

Linn Energy Turner B #103

CLOSURE REPORT

API No. 30-015-26665

LC-029395-B

Release Date: 12-10-2012, 07-02-2013

Unit Letter B, Section 20, Township 17 South, Range 31 East

April 29, 2014

Prepared by:

Environmental Department
Diversified Field Service, Inc.

3412 N. Dal Paso
Hobbs, NM 88240

Phone: (575)964-8394 Fax: (575)393-8396

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Turner B #103

1 INTRODUCTION

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

The site is located southwest of Maljamar NM, in Eddy County. The leak sites resulted from two simultaneous leaks. The cumulative impact was 27 bbls. of produced water and crude oil. The first of which was as the result of freeze and rupture in a flow line. The initial form C-141 was submitted to the NMOCD January 07, 2011. As result of remediation efforts for a former leak on the Linn Energy site, Turner B #8 a line was struck near the Turner B #103 by Diversified Field Services (hereinafter referred to as DFSI) personnel. The later incident was recorded and submitted on the form C-141 to NMOCD on July 17, 2013, whereby the volume of produced water impact was 15 bbls., impacting pasture area with a fine mist (Appendix I).

2 SITE ACTIVITIES

Spill 1:

On March 10, 2014 DFSI personnel collected surface soil samples from the initial spill site which encompassed a 17,335 sq. ft. area (Figure). There was a total of 18 sample points established. The samples were submitted to a commercial laboratory for chloride, TPH, and BTEX analyses (Appendix IV).

Simultaneous soil field testing revealed low Chloride and Hydrocarbon levels at 1 to 2 ft. below ground surface (bgs) (Figure). Chlorides analyses received from the commercial lab revealed acceptable levels, in that all sample points were between 175 mg/kg and 450 mg/kg at 2ft. bgs.

Spill 2:

On April 07, 2014, DFSI personnel delineated the site for the second spill event. The area impacted was approximately 2,206 sq. ft. Therefore, it was determined to establish four (4) sample points, whereby all positions returned acceptable levels Chloride at surface. Lab confirmations of chloride results were at levels of <16 at 2 ft. bgs. to 448 mg/kg at 4ft. bgs on SP4. TPH totaled less than 10.0 mg/kg GRO and less than 10.0 mg/kg DRO, and BTEX totaled less than 0.300 mg/kg in all samples. Photographs of site activities can be viewed in Appendix II.

On April 08, 2014 DFSI submitted a request to remediate the site to NMOCD and NM BLM, whereby it was determined that all aforementioned surface samples returned analyses of Diversified Field Service, Inc.

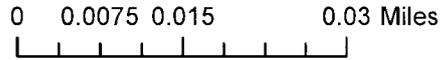
Chlorides levels that were below closure levels of 1000 ppm. Hence, the site would be strictly re-seeded per BLM guidelines and reevaluated at a later date. Therefore, on April 11, 2013, DFSI personnel re-seeded the site with 150 lbs. of Lesser Prairie Chicken seed mix, restoring it to its natural state.

3 CONCLUSION

According to the U.S. Geological Survey and the NM Office of the State Engineer, depth to groundwater in the area averages greater than 263 ft. bgs (Appendix III). Based on the removal of soils containing elevated chloride and visual staining at the site, DFSI, on behalf of Linn, submits the final form C-141's (Appendix V) and respectfully requests the closures of the regulatory file for the site.

Site Diagram

Linn, Turner B 103
 Eddy County, NM
 Drafted By: Lance Crenshaw, 3-27-14



Spill #2 area:
 2,206 sq. ft.

Spill #1 Area:
 17,335 sq. ft.

Legend

Misc_points

Types

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

Pipeline

Type

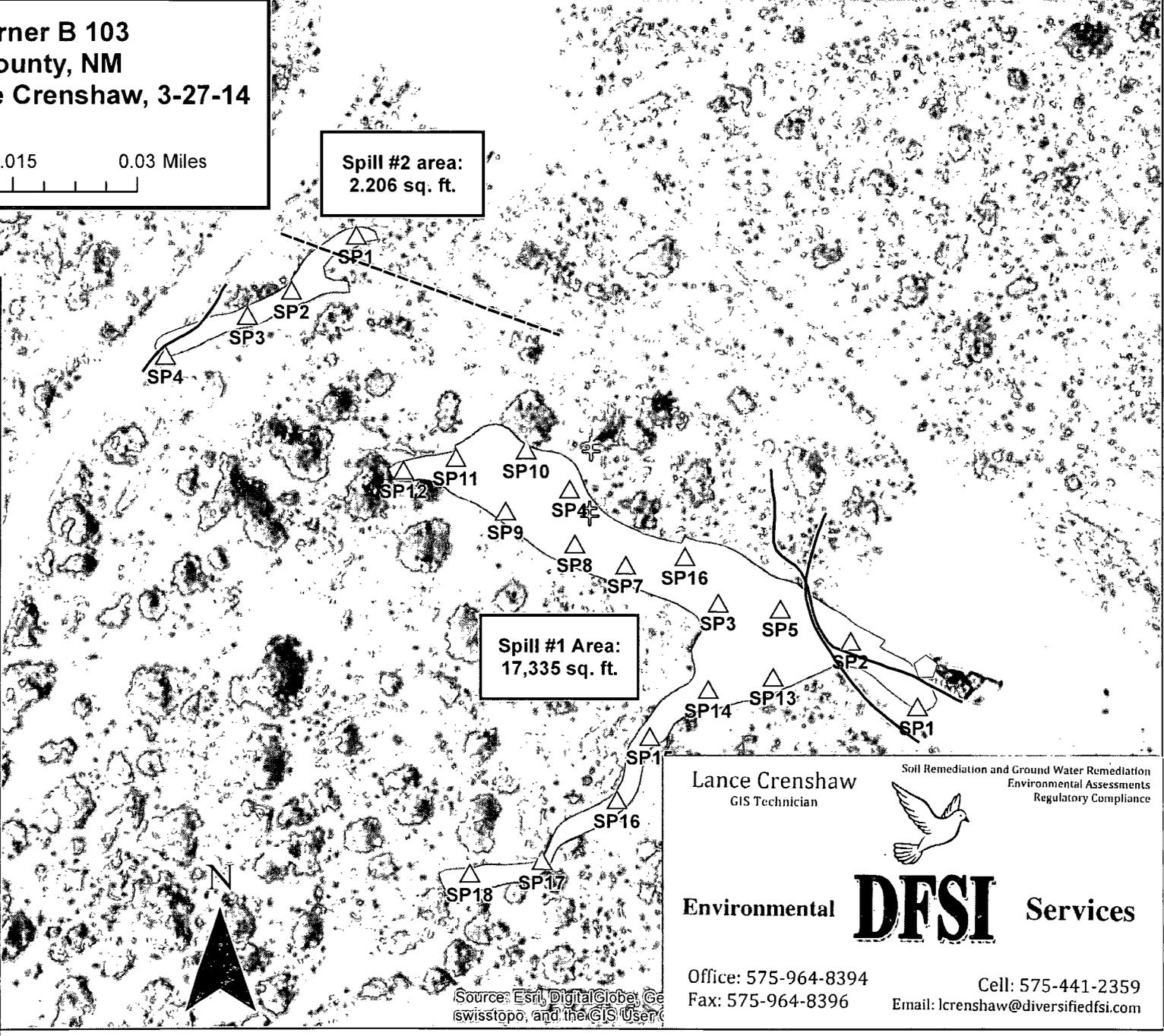
- Above Ground Line
- Buried Line

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 **DFSI** Services

Office: 575-964-8394 Cell: 575-441-2359
 Fax: 575-964-8396 Email: lcrenshaw@diversifiedfsi.com

Source: Esri, DigitalGlobe, GeoSwisstopo, and the GIS User

Appendix I

INITIAL FORM C-141

Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1600 Rio Brazos Road, Aztec, NM 87410
District IV
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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form.

Release Notification and Corrective Action

in kmw 1101936672

OPERATOR

Initial Report Final Report

Name of Company Linn Operating <i>269324</i>	Contact Dennis Potter
Address 13694 Lovington hwy, Loco Hills, N.M. 88255	Telephone No. 505-206-7673
Facility Name Turner B #103 <i>30-015-26665</i>	Facility Type Producing well
Surface Owner BLM	Mineral Owner BLM
Lease No. LC-029395-B	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	20	17S	31E	1300'	North Line	2590'	West Line	Eddy

Latitude 32.82372 Longitude 103.88751

NATURE OF RELEASE

Type of Release Oil and produced water	Volume of Release 12 bbls	Volume Recovered 9 bbls
Source of Release flow line	Date and Hour of Occurrence 12/10/2010 am	Date and Hour of Discovery 12/10/2010 10:00 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? BLM/Terry Gregston	
By Whom? Dennis Potter	Date and Hour 12/10/2010 11:00am	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

Watercourse was impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The flow line at the Turner B #103 froze and plugged off, the flow line ruptured near the pumping unit. The well was shut-in and the flow line was repaired. A vacuum truck was brought to the location and free fluids were recovered.

RECEIVED
JAN 07 2011
NMOCD ARTESIA

Describe Area Affected and Cleanup Action Taken.*

The affected area was the location on the southside of the pumping unit est. to be 90' long x 15' wide. The release ran off the location in two narrow flow paths est. to be 250' long x 2' wide and 300' long x 2' wide. The impacted soil on the location was excavated and hauled to Lea Land LLC. A total of 10 cu. yds of impacted soil were hauled to Lea Land LLC. Talon/LPE has been contracted to collect soil samples and construct a work plan for the correction of the release.

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.

