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#### **Remediation and Deferrel Closure Report**

Union 35 A Federal Battery  
Eddy County, NM  
API# 30-015-24689  
\*2RP-2854, \*2RP-4481, \*2RP-5507

#### **Prepared For:**

Devon Energy Production Company  
6488 Seven Rivers Highway  
Artesia, NM 88210

Marathon Oil Permian, LLC  
4111 S. Tidwell Rd.  
Carlsbad, NM 88220

#### **Prepared By:**

TALON/LPE  
408 W. Texas Avenue  
Artesia, New Mexico 88210

**April 20, 2020**

Mr. Jim Amos  
**Bureau of Land Management**  
620 East Green Street  
Carlsbad, NM 88220

Mr. Mike Bratcher  
**NMOCD District 2**  
811 S. 1<sup>st</sup> Street  
Artesia, NM 88210

Subject: **Remediation and Deferrel Closure Report**  
Union 35 A Federal Battery  
API# 30-015-24689  
\*2RP-2854, \*2RP-4481, \*2RP-5507

Dear Mr. Amos & Mr. Bratcher,

Devon Energy Production Company (Devon) and Marathon Oil Permian (Marathon) contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above-referenced location. The results of our site characterization, remediation activities, and closure request are contained herein.

### Site Information

Union 35 Federal #001 is located approximately eleven (11) miles southeast of Carlsbad, New Mexico. The legal location for this release is Unit Letter E, Section 35, Township 22 South and Range 28 East in Eddy County, New Mexico. More specifically, the latitude and longitude for the release are 32.3515739 North and -104.0647507 West. A site plan is presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Simona and Wink fine sandy loams, 0 to 3 percent slopes, eroded. The referenced soil data is presented in [Appendix II](#). Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology are Holocene to lower Pleistocene in age and are comprised of piedmont alluvial deposits. Drainage courses in this area are well-drained.

### Ground Water and Site Characterization

The New Mexico Office of the State Engineer Database indicates the reported nearest depth to groundwater is 15-feet below ground surface (BGS). See [Appendix II](#) for the referenced groundwater depth. This site is not located within a high potential Karst area.

If a release occurs within the following areas, the responsible party must treat the release as if it occurred less than 50 feet to the groundwater in Table I, New Mexico Oil Conservation Division (NMOCD) Rule 19.15.29 NMAC.

<b>Approximate Depth to Groundwater</b>	<b>15 Feet/BGS</b>
---	--------------------

- |   |   |
|---|---|
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Within 300 feet of any continuously flowing watercourse or any other significant watercourse  |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Within 200 feet of any lakebed, sinkhole or playa lake  |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Within 300 feet from an occupied permanent residence, school, hospital, institution or church   |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Within 500 feet of a spring or a private, domestic freshwater well used by less than five households for domestic or stock watering purposes                                  |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Within 1000 feet of any freshwater well or spring   |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Within incorporated municipal boundaries or within a defined Municipal freshwater well field covered under a municipal ordinance adopted pursuant to Section 3-2703 NMSA 1978 |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Within 300 feet of a wetland  |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Within the area overlying a subsurface mine   |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Within an unstable area   |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Within a 100-year floodplain  |

The release did not occur in any of these areas and the depth to groundwater is less than 50-feet below ground surface (BGS). Based on the site characterization data, the cleanup criteria for this site are as follows.

Table I Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Method	Limit
≤50 feet	Total Chlorides	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

### Devons Incident Descriptions

2RP-2854

On September 19, 2014, static electricity caused a produced water tank to combust. 117 barrels (bbls) of produced water were spilled into the battery along with 133 bbls of rainwater and water used by the fire department, all of which (250 bbls) was recovered.

2RP-4481

On October 26, 2017, 5.2 bbls of produced water were released into the battery's earthen containment when the tank ran over due to a late pick-up. Approximately 4 bbls were recovered.

2RP-5507

On November 19, 2018, the produced water tank overflowed releasing 9 bbls of fluids into the unlined battery, 7bbls of which were recovered.

The Initial C-141's are attached in [Appendix III](#).

### Marathons Incident Description

NRM 2004839548

On January 27, 2020, a release of 15 barrels (bbls) of produced water was the result of a tank overflow. The release was contained within the earthen berms of the tank battery. No fluids were recovered.

The Initial C-141 is attached in [Appendix III](#).



## Site Sampling

On April 3, 2019, Talon mobilized personnel and equipment to begin the site characterization and remediation activities simultaneously due to the pending property transfer. Grab soil samples were collected within and around the impacted area utilizing a hand auger. Results from our initial sampling event are presented in the following data table. A complete laboratory report can be found in [Appendix VI](#).

### 4-3-19 Soil Sample Laboratory Results

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg				100 mg/kg	600 mg/kg
S-1	4/3/2019	0	ND	ND	ND	560	4900	5460	400
S-2	4/3/2019	0	ND	ND	ND	ND	ND	ND	2400
		1	ND	ND	ND	ND	ND	ND	1100
		2	ND	ND	ND	ND	ND	ND	490
S-3	4/3/2019	0	ND	ND	ND	ND	ND	ND	ND
		1	ND	ND	ND	ND	ND	ND	ND
S-4	4/3/2019	0	ND	ND	ND	ND	ND	ND	ND
		1	ND	ND	ND	ND	ND	ND	ND
S-5	4/3/2019	0	ND	ND	ND	61	200	261	ND
S-6	4/3/2019	0	ND	ND	ND	2300	4000	6300	69
S-7	4/3/2019	0	ND	ND	ND	1800	3200	5000	ND
S-8	4/3/2019	0	ND	ND	ND	ND	ND	ND	19000
S-9	4/3/2019	0	ND	ND	ND	16	ND	16	ND
S-10	4/3/2019	0	0.69	ND	120	28000	20000	48120	2100

ND= Analyte Not Detected

On May 17 and 24, 2019, further composite soil sampling was conducted for chlorides to guide excavation (in addition to field titrations). The results of this sampling are contained within the following data table.

### May Soil Sample Laboratory Results

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg				100 mg/kg	600 mg/kg
S-2A Composite	5/17/2019	2	--	--	--	--	--	--	749
S-1A Composite	5/24/2019	1.5	--	--	12.4	12.8	ND	25.2	--
S-5A Composite	5/24/2019	2	--	--	14	173	37.3	224.3	--
S-6A Composite	5/24/2019	2	--	--	12.8	196	56.6	265.4	--
S-7A Composite	5/24/2019	2	--	--	20.7	873	145	1038.7	--
S-8A Composite	5/24/2019	3	--	--	--	--	--	--	2830
S-10A	5/24/2019	0.5	--	--	16.5	2250	392	2658.5	11700

ND= Analyte Not Detected, -- Analyte Not Tested

On June 19, 2019, a direct push sample rig (Geoprobe) was utilized to further vertically delineate the site, within accessible areas, the results of which can be found in the following data table.

### 6-19-19 Soil Sample Laboratory Results

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
<b>NMOCD Table 1 Closure Criteria 19.15.29 NMAC</b>			<b>50 mg/kg</b>	<b>10 mg/kg</b>				<b>100 mg/kg</b>	<b>600 mg/kg</b>
B-1	6/19/2019	0-1	ND	ND	ND	75.2	37	112.2	6240
		2	ND	ND	ND	ND	ND	ND	3760
		3	ND	ND	ND	ND	ND	ND	11500
		4	ND	ND	ND	ND	ND	ND	9330
		5	ND	ND	ND	ND	ND	ND	6240
		6	ND	ND	ND	ND	ND	ND	6000
		7	ND	ND	ND	ND	ND	ND	6000
		8-Refusal	ND	ND	ND	ND	ND	ND	5600
B-2	6/19/2019	0-1	ND	ND	ND	35.4	26	61.4	96
		2	ND	ND	ND	ND	ND	ND	16
		3	ND	ND	ND	ND	ND	ND	80
		4	ND	ND	ND	ND	ND	ND	32
		5	ND	ND	ND	ND	ND	ND	48

ND= Analyte Not Detected

On March 17, 2020, Talon personnel returned to the site with an air rotary drill rig to vertically delineate the extent of the contamination within accessible areas. The results of our sampling event can be found in the following data table.

### 3-17-20 Soil Sampling Laboratory Results

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
<b>NMOCD Table 1 Closure Criteria 19.15.29 NMAC</b>			<b>50 mg/kg</b>	<b>10 mg/kg</b>				<b>100 mg/kg</b>	<b>600 mg/kg</b>
B-3	3/17/2020	0	ND	ND	ND	ND	ND	ND	176
		2	ND	ND	ND	ND	ND	ND	144
B-4		0	ND	ND	ND	ND	ND	ND	12000
		2	1.15	ND	47.7	1530	397	1974.7	736
		4	5.09	0.072	121	2470	473	3064	128
		6	1.31	ND	30.4	610	93.4	733.8	80
		8	ND	ND	ND	12.2	ND	12.2	96
B-6		0	ND	ND	ND	919	378	1297	208
		2	ND	ND	ND	621	324	945	176
		4	ND	ND	ND	ND	ND	ND	160
B-7		0	ND	ND	ND	ND	ND	ND	96
		2	ND	ND	ND	ND	ND	ND	160

ND= Analyte Not Detected

### Remedial Activities

- Remediation activities within the tank battery were carefully hand-excavated to depths as deep as practicable due to the presence of oil and gas infrastructure and the safety of on-site personnel.
- The impacted areas in the vicinity of sample locations S-10/B-1 and S-8 were hand-excavated to approximately 3-feet deep as not to compromise the structural integrity of the surrounding tanks.
- The impacted areas in the vicinity of sample locations S-5/B-2, S-6, and S-7/B-7 were hand-excavated to a depth of 2-feet BGS due to infrastructure such as suspended steel flowlines lines and equipment.
- The impacted area in the vicinity of sample location S-1/B-4 was machine excavated to a depth of 1.5-feet BGS.
- The impacted area in the vicinity of sample location S-2/B-3 was machine excavated to a depth of 2-feet BGS
- The backfilling activities were completed with newly obtained caliche, compacted, and contoured to match the surrounding location.
- All of the excavated material was transported to Lea Land, LLC, a NMOCD approved solid waste disposal facility.
- The reserve drilling pit was capped with a 20-mil liner and covered with 2-feet of locally obtained topsoil. The reclaimed area was seeded with BLM #1 and #2 seed mix utilizing a multi-pack seed drill. The seeding label is attached in [Appendix V](#).
- The Final C-141 is appended hereto in [Appendix III](#).

## Deferral Closure

On behalf of Devon Energy, we respectfully request that no further actions be required at this time and that a remediation deferral until facility closure with regard to these incidents be granted.

Should you have any questions or if further information is required, please do not hesitate to contact our office at 575-746-8768.

Respectfully submitted,

TALON/LPE



Chris K. Jones  
Project Manager



David J. Adkins  
District Manager

### Attachments:

- Appendix I Site Map, Karst Map, TOPO Map & Locator Map
- Appendix II Soil Survey, USGS Groundwater Data & FEMA Flood Zone
- Appendix III Initial & Final C-141
- Appendix IV Photographic Documentation
- Appendix V Seeding Label
- Appendix VI Laboratory Data



