



November 26, 2014

Mr. Tomas Oberding
NMOCD District I
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Hobbs, NM 88240

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ENVIRONMENTAL CONSULTING
ENGINEERING
DRILLING
CONSTRUCTION
SPILL MANAGEMENT
GENERAL CONTRACTING

Subject: **Remediation and Closure Report**
Devon Energy
Rio Blanco 4 Federal No. 3
API #: 30-025-36425
1RP-3218 & 1RP-3118

Dear Dr. Oberding:

Devon Energy had contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced location. The results of our soil assessment, completed remediation activities and closure request are submitted herein.

Incident Date

June 19, 2014 & August 7, 20114

Background Information

The Rio Blanco 4 Federal No. 3 is located approximately thirty-one (31) miles northwest of Jal in Lea County, New Mexico. The legal location for this site is Section 4, Township 23 South, and Range 34 East. More specifically the latitude and longitude for the release are 32.330957 North and -103.471836 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 Pyote and Maljamar fine sands. 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 eolian sands and piedmont deposits. Drainage courses in this area are normally dry. The New Mexico State Engineer web site indicates the nearest ground water data to be in S8-T23S-R34E. The ground water in Section 8 is reported to be at depth of 300' below ground surface (bgs). See [Appendix II](#) for the referenced groundwater data.

The ranking for this site is 0 based on the following:

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

Incident Description

On June 19, 2014 the fitting on the end of the flex hose pulled apart from the SWD well causing a release of 75 barrels of produced water. A vac truck was immediately called to the location and recovered 75 barrels of fluid. The first release measured approximately 100-feet wide by 40-feet in length. On August 7, 2014 a 1-inch valve at the bottom of a Y strainer blew resulting in another release around the wellhead. The second release was contained within the impacted area of the first release. The wells flowing into the SWD were shut in and the wellhead was repaired. The areas affected were isolated on the location.

Remedial Actions Taken

The impacted area around the SWD wellhead at sample points S-1, S-2 and S-6 were excavated to the best extent reasonable, feasible and as safely as possible to a depth of 3-feet. A 20 mil liner was installed per BLM instructions. See [Appendix II](#).

On August 22, 2014 confirmation samples were obtained from the bottom of the excavation and the side walls. They were submitted to Cardinal Labs for laboratory analysis. See Table 1. Further excavation was required on the west sidewall. A grab sample was obtained on September 4, 2014 for confirmation analysis. See Table 2.

All soil samples were collected by Talon personnel wearing clean nitrile gloves. The soil samples were placed in laboratory provided sample containers, iced and transported to Cardinal Laboratories in Hobbs, New Mexico for analysis. The samples were tested for TPH (Total Petroleum Hydrocarbons) using EPA Method 8015M, and volatile organics (BTEX) using EPA Method 8021B. The chloride samples were analyzed per Method SM4500Cl-B.

Laboratory Results

See [Appendix III](#) for complete report of laboratory results for confirmation samples.

September 2, 2014

Table 1

TP-1(bottom)	3'	--	208	--	--
S-1 (W sidewall)	3'	--	2280	--	--
S-2 (E sidewall)	3'	--	448		
S-6 (N sidewall)	3'	--	128	--	--

--Analyte Not Tested

September 9, 2014

Table 2

S-1 (W sidewall)	3'	--	240	--	--
-------------------------	----	----	-----	----	----

--Analyte Not Tested

The chloride remediation standard is considered to be 1,000 mg/kg based upon a water table depth greater than 100-feet below land surface.

The impacted areas across the location at sample points S-3, S-4 and S-5 were excavated to a depth of 0.5-feet deep. All the contaminated soil was transported to Lea Land, LLC an approved disposal facility.

Due to heavy flooding in the area, the location had limited access to complete the work. After the location was dry the retaining wall around the wellhead was completed. The excavated areas were backfilled with new caliche, machine compacted and the location was re-contoured. See [Appendix IV](#) for Lea Land backfill certificate.

