

### **Soil Assessment and Remediation Work Plan**

Shugart 25 Fed Com #001 Eddy County, NM API# 30-015-31454 \*2RP-2474, \*2RP-5454

## **Prepared For:**

Devon Energy Corporation 6488 Seven Rivers Highway Artesia, NM 88210

## Prepared By:

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

October 15, 2020

Mr. Jim Amos BLM Carlsbad Field Office 620 East Greene Street Carlsbad, NM 88220

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

Subject: Soil Assessment and Remediation Work Plan

Shugart 25 Fed Com #001

Eddy County, NM API# 30-015-31454

Dear Mr. Amos & Mr. Bratcher,

Devon Energy Corporation (Devon) has contracted Talon/LPE (Talon) to perform soil assessment and a remediation work plan for the above-referenced location. The results of our soil assessment and proposed remediation activities are contained herein.

### Site Information

The Shugart 25 Fed Com #1 is located approximately forty (40) miles southeast of Artesia, New Mexico. The legal location for this release is Unit Letter K, Section 25, Township 18 South, and Range 31 East in Eddy County, New Mexico. More specifically, the latitude and longitude for the release are 32.7167778 North and -103.8251343 West. A site map 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 Kermit-Berino fine sands, 0 to 3 percent slopes. See Appendix II for the referenced soil survey. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is Holocene to middle Pleistocene in age and is comprised of alluvium and eolian sand 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 nearest reported depth to groundwater is 430-feet below ground surface (BGS). See Appendix II for the referenced groundwater depth. This site is located within a low 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.

Approximate I	Depth to Groundwater	430 Feet/BGS
□Yes ⊠No	Within 300 feet of any continuation any other significant watercontact.	uously flowing watercourse or urse
□Yes ⊠No	Within 200 feet of any lakebe	ed, sinkhole or playa lake
□Yes ⊠No	Within 300 feet from an occu school, hospital, institution or	
□Yes ⊠No		a private, domestic freshwater buseholds for domestic or stock
□Yes ⊠No	Within 1000 feet of any fresh	water well or spring
∐Yes ⊠No	municipal freshwater well fiel	al boundaries or within a defined d covered under a municipal to Section 3-2703 NMSA 1978
□Yes ⊠No	Within 300 feet of a wetland	
□Yes ⊠No	Within the area overlying a so	ubsurface mine
□Yes ⊠No	Within an unstable area	
□Yes ⊠No	Within a 100-year floodplain	

Because the release did not occur in any of these areas and the depth to groundwater is greater than 100-feet in-depth, 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						
Depth below horizontal extents of release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**				
>100 feet	Total Chlorides***	EPA 300.0 or SM4500 CI B	20,000 mg/kg				
	TPH	EPA SW-846 Method 8015M	2,500 mg/kg				
	(GRO+DRO+MRO)						
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg				
	BTEX	EPA SW-846 Method 8021B or	50 mg/kg				
		8260B					
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg				

## **Incident Descriptions**

\*2RP-2474. On August 8, 2014, a leak occurred on a 3" ball valve on a poly transfer line causing an estimated 7 bbls of produced water to be released outside the containment of the tank battery. There was no produced water recovered and the line was repaired.

\*2RP-5454. On May 13, 2019, a lovejoy on the water transfer pump failed to causing multiple leaks resulting in a total release of 106.6 bbls of produced water. 105 bbls of fluid were released inside the lined containment and were recovered. 1.6 bbls of fluid were released onto the location.

On November 27, 2019, a transfer pump failed causing a water tank to overflow. An estimated 400 bbls of produced water were released with the vac truck being able to recover the 400 bbls. All fluids were contained and retrieved within the steel-lined containment.

The initial C-141's are attached in Appendix III.

**Soil Sampling** 

Son Sampling									
Sample ID	Sample	Depth	BTEX	Benzene	GRO	DRO	MRO	Total TPH	CI
Sample 10	Date	(BGS)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NMOCD Table 1	Closure Crite	eria 19.15.29	50 mg/kg	10 mg/kg	DRO + GRO	combined =		2500 mg/kg	20,000
	NMAC		30 mg/ kg	10 1116/116	1000	mg/kg		2500 mg/ kg	mg/kg
W. Composite	2/26/2020	0	ND	ND	ND	314	62.1	375.1	14900
N. Composite	2/26/2020	0	ND	ND	ND	42.9	ND	42.9	7600
E. Composite	2/26/2020	0	ND	ND	ND	401	157	558	6530
S. Composite	2/26/2020	0	ND	ND	ND	ND	ND	ND	47600
		0-1	ND	ND	ND	ND	ND	ND	9730
C 1	2/26/2020	2	ND	ND	ND	ND	ND	ND	432
S-1 2/	2/ 20/ 2020	3	ND	ND	ND	ND	ND	ND	192
		4	ND	ND	ND	ND	ND	ND	96
S-2	2/26/2020	0-1	ND	ND	ND	ND	ND	ND	1260
3-2	2/ 20/ 2020	2- R	ND	ND	ND	ND	ND	ND	368
		0-1	ND	ND	ND	ND	ND	ND	7330
S-3	2/26/2020	2	ND	ND	ND	ND	ND	ND	160
3-3	2/ 20/ 2020	3	ND	ND	ND	ND	ND	ND	80
		4	ND	ND	ND	ND	ND	ND	32
S-4	2/26/2020	0-1	ND	ND	ND	ND	ND	ND	4160
3-4	2/ 20/ 2020	2- R	ND	ND	ND	ND	ND	ND	112
		0-1	ND	ND	ND	ND	ND	ND	2000
S-5	2/26/2020	2	ND	ND	ND	ND	ND	ND	64
		3	ND	ND	ND	ND	ND	ND	48

**ND-Analyte Not Detected** 

### **Proposed Remedial Actions**

- The impacted area labeled S-Composite, which is comprised of a fivepoint composite sample taken from the south side of the containment wall, will be excavated to a depth of 1.0-feet deep.
- The bottom and sidewalls of the excavations will be advanced until field titration results for total chlorides are below Table 1 Closure Criteria 19.15.29 NMAC. Five-point composite samples will then be collected from the bottom and each side wall of the excavation. The samples will be laboratory analyzied for total chlorides via EPA Method 300.0 to verify field results before the excavation is backfilled.
- All of the excavated material will be hauled to Lea Land, LLC, a NMOCD approved solid waste disposal facility.
- The NMOCD will be notified via an email to be given the opportunity to be present for the liner inspection before this project is completed.
- A final closure report documenting the remedial actions and a Final C-141 will be provided to the NMOCD District II Artesia Office.

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

Rebecca Pons Project Manager David J. Adkins Regional Manager Attachments:

Appendix I Site Map, Karst Map, TOPO Map & Location Map Appendix II Groundwater Data, Soil Survey & FEMA Flood Zone

