

Friday, June 26, 2015

Colby Sterling  
Talon LPE  
921 N Bivins  
Amarillo, TX 79107

Re: ALS Workorder: 1506466  
Project Name: Nelson A6/A7  
Project Number: 701530.024.01

Dear Mr. Sterling:

One soil sample was received from Talon LPE, on 6/24/2015. The sample was scheduled for the following analyses:

GC/MS Volatiles

Total Extractable Petroleum Hydrocarbons (Diesel)

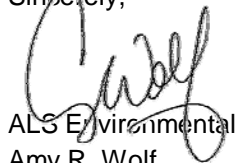
Total Volatile Petroleum Hydrocarbons (Gasoline)

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,



ALS Environmental  
Amy R. Wolf  
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Connecticut (CT)	PH-0232
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
L-A-B (DoD ELAP/ISO 170250)	L2257
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New Jersey (NJ)	CO003
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



**1506466**

**GC/MS Volatiles:**

The sample was analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C.

All acceptance criteria were met.

**GRO:**

The sample was analyzed following the current revision of SOP 425 generally based on SW-846 Methods 8000C and 8015D. TVPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C6 to C10.

All acceptance criteria were met.

**DRO:**

The sample was analyzed following the current revision of SOP 406 generally based on SW-846 Methods 8000C and 8015D. TEPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C10 to C28.

All acceptance criteria were met.

# ALS Environmental -- FC

## Sample Number(s) Cross-Reference Table

---

**OrderNum:** 1506466

**Client Name:** Talon LPE

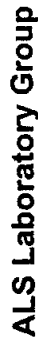
**Client Project Name:** Nelson A6/A7

**Client Project Number:** 701530.024.01

**Client PO Number:**

---

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
FS-3@12'	1506466-1		SOIL	24-Jun-15	9:30



2225 Commerce Drive, Fort Collins, Colorado 80524  
 TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

## Chain-of-Custody

Form 202r8

[illegible]

Time Zone (Circle):	EST	CST	<del>MST</del>	PST	Matrix:	Q = oil	S = soil	NS = non-soil solid	W = water	L = liquid	E = extract	F = filter
---------------------	-----	-----	----------------	-----	---------	---------	----------	---------------------	-----------	------------	-------------	------------

**For metals or anions, please detail analytes below.**

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>[Signature]</i>	TRIMBLE	6-24-15	1612
RECEIVED BY	<i>[Signature]</i>	CRIMBLE	6-24-15	1612
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

Comments:		QC PACKAGE (check below)	
		LEVEL II (Standard QC)	
		LEVEL III (Std QC + forms)	
		LEVEL IV (Std QC + forms + raw data)	
1			
2			
3			
Recommended Kaur	1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrades C 9-5035		



ALS Environmental - Fort Collins  
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Talon  
Project Manager: AW

Workorder No: 1506466  
Initials: CDT Date: 6-24-15

1. Does this project require any special handling in addition to standard ALS procedures?		YES	<u>NO</u>
2. Are custody seals on shipping containers intact?	<u>NONE</u>	YES	NO
3. Are Custody seals on sample containers intact?	<u>NONE</u>	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<u>YES</u>	NO
5. Are the COC and bottle labels complete and legible?		<u>YES</u>	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<u>YES</u>	NO
7. Were airbills / shipping documents present and/or removable?	<u>DROP OFF</u>	YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	<u>N/A</u>	YES	NO
9. Are all aqueous non-preserved samples pH 4-9?	<u>N/A</u>	YES	NO
10. Is there sufficient sample for the requested analyses?		<u>YES</u>	NO
11. Were all samples placed in the proper containers for the requested analyses?		<u>YES</u>	NO
12. Are all samples within holding times for the requested analyses?		<u>YES</u>	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<u>YES</u>	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: _____ < green pea _____ > green pea	<u>N/A</u>	YES	NO
15. Do any water samples contain sediment? Amount of sediment: _____ dusting _____ moderate _____ heavy	<u>N/A</u>	YES	NO
16. Were the samples shipped on ice?		<u>YES</u>	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: <u>#2</u> #4		YES	<u>NO</u>
Cooler #: <u>1</u>			
Temperature (°C): <u>6.2</u> <u>⊗</u>			
No. of custody seals on cooler: <u>0</u>			
External µR/hr reading: <u>NA</u>			
Background µR/hr reading: <u>NA</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / <u>NA</u> (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

⊗ Delivered same day as collected.

