



February 5, 2015

Mr. Tomas Oberding
NMOCD District I

AMARILLO
921 North Bivins
Amarillo, Texas 79107
Phone 806.467.0607
Fax 806.467.0622

1625 N. French Dr.
Hobbs, NM 88240

Subject: **Remediation and Closure Report**
Devon Energy
Tomcat 21 Federal No. 1
API #: 30-025-33356 1RP-7-14-3193

ARTESIA
408 West Texas Ave.
Artesia, New Mexico 88210
Phone 575.746.8768
Fax 575.746.8905

Dear Dr. Oberding:

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

MIDLAND
2901 State Hwy 349
Midland, Texas 79706
Phone 432.522.2133
Fax 432.522.2180

October 24, 2014

Background Information

OKLAHOMA CITY
7700 North Hudson Avenue
Suite 10
Oklahoma City, Oklahoma 73116
Phone 405.486.7030
Fax 806.467.0622

The Tomcat 21 Federal No. 1 is located approximately thirty-one (31) miles northwest of Jal in Lea County, New Mexico. The legal location for this site is Section 21, Township 23 South, and Range 32 East. More specifically the latitude and longitude for the release are 32.2916866 North and -103.6816595 West. A site plan is presented in [Appendix I](#).

SAN ANTONIO
13111 Lookout Way
San Antonio, Texas 78233
Phone 210.265.8025
Fax 210.568.2191

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 S21-T23S-R34E. The ground water in Section 21 is reported to be at depth of 400' below ground surface (bgs). See [Appendix II](#) for the referenced groundwater data.

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

ENVIRONMENTAL CONSULTING	Depth to ground water	>100'
ENGINEERING	Wellhead Protection Area	>1000'
DRILLING	Distance to surface water body	>1000'
CONSTRUCTION		
SPILL MANAGEMENT		
GENERAL CONTRACTING		

Incident Description

On July 23, 2014 an 11-inch transfer line between the Tomcat 21 and Diamondtail SWD split causing a release of 70 barrels of produced water. The wells flowing into the SWD were shut-in until repairs were completed. A vac truck was immediately called to the location and recovered 40 barrels of fluid. The area affected is located west of the battery in the pasture, measuring 85-feet long by 50-feet wide. See site plan in [Appendix I](#).

Remedial Actions Taken

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

The impacted area in the vicinity of sample point S-2 was excavated to a depth of 1-foot deep and the impacted area in the vicinity of S-3 was excavated to a depth of 0.5 feet per the work plan. Confirmation samples were pulled on January 19, 2015. See confirmation sampling laboratory results in [Table 1](#) below.

Once the lab results were received, Talon mobilized personnel to the location to excavate below the drilling mud that was beneath the surface approximately 1-foot deep. On January 26, 2015 a grab soil sample was obtained for a confirmation sample. The impacted area in the vicinity of sample point S-3 was excavated to a depth of 1.5-feet deep. See Confirmation laboratory results in [Table 2](#).

Laboratory Results

See [Appendix III](#) for the complete reports of the confirmation laboratory results.

January 22, 2015

Table 1

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-2	1'	--	80	--	--
S-3	0.5'	--	2240	--	--

--Analyte Not Tested

January 27, 2015

Table 2

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-3	1.5''	--	48	--	--

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 in the vicinity of sample point S-5 was excavated to a depth of 4-feet deep, also pursuant to the work plan. The area in the vicinity of sample point S-6 was excavated to a depth of 4-feet deep. The caliche from the access road from the Barclay remediation project was used as backfill in the bottom of the excavation.

All of the excavated material was hauled to an NMOCD approved solid waste disposal facility, Lea Land, LLC.

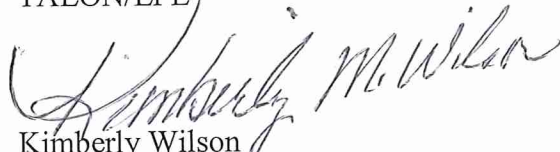
The excavation was then backfilled with sand from a BLM sand pit off of Red Road. The disturbed area was re-contoured to match the surrounding terrain, and seeded with BLM seed mixture for the Lesser Prairie Chicken (LPC) habitat on January 29, 2015. The seeding labels are attached in [Appendix IV](#).