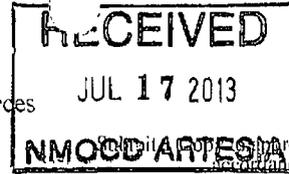
Signature: <i>Dennis J. Potter</i>	OIL CONSERVATION DIVISION	
Printed Name: Dennis Potter	Signed By <i>Mike Brannon</i>	
Production Specialist	Approved by District Supervisor:	
E-mail Address: dpotter@linncnrgy.com	Approval Date: <i>3/9/11</i>	Expiration Date:
Date: 12/27/2010	Conditions of Approval: Remediation per OCD Rules & Guidelines. SUBMIT REMEDIATION PROPOSAL NOT LATER THAN: <u>4/9/11</u>	Attached <input type="checkbox"/>

* Attach Additional Sheets If Necessary

2 RP-565

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



Form C-141
Revised October 10, 2003
Appropriate District Office in accordance with 19.15.29 NMAC

Release Notification and Corrective Action

nJMW/1319953552 OPERATOR Initial Report Final Report

Name of Company: Linn Operating <i>209324</i>	Contact: Gary Wink
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No.: 575-738-1739
Facility Name: Turner B 103	Facility Type: Oil producer
Surface Owner: Federal	Mineral Owner:
API No.: 3001526665	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	20	17S	31E	1300	North	1370	East	Eddy

Latitude: 32.8237284410225 Longitude: -103.887811333549

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 15 bbls	Volume Recovered: 0
Source of Release: 2" poly flow line	Date and Hour of Occurrence: 07/02/2013 8:30am	Date and Hour of Discovery: 07/02/2013 8:30am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? M. Bratcher- NM OCD	
By Whom? Gary Wink	Date and Hour 07/17/2013	
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.*: 2" poly flow line was run over by trakhoe being used by Diversified while excavating contaminated soil from a previous leak. This cut a 2" gap in line releasing gas and a small amount a water, no oil.		
Describe Area Affected and Cleanup Action Taken.*: Flow line was immediately shut in and leak was repaired. Approximately 15 gal. of water was released. Diversified picked up contaminated soil and stock piled on plastic for future removal.		
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>Gary W. Wink</i>	OIL CONSERVATION DIVISION	
Printed Name: Gary W. Wink	Approved by District Supervisor Signed By <i>Mike Bratcher</i>	
Title: Production Foreman	Approval Date: JUL 18 2013	Expiration Date:
E-mail Address: gavink@linenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 07/17/2013 Phone: 575-390-3477	Remediation per OCD Rule & Guidelines, & like approval by BLM. SUBMIT REMEDIATION PROPOSAL NO LATER THAN:	

* Attach Additional Sheets If Necessary

2RP-1735
August 18, 2013

Appendix II

SITE PHOTOGRAPHS

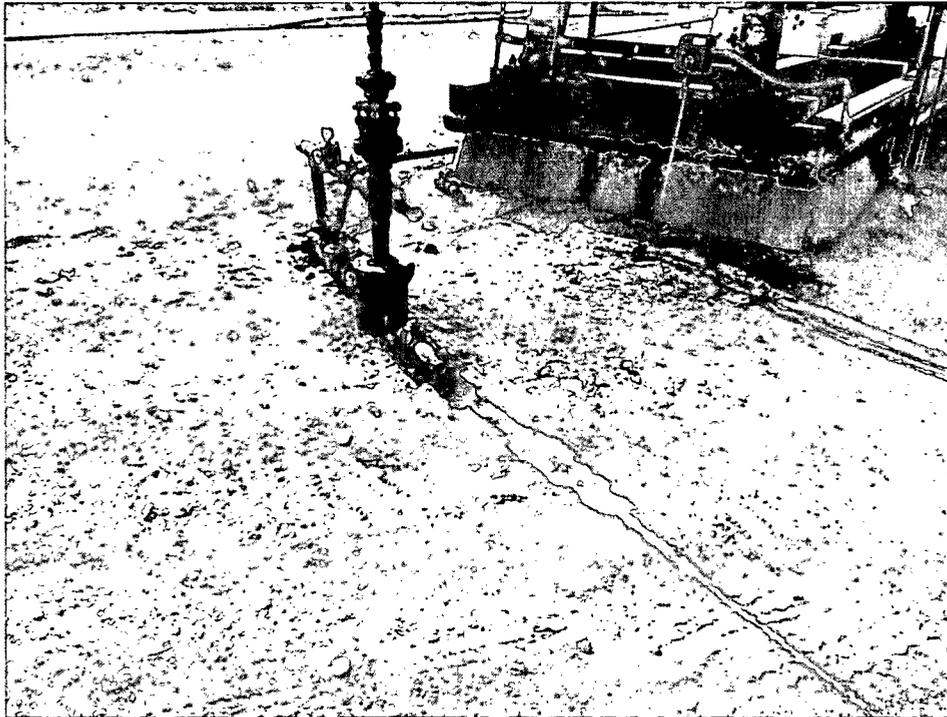
Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

Linn Energy Turner B #103

Unit Letter B, Section 20, T17S R31E



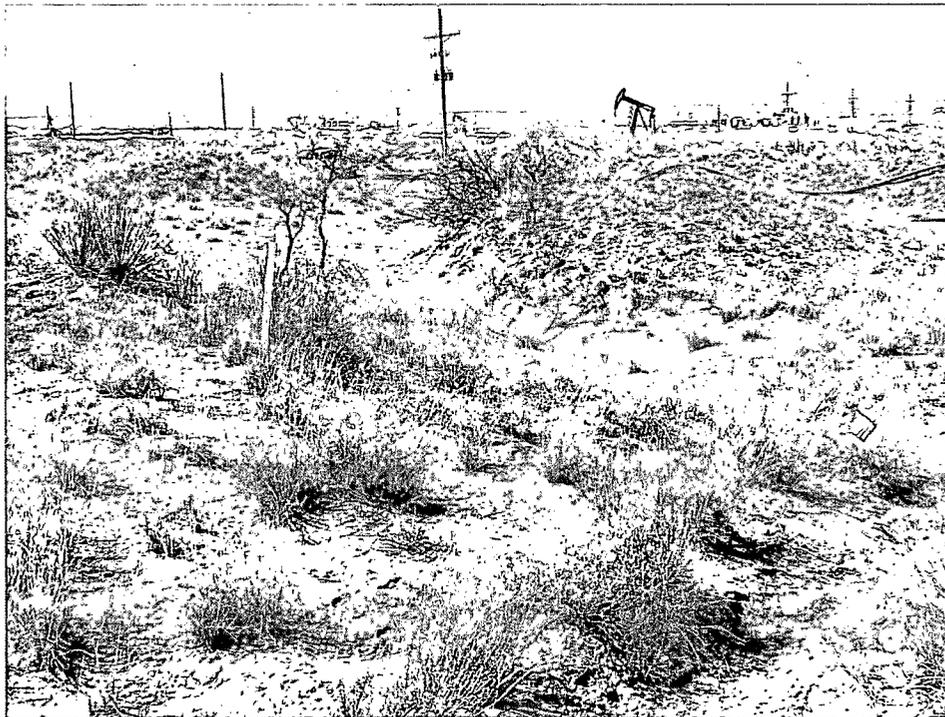
Sign Marking Location 03/07/14



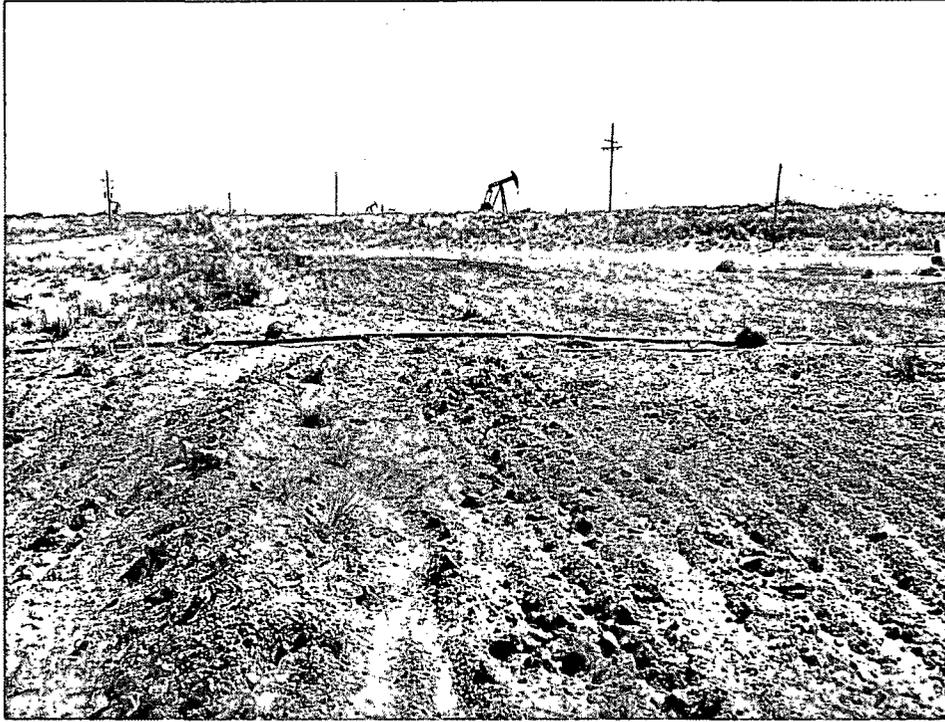
Initial spill area 03/07/14



Impacted pad and pasture area 03/07/14



Impacted pasture with sample points 03/21/14



2nd spill site pasture area at completion of seeding 04/28/14

Appendix III

GROUNDWATER DATA

GROUND WATER SEARCH

Linn Energy Turner B #103

UL: B Sec: 20 T: 17S R: 31E

Groundwater Depth: 236 ft. averaged

- = NM Office of the State Engineer
- = U.S. Geological Survey (unknown well)
- ⊗ = Site Location

Date: 04/24/14
By: Rebecca Pons

	16S 30E	288'○ 314'○ 16S 31E ○ 295'	65' 260'○ 248'○ 275'○ 254'○ 16S 32E ○ 215' ○ 210' ○ 210' ○ 221' ○ 200'	
	17S 30E	17S 31E ⊗	○ 132' 17S 32E	
	18S 30E ○ 44'	○ 98' 18S 31E	○ 65' ○ 430' 18S 32E ○ 460'	



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

No records found.

