



Linn Energy Skelly Unit #007

REMEDIATION WORK PLAN

API No. 30-015-05327

Release Date: 06/22/2014

Unit Letter E, Section 21, Township 17 South, Range 31 East

January 27, 2016

Prepared by:

Lance Crenshaw, Project Manager

Environmental Department

Diversified Field Service, Inc.

3412 N. Dal Paso

Hobbs, NM 88240

Phone: (575)964-8394

Fax: (575)393-8396

Mike Bratcher
Environmental Specialist
NM Oil Conservation District-Division 2
811 S. First St.
Artesia, NM 88210

RE: **Linn, Skelly Unit #007 – Remediation Work Plan**
UL/E, Section 21, T17S, R31E
API No. 30-015-05327

Mr. Bratcher,

Linn Energy (Linn) has retained Diversified Field Service, Inc. (DFSI) to address environmental issues for the site detailed herein.

The site is located east of Loco Hills NM, in Eddy County. The leak site resulted from a flow line failure. The impacted area is in the pasture measuring approximately 12' x 14'. Approximately 20 gallons of produced water was released, and 10 gallons of oil. Nothing was recovered. A site map is attached. A C-141 was drafted on June 24, 2014.

Site Assessment and Delineation

On January 21, 2016, DFSI personnel sampled three sample points of the spill area. The samples were tested for chloride levels as well as BTEX. The BTEX samples were performed using a Mini Rae Photoionization Detector (PID). The field samples that field tested below state/BLM requirements were taken to Cardinal Labs of Hobbs for confirmation. The results are attached.

DFSI has conducted a groundwater study of the area and has determined that according to the Conoco-Phillips depth to groundwater map, the average depth to groundwater for this area is 300 foot below ground surface. Therefore, no eminent danger of groundwater impact or threat to life is anticipated.

Conclusion

After careful review DFSI, on behalf of Linn Energy, would like to propose the following:

Since the field and lab samples tested clean down to 3' BGS, DFSI proposes to till and reseed the spill area with a BLM/NMOCD approved seed mix.

Following the approval of the above plan, DFSI will submit all proper closure documentation to the NMOCD and BLM in accordance to the State and Federal Guidelines set forth.

Please feel free to contact me with any questions concerning this remediation plan request.

Sincerely,



Michael Burton
Environmental Operations Director
Diversified Field Service, Inc.
206 West Snyder
Hobbs, NM 88240
Office: (575)964-8394
Mobile: (575)390-5454
Fax: (575)964-8396
Email: Mburton@diversifiedfsi.com

cc Shelly Tucker

Attachments: Initial Form C-141
Site/Sample Map
Sample Data
Lab Analytical Data

District I
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

Form C-141
Revised October 10, 2003

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Linn Operating	Contact: Brian Wall	
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No.: 575-738-1739	
Facility Name: Skelly Unit 007	Facility Type: Oil Producer	
Surface Owner: Federal	Mineral Owner:	API No.: 30-015-05327

LOCATION OF RELEASE

Unit Letter E	Section 21	Township 17S	Range 31E	Feet from the 1874	North/South Line North	Feet from the 766	East/West Line West	County Eddy
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Latitude: 32.8221609146629 Longitude: -103.880819823708

NATURE OF RELEASE

Type of Release: Produced Water / Oil	Volume of Release: 20 gal / 10 gal	Volume Recovered: 0 / 0
Source of Release: 3" polyline	Date and Hour of Occurrence: 06/22/2014	Date and Hour of Discovery: 06/22/2014 12:00pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jennifer Van Curen- BLM	
By Whom? Brian Wall	Date and Hour 06/23/2014 1515	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*:		
Describe Cause of Problem and Remedial Action Taken.*: Chevron pumper called about a discharge from a flow line, we walked the line and discovered it to be ours, from well number 7, put a 3" clamp on the line and shut off wells 7,14, and 15 (all flowing through the same line) and made sure leak stopped (see pictures).		
Describe Area Affected and Cleanup Action Taken.* : Spill is an oval measuring 12' by 14' with no oil or concentration of fluid standing on the ground extending north from the release point, a small crack in the line of unknown origin.		
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: 	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Brian Wall	Approved by District Supervisor:	
Title: Construction Foreman II	Approval Date:	Expiration Date:
E-mail Address: bwall@linenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 06/24/2014 Phone: 806-367-0645		

* Attach Additional Sheets If Necessary

Site Diagram

Linn, Skelly Unit #007
UL/E, Sec. 21 T17S R31E
Eddy County, NM
Drafted By: Lance Crenshaw, 1-27-16

0 0.00175 0.0035 0.007 Miles

Spill Area:
550 sq. ft.