Closure

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

Respectfully submitted,

TALON/LPE


Kimberly Wilson
Project Manager

David J. Adkins
District Manager

APPENDIX I

SITE MAP



Date: 12/10/2014

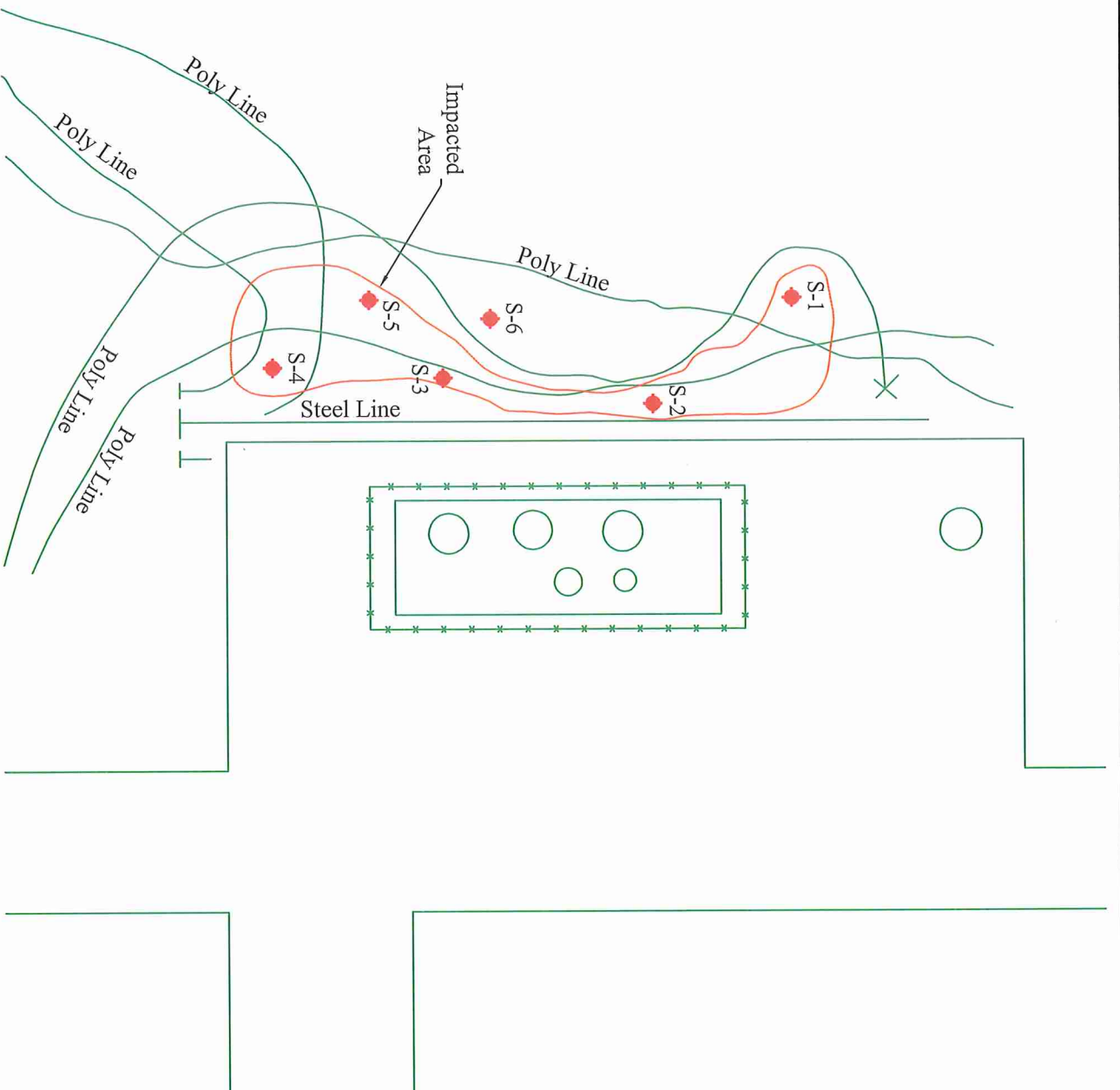
Scale: NTS

Drawn By: TJS



NTS

Scale in Feet



Tom Cat 21 Fed #1
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
C 02216	CUB	LE		2	2	4	21	23S	32E	625035	3573261*	1350	585	400	185
C 03529 POD1	C	LE		2	4	3	29	23S	32E	622651	3571212	2880	550		

