

APPROVED

By Olivia Yu at 9:42 am, Sep 05, 2018

NMOCD approves
1RP-4708 for closure.

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Remediation and Closure Report

Outland State Unit 2
API # 30-025-34971 * 1RP-4708-0
Talon Project No. 700794.243.01

Prepared For:

Devon Energy Production
6488 Seven Rivers Hwy
Artesia, New Mexico 88210

Prepared By:

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

June 7, 2018

Ms. Olivia Yu
NMOCD District 1
1625 N. French Dr.
Hobbs, NM 88240

Subject: **Soil Assessment and Remediation Work Plan**
Outland State Unit 2
API # 30-025-34971 * 1RP-4708-0

Dear Ms. Yu,

Devon Corporation has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced location. The incident description, soil sampling results, remediation activities and closure request are submitted herein.

Site Information

The Outland State Unit 2 is located approximately thirty-five (35) miles southwest of Hobbs, New Mexico. The legal location for this release is Unit Letter E, Section 12, Township 21 South and Range 34 East in Lea County, New Mexico. More specifically the latitude and longitude for the release are 32.4971466 North and -103.429924 West. A site plan is presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Berino-Cacique loamy fine sands with 0-3 percent slopes. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is middle Pleistocene in age made up of sandy eolian deposits derived from sedimentary rock over calcareous sandy alluvium derived from sedimentary rock.

Ground Water and Site Ranking

The New Mexico State Engineer web site indicates the nearest ground water is 165' below ground surface (BGS). See [Appendix III](#) for the referenced groundwater data.

Therefore the ranking for this site is a **0** based on the following:

Depth to ground water	>100'
Wellhead Protection Area	>1000'
Distance to surface water body	>1000'

Based upon the site ranking of **0** NMOCD Recommended Remedial Action Levels (RRAL) are 50 mg/kg for BTEX, 10 mg/kg for Benzene and 5,000 mg/kg for TPH. The recommended guideline for Total Chlorides is 600 mg/kg.

Incident Description and Initial Remedial Actions

On May 22, 2017, a fiberglass produced water tank at the Outland State Unit 2 was struck by lightning resulting in a release of 102 barrels of fluid with 0 barrels recovered. A portion of the fluids evaporated due to the fire. All fluids were contained within the earthen berm on the location. The battery was immediately shut-in. A site plan is presented in [Appendix I](#) which illustrates the impacted area.

On December 8, 2017, Talon mobilized personnel to begin the site assessment and soil sampling activities for the construction of a work plan. Grab soil samples were collected from around the tank battery utilizing a hand auger.

Remedial Actions Taken

In accordance with an approved work plan with stipulations from NMOCD District I office, all remediation activities and stipulations were adhered too. See attached NMOCD email regarding the stipulations/conditions in [Appendix II](#).

Additional samples were collected in the southeast corner of the bermed area as required by NMOCD and labeled as S-9.

The impacted areas in the vicinity of S-5 and S-6 were excavated to a depth of 0.5-feet deep and confirmation samples were obtained from the bottom and sidewalls of the excavation. See data table below for sampling results and the complete laboratory reports are presented in [Appendix III](#). The elevated chloride levels in the vicinity of S-6 were likely due to normal operating procedures where trucks are loading out from the battery.

Laboratory Results

Sample ID	Depth (feet)	Chlorides (mg/kg)
S-5, Bottom	0.5'	32.0
N sidewall		112.0
E sidewall		96.0
W sidewall		96.0
S-6, Bottom	0.5'	96.0
S sidewall		80.0
S-9	0.0'	96.0
	1.0'	96.0
	3.0'	48.0
	5.0'	48.0

--Analyte Not Tested

All of the excavated material was transported to Lea Land LLC, a NMOCD approved disposal facility and the excavated area was backfilled with new caliche. The work area was contoured to match the surrounding location. A Final C-141 is also attached in **Appendix IV**.

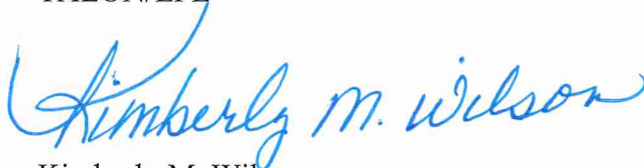
Closure

On behalf of Devon Energy, we respectfully request that no further actions be required and that closure with respect to this release be granted.