# **APPENDIX I**

**SITE MAP**

**KARST MAP**

**TOPO MAP**

**LOCATION MAP**

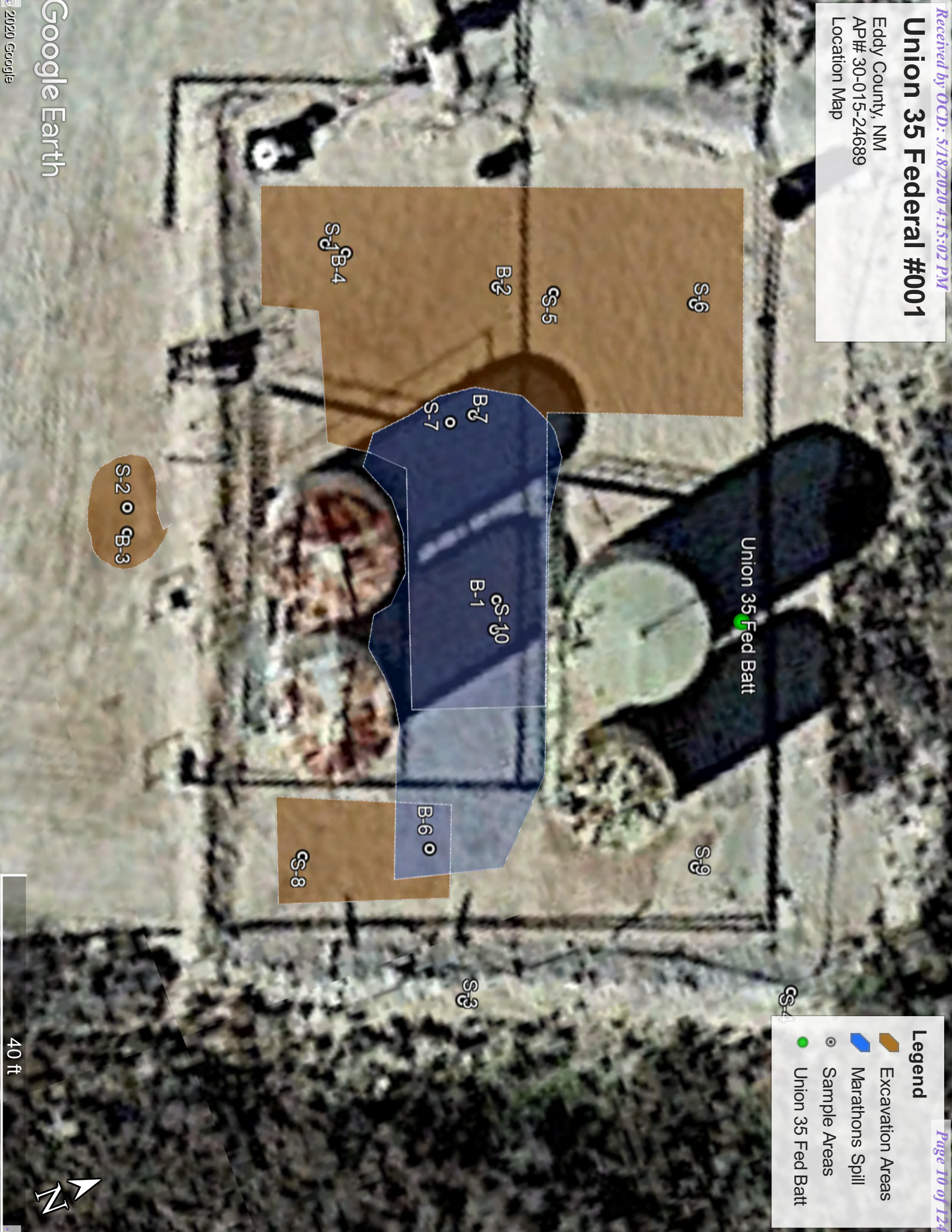


# Union 35 Federal #001

Eddy County, NM  
AP# 30-015-24689  
Location Map

© 2020 Google

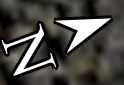
Google Earth



## Legend

- Excavation Areas
- Marathons Spill
- Sample Areas
- Union 35 Fed Batt

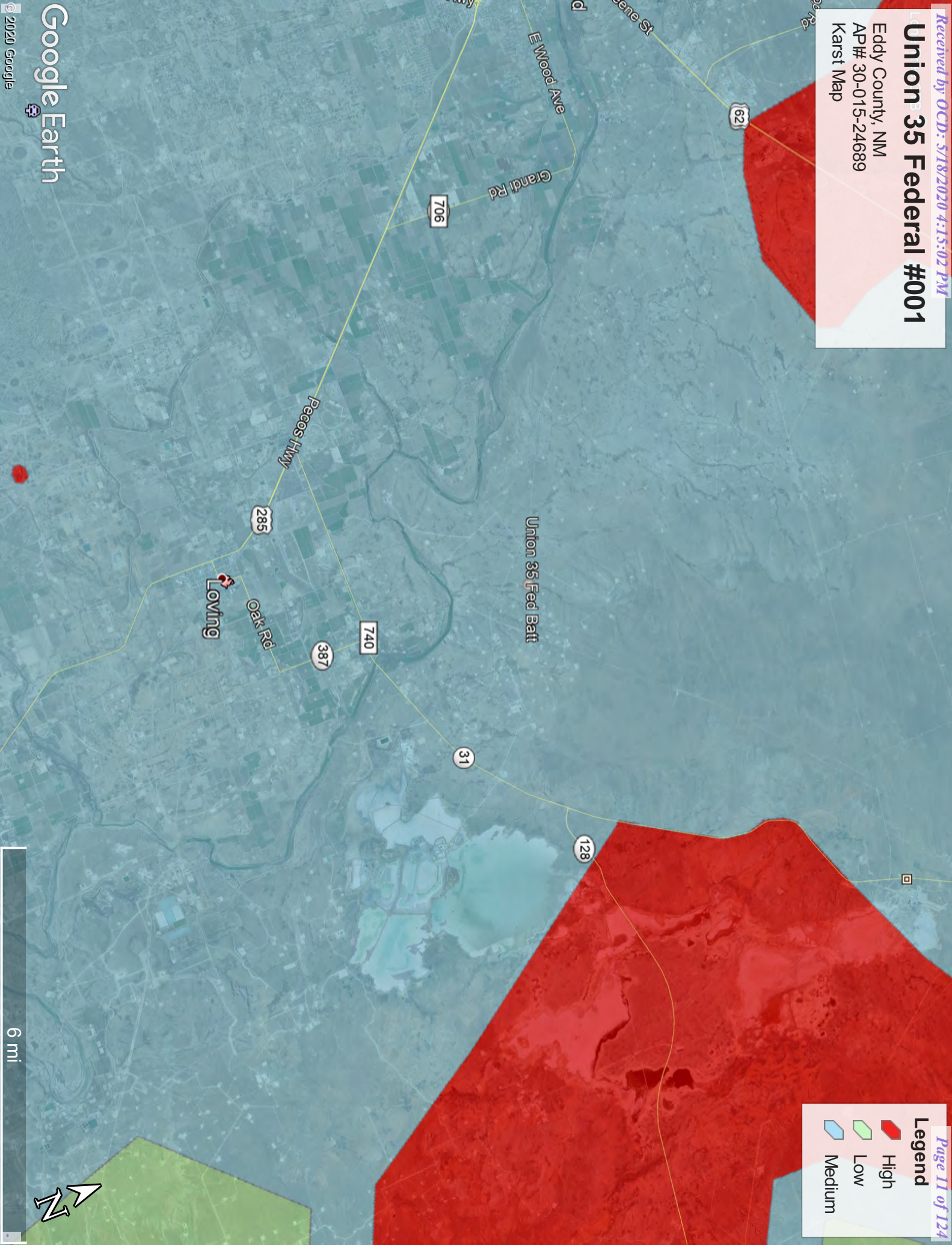
40 ft





# Union 35 Federal #001

Eddy County, NM  
AP# 30-015-24689  
Karst Map

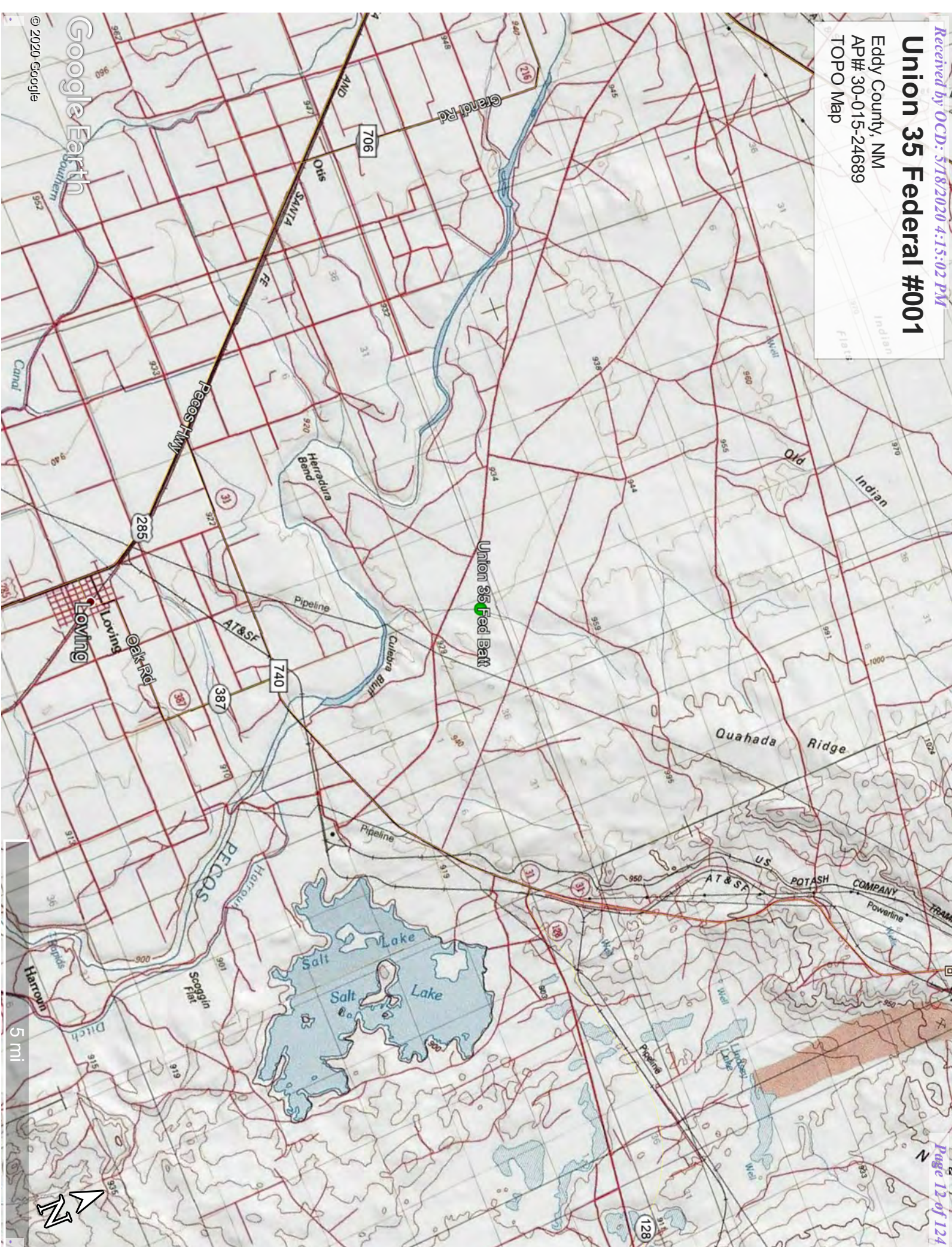


**Legend**

- High
- Low
- Medium



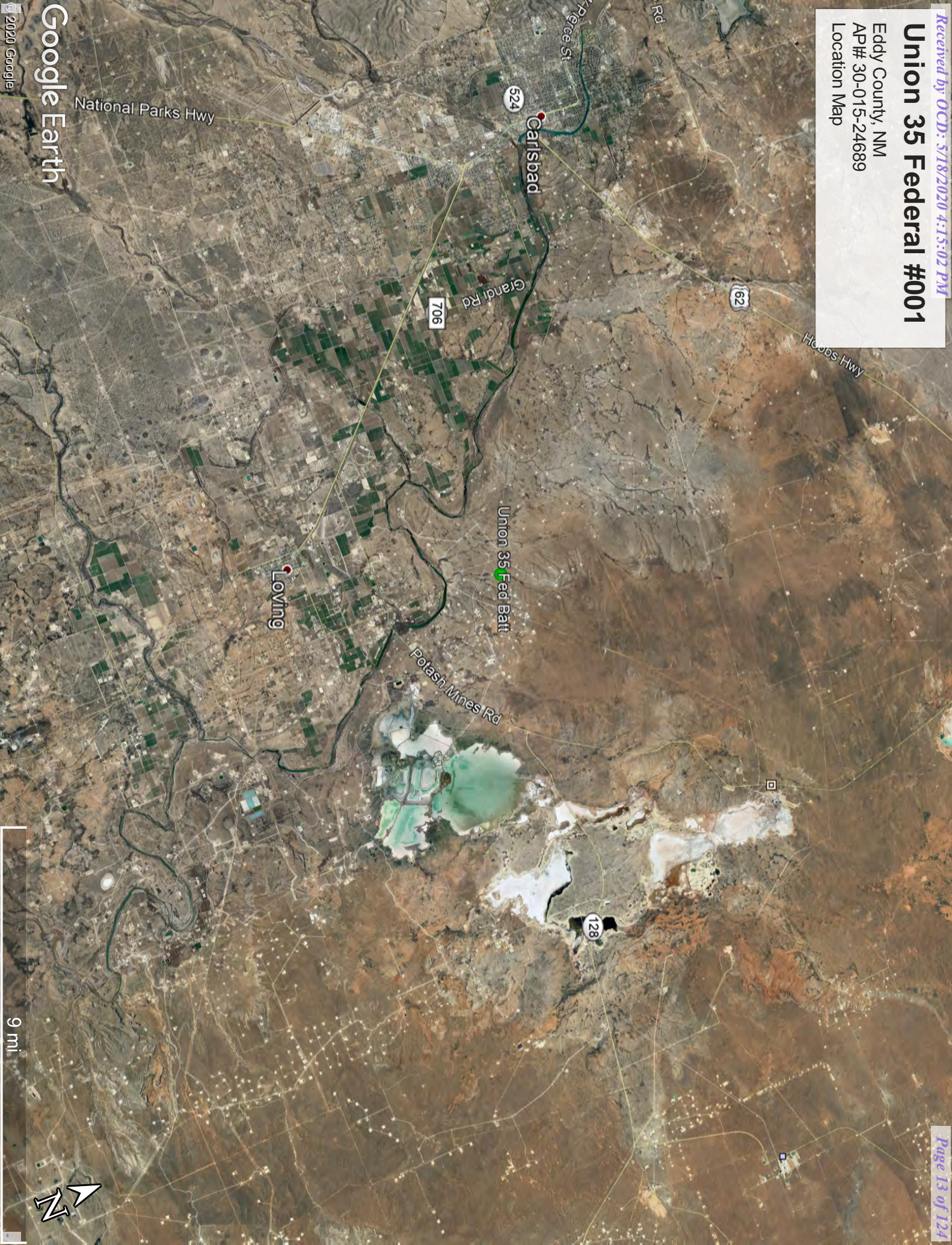
Eddy County, NM  
AP# 30-015-24689  
TOPO Map





# Union 35 Federal #001

Eddy County, NM  
AP# 30-015-24689  
Location Map







## **APPENDIX II**

# **GROUNDWATER DATA**

# **SOIL SURVEY**

# **FEMA FLOOD ZONE**



## New Mexico Office of the State Engineer

# Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,  
O=orphaned,

C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q	Q	Q	Q	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
<u>C 00512 CLW198323</u>	O	CUB	ED	4	1	1	11	23S	28E		588167	3576806*	2987	100		
<u>C 00512 S</u>		CUB	ED	4	1	1	11	23S	28E		588167	3576806*	2987	100		
<u>C 00512</u>		CUB	ED	4	1	1	11	23S	28E		588188	3576775	3019	175	15	160
<u>C 00512 EXPL</u>	O	CUB	ED				1	11	23S	28E	588272	3576703*	3098	200	16	184
<u>C 04216 POD2</u>		CUB	ED	1	4	1	11	23S	28E		588465	3576555	3266	20	10	10
<u>C 04216 POD3</u>		CUB	ED	1	4	1	11	23S	28E		588501	3576556	3271	23	13	10
<u>C 04216 POD1</u>		CUB	ED	2	4	1	11	23S	28E		588488	3576534	3290	20	10	10
<u>C 00109</u>		CUB	ED	1	3	3	04	23S	27E		588486	3576531	3293	168	120	48
<u>C 04216 POD4</u>		CUB	ED	2	4	1	11	23S	28E		588499	3576513	3313	20	10	10
<u>C 00608</u>		C	ED	3	3	1	11	23S	28E		587970	3576401*	3388	200		
<u>C 00315</u>		CUB	ED	3	1	3	11	23S	28E		587973	3575995*	3794	100	45	55
<u>C 00800</u>		C	ED		4	2	09	23S	28E		586050	3576479*	3843	200	30	170
<u>C 00036</u>		CUB	ED	3	3	2	32	22S	28E		583916	3579583*	4092	106		
<u>C 03469 POD1</u>		CUB	ED	3	4	3	11	23S	28E		588374	3575538	4266	68	38	30
<u>C 03469 POD3</u>		CUB	ED	3	4	3	11	23S	28E		588381	3575538	4267	47		
<u>C 03469 POD2</u>		CUB	ED	3	4	3	11	23S	28E		588382	3575506	4299	48		
<u>C 00236</u>		C	ED	2	2	3	32	22S	28E		583723	3579372*	4300	80	39	41
<u>C 00213</u>		CUB	ED	1	4	1	32	22S	28E		583517	3579775*	4486	200	35	165
<u>C 00235</u>		C	ED		2	2	15	23S	28E		587676	3575280*	4521	160		
<u>C 00326</u>		CUB	ED	3	3	3	10	23S	28E		586358	3575572*	4526	130	19	111
<u>C 00326 CLW196238</u>	O	CUB	ED	3	3	3	10	23S	28E		586358	3575572*	4526	196	25	171
<u>C 03094</u>		C	ED	4	3	1	32	22S	28E		583317	3579567*	4691	138	53	85
<u>C 00214</u>		CUB	ED	2	3	3	32	22S	28E		583327	3578962*	4748	200		
<u>C 03184</u>		C	ED	2	3	3	32	22S	28E		583327	3578962*	4748	157	30	127
<u>C 00616</u>		CUB	ED	1	3	1	14	23S	28E		587982	3574978*	4811	120	30	90
<u>C 03460 POD1</u>		CUB	ED	3	1	2	14	23S	28E		588857	3575004	4860	100	38	62
<u>C 01216</u>		CUB	ED	4	1	1	13	23S	28E		589801	3575205*	4924	60	45	15
<u>C 00321</u>		C	ED		4	2	15	23S	28E		587679	3574874*	4926	120		
<u>C 02503</u>		C	ED		4	2	15	23S	28E		587679	3574874*	4926	70	12	58
<u>C 00035</u>		CUB	ED	3	3	3	32	22S	28E		583127	3578762*	4983	146		
<u>C 00212</u>		CUB	ED	3	3	3	32	22S	28E		583127	3578762*	4983	146	30	116
<u>C 00212 CLW193874</u>	O	CUB	ED	3	3	3	32	22S	28E		583127	3578762*	4983			

Average Depth to Water:	31 feet
Minimum Depth:	10 feet
Maximum Depth:	120 feet

**Record Count:**32

**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 588003.177

**Northing (Y):** 3579789.434

**Radius:** 5000

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

4/2/19 2:08 PM

WATER COLUMN/ AVERAGE DEPTH TO  
WATER

Map Unit Description: Simona and Wink fine sandy loams, 0 to 3 percent slopes, eroded---  
Eddy Area, New Mexico

## Eddy Area, New Mexico

### SN—Simona and Wink fine sandy loams, 0 to 3 percent slopes, eroded

#### Map Unit Setting

National map unit symbol: 1w5y  
Elevation: 3,000 to 4,200 feet  
Mean annual precipitation: 10 to 14 inches  
Mean annual air temperature: 60 to 64 degrees F  
Frost-free period: 200 to 220 days  
Farmland classification: Not prime farmland

#### Map Unit Composition

Simona and similar soils: 45 percent  
Wink and similar soils: 40 percent  
Estimates are based on observations, descriptions, and transects of the mapunit.

#### Description of Simona

##### Setting

Landform: Alluvial fans, plains  
Landform position (three-dimensional): Rise  
Down-slope shape: Linear, convex  
Across-slope shape: Linear  
Parent material: Mixed alluvium and/or eolian sands

##### Typical profile

H1 - 0 to 19 inches: fine sandy loam  
H2 - 19 to 23 inches: indurated

##### Properties and qualities

Slope: 0 to 3 percent  
Depth to restrictive feature: 7 to 20 inches to petrocalcic  
Natural drainage class: Well drained  
Runoff class: Very high  
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)  
Depth to water table: More than 80 inches  
Frequency of flooding: None  
Frequency of ponding: None  
Calcium carbonate, maximum in profile: 15 percent  
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
Sodium adsorption ratio, maximum in profile: 1.0  
Available water storage in profile: Very low (about 2.5 inches)

##### Interpretive groups

Land capability classification (irrigated): 4s  
Land capability classification (nonirrigated): 7e  
Hydrologic Soil Group: D





Map Unit Description: Simona and Wink fine sandy loams, 0 to 3 percent slopes, eroded---  
Eddy Area, New Mexico

---

*Ecological site:* Shallow Sandy (R042XC002NM)  
*Hydric soil rating:* No

### Description of Wink

#### Setting

*Landform:* Depressions, swales  
*Landform position (three-dimensional):* Talf  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Mixed alluvium and/or eolian sands

#### Typical profile

*H1 - 0 to 8 inches:* fine sandy loam  
*H2 - 8 to 38 inches:* fine sandy loam  
*H3 - 38 to 60 inches:* stratified gravelly variable

#### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Very low  
*Capacity of the most limiting layer to transmit water (Ksat):* High  
(2.00 to 6.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 30 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0  
to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 1.0  
*Available water storage in profile:* Low (about 6.0 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7e  
*Hydrologic Soil Group:* A  
*Ecological site:* Sandy (R042XC004NM)  
*Hydric soil rating:* No

### Minor Components

#### Dune land

*Percent of map unit:*  
*Hydric soil rating:* No

## Data Source Information

Soil Survey Area: Eddy Area, New Mexico  
Survey Area Data: Version 14, Sep 12, 2018



# National Flood Hazard Layer FIRMette



32°21'20.86"N



## Legend

SEE THIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) Zone A, V, AE9 With BFE or Depth Zone AE, AO, AH, VE, AR Regulatory Floodway
----------------------------	--

0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with draining areas of less than one square mile (Zone X)
Future Conditions 1% Annual Chance Flood Hazard (Zone X)
Area with Reduced Flood Risk due to Levee, See Notes, Zone X
Area with Flood Risk due to Levee (Zone D)

OTHER AREAS OF FLOOD HAZARD	NO SCREEN Area of Minimal Flood Hazard (Zone X)
OTHER AREAS	Effective LOMRs Area of Undetermined Flood Hazard (Zone X)
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer Levee, Dike, or Floodwall

OTHER FEATURES	20.2 17.5 Water Surface Elevation Coastal Transect Base Flood Elevation Line (BFE) Limit of Study Jurisdiction Boundary Coastal Transect Baseline Profile Baseline Hydrographic Feature
----------------	--

MAP PANELS	Digital Data Available No Digital Data Available Unmapped
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The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/9/2019 at 4:19:11 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.