Average Depth to Water: 400 feet

Minimum Depth: 400 feet

Maximum Depth: 400 feet

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 623818

Northing (Y): 3573846

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 [jlr Robertson@blm.gov]
Sent: Wednesday, December 24, 2014 8:33 AM
To: Kimberly M. Wilson
Cc: Oberding, Tomas, EMNRD; Ryan, Wesley; Singleton, Stacie; David Adkins
Subject: Re: Tomcat 21 Federal #1 * 30-025-33356 * DOR: 10-24-14 * Lease No.: NM-86153

The submitted cleanup plan for the above location is approved with the following conditions of approval:

1. This office requires conformation samples of clean up on S-2 at 1 foot to insure remediation levels for this area.
2. This office requires conformation samples of clean up on S-3 at 0.5 foot to insure remediation levels for this area.
3. This office requires a background sample to identify the natural levels of this area (this should be upslope of the spill area and be in a random area).
4. This spill is in Lesser Prairie Chicken habitat so the BLM requires LPC seed mix to be used for the reclamation of this location.

This plan is approved as written with the above listed conditions of approval **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

Notification Stipulations:

1. A copy of the cleanup plan and conditions of approval must be given to the contractor or site work personnel and be present on the location during all cleanup operations.

2. The authorized officer must be notified at the following phases of cleanup or conditions:

- a. Prior to moving equipment on location for cleanup
- b. When the excavation is nearing completion and a BLM inspection of the excavation or witnessing of sampling is required by the cleanup plan COA's.
- c. When the cleanup work is nearing completion and to schedule a final onsite prior to removal of equipment.
- d. Three days before the site is seeded.
- e. Any time that a variance of the approved plan or conditions of approval is required.
- f. In the event that you encounter excavation difficulties, unexpected void areas, or archeological artifacts the Authorized Officer must be contacted immediately. An onsite may be required to assess the situation.

5. The authorized officer on this undesirable event case and contact for an questions is:

Jeffery L. Robertson
BLM-CFO
Natural Resource Specialist
575-234-2230 office
575-575-1920 cell
[Jlrobertson@blm.gov](mailto:jlrobertson@blm.gov)

Jeffery L. Robertson
BLM-CFO
Natural Resource Specialist
Office: 575-234-2230
Cell: 575-706-1920
jlrobertson@blm.gov

On Thu, Dec 18, 2014 at 8:57 AM, Kimberly M. Wilson <kwilson@talonlpe.com> wrote:

Gentlemen,

Please find attached the work plan for the above referenced release.

Respectfully submitted,

Kimberly M. Wilson

Project Manager

Kimberly M. Wilson

From: Oberding, Tomas, EMNRD [Tomas.Oberding@state.nm.us]
Sent: Thursday, December 18, 2014 10:51 AM
To: Kimberly M. Wilson; Robertson, Jeffery
Cc: Ryan, Wesley; Singleton, Stacie; David Adkins
Subject: RE: Tomcat 21 Federal #1 * 30-025-33356 * DOR: 10-24-14 * Lease No.: NM-86153

Aloha Ms. Wilson et al,

Thank you for sending the work plan in for review.

Based on the sample results provided for the RP-3193 event-
OCD grants conditional approval. Please obtain concurrence from the BLM on this matter.

For reference the original C-141 form can be found here-

http://ocdimage.emnrd.state.nm.us/Imaging/FileStore/santafeadmin/ao/256899/pto1420440162_1_ao.pdf

Have a wonderful and safe Holidays everyone.

-Doc

Tomáš 'Doc' Oberding, PhD
Senior Environmental Specialist
New Mexico Oil Conservation Division, District 1
Energy, Minerals and Natural Resources Department
(575) 393-6161 ext 111
E-Mail: tomas.oberding@state.nm.us

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.

From: Kimberly M. Wilson [mailto:kwilson@talonlpe.com]
Sent: Thursday, December 18, 2014 8:57 AM
To: Oberding, Tomas, EMNRD; Robertson, Jeffery
Cc: Ryan, Wesley; Singleton, Stacie; David Adkins
Subject: Tomcat 21 Federal #1 * 30-025-33356 * DOR: 10-24-14 * Lease No.: NM-86153

Gentlemen,

Please find attached the work plan for the above referenced release.

