Thursday, April 30, 2015

Colby Sterling
Talon LPE
921 N Bivins
Amarillo, TX 79107

Re: ALS Workorder: 1504498
Project Name: Wolf 35
Project Number: 701530.041.01

Dear Mr. Sterling:

Three soil samples were received from Talon LPE, on 4/24/2015. The samples were 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 |

# 1504498

**GC/MS Volatiles:**
The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C.

All acceptance criteria were met.

**GRO:**
The samples were 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 samples were 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:** 1504498
**Client Name:** Talon LPE
**Client Project Name:** Wolf 35
**Client Project Number:** 701530.041.01
**Client PO Number:**

| Client Sample Number | Lab Sample Number | COC Number | Matrix | Date Collected | Time Collected |
|---|---|---|---|---|---|
| SP-1 | 1504498-1 | | SOIL | 23-Apr-15 | 15:15 |
| SP-2 | 1504498-2 | | SOIL | 23-Apr-15 | 15:20 |
| SP-3 | 1504498-3 | | SOIL | 23-Apr-15 | 15:25 |

# ALS Laboratory Group

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

## Chain-of-Custody

Form 202r8

| | | | | | |
|---|---|---|---|---|---|
| WORKORDER # | 1504498 | | | | |
| PAGE | 1 of 1 | | | | |
| DISPOSAL | By Lab or Return to Client | | | | |

| | | | | | |
|---|---|---|---|---|---|
| PROJECT NAME | Wolf 35 | SAMPLER | Colby Sterling | DATE | 4-24-15 |
| PROJECT No. | 701530.041.01 | SITE ID | Wolf 35 | TURNAROUND | Standard |
| | | EDD FORMAT | | | |
| | | PURCHASE ORDER | | | |
| COMPANY NAME | Talon/LPE | BILL TO COMPANY | Whiting Oil & Gas | | |
| SEND REPORT TO | Colby Sterling | INVOICE ATTN TO | Kyle Waggoner | | |
| ADDRESS | 321 N. Bivins | ADDRESS | | | |
| CITY / STATE / ZIP | Amarillo, TX 79107 | CITY / STATE / ZIP | | | |
| PHONE | 806-467-0607 | PHONE | | | |
| FAX | | FAX | | | |
| E-MAIL | csterling@talonlpe.com | E-MAIL | kyle.waggoner@whiting.com | | |

| Lab ID | Field ID | Matrix | Sample Date | Sample Time | # Bottles | Pres. | QC | GRO 8015 | DRO 8015 | BTEX 8260 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SP-1 | S | 4-23-15 | 1515 | 2 | NA | NA | X | X | X |
| 2 | SP-2 | " | " | 1500 | " | " | " | | | |
| 3 | SP-3 | " | " | 1525 | " | " | " | | | |

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

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

**Comments:**

13 of 13

| QC PACKAGE (check below) | |
|---|---|
| | LEVEL II (Standard QC) |
| | LEVEL III (Std QC + forms) |
| | LEVEL IV (Std QC + forms + raw data) |
| | |

**Preservative Key:** 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

| | SIGNATURE | PRINTED NAME | DATE | TIME |
|---|---|---|---|---|
| RELINQUISHED BY | | FEDEX | 4-24-15 | 1525 |
| RECEIVED BY | | Amy Wolf | 4/24/15 | 1525 |
| RELINQUISHED BY | | | | |
| RECEIVED BY | | | | |
| RELINQUISHED BY | | | | |
| RECEIVED BY | | | | |

