



Turner B South #108

REMEDIATION WORK PLAN

API No. 30-015-28984

Release Date: September 28th, 2011

Unit Letter K, Section 30, Township 17 South, Range 31 East

March 4, 2015

Prepared by:

Environmental Department
Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
Phone: (575)964-8394
Fax: (575)393-8396

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

RE: Linn Energy Turner B South #108– Remediation Work Plan
UL/K, Section 30, T17S, R31E
API No. 30-015-28984

Mrs. Patterson,

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 failure of a flow line. The impacted area is the north and east sides of the caliche pad and some pasture impact northeast of the pad. A C-141 was submitted to the NMOCD on October 21th, 2011.

Site Assessment and Delineation

On May 27th, 2014 DFSI personnel obtained samples of the spill area in five sample points. Please see map for sample point orientation. Each sample was tested for chloride levels as well as TPH. The TPH samples were performed using a Mini Rae Photoionization Detector (PID). All field samples that tested clean were taken to Cardinal Labs of Hobbs to obtain confirmation samples. The results are attached.

DFSI has conducted a groundwater study of the area and has determined that according to the New Mexico Office of the State Engineer, the average depth to groundwater for this area is 350 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:

The pit area will be excavated to 2' bgs. At the base of the excavation, a 6" compacted caliche rock layer will be installed to hinder the flow of water through the vadose zone. After the 6" compact caliche layer is installed, the excavation will be backfilled with topsoil to ground surface and contoured to the surrounding area. Excavated soils will be disposed of at an approved facility. The site will be seeded with an approved 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

Attachments: Photo Page
 Groundwater survey
 Written Order

Site Diagram

Linn, Turner B South 108

UL/K, Sec. 30 T17S R31E

Eddy County, NM

Drafted By: Lance Crenshaw, 5-19-14

0 0.00325 0.0065 0.013 Miles

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

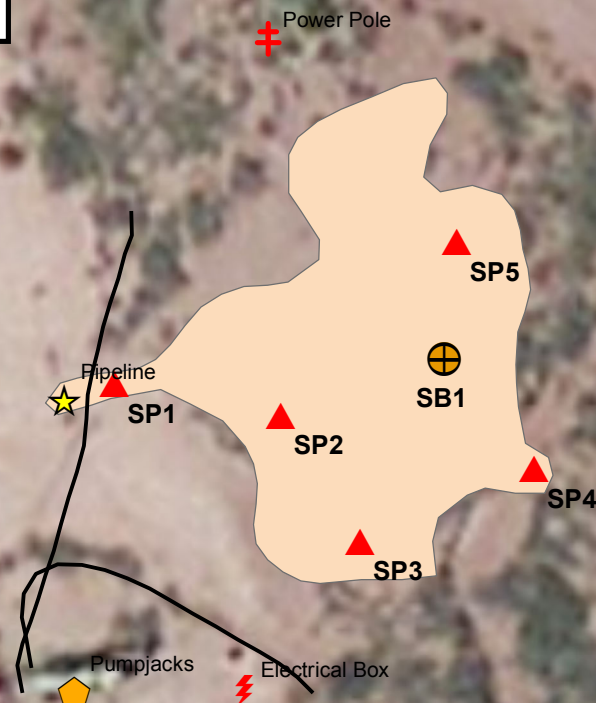
Spill

-  <all other values>

Spill_Media

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

Spill Area:
5,072 sq. ft.