Appendix III Initial C-141's Appendix IV Laboratory Data



# <u>APPENDIX I</u>

SITE MAP

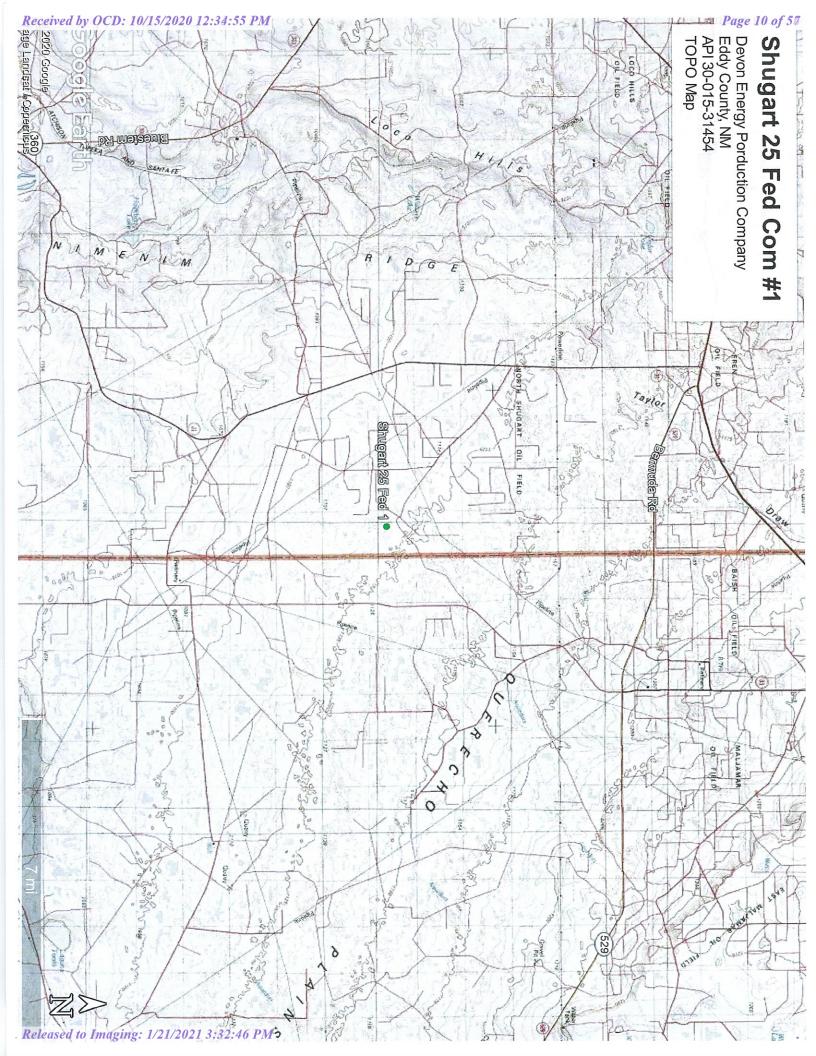
KARST MAP

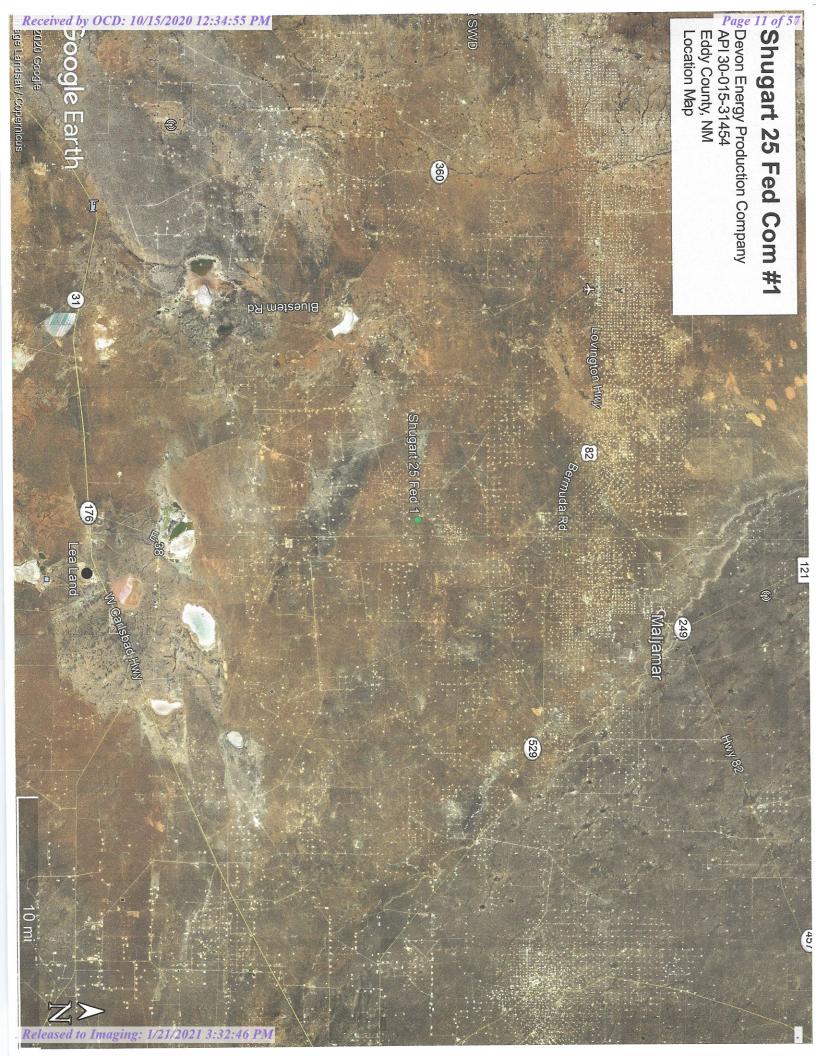
**TOPO MAP** 

**LOCATION MAP** 











# <u>APPENDIX II</u>

## **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													
DOD II		Sub-		Q	- 7		_	_	_		.,	D			Nater
POD Number	Code		County						_	Х	Υ		epthWellDe	pthWaterC	olumn
<u>CP 00849 POD1</u>		CP	LE	3	1	3	35	18S	31E	608012	3618757*	2722	300		
CP 00672		CP	LE		4	4	07	18S	32E	612475	3624947* 🍑	5040	524	430	94
CP 00672 CLW475398	0	CP	LE		4	4	07	18S	32E	612475	3624947*	5040	540	460	80
CP 00814 POD1		CP	LE		2	2	80	18S	32E	614074	3626168*	6920	480		
CP 00563 POD1		CP	LE	1	1	2	19	198	32E	612118	3613376*	7402	300		
CP 01656 POD2		CP	LE	3	4	3	17	198	32E	613364	3613648 🌍	7586	70		
CP 01656 POD1		CP	LE	3	4	3	17	198	32E	613368	3613646 🌑	7590	70		
CP 00829 POD1		CP	LE		2	4	16	198	31E	606165	3614009*	7592	120		
CP 01656 POD3		CP	LE	3	4	3	17	19S	32E	613374	3613633 🌑	7604	30		
CP 00640 POD1		CP	LE		2	2	19	19S	32E	612621	3613280*	7645	260	102	158
CP 00677		CP	LE		1	1	26	18S	32E	617750	3621373*	7695	700		
CP 01554 POD1		CP	LE	2	2	1	22	198	31E	607166	3613354 🌍	7725	400		
CP 01554 POD2		CP	LE	2	2	1	22	198	31E	607165	3613322 🌍	7755	400		

Average Depth to Water:

330 feet

Minimum Depth:

102 feet

Maximum Depth:

460 feet

Record

Count:

UTMNAD83 Radius Search (in meters):

Easting (X): 610104.484

Northing (Y): 3620499.205

Radius: 8000

\*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.

1/23/20 11:07 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Map Unit Description: Kermit-Berino fine sands, 0 to 3 percent slopes---Eddy Area, New Mexico

### **Eddy Area, New Mexico**

### KM—Kermit-Berino fine sands, 0 to 3 percent slopes

### Map Unit Setting

National map unit symbol: 1w4q Elevation: 3,100 to 4,200 feet

Mean annual precipitation: 10 to 14 inches Mean annual air temperature: 60 to 64 degrees F

Frost-free period: 190 to 230 days

Farmland classification: Not prime farmland

### Map Unit Composition

Kermit and similar soils: 50 percent Berino and similar soils: 35 percent Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of

the mapunit.

### **Description of Kermit**

### Setting

Landform: Plains, alluvial fans

Landform position (three-dimensional): Talf, rise

Down-slope shape: Convex, linear

Across-slope shape: Linear

Parent material: Mixed alluvium and/or eolian sands

### Typical profile

H1 - 0 to 7 inches: fine sand H2 - 7 to 60 inches: fine sand

### Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches Natural drainage class: Excessively drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Very

high (20.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 1.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 1.0

Available water storage in profile: Low (about 3.1 inches)

### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: A

Ecological site: Deep Sand (R042XC005NM)

Hydric soil rating: No

Map Unit Description: Kermit-Berino fine sands, 0 to 3 percent slopes---Eddy Area, New Mexico

### **Description of Berino**

### Setting

Landform: Fan piedmonts, plains

Landform position (three-dimensional): Riser

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Mixed alluvium and/or eolian sands

### Typical profile

H1 - 0 to 17 inches: fine sand

H2 - 17 to 50 inches: fine sandy loam H3 - 50 to 58 inches: loamy sand

### Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat):

Moderately high to high (0.60 to 2.00 in/hr) Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 40 percent

Salinity, maximum in profile: Very slightly saline to slightly saline

(2.0 to 4.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 1.0

Available water storage in profile: Moderate (about 7.2 inches)

### Interpretive groups

Land capability classification (irrigated): 4e Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: B

Ecological site: Loamy Sand (R042XC003NM)

Hydric soil rating: No

### **Minor Components**

### Active dune land

Percent of map unit: 15 percent

Hydric soil rating: No

### **Data Source Information**

Soil Survey Area: Eddy Area, New Mexico Survey Area Data: Version 15, Sep 15, 2019

Augustional Flood Hazard Layer FIRMette Received by OCD: 10/15/2020 12:34:55 PM 250 Eddy/County 350120 500 1,000 AREA OF MINIMAL FLOOD HAZARD 1,500 35015 CO675D Not Printed 2,000 Feet 1:6,000 32°42'45.27"N OTHER AREAS OF FLOOD HAZARD SPECIAL FLOOD HAZARD AREAS Legend OTHER AREAS MAP PANELS **FEATURES** GENERAL OTHER

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

Regulatory Floodway With BFE or Depth Zone AE, AO, AH, VE, AR Without Base Flood Elevation (BFE) Zone A, V. A99

























































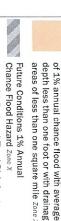


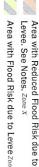






0.2% Annual Chance Flood Hazard, Area







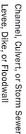


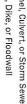


















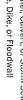












STRUCTURES | 1111111 Levee, Dike, or Floodwall

Cross Sections with 1% Annual Chance

Water Surface Elevation

Base Flood Elevation Line (BFE) Coastal Transect

Limit of Study

Coastal Transect Baseline Hydrographic Feature Profile Baseline Jurisdiction Boundary