Respectfully submitted,

Kimberly M. Wilson
Project Manager
Talon/LPE
408 West Texas Avenue

APPENDIX III
LABORATORY RESULTS



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

January 22, 2015

KIMBERLY WILSON

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: TOM CAT 21 FED #1

Enclosed are the results of analyses for samples received by the laboratory on 01/22/15 9:55.

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: 01/22/2015
Reported: 01/22/2015
Project Name: TOM CAT 21 FED #1
Project Number: 700794.138.01
Project Location: F-21-23-32

Sampling Date: 01/19/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-2 1' (H500214-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	01/22/2015	ND	400	100	400	3.92	

Sample ID: S-3 .5' (H500214-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2240	16.0	01/22/2015	ND	400	100	400	3.92	

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.



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

January 27, 2015

KIMBERLY WILSON

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: TOM CAT 21 FED #1

Enclosed are the results of analyses for samples received by the laboratory on 01/27/15 11:50.

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)

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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: 01/27/2015
Reported: 01/27/2015
Project Name: TOM CAT 21 FED #1
Project Number: 700794.138.01
Project Location: F-21-23-32

Sampling Date: 01/26/2015
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Jodi Henson

Sample ID: S-3 1.5' (H500248-01)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/27/2015	ND	432	108	400	3.77	

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

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

Company Name: <u>Salmon LPE</u>		P.O. #:		BILL TO																									
Project Manager: <u>Kimberly M. Wilson</u>		Company: <u>Salmon LPE</u>		ANALYSIS REQUEST																									
Address: <u>408 W. Texas</u>		Attn: <u>Kimberly M. Wilson</u>																											
City: <u>Altoona</u>		Address:																											
State: <u>NM</u> Zip: <u>88201</u>		City:																											
Phone #: <u>575-874-8768</u> Fax #: <u>575-874-8768</u>		Address:																											
Project #: <u>200794, 139.0</u> Project Owner: <u>Delora</u>		City:																											
Project Name: <u>Jencoat 21 and #1</u>		State:																											
Project Location: <u>F-21-23-32</u>		Phone #:																											
Sample Name: <u>Kim Wilson</u>		Fax #:																											
FOR LAB USE ONLY																													
Lab I.D. <u>H500248</u>		Sample I.D. <u>1-3-1.5</u>		(G)RAB OR (C)OMP. <u>6</u>		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME	

APPENDIX IV
SEEDING LABEL

Curtis and Curtis, Inc.

4500 North Prince
Clovis, NM 88130
Phone: (575) 762-4759
www.curtisseed.com

XL 1/29/15

Talon / LPE, LTD.

1/2 Acre LPC Mix

1 - 1/2 Acre Bag @ 19.01 Bulk Pounds Each

Job: Devon Tomcat 21 Federal #1

700794.138.01

Lot#: M-12767

Item	Origin	Purity	Germ	Dormant	Total Germination	Test Date	Total PLS Pounds
Plains Bristlegrass VNS	Oklahoma	15.29%	6.00%	80.00%	86.00%	08/14	2.50
Sideoats Grama Vaughn	Texas	14.45%	87.00%	4.00%	91.00%	05/14	2.50
Little Bluestem Cimarron	Texas	8.48%	87.00%	6.00%	93.00%	10/14	1.50
Big Bluestem Kaw	Texas	17.15%	92.00%	0.00%	92.00%	07/14	3.00
Coreopsis Plains	Colorado	5.66%	90.00%	3.00%	93.00%	11/14	1.00
Sand Dropseed VNS	Colorado	2.77%	21.00%	74.00%	95.00%	01/15	0.50
Four Wing Saltbush VNS	New Mexico	23.91%	55.00%	0.00%	55.00% (TZ)	12/14	2.50
Other Crop:	0.09%	There Are 1 Bag For This Mix				Total Bulk Pounds:	19
Weed Seed:	0.37%	This Bag Weighs 19.01 Bulk Pounds					
Inert Matter:	11.53%	Use This Bag For 1/2 Acres					

APPENDIX V

FINAL C-141