



February 5, 2014

Mr. Mike Bratcher
NMOCD District 2
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Artesia, NM 88210

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Phone 806.467.0607
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ENVIRONMENTAL CONSULTING
ENGINEERING
DRILLING
CONSTRUCTION
SPILL MANAGEMENT
GENERAL CONTRACTING

Subject: **Remediation and Closure Report**
Devon Energy
Cotton Draw Unit No. 65 SWD
API #: 30-015-10843 2RP-2452

Dear Mr. Bratcher:

Devon Energy has 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

August 15, 2014

Background Information

The Cotton Draw Unit No. 65 SWD is located approximately fifty-four (54) miles southeast of Carlsbad in Eddy County, New Mexico. The legal location for this site is Section 2, Township 25 South and Range 31 East. More specifically the latitude and longitude for the release point are 32.16116 North and -103.74568 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 complex with 0 to 3 percent slopes. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is Quaternary in age and is comprised of eolian sands and piedmont deposits which include silty soils underlain with a sandy clay loam and hard caliche. Drainage courses in this area are normally dry. According to the New Mexico Office of the State Engineer there are 5 wells in the vicinity and they all appear to be dry wells. 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

At the Cotton Draw Unit No. 65 SWD, a section of a 4-inch steel pipe corroded at the threads on the header section on the east side of the battery causing a release of 30 barrels of produced water. A vac truck was immediately called to the location and recovered 10 barrels of produced water. The wells were shut-in and the pipe was replaced. The fluids were contained within the earthen berms surrounding the location. The impacted area measured approximately 200-feet by 20-feet on the location. The flow path headed south for approximately 30-feet then flowed west approximately 200-feet. The impacted area measured approximately 20-feet at the widest point.

Remedial Actions Taken

The remediation activities were completed pursuant to the approved work plan by the NMOCD with stipulations presented in [Appendix II](#).

On December 23, 2014, a test pit was excavated at sample location S-2 for further vertical delineation purpose, as stated in the work plan. Once the rock shelf was broken, at approximately 2-feet deep the soil was then field tested for chloride and followed up with laboratory confirmation analysis. The test pit was backfilled until the lab results were obtained.

On December 30, 2014, the results were immediately forwarded to the client. See confirmation sample results for test pit in Table 1.

Laboratory Results

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

December 29, 2014

Table 1

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-2	2'	--	<16	--	--

Based upon the site ranking of 0, NMOCD Recommended Remedial Action Levels (RRAL's) are 50 mg/kg for BTEX, 10 mg for Benzene, and 5,000 mg/kg for TPH. The chloride remediation standard is considered to be 1,000 mg/kg based upon a water table depth greater than 100-feet deep.

The impacted area behind the battery and westward toward the control panels was hand-excavated carefully to approximately 3-feet deep so as to not jeopardize the integrity of the existing liner.

The area in the vicinity of sample location S-1 was excavated to a depth of 1.5-feet deep. The excavation was guided by testing the soil from the sidewalls of excavation using the field titration method for chlorides for horizontal delineation purposes. The area in the vicinity of S-2 was excavated to a depth of 2-feet deep.

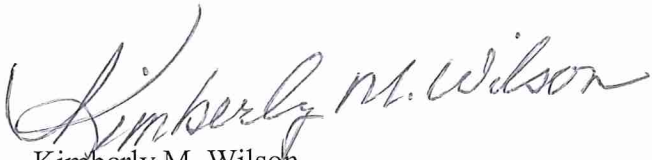
All contaminated soil was transported to an approved NMOCD disposal facility, Lea Land, LLC.

The excavated areas were backfilled with new/clean caliche transported from Lea Land and the area was re-contoured to match the surrounding location. See Lea Backfill Certificate in [Appendix IV](#).

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](#).