**ALS Environmental - Fort Collins**
**CONDITION OF SAMPLE UPON RECEIPT FORM**

Client: Talon / LPE  Workorder No: 1504498

Project Manager: ARW  Initials: SDM  Date: 04-24-2015

| | | | |
|---|---|---|---|
| 1. Does this project require any special handling in addition to standard ALS procedures? | | YES | (NO) |
| 2. Are custody seals on shipping containers intact? | (NONE) | YES | NO |
| 3. Are Custody seals on sample containers intact? | (NONE) | YES | NO |
| 4. Is there a COC (Chain-of-Custody) present or other representative documents? | | (YES) | NO |
| 5. Are the COC and bottle labels complete and legible? | | (YES) | NO |
| 6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.) | | YES | NO |
| 7. Were airbills / shipping documents present and/or removable? | (DROP OFF) | YES | NO |
| 8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles) | (N/A) | YES | NO |
| 9. Are all aqueous non-preserved samples pH 4-9? | (N/A) | YES | NO |
| 10. Is there sufficient sample for the requested analyses? | | (YES) | NO |
| 11. Were all samples placed in the proper containers for the requested analyses? | | (YES) | NO |
| 12. Are all samples within holding times for the requested analyses? | | (YES) | NO |
| 13. Were all sample containers received intact? (not broken or leaking, etc.) | | (YES) | 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 | (N/A) | YES | NO |
| 15. Do any water samples contain sediment? Amount<br>Amount of sediment: ____ dusting ____ moderate ____ heavy | (N/A) | YES | NO |
| 16. Were the samples shipped on ice? | | (YES) | NO |
| 17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 (#4) | RAD ONLY | (YES) | NO |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Cooler #: | 1 | 2 | | | | | | |
| Temperature (°C): | 5.6 | 5.0 | | | | | | |
| No. of custody seals on cooler: | Ø | Ø | | | | | | |
| DOT Survey/ Acceptance Information — External µR/hr reading: | N/A | N/A | | | | | | |
| Background µR/hr reading: | N/A | | | | | | | |

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? **YES / NO (NA)** (If no, see Form 008.)

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

If applicable, was the client contacted? **YES / NO / (NA)** Contact: _____ Date/Time: _____

**Project Manager Signature / Date:** 4/24/15

*IR Gun #2: Oakton, SN 29922500201-0066
#IR Gun #4: Oakton, SN 2372220101-0002

**Client:** Talon LPE
**Project:** 701530.041.01 Wolf 35
**Sample ID:** SP-1
**Legal Location:**
**Collection Date:** 4/23/2015 15:15

**Date:** *30-Apr-15*
**Work Order:** 1504498
**Lab ID:** 1504498-1
**Matrix:** SOIL
**Percent Moisture:** 10.1

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|---|
| **Diesel Range Organics** | | | **SW8015M** | Prep Date: **4/29/2015** | | PrepBy: **JFN** |
| **Diesel Range Organics** | **7.6** | MH | **5** | **MG/KG** | 1 | 4/29/2015 15:18 |
| *Surr: O-TERPHENYL* | *84* | | *53-116* | *%REC* | 1 | 4/29/2015 15:18 |
| **Gasoline Range Organics** | | | **SW8015** | Prep Date: **4/28/2015** | | PrepBy: **JFN** |
| GASOLINE RANGE ORGANICS | ND | | 0.48 | MG/KG | 1 | 4/28/2015 14:04 |
| *Surr: 2,3,4-TRIFLUOROTOLUENE* | *88* | | *76-126* | *%REC* | 1 | 4/28/2015 14:04 |
| **GC/MS Volatiles** | | | **SW8260** | Prep Date: **4/29/2015** | | PrepBy: **TWK** |
| BENZENE | ND | | 0.0052 | MG/KG | 1 | 4/29/2015 15:42 |
| TOLUENE | ND | | 0.0052 | MG/KG | 1 | 4/29/2015 15:42 |
| ETHYLBENZENE | ND | | 0.0052 | MG/KG | 1 | 4/29/2015 15:42 |
| M+P-XYLENE | ND | | 0.0052 | MG/KG | 1 | 4/29/2015 15:42 |
| O-XYLENE | ND | | 0.0052 | MG/KG | 1 | 4/29/2015 15:42 |
| TOTAL XYLENES | ND | | 0.005 | MG/KG | 1 | 4/29/2015 15:42 |
| *Surr: DIBROMOFLUOROMETHANE* | *97* | | *61-134* | *%REC* | 1 | 4/29/2015 15:42 |
| *Surr: TOLUENE-D8* | *98* | | *57-135* | *%REC* | 1 | 4/29/2015 15:42 |
| *Surr: 4-BROMOFLUOROBENZENE* | *99* | | *52-151* | *%REC* | 1 | 4/29/2015 15:42 |