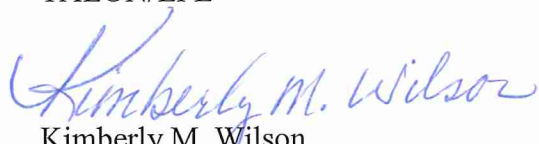
Closure

On behalf of Devon Energy, we respectfully request that no further actions be required and that closure with respect to these releases be granted. A Final C-141 is also attached in [Appendix V](#).

If we can provide additional information or be of further assistance please contact our office at 575.746.8768.

Respectfully submitted,

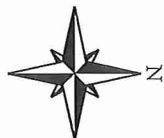
TALON/LPE


Kimberly M. Wilson
Project Manager


David J. Adkins
District Manager

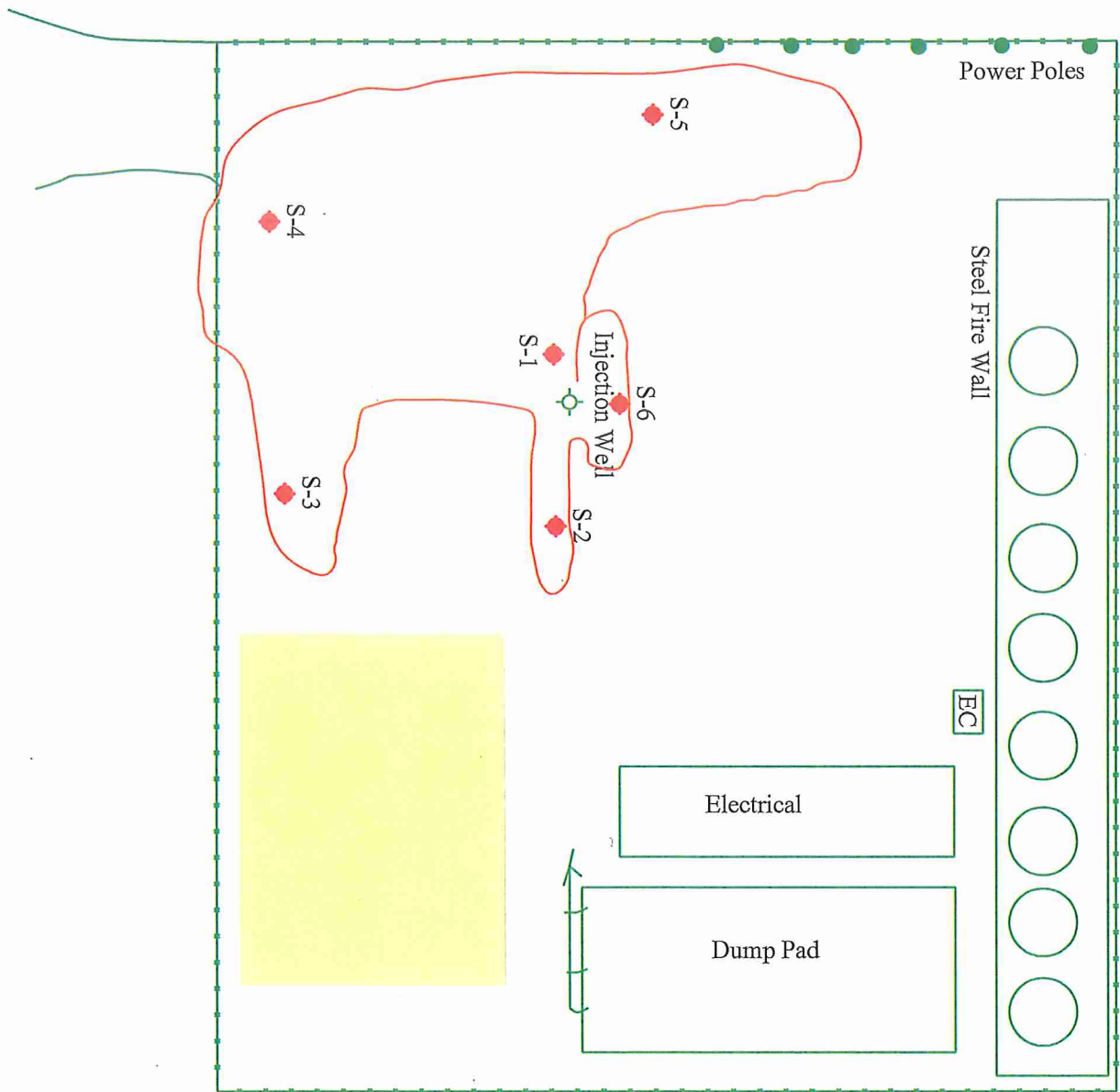
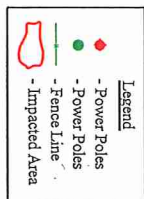
APPENDIX I