If applicable, was the client contacted? YES / NO / NA Contact: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Project Manager Signature / Date: Suzey 6/24/15

**Client:** Talon LPE  
**Project:** 701530.024.01 Nelson A6/A7  
**Sample ID:** FS-3@12'  
**Legal Location:**  
**Collection Date:** 6/24/2015 09:30

**Date:** 26-Jun-15  
**Work Order:** 1506466  
**Lab ID:** 1506466-1  
**Matrix:** SOIL  
**Percent Moisture:** 13.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>Diesel Range Organics</b>			<b>SW8015M</b>		Prep Date: <b>6/25/2015</b>	PrepBy: <b>DMS</b>
Diesel Range Organics	ND		5.7	MG/KG	1	6/25/2015 18:32
Surr: O-TERPHENYL	98		53-116	%REC	1	6/25/2015 18:32
<b>Gasoline Range Organics</b>			<b>SW8015</b>		Prep Date: <b>6/25/2015</b>	PrepBy: <b>JFN</b>
GASOLINE RANGE ORGANICS	ND		0.58	MG/KG	1	6/25/2015 10:09
Surr: 2,3,4-TRIFLUOROTOLUENE	103		76-126	%REC	1	6/25/2015 10:09
<b>GC/MS Volatiles</b>			<b>SW8260</b>		Prep Date: <b>6/24/2015</b>	PrepBy: <b>SDW</b>
<b>BENZENE</b>	<b>0.02</b>		<b>0.0051</b>	<b>MG/KG</b>	1	6/24/2015 22:02
<b>TOLUENE</b>	<b>0.063</b>		<b>0.0051</b>	<b>MG/KG</b>	1	6/24/2015 22:02
<b>ETHYLBENZENE</b>	<b>0.0092</b>		<b>0.0051</b>	<b>MG/KG</b>	1	6/24/2015 22:02
<b>M+P-XYLENE</b>	<b>0.046</b>		<b>0.0051</b>	<b>MG/KG</b>	1	6/24/2015 22:02
<b>O-XYLENE</b>	<b>0.023</b>		<b>0.0051</b>	<b>MG/KG</b>	1	6/24/2015 22:02
<b>TOTAL XYLENES</b>	<b>0.069</b>		<b>0.005</b>	<b>MG/KG</b>	1	6/24/2015 22:02
Surr: DIBROMOFLUOROMETHANE	94		61-134	%REC	1	6/24/2015 22:02
Surr: TOLUENE-D8	102		57-135	%REC	1	6/24/2015 22:02
Surr: 4-BROMOFLUOROBENZENE	94		52-151	%REC	1	6/24/2015 22:02

**Client:** Talon LPE  
**Project:** 701530.024.01 Nelson A6/A7  
**Sample ID:** FS-3@12'  
**Legal Location:**  
**Collection Date:** 6/24/2015 09:30

**Date:** 26-Jun-15  
**Work Order:** 1506466  
**Lab ID:** 1506466-1  
**Matrix:** SOIL  
**Percent Moisture:** 13.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
----------	--------	------	--------------	-------	-----------------	---------------

### Explanation of Qualifiers

#### Radiochemistry:

U or ND - Result is less than the sample specific MDC.  
 Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.  
 Y2 - Chemical Yield outside default limits.  
 W - DER is greater than Warning Limit of 1.42  
 \* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.  
 # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.  
 G - Sample density differs by more than 15% of LCS density.  
 D - DER is greater than Control Limit  
 M - Requested MDC not met.  
 LT - Result is less than requested MDC but greater than achieved MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.  
 L - LCS Recovery below lower control limit.  
 H - LCS Recovery above upper control limit.  
 P - LCS, Matrix Spike Recovery within control limits.  
 N - Matrix Spike Recovery outside control limits  
 NC - Not Calculated for duplicate results less than 5 times MDC  
 B - Analyte concentration greater than MDC.  
 B3 - Analyte concentration greater than MDC but less than Requested MDC.

#### Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).  
 U or ND - Indicates that the compound was analyzed for but not detected.  
 E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.  
 M - Duplicate injection precision was not met.  
 N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.  
 Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.  
 \* - Duplicate analysis (relative percent difference) not within control limits.  
 S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

#### Organics:

U or ND - Indicates that the compound was analyzed for but not detected.  
 B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.  
 E - Analyte concentration exceeds the upper level of the calibration range.  
 J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).  
 A - A tentatively identified compound is a suspected aldol-condensation product.  
 X - The analyte was diluted below an accurate quantitation level.  
 \* - The spike recovery is equal to or outside the control criteria used.  
 + - The relative percent difference (RPD) equals or exceeds the control criteria.  
 G - A pattern resembling gasoline was detected in this sample.  
 D - A pattern resembling diesel was detected in this sample.  
 M - A pattern resembling motor oil was detected in this sample.  
 C - A pattern resembling crude oil was detected in this sample.  
 4 - A pattern resembling JP-4 was detected in this sample.  
 5 - A pattern resembling JP-5 was detected in this sample.  
 H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.  
 L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.  
 Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:  
 - gasoline  
 - JP-8  
 - diesel  
 - mineral spirits  
 - motor oil  
 - Stoddard solvent  
 - bunker C



## ALS Environmental -- FC

Date: 6/26/2015 11:48

Client: Talon LPE

## QC BATCH REPORT

Work Order: 1506466

Project: 701530.024.01 Nelson A6/A7

Batch ID: HC150625-61-1

Instrument ID: FUELS-1

Method: SW8015

<b>LCS</b>	Sample ID: <b>HC150625-61</b>			Units: <b>MG/KG</b>			Analysis Date: <b>6/25/2015 09:26</b>					
Client ID:	Run ID: <b>HC150625-6A</b>				Prep Date: <b>6/25/2015</b>		DF: <b>1</b>					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
GASOLINE RANGE ORGANICS	2.12	0.5	2.5		85	79-118				20		
Surr: 2,3,4-TRIFLUOROTOLUENE	0.495		0.5		99	76-126						

<b>LCSD</b>	Sample ID: <b>HC150625-61</b>			Units: <b>MG/KG</b>			Analysis Date: <b>6/25/2015 15:02</b>					
Client ID:	Run ID: <b>HC150625-6A</b>				Prep Date: <b>6/25/2015</b>		DF: <b>1</b>					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
GASOLINE RANGE ORGANICS	2.26	0.5	2.5		90	79-118		2.12	6	20		
Surr: 2,3,4-TRIFLUOROTOLUENE	0.533		0.5		107	76-126			7			

<b>MB</b>	Sample ID: <b>HC150625-61</b>			Units: <b>MG/KG</b>			Analysis Date: <b>6/25/2015 09:48</b>					
Client ID:	Run ID: <b>HC150625-6A</b>				Prep Date: <b>6/25/2015</b>		DF: <b>1</b>					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
GASOLINE RANGE ORGANICS	ND	0.5										
Surr: 2,3,4-TRIFLUOROTOLUENE	0.43		0.5		86	76-126						

<b>MS</b>	Sample ID: <b>1506466-1</b>			Units: <b>MG/KG</b>			Analysis Date: <b>6/25/2015 10:30</b>					
Client ID: <b>FS-3@12'</b>	Run ID: <b>HC150625-6A</b>				Prep Date: <b>6/25/2015</b>		DF: <b>1</b>					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
GASOLINE RANGE ORGANICS	4.63	0.537	5.37	0.58	82	79-118				40		
Surr: 2,3,4-TRIFLUOROTOLUENE	0.598		0.537		111	76-126						