PLSS Search:

Township. 16S Range 30E



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 (quarters are 1=NW 2=NE 3=SW 4=SE)

closed) (quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD			64	16	4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
	Sub-Code	basin	County											
<u>L 03435</u>	L	LE		1	1	05	16S	31E		602954	3646955*			
<u>L 03852</u>	R	L	LE	2	2	2	14	16S	31E	609126	3643913*	370	314	56
<u>L 03852 POD4</u>	L	LE		3	4	3	13	16S	31E	609744	3642516*	333	299	34
<u>L 03852 POD5</u>	L	LE		3	2	13	16S	31E		610238	3643427*	328	295	33
<u>L 03852 X</u>	R	L	LE	4	4	4	13	16S	31E	610749	3642526*	333	299	34
<u>L 03852 X2</u>	L	LE		3	2	2	13	16S	31E	610535	3643733*	330	287	43
<u>L 04671</u>	L	LE		1	1	2	12	16S	31E	610114	3645538*	340	288	52
<u>L 10203</u>	L	LE		4	4	3	14	16S	31E	608334	3642495*	310		
<u>L 10206</u>	L	LE		2	2	23	16S	31E		609045	3642204*	280		

Average Depth to Water: 297 feet

Minimum Depth: 287 feet

Maximum Depth: 314 feet

Record Count: 9

PLSS Search:

Township 16S

Range 31E

*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.



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	Q	Q	Q	Sec	Tws	Rng	X	Y
03435	L	PRO	0	LOWE DRILLING COMPANY	LE	<u>L 03435</u>			Shallow	1	1	05	16S	31E	602954	3646955'	

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

Record Count: 1

POD Search:

POD Number: L 03435

Sorted by: File Number

TM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q				X	Y		
										6416	4	Sec	Tws			Rng	
1852	L	MUN	375	CITY OF CARLSBAD	LE	<u>L 03852</u>	R		Shallow	2	2	2	14	16S	31E	609126	3643913
					LE	<u>L 03852</u> POD4			Shallow	3	4	3	13	16S	31E	609744	3642516
					LE	<u>L 03852</u> POD5	R		Shallow	3	2	13	16S	31E	610238	3643427	
					LE	<u>L 03852</u> POD6					3	2	13	16S	31E	610390	3643476
					LE	<u>L 03852</u> X	R		Shallow	4	4	4	13	16S	31E	610749	3642526
					LE	<u>L 03852</u> X2			Shallow	3	2	2	13	16S	31E	610535	3643733

(R=POD has been replaced and no longer serves this file. (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

Record Count: 6

POD Search:

POD Number: L 03852

Sorted by: File Number

Location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file. (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q q q	6416 4	Sec	Tws	Rng	X	Y
671	L	PRO		JOHN H. TRIGG	LE	L 04671		Shallow	1	1	2	12	16S	31E	610114 3645538

Record Count: 1

POD Search:

POD Number: L 04671

Sorted by: File Number

M location was derived from PLSS - see Help

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.



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	Sub-Code	basin	POD			Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column	
			Q 64	Q 16	Q 4									
<u>L 02381</u>	L	LE	3	1	13	16S	32E	619086	3643515*		308	215	93	
<u>L 02434</u>	L	LE		01		16S	32E	619661	3646531*		337			
<u>L 02449</u>	L	LE		01		16S	32E	619661	3646531*		330	265	65	
<u>L 02617</u>	L	LE	4	4	02	16S	32E	618656	3645924*		322	270	52	
<u>L 02752</u>	L	LE	1	3	26	16S	32E	617521	3639880*		324	280	44	
<u>L 02846</u>	L	LE	4	2	1	11	16S	32E	617956	3645413*		328	275	53
<u>L 02954</u>	L	LE	2	4	03	16S	32E	617043	3646310*		120	65	55	
<u>L 02993</u>	L	LE	3	3	2	15	16S	32E	616572	3643391*		100		
<u>L 03631</u>	L	LE	1	2	02	16S	32E	618240	3647126*		315	250	65	
<u>L 04930</u>	L	LE		1	23	16S	32E	617698	3642092*		307	210	97	
<u>L 05494</u>	L	LE		36		16S	32E	619758	3638489*		303	200	103	
<u>L 06557</u>	L	LE	1	4	21	16S	32E	615089	3641466*		295	210	85	
<u>L 06807</u>	L	LE	1	4	4	09	16S	32E	615356	3644383*		290	248	42
<u>L 07823</u>	L	LE	2	2	2	16	16S	32E	615561	3643981*		269	247	22
<u>L 08084</u>	L	LE	1	1	1	16	16S	32E	614157	3643970*		317	260	57
<u>L 08084 POD4</u>	L	LE		2	26	16S	32E	618522	3640492*		303	233	70	
<u>L 08084 POD5</u>	L	LE	4	1	4	26	16S	32E	618425	3639788*		296	165	131
<u>L 08084 S3</u>	L	LE		2	26	16S	32E	618522	3640492*		305	205	100	
<u>L 08241</u>	L	LE	4	4	02	16S	32E	618656	3645924*		316			
<u>L 10204</u>	L	LE	4	2	2	04	16S	32E	615524	3646993*		319		
<u>L 10205</u>	L	LE	4	1	08	16S	32E	613038	3645066*		330			
<u>L 11189</u>	L	LE	1	1	4	04	16S	32E	614932	3646391*		350		

*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



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q	Sec	Tws	Rng	X
L 02381	L	PRO	0	GULF REFINING COMPANY	LE	L 02381			Shallow	3	1	13	16S 32E	619086 36435

Record Count: 1

POD Search:

POD Number: L 02381

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

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WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	6416 4	Sec	Tws	Rng	X
L 02449	L	PRO	0	PLYMOUTH OIL COMPANY	LE	L 02449			Shallow		01	16S	32E	619661 36466

Record Count: 1

POD Search:

POD Number: L 02449

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

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 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in met

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q q q	Sec	Tws	Rng	X
<u>L 02617</u>	L	PRO	0	GULF OIL CORPORATION	LE	<u>L 02617</u>		Shallow	4 4	02	16S	32E	618656 36456

Record Count: 1

POD Search:

POD Number: L 02617

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file. (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in me

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q q q	Sec	Tws	Rng	X	
<u>L 02752</u>	L	DOL	3	W W WILLIAMS	LE	<u>L 02752</u>		Shallow	1	3	26	16S	32E	617521 36391

Record Count: 1

POD Search:

POD Number: L 02752

Sorted by: File Number

*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.



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	6416	4	Sec	Tws	Rng	X		
L 02846	L	PRO	0	CONTINENTAL OIL COMPANY	LE	L 02846				Shallow	4	2	1	11	16S	32E	617956	36454

(R=POD has been replaced and no longer serves this file. (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

Record Count: 1

POD Search:

POD Number: L 02846

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file. (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=(the file is closed) (quarters are smallest to largest) (NAD83 UTM in met)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q q q	6416 4	Sec	Tws	Rng	X
<u>L 02954</u>	L	PRO	0	SCHOENFELD-HUNTER-KITCH DRG CO	LE	<u>L 02954</u>		Shallow	2	4	03	16S	32E	617043 36463

Record Count: 1

POD Search:

POD Number: L 02954

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q q q	Sec	Tws	Rng	X
<u>L 03631</u>	L	PRO	0	MAGNOLIA PETROLEUM COMPANY	LE	<u>L 03631</u>		Shallow	1 2 02	16S	32E	618240	36471

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

Record Count: 1

POD Search:

POD Number: L 03631

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant					X		
								Source	q	q	q			
<u>L 04930</u>	L	STK	3	JULIA WILLIAMS	LE	<u>L 04930</u>		Shallow	1	23	16S	32E	617698	36420

(R=POD has been replaced and no longer serves this file. (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in me

Record Count: 1

POD Search:

POD Number: L 04930

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file. (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in me

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	6416	4	Sec	Tws	Rng	X
<u>L 05494</u>	L	COM	165	CITY OF CARLSBAD	LE	<u>L 05494</u>			Shallow			36	16S	32E	619758 3638

Record Count: 1

POD Search:

POD Number: L 05494

Sorted by: File Number

*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.



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant	(R=POD has been replaced and no longer serves this file. C=the file is closed)				(quarters are 1=NW 2=NE 3=SW 4=SE)								
								Source	6416	4	Sec	Tws	Rng	X	615089	3641				
<u>L 06557</u>	L	STK	3	TAYLOR CATTLE COMPANY	LE	<u>L 06557</u>														

Record Count: 1

POD Search:

POD Number: L 06557

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q q q	Sec	Tws	Rng	X	
<u>L 06807</u>	L	PRO	0	SHARP DRILLING COMPANY	LE	<u>L 06807</u>		Shallow	1	4	4	09	16S 32E	615356 3644:

(R=POD has been replaced and no longer serves this file. (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in me

Record Count: 1

POD Search:

POD Number: L 06807

Sorted by: File Number

*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.



