93	20

Matrix Spike (1908180-MS1)

Source: 1908111-01

Prepared & Analyzed: 08/14/19

Calcium	1450	12.7	mg/kg dry	635	823	99.1	70-130
Magnesium	895	6.35	"	635	206	108	70-130
Sodium	719	6.35	"	635	218	78.9	70-130

Matrix Spike Dup (1908180-MSD1)

Source: 1908111-01

Prepared & Analyzed: 08/14/19

Calcium	1610	12.7	mg/kg dry	635	823	124	70-130	10.2	25
Magnesium	878	6.35	"	635	206	106	70-130	1.91	25
Sodium	712	6.35	"	635	218	77.8	70-130	0.991	25

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
08/16/19 10:45

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

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

Batch 1908162 - General Preparation

Duplicate (1908162-DUP1)

Source: 1908111-01

Prepared & Analyzed: 08/14/19

% Solids	78.6	%		78.8		0.242	20
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Batch 1908164 - General Preparation

LCS (1908164-BS1)

Prepared & Analyzed: 08/14/19

pH	9.44	pH Units		9.23		102	95-105
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Duplicate (1908164-DUP1)

Source: 1908111-01

Prepared & Analyzed: 08/14/19

pH	8.35	pH Units		8.32		0.360	20
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Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
08/16/19 10:45

Specific Conductance by EPA Method 120.1 - Quality Control

Summit Scientific

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

Batch 1908163 - General Preparation

Blank (1908163-BLK1)

Prepared & Analyzed: 08/14/19

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (1908163-BS1)

Prepared & Analyzed: 08/14/19

Specific Conductance (EC) 0.717 0.0100 mmhos/cm 0.750 95.6 90-110

Duplicate (1908163-DUP1)

Source: 1908111-01

Prepared & Analyzed: 08/14/19

Specific Conductance (EC) 0.402 0.0100 mmhos/cm 0.418 3.67 20

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01
Project Manager: Jennifer Galles

Reported:
08/16/19 10:45

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

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 26, 2019

Jennifer Galles

Talon/LPE

1811 East Mulberry

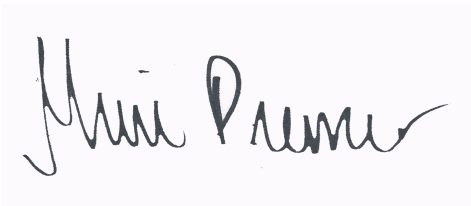
Fort Collins, CO 80525

RE: Wolf 35-2623H

Work Order # 1908231

Enclosed are the results of analyses for samples received by Summit Scientific on 08/19/19 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink on a light blue background. The signature is cursive and reads "Muri Premier".

Muri Premier For Ben Shrewsbury

Laboratory Manager



Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
08/26/19 15:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-1@3'	1908231-01	Soil	08/19/19 10:25	08/19/19 16:00
SW-W@2.5'	1908231-02	Soil	08/19/19 10:30	08/19/19 16:00
SW-S@2.5'	1908231-03	Soil	08/19/19 10:35	08/19/19 16:00

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.

1908231

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

Page 1 of 1

Client:	Talon/LPE -Bill to Whiting	
Address:	1811 East Mulberry	
City/State/Zip:	Fort Collins, CO 80524	
Phone:	970-818-5330	Fax:
Sampler Name:	Jason Levertton	

Project Manager:	Jason Leverton
E-Mail:	jgalles@talonlpe.com & jleverton@talonlpe.com
Project Name:	Wolf 35-2623H
Project Number:	701530.137.01

				Preservative				Matrix				Analyze For:										Special Instructions
Sample Description	Date Sampled	Time Sampled	Number of Containers	HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	pH	TPH									
BH-1@3'	8/19/2019	10:25	1			x			x			x										
SW-W@2.5'	8/19/2019	10:30	1			x			x				x									
SW-S@2.5'	8/19/2019	10:35	1			x			x			x										
Relinquished by: <i>Jennifer Geller</i> Date/Time: <i>8/19/19 1600</i>				Received by: <i>[Signature]</i> Date/Time: <i>8/19/19 1600</i>				Turn Around Time (Check) Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 Hours <input type="checkbox"/>														
Relinquished by: _____ Date/Time: _____				Received by: _____ Date/Time: _____				Sample Integrity: Temperature Upon Receipt: <u>2.1</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														
Relinquished by: _____ Date/Time: _____				Received in Lab by: _____ Date/Time: _____																		

1908231

Sample Receipt Checklist

S2 Work Order _____

Client: TALON / LPE

Client Project ID: WOLF 35-2623H

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other _____ Airbill #: _____

☐ H.D. ☒ P.U. ☐ FedEx ☐ UPS ☐ USPS ☐ Other
Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: _____
(Describe)

Temp (°C)	2.1
-----------	-----

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? 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"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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 samples with holding times due within 48 hours sample 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⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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.				