Respectfully submitted,

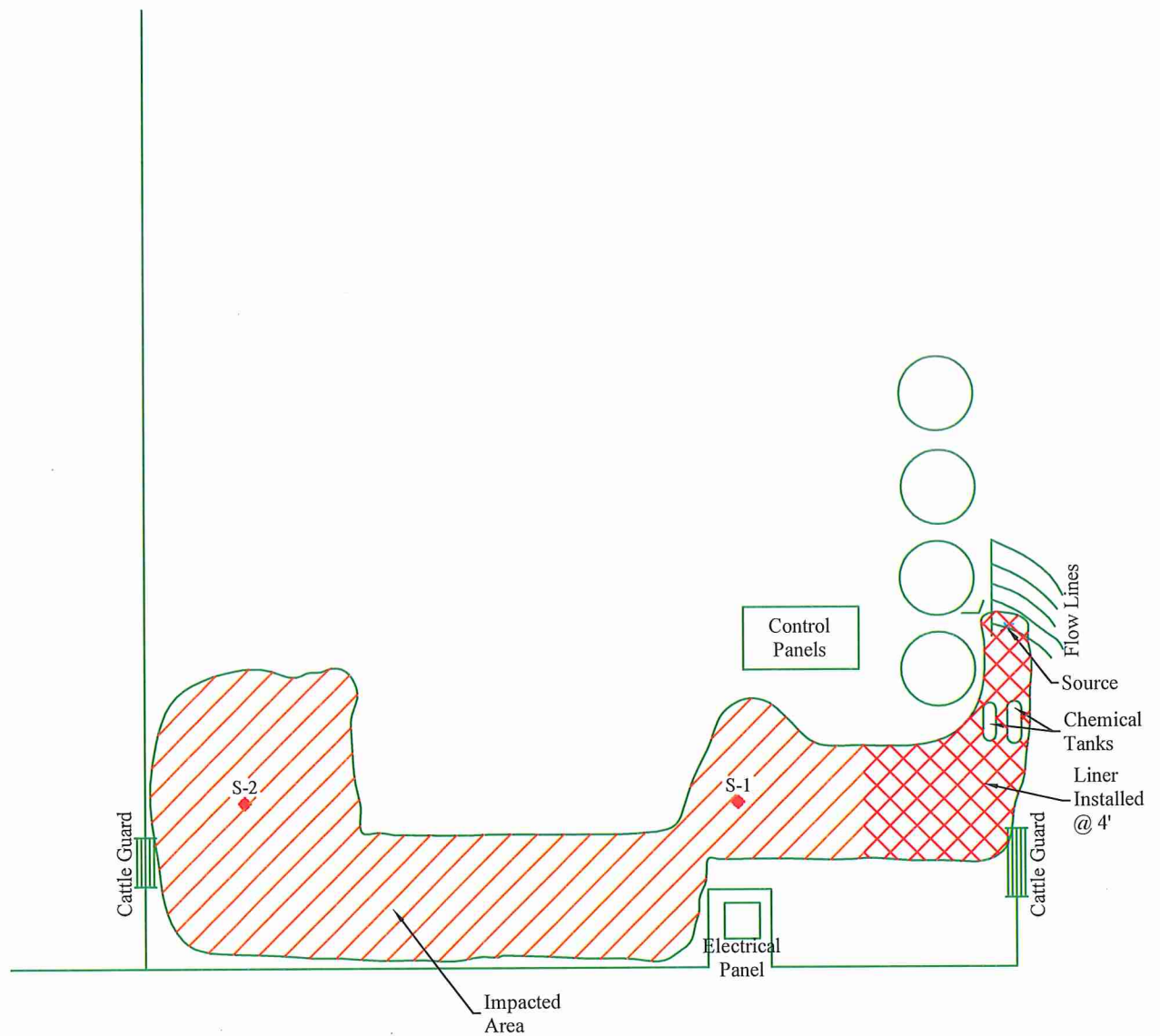
A handwritten signature in cursive script that reads "Kimberly M. Wilson".

Kimberly M. Wilson
Project Manager

David J. Adkins
District Manager

APPENDIX I

SITE MAP



0 20 40
Scale in Feet

Legend	
	- Sample Location
	- Impacted Area
	- Installed Liner



Date: 10/07/2014

Scale: 1" = 40'