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, IGN, swisstopo, and the GIS User Community



Turner B South #108

Photo page



Spill/pit area



Spill/pit area

Diversified Environmental Services

Company Name: Linn Energy
Location Name: Turner B #108

SP Date: 5/27/2014
Rel Date: 9/28/2011

SP1	CHL	PID	SP2	CHL	PID	SP3	CHL	PID	SP4	CHL	PID	SP5	CHL	PID
1'	2999	2.2	1'	9722	1.4	1'	8423	2.41	1'	7797	0	1'	5948	2.38
2'	4023	2.1	2'	8522	1.2	2'	7272	1.42	2'	5498	0	2'	3298	1.41
3'	1099	1.2	3'	5023	1.1	3'	8697	0.9	3'	5948	0	3'	2474	2.11
4'	624	1.2	4'	5498	0.9	4'	7472	0.9	4'	2559	0	4'	2699	1.09
5'	499	1.3	5'	7022	1	5'	4523	0.1	5'	3074	0.1	5'	1524	0.9
5'	80	<10	6'	3449	0	6'	2474	0.2	6'	5498	0.1	6'	2049	0.9
			7'	3199	0.9	7'	1924	0.3	7'	4773	0	7'	3623	1.2
			8'	1949	0.1	8'	1974	0.1	8'	6073	0	8'	3798	0.8
			9'	1274	0.1	9'	1274	0.2	9'	3348	0	9'	2624	0.6
			10'	2474	0.1	10'	2474	0.1	10'	3224	0.1	10'	2024	0.1
			11'	474	0.1	11'	1449	0	11'	3373	0.2	11'	1424	0.1
			12'	724	0.1	12'	874	0	12'	2324	0.1	12'	1574	0.1
			13'	573	0.1	13'	724	0	13'	2124	0.1	13'	1449	0.1
			13'	112	<10	14'	724	0	14'	1549	0.1	14'	1374	0.1
						14'	208	<10	15'	2024	0.2	15'	624	0.1
									16'	2499	0.1	16'	2499	0.1

	Lab Confirmation Sample
	Field Sampling
	Needs Delineation and confirmation samples



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

June 06, 2014

BRIAN WALL

LINN OPERATING-HOBBS

2130 W. BENDER

HOBBS, NM 88240

RE: TURNER B #108

Enclosed are the results of analyses for samples received by the laboratory on 05/30/14 13:50.

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)

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,

A handwritten signature in black ink that reads "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

Mike Snyder

Organic Supervisor

Analytical Results For:

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

Received:	05/30/2014	Sampling Date:	05/27/2014
Reported:	06/06/2014	Sampling Type:	Soil
Project Name:	TURNER B #108	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ 5' (H401673-01)

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	06/06/2014	ND	1.92	95.8	2.00	0.523	
Toluene*	<0.050	0.050	06/06/2014	ND	2.04	102	2.00	0.675	
Ethylbenzene*	<0.050	0.050	06/06/2014	ND	1.83	91.6	2.00	0.338	
Total Xylenes*	<0.150	0.150	06/06/2014	ND	5.80	96.7	6.00	0.173	
Total BTX	<0.300	0.300	06/06/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 89.4-126

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	06/05/2014	ND	400	100	400	0.00		

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	06/06/2014	ND	133	66.4	200	7.86	
DRO >C10-C28	<10.0	10.0	06/06/2014	ND	148	73.9	200	11.8	

Surrogate: 1-Chlorooctane 73.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 69.1 % 63.6-154

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.



Mike Snyder, Organic Supervisor

Analytical Results For:

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

Received:	05/30/2014	Sampling Date:	05/28/2014
Reported:	06/06/2014	Sampling Type:	Soil
Project Name:	TURNER B #108	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ 13' (H401673-02)

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	06/06/2014	ND	1.92	95.8	2.00	0.523	
Toluene*	<0.050	0.050	06/06/2014	ND	2.04	102	2.00	0.675	
Ethylbenzene*	<0.050	0.050	06/06/2014	ND	1.83	91.6	2.00	0.338	
Total Xylenes*	<0.150	0.150	06/06/2014	ND	5.80	96.7	6.00	0.173	
Total BTX	<0.300	0.300	06/06/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/05/2014	ND	400	100	400	0.00	

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	06/06/2014	ND	133	66.4	200	7.86	
DRO >C10-C28	<10.0	10.0	06/06/2014	ND	148	73.9	200	11.8	

Surrogate: 1-Chlorooctane 98.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 108 % 63.6-154

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.