The pin displayed on the map is an approximate point selected by the user and does not represent authoritative property location. Unmapped

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 1/23/2020 at 1:14:55 PM and does not reflect changes or amendments ubsequent 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's

<u>District I</u> 1625 N French Dr., Hobbs, NM 88240 District II 1301 W Grand Avenue, 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

Form C-141 Revised March 17, 1999 Submit 2 Copies to appropriate District Office in accordance

with Rule 116 on back side of form

30-015-	31454		Rele	ease Notific	cation	and Co	rrective A	ction		PASS
nMLB120	47497	15		OI	PERAT	ГOR		∑ Ini	tial Rej	port 🗹 Final Rep
		Devon E	nergy	6/37	(	Contact	Roger Herna	ndez		
Address 1					-	Γelephone	No. 575-7	48-523	8	
Artesia, N										
Facility N	ame Shu	igart 25 Fe		J	Facility T	ype Oil We	eļl			
Surface O	wner			Mineral	Owne	r			Lease	No.
LOCATION OF RELEASE										
Unit Letter	Section 25	Township T18S	Range 31E	Feet from the 1980	North/South	South Line	Feet from the 1980	East/West	est Line	County Eddy
				NAT	TURE	OF REL	EASE			
Type of Release 35 oil \$26 pw Volume of Release 55bbls Volume Recovered 55bbls										
Source of Re Tank Overflo						Date and F 2/2/12, 8:1	lour of Occurrenc 9 AM	1	Date and 8:19AM	Hour of Discovery 2/2/12,
Was Immedi		Given?				If YES, To	Whom?			
☐ Yes ☐ No ☐ Not Required ☐ Justin Frye, BLM – Eddy County & Mike Bratcher, OCD										
By Whom?		-1 - 10					lour 2/3/12, 8:0		2001120	
was a water	Was a Watercourse Reached?  ☐ Yes ☐ No  ☐ If YES, Volume Impacting the Watercourse.  ☐ RECEIVED									
If a Waterco	If a Watercourse was Impacted, Describe Fully.*  FEB 0 8 2012									
N/A										NMOCD ARTESIA
Describe Ca	use of Prob	lem and Reme	dial Actio	n Taken.*		•		· · · · · · · · · · · · · · · · · · ·		TVIVIOUS / II I I I
Upon arrival	at the Shug	gart 25-1, the l	ease opera	ator discovered a Vacuum truck wa	tank runr	ing over res	ulting in a 55 bbls	spill that	t was kept	t within the containment,
							шр.			
		and Cleanup antained inside								
I hereby cert	ify that the	information g	iven abov	e is true and com	plete to th	ne best of my	knowledge and u	ınderstan	d that pur	suant to NMOCD rules and
regulations a	all operators	are required t	to report a	nd/or file certain	release n	otifications a	nd perform correct	ctive actio	ons for rel	leases which may endanger lieve the operator of liability
should their	operations	have failed to	adequately	v investigate and	remediate	e contaminat	ion that pose a thr	reat to gro	ound wate	r, surface water, human healt
		addition, NM( ws and/or reg		ptance of a C-141	report d	oes not relie	e the operator of	responsib	oility for c	compliance with any other
rederal, state	, or local la	iws and/or reg	uiations.		Ť		OIL CON	SERV	ATION	DIVISION
								1.	7	
Signature: G	racie Bi	istamante			Approved by	DSigneduBerx	11/4	BRA	Miles -	
Printed Nam	ie: Gracie I	Bustamante								
Title: Contr	act Field To	ech				Approval Da	FEB 16 2	2012	xpiration	Date: NA
Date: 2/2/12	2 Phone:	(575) 746-55	559			Conditions o	f Approval: NIA	1	nal	Attached
* Attach A	dditional	Sheets If	Necessa	ary				•		PP-1031
									1	11-1031

<u>District I</u> 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

HOSS OCD State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

AUG 1 5 2014 il Conservation Division 1220 South St. Francis Dr.

1220 S. St. Fran	cis Dr., Santa	a Fe, NM 87505		CENTER Sa	nta F	e, NM 875	05				
Release Notification and Corrective Action											
						<b>OPERA</b>	ΓOR	⊠ I	nitial Repor	rt 🔲	Final Report
		evon Energy				Contact Ru			-		•
		Artesia, NN					No. 575- 390-54	35			
Facility Nar	ne Shugar	rt 25 Federa	I Com 1			Facility Typ	e Gas				
Surface Ow	ner: Feder	al		Mineral C	wner			API	No. 30-01	5-31454	
•				LOCA	TIO	N OF REI	LEASE				
Unit Letter K	Section 25	Township 18S	Range 31E	Feet from the 1980		/South Line OUTH	Feet from the 1980	East/West Li WEST	e County EDDY		
Latitude: Longitude:											
						OF RELI					
Type of Rele	ase Ball val	lve to load lin	e left ope		UND		Release: 7 bbls	Volur	ne Recovere	d: <b>0</b>	
Source of Re			o i ci c	60			our of Occurrence		nd Hour of		у
				7		08/08/14	3:30 AM	08/08	14 3:30	AM	
Was Immediate Notice Given?  Yes No Not Required  Was Immediate Notice Given?  If YES, To Whom?  Rudy Zuniga-Foreman/Hubert Perry-Night Assistant Foreman/Amancio Cruz-EHS/Reforeman/Mike Bratcher-OCD/Jeff Robert							Roy White-	Senior Pr			
			nderson -	- Night lease ope	rators			3:30 AM			
Was a Watercourse Reached?  ☐ Yes ☒ No							lume Impacting t	he Watercourse	e.		
If a Watercourse was Impacted, Describe Fully.*											
	3, 2014 at th	ne Shugart 25	Federal	n Taken.* #1, a leak occurr e was no produc						d 7 bbls o	of produced
		and Cleanup A de the facility		en.* et wide by 12 fee	long.	Diversified w	as contacted to p	perform the si	e assessme	nt and soi	il sampling
regulations a public health should their or the enviro	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: S	la a sa	A OVOINA					OIL CON	SERVATION	N DIVE	SHON	
Signature. S	murnry 11	ryrum					-				
Printed Name: Shammy Ingram						Approved by	Environmental S	Specialist:			
Title: Field	Admin Sup	port	,			Approval Da	te: 8-15-14	Expira	ion Date:	10-17-	14
E-mail Addr	ess: Shamn	ny.Ingram@e	lvn.com			Conditions o	f Approval:	egond.	Attac	hed	
Date: Augus	st 15, 2014		Phone: 5	575-748-0174		Peliante	2 rechore	area as	n 1R	P-324.	5
Attach Add		ets If Necess	sary			NnoCo	gudes . s.	Long fiel		og id	6137
						C-141	5 to 5 mples 1 5 to make to guides . Son by 10-17-11	4	r	10/42	2 75130
								≠ p= 10.1#		70 142	

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
Re

Form C-141 Revised August 8, 2011

Salarit 0 2004 appropriate District Office in accordance with 19.15.29 NMAC.

RECEIVED

	Release Notification and Corrective Action											
NAB142	52419	401				<b>OPERA</b>	COR			al Report		Final Report
Name of Co				6137		Contact Ru						
							lo. 575- 390-54	35	***************************************			
			I Com I		I	Facility Typ	e Gas		*******************************	***************************************		
Surface Own	ner: Feder	al		Mineral C	wner				API No	. 30-015-3	1454	
				LOCA	TION	OF REI	LEASE					
Unit Letter K	Section 25	Township 18S	Range 31E	Feet from the 1980		South Line OUTH	Feet from the 1980	S. C. S.	Vest Line EST	County EDDY		
Latitude:Longitude:												
					URE	OF RELI	EASE					
Type of Relea			e left ope	n			Release: 7 bbls			Recovered: (		
Source of Rel						08/08/14	our of Occurrenc 3:30 AM	e	08/08/14	Hour of Dis 3:30 AM	-	
Was Immedia	ite Notice C		Van E	I No. □ No. D	. autimad	If YES, To		h t D.	NII-1-4	F		CI-11
Yes ☐ No ☐ Not Required						Rudy Zuniga-Foreman/Hubert Perry-Night Foreman/Randy Gladden- Assistant Foreman/Amancio Cruz-EHS/Roy White-Senior Production Foreman/Mike Bratcher-OCD/Jeff Robertson-BLM						
By Whom? F	reddy Ran	rators	Date and Hour: 08/08/14 3:30 AM									
Was a Watero	course Reac		Yes 🗵	] No		If YES, Vo	lume Impacting t	he Wate	ercourse.			
Describe Cause of Problem and Remedial Action Taken.*  On August 8, 2014 at the Shugart 25 Federal #1, a leak occurred on a 3" ball valve on poly transfer line causing an estimated 7 bbls of produced water to be released outside the facility. There was no produced water recovered. Banta was called to repair the poly line.												
Describe Are The area affi activities.				en.* et wide by 12 fee	t long. I	Diversified w	as contacted to p	perforn	1 the site a	ssessment a	nd soi	sampling
regulations al public health should their or or the environ	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: S	hammy In	ngram					OIL CON	SERV	ATION	DIVISION	<u>JN</u>	
Printed Name	e: Shammy	Ingram				Approved by	Environmental S	pecialis	i:Hr	fu		_
Title: Field A	dmin Sup	port				Approval Da	e: 9/9/14		Expiration	Date: /	24	
Date: August 15, 2014 Phone: 575-748-0174						Conditions of Approval:  Remediation per OCD Rule & Guidelines.  SUBMIT REMEDIATION PROPOSAL NO					20.11.11	
, maon Audi	donal Sile	CIO II INCCESS	•		LATER THAN: 10/9/14 2RP-2474							