# **APPENDIX III**

**INITIAL C-141**

**&**

**FINAL C-141**



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

**NM OIL CONSERVATION**  
ARTESIA DISTRICT  
MAR 03 2015  
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Form C-141  
Revised August 8, 2011

RECEIVED

## Release Notification and Corrective Action

NAB15016436616 OPERATOR ☒ Initial Report ☐ Final Report

Name of Company: Devon Energy Production	Contact: Roy White
Address: 6488 Seven Rivers Hwy Artesia, NM 88220	Telephone No. 575.513.1741
Facility Name: Union 35 Federal #1 Battery	Facility Type: Oil
Surface Owner: BLM	Mineral Owner: BLM
API No. 30-015-24689	

## LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	35E	22S	28E	1780	FNL	660	FWL	Eddy

Latitude:

Longitude:


## NATURE OF RELEASE

Type of Release Spill Produced water	Volume of Release 117 BBL	Volume Recovered 250 BBL
Source of Release Static electricity caused the water tank to exploded and caught fire	Date and Hour of Occurrence 9.19.2014 at 6:15	Date and Hour of Discovery 9.19.2014 6:20
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD at 7:45 AM BLM at 7:45 AM	
By Whom? Mike McMahan	Date and Hour 9.20.2014 at 7:45	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	
If a Watercourse was Impacted, Describe Fully.*		

Describe Cause of Problem and Remedial Action Taken.\*  
On the Union 35 Fed Tank Battery static electricity caused the produced water tank to explode and catch fire. 117 BBL of produced water spilled in containment and 117 BBL recovered of produced water along with 133 BBL of rain water and water from fire department

Describe Area Affected and Cleanup Action Taken.\* Union 35 Fed Tank Battery. Delaware Basin BU. Assistant Foreman was contacted at 6:15 pm concerning a fire at the Union 35 Battery. Lease operator preceded to the location arriving at 6:30 pm. Upon arrival the produced water tank was completely burnt. The fire department from La Huerta was already on scene and were in the process of extinguishing the fire. Assistant Foreman had arrived and was in the process of shutting in the four pumping units that flow to the battery. The lease operator preceded to shut in the vessels on location. The fire department finished extinguishing the fire and left location. Two vacuum trucks were dispatched to begin the cleanup process. The trucks recovered 250bbls of produced water/rain water.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Jeanette Barron	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jeanette Barron	Approved by Environmental Specialist: 	
Title: Field Admin Support	Approval Date: 3/5/15	Expiration Date: N/A
E-mail Address: Jeanette.barron@dvn.com	Conditions of Approval:	Attached: <input type="checkbox"/>
Date: 9.29.14	Phone: 575.748.1813	

Remediation per O.C.D. Rules & Guidelines  
SUBMIT REMEDIATION PROPOSAL NO  
LATER THAN: 4/6/15

2Rp-2854



District I  
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State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

## NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141  
Revised April 3, 2017

NOV 08 2017  
Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

RECEIVED

## Release Notification and Corrective Action

NAB1732026330

## OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Devon Energy Production Company	Contact	Wesley Ryan, Production Foreman
Address	6488 Seven Rivers Hwy Artesia, NM 88210	Telephone No.	575-390-5436
Facility Name	Union 35 Fed 1	Facility Type	Oil
Surface Owner	Federal	Mineral Owner	Federal
		API No.	30-015-24689

## LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	35	22S	28E	1780'	FNL	660'	FWL	Eddy

Latitude 32.35178 Longitude -104.06430 NAD83

## NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	5.2bbls	Volume Recovered	4bbls
Source of Release	Tanks	Date and Hour of Occurrence	October 26, 2017 @ 10:00 AM MST	Date and Hour of Discovery	October 26, 2017 @ 10:00 AM MST
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Shelly Tucker, BLM Mike Bratcher & Crystal Weaver, OCD		
By Whom?	Wesley Ryan, Production Foreman	Date and Hour	October 27, 2017 @ 6:23 AM MST		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	N/A		
If a Watercourse was Impacted, Describe Fully.* N/A					
Describe Cause of Problem and Remedial Action Taken.* The battery is on a scheduled pick up and the produced water hauler did not pick up a load of water in time. The water tank ran over and released approximately 5.2 bbls of produced water into the dirt containment around the tanks. The release stayed on the location and a vacuum truck began recovery of the released fluids.					
Describe Area Affected and Cleanup Action Taken.* Approximately 5.2bbls produced water was released into the earthen containment. A vacuum truck was dispatched and recovered approximately 4 bbls of produced water. An environmental contractor will be contacted to assist with the delineation and remediation of the well pad surface.					
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.					
Signature: Sheila Fisher		OIL CONSERVATION DIVISION			
Printed Name: Sheila Fisher		Approved by Environmental Specialist: <i>[Signature]</i>			
Title: Field Admin Support		Approval Date: 11/14/17		Expiration Date: N/A	
E-mail Address: Sheila.Fisher@dmv.com		Conditions of Approval:		Attached <input type="checkbox"/>	
Date: 11/2/17 Phone: 575.748.1829		See attached		28P4481	

\* Attach Additional Sheets If Necessary

11/09/17 AB

District I  
1625 N. French Dr., Hobbs, NM 88240  
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State of New Mexico  
Energy Minerals and Natural  
Resources Department

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	
District RP	2RP-5507
Facility ID	
Application ID	pAB1918455511

## Release Notification

### Responsible Party

Responsible Party Devon Energy Production Energy	OGRID 6137
Contact Name Amanda T. Davis	Contact Telephone 575-748-0176
Contact email amanda.davis@dvn.com	Incident # (assigned by OCD)
Contact mailing address 6488 Seven Rivers Hwy	

### Location of Release Source

Latitude 32.3515739 Longitude -104.0647507  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Union 35 Battery #001	Site Type Oil
Date Release Discovered 11/19/2018	API# (if applicable) 3001524689

Unit Letter	Section	Township	Range	County
E	35	22S	28E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 9	Volume Recovered (bbls) 7
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release Water tanks overflowed due to an unusual increase in water production. Spill area 32'x15'x1"



Form C-141

Page 2

State of New Mexico  
Oil Conservation Division

Incident ID	NAB1918455869
District RP	2RP-5507
Facility ID	
Application ID	pAB1918455511

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

**Initial Response**

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: <u>Kendra DeHoyos</u> Title: <u>EHS Associate</u> Signature: <u>Kendra DeHoyos</u> <small>Digitally signed by Kendra DeHoyos DN: cn=Kendra DeHoyos, o=DOH email=kendra.dehoyos@dvn.com, c=US Date: 2018.12.10 16:00:57 -0700</small> Date: <u>12/10/2018</u> email: <u>kendra.dehoyos@dvn.com</u> Telephone: <u>575-748-3371</u>
<b>OCD Only</b> Received by: <u>Amalia Bustamante</u> Date: <u>7/3/2019</u>

District I  
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State of New Mexico  
Energy Minerals and Natural  
Resources Department

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party Marathon Oil Permian LLC	OGRID 372098
Contact Name Melodie Sanjari	Contact Telephone 575-988-8753
Contact email <a href="mailto:msanjari@marathonoil.com">msanjari@marathonoil.com</a>	Incident # (assigned by OCD)
Contact mailing address 4111 S. Tidwell Rd., Carlsbad, NM 8220	

### Location of Release Source

Latitude 32.3474083

Longitude -104.0603409  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Union 35 Federal CTB	Site Type Central Tank Battery
Date Release Discovered 1/27/2020	API# (if applicable) N/A

Unit Letter	Section	Township	Range	County
F	35	22S	28E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 15	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

#### Cause of Release

Release was the result of a tank overflow – tank gauges were used to calculate release volume (attached) . None of the release was able to be recovered but was contained within the berms on the engineered pad.

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### Initial Response

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:  No free liquids upon discovery	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Melodie Sanjari</u>	Title: <u>Environmental Professional</u>
Signature: <u>Melodie Sanjari</u>	Date: <u>2/17/2020</u>
email: <u>msanjari@marathonoil.com</u>	Telephone: <u>575-988-8753</u>
<b><u>OCD Only</u></b>  Received by: _____ Date: _____	

Incident ID	
District RP	
Facility ID	NM-NM19601
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?

15 (ft bgs)

Did this release impact groundwater or surface water?

☐ Yes ☒ No

Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?

☐ Yes ☒ No

Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?

☐ Yes ☒ No

Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?

☐ Yes ☒ No

Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?

☐ Yes ☒ No

Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?

☐ Yes ☒ No

Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?

☐ Yes ☒ No

Are the lateral extents of the release within 300 feet of a wetland?

☐ Yes ☒ No

Are the lateral extents of the release overlying a subsurface mine?

☐ Yes ☒ No

Are the lateral extents of the release overlying an unstable area such as karst geology?

☐ Yes ☒ No

Are the lateral extents of the release within a 100-year floodplain?

☐ Yes ☒ No

Did the release impact areas **not** on an exploration, development, production, or storage site?

☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	NM-NM19601
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Chris Jones

Title: Project Manager

Signature: *Chris Jones*

Date: 4-22-20

email: [cjones@talonlpe.com](mailto:cjones@talonlpe.com)

Telephone: 575-748-8768

**OCD Only**

Received by: \_\_\_\_\_

Date: \_\_\_\_\_



Incident ID	nAB1506436616
District RP	
Facility ID	NM-NM19601
Application ID	

## Remediation Plan

**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Chris Jones

Title: Project Manager

Signature: *Chris Jones*

Date: 4-22-20

email: [cjones@talonlpe.com](mailto:cjones@talonlpe.com)

Telephone: 575-748-8768

**OCD Only**Received by: Cristina Eads Date: 05/18/2020☐ Approved ☐ Approved with Attached Conditions of Approval ☒ Denied ☐ Deferral ApprovedSignature: *Cristina Eads*Date: 06/09/2020

Incident ID	
District RP	
Facility ID	NM-NM19601
Application ID	

## Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their *operations* have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Chris Jones

Title: Project Manager

Signature: *Chris Jones*

Date: 4-22-20

email: [cjones@talonlpe.com](mailto:cjones@talonlpe.com)

Telephone: 575-748-8768

### OCD Only

Received by: \_\_\_\_\_

Date: \_\_\_\_\_

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

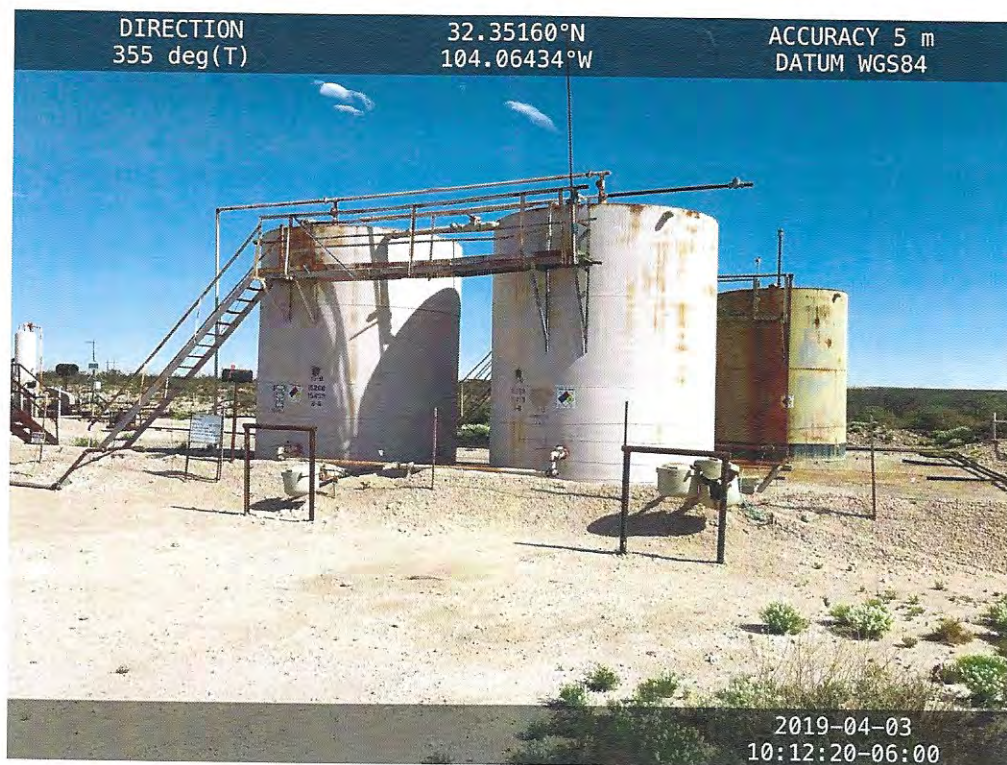


## **APPENDIX IV**

# **PHOTOGRAPHIC DOCUMENTATION**



Before



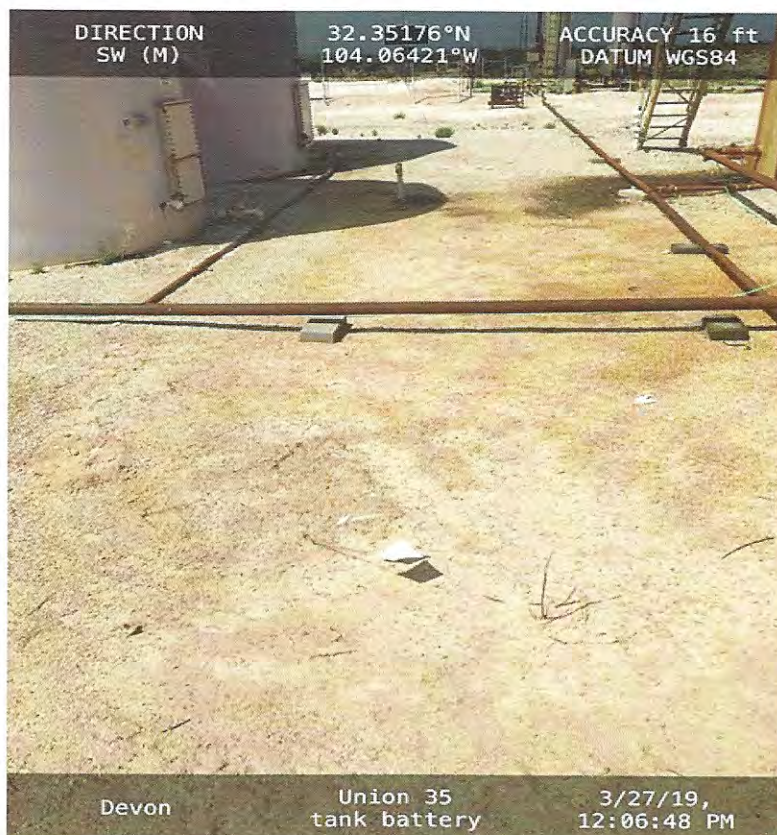
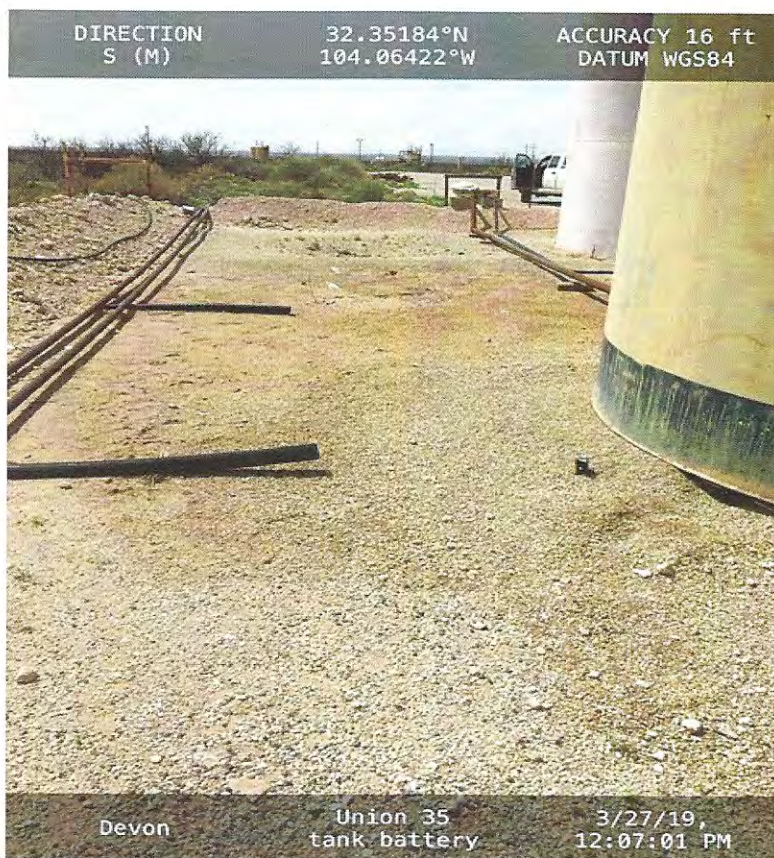