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

Respectfully submitted,

TALON/LPE



Kimberly M. Wilson
Project Manager



David J. Adkins
District Manager

Attachments:

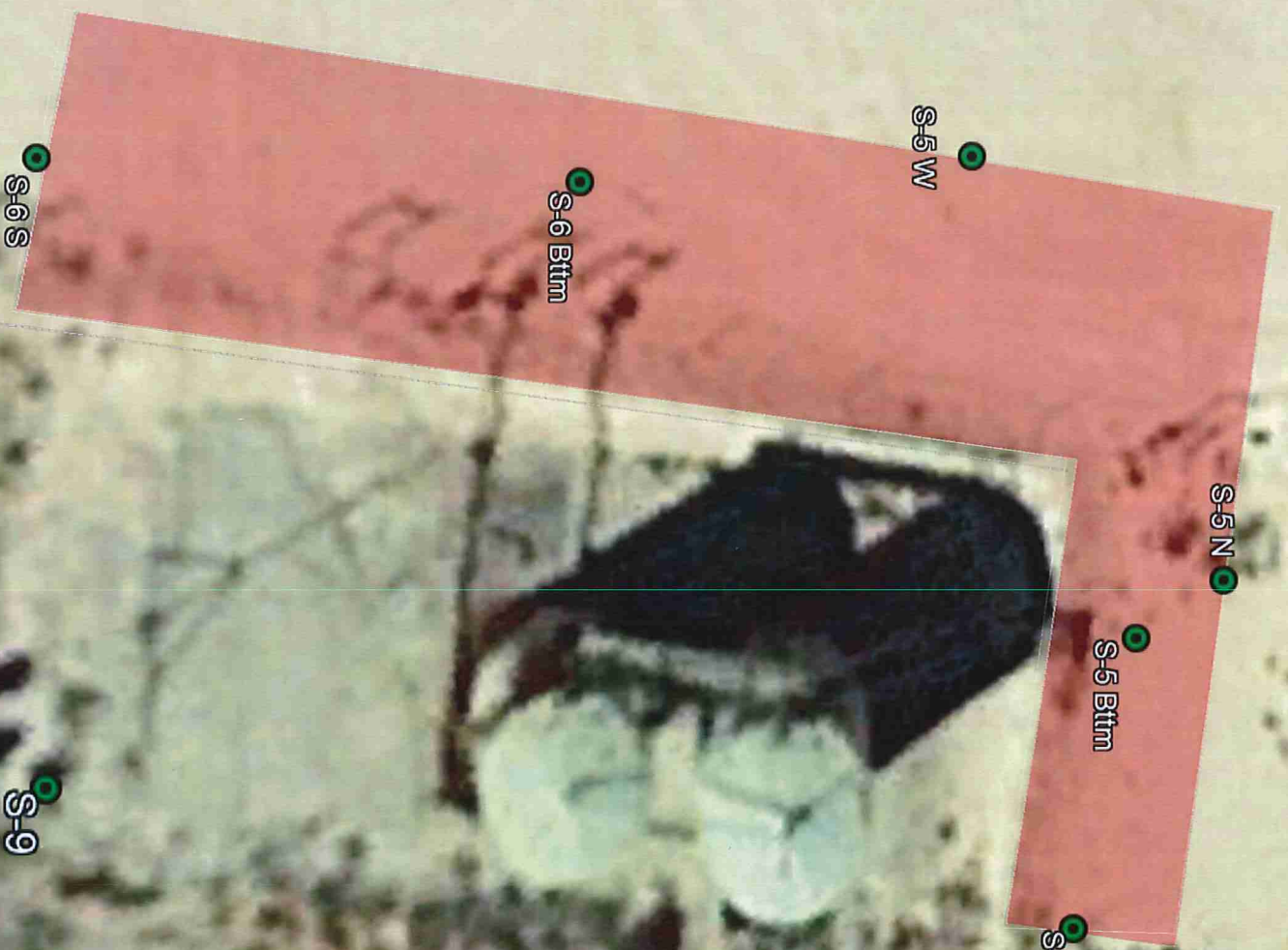
- Appendix I Site Plan
- Appendix II Groundwater Data & Regulatory Stipulations
- Appendix III Laboratory Results
- Appendix IV Final C-141

APPENDIX I



SITE PLAN

Outland State #2

Devon Energy



Legend

-  0.5' Excavated Area
-  Sample Location



APPENDIX II
GROUNDWATER DATA
&
REGULATORY STIPULATIONS



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

C=the file is closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 6	Q 4	Q 1	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
CP 00590 POD1		CP	LE				01	21S	34E	648099	3597829*	1307	79		
CP 00089	O	CP	LE	2	1	13	21S	34E	647840	3594615		2152	235		
CP 00939 POD1		CP	LE	4	1	2	07	21S	35E	649974	3596760*	2573	400	165	235
CP 00940 POD1		CP	LE	4	1	2	07	21S	35E	649974	3596760*	2573	400	165	235

Average Depth to Water: 165 feet

Minimum Depth: 165 feet

Maximum Depth: 165 feet

Record Count:4

UTMNAD83 Radius Search (in meters):

Easting (X): 647401

Northing (Y): 3596723

Radius: 3000

*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.