RZ

Custodian Printed Name or Initials

Signature of Custodian

8/19/19

Date/Time



Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H
Project Number: 701530.137.01
Project Manager: Jennifer Galles

Reported:
08/26/19 15:11

BH-1@3'
1908231-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/19/19 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	9.21			pH Units	1	1908272	08/21/19	08/21/19	EPA 9045D	

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H
Project Number: 701530.137.01
Project Manager: Jennifer Galles

Reported:
08/26/19 15:11

SW-W@2.5'
1908231-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/19/19 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Hydrocarbons	ND	0.50	mg/kg	1	1908321	08/23/19	08/24/19	EPA 8260B	

Date Sampled: **08/19/19 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		94.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		84.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.3 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/19/19 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1908301	08/22/19	08/23/19	EPA 8015M	

Date Sampled: **08/19/19 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		93.3 %	30-150		"	"	"	"	

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H
Project Number: 701530.137.01
Project Manager: Jennifer Galles

Reported:
08/26/19 15:11

SW-S@2.5'
1908231-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/19/19 10:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	9.66			pH Units	1	1908272	08/21/19	08/21/19	EPA 9045D	

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.



Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
08/26/19 15:11

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 1908321 - EPA 5030 Soil MS

Blank (1908321-BLK1)

Prepared: 08/23/19 Analyzed: 08/24/19

Gasoline Range Hydrocarbons	ND	0.50	mg/kg							
Surrogate: 1,2-Dichloroethane-d4	0.0374		"	0.0400		93.5	23-173			
Surrogate: Toluene-d8	0.0334		"	0.0400		83.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0377		"	0.0400		94.2	21-167			

LCS (1908321-BS1)

Prepared: 08/23/19 Analyzed: 08/24/19

Surrogate: 1,2-Dichloroethane-d4	0.0324		mg/kg	0.0400		80.9	23-173			
Surrogate: Toluene-d8	0.0352		"	0.0400		88.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0375		"	0.0400		93.8	21-167			

Matrix Spike (1908321-MS1)

Source: 1908272-01

Prepared: 08/23/19 Analyzed: 08/24/19

Surrogate: 1,2-Dichloroethane-d4	0.0341		mg/kg	0.0400		85.4	23-173			
Surrogate: Toluene-d8	0.0362		"	0.0400		90.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0361		"	0.0400		90.2	21-167			

Matrix Spike Dup (1908321-MSD1)

Source: 1908272-01

Prepared: 08/23/19 Analyzed: 08/24/19

Surrogate: 1,2-Dichloroethane-d4	0.0363		mg/kg	0.0400		90.8	23-173			
Surrogate: Toluene-d8	0.0352		"	0.0400		88.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0357		"	0.0400		89.2	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.



Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
08/26/19 15:11

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1908301 - EPA 3550A

Blank (1908301-BLK1)

Prepared: 08/22/19 Analyzed: 08/23/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1908301-BS1)

Prepared: 08/22/19 Analyzed: 08/23/19

C10-C28 (DRO) 468 50 mg/kg 500 93.7 70-130

Matrix Spike (1908301-MS1)

Source: 1908231-02

Prepared: 08/22/19 Analyzed: 08/23/19

C10-C28 (DRO) 467 50 mg/kg 500 19.1 89.7 70-130

Matrix Spike Dup (1908301-MSD1)

Source: 1908231-02

Prepared: 08/22/19 Analyzed: 08/23/19

C10-C28 (DRO) 458 50 mg/kg 500 19.1 87.8 70-130 1.97 20

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.



Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
08/26/19 15:11

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

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

Batch 1908272 - General Preparation

LCS (1908272-BS1)

Prepared & Analyzed: 08/21/19

pH	9.43	pH Units	9.23	102	95-105
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Duplicate (1908272-DUP1)

Source: 1908255-01

Prepared & Analyzed: 08/21/19

pH	7.47	pH Units	7.52	0.667	20
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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.



Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01
Project Manager: Jennifer Galles

Reported:
08/26/19 15:11

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

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 07, 2019

Jennifer Galles

Talon/LPE

1811 East Mulberry

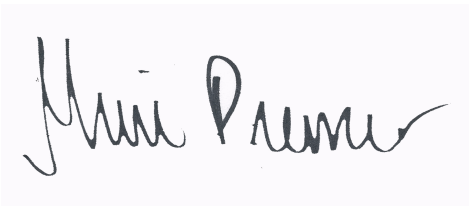
Fort Collins, CO 80525

RE: Wolf 35-2623H

Work Order # 1909406

Enclosed are the results of analyses for samples received by Summit Scientific on 09/30/19 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink on a light blue background. The signature is written in a cursive style and reads "Muri Premer".

Muri Premer For Ben Shrewsbury

Laboratory Manager



Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
10/07/19 12:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-1@3.2'	1909406-01	Soil	09/30/19 10:35	09/30/19 17:00
SWS@3'	1909406-02	Soil	09/30/19 10:30	09/30/19 17:00

Summit Scientific

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1909406

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

Page 1 of 1

Client:	Talon/LPE - Bill to Whiting	
Address:	1811 East Mulberry	
City/State/Zip:	Fort Collins, CO 80524	
Phone:	970-818-5330	Fax:
Sampler Name:	Ben B., Alex L.	

Project Manager:	Jennifer Galles
E-Mail:	jgalles@talonlpe.com & jleverton@talonlpe.com
Project Name:	Wolf 35-2623H
Project Number:	701530.137.01

				Preservative				Matrix				Analyze For:											
Sample Description	Date Sampled	Time Sampled	Number of Containers	HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	pH									Special Instructions		
BH-1 @ 3.2'	9/30/2019	10:35	1			x		x				x											
SWS @ 3'	9/30/2019	10:30	1			x		x				x											
Relinquished by: <i>Jennifer Gallas</i> 9/30/19 1700				Date/Time: 9/30/19 1700				Received by: <i>[Signature]</i> 9/30/19 1700				Date/Time: 9/30/19 1700				Turn Around Time (Check) Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 Hours <input type="checkbox"/>							
Relinquished by:				Date/Time:				Received by:				Date/Time:				Sample Integrity: Temperature Upon Receipt: <u>3.2</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>							
Relinquished by:				Date/Time:				Received in Lab by:				Date/Time:											

Sample Receipt Checklist

S2 Work Order 1909406

Client: TALON / LPE Client Project ID: WOLF 35-2623H

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other Airbill #: _____

☐ ☒ ☐ ☐ ☐

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

Temp (°C)	3.2
-----------	-----

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? 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"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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 samples with holding times due within 48 hours sample 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⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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.				

RZ
Custodian Printed Name or Initials

RZ
Signature of Custodian

9/30/19
Date/Time



Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
10/07/19 12:04

BH-1@3.2'
1909406-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/30/19 10:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.90			pH Units	1	1910085	10/04/19	10/04/19	EPA 9045D	

Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H
Project Number: 701530.137.01
Project Manager: Jennifer Galles

Reported:
10/07/19 12:04

SWS@3'
1909406-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/30/19 10:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.20			pH Units	1	1910085	10/04/19	10/04/19	EPA 9045D	

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.



Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01

Project Manager: Jennifer Galles

Reported:
10/07/19 12:04

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

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

Batch 1910085 - General Preparation

LCS (1910085-BS1)

Prepared & Analyzed: 10/04/19

pH	9.17	pH Units	9.18	99.9	95-105
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Duplicate (1910085-DUP1)

Source: 1910045-12

Prepared & Analyzed: 10/04/19

pH	8.63	pH Units	8.63	0.00	20
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Summit Scientific

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Talon/LPE
1811 East Mulberry
Fort Collins CO, 80525

Project: Wolf 35-2623H

Project Number: 701530.137.01
Project Manager: Jennifer Galles

Reported:
10/07/19 12:04

Notes and Definitions

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ND	Analyte NOT DETECTED at or above the reporting limit
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