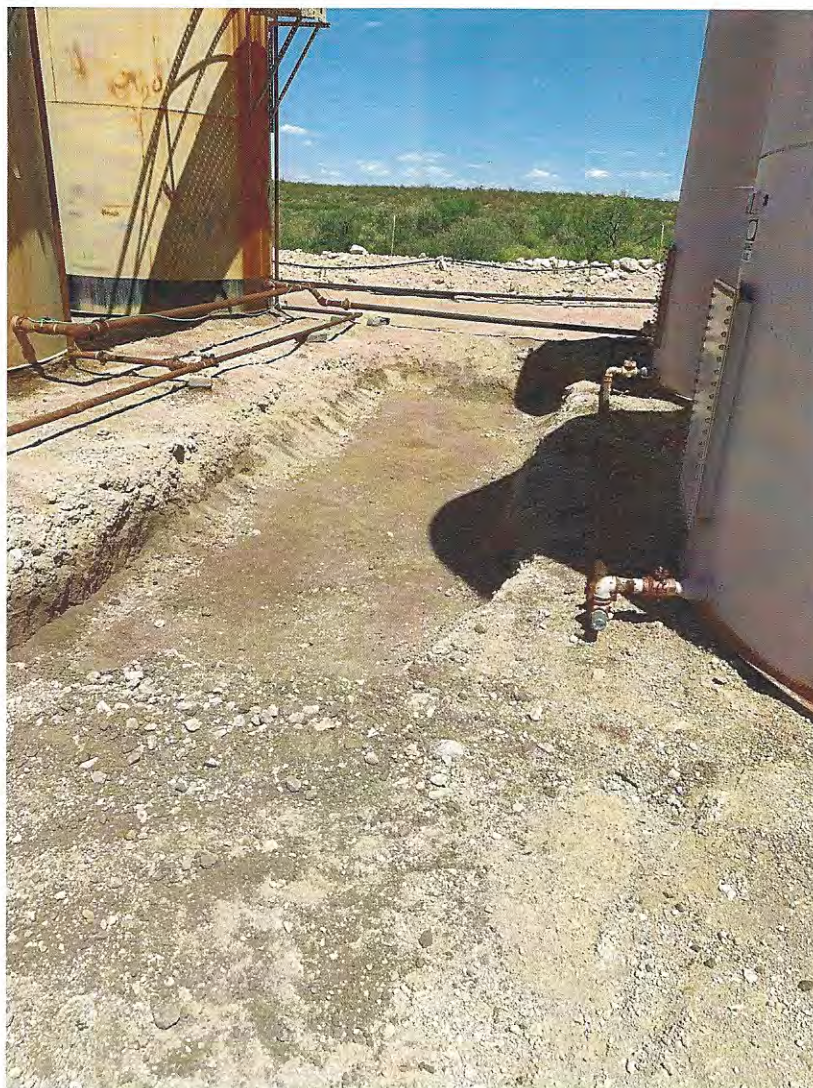




## Excavations







Completed





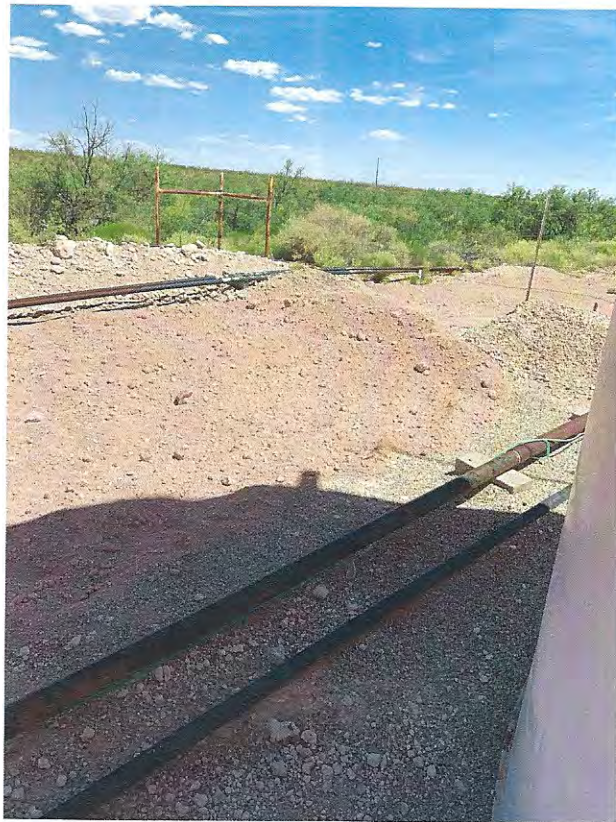






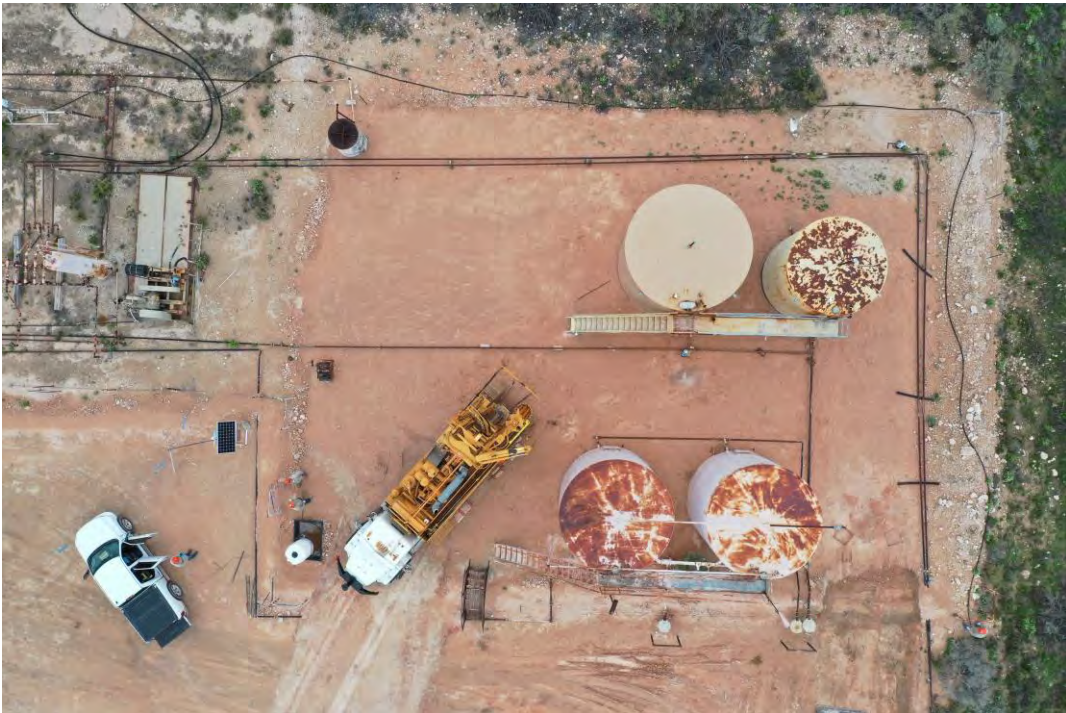








## Boring Samples







## **APPENDIX V**

# **SEEDING LABEL**

**Curtis and Curtis Seed**

CO North Prince  
Phos, NM 88101  
www.ccsseed.com (575) 762-4759

**Talon / LPE LTD**

3 1/2 acres of BLM 1 & 2 Mix, Broadcast Rate  
3 - 1 Acre Bags @ 28.33 Bulk Pounds Each  
1 - 0.50 Acre Bag @ 14.16 Bulk Pounds

Lot# M-152

Item	Origin	Fully	Germ	Dormant	Total Germination	Test Date	Total PLS Pounds
Sand Dropseed Variety Not Stated	Colorado	15.69%	14.00%	76.00%	90.00%	11/17	14.00
Sideoats Grama Niner	Colorado	40.37%	95.00%	0.00%	95.00%	02/18	38.50
Plains Bristlegrass Variety Not Stated	Oklahoma	30.70%	54.00%	38.00%	92.00%	11/17	28.00
Sand Lovegrass Bend	Texas	7.51%	87.00%	7.00%	94.00%	11/17	7.00
Other Crop:	0.09%	There Are 4 Bags For This Mix This Bag Weighs 28.33 Bulk Pounds Use This Bag For 1 Acre			Total Bulk Pounds:		99.15
Weed Seed:	0.10%						
Inert Matter:	3.04%						

Devon Union 35A Fed Best Pit  
700794.279.02





## **APPENDIX VI**

# **LABORATORY DATA**



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

April 22, 2020

David Adkins

Talon LPE

921 N. Bivins

Amarillo, TX 79107-6806

TEL: (806) 467-0607

FAX: (806) 467-0622

RE: Devon Union 35A Fed Battery 1

OrderNo.: 1904364

Dear David Adkins:

Hall Environmental Analysis Laboratory received 16 sample(s) on 4/5/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109



## Analytical Report

Lab Order 1904364

Date Reported: 4/22/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon LPE

Client Sample ID: S-1 0'

Project: Devon Union 35A Fed Battery 1

Collection Date: 4/3/2019 9:30:00 AM

Lab ID: 1904364-001

Matrix: SOIL

Received Date: 4/5/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	400	60		mg/Kg	20	4/11/2019 2:42:28 PM	44293
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>Irm</b>
Diesel Range Organics (DRO)	560	100		mg/Kg	10	4/11/2019 11:58:27 AM	44265
Motor Oil Range Organics (MRO)	4900	500		mg/Kg	10	4/11/2019 11:58:27 AM	44265
Surr: DNOP	0	70-130	S	%Rec	10	4/11/2019 11:58:27 AM	44265
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/11/2019 11:16:27 PM	44225
Surr: BFB	85.8	73.8-119		%Rec	1	4/11/2019 11:16:27 PM	44225
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	4/11/2019 11:16:27 PM	44225
Toluene	ND	0.047		mg/Kg	1	4/11/2019 11:16:27 PM	44225
Ethylbenzene	ND	0.047		mg/Kg	1	4/11/2019 11:16:27 PM	44225
Xylenes, Total	ND	0.095		mg/Kg	1	4/11/2019 11:16:27 PM	44225
Surr: 4-Bromofluorobenzene	84.8	80-120		%Rec	1	4/11/2019 11:16:27 PM	44225

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 1904364

Date Reported: 4/22/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon LPE

Client Sample ID: S-2 0'

Project: Devon Union 35A Fed Battery 1

Collection Date: 4/3/2019 9:40:00 AM

Lab ID: 1904364-002

Matrix: SOIL

Received Date: 4/5/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	2400	60	E	mg/Kg	20	4/11/2019 2:54:52 PM	44293
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>Irm</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/11/2019 4:25:06 PM	44265
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/11/2019 4:25:06 PM	44265
Surr: DNOP	93.0	70-130		%Rec	1	4/11/2019 4:25:06 PM	44265
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/11/2019 11:39:44 PM	44225
Surr: BFB	88.8	73.8-119		%Rec	1	4/11/2019 11:39:44 PM	44225
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	4/11/2019 11:39:44 PM	44225
Toluene	ND	0.046		mg/Kg	1	4/11/2019 11:39:44 PM	44225
Ethylbenzene	ND	0.046		mg/Kg	1	4/11/2019 11:39:44 PM	44225
Xylenes, Total	ND	0.092		mg/Kg	1	4/11/2019 11:39:44 PM	44225
Surr: 4-Bromofluorobenzene	88.7	80-120		%Rec	1	4/11/2019 11:39:44 PM	44225

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



## Analytical Report

Lab Order 1904364

Date Reported: 4/22/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon LPE

Client Sample ID: S-2 1'

Project: Devon Union 35A Fed Battery 1

Collection Date: 4/3/2019 9:45:00 AM

Lab ID: 1904364-003

Matrix: SOIL

Received Date: 4/5/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	1100	60		mg/Kg	20	4/11/2019 3:32:05 PM	44293
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>Irm</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/11/2019 4:49:36 PM	44265
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/11/2019 4:49:36 PM	44265
Surr: DNOP	98.9	70-130		%Rec	1	4/11/2019 4:49:36 PM	44265
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/12/2019 12:03:08 AM	44225
Surr: BFB	92.1	73.8-119		%Rec	1	4/12/2019 12:03:08 AM	44225
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	4/12/2019 12:03:08 AM	44225
Toluene	ND	0.047		mg/Kg	1	4/12/2019 12:03:08 AM	44225
Ethylbenzene	ND	0.047		mg/Kg	1	4/12/2019 12:03:08 AM	44225
Xylenes, Total	ND	0.094		mg/Kg	1	4/12/2019 12:03:08 AM	44225
Surr: 4-Bromofluorobenzene	91.6	80-120		%Rec	1	4/12/2019 12:03:08 AM	44225

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 1904364

Date Reported: 4/22/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon LPE

Client Sample ID: S-2 2'

Project: Devon Union 35A Fed Battery 1

Collection Date: 4/3/2019 9:50:00 AM

Lab ID: 1904364-004

Matrix: SOIL

Received Date: 4/5/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	490	59		mg/Kg	20	4/11/2019 3:44:30 PM	44293
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>Irm</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/12/2019 11:33:42 AM	44265
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/12/2019 11:33:42 AM	44265
Surr: DNOP	89.7	70-130		%Rec	1	4/12/2019 11:33:42 AM	44265
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/12/2019 12:26:47 AM	44225
Surr: BFB	89.4	73.8-119		%Rec	1	4/12/2019 12:26:47 AM	44225
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	4/12/2019 12:26:47 AM	44225
Toluene	ND	0.048		mg/Kg	1	4/12/2019 12:26:47 AM	44225
Ethylbenzene	ND	0.048		mg/Kg	1	4/12/2019 12:26:47 AM	44225
Xylenes, Total	ND	0.097		mg/Kg	1	4/12/2019 12:26:47 AM	44225
Surr: 4-Bromofluorobenzene	88.8	80-120		%Rec	1	4/12/2019 12:26:47 AM	44225

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



## Analytical Report

Lab Order 1904364

Date Reported: 4/22/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon LPE

Client Sample ID: S-3 0'

Project: Devon Union 35A Fed Battery 1

Collection Date: 4/3/2019 10:10:00 AM

Lab ID: 1904364-007

Matrix: SOIL

Received Date: 4/5/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	59		mg/Kg	20	4/11/2019 4:21:43 PM	44293
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>Irm</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/12/2019 12:39:48 PM	44265
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/12/2019 12:39:48 PM	44265
Surr: DNOP	68.0	70-130	S	%Rec	1	4/12/2019 12:39:48 PM	44265
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/12/2019 1:37:19 AM	44225
Surr: BFB	92.6	73.8-119		%Rec	1	4/12/2019 1:37:19 AM	44225
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	4/12/2019 1:37:19 AM	44225
Toluene	ND	0.049		mg/Kg	1	4/12/2019 1:37:19 AM	44225
Ethylbenzene	ND	0.049		mg/Kg	1	4/12/2019 1:37:19 AM	44225
Xylenes, Total	ND	0.097		mg/Kg	1	4/12/2019 1:37:19 AM	44225
Surr: 4-Bromofluorobenzene	92.1	80-120		%Rec	1	4/12/2019 1:37:19 AM	44225

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 1904364

Date Reported: 4/22/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon LPE

Client Sample ID: S-3 1'

Project: Devon Union 35A Fed Battery 1

Collection Date: 4/3/2019 10:15:00 AM

Lab ID: 1904364-008

Matrix: SOIL

Received Date: 4/5/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	4/11/2019 4:34:07 PM	44293
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>Irm</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/12/2019 1:04:04 PM	44265
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/12/2019 1:04:04 PM	44265
Surr: DNOP	82.8	70-130		%Rec	1	4/12/2019 1:04:04 PM	44265
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/12/2019 2:00:50 AM	44225
Surr: BFB	89.2	73.8-119		%Rec	1	4/12/2019 2:00:50 AM	44225
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	4/12/2019 2:00:50 AM	44225
Toluene	ND	0.048		mg/Kg	1	4/12/2019 2:00:50 AM	44225
Ethylbenzene	ND	0.048		mg/Kg	1	4/12/2019 2:00:50 AM	44225
Xylenes, Total	ND	0.097		mg/Kg	1	4/12/2019 2:00:50 AM	44225
Surr: 4-Bromofluorobenzene	87.7	80-120		%Rec	1	4/12/2019 2:00:50 AM	44225

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



## Analytical Report

Lab Order 1904364

Date Reported: 4/22/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon LPE

Client Sample ID: S-4 0'

Project: Devon Union 35A Fed Battery 1

Collection Date: 4/3/2019 10:25:00 AM

Lab ID: 1904364-009

Matrix: SOIL

Received Date: 4/5/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	4/11/2019 4:46:32 PM	44293
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>Irm</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/12/2019 1:26:10 PM	44265
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/12/2019 1:26:10 PM	44265
Surr: DNOP	83.2	70-130		%Rec	1	4/12/2019 1:26:10 PM	44265
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/12/2019 2:47:49 AM	44225
Surr: BFB	93.0	73.8-119		%Rec	1	4/12/2019 2:47:49 AM	44225
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	4/12/2019 2:47:49 AM	44225
Toluene	ND	0.047		mg/Kg	1	4/12/2019 2:47:49 AM	44225
Ethylbenzene	ND	0.047		mg/Kg	1	4/12/2019 2:47:49 AM	44225
Xylenes, Total	ND	0.093		mg/Kg	1	4/12/2019 2:47:49 AM	44225
Surr: 4-Bromofluorobenzene	92.8	80-120		%Rec	1	4/12/2019 2:47:49 AM	44225

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 1904364

Date Reported: 4/22/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon LPE

Client Sample ID: S-4 1'

Project: Devon Union 35A Fed Battery 1

Collection Date: 4/3/2019 10:30:00 AM

Lab ID: 1904364-010

Matrix: SOIL

Received Date: 4/5/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	4/11/2019 4:58:57 PM	44293
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>Irm</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/12/2019 11:05:56 AM	44265
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/12/2019 11:05:56 AM	44265
Surr: DNOP	112	70-130		%Rec	1	4/12/2019 11:05:56 AM	44265
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/12/2019 3:11:25 AM	44225
Surr: BFB	88.8	73.8-119		%Rec	1	4/12/2019 3:11:25 AM	44225
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	4/12/2019 3:11:25 AM	44225
Toluene	ND	0.047		mg/Kg	1	4/12/2019 3:11:25 AM	44225
Ethylbenzene	ND	0.047		mg/Kg	1	4/12/2019 3:11:25 AM	44225
Xylenes, Total	ND	0.093		mg/Kg	1	4/12/2019 3:11:25 AM	44225
Surr: 4-Bromofluorobenzene	87.8	80-120		%Rec	1	4/12/2019 3:11:25 AM	44225