Legend

Misc_points

Types

- Electrical Box
- Power Pole
- Headers
- Injection
- Pumpjacks
- Tanks
- Valves
- Other
- Soil Bores
- sample_pts
- Source

Pipeline

Type

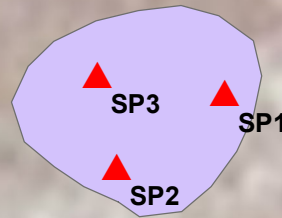
- Above Ground Line
- Buried Line

Spill

- <all other values>

Spill_Media

- Oil and Produced H2O
- Oil
- Other
- Produced Water



Lance Crenshaw
GIS Technician

Soil Remediation and Ground Water Remediation
Environmental Assessments
Regulatory Compliance



Environmental

DFS

Services

Office: 575-964-8394
Fax: 575-964-8396

Cell: 575-441-2359
Email: lcrenshaw@diversifiedfsi.com

Source: Esri, DigitalGlobe, GeoEye, i-c
swisstopo, and the GIS User Communi



Skelly Unit #007

PHOTO PAGE



Lease sign marking location



Spill area with sample points



Spill area with sample points



Collecting samples via auger



Collecting samples via auger

Diversified Environmental Services

Company Name:	Linn
Location Name:	Skelly Unit 007

SP Date: 1/21/2016
Rel Date: 6/22/2014

[illegible]

	Lab Confirmation Sample
	Field Sampling
	Needs Delineation and confirmation samples



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

January 27, 2016

DENNIS POTTER

LINN OPERATING-HOBBS

2130 W. BENDER

HOBBS, NM 88240

RE: SKELLY UNIT #007

Enclosed are the results of analyses for samples received by the laboratory on 01/21/16 13:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. 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:

LINN OPERATING-HOBBS
 DENNIS POTTER
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

Received: 01/21/2016
 Reported: 01/27/2016
 Project Name: SKELLY UNIT #007
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 01/21/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SAMPLE PT. 1 @ 3' (H600148-01)

BTX 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	01/26/2016	ND	2.41	121	2.00	5.16	
Toluene*	<0.050	0.050	01/26/2016	ND	2.34	117	2.00	6.00	
Ethylbenzene*	<0.050	0.050	01/26/2016	ND	2.14	107	2.00	6.06	
Total Xylenes*	<0.150	0.150	01/26/2016	ND	6.52	109	6.00	5.02	
Total BTX	<0.300	0.300	01/26/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.6-140

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	01/22/2016	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/26/2016	ND	194	97.2	200	0.683	
DRO >C10-C28	73.2	10.0	01/26/2016	ND	198	99.1	200	1.26	

Surrogate: 1-Chlorooctane 81.6 % 35-147

Surrogate: 1-Chlorooctadecane 90.9 % 28-171

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

LINN OPERATING-HOBBS
DENNIS POTTER
2130 W. BENDER
HOBBS NM, 88240
Fax To: (575) 738-1740

Received: 01/21/2016
Reported: 01/27/2016
Project Name: SKELLY UNIT #007
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 01/21/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SAMPLE PT. 2 @ 3' (H600148-02)

BTX 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	01/26/2016	ND	2.41	121	2.00	5.16	
Toluene*	<0.050	0.050	01/26/2016	ND	2.34	117	2.00	6.00	
Ethylbenzene*	<0.050	0.050	01/26/2016	ND	2.14	107	2.00	6.06	
Total Xylenes*	<0.150	0.150	01/26/2016	ND	6.52	109	6.00	5.02	
Total BTX	<0.300	0.300	01/26/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.6-140

Chloride, SM4500CI-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	01/22/2016	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/26/2016	ND	194	97.2	200	0.683	
DRO >C10-C28	<10.0	10.0	01/26/2016	ND	198	99.1	200	1.26	

Surrogate: 1-Chlorooctane 81.4 % 35-147

Surrogate: 1-Chlorooctadecane 82.8 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

LINN OPERATING-HOBBS
 DENNIS POTTER
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

Received: 01/21/2016
 Reported: 01/27/2016
 Project Name: SKELLY UNIT #007
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 01/21/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SAMPLE PT. 3 @ 3' (H600148-03)

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	01/26/2016	ND	1.99	99.7	2.00	0.268	
Toluene*	<0.050	0.050	01/26/2016	ND	1.93	96.7	2.00	1.66	
Ethylbenzene*	<0.050	0.050	01/26/2016	ND	1.77	88.5	2.00	2.28	
Total Xylenes*	<0.150	0.150	01/26/2016	ND	5.43	90.5	6.00	2.12	
Total BTEx	<0.300	0.300	01/26/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.6-140

Chloride, SM4500CI-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	01/22/2016	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/26/2016	ND	194	97.2	200	0.683	
DRO >C10-C28	1690	10.0	01/26/2016	ND	198	99.1	200	1.26	

Surrogate: 1-Chlorooctane 82.0 % 35-147

Surrogate: 1-Chlorooctadecane 117 % 28-171

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
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

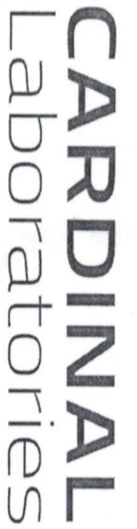
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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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BILL TO

ANALYSIS REQUEST

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 352-2326



New Mexico Office of the State Engineer **Water Column/Average Depth to Water**

No records found.

PLSS Search:

Section(s): 21

Township: 17S

Range: 31E