<b>MSD</b>	Sample ID: <b>1506466-1</b>			Units: <b>MG/KG</b>			Analysis Date: <b>6/25/2015 10:51</b>					
Client ID: <b>FS-3@12'</b>	Run ID: <b>HC150625-6A</b>				Prep Date: <b>6/25/2015</b>		DF: <b>1</b>					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
GASOLINE RANGE ORGANICS	5.45	0.528	5.28	0.58	99	79-118		4.63	16	40		
Surr: 2,3,4-TRIFLUOROTOLUENE	0.608		0.528		115	76-126			2			

The following samples were analyzed in this batch:

1506466-1

**Client:** Talon LPE  
**Work Order:** 1506466  
**Project:** 701530.024.01 Nelson A6/A7

## QC BATCH REPORT

Batch ID: **HC150625-111-1** Instrument ID: **FUELS-1** Method: **SW8015M**

LCS	Sample ID: <b>HC150625-111</b>				Units: <b>MG/KG</b>		Analysis Date: <b>6/25/2015 17:57</b>				
Client ID:		Run ID: <b>HC150625-8A</b>				Prep Date: <b>6/25/2015</b>			DF: <b>1</b>		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	134	5	125		108	76-124				20	
Surr: O-TERPHENYL	5.31		6.25		85	53-116					

MB		Sample ID: HC150625-111				Units: MG/KG		Analysis Date: 6/25/2015 17:21			
Client ID:		Run ID: HC150625-8A				Prep Date: 6/25/2015		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	ND	5									
Surr: O-TERPHENYL	5.61		6.25		90	53-116					

The following samples were analyzed in this batch:

1506466-1

Client: Talon LPE  
 Work Order: 1506466  
 Project: 701530.024.01 Nelson A6/A7

# QC BATCH REPORT

Batch ID: **VL150624-2-2** Instrument ID: **HPV1** Method: **SW8260**

LCS	Sample ID: VL150624-2				Units: MG/KG		Analysis Date: 6/24/2015 11:23				
Client ID:	Run ID: VL150624-2A				Prep Date: 6/24/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0369	0.005	0.04		92	73-126				30	
TOLUENE	0.0414	0.005	0.04		103	71-127				30	
ETHYLBENZENE	0.0407	0.005	0.04		102	74-127				30	
M+P-XYLENE	0.0844	0.005	0.08		106	79-126				30	
O-XYLENE	0.0426	0.005	0.04		106	77-125				30	
Surr: DIBROMOFLUOROMETHANE	0.048		0.05		96	61-134					
Surr: TOLUENE-D8	0.0505		0.05		101	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0478		0.05		96	52-151					

LCSD		Sample ID: VL150624-2			Units: MG/KG		Analysis Date: 6/24/2015 11:45				
Client ID:		Run ID: VL150624-2A			Prep Date: 6/24/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	0.0305	0.005	0.04		76	73-126		0.0369	19	30	
TOLUENE	0.0346	0.005	0.04		86	71-127		0.0414	18	30	
ETHYLBENZENE	0.0339	0.005	0.04		85	74-127		0.0407	18	30	
M+P-XYLENE	0.0694	0.005	0.08		87	79-126		0.0844	20	30	
O-XYLENE	0.0349	0.005	0.04		87	77-125		0.0426	20	30	
Surr: DIBROMOFLUOROMETHANE	0.0481		0.05		96	61-134			0		
Surr: TOLUENE-D8	0.0501		0.05		100	57-135			1		
Surr: 4-BROMOFLUOROBENZENE	0.0468		0.05		94	52-151			2		

MB			Sample ID: VL150624-2			Units: MG/KG			Analysis Date: 6/24/2015 12:08		
Client ID:			Run ID: VL150624-2A			Prep Date: 6/24/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	ND	0.005									
TOLUENE	ND	0.005									
ETHYLBENZENE	ND	0.005									
M+P-XYLENE	ND	0.005									
O-XYLENE	ND	0.005									
TOTAL XYLENES	ND	0.005									
Surr: DIBROMOFLUOROMETHANE	0.0454		0.05		91	61-134					
Surr: TOLUENE-D8	0.0511		0.05		102	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0468		0.05		94	52-151					

The following samples were analyzed in this batch:

1506466-1