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 1904364

Date Reported: 4/22/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon LPE

Client Sample ID: S-5 0'

Project: Devon Union 35A Fed Battery 1

Collection Date: 4/3/2019 10:45:00 AM

Lab ID: 1904364-011

Matrix: SOIL

Received Date: 4/5/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	4/11/2019 5:11:22 PM	44293
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>Irm</b>
Diesel Range Organics (DRO)	61	9.9		mg/Kg	1	4/12/2019 11:30:55 AM	44265
Motor Oil Range Organics (MRO)	200	50		mg/Kg	1	4/12/2019 11:30:55 AM	44265
Surr: DNOP	85.7	70-130		%Rec	1	4/12/2019 11:30:55 AM	44265
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/12/2019 3:34:43 AM	44225
Surr: BFB	88.5	73.8-119		%Rec	1	4/12/2019 3:34:43 AM	44225
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	4/12/2019 3:34:43 AM	44225
Toluene	ND	0.048		mg/Kg	1	4/12/2019 3:34:43 AM	44225
Ethylbenzene	ND	0.048		mg/Kg	1	4/12/2019 3:34:43 AM	44225
Xylenes, Total	ND	0.096		mg/Kg	1	4/12/2019 3:34:43 AM	44225
Surr: 4-Bromofluorobenzene	87.9	80-120		%Rec	1	4/12/2019 3:34:43 AM	44225

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



## Analytical Report

Lab Order 1904364

Date Reported: 4/22/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon LPE

Client Sample ID: S-6 0'

Project: Devon Union 35A Fed Battery 1

Collection Date: 4/3/2019 10:55:00 AM

Lab ID: 1904364-012

Matrix: SOIL

Received Date: 4/5/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	69	60		mg/Kg	20	4/11/2019 5:23:46 PM	44293
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>Irm</b>
Diesel Range Organics (DRO)	2300	500		mg/Kg	50	4/11/2019 1:11:32 PM	44265
Motor Oil Range Organics (MRO)	4000	2500		mg/Kg	50	4/11/2019 1:11:32 PM	44265
Surr: DNOP	0	70-130	S	%Rec	50	4/11/2019 1:11:32 PM	44265
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/12/2019 3:58:14 AM	44225
Surr: BFB	85.4	73.8-119		%Rec	1	4/12/2019 3:58:14 AM	44225
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	4/12/2019 3:58:14 AM	44225
Toluene	ND	0.046		mg/Kg	1	4/12/2019 3:58:14 AM	44225
Ethylbenzene	ND	0.046		mg/Kg	1	4/12/2019 3:58:14 AM	44225
Xylenes, Total	ND	0.093		mg/Kg	1	4/12/2019 3:58:14 AM	44225
Surr: 4-Bromofluorobenzene	84.6	80-120		%Rec	1	4/12/2019 3:58:14 AM	44225

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 1904364

Date Reported: 4/22/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon LPE

Client Sample ID: S-7 0'

Project: Devon Union 35A Fed Battery 1

Collection Date: 4/3/2019 11:10:00 AM

Lab ID: 1904364-013

Matrix: SOIL

Received Date: 4/5/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: MRA
Chloride	ND	60		mg/Kg	20	4/11/2019 6:00:59 PM	44293
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/11/2019 4:18:29 PM	44226
Surr: BFB	103	70-130		%Rec	1	4/11/2019 4:18:29 PM	44226
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: Irm
Diesel Range Organics (DRO)	1800	98		mg/Kg	10	4/11/2019 1:50:24 PM	44265
Motor Oil Range Organics (MRO)	3200	490		mg/Kg	10	4/11/2019 1:50:24 PM	44265
Surr: DNOP	0	70-130	S	%Rec	10	4/11/2019 1:50:24 PM	44265
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	4/11/2019 4:18:29 PM	44226
Toluene	ND	0.050		mg/Kg	1	4/11/2019 4:18:29 PM	44226
Ethylbenzene	ND	0.050		mg/Kg	1	4/11/2019 4:18:29 PM	44226
Xylenes, Total	ND	0.10		mg/Kg	1	4/11/2019 4:18:29 PM	44226
Surr: 1,2-Dichloroethane-d4	83.1	70-130		%Rec	1	4/11/2019 4:18:29 PM	44226
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	4/11/2019 4:18:29 PM	44226
Surr: Dibromofluoromethane	89.8	70-130		%Rec	1	4/11/2019 4:18:29 PM	44226
Surr: Toluene-d8	94.6	70-130		%Rec	1	4/11/2019 4:18:29 PM	44226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 1904364

Date Reported: 4/22/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon LPE

Client Sample ID: S-8 0'

Project: Devon Union 35A Fed Battery 1

Collection Date: 4/3/2019 11:20:00 AM

Lab ID: 1904364-014

Matrix: SOIL

Received Date: 4/5/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: MRA
Chloride	19000	1500		mg/Kg	500	4/12/2019 10:11:06 AM	44293
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/11/2019 5:44:29 PM	44226
Surr: BFB	102	70-130		%Rec	1	4/11/2019 5:44:29 PM	44226
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: Irm
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/12/2019 11:55:06 AM	44265
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/12/2019 11:55:06 AM	44265
Surr: DNOP	109	70-130		%Rec	1	4/12/2019 11:55:06 AM	44265
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	4/11/2019 5:44:29 PM	44226
Toluene	ND	0.048		mg/Kg	1	4/11/2019 5:44:29 PM	44226
Ethylbenzene	ND	0.048		mg/Kg	1	4/11/2019 5:44:29 PM	44226
Xylenes, Total	ND	0.096		mg/Kg	1	4/11/2019 5:44:29 PM	44226
Surr: 1,2-Dichloroethane-d4	82.1	70-130		%Rec	1	4/11/2019 5:44:29 PM	44226
Surr: 4-Bromofluorobenzene	99.0	70-130		%Rec	1	4/11/2019 5:44:29 PM	44226
Surr: Dibromofluoromethane	87.8	70-130		%Rec	1	4/11/2019 5:44:29 PM	44226
Surr: Toluene-d8	94.2	70-130		%Rec	1	4/11/2019 5:44:29 PM	44226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



## Analytical Report

Lab Order 1904364

Date Reported: 4/22/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon LPE

Client Sample ID: S-9 0'

Project: Devon Union 35A Fed Battery 1

Collection Date: 4/3/2019 11:30:00 AM

Lab ID: 1904364-015

Matrix: SOIL

Received Date: 4/5/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: MRA
Chloride	ND	60		mg/Kg	20	4/11/2019 6:25:48 PM	44293
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/11/2019 7:10:16 PM	44226
Surr: BFB	103	70-130		%Rec	1	4/11/2019 7:10:16 PM	44226
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: Irm
Diesel Range Organics (DRO)	16	9.6		mg/Kg	1	4/12/2019 12:19:26 PM	44265
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/12/2019 12:19:26 PM	44265
Surr: DNOP	101	70-130		%Rec	1	4/12/2019 12:19:26 PM	44265
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: RAA
Benzene	ND	0.023		mg/Kg	1	4/11/2019 7:10:16 PM	44226
Toluene	ND	0.046		mg/Kg	1	4/11/2019 7:10:16 PM	44226
Ethylbenzene	ND	0.046		mg/Kg	1	4/11/2019 7:10:16 PM	44226
Xylenes, Total	ND	0.093		mg/Kg	1	4/11/2019 7:10:16 PM	44226
Surr: 1,2-Dichloroethane-d4	85.8	70-130		%Rec	1	4/11/2019 7:10:16 PM	44226
Surr: 4-Bromofluorobenzene	97.6	70-130		%Rec	1	4/11/2019 7:10:16 PM	44226
Surr: Dibromofluoromethane	90.7	70-130		%Rec	1	4/11/2019 7:10:16 PM	44226
Surr: Toluene-d8	94.5	70-130		%Rec	1	4/11/2019 7:10:16 PM	44226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 1904364

Date Reported: 4/22/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon LPE

Client Sample ID: S-10 0'

Project: Devon Union 35A Fed Battery 1

Collection Date: 4/3/2019 11:40:00 AM

Lab ID: 1904364-016

Matrix: SOIL

Received Date: 4/5/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: MRA
Chloride	2100	60		mg/Kg	20	4/11/2019 6:38:12 PM	44293
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	120	24		mg/Kg	5	4/11/2019 7:38:56 PM	44226
Surr: BFB	105	70-130		%Rec	5	4/11/2019 7:38:56 PM	44226
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: Irm
Diesel Range Organics (DRO)	28000	390		mg/Kg	40	4/11/2019 9:41:22 PM	44265
Motor Oil Range Organics (MRO)	20000	2000		mg/Kg	40	4/11/2019 9:41:22 PM	44265
Surr: DNOP	0	70-130	S	%Rec	40	4/11/2019 9:41:22 PM	44265
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: RAA
Benzene	ND	0.12		mg/Kg	5	4/11/2019 7:38:56 PM	44226
Toluene	ND	0.24		mg/Kg	5	4/11/2019 7:38:56 PM	44226
Ethylbenzene	ND	0.24		mg/Kg	5	4/11/2019 7:38:56 PM	44226
Xylenes, Total	0.69	0.48		mg/Kg	5	4/11/2019 7:38:56 PM	44226
Surr: 1,2-Dichloroethane-d4	83.7	70-130		%Rec	5	4/11/2019 7:38:56 PM	44226
Surr: 4-Bromofluorobenzene	95.4	70-130		%Rec	5	4/11/2019 7:38:56 PM	44226
Surr: Dibromofluoromethane	87.7	70-130		%Rec	5	4/11/2019 7:38:56 PM	44226
Surr: Toluene-d8	93.5	70-130		%Rec	5	4/11/2019 7:38:56 PM	44226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**WO#: **1904364****22-Apr-20****Client:** Talon LPE**Project:** Devon Union 35A Fed Battery 1

Sample ID: <b>MB-44293</b>	SampType: <b>mbk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>44293</b>	RunNo: <b>59095</b>								
Prep Date: <b>4/11/2019</b>	Analysis Date: <b>4/11/2019</b>	SeqNo: <b>1989134</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-44293</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>44293</b>	RunNo: <b>59095</b>								
Prep Date: <b>4/11/2019</b>	Analysis Date: <b>4/11/2019</b>	SeqNo: <b>1989135</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.3	90	110			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**WO#: **1904364****22-Apr-20**

**Client:** Talon LPE  
**Project:** Devon Union 35A Fed Battery 1

Sample ID: <b>LCS-44265</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>44265</b>			RunNo: <b>59065</b>						
Prep Date: <b>4/10/2019</b>	Analysis Date: <b>4/11/2019</b>			SeqNo: <b>1988542</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.7	63.9	124			
Surr: DNOP	4.6		5.000		91.2	70	130			

Sample ID: <b>MB-44265</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>PBS</b>	Batch ID: <b>44265</b>			RunNo: <b>59065</b>						
Prep Date: <b>4/10/2019</b>	Analysis Date: <b>4/11/2019</b>			SeqNo: <b>1988543</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.6		10.00		95.5	70	130			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**WO#: **1904364****22-Apr-20**

**Client:** Talon LPE  
**Project:** Devon Union 35A Fed Battery 1

Sample ID: <b>MB-44225</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>44225</b>	RunNo: <b>59087</b>								
Prep Date: <b>4/9/2019</b>	Analysis Date: <b>4/11/2019</b>	SeqNo: <b>1988763</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	900		1000		89.9	73.8	119			

Sample ID: <b>LCS-44225</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>44225</b>	RunNo: <b>59087</b>								
Prep Date: <b>4/9/2019</b>	Analysis Date: <b>4/11/2019</b>	SeqNo: <b>1988764</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	80.1	123			
Surr: BFB	1000		1000		103	73.8	119			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**WO#: **1904364**

22-Apr-20

**Client:** Talon LPE  
**Project:** Devon Union 35A Fed Battery 1

Sample ID: <b>MB-44225</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>44225</b>	RunNo: <b>59087</b>								
Prep Date: <b>4/9/2019</b>	Analysis Date: <b>4/11/2019</b>	SeqNo: <b>1988810</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		89.6	80	120			

Sample ID: <b>LCS-44225</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>44225</b>	RunNo: <b>59087</b>								
Prep Date: <b>4/9/2019</b>	Analysis Date: <b>4/11/2019</b>	SeqNo: <b>1988811</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	90.7	80	120			
Toluene	0.94	0.050	1.000	0	94.5	80	120			
Ethylbenzene	0.94	0.050	1.000	0	93.5	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.5	80	120			
Surr: 4-Bromofluorobenzene	0.90		1.000		89.6	80	120			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**WO#: **1904364**

22-Apr-20

**Client:** Talon LPE**Project:** Devon Union 35A Fed Battery 1

Sample ID: <b>1904364-014ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>S-8 0'</b>	Batch ID: <b>44226</b>	RunNo: <b>59108</b>								
Prep Date: <b>4/9/2019</b>	Analysis Date: <b>4/11/2019</b>	SeqNo: <b>1989651</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.024	0.9515	0	87.7	68.9	131			
Toluene	1.0	0.048	0.9515	0	108	64.3	137			
Ethylbenzene	1.1	0.048	0.9515	0	111	70	130			
Xylenes, Total	3.2	0.095	2.854	0	112	70	130			
Surr: 1,2-Dichloroethane-d4	0.39		0.4757		82.8	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.4757		98.9	70	130			
Surr: Dibromofluoromethane	0.41		0.4757		87.0	70	130			
Surr: Toluene-d8	0.44		0.4757		91.9	70	130			

Sample ID: <b>1904364-014amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>S-8 0'</b>	Batch ID: <b>44226</b>	RunNo: <b>59108</b>								
Prep Date: <b>4/9/2019</b>	Analysis Date: <b>4/11/2019</b>	SeqNo: <b>1989652</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.024	0.9681	0	86.0	68.9	131	0.276	20	
Toluene	1.0	0.048	0.9681	0	105	64.3	137	0.989	20	
Ethylbenzene	1.1	0.048	0.9681	0	109	70	130	0.0922	0	
Xylenes, Total	3.1	0.097	2.904	0	108	70	130	1.97	0	
Surr: 1,2-Dichloroethane-d4	0.41		0.4840		83.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.50		0.4840		102	70	130	0	0	
Surr: Dibromofluoromethane	0.44		0.4840		91.5	70	130	0	0	
Surr: Toluene-d8	0.46		0.4840		94.4	70	130	0	0	

Sample ID: <b>lcs-44226</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>44226</b>	RunNo: <b>59108</b>								
Prep Date: <b>4/9/2019</b>	Analysis Date: <b>4/11/2019</b>	SeqNo: <b>1989810</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.80	0.025	1.000	0	80.2	70	130			
Toluene	0.97	0.050	1.000	0	96.9	70	130			
Ethylbenzene	0.98	0.050	1.000	0	97.9	70	130			
Xylenes, Total	2.9	0.10	3.000	0	98.2	70	130			
Surr: 1,2-Dichloroethane-d4	0.42		0.5000		83.3	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.8	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		89.9	70	130			
Surr: Toluene-d8	0.46		0.5000		92.9	70	130			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**WO#: **1904364**

22-Apr-20

**Client:** Talon LPE  
**Project:** Devon Union 35A Fed Battery 1

Sample ID: <b>mb-44226</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>44226</b>	RunNo: <b>59108</b>								
Prep Date: <b>4/9/2019</b>	Analysis Date: <b>4/11/2019</b>	SeqNo: <b>1989811</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.42		0.5000		83.9	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.9	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		90.5	70	130			
Surr: Toluene-d8	0.47		0.5000		94.7	70	130			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**WO#: **1904364**

22-Apr-20

**Client:** Talon LPE  
**Project:** Devon Union 35A Fed Battery 1

Sample ID: <b>1904364-013ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>S-7 0'</b>	Batch ID: <b>44226</b>	RunNo: <b>59108</b>								
Prep Date: <b>4/9/2019</b>	Analysis Date: <b>4/11/2019</b>	SeqNo: <b>1989683</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.7	23.74	0	88.9	68.2	135			
Surr: BFB	500		474.8		105	70	130			

Sample ID: <b>1904364-013amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>S-7 0'</b>	Batch ID: <b>44226</b>	RunNo: <b>59108</b>								
Prep Date: <b>4/9/2019</b>	Analysis Date: <b>4/11/2019</b>	SeqNo: <b>1989684</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.6	22.98	0	90.0	68.2	135	2.11	20	
Surr: BFB	490		459.6		107	70	130	0	0	

Sample ID: <b>lcs-44226</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>44226</b>	RunNo: <b>59108</b>								
Prep Date: <b>4/9/2019</b>	Analysis Date: <b>4/11/2019</b>	SeqNo: <b>1989690</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	70	130			
Surr: BFB	520		500.0		103	70	130			

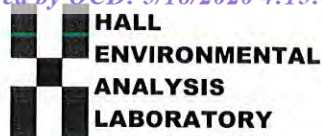
Sample ID: <b>mb-44226</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>44226</b>	RunNo: <b>59108</b>								
Prep Date: <b>4/9/2019</b>	Analysis Date: <b>4/11/2019</b>	SeqNo: <b>1989692</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	500		500.0		100	70	130			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: Talon LPE

Work Order Number: 1904364

RcptNo: 1

Received By: Yazmine Garduno

4/5/2019 8:45:00 AM

Completed By: Leah Baca

4/5/2019 11:25:05 AM

Reviewed By: DAD 4/5/19

Labeled by TO 4/5/19

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

### Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒ TO
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved bottles checked for pH: 4/5/19  
( $<2$  or  $>12$  unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

### Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
By Whom: \_\_\_\_\_ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person  
Regarding: \_\_\_\_\_  
Client Instructions: \_\_\_\_\_

16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good	Yes			
2	2.4	Good	Yes			



HALL ENVIRONMENTAL  
ANALYSIS LABORATORY

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

Chain-of-Custody Record			
Client: <u>Tolan / LPE</u>			
Mailing Address: <u>408 W Texas Ave</u> <u>Artesia, NM 88210</u> Phone #: <u>575-631-6977</u> email or Fax#: _____			
QA/QC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)			
Accreditation <input type="checkbox"/> NELAP <input type="checkbox"/> Other _____			
<input type="checkbox"/> EDD (Type) _____			
Date	Time	Matrix	Sample Request ID
11/3/19	9:30	soil	S-1 0'
	9:40		S-2 0'
	9:45		S-2 1'
	9:50		S-2 2'
	9:55		S-2 3'
	10:00		S-2 4'
	10:10		S-3 0'
	10:15		S-3 1'
	10:25		S-4 0'
	10:30		S-4 1'
	10:45		S-5 0'
	10:55		S-6 0'
Date:	Time:	Relinquished by:	Relinquished by:
		<u>Bar Li</u>	<u>Bar Li</u>
Date:	Time:	Relinquished by:	Relinquished by:

Turn-Around Time:	
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Rush
Project Name: _____	
Project #: <u>Devon Union 35A Fed Battery #1</u> <u>small</u> <u>coolen</u>	
Project Manager: _____	
Sample: <u>David Adkins</u> On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Temperature: <u>4°C, 2.4°C</u>	
Container Type and #	Preservative Type
<u>402 jar</u>	<u>ice</u>
	HEAL No. <u>1904564</u>
	<u>-001</u>
	<u>-002</u>
	<u>-003</u>
	<u>-004</u>
	<u>-005</u>
	<u>-006</u>
	<u>-007</u>
	<u>-008</u>
	<u>-009</u>
	<u>-010</u>
	<u>-011</u>
	<u>-012</u>
Received by:	Date Time
<u>H. Adkins</u>	<u>4-4-19 2pm</u>
Received by:	Date Time
<u>Alles maver</u>	<u>11/5/19 5:00</u>

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.