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 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	NAB1425241401
District RP	2RP-2474
Facility ID	30-015-31454
Application ID	pAB1425241215

## **Release Notification**

## **Responsible Party**

			1105	Ропо	ioic I di				
Responsible	Party: Deve	on Energy			OGRID: 328947				
Contact Nan	ne: Tom By	num			Contact Telephone: 580-748-1613				
Contact email: Tom.Bynum@dvn.com						# (assigned by OCD): NAB1914957336			
Contact mail	ing address:	: PO Box 250 Arte	esia, NM 88211						
			Location	n of R	Release S	Source			
Latitude 32.7	<u>'1680</u> L	ongitude <u>-103.825</u>	510		_(NAD 83 in a	lecimal degrees to 5 decimal places)			
Site Name: S	hugart 25 Fe	ederal #1			Site Type	: Oil Production			
Date Release Discovered: 08/08/14					API# (if a	pplicable) 30-015-00192			
Unit Letter	Section	tion Township Range			Соі	inty			
K	25	18S	31E	Edd	y				
Surface Owne		Federal T	Nature an	nd Vo	lume of	Release ic justification for the volumes provided below)			
Crude Oi		Volume Release		en calcula	Volume Recovered (bbls)				
Produced	Water	Volume Release	ed (bbls) 7 bbl		Volume Recovered (bbls) 0				
		Is the concentral produced water	ation of dissolved >10,000 mg/l?	chloride	e in the	☐ Yes ⊠ No			
Condensa	nte	Volume Release				Volume Recovered (bbls)			
Natural C	as	Volume Release	ed (Mcf)			Volume Recovered (Mcf)			
Other (describe) Volume/Weight Released (provide unit					Volume/Weight Recovered (provide units)				
#1 a leak occ	,2014 at the curred on a 3	Shugart 25 Feder. Ball valve locate overed. The poly	ed on the poly tra		e casing an	estimate 7 bbls of produced water to release outside the			

Received by OCD: 10/15/2020 12:34:55 PM Form C-141 State of New Mexico Page 2 Oil Conservation Division

Page 22 of 57

Incident ID	NAB1425241401
District RP	2RP-2474
Facility ID	30-015-31454
Application ID	pAB1425241215

Was this a major release as defined by	If YES, for what reason(s) does the responsible party consider this a major release?							
19.15.29.7(A) NMAC?								
☐ Yes ⊠ No								
If YES was immediate to	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?							
If 125, was immediate notice given to the GCD. 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							
The source of the rele	ease has been stopped.							
	as been secured to protect human health and the environment.							
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.								
All free liquids and re	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:								
has begun, please attach	AC the responsible party may commence remediation immediately after discovery of a release. If remediation a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred at area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.							
	rmation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and							
public health or the environs	required to report and/or file certain release notifications and perform corrective actions for releases which may endanger ment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have							
	ate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In f a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws							
Printed Name:Rebe	cca Pons Title:Project Manager							
Signature:	Date:Date:							
email: Rpons@tal	<u>onlpe.com</u> Telephone: <u>575-441-0980</u>							
OCD Owler								
OCD Only								
Received by:	Date:							

Received by OCD: 10/15/2020 12:34:55 PM Form C-141 State of New Mexico Page 4 Oil Conservation Division

Page 23 of 57

	- "g" = "j"
Incident ID	NAB1425241401
District RP	2RP-2474
Facility ID	30-015-31454
Application ID	pAB1425241215

I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release not public health or the environment. The acceptance of a C-141 report by the failed to adequately investigate and remediate contamination that pose a thr addition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	ifications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In
Printed Name: Rebecca Pons	_ Title: Project Manager
Signature:	Date:10/14/2020
email:Rpons@talonlpe.com	Telephone: 575-441-0980
OCD Only	
Received by:	Date:

Page 24 of 57

Incident ID	NAB1425241401
District RP	2RP-2474
Facility ID	30-015-31454
Application ID	pAB1425241215

## **Remediation Plan**

Remediation Plan Checklist: Each of the following items must be included in the plan.
<ul> <li>☑ Detailed description of proposed remediation technique</li> <li>☑ Scaled sitemap with GPS coordinates showing delineation points</li> <li>☑ Estimated volume of material to be remediated</li> <li>☑ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC</li> <li>☑ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)</li> </ul>
<u>Deferral Requests Only</u> : 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: Rebecca Pons Title: Project Manager
Signature: Date: _10/14/2020
email: <u>Rpons@talonlpe.com</u> Telephone: <u>575-441-0980</u>
OCD Only
Received by: Date:
Approved
Signature: Date:

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 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	NAB1914957336
District RP	2RP-5454
Facility ID	
Application ID	pAB1914956037

## **Release Notification**

## **Responsible Party**

			Kesp	OHSID	ic i ai ty	
Responsible Party Devon Energy Production Company				OGRID 6137		
Contact Name Amanda T. Davis				Contact Telephone 575-748-0176		
Contact email amanda.davis@dvn.com				Incident # (a	assigned by OCD) NAB1914957336	
		6488 Seven Riv				
			Location			
Latitude 32	.716777	78		ī	ongitude -	103.8251343
Latitude			(NAD 83 in dec	cimal degr	rees to 5 decima	al places)
Site Name Ch	ugart 25 F	ed Com #001			Site Type G	:25
Date Release						icable) 30-015-31454
Bute Release		5/13/2019				7 30-0 10-0 1404
Unit Letter	Section	Township	Range		Count	.y
K	25	18S	31E	Eddy		у
Surface Owner		Federal Tr	Nature and	d Volu		
Crude Oi	Material(s) Released (Select all that apply and attach calculations or specific Crude Oil Volume Released (bbls)			Volume Recovered (bbls)		
Produced Water Volume Released (bbls) 106.6			Volume Recovered (bbls) 105			
Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?		ids (TDS)	☐ Yes ☐ No			
Condensate Volume Released (bbls)		Volume Recovered (bbls)				
☐ Natural Gas Volume Released (Mcf)			Volume Recovered (Mcf)			
Other (describe) Volume/Weight Released (provide units) Volume/Weight Recovered (provide units)		Volume/Weight Recovered (provide units)				
Cause of Rel	the p	r transfer pum ump. Affected iinment 25'x10	area inside c	contain	nment 30'	and caused it to leak from multiple spots on x60'x5". Affected area outside of pad.

Form C-141

Page 2

## State of New Mexico Oil Conservation Division

	0 0
Incident ID	NAB1914957336
District RP	2RP-5454
Facility ID	
Application ID	pAB1914956037

Was this a major	If YES, for what reason(s) does the	e responsible party consider this a major release?
release as defined by	This is considered a major	spill because it is over 25 BBLS.
19.15.29.7(A) NMAC?		
Yes No		
If YES was immediate n	ortice given to the OCD? By whom?	To whom? When and by what means (phone, email, etc)?
		crystal Weaver, Robert Hamlet, Victoria Venegas, Mike
	riswold from Wesley Mathe	
	Init	ial Response
The responsible	party must undertake the following actions in	nmediately unless they could create a safety hazard that would result in injury
The source of the rel	ease has been stopped.	
	as been secured to protect human hea	alth and the environment.
Released materials h	ave been contained via the use of be	rms or dikes, absorbent pads, or other containment devices.
100	recoverable materials have been remo	
-	ed above have <u>not</u> been undertaken, e	
If all the actions describe	d above have <u>not</u> been undertaken, e	Apiam way.
Per 19.15.29.8 B. (4) NN	AAC the responsible party may come	mence remediation immediately after discovery of a release. If remediation emedial efforts have been successfully completed or if the release occurred
within a lined containme	ent area (see 19.15.29.11(A)(5)(a) N	MAC), please attach all information needed for closure evaluation.
I hereby certify that the info	ormation given above is true and comple	te to the best of my knowledge and understand that pursuant to OCD rules and
regulations all operators are	e required to report and/or file certain rel	ease notifications and perform corrective actions for releases which may endanger
public health or the enviror	iment. The acceptance of a C-141 report	by the OCD does not relieve the operator of liability should their operations have ose a threat to groundwater, surface water, human health or the environment. In
addition, OCD acceptance	of a C-141 report does not relieve the op	erator of responsibility for compliance with any other federal, state, or local laws
and/or regulations.		E110 A
Printed Name: Kend	ra DeHoyos	EHS Associate
Signature: Kendre	a DeHoyos	Date: <u>5/21/2019</u>
email. kendra.de	hoyos@dvn.com	Telephone: <u>575-748-3371</u>
Chian.		
OCD Owler		
OCD Only	n Ructamento	5/29/2019
Received by: Amalia		Date: <u>5/29/2019</u>

	Page 27 of	50
Incident ID	NAB1914957336	
District RP	2RP-5454	
Facility ID	30-015-31454	
Application ID	pAB1914956037	

## **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?	430 (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 <b>not</b> 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.			
<ul> <li>Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring well</li> <li>Field data</li> <li>Data table of soil contaminant concentration data</li> <li>Depth to water determination</li> <li>Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release</li> <li>Boring or excavation logs</li> </ul>	ls.		
M politik of everagion fors			

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.