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q q q	Sec	Tws	Rng	X
L 07823	L	PRO	0	E R WEST ENGINEERING	LE	L 07823		Shallow	2 2 2	16	16S	32E	615561 36439

(R=POD has been replaced and no longer serves this file. (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in met

Record Count: 1

POD Search:

POD Number: L 07823

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	(acre ft per annum)				X				
									q	q	q	q	6416 4	Sec	Tws	Rng	614157
<u>L 08084</u>	L	COM	750	MOR-WEST CORPORATION	LE	<u>L 08084</u>			Shallow	1	1	1	16	16S	32E	614157	3643
					LE	<u>L 08084 POD4</u>			Shallow		2	26	16S	32E	618522	3640	
					LE	<u>L 08084 POD5</u>			Shallow	4	1	4	26	16S	32E	618425	3639
					LE	<u>L 08084 S</u>	R		Shallow	2	1	1	36	16S	32E	619239	3639
					LE	<u>L 08084 S2</u>	R		Shallow	3	1	1	36	16S	32E	619039	3638
					LE	<u>L 08084 S3</u>			Shallow		2	26	16S	32E	618522	3640	

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in me

Record Count: 6

POD Search:

POD Number: L 08084

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q q q	Sec	Tws	Rng	X
L 08084	L	COM	750	MOR-WEST CORPORATION	LE	L 08084 S3		Shallow	6416 4	2	26	16S 32E	618522 36404

(R=POD has been replaced and no longer serves this file. (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

Record Count: 1

POD Search:

POD Number: L 08084 S3

Sorted by: File Number

*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.

Average Depth to Water: 224 feet

Minimum Depth: 65 feet

Maximum Depth: 280 feet

Record Count: 22

PLSS Search:

Township: 16S Range: 32E



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

No records found.

PLSS Search:

Township 17S Range 30E

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.

4/29/13 12:40 PM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER



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	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
	Code	basin	Code												
<u>RA 11590 POD1</u>	ED	2	1	3	32	17S	31E				603315	3628545	158		
<u>RA 11590 POD3</u>	ED	3	1	2	32	17S	31E				603932	3629260	60		
<u>RA 11590 POD4</u>	ED	4	1	1	32	17S	31E				603308	3629253	55		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 3

PLSS Search:

Township 17S

Range 31E

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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
<u>L 04019</u>	L	LE	4	3	4	02	17S	32E	618468	3636166*	182				
<u>L 04020</u>	L	LE	3	3	4	02	17S	32E	618268	3636166*	200				
<u>L 04021</u>	R	L	3	4	4	02	17S	32E	618670	3636170*	190				
<u>L 04021 POD3</u>	L	LE	3	4	03	17S	32E	616761	3636252*	247					
<u>L 04021 S</u>	L	LE	2	4	4	03	17S	32E	617262	3636354*	260				
<u>L 13047 POD1</u>	L	LE				11	17S	32E	618187	3635254*	140				
<u>L 13050 POD1</u>	L	LE	2	2	1	10	17S	32E	616463	3635945*	156	132	24		
<u>RA 08855</u>		LE	4	1	1	10	17S	32E	616061	3635742*	158				
<u>RA 09505</u>		LE	2	2	1	10	17S	32E	616462	3635944	147				
<u>RA 09505 S</u>		LE	2	2	1	10	17S	32E	616463	3635945*	144				
<u>RA 10175</u>		LE	2	1	28	17S	32E	614814	3631005*	158					
<u>RA 11684 POD1</u>		LE	1	1	4	11	17S	32E	618216	3635124	275				
<u>RA 11684 POD2</u>		LE	1	1	4	11	17S	32E	618313	3635248	275				
<u>RA 11684 POD3</u>		LE	3	3	1	11	17S	32E	618262	3635371	275				
<u>RA 11684 POD4</u>		LE	1	3	2	11	17S	32E	618334	3635521	275				
<u>RA 11684 POD5</u>		LE	3	1	4	11	17S	32E	618353	3635047	275				
<u>RA 11734 POD1</u>		LE	2	2	1	10	17S	32E	616556	3635929	165				

Average Depth to Water: 132 feet

Minimum Depth: 132 feet

Maximum Depth: 132 feet

Record Count: 17

PLSS Search:

Township: 17S

Range: 32E

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer
Active & Inactive Points of Diversion
(with Ownership Information)

No PODs found.

POD Search:

POD Number: L 13050 1



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 (quarters are 1=NW 2=NE 3=SW 4=SE)
closed) (quarters are smallest to largest)

(NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	POD				X	Y	Depth Well	Depth Water	Water Column
				Q 64	Q 16	Q 4	Sec Tws Rng					
<u>CP 00818</u>		LE		1	4	26	18S 30E	599289	3620364*	240		
<u>CP 00819</u>		LE		2	4	32	18S 30E	594878	3618720*	150		
<u>L 01978</u>	L	LE		1	3	23	18S 30E	598469	3621964*	65	44	21

Average Depth to Water: **44 feet**
Minimum Depth: **44 feet**
Maximum Depth: **44 feet**

Record Count: 3

PLSS Search:

Township 18S Range 30E

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source				X			
								q	q	q					
<u>L 01978</u>	L	DOM	3	L A JOHNSON	LE	<u>L 01978</u>		Shallow	1	3	23	18S	30E	598469	36219

(R=POD has been replaced and no longer serves this file. (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in me:

Record Count: 1

POD Search:

POD Number: L 01978

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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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 (quarters are 1=NW 2=NE 3=SW 4=SE)
closed) (quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q	Q	Q	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column	
<u>L 11092</u>	L	LE	64	16	4	2	3	15	18S	31E	606849	3623669*	160	98	62

Average Depth to Water: 98 feet
Minimum Depth: 98 feet
Maximum Depth: 98 feet

Record Count: 1

PLSS Search:

Township 18S Range. 31E

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q	q	q	Sec	Tws	Rng	X
L 11092	L	DOM			3 NEW HOPE BAPTIST	LE	L 11092			Shallow	2	3	15	18S	31E		606849 36236

(R=POD has been replaced and no longer serves this file. (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in met

Record Count: 1

POD Search:

POD Number: L 11092

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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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 Q Q			X	Y	Depth Well	Depth Water	Water Column		
					64	16	4						Sec	Tws
<u>CP 00566</u>		LE		4	4	1	04	18S	32E	614960	3627280*	133	65	68
<u>CP 00672</u>		LE		4	4	07	18S	32E	612475	3624947*		524	430	94
<u>CP 00672 CLW475398</u>	O	LE		4	4	07	18S	32E	612475	3624947*		540	460	80
<u>CP 00677</u>		LE		1	1	26	18S	32E	617750	3621373*		700		

Average Depth to Water: 318 feet

Minimum Depth: 65 feet

Maximum Depth: 460 feet

Record Count: 4

PLSS Search:

Township 18S

Range 32E

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

WR File Nbr	Sub basin Use Diversion Owner	County POD Number	Code Grant	Source	q q q	Sec	Tws	Rng	X
CP 00566	DOM 3 B.E. FRIZZELL	LE CP 00566		Shallow	4 4 1	04	18S	32E	614960 36276

Record Count: 1

POD Search:

POD Number: CP 00566

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q q q	Sec	Tws	Rng	X	
CP 00672	STK		3	VIRGIL LINAM ESTATE	LE	CP 00672		Shallow	4	4	07	18S	32E	612475 36245

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in met)

Record Count: 1

POD Search:

POD Number: CP 00672

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer
Active & Inactive Points of Diversion
(with Ownership Information)

No PODs found.

POD Search:

POD Number: CP 00672 CLW475398



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file. (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in met

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q	Sec	Tws	Rng	X
CP 00677		PRO		O T X O PROD.	LE	CP 00677			6416 4	1 1	26	18S	32E	617750 36213

Record Count: 1

POD Search:

POD Number: CP 00677

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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Appendix IV

LABORATORY ANALYSES

Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

March 24, 2014

BRIAN WALL
LINN OPERATING-HOBBS
2130 W. BENDER
HOBBS, NM 88240

RE: TURNER B #103

Enclosed are the results of analyses for samples received by the laboratory on 03/17/14 16:45.

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:

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

 Received: 03/17/2014
 Reported: 03/24/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 03/17/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 5 @ 4' (H400803-01)

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	03/19/2014	ND	2.01	101	2.00	0.775		
Toluene*	<0.050	0.050	03/19/2014	ND	1.92	96.0	2.00	0.201		
Ethylbenzene*	<0.050	0.050	03/19/2014	ND	1.88	94.1	2.00	0.709		
Total Xylenes*	<0.150	0.150	03/19/2014	ND	5.43	90.5	6.00	0.115		
Total BTEX	<0.300	0.300	03/19/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 102 % 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	64.0	16.0	03/19/2014	ND	416	104	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	03/19/2014	ND	225	112	200	5.05		
DRO >C10-C28	<10.0	10.0	03/19/2014	ND	213	106	200	2.35		

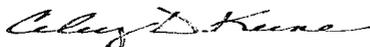
Surrogate: 1-Chlorooctane 124 % 65.2-140

Surrogate: 1-Chlorooctadecane 123 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 03/17/2014
 Reported: 03/24/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 03/17/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 6 @ 4' (H400803-02)

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	03/19/2014	ND	2.01	101	2.00	0.775		
Toluene*	<0.050	0.050	03/19/2014	ND	1.92	96.0	2.00	0.201		
Ethylbenzene*	<0.050	0.050	03/19/2014	ND	1.88	94.1	2.00	0.709		
Total Xylenes*	<0.150	0.150	03/19/2014	ND	5.43	90.5	6.00	0.115		
Total BTEX	<0.300	0.300	03/19/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 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	64.0	16.0	03/19/2014	ND	416	104	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	03/19/2014	ND	225	112	200	5.05		
DRO >C10-C28	<10.0	10.0	03/19/2014	ND	213	106	200	2.35		

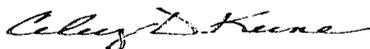
Surrogate: 1-Chlorooctane 108 % 65.2-140