# Analytical Report 625608

for  
**Talon/LPE Co.**

**Project Manager: David Adkins**

**Union 35A Fed Batt**

**700794.279.01**

**29-MAY-19**

Collected By: Client



**1211 W. Florida Ave  
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Atlanta (LELAP Lab ID #04176)

Xenco-Tampa: Florida (E87429), North Carolina (483)



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29-MAY-19

Project Manager: **David Adkins**  
**Talon/LPE Co.**  
921 N Bivins St  
Amarillo, TX 79107

Reference: XENCO Report No(s): **625608**  
**Union 35A Fed Batt**  
Project Address:

**David Adkins:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 625608. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 625608 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is fluid and cursive, with the first name 'Jessica' being more prominent than the last name 'Kramer'.

**Jessica Kramer**  
Project Assistant

*Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.*

*Certified and approved by numerous States and Agencies.*

*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

*Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America*



**CASE NARRATIVE***Client Name: Talon/LPE Co.**Project Name: Union 35A Fed Batt*

Project ID: 700794.279.01

Work Order Number(s): 625608

Report Date: 29-MAY-19

Date Received: 05/28/2019

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

**Sample receipt non conformances and comments:**

None

**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-3090378 Chloride by EPA 300

Lab Sample ID 625614-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 625608-001, -006, -007.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3090497 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered below QC limits. Matrix interferences is suspected.

Samples affected are: 625608-005, 625608-004.

**Sample Cross Reference 625608****Talon/LPE Co., Amarillo, TX**

Union 35A Fed Batt

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S-2A Composite	S	05-17-19 12:00		625608-001
S-1A Composite	S	05-24-19 10:30		625608-002
S-5A Composite	S	05-24-19 10:45		625608-003
S-6A Composite	S	05-24-19 11:00		625608-004
S-7A Composite	S	05-24-19 11:10		625608-005
S-8A Composite	S	05-24-19 11:20		625608-006
S-10 A 0.5'	S	05-24-19 11:30		625608-007



# Certificate of Analytical Results

## 625608



**Talon/LPE Co., Amarillo, TX**  
Union 35A Fed Batt

Sample Id: **S-2A Composite**

Matrix: Soil

Sample Depth:

Lab Sample Id: 625608-001

Date Collected: 05.17.19 12.00

Date Received: 05.28.19 07.36

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst: CHE

% Moist:

Tech: CHE

Seq Number: 3090378

Date Prep: 05.28.19 12.40

Prep seq: 7678646

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	749	5.00	0.858	mg/kg	05.28.19 13:23	X	1

Sample Id: **S-1A Composite**

Matrix: Soil

Sample Depth:

Lab Sample Id: 625608-002

Date Collected: 05.24.19 10.30

Date Received: 05.28.19 07.36

Analytical Method: TPH by SW8015 Mod

Prep Method: 1005

Analyst: ARM

% Moist:

Tech: ARM

Seq Number: 3090497

Date Prep: 05.28.19 15.00

Prep seq: 7678780

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	12.4	15.0	7.99	mg/kg	05.29.19 02:12	J	1
Diesel Range Organics (DRO)	C10C28DRO	12.8	15.0	8.11	mg/kg	05.29.19 02:12	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<8.11	15.0	8.11	mg/kg	05.29.19 02:12	U	1
Total TPH	PHC635	25.2		7.99	mg/kg	05.29.19 02:12		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	99	70 - 135	%		
o-Terphenyl	81	70 - 135	%		





# Certificate of Analytical Results

## 625608



**Talon/LPE Co., Amarillo, TX**  
Union 35A Fed Batt

Sample Id: **S-5A Composite**

Matrix: Soil

Sample Depth:

Lab Sample Id: 625608-003

Date Collected: 05.24.19 10.45

Date Received: 05.28.19 07.36

Analytical Method: TPH by SW8015 Mod

Prep Method: 1005

Analyst: ARM

% Moist:

Tech: ARM

Seq Number: 3090497

Date Prep: 05.28.19 15.00

Prep seq: 7678780

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	14.0	14.9	7.97	mg/kg	05.29.19 02:37	J	1
Diesel Range Organics (DRO)	C10C28DRO	173	14.9	8.10	mg/kg	05.29.19 02:37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	37.3	14.9	8.10	mg/kg	05.29.19 02:37		1
Total TPH	PHC635	224		7.97	mg/kg	05.29.19 02:37		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 135	%		
o-Terphenyl	70	70 - 135	%		

Sample Id: **S-6A Composite**

Matrix: Soil

Sample Depth:

Lab Sample Id: 625608-004

Date Collected: 05.24.19 11.00

Date Received: 05.28.19 07.36

Analytical Method: TPH by SW8015 Mod

Prep Method: 1005

Analyst: ARM

% Moist:

Tech: ARM

Seq Number: 3090497

Date Prep: 05.28.19 15.00

Prep seq: 7678780

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	12.8	14.9	7.97	mg/kg	05.29.19 03:02	J	1
Diesel Range Organics (DRO)	C10C28DRO	196	14.9	8.10	mg/kg	05.29.19 03:02		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	56.6	14.9	8.10	mg/kg	05.29.19 03:02		1
Total TPH	PHC635	265		7.97	mg/kg	05.29.19 03:02		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	82	70 - 135	%		
o-Terphenyl	58	70 - 135	%		**



# Certificate of Analytical Results

## 625608



**Talon/LPE Co., Amarillo, TX**  
Union 35A Fed Batt

Sample Id: **S-7A Composite**

Matrix: Soil

Sample Depth:

Lab Sample Id: 625608-005

Date Collected: 05.24.19 11.10

Date Received: 05.28.19 07.36

Analytical Method: TPH by SW8015 Mod

Prep Method: 1005

Analyst: ARM

% Moist:

Tech: ARM

Seq Number: 3090497

Date Prep: 05.28.19 15.00

Prep seq: 7678780

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	20.7	15.0	7.99	mg/kg	05.29.19 03:27		1
Diesel Range Organics (DRO)	C10C28DRO	873	15.0	8.12	mg/kg	05.29.19 03:27		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	145	15.0	8.12	mg/kg	05.29.19 03:27		1
Total TPH	PHC635	1040		7.99	mg/kg	05.29.19 03:27		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	71	70 - 135	%		
o-Terphenyl	64	70 - 135	%		**

Sample Id: **S-8A Composite**

Matrix: Soil

Sample Depth:

Lab Sample Id: 625608-006

Date Collected: 05.24.19 11.20

Date Received: 05.28.19 07.36

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst: CHE

% Moist:

Tech: CHE

Seq Number: 3090378

Date Prep: 05.28.19 12.40

Prep seq: 7678646

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	2830	25.3	4.34	mg/kg	05.28.19 14:11		5



# Certificate of Analytical Results

## 625608



**Talon/LPE Co., Amarillo, TX**  
Union 35A Fed Batt

Sample Id: **S-10 A 0.5'**

Matrix: Soil

Sample Depth:

Lab Sample Id: 625608-007

Date Collected: 05.24.19 11.30

Date Received: 05.28.19 07.36

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst: CHE

% Moist:

Tech: CHE

Seq Number: 3090378

Date Prep: 05.28.19 12.40

Prep seq: 7678646

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	11700	100	17.2	mg/kg	05.28.19 14:33		20

Analytical Method: TPH by SW8015 Mod

Prep Method: 1005

Analyst: ARM

% Moist:

Tech: ARM

Seq Number: 3090497

Date Prep: 05.28.19 15.00

Prep seq: 7678780

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	16.5	15.0	7.99	mg/kg	05.29.19 03:52		1
Diesel Range Organics (DRO)	C10C28DRO	2250	15.0	8.11	mg/kg	05.29.19 03:52		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	392	15.0	8.11	mg/kg	05.29.19 03:52		1
Total TPH	PHC635	2660		7.99	mg/kg	05.29.19 03:52		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	79	70 - 135	%		
o-Terphenyl	77	70 - 135	%		





# Certificate of Analytical Results

## 625608



**Talon/LPE Co., Amarillo, TX**  
Union 35A Fed Batt

Sample Id: **7678646-1-BLK**

Matrix: Solid

Sample Depth:

Lab Sample Id: 7678646-1-BLK

Date Collected:

Date Received:

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst: CHE

% Moist:

Tech: CHE

Seq Number: 3090378

Date Prep: 05.28.19 12.40

Prep seq: 7678646

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.858	5.00	0.858	mg/kg	05.28.19 13:01	U	1

Sample Id: **7678780-1-BLK**

Matrix: Solid

Sample Depth:

Lab Sample Id: 7678780-1-BLK

Date Collected:

Date Received:

Analytical Method: TPH by SW8015 Mod

Prep Method: 1005

Analyst: ARM

% Moist:

Tech: ARM

Seq Number: 3090497

Date Prep: 05.28.19 15.00

Prep seq: 7678780

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<8.00	15.0	8.00	mg/kg	05.28.19 18:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<8.13	15.0	8.13	mg/kg	05.28.19 18:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<8.13	15.0	8.13	mg/kg	05.28.19 18:20	U	1
Total TPH	PHC635	<8.00		8.00	mg/kg	05.28.19 18:20	U	

**Surrogate****% Recovery****Limits****Units****Analysis Date****Flag**

1-Chlorooctane

109

70 - 135

%

o-Terphenyl

104

70 - 135

%



## Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **MQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample      **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample      **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate      **MS** Matrix Spike      **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



## Form 2 - Surrogate Recoveries

**Project Name: Union 35A Fed Batt**

**Work Orders :** 625608,

**Project ID:** 700794.279.01

**Lab Batch #:** 3090497

**Sample:** 7678780-1-BLK / BLK

**Batch:** 1 **Matrix:** Solid

**Units:** mg/kg

**Date Analyzed:** 05/28/19 18:20

### SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	52.1	50.0	104	70-135	

**Lab Batch #:** 3090497

**Sample:** 7678780-1-BKS / BKS

**Batch:** 1 **Matrix:** Solid

**Units:** mg/kg

**Date Analyzed:** 05/28/19 18:45

### SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.5	100	93	70-135	
o-Terphenyl	48.5	50.0	97	70-135	

**Lab Batch #:** 3090497

**Sample:** 7678780-1-BSD / BSD

**Batch:** 1 **Matrix:** Solid

**Units:** mg/kg

**Date Analyzed:** 05/28/19 19:10

### SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.5	100	99	70-135	
o-Terphenyl	52.2	50.0	104	70-135	

**Lab Batch #:** 3090497

**Sample:** 625610-001 S / MS

**Batch:** 1 **Matrix:** Soil

**Units:** mg/kg

**Date Analyzed:** 05/28/19 19:59

### SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.9	99.8	83	70-135	
o-Terphenyl	37.9	49.9	76	70-135	

**Lab Batch #:** 3090497

**Sample:** 625610-001 SD / MSD

**Batch:** 1 **Matrix:** Soil

**Units:** mg/kg

**Date Analyzed:** 05/28/19 20:24

### SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.2	99.8	82	70-135	
o-Terphenyl	41.7	49.9	84	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.





## BS / BSD Recoveries



Project Name: Union 35A Fed Batt

Work Order #: 625608

Project ID: 700794.279.01

Analyst: CHE

Date Prepared: 05/28/2019

Date Analyzed: 05/28/2019

Lab Batch ID: 3090378

Sample: 7678646-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<0.858	250	234	94	250	233	93	0	90-110	20	

Analyst: ARM

Date Prepared: 05/28/2019

Date Analyzed: 05/28/2019

Lab Batch ID: 3090497

Sample: 7678780-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	945	95	1000	961	96	2	70-135	20	
Diesel Range Organics (DRO)	<8.13	1000	902	90	1000	924	92	2	70-135	20	

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$ Blank Spike Recovery [D] =  $100 * (C)/[B]$ Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$ 

All results are based on MDL and Validated for QC Purposes



## Form 3 - MS / MSD Recoveries



Project Name: Union 35A Fed Batt

Work Order #: 625608

Project ID: 700794.279.01

Lab Batch ID: 3090378

QC- Sample ID: 625608-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 05/28/2019

Date Prepared: 05/28/2019

Analyst: CHE

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	749	250	952	81	250	952	81	0	90-110	20	X

Lab Batch ID: 3090378

QC- Sample ID: 625614-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 05/28/2019

Date Prepared: 05/28/2019

Analyst: CHE

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	393	249	615	89	249	613	88	0	90-110	20	X

Lab Batch ID: 3090497

QC- Sample ID: 625610-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 05/28/2019

Date Prepared: 05/28/2019

Analyst: ARM

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<7.99	998	910	91	998	874	88	4	70-135	20	
Diesel Range Organics (DRO)	<8.11	998	843	84	998	855	86	1	70-135	20	

Matrix Spike Percent Recovery  $[D] = 100 \times (C-A)/B$   
 Relative Percent Difference  $RPD = 200 \times |(C-F)/(C+F)|$

Matrix Spike Duplicate Percent Recovery  $[G] = 100 \times (F-A)/E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
 N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.





## Chain of Custody

**Work Order N**

0500

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334  
Midland, TX (432-704-5440) El Paso, TX (915) 565-3443 Lubbock, TX (806) 794-1296  
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 233-3927  
Hobbs, NM (575-392-7550)

www.xenco.com Page \_\_\_\_\_ of \_\_\_\_\_

Project Manager:	David Adkins	Bill to: (if different)	
Company Name:	Talen LPE	Company Name:	
Address:	408 W Texas Ave	Address:	
City, State ZIP:	Artesia, NM 88210	City, State ZIP:	
Phone:	575-746-8768	Email:	dadkins@talenlpe.com

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting Level II ☐ Level III ☐ PST/UST ☐ TRAP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name:	unigun 35A Fed Batt	Turn Around
Project Number:	Z00794.279.01	Routine <input type="checkbox"/>
P.O. Number:	Z00794.279.01	Rush: 72 hr
Sampler's Name:	Brandon Sinclair	Due Date: 5/27

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):		0-20.1			Thermometer		
Received intact:		Yes	No		CC		
Cooler Custody Seals:		Yes	No	N/A	Correction Factor:		
Sample Custody Seals:		Yes	No	N/A	Total Containers:		20.8

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth
S-2A Composite	Soil	S-17-19	1200	
S-1A Composite		S-27-19	1030	
S-5A Composite			1045	
S-6A Composite			1100	
S-7A Composite			1110	
S-8A Composite			1120	
S-10A 0.5			1130	




Number of Containers
Chlorides
TPH Ext

ANALYSIS REQUEST

### Work Order Notes

[illegible][illegible]

of service. Xenoco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenoco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenoco but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		5/24/19 13:35			5/24/19 0734





# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



Client: Talon/LPE Co.