Topographic/Aerial maps

Photographs including date and GIS information

□ Laboratory data including chain of custody

Received by OCD: 10/15/2020 12:34:55 PM Form C-141 State of New Mexico Page 4 Oil Conservation Division

	Page 28 of	50
Incident ID	NAB1914957336	
District RP	2RP-5454	
Facility ID	30-015-31454	
Application ID	pAB1914956037	

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: Rebecca Pons Project Manager Title: Date: 10/14/2020 Signature: Telephone: 575-441-0980 Rpons@talonlpe.com email: **OCD Only** Received by: Cristina Eads Date: 01/21/2021

e of New Mexico

NAB1914957336

NAB1914957336

Incident ID	NAB1914957336
District RP	2RP-5454
Facility ID	30-015-31454
Application ID	pAB1914956037

## **Remediation Plan**

Remediation Plan Checklist: Each of the following items must be included in the plan.
<ul> <li>Detailed description of proposed remediation technique</li> <li>Scaled sitemap with GPS coordinates showing delineation points</li> <li>Estimated volume of material to be remediated</li> <li>Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC</li> <li>Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)</li> </ul>
<u>Deferral Requests Only</u> : 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: Rebecca Pons Title: Project Manager
Signature: Date:
email: <u>Rpons@talonlpe.com</u> Telephone: <u>575-441-0980</u>
OCD Only
Received by: Cristina Eads Date: 01/21/2021
☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved
Signature: Date: 01/21/2021

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 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**

			Kespi	onsible 1 arty					
Responsible I	Party Devon	Energy Produc	tion Company	OGRID 61:	37				
Contact Nam				Contact Tel	Contact Telephone 575-748-0176				
		davis@dvn.con	n	Incident#	Incident # (assigned by OCD)				
		6488 Seven Riv							
			Location	of Release So	urce				
32	.71680		200000		103.82510				
Latitude 32	.7 1000		(NAD 83 in deci	Longitude Longitude	al places)				
Cita Nama				Site Type C					
Site Name Sh									
Date Release	Discovered	11/27/2019		API# (if appl	icaoie)				
Unit Letter	Section	Township	Range	Count	ty				
K	25	18S	31E	Edd	У				
	Materia	l(s) Released (Select al	l that apply and attach	l Volume of F	justification for the volumes provided below)				
Crude Oil		Volume Release			Volume Recovered (bbls)				
Produced	Water	Volume Release	100		Volume Recovered (bbls) 400				
			tion of total dissolv water >10,000 mg		☐ Yes ☐ No				
Condensa	ite	Volume Release			Volume Recovered (bbls)				
Natural C	ias	Volume Release	ed (Mcf)		Volume Recovered (Mcf)				
Other (de	escribe)	Volume/Weight	Released (provide	e units)	Volume/Weight Recovered (provide units)				
Cause of Rel	<sup>ease</sup> Wate	r tank over flo	wed due to tra	ansfer pump fa	ilure. Fluid stayed within containment.				

Form C-141 Page 2

## State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major	If YES, for what reason(s) does the respon	
release as defined by 19.15.29.7(A) NMAC?	This is considered a major releas	se because it is over 25 BBLS.
19.13.29.7(A) NWAC!		
Yes No		
		om? When and by what means (phone, email, etc)?
		r, Robert Hamlet, Jim Griswold, Victoria Venegas
and Mike Bratcher	from Amanda Davis on 11/27/201	ð.
	Initial Re	esponse
The responsible	party must undertake the following actions immediatel	y unless they could create a safety hazard that would result in injury
■ The source of the rel	lease has been stopped.	
The impacted area h	as been secured to protect human health and	the environment.
Released materials h	nave been contained via the use of berms or d	likes, absorbent pads, or other containment devices.
All free liquids and	recoverable materials have been removed and	d managed appropriately.
If all the actions describe	ed above have not been undertaken, explain	why:
		×
has begun, please attach	a narrative of actions to date. If remedial	emediation immediately after discovery of a release. If remediation efforts have been successfully completed or if the release occurred please attach all information needed for closure evaluation.
I hereby certify that the inf	formation given above is true and complete to the	best of my knowledge and understand that pursuant to OCD rules and
regulations all operators ar	e required to report and/or file certain release noti	fications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have
failed to adequately investi	igate and remediate contamination that pose a thre	eat to groundwater, surface water, human health or the environment. In
addition, OCD acceptance and/or regulations.	of a C-141 report does not relieve the operator of	responsibility for compliance with any other federal, state, or local laws
Printed Name: Kend	Ira DeHoyos	Title: EHS Associate
Signature: Kendr	a DeHoyos	Date: 12/4/2019
	hoyos@dvn.com	Telephone: 575-748-3371
email:	, 33@3	rerepnone:
OCD Only		
		Data
Received by:		Date:



# **APPENDIX IV**

## LABORATORY DATA



March 05, 2020

**CHRIS JONES** 

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: SHUGART 25 FED 1

Enclosed are the results of analyses for samples received by the laboratory on 03/02/20 14:10.

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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> 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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited certification

Cardinal Laboratories is accreditated 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.

Celey D. Keene

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



### Analytical Results For:

TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

03/02/2020

Reported:

03/05/2020

Project Name:

SHUGART 25 FED 1 700794.304.01

Project Number: Project Location:

DEVON - LEA CO NM

Sampling Date:

02/26/2020

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

### Sample ID: W. COMP (H000660-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS			WALE		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.89	94.6	2.00	3.00	
Toluene*	<0.050	0.050	03/03/2020	ND	1.90	94.9	2.00	2.81	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.91	95.4	2.00	2.84	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.52	92.0	6.00	2.81	
Total BTEX	<0.300	0.300	03/03/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIL	97.7	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14900	16.0	03/03/2020	ND	432	108	400	0.00	QM-07
TPH 8015M	mg,	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	181	90.6	200	0.385	
DRO >C10-C28*	314	10.0	03/03/2020	ND	192	96.0	200	1.25	
EXT DRO >C28-C36	62.1	10.0	03/03/2020	ND					
Surrogate: 1-Chlorooctane	86.5	% 44.3-14	14						
Surrogate: 1-Chlorooctadecane	100	% 42.2-15	6						

### Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages, Cardinal's liability and clients exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise, Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg & Keene

Celey D. Keene, Lab Director/Quality Manager

Page 2 of 23



### Analytical Results For:

TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210

(575) 745-8905

Analyzed By: MS

Fax To:

Received:

03/02/2020

Reported:

BTEX 8021B

03/05/2020

Project Name:

SHUGART 25 FED 1

Project Number: Project Location: 700794.304.01

mg/kg

.