Surrogate: 1-Chlorooctadecane 114 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 03/17/2014
 Reported: 03/24/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 03/17/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 7 @ 4' (H400803-03)

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	03/19/2014	ND	2.01	101	2.00	0.775		
Toluene*	<0.050	0.050	03/19/2014	ND	1.92	96.0	2.00	0.201		
Ethylbenzene*	<0.050	0.050	03/19/2014	ND	1.88	94.1	2.00	0.709		
Total Xylenes*	<0.150	0.150	03/19/2014	ND	5.43	90.5	6.00	0.115		
Total BTEX	<0.300	0.300	03/19/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 105 % 89.4-126

Chloride, SM4500Cl-β		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	03/19/2014	ND	416	104	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	03/20/2014	ND	225	112	200	5.05		
DRO >C10-C28	<10.0	10.0	03/20/2014	ND	213	106	200	2.35		

Surrogate: 1-Chlorooctane 117 % 65.2-140

Surrogate: 1-Chlorooctadecane 121 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 03/17/2014
 Reported: 03/24/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 03/17/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 8 @ 6' (H400803-04)

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	03/19/2014	ND	2.01	101	2.00	0.775		
Toluene*	<0.050	0.050	03/19/2014	ND	1.92	96.0	2.00	0.201		
Ethylbenzene*	<0.050	0.050	03/19/2014	ND	1.88	94.1	2.00	0.709		
Total Xylenes*	<0.150	0.150	03/19/2014	ND	5.43	90.5	6.00	0.115		
Total BTEX	<0.300	0.300	03/19/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	272	16.0	03/19/2014	ND	416	104	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	03/20/2014	ND	225	112	200	5.05		
DRO >C10-C28	<10.0	10.0	03/20/2014	ND	213	106	200	2.35		

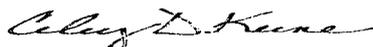
Surrogate: 1-Chlorooctane 117 % 65.2-140

Surrogate: 1-Chlorooctadecane 119 % 63.6-154

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 03/17/2014
 Reported: 03/24/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 03/17/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 9 @ 4' (H400803-05)

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	03/19/2014	ND	2.01	101	2.00	0.775		
Toluene*	<0.050	0.050	03/19/2014	ND	1.92	96.0	2.00	0.201		
Ethylbenzene*	<0.050	0.050	03/19/2014	ND	1.88	94.1	2.00	0.709		
Total Xylenes*	<0.150	0.150	03/19/2014	ND	5.43	90.5	6.00	0.115		
Total BTEX	<0.300	0.300	03/19/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 102 % 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	<16.0	16.0	03/19/2014	ND	416	104	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	03/20/2014	ND	225	112	200	5.05		
DRO >C10-C28	<10.0	10.0	03/20/2014	ND	213	106	200	2.35		

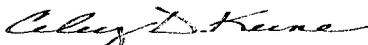
Surrogate: 1-Chlorooctane 107 % 65.2-140

Surrogate: 1-Chlorooctadecane 114 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 03/17/2014
 Reported: 03/24/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 03/17/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 10 @ 4' (H400803-06)

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	03/19/2014	ND	2.01	101	2.00	0.775		
Toluene*	<0.050	0.050	03/19/2014	ND	1.92	96.0	2.00	0.201		
Ethylbenzene*	<0.050	0.050	03/19/2014	ND	1.88	94.1	2.00	0.709		
Total Xylenes*	<0.150	0.150	03/19/2014	ND	5.43	90.5	6.00	0.115		
Total BTEX	<0.300	0.300	03/19/2014	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	03/19/2014	ND	416	104	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	03/20/2014	ND	225	112	200	5.05		
DRO >C10-C28	<10.0	10.0	03/20/2014	ND	213	106	200	2.35		

Surrogate: 1-Chlorooctane 107 % 65.2-140

Surrogate: 1-Chlorooctadecane 112 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

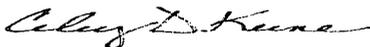
Notes and Definitions

- 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

Company Name: <u>Linn Energy</u>		BILL TO		ANALYSIS REQUEST																					
Project Manager: <u>Brian Wall</u>		P.O. #:																							
Address:		Company: <u>Linn Energy</u>																							
City:	State:	Zip:	Attn: <u>Brian Wall</u>																						
Phone #:	Fax #:	Address:																							
Project #:	Project Owner:		City:																						
Project Name: <u>new sp. ponds due to migration + no visible spill</u>		State:	Zip:																						
Project Location: <u>Turner B 10.3 Eddy Co NM</u>		Phone #:																							
Sampler Name: <u>Robbie</u>		Fax #:																							
FOR LAB USE ONLY																									
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS													MATRIX					PRESERV.		SAMPLING		
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER:	DATE	TIME	CL	TPH	RTX								
<u>H400803</u>																									
<u>1</u>	<u>SP. 50' 4"</u>	<u>8</u>	<u>1</u>			<u>X</u>				<u>X</u>			<u>2/7/14</u>	<u>9:35</u>	<u>X</u>	<u>X</u>	<u>X</u>								
<u>2</u>	<u>SP. 60' 4"</u>	<u>8</u>	<u>1</u>			<u>X</u>				<u>X</u>			<u>3/17/14</u>	<u>10:18</u>	<u>X</u>	<u>X</u>	<u>X</u>								
<u>3</u>	<u>SP. 70' 4"</u>	<u>8</u>	<u>1</u>			<u>X</u>				<u>X</u>			<u>3/17/14</u>	<u>10:54</u>	<u>X</u>	<u>X</u>	<u>X</u>								
<u>4</u>	<u>SP. 80' 6"</u>	<u>8</u>	<u>1</u>			<u>X</u>				<u>X</u>			<u>3/17/14</u>	<u>15:59</u>	<u>X</u>	<u>X</u>	<u>X</u>								
<u>5</u>	<u>SP. 90' 4"</u>	<u>8</u>	<u>1</u>			<u>X</u>				<u>X</u>			<u>3/17/14</u>	<u>15:00</u>	<u>X</u>	<u>X</u>	<u>X</u>								
<u>6</u>	<u>SP. 100' 4"</u>	<u>8</u>	<u>1</u>			<u>X</u>				<u>X</u>			<u>3/17/14</u>	<u>15:37</u>											

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Relinquished By:	Date: <u>3/17/14</u>	Received By: <u>Jodi Henson</u>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Time: <u>4:45</u>			Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
Time:			<u>bwail@linenergy.com</u>	
Delivered By: (Circle One)	Sample Condition	CHECKED BY: <u>JWH</u>	<u>ngladden@diversifiedfsi.com</u>	
Sampler - UPS - Bus - Other:	<u>2.88</u> Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>		<u>mvalves@diversifiedfsi.com</u>	

March 24, 2014

BRIAN WALL

LINN OPERATING-HOBBS

2130 W. BENDER

HOBBS, NM 88240

RE: TURNER B #103

Enclosed are the results of analyses for samples received by the laboratory on 03/17/14 16:45.

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

 Received: 03/17/2014
 Reported: 03/24/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 03/15/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP. 1 @ 20' (H400804-01)

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	03/19/2014	ND	2.01	101	2.00	0.775	
Toluene*	<0.050	0.050	03/19/2014	ND	1.92	96.0	2.00	0.201	
Ethylbenzene*	<0.050	0.050	03/19/2014	ND	1.88	94.1	2.00	0.709	
Total Xylenes*	<0.150	0.150	03/19/2014	ND	5.43	90.5	6.00	0.115	
Total BTEX	<0.300	0.300	03/19/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 103 % 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	864	16.0	03/19/2014	ND	416	104	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	03/20/2014	ND	197	98.7	200	0.404	
DRO >C10-C28	<10.0	10.0	03/20/2014	ND	192	95.9	200	0.866	

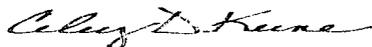
Surrogate: 1-Chlorooctane 108 % 65.2-140

Surrogate: 1-Chlorooctadecane 107 % 63.6-154

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 03/17/2014
 Reported: 03/24/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 03/15/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP. 2 @ 6' (H400804-02)

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	03/19/2014	ND	2.01	101	2.00	0.775		
Toluene*	<0.050	0.050	03/19/2014	ND	1.92	96.0	2.00	0.201		
Ethylbenzene*	<0.050	0.050	03/19/2014	ND	1.88	94.1	2.00	0.709		
Total Xylenes*	<0.150	0.150	03/19/2014	ND	5.43	90.5	6.00	0.115		
Total BTEX	<0.300	0.300	03/19/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 103 % 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	96.0	16.0	03/19/2014	ND	416	104	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	03/20/2014	ND	197	98.7	200	0.404		
DRO >C10-C28	<10.0	10.0	03/20/2014	ND	192	95.9	200	0.866		

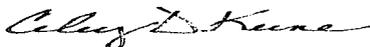
Surrogate: 1-Chlorooctane 116 % 65.2-140

Surrogate: 1-Chlorooctadecane 117 % 63.6-154

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 03/17/2014
 Reported: 03/24/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 03/15/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP. 4 @ 13' (H400804-03)

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	03/19/2014	ND	2.01	101	2.00	0.775		
Toluene*	<0.050	0.050	03/19/2014	ND	1.92	96.0	2.00	0.201		
Ethylbenzene*	<0.050	0.050	03/19/2014	ND	1.88	94.1	2.00	0.709		
Total Xylenes*	<0.150	0.150	03/19/2014	ND	5.43	90.5	6.00	0.115		
Total BTEX	<0.300	0.300	03/19/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 103 % 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	656	16.0	03/20/2014	ND	400	100	400	3.92		

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	03/20/2014	ND	197	98.7	200	0.404		
DRO >C10-C28	<10.0	10.0	03/20/2014	ND	192	95.9	200	0.866		