SITE MAP



NTS

Scale in Feet



Date: 06/26/2014

Scale: NTS

Drawn By: TJS

Rio Blanco SWD #4 Fed 3
Devon Energy Corporation
Lea County, New Mexico
Figure 1 - Site Plan

APPENDIX II
GROUNDWATER DATA
REGULATOR'S 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	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
E 07616 POD1			TO							646466	3576970	2616	500	300	200
CP 00872			LE	1	1	1	08	23S	34E	641225	3577504*	2847	500	305	195
CP 00556			LE	4	4	3	08	23S	34E	641762	3576206	2863	497	255	242

Average Depth to Water: 286 feet

Minimum Depth: 255 feet

Maximum Depth: 305 feet

Record Count: 3

UTMNAD83 Radius Search (in meters):

Easting (X): 644038

Northing (Y): 3577944

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.

Kimberly M. Wilson

From: Robertson, Jeffery [jrobertson@blm.gov]
Sent: Wednesday, July 30, 2014 9:08 AM
To: Kimberly M. Wilson
Cc: kenny.kidd@dvn.com; matt.nettles@dvn.com
Subject: Re: FW: Rio Blanco 4 Fed #3 DOR 6/19/2014

This plan is approved as written with these conditions of approval. At the S-2 and S-6 location the lab results show increasing levels of chlorides so a liner needs to be put in place around the well head to prevent future spells from pushing the chlorides down. This plan still needs to be approved by OCD. BLM approval of this proposal does not relieve the operator of liability should their operations have failed to adequately investigate and re mediate contamination that may pose a threat to groundwater, surface water, human health, or the environment, or if the location fails to reclaim properly. In such an event that location does not re vegetate, or future issues with contaminants are encountered, the operator will be asked to address the issues until contaminant issues are fully mitigated and the location is successfully reclaimed. In addition, BLM approval does not relieve the operator of responsibility for compliance with any other federal, state, or local laws/regulations.

Thanks

Jeffery L. Robertson

BLM-CFO

Natural Resource Specialist

Office: 575-234-2230

Cell: 575-361-3568

jrobertson@blm.gov

On Tue, Jul 29, 2014 at 7:15 AM, Kimberly M. Wilson <kwilson@talonlpe.com> wrote:

FYI

From: Oberding, Tomas, EMNRD [mailto:Tomas.Oberding@state.nm.us]
Sent: Tuesday, July 29, 2014 7:12 AM
To: Kimberly M. Wilson
Subject: RE: Rio Blanco 4 Fed #3 DOR 6/19/2014

Aloha and good morning Ms. Wilson,

Thank you for sending the work plan for this site. It looks within specs for NMOCD given the nature of the release.

NMOCD sees no reason not to continue forward.

Kimberly M. Wilson

From: Oberding, Tomas, EMNRD [Tomas.Oberding@state.nm.us]
Sent: Wednesday, September 03, 2014 12:07 PM
To: Kimberly M. Wilson; Robertson, Jeffery
Cc: kenny.kidd@dvn.com; matt.nettles@dvn.com; Biagi, Chris
Subject: RE: Rio Blanco 4 Federal #3 DOR 6/19/2014

Aloha Ms. Wilson et al,

Thank you for providing this supplementary data.

Based on sample results at S1, OCD would like to see that dug a bit cleaner (results at 3' are a bit high for our liking).

Please proceed appropriately and delineate to OCD guide levels.

Thank you for your help with this and for keeping us informed.

If there's anything else I can do, please don't hesitate to ask.