DEVON - LEA CO NM

Sampling Date:

02/26/2020

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

### Sample ID: N. COMP (H000660-02)

	٠.								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.89	94.6	2.00	3.00	
Toluene*	<0.050	0.050	03/03/2020	ND	1.90	94.9	2.00	2.81	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.91	95.4	2.00	2.84	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.52	92.0	6.00	2.81	
Total BTEX	<0.300	0.300	03/03/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIL	99.5	% 73.3-12	9						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7600	16.0	03/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	181	90.6	200	0.385	
DRO >C10-C28*	42.9	10.0	03/03/2020	ND	192	96.0	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					
Surrogate: 1-Chlorooctane	88.5	% 44.3-14	14						
Surrogate: 1-Chlorooctadecane	92.8	% 42.2-15	6						

#### Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celley Litreene

Celey D. Keene, Lab Director/Quality Manager

Page 3 of 23



### Analytical Results For:

TALON LPE **CHRIS JONES** 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

03/02/2020

Sampling Date:

02/26/2020

Reported:

03/05/2020

Sampling Type:

Soil

Project Name:

SHUGART 25 FED 1

Sampling Condition:

Cool & Intact

Project Number:

700794.304.01

Sample Received By:

Tamara Oldaker

Project Location:

DEVON - LEA CO NM

### Sample ID: E. COMP (H000660-03)

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	03/03/2020	ND	1.89	94.6	2.00	3.00	
Toluene*	<0.050	0.050	03/03/2020	ND	1.90	94.9	2.00	2.81	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.91	95.4	2.00	2.84	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.52	92.0	6.00	2.81	
Total BTEX	<0.300	0.300	03/03/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIL	99.5	% 73.3-12	9						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC			¥82			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6530	16.0	03/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg,	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	181	90.6	200	0.385	
DRO >C10-C28*	401	10.0	03/03/2020	ND	192	96.0	200	1.25	
EXT DRO >C28-C36	157	10.0	03/03/2020	ND					
Surrogate: 1-Chlorooctane	87.6	% 44.3-14	4		0.0000000000000000000000000000000000000				
Surrogate: 1-Chlorooctadecane	103	% 42.2-15	6						

### Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories,

Celego treens

Celey D. Keene, Lab Director/Quality Manager

Page 4 of 23



# Analytical Results For:

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

Fax To:

Received:

BTEX 8021B

03/02/2020

Reported:

Project Name:

Project Number:

Project Location:

03/05/2020 SHUGART 25 FED 1

700794.304.01

mg/kg

DEVON - LEA CO NM

Sampling Date:

Sampling Type:

Sampling Condition:

Sample Received By:

02/26/2020

Soil

Cool & Intact Tamara Oldaker

# Sample ID: S. COMP (H000660-04)

	٠,	•							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.89	94.6	2.00	3.00	
Toluene*	<0.050	0.050	03/03/2020	ND	1.90	94.9	2.00	2.81	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.91	95.4	2.00	2.84	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.52	92.0	6.00	2.81	
Total BTEX	<0.300	0.300	03/03/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIL	98.4	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	47600	16.0	03/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	181	90.6	200	0.385	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	192	96.0	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					
Surrogate: 1-Chlorooctane	87.2	% 44.3-14	14						
Surrogate: 1-Chlorooctadecane	90.1	% 42.2-15	i6						

Analyzed By: MS

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg to treens

Celey D. Keene, Lab Director/Quality Manager

Page 5 of 23



# Analytical Results For:

TALON LPE **CHRIS JONES** 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

03/02/2020

Reported:

03/05/2020 SHUGART 25 FED 1

Project Name: Project Number:

700794.304.01

Project Location:

DEVON - LEA CO NM

Sampling Date:

Sample Received By:

02/26/2020 Soil

Sampling Type: Sampling Condition:

Cool & Intact

Tamara Oldaker

### Sample ID: S - 1 0-1' (H000660-05)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.92	95.9	2.00	1.68	
Toluene*	<0.050	0.050	03/03/2020	ND	1.92	96.1	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.95	97.7	2.00	1.78	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.63	93.8	6.00	2.14	
Total BTEX	<0.300	0.300	03/03/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIL	99.0	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9730	16.0	03/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	181	90.6	200	0.385	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	192	96.0	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					
Surrogate: 1-Chlorooctane	91.2	% 44.3-14	14						
Surrogate: 1-Chlorooctadecane	93.4	% 42.2-15	56						

#### Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages, Cardinal's liability and clients exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg to Keens

Celey D. Keene, Lab Director/Quality Manager

Page 6 of 23



# Analytical Results For:

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

Fax To:

Received:

03/02/2020

Reported:

03/05/2020

Project Name: Project Number: SHUGART 25 FED 1 700794.304.01

Project Location:

DEVON - LEA CO NM

Sampling Date:

02/26/2020

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

# Sample ID: S - 1 2' (H000660-06)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.92	95.9	2.00	1.68	
Toluene*	< 0.050	0.050	03/03/2020	ND	1.92	96.1	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.95	97.7	2.00	1.78	
Total Xylenes*	< 0.150	0.150	03/03/2020	ND	5.63	93.8	6.00	2.14	
Total BTEX	<0.300	0.300	03/03/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIL	99.8	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	03/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	181	90.6	200	0.385	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	192	96.0	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					
Surrogate: 1-Chlorooctane	85.9	% 44.3-14	14						
Surrogate: 1-Chlorooctadecane	87.9	% 42.2-15	56						

#### Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise, Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg Theens

Celey D. Keene, Lab Director/Quality Manager

Page 7 of 23



# Analytical Results For:

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

Fax To:

Received:

03/02/2020

Reported:

03/05/2020

Project Name:

SHUGART 25 FED 1 700794.304.01

Project Number: Project Location:

DEVON - LEA CO NM

Sampling Date:

02/26/2020

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: S - 1 3' (H000660-07)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	03/03/2020	ND	1.92	95.9	2.00	1.68	
Toluene*	<0.050	0.050	03/03/2020	ND	1.92	96.1	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.95	97.7	2.00	1.78	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.63	93.8	6.00	2.14	
Total BTEX	<0.300	0.300	03/03/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIL	98.2	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	03/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg,	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	181	90.6	200	0.385	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	192	96.0	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					
Surrogate: 1-Chlorooctane	92.2	% 44.3-14	14						
Surrogate: 1-Chlorooctadecane	94.1	% 42.2-15	56						

#### Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages, Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg to treene

Celey D. Keene, Lab Director/Quality Manager

Page 8 of 23



# Analytical Results For:

TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

03/02/2020

Reported:

03/05/2020

Project Name:

SHUGART 25 FED 1 700794.304.01

Project Number: Project Location:

DEVON - LEA CO NM

Sampling Date:

02/26/2020

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: S - 1 4' (H000660-08)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.92	95.9	2.00	1.68	
Toluene*	< 0.050	0.050	03/03/2020	ND	1.92	96.1	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.95	97.7	2.00	1.78	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.63	93.8	6.00	2.14	
Total BTEX	<0.300	0.300	03/03/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIL	99.0	% 73.3-12	9						
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	03/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	181	90.6	200	0.385	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	192	96.0	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					
Surrogate: 1-Chlorooctane	91.2	% 44.3-14	14						
Surrogate: 1-Chlorooctadecane	93.1	% 42.2-15	6						

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise, Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

Page 9 of 23



# Analytical Results For:

TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To: (575) 745-8905

Received:

DTEV OANID

03/02/2020

Reported:

03/05/2020 SHUGART 25 FED 1

Project Name: Project Number:

700794.304.01

Project Location:

DEVON - LEA CO NM

Sampling Date: Sampling Type:

02/26/2020 Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: S - 2 0-1' (H000660-09)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.92	95.9	2.00	1.68	
Toluene*	<0.050	0.050	03/03/2020	ND	1.92	96.1	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.95	97.7	2.00	1.78	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.63	93.8	6.00	2.14	
Total BTEX	<0.300	0.300	03/03/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIL	99.3	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1260	16.0	03/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2020	ND	181	90.6	200	0.385	
DRO >C10-C28*	<10.0	10.0	03/03/2020	ND	192	96.0	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	03/03/2020	ND					
Surrogate: 1-Chlorooctane	87.0	% 44.3-14	14						
Surrogate: 1-Chlorooctadecane	88.4	% 42.2-15	56						

Analyzed By: MS

#### Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and clients exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg & Kreene

Celey D. Keene, Lab Director/Quality Manager

Page 10 of 23



# Analytical Results For:

TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To: (575) 745-8905

Received:

BTEX 8021B

03/02/2020

Reported:

03/05/2020

Project Name: Project Number: SHUGART 25 FED 1 700794.304.01

Project Location:

DEVON - LEA CO NM

mg/kg

Sampling Date:

02/26/2020

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: S - 2 2' R (H000660-10)

	3,	· J							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.92	95.9	2.00	1.68	
Toluene*	<0.050	0.050	03/03/2020	ND	1.92	96.1	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.95	97.7	2.00	1.78	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.63	93.8	6.00	2.14	
Total BTEX	<0.300	0.300	03/03/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIL	99.6	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	03/03/2020	ND	432	108	400	0.00	

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	03/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2020	ND	181	90.6	200	0.385	
DRO >C10-C28*	<10.0	10.0	03/04/2020	ND	192	96.0	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	03/04/2020	ND					

Surrogate: 1-Chlorooctane 90.4 % 44.3-144
Surrogate: 1-Chlorooctadecane 92.4 % 42.2-156

Cardinal Laboratories \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subcidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 11 of 23



# Analytical Results For:

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

Received:

03/02/2020

Reported:

03/05/2020

Project Name: Project Number: SHUGART 25 FED 1 700794.304.01

Project Location:

DEVON - LEA CO NM

Sampling Date:

Sampling Type:

02/26/2020 Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: S - 3 0-1' (H000660-11)

7									
BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.92	95.9	2.00	1.68	
Toluene*	<0.050	0.050	03/03/2020	ND	1.92	96.1	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.95	97.7	2.00	1.78	
Total Xylenes*	< 0.150	0.150	03/03/2020	ND	5.63	93.8	6.00	2.14	