11/20/17 9:41 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Kimberly M. Wilson

From: Yu, Olivia, EMNRD [Olivia.Yu@state.nm.us]
Sent: Monday, February 19, 2018 2:36 PM
To: Kimberly M. Wilson; Naranjo, Mark
Cc: Mike Shoemaker; David J. Adkins
Subject: RE: Outland State #2 Work Plan

Dear Ms. Wilson:

Please address these concerns for delineation report for 1RP-4708:

- Initial photos of release indicate that a pooling location is at the Southeast corner of the bermed area (South of S-3). NMOCD requests that an additional delineation sample location be established at the aforementioned spot, especially as the site was initially sampled more than 6 months after the incident date in May 2017.
- What is the reason for elevated chloride levels for S-5 and S-6 areas outside of the impacted tank battery?
- Bottom and edge/sidewalls of the areas represented by S-5 and S-6 will be required.

Also, please note that the GPS coordinates of the release location are incorrect on pg. 1.

Thanks,
Olivia

From: Kimberly M. Wilson [<mailto:kwilson@talonlpe.com>]
Sent: Monday, February 5, 2018 10:46 AM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>; Naranjo, Mark <MNaranjo@slo.state.nm.us>
Cc: Mike Shoemaker <mike.shoemaker@dmv.com>; David J. Adkins <dadkins@talonlpe.com>
Subject: Outland State #2 Work Plan

Good Morning,

Please find attached the work plan for the above referenced location. If you have any questions or concerns please feel free to contact our office.

Respectfully Submitted,

Kimberly

Kimberly M. Wilson
Project Manager
Office: 575.746.8768
Direct: 575.616.4023
Cell: 575.602.3826
Fax: 575.746.8905
Emergency: 866.742.0742
Web:

APPENDIX III

LABORATORY REPORTS

June 01, 2018

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: OUTLAND STATE UNIT #2

Enclosed are the results of analyses for samples received by the laboratory on 05/31/18 14:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.


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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received:	05/31/2018	Sampling Date:	05/07/2018
Reported:	06/01/2018	Sampling Type:	Soil
Project Name:	OUTLAND STATE UNIT #2	Sampling Condition:	Cool & Intact
Project Number:	700794.243.01	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - LEA CO NM		

Sample ID: S-5 0.5' BOTTOM (H801482-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/01/2018	ND	432	108	400	0.00	

Sample ID: S-5 N (H801482-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/01/2018	ND	432	108	400	0.00	

Sample ID: S-5 E (H801482-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/01/2018	ND	432	108	400	0.00	

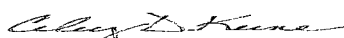
Sample ID: S-5 W (H801482-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/01/2018	ND	432	108	400	0.00	

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	05/31/2018	Sampling Date:	05/07/2018
Reported:	06/01/2018	Sampling Type:	Soil
Project Name:	OUTLAND STATE UNIT #2	Sampling Condition:	Cool & Intact
Project Number:	700794.243.01	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - LEA CO NM		

Sample ID: S-6 0.5' BOTTOM (H801482-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/01/2018	ND	432	108	400	0.00	

Sample ID: S-6 S (H801482-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/01/2018	ND	432	108	400	0.00	

Sample ID: S-9 0.0 (H801482-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/01/2018	ND	432	108	400	0.00	

Sample ID: S-9 1.0 (H801482-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/01/2018	ND	432	108	400	0.00	

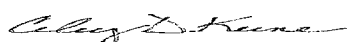
Sample ID: S-9 3.0 (H801482-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/01/2018	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	05/31/2018	Sampling Date:	05/07/2018
Reported:	06/01/2018	Sampling Type:	Soil
Project Name:	OUTLAND STATE UNIT #2	Sampling Condition:	Cool & Intact
Project Number:	700794.243.01	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - LEA CO NM		

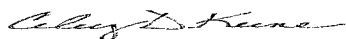
Sample ID: S-9 5.0 (H801482-10)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/01/2018	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

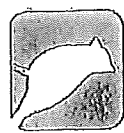
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Celey D. Keene, Lab Director/Quality Manager



CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Page 1 of 1

Company Name: Talon/LPE		P.O. #:		ANALYSIS REQUEST	
Project Manager: Kimberly Wilson		Company: Talon/LPE			
Address: 408 W. Texas Ave.		City:			
City: Artesia		State: NM		Zip: 88210	
Phone #: 575-746-8768		Fax #: 575-746-8905			
Project #: 70074-343.01		Project Owner: Deven			
Project Name: Outland State #2		State:		Zip:	
Project Location: Lee St		Phone #:			
Sample Name: Kim Wilson		Fax #:			
FOR LAB USE ONLY		MATRIX		PRESERV.	
Lab I.D.		Sample I.D.		DATE	
H801482		5-5 O.S. Bath		5/7/13	
1		5-5 O.S. Bath			
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3		5-5 Bath			
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APPENDIX IV

FINAL C-141