Mike Snyder, Organic Supervisor

Analytical Results For:

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

Received: 05/30/2014
 Reported: 06/06/2014
 Project Name: TURNER B #108
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 05/29/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 3 @ 14' (H401673-03)

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	06/06/2014	ND	1.92	95.8	2.00	0.523	
Toluene*	<0.050	0.050	06/06/2014	ND	2.04	102	2.00	0.675	
Ethylbenzene*	<0.050	0.050	06/06/2014	ND	1.83	91.6	2.00	0.338	
Total Xylenes*	<0.150	0.150	06/06/2014	ND	5.80	96.7	6.00	0.173	
Total BTX	<0.300	0.300	06/06/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	06/05/2014	ND	400	100	400	0.00	

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	06/06/2014	ND	133	66.4	200	7.86	
DRO >C10-C28	<10.0	10.0	06/06/2014	ND	148	73.9	200	11.8	

Surrogate: 1-Chlorooctane 92.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 88.1 % 63.6-154

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.



Mike Snyder, Organic Supervisor

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

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.



Mike Snyder, Organic Supervisor



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

+ Cardinal cannot accept verbal changes. Please fax written changes to (EZE) 202 222 1511



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	Depth Well	Depth Water	Water Column
RA 11590 POD1			ED	2	1	3	32	17S	31E	603315	3628545	158		
RA 11590 POD3			ED	3	1	2	32	17S	31E	603932	3629260	60		
RA 11590 POD4			ED	4	1	1	32	17S	31E	603308	3629253	55		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 3

PLSS Search:

Section(s): 30, 29, 31, 32 **Township:** 17S **Range:** 31E

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

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

RECEIVED

OCT 14 2011

NMOCD ARTESIA

Form C-141
Revised October 10, 2003

3 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

30-015-28984

Release Notification and Corrective Action

nMLB 1129440331

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: LINN Energy	269324	Contact: Joe Hernandez
Address: 2130 W Bender Blvd. - Hobbs, NM		Telephone No.: 575-942-8675
Facility Name: Turner B South #108		Facility Type: Producing Oil Well

Surface Owner: BLM	Mineral Owner: BLM	Lease No.: 3001528984
--------------------	--------------------	-----------------------

LOCATION OF RELEASE

Unit Letter K	Section 30	Township 17S	Range 31E	Feet from the 2190	North/South Line S	Feet from the 1700	East/West Line W	County Eddy
------------------	---------------	-----------------	--------------	-----------------------	-----------------------	-----------------------	---------------------	----------------

Latitude: 32 48' 22.018" Longitude: -103 54' 21.284"

NATURE OF RELEASE

Type of Release: Oil & reduced Water	Volume of Release: 50 bbls	Volume Recovered: 25 bbls
Source of Release: <i>Flowline</i>	Date and Hour of Occurrence: 09/28/11-1500	Date and Hour of Discovery: 09/28/11-1530
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? T. Gregston, BLM, M. Bratcher NMOCD	
By Whom? Fred Holmes	Date and Hour: 09/29/11-0730	
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.*: Line over-pressured causing line to leak. Well was shut in and repairs made at the line.

Describe Area Affected and Cleanup Action Taken.*: Release covers approximately 3600 square feet of surface area. Approximately 70% is on the lease road. the remainder is confined to pasture adjacent to the road area. Corrective action plan is pending.

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: <i>Joe Hernandez</i>	OIL CONSERVATION DIVISION	
Printed Name: Jose Hernandez	Approved by District Supervisor: <i>M. Bratcher</i>	
Title: Foreman	Approval: OCT 21 2011	Expiration Date:
E-mail Address: jhernandez@linneenrgy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 10/14/11	Phone: 575-738-1739	

* Attach Additional Sheets If Necessary

Remediation per OCD Rules &
Guidelines. SUBMIT REMEDIATION
PROPOSAL NOT LATER THAN:
11/21/2011

2RP-935