ND

03/03/2020

Surrogate: 4-Bromofluorobenzene (PIL

Total BTEX

99.6%

< 0.300

73.3-129

0.300

mg	mg/kg		Analyzed By: AC					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
7330	16.0	03/03/2020	ND	432	108	400	0.00	
mg	/kg	Analyze	d By: MS					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<10.0	10.0	03/04/2020	ND	181	90.6	200	0.385	
<10.0	10.0	03/04/2020	ND	192	96.0	200	1.25	
<10.0	10.0	03/04/2020	ND					
	Result 7330 mg, Result <10.0 <10.0	Result Reporting Limit  7330 16.0  mg/kg  Result Reporting Limit  <10.0 10.0  <10.0 10.0	Result         Reporting Limit         Analyzed           7330         16.0         03/03/2020           mg/kg         Analyzed           Result         Reporting Limit         Analyzed           <10.0	Result         Reporting Limit         Analyzed         Method Blank           7330         16.0         03/03/2020         ND           mg/kg         Analyzed By: MS           Result         Reporting Limit         Analyzed         Method Blank           <10.0	Result         Reporting Limit         Analyzed         Method Blank         BS           7330         16.0         03/03/2020         ND         432           mg/kg         Analyzed By: MS           Result         Reporting Limit         Analyzed         Method Blank         BS           <10.0	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery           7330         16.0         03/03/2020         ND         432         108           mg/kg         Analyzed By: MS           Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery           <10.0	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC           7330         16.0         03/03/2020         ND         432         108         400           mg/kg         Analyzed By: MS           Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC           <10.0	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC         RPD           7330         16.0         03/03/2020         ND         432         108         400         0.00           mg/kg         Analyzed By: MS           Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC         RPD           <10.0

Surrogate: 1-Chlorooctane
Surrogate: 1-Chlorooctadecane

87.3 %

89.1 %

44.3-144 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed walved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subcidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approved of Cardinal Laboratories.

Celeg Ditiens

Celey D. Keene, Lab Director/Quality Manager

Page 12 of 23



# Analytical Results For:

TALON LPE **CHRIS JONES** 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

03/02/2020

Reported: Project Name: 03/05/2020

Project Number:

SHUGART 25 FED 1 700794.304.01

Project Location:

DEVON - LEA CO NM

Sampling Date:

02/26/2020 Soil

Sampling Type:

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

# Sample ID: S - 3 2' (H000660-12)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.92	95.9	2.00	1.68	
Toluene*	<0.050	0.050	03/03/2020	ND	1.92	96.1	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.95	97.7	2.00	1.78	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.63	93.8	6.00	2.14	
Total BTEX	<0.300	0.300	03/03/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIL	99.3	% 73.3-12	9						
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	03/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2020	ND	181	90.6	200	0.385	
DRO >C10-C28*	<10.0	10.0	03/04/2020	ND	192	96.0	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	03/04/2020	ND					
Surrogate: 1-Chlorooctane	89.0	% 44.3-14	14						
Surrogate: 1-Chlorooctadecane	91.1	% 42.2-15	6						

#### Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any daim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg there

Celey D. Keene, Lab Director/Quality Manager

Page 13 of 23



# Analytical Results For:

TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Analyzed By: MS

Received:

03/02/2020

Reported:

BTFX 8021B

03/05/2020

Project Name:

SHUGART 25 FED 1 700794.304.01

Project Number: Project Location:

DEV

DEVON - LEA CO NM

ma/ka

Sampling Date:

02/26/2020

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

#### Sample ID: S - 3 3' (H000660-13)

BIEX 8021B	mg/	kg .	Anaiyze	а ву: м5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.92	95.9	2.00	1.68	
Toluene*	<0.050	0.050	03/03/2020	ND	1.92	96.1	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.95	97.7	2.00	1.78	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.63	93.8	6.00	2.14	
Total BTEX	<0.300	0.300	03/03/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIL	98.8	% 73.3-12	9						
Chloride, SM4500CI-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	03/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS	~~~				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2020	ND	181	90.6	200	0.385	
DRO >C10-C28*	<10.0	10.0	03/04/2020	ND	192	96.0	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	03/04/2020	ND					
Surrogate: 1-Chlorooctane	84.0	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	85.6	% 42.2-15	6						

# Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subclidaries, affiliaties or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey & Keens

Celey D. Keene, Lab Director/Quality Manager

Page 14 of 23



# Analytical Results For:

TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Analyzed By: MS

Received:

03/02/2020

Reported: Project Name:

BTEX 8021B

03/05/2020

Project Number:

SHUGART 25 FED 1 700794.304.01

mg/kg

83.6%

85.8 %

44.3-144

42.2-156

Project Location:

DEVON - LEA CO NM

Sampling Date:

02/26/2020

Sampling Type: Sampling Condition: Sample Received By: Soil Cool & Intact

Tamara Oldaker

Sample ID: S - 3 4' (H000660-14)

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.050	0.050	03/03/2020	ND	1.92	95.9	2.00	1.68	
Toluene*	<0.050	0.050	03/03/2020	ND	1.92	96.1	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.95	97.7	2.00	1.78	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.63	93.8	6.00	2.14	
Total BTEX	<0.300	0.300	03/03/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIL	99.8	% 73.3-12	9				23		
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2020	ND	181	90.6	200	0.385	
DRO >C10-C28*	<10.0	10.0	03/04/2020	ND	192	96.0	200	1.25	

Cardinal Laboratories

Surrogate: 1-Chlorooctane

Surrogate: 1-Chlorooctadecane

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subclidaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg to Frence

Celey D. Keene, Lab Director/Quality Manager

Page 15 of 23



# Analytical Results For:

TALON LPE **CHRIS JONES** 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received: Reported: 03/02/2020

03/05/2020

Project Name: Project Number: SHUGART 25 FED 1 700794.304.01

Project Location:

DEVON - LEA CO NM

Sampling Date:

02/26/2020

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: S - 4 0-1' (H000660-15) 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	03/03/2020	ND	1.92	95.9	2.00	1.68	
Toluene*	<0.050	0.050	03/03/2020	ND	1.92	96.1	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.95	97.7	2.00	1.78	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.63	93.8	6.00	2.14	
Total BTEX	< 0.300	0.300	03/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIL

98.7%

73.3-129

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4160	16.0	03/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2020	ND	181	90.6	200	0.385	
DRO >C10-C28*	<10.0	10.0	03/04/2020	ND	192	96.0	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	03/04/2020	ND					

Surrogate: 1-Chlorooctane

84.6%

44.3-144

Surrogate: 1-Chlorooctadecane

87.2 %

42.2-156

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses, any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

alex treens

Celey D. Keene, Lab Director/Quality Manager

Page 16 of 23



# Analytical Results For:

TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

03/02/2020

Reported:

03/05/2020

Project Name:

SHUGART 25 FED 1 700794.304.01

Project Number: Project Location:

DEVON - LEA CO NM

Sampling Date:

02/26/2020

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: S - 4 2' R (H000660-16)

BTEX 8021B	mg	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.92	95.9	2.00	1.68	
Toluene*	<0.050	0.050	03/03/2020	ND	1.92	96.1	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.95	97.7	2.00	1.78	
Total Xylenes*	< 0.150	0.150	03/03/2020	ND	5.63	93.8	6.00	2.14	
Total BTEX	< 0.300	0.300	03/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIL

99.2 %

73.3-129

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	03/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2020	ND	171	85.7	200	3.17	
DRO >C10-C28*	<10.0	10.0	03/04/2020	ND	182	90.8	200	3.96	
EXT DRO >C28-C36	<10.0	10.0	03/04/2020	ND					

Surrogate: 1-Chlorooctane

74.4%

44.3-144

Surrogate: 1-Chlorooctadecane

80.4%

42.2-156

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of use, or loss of grofits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg & treene

Celey D. Keene, Lab Director/Quality Manager

Page 17 of 23



# Analytical Results For:

TALON LPE **CHRIS JONES** 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

42.2-156

84.6%

(575) 745-8905

Received:

03/02/2020

Reported:

03/05/2020

Project Name:

SHUGART 25 FED 1

Project Number:

700794.304.01

Sampling Date:

02/26/2020

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Project Location:

DEVON - LEA CO NM

Sample ID: S - 5 0-1' (H000660-17)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.92	95.9	2.00	1.68	
Toluene*	<0.050	0.050	03/03/2020	ND	1.92	96.1	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.95	97.7	2.00	1.78	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.63	93.8	6.00	2.14	
Total BTEX	<0.300	0.300	03/03/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIL	100 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2000	16.0	03/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2020	ND	177	88.5	200	0.342	
DRO >C10-C28*	<10.0	10.0	03/04/2020	ND	166	82.8	200	2.68	
EXT DRO >C28-C36	<10.0	10.0	03/04/2020	ND					
Surrogate: 1-Chlorooctane	82.0	% 44.3-14							

### Cardinal Laboratories

Surrogate: 1-Chlorooctadecane

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed valved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise, Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

alex treens

Celey D. Keene, Lab Director/Quality Manager

Page 18 of 23



# Analytical Results For:

TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Analyzed By: MS

Received:

03/02/2020

Sampling Date:

02/26/2020

Reported:

BTEX 8021B

03/05/2020

Sampling Type:

Soil

Project Name:

SHUGART 25 FED 1

Sampling Type: Sampling Condition:

Cool & Intact

Project Number:

700794.304.01

mg/kg

85.8 %

88.0%

44.3-144

42.2-156

Sample Received By:

Tamara Oldaker

Project Location:

DEVON - LEA CO NM

Sample ID: S - 5 2' (H000660-18)

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.92	95.9	2.00	1.68	
Toluene*	< 0.050	0.050	03/03/2020	ND	1.92	96.1	2.00	1.45	
Ethylbenzene*	< 0.050	0.050	03/03/2020	ND	1.95	97.7	2.00	1.78	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.63	93.8	6.00	2.14	
Total BTEX	<0.300	0.300	03/03/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIL	99.65	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2020	ND	177	88.5	200	0.342	
DRO >C10-C28*	<10.0	10.0	03/04/2020	ND	166	82.8	200	2.68	
	10.0	10.0	00/01/2020		177-177-177			13/25/27/27	

Cardinal Laboratories

Surrogate: 1-Chlorooctane

Surrogate: 1-Chlorooctadecane

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and clients exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of or profits incrumed by client, its subdidaires, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celleg & Frence

Celey D. Keene, Lab Director/Quality Manager

Page 19 of 23



# Analytical Results For:

TALON LPE **CHRIS JONES** 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received: Reported: 03/02/2020

03/05/2020

Project Name:

SHUGART 25 FED 1 700794.304.01

Project Number: Project Location:

DEVON - LEA CO NM

Sampling Date:

02/26/2020

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

# Sample ID: S - 5 3' (H000660-19)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2020	ND	1.92	95.9	2.00	1.68	
Toluene*	<0.050	0.050	03/03/2020	ND	1.92	96.1	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/03/2020	ND	1.95	97.7	2.00	1.78	
Total Xylenes*	<0.150	0.150	03/03/2020	ND	5.63	93.8	6.00	2.14	
Total BTEX	<0.300	0.300	03/03/2020	ND					
Surrogate: 4-Bromofluorobenzene (PIL	98.7	% 73.3-12	9		4				
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg,	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2020	ND	177	88.5	200	0.342	
DRO >C10-C28*	<10.0	10.0	03/04/2020	ND	166	82.8	200	2.68	
EXT DRO >C28-C36	<10.0	10.0	03/04/2020	ND					
Surrogate: 1-Chlorooctane	87.9	% 44.3-14	14						
Surrogate: 1-Chlorooctadecane	91.1	% 42.2-15	6						

# Cardinal Laboratories

\*=Accredited Analyte

PLESE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg Theene

Celey D. Keene, Lab Director/Quality Manager

Page 20 of 23



#### **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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg & treens

Celey D. Keene, Lab Director/Quality Manager

Page 21 of 23

**Analytical Report** 

Lab Order 2003045

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/5/2020

CLIENT: Talon Artesia

**Project:** Devon State Jr 1

Lab ID: 2003045-008

Client Sample ID: S-8 0'

Collection Date: 2/28/2020 10:10:00 AM

Received Date: 3/3/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	CJS
Chloride	ND	60		mg/Kg	20	3/3/2020 12:39:19 PM	50837
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS					Analyst:	CLP
Diesel Range Organics (DRO)	29000	950		mg/Kg	100	3/3/2020 2:19:33 PM	50823
Motor Oil Range Organics (MRO)	15000	4800		mg/Kg	100	3/3/2020 2:19:33 PM	50823
Surr: DNOP	0	55.1-146	S	%Rec	100	3/3/2020 2:19:33 PM	50823
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	NSB
Gasoline Range Organics (GRO)	460	20		mg/Kg	5	3/3/2020 10:58:47 AM	G66977
Surr: BFB	621	66.6-105	S	%Rec	5	3/3/2020 10:58:47 AM	G66977
EPA METHOD 8021B: VOLATILES						Analyst:	NSB
Benzene	0.11	0.099		mg/Kg	5	3/3/2020 10:58:47 AM	B66977
Toluene	1.1	0.20		mg/Kg	5	3/3/2020 10:58:47 AM	B66977
Ethylbenzene	1.8	0.20		mg/Kg	5	3/3/2020 10:58:47 AM	B66977
Xylenes, Total	12	0.40		mg/Kg	5	3/3/2020 10:58:47 AM	B66977
Surr: 4-Bromofluorobenzene	115	80-120		%Rec	5	3/3/2020 10:58:47 AM	B66977

Matrix: SOIL

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

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 Quanitative 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

Page 8 of 20

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Broken Box CPC		ANALYSIS REQUEST
- Cycle mailed CARIS TONES	P.O. #: 100744. 304.01	- 11
Address: 408 (J. TEXAS AVE	Company: TALON (PE	
GIV: ARTESIA State: NM Zip: 88210	Attn: C. Joves	
	Address	
Project N TOD 194. 304. DI Project Owner: DE Jon	City:	
	State: Zip:	<u>.</u> .
Project Location: LEA COLMITY	楚 .	IE.
Sampler Name: MICHNEC COLLLER	Tay to	
		R
OMP.	PRESERV, SAMPLING	HCO
Sample (O) OR (C) ON AINERS - DWATER WATER	ISE:	, -
# CON GROU	OTHER ACID'AB CE/C OTHER DATA	ТР
	1 05-24-20 1E	
1 1	1	
ilu	10.50am	The state of the s
5. Comp	11.000-11	
1 0-	11: 250	,
-   -	11:30am	
-	11:40	
3 1	11:50	
1-0 0-1	1:000:1	
PLEASE NOTE: Liability and Daningers Conditates the Bully and clients exclusive comment of the Asia states the base of the Asia states and the Asia states are a second of the Asia states and the Asia states are a second of	1 2-26-20 1:10am V	5
g fhose for negligence and any other ca udinal be llable for heidental er conseq grout of errelated to the performance o	"up", signi be limited to the amount baid by the ellent for the seekered by Cardinal within 30 days after completion of the applicative of the control by client, its cuts plaints, and then a his of the above clother forecasts on the of the above clother forecasts.	ule ·
Received By:	Phone Result: Fax Result:	ロ Yes ロ No Addi Phone 歩: 日 Yes ロ No - Addi Fax 歩:
Calle.	REWARKS:	
Times 2 Control by:	PG. I of a	
Idimas	문	
Sampler - LIPS - Bus - Other: 5,35 All Cross Areas Are	(Initials)	
Y Carolinal cannot accept verbal changes. Please far written changes to (575) \$95-2328	75) 493-2326	



101 East Marland, Hobbs, NM 88240 (878) 393-2326 FAX (875) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

口 Yes 口 No Add Phone你	Phone Result:	O O O O STEEDS IN THE CONTROL EN
	des of use, or less of profits (nottred by clich), its subsidiaries, is based usen any of the above sinted reasons or otherwise.	afficies or attornous arising out of or related his hardgemance afferent value hardware from the front of the first in the first of the
cable .	t or 10%, shall be limited to the amount paid by the elight for the accident paid by Cardinal within 30 days atter completion of the acciden	anilyses. All claims including those for negligates and any other causes whateaver shall be described when the shall be described by the shall be de
		PLEASE NOTE: Liability and Damages. Cardinal's liability and dignits exclusive romers for any color action which was a
	124-70 3:00 V	0
	2:5007	S-17 22
	2:4bp	/8 5-5 2
	2:200-	
	2:100	E
	2,000,7	15 54 0-1
Transmission of the second sec		14 5-3 4
The state of the s		12,5-3
	1:400	į
		د
		`\
ТРІ	OTHER AGID/B, GE / CC OTHER DATE	# CON GROVI
EX.	: ASE: DOL :	SOR (C)C
HCo	- Community	R
2)(2	TO TIETO	
JE	TI GOOD HE	Sampler Name: MICHAEL COLLER
	· 学	Project Location: LEA COLINITY
	State: Zip:	Froject Name: VHUFGGT 45 FED
	Gliyı	
	Address:	Fnone 架 575-631-6977 Fax 数
	Attn: C. JONES	SCATES IN SCATES IN Zin: 66210
-	Gompany: TALON LPC	W. TEXES AVE
	P.O. #: 100794. 304.01	1
ANALVER DECIDE		Broken BLON CRE
LONGER CHICAGO		- 11

Sampler - UPS - Bus - Other

5.30

Delivered 配好;

(Circle Che)

REMARKS: PG 20F2

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 10659

### **CONDITIONS OF APPROVAL**

Operator:		OGRID:	Action Number:	Action Type:
TALON LPE 408 W Te	xas Artesia, NM88210	329944	10659	C-141

OCD Reviewer	Condition
ceads	Horizontal delineation samples will meet the most stringent Table I Closure Criteria.