**Client:** Talon LPE
**Project:** 701530.041.01 Wolf 35
**Sample ID:** SP-2
**Legal Location:**
**Collection Date:** 4/23/2015 15:20

**Date:** *30-Apr-15*
**Work Order:** 1504498
**Lab ID:** 1504498-2
**Matrix:** SOIL
**Percent Moisture:** 3.2

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|---|
| **Diesel Range Organics** | | **SW8015M** | | Prep Date: **4/29/2015** | | PrepBy: **JFN** |
| Diesel Range Organics | ND | | 5.1 | MG/KG | 1 | 4/29/2015 16:28 |
| *Surr: O-TERPHENYL* | *80* | | *53-116* | *%REC* | 1 | 4/29/2015 16:28 |
| **Gasoline Range Organics** | | **SW8015** | | Prep Date: **4/28/2015** | | PrepBy: **JFN** |
| GASOLINE RANGE ORGANICS | ND | | 0.51 | MG/KG | 1 | 4/28/2015 14:25 |
| *Surr: 2,3,4-TRIFLUOROTOLUENE* | *93* | | *76-126* | *%REC* | 1 | 4/28/2015 14:25 |
| **GC/MS Volatiles** | | **SW8260** | | Prep Date: **4/29/2015** | | PrepBy: **TWK** |
| BENZENE | ND | | 0.005 | MG/KG | 1 | 4/29/2015 16:05 |
| TOLUENE | ND | | 0.005 | MG/KG | 1 | 4/29/2015 16:05 |
| ETHYLBENZENE | ND | | 0.005 | MG/KG | 1 | 4/29/2015 16:05 |
| M+P-XYLENE | ND | | 0.005 | MG/KG | 1 | 4/29/2015 16:05 |
| O-XYLENE | ND | | 0.005 | MG/KG | 1 | 4/29/2015 16:05 |
| TOTAL XYLENES | ND | | 0.005 | MG/KG | 1 | 4/29/2015 16:05 |
| *Surr: DIBROMOFLUOROMETHANE* | *95* | | *61-134* | *%REC* | 1 | 4/29/2015 16:05 |
| *Surr: TOLUENE-D8* | *98* | | *57-135* | *%REC* | 1 | 4/29/2015 16:05 |
| *Surr: 4-BROMOFLUOROBENZENE* | *99* | | *52-151* | *%REC* | 1 | 4/29/2015 16:05 |

**Client:** Talon LPE
**Project:** 701530.041.01 Wolf 35
**Sample ID:** SP-3
**Legal Location:**
**Collection Date:** 4/23/2015 15:25

**Date:** *30-Apr-15*
**Work Order:** 1504498
**Lab ID:** 1504498-3
**Matrix:** SOIL
**Percent Moisture:** 11.5

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|---|
| **Diesel Range Organics** | | **SW8015M** | | Prep Date: **4/29/2015** | | PrepBy: **JFN** |
| Diesel Range Organics | ND | | 5.4 | MG/KG | 1 | 4/29/2015 21:44 |
| *Surr: O-TERPHENYL* | *88* | | *53-116* | *%REC* | 1 | 4/29/2015 21:44 |
| **Gasoline Range Organics** | | **SW8015** | | Prep Date: **4/28/2015** | | PrepBy: **JFN** |
| GASOLINE RANGE ORGANICS | ND | | 0.45 | MG/KG | 1 | 4/28/2015 14:45 |
| *Surr: 2,3,4-TRIFLUOROTOLUENE* | *89* | | *76-126* | *%REC* | 1 | 4/28/2015 14:45 |
| **GC/MS Volatiles** | | **SW8260** | | Prep Date: **4/29/2015** | | PrepBy: **TWK** |
| BENZENE | ND | | 0.0055 | MG/KG | 1 | 4/29/2015 16:28 |
| TOLUENE | ND | | 0.0055 | MG/KG | 1 | 4/29/2015 16:28 |
| ETHYLBENZENE | ND | | 0.0055 | MG/KG | 1 | 4/29/2015 16:28 |
| M+P-XYLENE | ND | | 0.0055 | MG/KG | 1 | 4/29/2015 16:28 |
| O-XYLENE | ND | | 0.0055 | MG/KG | 1 | 4/29/2015 16:28 |
| TOTAL XYLENES | ND | | 0.005 | MG/KG | 1 | 4/29/2015 16:28 |
| *Surr: DIBROMOFLUOROMETHANE* | *98* | | *61-134* | *%REC* | 1 | 4/29/2015 16:28 |
| *Surr: TOLUENE-D8* | *99* | | *57-135* | *%REC* | 1 | 4/29/2015 16:28 |
| *Surr: 4-BROMOFLUOROBENZENE* | *103* | | *52-151* | *%REC* | 1 | 4/29/2015 16:28 |

| | | | |
|---|---|---|---|
| **Client:** | Talon LPE | **Date:** | *30-Apr-15* |
| **Project:** | 701530.041.01 Wolf 35 | **Work Order:** | 1504498 |
| **Sample ID:** | SP-3 | **Lab ID:** | 1504498-3 |
| **Legal Location:** | | **Matrix:** | SOIL |
| **Collection Date:** | 4/23/2015 15:25 | **Percent Moisture:** | 11.5 |

| 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

Batch ID: **HC150428-61-1** Instrument ID **FUELS-1** Method: **SW8015**

**LCS** Sample ID: **HC150428-61** Units: **MG/KG** Analysis Date: **4/28/2015 08:47**

Client ID: Run ID: **HC150428-6A** Prep Date: **4/28/2015** DF: **1**

| 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 | 0.507 | | 0.5 | | 101 | 76-126 | | | | | |

**LCSD** Sample ID: **HC150428-61** Units: **MG/KG** Analysis Date: **4/28/2015 15:06**

Client ID: Run ID: **HC150428-6A** Prep Date: **4/28/2015** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | Decision Level | RPD Ref | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GASOLINE RANGE ORGANICS | 2.07 | 0.5 | 2.5 | | 83 | 79-118 | | 2.12 | 2 | 20 | |
| Surr: 2,3,4-TRIFLUOROTOLUENE | 0.52 | | 0.5 | | 104 | 76-126 | | | 3 | | |

**MB** Sample ID: **HC150428-61** Units: **MG/KG** Analysis Date: **4/28/2015 09:08**

Client ID: Run ID: **HC150428-6A** Prep Date: **4/28/2015** DF: **1**

| 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 | 0.448 | | 0.5 | | 90 | 76-126 | | | | | |

**The following samples were analyzed in this batch:** 1504498-1 1504498-2 1504498-3

**Client:** Talon LPE
**Work Order:** 1504498
**Project:** 701530.041.01 Wolf 35

# QC BATCH REPORT

Batch ID: **HC150429-100-1** Instrument ID **FUELS-1** Method: **SW8015M**

**LCS** Sample ID: **HC150429-100** Units: **MG/KG** Analysis Date: **4/29/2015 14:43**
Client ID: Run ID: **HC150429-8A** Prep Date: **4/29/2015** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | Decision Level | RPD Ref | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 123 | 5 | 125 | | 98 | 76-124 | | | | 20 | |
| Surr: O-TERPHENYL | 8.98 | | 12.5 | | 72 | 53-116 | | | | | |

**MB** Sample ID: **HC150429-100** Units: **MG/KG** Analysis Date: **4/29/2015 14:07**
Client ID: Run ID: **HC150429-8A** Prep Date: **4/29/2015** 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 | 9.53 | | 12.5 | | 76 | 53-116 | | | | | |

**MS** Sample ID: **1504498-3** Units: **MG/KG** Analysis Date: **4/29/2015 22:20**
Client ID: **SP-3** Run ID: **HC150429-8A** Prep Date: **4/29/2015** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | Decision Level | RPD Ref | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 131 | 5.6 | 140 | 5.4 | 91 | 76-124 | | | | 20 | |
| Surr: O-TERPHENYL | 11.9 | | 14 | | 85 | 53-116 | | | | | |

**MSD** Sample ID: **1504498-3** Units: **MG/KG** Analysis Date: **4/29/2015 22:55**
Client ID: **SP-3** Run ID: **HC150429-8A** Prep Date: **4/29/2015** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | Decision Level | RPD Ref | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 120 | 5.03 | 126 | 5.4 | 92 | 76-124 | | 131 | 9 | 20 | |
| Surr: O-TERPHENYL | 10.6 | | 12.6 | | 84 | 53-116 | | | 12 | | |

**The following samples were analyzed in this batch:** 1504498-1 1504498-2 1504498-3

**Client:** Talon LPE
**Work Order:** 1504498
**Project:** 701530.041.01 Wolf 35

# QC BATCH REPORT

Batch ID: **VL150429-10-1** Instrument ID **HPV1** Method: **SW8260**

**LCS** Sample ID: **VL150429-7** Units: **MG/KG** Analysis Date: **4/29/2015 14:31**
Client ID: Run ID: **VL150429-10A** Prep Date: **4/29/2015** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | Decision Level | RPD Ref | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BENZENE | 0.0396 | 0.005 | 0.04 | | 99 | 73-126 | | | | 30 | |
| TOLUENE | 0.0399 | 0.005 | 0.04 | | 100 | 71-127 | | | | 30 | |
| ETHYLBENZENE | 0.0396 | 0.005 | 0.04 | | 99 | 74-127 | | | | 30 | |
| M+P-XYLENE | 0.0786 | 0.005 | 0.08 | | 98 | 79-126 | | | | 30 | |
| O-XYLENE | 0.0387 | 0.005 | 0.04 | | 97 | 77-125 | | | | 30 | |
| Surr: DIBROMOFLUOROMETHANE | 0.0491 | | 0.05 | | 98 | 61-134 | | | | | |
| Surr: TOLUENE-D8 | 0.0494 | | 0.05 | | 99 | 57-135 | | | | | |
| Surr: 4-BROMOFLUOROBENZENE | 0.0491 | | 0.05 | | 98 | 52-151 | | | | | |

**LCSD** Sample ID: **VL150429-7** Units: **MG/KG** Analysis Date: **4/29/2015 14:54**
Client ID: Run ID: **VL150429-10A** Prep Date: **4/29/2015** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | Decision Level | RPD Ref | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BENZENE | 0.0397 | 0.005 | 0.04 | | 99 | 73-126 | | 0.0396 | 0 | 30 | |
| TOLUENE | 0.0387 | 0.005 | 0.04 | | 97 | 71-127 | | 0.0399 | 3 | 30 | |
| ETHYLBENZENE | 0.038 | 0.005 | 0.04 | | 95 | 74-127 | | 0.0396 | 4 | 30 | |
| M+P-XYLENE | 0.0754 | 0.005 | 0.08 | | 94 | 79-126 | | 0.0786 | 4 | 30 | |
| O-XYLENE | 0.0377 | 0.005 | 0.04 | | 94 | 77-125 | | 0.0387 | 3 | 30 | |
| Surr: DIBROMOFLUOROMETHANE | 0.0497 | | 0.05 | | 99 | 61-134 | | | 1 | | |
| Surr: TOLUENE-D8 | 0.0494 | | 0.05 | | 99 | 57-135 | | | 0 | | |
| Surr: 4-BROMOFLUOROBENZENE | 0.0484 | | 0.05 | | 97 | 52-151 | | | 1 | | |

**MB** Sample ID: **VL150429-7** Units: **MG/KG** Analysis Date: **4/29/2015 15:19**
Client ID: Run ID: **VL150429-10A** Prep Date: **4/29/2015** 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 | 0.0491 | | 0.05 | | 98 | 61-134 | | | | | |
| Surr: TOLUENE-D8 | 0.0493 | | 0.05 | | 99 | 57-135 | | | | | |
| Surr: 4-BROMOFLUOROBENZENE | 0.0481 | | 0.05 | | 96 | 52-151 | | | | | |

**The following samples were analyzed in this batch:** 1504498-1 1504498-2 1504498-3