Surrogate: 1-Chlorooctane 109 % 65.2-140

Surrogate: 1-Chlorooctadecane 117 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

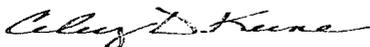
Notes and Definitions

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

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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>Lim Energy</u>		BILL TO		ANALYSIS REQUEST																							
Project Manager: <u>Brian Wall</u>		P.O. #:																									
Address:		Company: <u>Lim Energy</u>																									
City:	State:	Zip:	Attn: <u>Brian Wall</u>																								
Phone #:	Fax #:		Address:																								
Project #:	Project Owner:		City:																								
Project Name: <u>old spill w/ no record of spill</u>			State:													Zip:											
Project Location: <u>Turner B 103 Eddy CO NM</u>			Phone #:																								
Sampler Name: <u>Robbie</u>			Fax #:																								
FOR LAB USE ONLY																											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					PRESERV.		SAMPLING																
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	CL	BOX	TPH										
<u>H440084</u>																											
	<u>1 sp. 1 @ 20'</u>	<u>SP</u>	<u>1</u>			<u>X</u>					<u>X</u>		<u>3/14/14</u>	<u>3:51</u>	<u>X</u>	<u>X</u>	<u>X</u>										
	<u>2 sp. 2 @ 6'</u>	<u>SP</u>	<u>1</u>			<u>X</u>					<u>X</u>		<u>3/15/14</u>	<u>9:06</u>	<u>X</u>	<u>X</u>	<u>X</u>										
	<u>3 sp. 4 @ 13'</u>	<u>SP</u>	<u>1</u>			<u>X</u>					<u>X</u>		<u>3/15/14</u>	<u>2:01</u>	<u>X</u>	<u>X</u>	<u>X</u>										

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Relinquished By: <u>[Signature]</u>	Date: <u>3/17/14</u>	Received By: <u>[Signature]</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: <u>4:45</u>		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:		<u>bwall@limenergy.com</u>	
Delivered By: (Circle One)	Sample Condition	CHECKED BY: <u>[Signature]</u>	<u>ngladden@diversifiedfs.com</u>	
Sampler - UPS - Bus - Other:	Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>2.80</u>	<u>maiver@diversifiedfs.com</u>	

† Cardinal cannot accept verbal changes. P fax written changes to (575) 393-2326

AS4



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

April 02, 2014

BRIAN WALL
LINN OPERATING-HOBBS
2130 W. BENDER
HOBBS, NM 88240

RE: TURNER B #103

Enclosed are the results of analyses for samples received by the laboratory on 03/26/14 14:10.

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 "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene
Lab Director/Quality Manager

Analytical Results For:

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

 Received: 03/26/2014
 Reported: 04/02/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 03/19/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 12 @ 12' (H400900-01)

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	04/02/2014	ND	2.60	130	2.00	9.41	
Toluene*	<0.050	0.050	04/02/2014	ND	2.46	123	2.00	9.27	
Ethylbenzene*	<0.050	0.050	04/02/2014	ND	2.40	120	2.00	9.28	
Total Xylenes*	<0.150	0.150	04/02/2014	ND	6.84	114	6.00	9.37	
Total BTEX	<0.300	0.300	04/02/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	736	16.0	03/28/2014	ND	416	104	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	03/28/2014	ND	233	117	200	2.35	
DRO >C10-C28	<10.0	10.0	03/28/2014	ND	221	110	200	2.39	

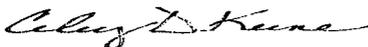
Surrogate: 1-Chlorooctane 84.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 90.3 % 63.6-154

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 03/26/2014
 Reported: 04/02/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 03/19/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 13 @ 4' (H400900-02)

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	04/02/2014	ND	2.60	130	2.00	9.41		
Toluene*	<0.050	0.050	04/02/2014	ND	2.46	123	2.00	9.27		
Ethylbenzene*	<0.050	0.050	04/02/2014	ND	2.40	120	2.00	9.28		
Total Xylenes*	<0.150	0.150	04/02/2014	ND	6.84	114	6.00	9.37		
Total BTEX	<0.300	0.300	04/02/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	384	16.0	03/28/2014	ND	416	104	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	03/28/2014	ND	233	117	200	2.35		
DRO >C10-C28	<10.0	10.0	03/28/2014	ND	221	110	200	2.39		

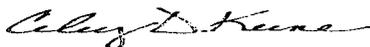
Surrogate: 1-Chlorooctane 93.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 98.3 % 63.6-154

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 03/26/2014
 Reported: 04/02/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 03/19/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 15 @ 4' (H400900-03)

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	04/02/2014	ND	2.60	130	2.00	9.41		
Toluene*	<0.050	0.050	04/02/2014	ND	2.46	123	2.00	9.27		
Ethylbenzene*	<0.050	0.050	04/02/2014	ND	2.40	120	2.00	9.28		
Total Xylenes*	<0.150	0.150	04/02/2014	ND	6.84	114	6.00	9.37		
Total BTEX	<0.300	0.300	04/02/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 109 % 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	144	16.0	03/28/2014	ND	416	104	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	03/28/2014	ND	233	117	200	2.35		
DRO >C10-C28	<10.0	10.0	03/28/2014	ND	221	110	200	2.39		

Surrogate: 1-Chlorooctane 90.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 89.3 % 63.6-154

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 03/26/2014
 Reported: 04/02/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 03/20/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 16 @ 4' (H400900-04)

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	04/02/2014	ND	2.60	130	2.00	9.41		
Toluene*	<0.050	0.050	04/02/2014	ND	2.46	123	2.00	9.27		
Ethylbenzene*	<0.050	0.050	04/02/2014	ND	2.40	120	2.00	9.28		
Total Xylenes*	<0.150	0.150	04/02/2014	ND	6.84	114	6.00	9.37		
Total BTEX	<0.300	0.300	04/02/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 110 % 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	<16.0	16.0	03/28/2014	ND	416	104	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	03/28/2014	ND	233	117	200	2.35		
DRO >C10-C28	<10.0	10.0	03/28/2014	ND	221	110	200	2.39		

Surrogate: 1-Chlorooctane 84.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 87.3 % 63.6-154

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 03/26/2014
 Reported: 04/02/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 03/20/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 17 @ 4' (H400900-05)

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	04/02/2014	ND	2.60	130	2.00	9.41		
Toluene*	<0.050	0.050	04/02/2014	ND	2.46	123	2.00	9.27		
Ethylbenzene*	<0.050	0.050	04/02/2014	ND	2.40	120	2.00	9.28		
Total Xylenes*	<0.150	0.150	04/02/2014	ND	6.84	114	6.00	9.37		
Total BTEX	<0.300	0.300	04/02/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 111 % 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	<16.0	16.0	03/28/2014	ND	416	104	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	03/28/2014	ND	233	117	200	2.35		
DRO >C10-C28	<10.0	10.0	03/28/2014	ND	221	110	200	2.39		

Surrogate: 1-Chlorooctane 83.7 % 63.2-140

Surrogate: 1-Chlorooctadecane 90.6 % 63.6-154

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 03/26/2014
 Reported: 04/02/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 03/20/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 18 @ 4' (H400900-06)

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	04/02/2014	ND	2.60	130	2.00	9.41		
Toluene*	<0.050	0.050	04/02/2014	ND	2.46	123	2.00	9.27		
Ethylbenzene*	<0.050	0.050	04/02/2014	ND	2.40	120	2.00	9.28		
Total Xylenes*	<0.150	0.150	04/02/2014	ND	6.84	114	6.00	9.37		
Total BTEX	<0.300	0.300	04/02/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	<16.0	16.0	03/28/2014	ND	416	104	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	03/28/2014	ND	233	117	200	2.35		
DRO >C10-C28	<10.0	10.0	03/28/2014	ND	221	110	200	2.39		

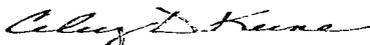
Surrogate: 1-Chlorooctane 89.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 87.2 % 63.6-154

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

Company Name: <u>Linn Energy</u>				BILL TO				ANALYSIS REQUEST									
Project Manager: <u>Brian Wall</u>				P.O. #:													
Address:				Company: <u>Linn Energy</u>													
City:		State:		Zip:		Attn: <u>Brian Wall</u>											
Phone #:		Fax #:		Address:													
Project #:		Project Owner:		City:													
Project Name:				State: Zip:													
Project Location: <u>Turner B 103 Eddy Co, NM</u>				Phone #:													
Sampler Name: <u>Robbie / Mike</u>				Fax #:													
<small>FOR LAB USE ONLY</small>																	
Lab I.D.	Sample I.D.	GIRAB OR (C)OMP:	# CONTAINERS	MATRIX					PRESERV			SAMPLING		CL	STEM	TDA	
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE				TIME
<u>H400900</u>																	
<u>1</u>	<u>SP. 12 @ 2'</u>	<u>SP</u>	<u>1</u>			<u>X</u>				<u>X</u>			<u>3/19/14</u>	<u>10:29</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>2</u>	<u>SP. 13 @ 4'</u>	<u>SP</u>	<u>1</u>			<u>X</u>				<u>X</u>			<u>3/19/14</u>	<u>11:02</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>3</u>	<u>SP. 15 @ 4'</u>	<u>SP</u>	<u>1</u>			<u>X</u>				<u>X</u>			<u>3/19/14</u>	<u>3:46</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>4</u>	<u>SP. 16 @ 4'</u>	<u>SP</u>	<u>1</u>			<u>X</u>				<u>X</u>			<u>3/20/14</u>	<u>9:33</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>5</u>	<u>SP. 17 @ 4'</u>	<u>SP</u>	<u>1</u>			<u>X</u>				<u>X</u>			<u>3/20/14</u>	<u>10:31</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>6</u>	<u>SP. 18 @ 4'</u>	<u>SP</u>	<u>1</u>			<u>X</u>				<u>X</u>			<u>3/20/14</u>	<u>11:20</u>	<u>X</u>	<u>X</u>	<u>X</u>

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Relinquished By: 	Date: <u>3/24/14</u> Time: <u>2:10</u>	Received By: <u>Jodi Benson</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No	CHECKED BY: 	REMARKS: <u>bwall@linenergy.com</u> <u>ngladstein@diversifiedfsi.com</u> <u>mvalves@diversifiedfsi.com</u> <u>Rpans@diversifiedfsi.com</u> <u>Tjennings@diversified.com</u>	

April 08, 2014

BRIAN WALL

LINN OPERATING-HOBBS

2130 W. BENDER

HOBBS, NM 88240

RE: TURNER B #103

Enclosed are the results of analyses for samples received by the laboratory on 04/07/14 15:50.