Drawn By: TJS

Cotton Draw 65 SWD
Devon Energy Corporation
Eddy 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-		County	Q Q Q Q				Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
	Code	basin		64	16	4	4									
C 02572			ED	4	2	2	02	25S	31E		618695	3559294*	200	852		
C 02571			ED	4	1	2	02	25S	31E		618292	3559294*	203	860		
C 02573			ED	1	4	2	02	25S	31E		618499	3559091*	203			
C 02574			ED	1	1	2	02	25S	31E		618092	3559494*	449			
C 02569			ED	4	4	2	02	25S	31E		618699	3558891*	451	1016		
C 02568			ED	4	3	1	01	25S	31E		619103	3558892*	728	1025		
C 02570			ED	4	2	4	02	25S	31E		618704	3558489*	831	895		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 7

UTMNAD83 Radius Search (in meters):

Easting (X): 618495

Northing (Y): 3559294

Radius: 5000

*UTM location was derived from PLSS - see Help

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

Kimberly M. Wilson

From: Patterson, Heather, EMNRD [Heather.Patterson@state.nm.us]
Sent: Friday, October 17, 2014 8:32 AM
To: Kimberly M. Wilson
Cc: Singleton, Stacie; Weidemann, Joah; Biagi, Chris; Bratcher, Mike, EMNRD
Subject: RE: Cotton Draw #65 * 30-015-10843 * 2RP-2452

RE: Devon * Cotton Draw #65 * 30-015-10843 * **2RP-2452**

Ms. Wilson,

This Proposal is approved as written. Please ensure to forward lab analysis of S-2 to the OCD immediately upon receipt, as written in the work plan. Like approval by BLM is required for this site.

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, and for notification, please contact me.

Heather Patterson
Environmental Specialist
NMOCD District II
(575)748-1283 ext.101

From: Kimberly M. Wilson [<mailto:kwilson@talonlpe.com>]
Sent: Thursday, October 09, 2014 3:02 PM
To: Bratcher, Mike, EMNRD; Patterson, Heather, EMNRD
Cc: Singleton, Stacie; Weidemann, Joah; Biagi, Chris
Subject: Cotton Draw #65 * 30-015-10843 * 2RP-2452

Mike and Heather,

Attached please find the work plan for the above referenced location.

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
Web: www.talonlpe.com

Kimberly M. Wilson

From: Sheldon Hitchcock
Sent: Tuesday, December 30, 2014 11:11 AM
To: stacie.singleton@dv.com
Cc: Kimberly M. Wilson; David Adkins
Subject: Cotton Draw #65 Lab Data
Attachments: H403916 TALON.PDF

Stacie,

We have received the additional lab data for sample location S-2 on the Cotton Draw. S-2 cleans up a 2-feet. Therefore this will be our total excavation depth in this area. With your permission I will forward the lab results the OCD (as stated in the work plan). Please let me know if you have any questions.

Respectfully,

Sheldon L. Hitchcock
Project Manager
Talon/LPE
408 West Texas Avenue
Artesia, New Mexico 88210
Phone: (575) 746-8768
Cell: (575) 689-5198
Fax: (575) 746-8905
Email: shitchcock@talonlpe.com
Web: www.talonlpe.com



Better Business Bureau Torch Award for Marketplace Ethics: 2010 Winner, 2009 Finalist
Staples Foundation for Learning Hall of Fame Recipient: 2010
ICIC and Business Week- Top 100: 2010, 2009, 2008, 2007, 2006
Inc. 500/5000: 2012, 2011, 2010, 2009, 2008, 2007

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APPENDIX III
LABORATORY RESULTS

December 29, 2014

KIMBERLY WILSON

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: COTTON DRAW #65

Enclosed are the results of analyses for samples received by the laboratory on 12/23/14 11:55.

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

Received: 12/23/2014
Reported: 12/29/2014
Project Name: COTTON DRAW #65
Project Number: 70079410402
Project Location: G - 2 - 25 - 31

Sampling Date: 12/23/2014
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Kathy Perez

Sample ID: S - 2 2' (H403916-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/26/2014	ND	400	100	400	0.00		

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

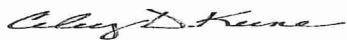
Notes and Definitions

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

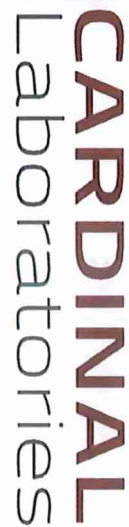
Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 4 of 4

APPENDIX IV
LEA LAND BACKFILL MATERIAL

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

APPENDIX V

FINAL C-141