Mahalo

-Doc

Tomáš 'Doc' Oberding, PhD
Environmental Specialist – New Mexico Oil Conservation Division
Energy, Minerals and Natural Resources Department
1625 N. French Dr.
Hobbs, NM 88240
(O): (575) 393-6161 ext 111
(C): 575-370-3180
(F): (575) 393-0720
E-Mail: tomas.oberding@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/>

From: Kimberly M. Wilson [mailto:kwilson@talonlpe.com]
Sent: Wednesday, September 03, 2014 12:01 PM
To: Oberding, Tomas, EMNRD; Robertson, Jeffery
Cc: kenny.kidd@dvn.com; matt.nettles@dvn.com; Biagi, Chris
Subject: Rio Blanco 4 Federal #3 DOR 6/19/2014

Gentlemen please find attached the site map and confirmation samples around the wellhead for the above referenced release. Please advise. Once we get approval a liner will be installed around the wellhead at 3-feet.

Thank you.

Respectfully submitted,

Kimberly M. Wilson
Project Manager
Talon/LPE
408 West Texas Avenue
Artesia, New Mexico 88210
Office: 575.746.8768
Fax: 575.746.8905
Cell: 575.602.3826
Emergency: 866.742.0742
Email: kwilson@talonlpe.com

APPENDIX III
LABORATORY RESULTS

September 02, 2014

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: RIO BLANCO

Enclosed are the results of analyses for samples received by the laboratory on 08/26/14 14:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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: 08/26/2014
 Reported: 09/02/2014
 Project Name: RIO BLANCO
 Project Number: 700794112.02
 Project Location: LEA COUNTY, NM

Sampling Date: 08/22/2014
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Kathy Perez

Sample ID: TP-1 3' (H402619-01)

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	208	16.0	08/28/2014	ND	416	104	400	3.92			

Sample ID: S-1 3' (H402619-02)

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	2280	16.0	08/28/2014	ND	416	104	400	3.92			

Sample ID: S-2 3' (H402619-03)

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	448	16.0	08/28/2014	ND	416	104	400	3.92			

Sample ID: S-6 3' (H402619-04)

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	128	16.0	08/28/2014	ND	416	104	400	3.92			

Cardinal Laboratories

* = Accredited Analyte

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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

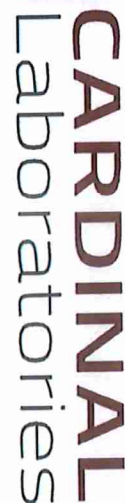
Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]



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

September 09, 2014

KIMBERLY WILSON

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: RIO BLANCO 4 FED #3

Enclosed are the results of analyses for samples received by the laboratory on 09/04/14 13:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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.

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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
KIMBERLY WILSON
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	09/04/2014	Sampling Date:	09/04/2014
Reported:	09/09/2014	Sampling Type:	Soil
Project Name:	RIO BLANCO 4 FED #3	Sampling Condition:	** (See Notes)
Project Number:	700794.112.01	Sample Received By:	Jodi Henson
Project Location:	J-4-23-34		

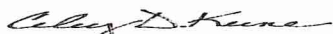
Sample ID: W. SIDE WALL 3' (H402731-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	09/09/2014	ND	400	100	400	0.00	

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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-	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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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: Talon/LPE

Project Manager: K. Wilson

Address: 408 W. Texas Ave.

City: Artesia State: NM Zip: 88210

Phone #: 575-746-8768 Fax #: 575-746-8905

Project #: Project Owner: Deven

Project Name: Rio Blanco 4 Fed #3

Project Location:

Sampler Name: S. Hitchcock

FOR LAB USE ONLY

Lab I.D. Sample I.D.

H4D2731

W. Side Wall 3

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

9/4/14

10:24

Chlorides

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Relinquished By:

Date: 9/3/14

Received By:

Deven

Relinquished By:

Date:

Received By:

Deven

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

25.42

Sample Condition
Cool Intact
☒ Yes ☐ No

CHECKED BY (Initials)

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

REMARKS:

APPENDIX IV
LEA LAND, LLC

LEA LAND, LLC

Purchase of Backfill Material

Lea Land's backfill material (caliche or top soil) is generated by excavation of the material from within the 640 acres owned by Lea Land, LLC. This material is native soil and, therefore, has never been treated. Backfill material is excavated as needed.



Saralyn Hall
Marketing Manager