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,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/07/2014
 Reported: 04/08/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 04/07/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 1 @ 2' (H401053-01)

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	04/08/2014	ND	2.13	106	2.00	3.71	
Toluene*	<0.050	0.050	04/08/2014	ND	2.17	108	2.00	4.04	
Ethylbenzene*	<0.050	0.050	04/08/2014	ND	2.16	108	2.00	4.18	
Total Xylenes*	<0.150	0.150	04/08/2014	ND	6.29	105	6.00	4.72	
Total BTEX	<0.300	0.300	04/08/2014	ND					

Surrogate: 4-Bromofluorobenzene (PII) 114 % 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	<16.0	16.0	04/08/2014	ND	416	104	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	04/08/2014	ND	188	94.2	200	2.05	
DRO >C10-C28	<10.0	10.0	04/08/2014	ND	206	103	200	1.70	

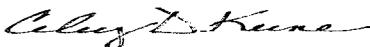
Surrogate: 1-Chlorooctane 113 % 65.2-140

Surrogate: 1-Chlorooctadecane 101 % 63.6-154

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/07/2014
 Reported: 04/08/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 04/07/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 2 @ 2' (H401053-02)

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	04/08/2014	ND	2.13	106	2.00	3.71		
Toluene*	<0.050	0.050	04/08/2014	ND	2.17	108	2.00	4.04		
Ethylbenzene*	<0.050	0.050	04/08/2014	ND	2.16	108	2.00	4.18		
Total Xylenes*	<0.150	0.150	04/08/2014	ND	6.29	105	6.00	4.72		
Total BTEX	<0.300	0.300	04/08/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 115 % 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	48.0	16.0	04/08/2014	ND	416	104	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	04/08/2014	ND	188	94.2	200	2.05		
DRO >C10-C28	<10.0	10.0	04/08/2014	ND	206	103	200	1.70		

Surrogate: 1-Chlorooctane 112 % 65.2-140

Surrogate: 1-Chlorooctadecane 103 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/07/2014
 Reported: 04/08/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 04/07/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 3 @ 2' (H401053-03)

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	04/08/2014	ND	2.13	106	2.00	3.71		
Toluene*	<0.050	0.050	04/08/2014	ND	2.17	108	2.00	4.04		
Ethylbenzene*	<0.050	0.050	04/08/2014	ND	2.16	108	2.00	4.18		
Total Xylenes*	<0.150	0.150	04/08/2014	ND	6.29	105	6.00	4.72		
Total BTEX	<0.300	0.300	04/08/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 118 % 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	400	16.0	04/08/2014	ND	416	104	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	04/08/2014	ND	188	94.2	200	2.05		
DRO >C10-C28	<10.0	10.0	04/08/2014	ND	206	103	200	1.70		

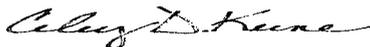
Surrogate: 1-Chlorooctane 115 % 65.2-140

Surrogate: 1-Chlorooctadecane 101 % 63.6-154

Cardinal Laboratories

* = Accredited Analyte

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Celestine Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/07/2014
 Reported: 04/08/2014
 Project Name: TURNER B #103
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 04/07/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 4 @ 4' (H401053-04)

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	04/08/2014	ND	2.13	106	2.00	3.71		
Toluene*	<0.050	0.050	04/08/2014	ND	2.17	108	2.00	4.04		
Ethylbenzene*	<0.050	0.050	04/08/2014	ND	2.16	108	2.00	4.18		
Total Xylenes*	<0.150	0.150	04/08/2014	ND	6.29	105	6.00	4.72		
Total BTEX	<0.300	0.300	04/08/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 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	448	16.0	04/08/2014	ND	416	104	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	04/08/2014	ND	188	94.2	200	2.05		
DRO >C10-C28	<10.0	10.0	04/08/2014	ND	206	103	200	1.70		

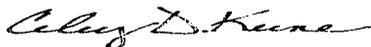
Surrogate: 1-Chlorooctane 113 % 65.2-140

Surrogate: 1-Chlorooctadecane 103 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

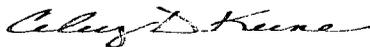
Notes and Definitions

- 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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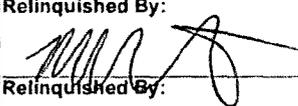
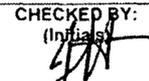
Celestine D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>Linn Energy</u>		BILL TO		ANALYSIS REQUEST																					
Project Manager: <u>Brian Wall</u>		P.O. #:																							
Address:		Company: <u>Linn Energy</u>																							
City:	State:	Zip:	Attn: <u>Brian Wall</u>																						
Phone #:	Fax #:	Address:																							
Project #:	Project Owner:		City:																						
Project Name: <u>"2nd spill"</u>			State:													Zip:									
Project Location: <u>Turner B 103 Eddy Co NM</u>			Phone #:																						
Sampler Name: <u>Michael Alva</u>			Fax #:																						
FOR LAB USE ONLY																									
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS													MATRIX					PRESERV			SAMPLING	
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME											
<u>H401053</u>																									
	<u>1 sp. 1 @ 2'</u>	<u>SP</u>	<u>1</u>			<u>X</u>				<u>X</u>			<u>4/7/14</u>	<u>1:10</u>	<u>X</u>	<u>X</u>	<u>X</u>								
	<u>2 sp. 2 @ 2'</u>	<u>SP</u>	<u>1</u>			<u>X</u>				<u>X</u>			<u>4/7/14</u>	<u>1:35</u>	<u>X</u>	<u>X</u>	<u>X</u>								
	<u>3 sp. 3 @ 2'</u>	<u>SP</u>	<u>1</u>			<u>X</u>				<u>X</u>			<u>4/7/14</u>	<u>2:00</u>	<u>X</u>	<u>X</u>	<u>X</u>								
	<u>4 sp. 4 @ 4'</u>	<u>SP</u>	<u>1</u>			<u>X</u>				<u>X</u>			<u>4/7/14</u>	<u>2:43</u>	<u>X</u>	<u>X</u>	<u>X</u>								

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 the client for the 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 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: 	Date: <u>4/7/14</u> Time: <u>3:50</u>	Received By: 	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: <u>2.4</u>		Sample Condition Cool - Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No	CHECKED BY: (Initials) 	
REMARKS: E-mail Results To: <u>Ngladden@diversifiedfsi.com</u> <u>Rpons@diversifiedfsi.com</u> <u>Tjennings@diversifiedfsi.com</u>			<u>RUSH!!!</u>	

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

Company Name: Lim Energy
 Location Name: Turner B #103

Date: 3/10/2014
4/7/2014

SP1	CHL	SP2	CHL	SP3	CHL	SP4	CHL	SP5	CHL	SP6	CHL	SP7	CHL	SP8	CHL	SP9	CHL	SP10	CHL
Surf	239	Surf	274	Surf	274	Surf	224	Surf	300	Surf	250	Surf	175	Surf	275	Surf	150	Surf	150
1'	230	1'	299	1'	224	1'	250	1'	225	1'	175	1'	250	1'	275	1'	175	1'	175
2'	244	2'	229	2'	230	2'	274	2'	200	2'	175	2'	200	2'	400	2'	200	2'	375
3'	475	3'	425	3'	300	3'	525	3'	275	3'	200	3'	400	3'	375	3'	175	3'	350
4'	1175	4'	400	4'	325	4'	550	4'	300	4'	250	4'	450	4'	825	4'	250	4'	400
5'	1749	5'	450	5'	450	5'	450	5'	64	5'	64	5'	224	5'	600	5'	<16	5'	208
6'	1774	6'	400	6'	550	6'	950	6'	475	6'	475	6'	272	6'	475	6'	<16	6'	208
7'	1600	7'	96	7'	134	7'	1300	7'	950	7'	1300	7'	950	7'	1300	7'	<16	7'	208
8'	2124	8'	2799	8'	Auger Refusal	8'	1300	8'	1375	8'	1375	8'	1375	8'	1375	8'	<16	8'	208
9'	2799	9'	2799	9'	Auger Refusal	9'	1375	9'	1375	9'	1375	9'	1375	9'	1375	9'	<16	9'	208
10'	2824	10'	2824	10'	Auger Refusal	10'	1525	10'	1525	10'	1525	10'	1525	10'	1525	10'	<16	10'	208
11'	1375	11'	1375	11'	Auger Refusal	11'	1300	11'	1300	11'	1300	11'	1300	11'	1300	11'	<16	11'	208
12'	1250	12'	1250	12'	Auger Refusal	12'	800	12'	800	12'	800	12'	800	12'	800	12'	<16	12'	208
13'	975	13'	975	13'	Auger Refusal	13'	650	13'	650	13'	650	13'	650	13'	650	13'	<16	13'	208
14'	900	14'	900	14'	Auger Refusal	14'	656	14'	656	14'	656	14'	656	14'	656	14'	<16	14'	208
15'	650	15'	650	15'	Auger Refusal	15'	656	15'	656	15'	656	15'	656	15'	656	15'	<16	15'	208
16'	750	16'	750	16'	Auger Refusal	16'	656	16'	656	16'	656	16'	656	16'	656	16'	<16	16'	208
17'	825	17'	825	17'	Auger Refusal	17'	656	17'	656	17'	656	17'	656	17'	656	17'	<16	17'	208
18'	875	18'	875	18'	Auger Refusal	18'	656	18'	656	18'	656	18'	656	18'	656	18'	<16	18'	208
19'	1150	19'	1150	19'	Auger Refusal	19'	656	19'	656	19'	656	19'	656	19'	656	19'	<16	19'	208
20'	700	20'	700	20'	Auger Refusal	20'	656	20'	656	20'	656	20'	656	20'	656	20'	<16	20'	208
20'	864	20'	864	20'	Auger Refusal	20'	656	20'	656	20'	656	20'	656	20'	656	20'	<16	20'	208

Fill the rest of the area to record.