Date/ Time Received: 05/28/2019 07:36:00 AM

Work Order #: 625608

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

**Sample Receipt Checklist****Comments**

#1 *Temperature of cooler(s)?	.1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

**\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by:

Brianna Teel

Date: 05/28/2019

Checklist reviewed by:

Jessica Kramer

Date: 05/28/2019



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

June 20, 2019

CHRIS JONES

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: UNION 35 FED BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 06/19/19 16:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 06/19/2019  
Reported: 06/20/2019  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 06/19/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B-1 0-1 (H902117-01)**

BTEX 8260B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	06/20/2019	ND	1.86	93.2	2.00	0.0585	
Toluene*	<0.025	0.025	06/20/2019	ND	1.90	94.9	2.00	4.68	
Ethylbenzene*	<0.025	0.025	06/20/2019	ND	1.96	98.2	2.00	1.18	
Total Xylenes*	<0.075	0.075	06/20/2019	ND	6.34	106	6.00	3.17	
Total BTEX	<0.150	0.150	06/20/2019	ND					

Surrogate: Dibromofluoromethane 99.0 % 90.4-111

Surrogate: Toluene-d8 100 % 85.3-114

Surrogate: 4-Bromofluorobenzene 96.7 % 80.1-121

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6240	16.0	06/20/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/19/2019	ND	194	97.0	200	5.17	
DRO >C10-C28*	75.2	10.0	06/19/2019	ND	183	91.4	200	3.53	
EXT DRO >C28-C36	37.0	10.0	06/19/2019	ND					

Surrogate: 1-Chlorooctane 82.8 % 41-142

Surrogate: 1-Chlorooctadecane 85.2 % 37.6-147

Cardinal Laboratories

\*—Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 06/19/2019  
Reported: 06/20/2019  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 06/19/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B-1 2' (H902117-02)**

BTEX 8260B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	06/20/2019	ND	1.86	93.2	2.00	0.0585	
Toluene*	<0.025	0.025	06/20/2019	ND	1.90	94.9	2.00	4.68	
Ethylbenzene*	<0.025	0.025	06/20/2019	ND	1.96	98.2	2.00	1.18	
Total Xylenes*	<0.075	0.075	06/20/2019	ND	6.34	106	6.00	3.17	
Total BTEX	<0.150	0.150	06/20/2019	ND					

Surrogate: Dibromofluoromethane 99.1 % 90.4-111

Surrogate: Toluene-d8 101 % 85.3-114

Surrogate: 4-Bromofluorobenzene 96.8 % 80.1-121

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3760	16.0	06/20/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/19/2019	ND	194	97.0	200	5.17	
DRO >C10-C28*	<10.0	10.0	06/19/2019	ND	183	91.4	200	3.53	
EXT DRO >C28-C36	<10.0	10.0	06/19/2019	ND					

Surrogate: 1-Chlorooctane 85.7 % 41-142

Surrogate: 1-Chlorooctadecane 85.7 % 37.6-147

Cardinal Laboratories

\*—Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received:	06/19/2019	Sampling Date:	06/19/2019
Reported:	06/20/2019	Sampling Type:	Soil
Project Name:	UNION 35 FED BATTERY	Sampling Condition:	Cool & Intact
Project Number:	700794.279.01	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY COUNTY, NM		

**Sample ID: B-1 3' (H902117-03)****BTEX 8260B**

mg/kg

Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	06/20/2019	ND	1.86	93.2	2.00	0.0585	
Toluene*	<0.025	0.025	06/20/2019	ND	1.90	94.9	2.00	4.68	
Ethylbenzene*	<0.025	0.025	06/20/2019	ND	1.96	98.2	2.00	1.18	
Total Xylenes*	<0.075	0.075	06/20/2019	ND	6.34	106	6.00	3.17	
Total BTEX	<0.150	0.150	06/20/2019	ND					

Surrogate: Dibromofluoromethane 97.7 % 90.4-111

Surrogate: Toluene-d8 100 % 85.3-114

Surrogate: 4-Bromofluorobenzene 99.1 % 80.1-121

**Chloride, SM4500Cl-B**

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11500	16.0	06/20/2019	ND	400	100	400	0.00	

**TPH 8015M**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/19/2019	ND	194	97.0	200	5.17	
DRO >C10-C28*	<10.0	10.0	06/19/2019	ND	183	91.4	200	3.53	
EXT DRO >C28-C36	<10.0	10.0	06/19/2019	ND					

Surrogate: 1-Chlorooctane 87.0 % 41-142

Surrogate: 1-Chlorooctadecane 86.9 % 37.6-147

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 06/19/2019  
Reported: 06/20/2019  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 06/19/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B-1 4' (H902117-04)****BTEX 8260B**

mg/kg

Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	06/20/2019	ND	1.86	93.2	2.00	0.0585	
Toluene*	<0.025	0.025	06/20/2019	ND	1.90	94.9	2.00	4.68	
Ethylbenzene*	<0.025	0.025	06/20/2019	ND	1.96	98.2	2.00	1.18	
Total Xylenes*	<0.075	0.075	06/20/2019	ND	6.34	106	6.00	3.17	
Total BTEX	<0.150	0.150	06/20/2019	ND					

Surrogate: Dibromofluoromethane 97.5 % 90.4-111

Surrogate: Toluene-d8 101 % 85.3-114

Surrogate: 4-Bromofluorobenzene 97.6 % 80.1-121

**Chloride, SM4500Cl-B**

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9330	16.0	06/20/2019	ND	400	100	400	0.00	

**TPH 8015M**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/19/2019	ND	194	97.0	200	5.17	
DRO >C10-C28*	<10.0	10.0	06/19/2019	ND	183	91.4	200	3.53	
EXT DRO >C28-C36	<10.0	10.0	06/19/2019	ND					

Surrogate: 1-Chlorooctane 83.8 % 41-142

Surrogate: 1-Chlorooctadecane 84.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 06/19/2019  
Reported: 06/20/2019  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 06/19/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B-1 5' (H902117-05)****BTEX 8260B**

mg/kg

Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	06/20/2019	ND	1.86	93.2	2.00	0.0585	
Toluene*	<0.025	0.025	06/20/2019	ND	1.90	94.9	2.00	4.68	
Ethylbenzene*	<0.025	0.025	06/20/2019	ND	1.96	98.2	2.00	1.18	
Total Xylenes*	<0.075	0.075	06/20/2019	ND	6.34	106	6.00	3.17	
Total BTEX	<0.150	0.150	06/20/2019	ND					

Surrogate: Dibromofluoromethane 98.2 % 90.4-111

Surrogate: Toluene-d8 101 % 85.3-114

Surrogate: 4-Bromofluorobenzene 95.9 % 80.1-121

**Chloride, SM4500Cl-B**

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6240	16.0	06/20/2019	ND	400	100	400	0.00	

**TPH 8015M**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/19/2019	ND	194	97.0	200	5.17	
DRO >C10-C28*	<10.0	10.0	06/19/2019	ND	183	91.4	200	3.53	
EXT DRO >C28-C36	<10.0	10.0	06/19/2019	ND					

Surrogate: 1-Chlorooctane 86.4 % 41-142

Surrogate: 1-Chlorooctadecane 86.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 06/19/2019  
Reported: 06/20/2019  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 06/19/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B-1 6' (H902117-06)**

BTEX 8260B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	06/20/2019	ND	1.86	93.2	2.00	0.0585	
Toluene*	<0.025	0.025	06/20/2019	ND	1.90	94.9	2.00	4.68	
Ethylbenzene*	<0.025	0.025	06/20/2019	ND	1.96	98.2	2.00	1.18	
Total Xylenes*	<0.075	0.075	06/20/2019	ND	6.34	106	6.00	3.17	
Total BTEX	<0.150	0.150	06/20/2019	ND					

Surrogate: Dibromofluoromethane 98.1 % 90.4-111

Surrogate: Toluene-d8 102 % 85.3-114

Surrogate: 4-Bromofluorobenzene 96.5 % 80.1-121

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6000	16.0	06/20/2019	ND	416	104	400	3.92	QM-07

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/19/2019	ND	194	97.0	200	5.17	
DRO >C10-C28*	<10.0	10.0	06/19/2019	ND	183	91.4	200	3.53	
EXT DRO >C28-C36	<10.0	10.0	06/19/2019	ND					

Surrogate: 1-Chlorooctane 86.5 % 41-142

Surrogate: 1-Chlorooctadecane 86.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 06/19/2019  
Reported: 06/20/2019  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 06/19/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B-1 7' (H902117-07)****BTEX 8260B**

mg/kg

Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	06/20/2019	ND	1.86	93.2	2.00	0.0585	
Toluene*	<0.025	0.025	06/20/2019	ND	1.90	94.9	2.00	4.68	
Ethylbenzene*	<0.025	0.025	06/20/2019	ND	1.96	98.2	2.00	1.18	
Total Xylenes*	<0.075	0.075	06/20/2019	ND	6.34	106	6.00	3.17	
Total BTEX	<0.150	0.150	06/20/2019	ND					

Surrogate: Dibromofluoromethane 96.3 % 90.4-111

Surrogate: Toluene-d8 101 % 85.3-114

Surrogate: 4-Bromofluorobenzene 94.2 % 80.1-121

**Chloride, SM4500Cl-B**

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6000	16.0	06/20/2019	ND	416	104	400	3.92	

**TPH 8015M**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/19/2019	ND	194	97.0	200	5.17	
DRO >C10-C28*	<10.0	10.0	06/19/2019	ND	183	91.4	200	3.53	
EXT DRO >C28-C36	<10.0	10.0	06/19/2019	ND					

Surrogate: 1-Chlorooctane 86.3 % 41-142

Surrogate: 1-Chlorooctadecane 85.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 06/19/2019  
Reported: 06/20/2019  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 06/19/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B-1 8' (H902117-08)**

BTEX 8260B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	06/20/2019	ND	1.86	93.2	2.00	0.0585		
Toluene*	<0.025	0.025	06/20/2019	ND	1.90	94.9	2.00	4.68		
Ethylbenzene*	<0.025	0.025	06/20/2019	ND	1.96	98.2	2.00	1.18		
Total Xylenes*	<0.075	0.075	06/20/2019	ND	6.34	106	6.00	3.17		
Total BTEX	<0.150	0.150	06/20/2019	ND						

Surrogate: Dibromofluoromethane 97.1 % 90.4-111

Surrogate: Toluene-d8 101 % 85.3-114

Surrogate: 4-Bromofluorobenzene 95.6 % 80.1-121

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5600	16.0	06/20/2019	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/19/2019	ND	194	97.0	200	5.17	
DRO >C10-C28*	<10.0	10.0	06/19/2019	ND	183	91.4	200	3.53	
EXT DRO >C28-C36	<10.0	10.0	06/19/2019	ND					

Surrogate: 1-Chlorooctane 85.6 % 41-142

Surrogate: 1-Chlorooctadecane 85.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in cursive script, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager

101 East Maryland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

June 20, 2019

CHRIS JONES

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: UNION 35 FED BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 06/19/19 16:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 06/19/2019  
Reported: 06/20/2019  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 06/19/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B2 0-1' (H902118-01)**

BTX 8260B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	06/20/2019	ND	1.86	93.2	2.00	0.0585		
Toluene*	<0.025	0.025	06/20/2019	ND	1.90	94.9	2.00	4.68		
Ethylbenzene*	<0.025	0.025	06/20/2019	ND	1.96	98.2	2.00	1.18		
Total Xylenes*	<0.075	0.075	06/20/2019	ND	6.34	106	6.00	3.17		
Total BTX	<0.150	0.150	06/20/2019	ND						

Surrogate: Dibromofluoromethane 97.5 % 90.4-111

Surrogate: Toluene-d8 101 % 85.3-114

Surrogate: 4-Bromofluorobenzene 94.6 % 80.1-121

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	06/20/2019	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/19/2019	ND	194	97.0	200	5.17	
DRO >C10-C28*	35.4	10.0	06/19/2019	ND	183	91.4	200	3.53	
EXT DRO >C28-C36	26.0	10.0	06/19/2019	ND					

Surrogate: 1-Chlorooctane 84.9 % 41-142

Surrogate: 1-Chlorooctadecane 84.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 06/19/2019  
Reported: 06/20/2019  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 06/19/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B2 2' (H902118-02)****BTEX 82608**

mg/kg

Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	06/20/2019	ND	1.86	93.2	2.00	0.0585	
Toluene*	<0.025	0.025	06/20/2019	ND	1.90	94.9	2.00	4.68	
Ethylbenzene*	<0.025	0.025	06/20/2019	ND	1.96	98.2	2.00	1.18	
Total Xylenes*	<0.075	0.075	06/20/2019	ND	6.34	106	6.00	3.17	
Total BTEX	<0.150	0.150	06/20/2019	ND					

Surrogate: Dibromofluoromethane 96.8 % 90.4-111

Surrogate: Toluene-d8 101 % 85.3-114

Surrogate: 4-Bromofluorobenzene 95.9 % 80.1-121

**Chloride, SM4500Cl-B**

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/20/2019	ND	416	104	400	3.92	

**TPH 8015M**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/19/2019	ND	194	97.0	200	5.17	
DRO >C10-C28*	<10.0	10.0	06/19/2019	ND	183	91.4	200	3.53	
EXT DRO >C28-C36	<10.0	10.0	06/19/2019	ND					

Surrogate: 1-Chlorooctane 81.2 % 41-142

Surrogate: 1-Chlorooctadecane 82.2 % 37.6-147

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 06/19/2019  
Reported: 06/20/2019  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 06/19/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B2 3' (H902118-03)**

BTX 8260B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	06/20/2019	ND	1.86	93.2	2.00	0.0585		
Toluene*	<0.025	0.025	06/20/2019	ND	1.90	94.9	2.00	4.68		
Ethylbenzene*	<0.025	0.025	06/20/2019	ND	1.96	98.2	2.00	1.18		
Total Xylenes*	<0.075	0.075	06/20/2019	ND	6.34	106	6.00	3.17		
Total BTX	<0.150	0.150	06/20/2019	ND						

Surrogate: Dibromofluoromethane 97.7 % 90.4-111

Surrogate: Toluene-d8 99.9 % 85.3-114

Surrogate: 4-Bromofluorobenzene 96.1 % 80.1-121

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/20/2019	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/19/2019	ND	194	97.0	200	5.17	
DRO >C10-C28*	<10.0	10.0	06/19/2019	ND	183	91.4	200	3.53	
EXT DRO >C28-C36	<10.0	10.0	06/19/2019	ND					

Surrogate: 1-Chlorooctane 81.1 % 41-142

Surrogate: 1-Chlorooctadecane 80.7 % 37.6-147

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 06/19/2019  
Reported: 06/20/2019  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 06/19/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B2 4' (H902118-04)****BTEX 8260B**

mg/kg

Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	06/20/2019	ND	1.86	93.2	2.00	0.0585	
Toluene*	<0.025	0.025	06/20/2019	ND	1.90	94.9	2.00	4.68	
Ethylbenzene*	<0.025	0.025	06/20/2019	ND	1.96	98.2	2.00	1.18	
Total Xylenes*	<0.075	0.075	06/20/2019	ND	6.34	106	6.00	3.17	
Total BTEX	<0.150	0.150	06/20/2019	ND					

Surrogate: Dibromofluoromethane 97.1 % 90.4-111

Surrogate: Toluene-d8 101 % 85.3-114

Surrogate: 4-Bromofluorobenzene 94.1 % 80.1-121

**Chloride, SM4500Cl-B**

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/20/2019	ND	416	104	400	3.92	

**TPH 8015M**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2019	ND	194	97.0	200	5.17	
DRO >C10-C28*	<10.0	10.0	06/20/2019	ND	183	91.4	200	3.53	
EXT DRO >C28-C36	<10.0	10.0	06/20/2019	ND					

Surrogate: 1-Chlorooctane 86.7 % 41-142

Surrogate: 1-Chlorooctadecane 87.1 % 37.6-147

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 06/19/2019  
Reported: 06/20/2019  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 06/19/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B2 5' (H902118-05)****BTEX 8260B**

mg/kg

Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	06/20/2019	ND	1.86	93.2	2.00	0.0585	
Toluene*	<0.025	0.025	06/20/2019	ND	1.90	94.9	2.00	4.68	
Ethylbenzene*	<0.025	0.025	06/20/2019	ND	1.96	98.2	2.00	1.18	
Total Xylenes*	<0.075	0.075	06/20/2019	ND	6.34	106	6.00	3.17	
Total BTEX	<0.150	0.150	06/20/2019	ND					

Surrogate: Dibromofluoromethane 98.0 % 90.4-111

Surrogate: Toluene-d8 101 % 85.3-114

Surrogate: 4-Bromofluorobenzene 95.0 % 80.1-121

**Chloride, SM4500Cl-B**

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/20/2019	ND	416	104	400	3.92	

**TPH 8015M**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2019	ND	194	97.0	200	5.17	
DRO >C10-C28*	<10.0	10.0	06/20/2019	ND	183	91.4	200	3.53	
EXT DRO >C28-C36	<10.0	10.0	06/20/2019	ND					

Surrogate: 1-Chlorooctane 85.7 % 41-142

Surrogate: 1-Chlorooctadecane 85.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager





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### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326



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March 27, 2020

CHRIS JONES

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: UNION 35 FED BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 03/18/20 14:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager





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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 03/18/2020  
Reported: 03/27/2020  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 03/17/2020  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 3 O' (H000834-01)**

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/19/2020	ND	1.92	95.8	2.00	3.00	
Toluene*	<0.050	0.050	03/19/2020	ND	1.93	96.5	2.00	3.13	
Ethylbenzene*	<0.050	0.050	03/19/2020	ND	1.96	98.1	2.00	3.10	
Total Xylenes*	<0.150	0.150	03/19/2020	ND	5.75	95.9	6.00	3.27	
Total BTEX	<0.300	0.300	03/19/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	03/19/2020	ND	400	100	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/19/2020	ND	203	102	200	1.21	
DRO >C10-C28*	<10.0	10.0	03/19/2020	ND	205	102	200	1.32	
EXT DRO >C28-C36	<10.0	10.0	03/19/2020	ND					

Surrogate: 1-Chlorooctane 88.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.5 % 42.2-156

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\* = Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 03/18/2020  
Reported: 03/27/2020  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 03/17/2020  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 3 2' (H000834-02)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/19/2020	ND	1.92	95.8	2.00	3.00	
Toluene*	<0.050	0.050	03/19/2020	ND	1.93	96.5	2.00	3.13	
Ethylbenzene*	<0.050	0.050	03/19/2020	ND	1.96	98.1	2.00	3.10	
Total Xylenes*	<0.150	0.150	03/19/2020	ND	5.75	95.9	6.00	3.27	
Total BTEX	<0.300	0.300	03/19/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	03/19/2020	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/19/2020	ND	203	102	200	1.21	
DRO >C10-C28*	<10.0	10.0	03/19/2020	ND	205	102	200	1.32	
EXT DRO >C28-C36	<10.0	10.0	03/19/2020	ND					

Surrogate: 1-Chlorooctane 93.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.2 % 42.2-156

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\* = Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 03/18/2020  
Reported: 03/27/2020  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 03/17/2020  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 7 0' (H000834-10)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/19/2020	ND	1.92	95.8	2.00	3.00	
Toluene*	<0.050	0.050	03/19/2020	ND	1.93	96.5	2.00	3.13	
Ethylbenzene*	<0.050	0.050	03/19/2020	ND	1.96	98.1	2.00	3.10	
Total Xylenes*	<0.150	0.150	03/19/2020	ND	5.75	95.9	6.00	3.27	
Total BTEX	<0.300	0.300	03/19/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	03/19/2020	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/19/2020	ND	203	102	200	1.21	
DRO >C10-C28*	<10.0	10.0	03/19/2020	ND	205	102	200	1.32	
EXT DRO >C28-C36	<10.0	10.0	03/19/2020	ND					

Surrogate: 1-Chlorooctane 91.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.1 % 42.2-156

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\* = Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 03/18/2020  
Reported: 03/27/2020  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 03/17/2020  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 7 2' (H000834-11)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/19/2020	ND	1.92	95.8	2.00	3.00	
Toluene*	<0.050	0.050	03/19/2020	ND	1.93	96.5	2.00	3.13	
Ethylbenzene*	<0.050	0.050	03/19/2020	ND	1.96	98.1	2.00	3.10	
Total Xylenes*	<0.150	0.150	03/19/2020	ND	5.75	95.9	6.00	3.27	
Total BTX	<0.300	0.300	03/19/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	03/19/2020	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/19/2020	ND	203	102	200	1.21	
DRO >C10-C28*	<10.0	10.0	03/19/2020	ND	205	102	200	1.32	
EXT DRO >C28-C36	<10.0	10.0	03/19/2020	ND					

Surrogate: 1-Chlorooctane 86.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.6 % 42.2-156

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 03/18/2020  
Reported: 03/27/2020  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 03/17/2020  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 4 0' (H000834-18)****BTEX 8021B**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/19/2020	ND	1.92	95.8	2.00	3.00	
Toluene*	<0.050	0.050	03/19/2020	ND	1.93	96.5	2.00	3.13	
Ethylbenzene*	<0.050	0.050	03/19/2020	ND	1.96	98.1	2.00	3.10	
Total Xylenes*	<0.150	0.150	03/19/2020	ND	5.75	95.9	6.00	3.27	
Total BTEX	<0.300	0.300	03/19/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 99.5 % 73.3-129

**Chloride, SM4500Cl-B**

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>12000</b>	16.0	03/19/2020	ND	400	100	400	0.00	

**TPH 8015M**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/19/2020	ND	203	102	200	1.21	
DRO >C10-C28*	<10.0	10.0	03/19/2020	ND	205	102	200	1.32	
EXT DRO >C28-C36	<10.0	10.0	03/19/2020	ND					

Surrogate: 1-Chlorooctane 88.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 89.3 % 42.2-156

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 03/18/2020  
Reported: 03/27/2020  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 03/17/2020  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 4 2' (H000834-19)**

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/19/2020	ND	1.92	95.8	2.00	3.00	
Toluene*	<b>0.070</b>	0.050	03/19/2020	ND	1.93	96.5	2.00	3.13	
Ethylbenzene*	<b>0.115</b>	0.050	03/19/2020	ND	1.96	98.1	2.00	3.10	
Total Xylenes*	<b>0.963</b>	0.150	03/19/2020	ND	5.75	95.9	6.00	3.27	
Total BTEX	<b>1.15</b>	0.300	03/19/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 138 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>736</b>	16.0	03/19/2020	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>47.7</b>	10.0	03/19/2020	ND	203	102	200	1.21	
DRO >C10-C28*	<b>1530</b>	10.0	03/19/2020	ND	205	102	200	1.32	
EXT DRO >C28-C36	<b>397</b>	10.0	03/19/2020	ND					

Surrogate: 1-Chlorooctane 99.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 124 % 42.2-156

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 03/18/2020  
Reported: 03/27/2020  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 03/17/2020  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 4 4' (H000834-20)**

BTEX 8021B		mg/kg		Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	0.072	0.050	03/24/2020	ND	2.03	102	2.00	5.09		
Toluene*	0.438	0.050	03/24/2020	ND	2.02	101	2.00	4.28		
Ethylbenzene*	1.02	0.050	03/24/2020	ND	2.03	101	2.00	4.76		
Total Xylenes*	3.56	0.150	03/24/2020	ND	5.87	97.8	6.00	5.03		
Total BTEX	5.09	0.300	03/24/2020	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 197 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	03/24/2020	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	121	10.0	03/25/2020	ND	211	106	200	1.08		
DRO >C10-C28*	2470	10.0	03/25/2020	ND	229	114	200	4.48		
EXT DRO >C28-C36	473	10.0	03/25/2020	ND						

Surrogate: 1-Chlorooctane 114 % 44.3-144

Surrogate: 1-Chlorooctadecane 126 % 42.2-156

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 03/18/2020  
Reported: 03/27/2020  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 03/17/2020  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 4 6' (H000834-21)**

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/27/2020	ND	2.05	103	2.00	1.44	
Toluene*	<b>0.067</b>	0.050	03/27/2020	ND	2.05	102	2.00	1.65	
Ethylbenzene*	<b>0.257</b>	0.050	03/27/2020	ND	2.05	102	2.00	2.00	
Total Xylenes*	<b>0.982</b>	0.150	03/27/2020	ND	5.99	99.8	6.00	1.83	
Total BTEX	<b>1.31</b>	0.300	03/27/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 136 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>80.0</b>	16.0	03/27/2020	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>30.4</b>	10.0	03/26/2020	ND	190	95.1	200	9.54	
DRO >C10-C28*	<b>610</b>	10.0	03/26/2020	ND	177	88.3	200	19.9	
EXT DRO >C28-C36	<b>93.4</b>	10.0	03/26/2020	ND					

Surrogate: 1-Chlorooctane 89.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 100 % 42.2-156

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 03/18/2020  
Reported: 03/27/2020  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 03/17/2020  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 4 8' (H000834-22)****BTEX 8021B**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/27/2020	ND	2.05	103	2.00	1.44	
Toluene*	<0.050	0.050	03/27/2020	ND	2.05	102	2.00	1.65	
Ethylbenzene*	<0.050	0.050	03/27/2020	ND	2.05	102	2.00	2.00	
Total Xylenes*	<0.150	0.150	03/27/2020	ND	5.99	99.8	6.00	1.83	
Total BTEX	<0.300	0.300	03/27/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 101 % 73.3-129

**Chloride, SM4500Cl-B**

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	03/27/2020	ND	416	104	400	3.77	

**TPH 8015M**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/26/2020	ND	190	95.1	200	9.54	
DRO >C10-C28*	12.2	10.0	03/26/2020	ND	177	88.3	200	19.9	
EXT DRO >C28-C36	<10.0	10.0	03/26/2020	ND					

Surrogate: 1-Chlorooctane 84.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 95.4 % 42.2-156

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 03/18/2020  
Reported: 03/27/2020  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 03/17/2020  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 6 0' (H000834-28)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/20/2020	ND	1.86	92.9	2.00	7.57	
Toluene*	<0.050	0.050	03/20/2020	ND	1.87	93.7	2.00	8.06	
Ethylbenzene*	<0.050	0.050	03/20/2020	ND	1.89	94.6	2.00	8.76	
Total Xylenes*	<0.150	0.150	03/20/2020	ND	5.48	91.3	6.00	8.55	
Total BTX	<0.300	0.300	03/20/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 103 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	03/19/2020	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/19/2020	ND	203	102	200	1.21	
DRO >C10-C28*	919	10.0	03/19/2020	ND	205	102	200	1.32	
EXT DRO >C28-C36	378	10.0	03/19/2020	ND					

Surrogate: 1-Chlorooctane 92.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.7 % 42.2-156

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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 03/18/2020  
Reported: 03/27/2020  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 03/17/2020  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 6 2' (H000834-29)****BTEX 8021B**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/20/2020	ND	1.86	92.9	2.00	7.57	
Toluene*	<0.050	0.050	03/20/2020	ND	1.87	93.7	2.00	8.06	
Ethylbenzene*	<0.050	0.050	03/20/2020	ND	1.89	94.6	2.00	8.76	
Total Xylenes*	<0.150	0.150	03/20/2020	ND	5.48	91.3	6.00	8.55	
Total BTEX	<0.300	0.300	03/20/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 99.6 % 73.3-129

**Chloride, SM4500Cl-B**

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>176</b>	16.0	03/19/2020	ND	400	100	400	0.00	

**TPH 8015M**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/19/2020	ND	203	102	200	1.21	
<b>DRO &gt;C10-C28*</b>	<b>621</b>	10.0	03/19/2020	ND	205	102	200	1.32	
<b>EXT DRO &gt;C28-C36</b>	<b>324</b>	10.0	03/19/2020	ND					

Surrogate: 1-Chlorooctane 91.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 102 % 42.2-156

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TALON LPE  
CHRIS JONES  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 03/18/2020  
Reported: 03/27/2020  
Project Name: UNION 35 FED BATTERY  
Project Number: 700794.279.01  
Project Location: DEVON - EDDY COUNTY, NM

Sampling Date: 03/17/2020  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 6 4' (H000834-30)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/24/2020	ND	2.03	102	2.00	5.09	
Toluene*	<0.050	0.050	03/24/2020	ND	2.02	101	2.00	4.28	
Ethylbenzene*	<0.050	0.050	03/24/2020	ND	2.03	101	2.00	4.76	
Total Xylenes*	<0.150	0.150	03/24/2020	ND	5.87	97.8	6.00	5.03	
Total BTEX	<0.300	0.300	03/24/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 99.0 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	03/24/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/24/2020	ND	211	106	200	1.08	
DRO >C10-C28*	<10.0	10.0	03/24/2020	ND	229	114	200	4.48	
EXT DRO >C28-C36	<10.0	10.0	03/24/2020	ND					

Surrogate: 1-Chlorooctane 81.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.8 % 42.2-156

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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---

**Notes and Definitions**

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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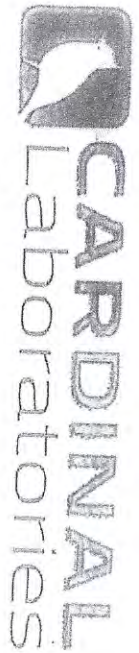
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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



101 East Maryland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <b>Talon LPE</b>		P.O. #: <b>700794.279.01</b>	
Project Manager: <b>Chris Jones</b>		Company: <b>Talon LPE</b>	
Address: <b>408 W Texas Ave</b>		Attn: <b>Chris Jones</b>	
City: <b>Artesia</b>		Address:	
Phone #: <b>575-991-6460</b>		State: <b>NM</b> Zip: <b>88210</b>	
Project #: <b>700794.279.01</b>		Project Owner: <b>Devon Energy</b>	
Project Name: <b>Union 35A Fed Bty</b>		City:	
Project Location: <b>Eddy County</b>		State: Zip:	
Sampler Name: <b>Brendan Sinclair</b>		Phone #:	
FOR LAB USE ONLY		Fax #:	

Lab ID	Sample ID	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX	PRESERV	SAMPLING	ANALYSIS REQUEST
4000834							
1	B-3 0'	G		GROUNDWATER		3-17-20 10:00	TPH EXT
2	B-3 2'			WASTEWATER		10:02	BTEX
3	B-3 4'			SOIL		10:04	Total Chlorides
4	B-3 6'			OIL		10:06	
5	B-3 8'			SLUDGE		10:08	
6	B-3 10'			OTHER:		10:10	
7	B-3 15'			ACID/BASE:		10:15	
8	B-3 20'			ICE / COOL		10:20	
9	B-3 25'			OTHER:		10:40	
10	B-3 70'					11:00	

Relinquished By: <i>[Signature]</i>	Date: <b>3-18-20</b>	Received By: <i>[Signature]</i>	Date: <b>3-18-20</b>
Relinquished By: <i>[Signature]</i>	Date: <b>3-18-20</b>	Received By: <i>[Signature]</i>	Date: <b>3-18-20</b>
Delivered By: (Circle One)	Time: <b>14:30</b>	Received By: <i>[Signature]</i>	Time: <b>14:30</b>
Sampler - UPS - Bus - Other:	<b>2.1c #1/13</b>	Sample Condition:	CHECKED BY: <i>[Signature]</i>
		Cool Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initials: <b>YD</b>
		Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Phone Result: ☐ Yes ☐ No Add'l Phone #:

Fax Result: ☐ Yes ☐ No Add'l Fax #:

REMARKS: For each sample group: test until levels are below max levels (600 mg/kg Cl, 100 mg/kg TPH, 50 mg/kg BTEX).

Pg 1 of 4

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326





Pg 2 of 4





## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Maryland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

Company Name: Talon LPE

Project Manager: Chris Jones

Address: 408 W Texas Ave

City: Artesia

Phone #: 575-491-6460

Project #: 700794.279.01

Project Name: Union 35A Fed Btty

Project Location: Eddy County

Sampler Name: Brandon Sinclair

FOR LAB USE ONLY

P.O. #: 700794.279.01

Company: Talon LPE

Attn: Chris Jones

Address:

City:

State:

Phone #:

Fax #:

## ANALYSIS REQUEST

Lab I.D.	Sample I.D.	(C)RAB OR (C)OMP	# CONTAINERS	MATRIX	PRESERV	SAMPLING	DATE	TIME	TPH EXT	BTEX	Total Chlorides
H00834	21 0-4 6'	G	1	GROUNDWATER			3-17-20	11:56	✓	✓	✓
	22 0-4 8'			WASTEWATER				11:58	✓	✓	✓
	23 0-4 10'			SOIL				12:00	✓	✓	✓
	24 0-4 15'			OIL				12:05	✓	✓	✓
	25 0-4 20'			SLUDGE				12:10	✓	✓	✓
	26 0-4 25'			OTHER:				12:10	✓	✓	✓
	27 0-4 30'			ACID/BASE:				12:40	✓	✓	✓
	28 0-6 0'			ICE / COOL				13:00	✓	✓	✓
	29 0-6 2'			OTHER:				13:02	✓	✓	✓
	30 0-6 4'							13:04	✓	✓	✓

PLEASE NOTE: Laboratory and Damages. Cardinal's liability and entire exclusive remedy for any claim arising whether based in contract or tort shall be limited to the amount paid by the client for the analysis. At no time shall Cardinal be liable for negligence or any other cause whatsoever that the client or third parties make in writing and received by Cardinal within 90 days after completion of the applicable analysis or the event shall Cardinal be liable for negligence or consequential damages, including without limitation, business interruptions, loss of data, or loss of profits incurred by client, its subsidiaries, affiliates or its employees arising out of or related to the performance of services hereunder by Cardinal. Remedies of available state law shall be applied upon any of the above stated remedies or alternatives.

Relinquished By: [Signature]

Date: 3-18-20

Time: 11:41

Received By: [Signature]

Date: 3-18-20

Time: 14:30

Delivered By: [Signature]

Sampler - UPS - Bus - Other: 21c #113

Sample Condition

Good Intact

Yes ☒ No ☐

CHECKED BY: [Signature]

Date: 3-18-20

Time: 14:30

For each sample group: test until levels are below max levels.

Pg 3 of 4





101 East Maryland, Hobbs, NM 88240  
(575) 383-2326 FAX (575) 393-2476

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <b>Talon LPE</b>		P.O. #: <b>700794.279.01</b>	
Project Manager: <b>Chris Jones</b>		Company: <b>Talon LPE</b>	
Address: <b>408 W Texas Ave</b>		Attn: <b>Chris Jones</b>	
City: <b>Altesia</b>		Address:	
Phone #: <b>575-491-6460</b>		State: <b>NM</b> Zip: <b>88210</b>	
Project #: <b>700794.279.01</b>		Project Owner: <b>Devon Energy</b>	
Project Name: <b>Union 35A Fed Battery</b>		City:	
Project Location: <b>Eddy County</b>		State: <b>NM</b> Zip:	
Sampler Name: <b>Brandon Sinclair</b>		Phone #:	
FOR LAB USE ONLY		Fax #:	

Lab ID.	Sample ID.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	TPH EXT	BTEX	Total Chlorides	
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE						ICE / COOL
4000834																
31	B-6 6'															
32	B-6 8'															
33	B-6 10'															
34	B-6 15'															
35	B-6 20'															

Relinquished By: <i>[Signature]</i>	Date: <b>3-18-20</b>	Received By: <i>[Signature]</i>	Date: <b>3-18-20</b>
Relinquished By: <i>[Signature]</i>	Date: <b>3-18-20</b>	Received By: <i>[Signature]</i>	Date: <b>3-18-20</b>
Delivered By: (Circle One)	Time: <b>11:41</b>	Received By: <i>[Signature]</i>	Time: <b>11:41</b>
Sampler - UPS - Bus - Other:	Time: <b>11:30</b>	Received By: <i>[Signature]</i>	Time: <b>11:30</b>
Sample Condition	Checked By: <i>[Signature]</i>	Sample Condition	Checked By: <i>[Signature]</i>
Cool Intact	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Cool Intact	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326	210 #113	Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326	210 #113

Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
REMARKS:	
For each sample group: test until levels are below max levels.	
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