SP11	CHL	SP12	CHL	SP13	CHL	SP14	CHL	SP15	CHL	SP16	CHL	SP17	CHL	SP18	CHL	SP19	CHL	SP20	CHL
Surf	175	Surf	175	Surf	200	Surf	175	Surf	175	Surf	250	Surf	175	Surf	200	Surf	200	Surf	200
1'	250	1'	300	1'	300	1'	175	1'	225	1'	225	1'	200	1'	200	1'	200	1'	200
2'	450	2'	325	2'	450	2'	350	2'	250	2'	300	2'	175	2'	250	2'	250	2'	250
3'	700	3'	725	3'	425	3'	1025	3'	200	3'	225	3'	200	3'	200	3'	200	3'	200
4'	1150	4'	900	4'	525	4'	800	4'	275	4'	200	4'	225	4'	200	4'	200	4'	200
5'	1025	5'	675	5'	384	5'	2499	5'	144	5'	<16	5'	<16	5'	<16	5'	<16	5'	<16
Auger Refusal		6'	800	6'	4624	6'	3149	6'	<16	6'	<16	6'	<16	6'	<16	6'	<16	6'	<16
		7'	900	7'	3149	7'	2749	7'	<16	7'	<16	7'	<16	7'	<16	7'	<16	7'	<16
		8'	900	8'	3149	8'	1949	8'	<16	8'	<16	8'	<16	8'	<16	8'	<16	8'	<16
		9'	750	9'	1949	9'	1849	9'	<16	9'	<16	9'	<16	9'	<16	9'	<16	9'	<16
		10'	1125	10'	1849	10'	1799	10'	<16	10'	<16	10'	<16	10'	<16	10'	<16	10'	<16
		11'	900	11'	1849	11'	1799	11'	<16	11'	<16	11'	<16	11'	<16	11'	<16	11'	<16
		12'	650	12'	1899	12'	1899	12'	<16	12'	<16	12'	<16	12'	<16	12'	<16	12'	<16
		12'	736	12'	1899	12'	2049	12'	<16	12'	<16	12'	<16	12'	<16	12'	<16	12'	<16
		15'		15'	1649	15'	1649	15'	<16	15'	<16	15'	<16	15'	<16	15'	<16	15'	<16
		Auger Refusal		Auger Refusal		Auger Refusal		Auger Refusal		Auger Refusal		Auger Refusal		Auger Refusal		Auger Refusal		Auger Refusal	

Second Spill

SP1	CHL	SP2	CHL	SP3	CHL	SP4	CHL	SP24	CHL	SP25	CHL	SP26	CHL	SP27	CHL	SP28	CHL	SP29	CHL	SP30	CHL
Surface	274	Surface	274	Surface	639	Surface	499														
1'	274	1'	274	1'	524	1'	974														
2'	285	2'	299	2'	524	2'	1124														
2'	0.16	2'	48	2'	400	2'	549														

Lab Confirmation Sample
 Field Sampling
 Needs Delineation and confirmation samples

Appendix V

CORRESPONDENCE

Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

Rebecca Pons

From: Natalie Gladden
Sent: Tuesday, April 08, 2014 2:45 PM
To: Mike Burton (mburton@blm.gov)
Cc: Wall, Fred; Michael Patterson; Rebecca Pons; Traci Jennings; Stephen McGhee
Subject: FW: Linn Energy Turner B #103 - Remediation Plan

Thanks Mike,

We will get on this re-seeding project. LPC seed?

Natalie Gladden

ENVIRONMENTAL DIRECTOR
DFSI ENVIRONMENTAL SERVICES
CELL: 575-602-1786
OFFICE: 575-964-8394
FAX: 575-964-8396
EMAIL: ngladden@diversifiedfsi.com

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From: Burton, Michael [<mailto:mburton@blm.gov>]
Sent: Tuesday, April 08, 2014 2:32 PM
To: Natalie Gladden
Subject: Re: Linn Energy Turner B #103 - Remediation Plan

Natalie,

Because all surface samples are below our closure levels of 1000ppm. I will request this site not be excavated. Re-seed the area with the BLM seed mix #2 or LPC seed mix. In 1 growing season this site can be reevaluated to determine if additional measures need to be taken. The operator will be required to monitor this site for vegetation stability.

Thanks

Mike Burton
BLM-CFO
Environmental Protection Specialist
575-234-2226 office
575-361-3574 cell
mburton@blm.gov

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On Tue, Apr 8, 2014 at 10:22 AM, Natalie Gladden <ngladden@diversifiedfsi.com> wrote:

Please find the attached work plan for the remediation needed on the Linn Energy Turner B #103. Thank you in advance for your time in this matter.

Have a great day!

Natalie Gladden

ENVIRONMENTAL DIRECTOR

DFSI ENVIRONMENTAL SERVICES

CELL: 575-602-1786

OFFICE: 575-964-8394

FAX: 575-964-8396

EMAIL: ngladden@diversifiedfsi.com

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Appendix VI

FINAL FORM C-141

Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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 August 8, 2011

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, Inc.	Contact: Brian Wall
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No. 575-738-1739
Facility Name: Turner B #103	Facility Type: Oil Production

Surface Owner Federal	Mineral Owner Federal	API No. 30-015-26665
-----------------------	-----------------------	----------------------

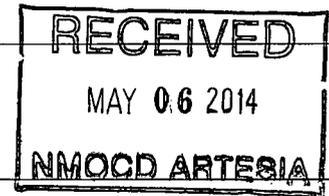
LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
B	20	17S	31E	1300	North	1370	East	

Latitude 32.8237284410225 Longitude -103.887811333549

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release 15 bbl.	Volume Recovered 0
Source of Release: 2" poly flow line	Date and Hour of Occurrence 07/02/2013 8:30 AM	Date and Hour of Discovery 07/02/2013 8:30 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher NMOCD	
By Whom?	Date and Hour 10/15/13 11:45 A.M.	
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.*
NA

Describe Cause of Problem and Remedial Action Taken.*
A 2" poly flow line was struck by a trakhoe being used by diversified while excavating contaminated soil from a previous leak. This resulted in a 2" cut in the line that released gas and a small amount of water, however no oil was released.

Describe Area Affected and Cleanup Action Taken.*
The flow line was immediately shut in and repaired. There was an impact of 15 gal. of produced water. DFSI removed the impacted soil to an NMOCD approved facility. On April 10, 2001 the site was seeded and restored to its natural state per BLM guidelines.

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: Fred B Wall	OIL CONSERVATION DIVISION	
Printed Name: Brian Wall	Approved by Environmental Specialist:	
Title: Construction Foreman II	Approval Date:	Expiration Date:
E-mail Address: bwall@linenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 03/25/2014 Phone: 806-367-0645		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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

Form C-141
Revised August 8, 2011

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, Inc.	Contact: Brian Wall
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No. 575-738-1739
Facility Name: Turner B #103	Facility Type: Oil Production

Surface Owner Federal	Mineral Owner Federal	API No. 30-015-26665
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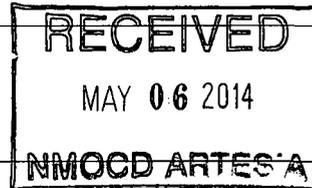
LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
B	20	17S	31E	1300	North	1370	East	

Latitude 32.8237284410225 Longitude -103.887811333549

NATURE OF RELEASE

Type of Release: Oil and Produced Water	Volume of Release 12 bbls.	Volume Recovered 9 bbls
Source of Release: flow line	Date and Hour of Occurrence 12/10/2010 A.M.	Date and Hour of Discovery 12/10/2010 10:00 A.M.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? BLM Terry Gregston	
By Whom?	Date and Hour: 12/10/2010 11:00 A.M.	
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.*
NA

Describe Cause of Problem and Remedial Action Taken.*
The flow line at the Turner B #103 froze and plugged off a flow line ruptured near the pumping unit. The well was shut in and the flow line was repaired. A vacuum truck was utilized to recover the free standing fluids.

Describe Area Affected and Cleanup Action Taken.*
The affected area was the location on the Southside of the pumping unit east to be 90' long X 19' wide. The release ran off the location in two narrow flow paths east. The spill area mapped was 17,335 sq. ft. of impact. All impacted soil was removed to an NMOCD approved facility. The impacted pasture area was remediated and re-seeded according to BLM guidelines.

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: Fred B Wall		OIL CONSERVATION DIVISION	
Printed Name: Brian Wall		Approved by Environmental Specialist:	
Title: Construction Foreman II		Approval Date:	Expiration Date:
E-mail Address: bwall@linenergy.com		Conditions of Approval:	
Date: 04/25/2014	Phone: 806-367-0645	Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary