

April 27, 2015

Ms. Heather Patterson

**NMOCD District 2** 

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

811 S. 1st Street Artesia, NM 88210

Subject:

Soil Assessment and Remediation Work Plan

Lime Rock Resources II-A, L.P.

Windfohr 4 Federal #012

30-015-442037

ARTESIA

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

Dear Ms. Patterson,

HOBBS

318 East Taylor Street Hobbs, New Mexico 88240 Phone 575.393.4261 Fax 575.393.4658

Lime Rock Resources (Lime Rock) has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced location. The results of our soil assessment and proposed remediation activities consist of the following.

# **Background Information**

MIDLAND 2901 State Hwy 349 Midland, Texas 79706 Phone 432.522.2133 Fax 432.522.2180 The Windfohr 4 Federal #012 water transfer line release is located approximately fourteen (14) miles southeast of Artesia, New Mexico. The legal location for this release is Unit Letter E, Section 3, Township 18 South and Range 27 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.77847 North and -104.27121 West. A site plan is presented in Appendix I.

OKLAHOMA CITY 7700 North Hudson Avenue Oklahoma City, Oklahoma 73II6 Phone 405,486,7030 Fax 806.467.0622

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Reeves-Gypsum land complex with 0 to 3 percent slopes. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is comprised of older alluvial deposits of upland plains and piedmont areas. Drainage courses in this area are normally dry. Ground water in the project vicinity is approximately 140feet below ground surface (bgs) according to the New Mexico Office of the State Engineer. See Appendix II for the referenced groundwater data.

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

The ranking for this site is **0** Based on the following:

>100' Depth to ground water >1000' Wellhead Protection Area Distance to surface water body >1000°

**ENVIRONMENTAL CONSULTING ENGINEERING** DRILLING CONSTRUCTION SPILL MANAGEMENT GENERAL CONTRACTING

Toll Free: 866.742.0742 www.talonlpe.com

# **Incident Description**

A temporary 12-inch water transfer line had a leak at one of the connections which resulted in a release of approximately 18bbls of treated produced water. When the leak was discovered the line was repaired and a vacuum truck was dispatched to recover the standing fluid. Approximately 2bbls of fluid were recovered.

Talon mobilized personnel to conduct a site assessment and perform soil sampling utilizing a hand auger. Refusal was encountered at a depths between 0.75-feet and 1.5-feet bgs with the hand auger. Upon receipt of laboratory results from the initial soil sampling event, a backhoe was mobilized to conduct further vertical delineation within the impacted area. Refusal was encountered at a depth of 2.5-feet bgs with the backhoe. Due to the hardness of the ground at this site, test pits were dug at only two sample locations that would represent the entire impacted area in worst case locations (sample locations S-3 & S-4). Laboratory results from the above referenced sampling activities are summarized in the table below.

# Laboratory Results (4/14/2015)

See Appendix III for complete report of laboratory results.

Sample ID Depth (feet)		BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	0		26000		7 7 7 1 <u></u> 1 7
S-1	0.5		5440		
S-1 Refusal	1		592	1, 4, - 1, 1, 4	
S-2	0		30800		
S-2	0.5		18400	1.0.5-1.5	
S-2	1		19200		
S-2 Refusal	1.5		2760		
S-3	0		12400		
S-3	0.5		9330	47 - 15-	
S-3 Refusal	0.75		12500		
S-4	0		35600		
S-4	0.5		19600		
S-4 Refusal			25200		

(--) Analyte Not Tested

(ND) Analyte Not Detected

# Laboratory Results (4/22/2015)

See Appendix III for complete report of laboratory results.

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO	
S-1	0	ND	1 1 2	ND	ND	
S-2	0	ND		ND	ND	
S-3	0	ND		ND	ND	
S-3	2		64			
S-3 Refusal	2.5		1060			
S-4	0	ND		ND	ND	
S-4	2		1280			
S-4 Refusal	2.5		752			

(--) Analyte Not Tested

(ND) Analyte Not Detected

Based upon the site ranking of 0, NMOCD Recommended Remedial Action Levels (RRAL) are 50 mg/kg for BTEX, 10 mg/kg for Benzene 5,000 mg/kg for TPH and 1,000 mg/kg for chlorides.

# **Proposed Remedial Actions**

- The impacted area will be excavated to a depth of 2.5-feet bgs.
- All of the excavated material will be hauled to an NMOCD approved solid waste disposal facility.
- The excavation will be backfilled with top soil, contoured to match the surrounding terrain and seeded with BLM seed mixture #4.

Should you have any questions or if further information is required, please do not hesitate to contact our office at (575)-746-8768

Respectfully submitted,

TALON/LPE

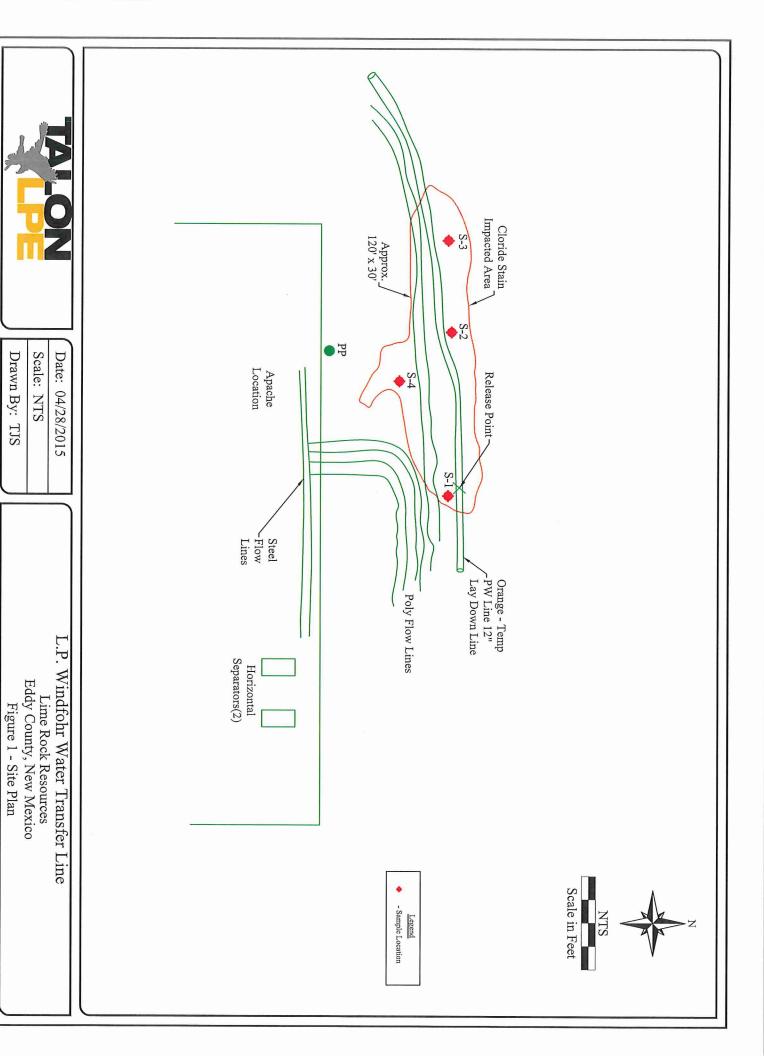
Sheldon L. Hitchcock

Project Manager

David J. Adkins

District Manager

# **SITE PLAN**



Drawn By: TJS

# GROUNDWATER DATA INITIAL C-141



# 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) (quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

closed) POD

> Sub-QQQ

Depth Depth Water Distance Well Water Column

**POD Number** RA 03661

Code basin County 64 16 4 Sec Tws Rng ED 3 2 3 32 17S 27E

565186 3628038\*

3117

Average Depth to Water:

140 feet

Minimum Depth:

140 feet

Maximum Depth:

140 feet

# Record Count: 1

Basin/County Search:

County: Eddy

UTMNAD83 Radius Search (in meters):

Easting (X): 568102

Northing (Y): 3626934

Radius: 3200

\*UTM location was derived from PLSS - see Help

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.

			Rele	ease Notific	catio	n and Co	orrective A	ction	1			
						OPERA'	ГOR		✓ Initia	al Report		Final Report
Name of Co	mpany Li	me Rock Re	sources I	I-A, L.P.			chael Barrett					
		St. Ste. 4600		n, TX 77002			No. 575-623-84					
Facility Nat	ne Windfo	hr 4 Federal	#012			Facility Typ	e Water Transf	er Line				
Surface Ow	ner BLM			Mineral C	)wner	Federal			API No	. 30-015-4	2037	
				LOCA	ATIO	N OF RE	LEASE					
Unit Letter	Section	Township	Range	Feet from the		h/South Line	Feet from the	East/	West Line	County		
E	3	18S	27E	2005		N	990		W	Eddy		
		L	L			****		L				
		-	Lat	itude32.7784	<u>47</u>	Longitud	e <u>104.27121</u>					
				NAT	URE	OF REL						
Type of Rele		ed water					Release 18bbls			Recovered 2		
Source of Re Water Transf						4/8/2015 7	Hour of Occurrent	ce	4/8/2015	Hour of Dis	covery	
Was Immedia		Riven?				If YES, To			4/0/2013			
Truo miniodi			Yes [	No 🛛 Not R	equirec							
By Whom?			Date and Hour									
Was a Watercourse Reached?						If YES, Volume Impacting the Watercourse.						
☐ Yes ☒ No  If a Watercourse was Impacted, Describe Fully.*												
A temporary leak was disc	Describe Cause of Problem and Remedial Action Taken.*  A temporary 12" transfer line had a leak at one of the connections which caused a release of approximately 18bbls of treated produced water. When the leak was discovered the line was repaired and a vacuum truck was dispatched to recover the standing fluid. Approximately 2bbls of fluid were recovered. Talon/LPE mobilized personnel to conduct an initial site assessment and perform soil sampling activities within the impacted area.											
The impacted Talon/LPE m at depths var encountered	l area is in to obilized per ying from 0 at a depth o	ersonnel to cor 0.75' to 1' deep of 2' deep.	st north of nduct an ir p. A backl	n Taken.* the Apache Red I nitial site assessm- noe was mobilized is true and comp	ent and d to co	I soil sampling ntinue the vert	utilizing a hand a ical delineation o	auger. R f chlorid	efusal with les, Refusal	the hand au with the ba	ger wa ckhoe v	s encountered was
regulations a public health should their or the enviro	I operators or the envi operations h nment. In a	are required t ronment. The nave failed to	o report and acceptant acc	ce of a C-141 reprivation in the control of a C-141 reprivation in the control of a C-141 reprivation of a C-141	release ort by t remedia	notifications a he NMOCD n ate contaminat	nd perform corre narked as "Final F ion that pose a th we the operator of	ctive ac Report" reat to g	tions for rel does not rel ground wate sibility for c	eases which ieve the ope r, surface we compliance v	may e rator o ater, hu vith an	ndanger f liability ıman health
Signature:	sh	M	730	5			OIL CON			DIVISIO	<u>N</u>	
Printed Name	e: Michael	Barrett				Approved by	Environmental S	Specialis	st:			
Title: Produc	tion Superv	visor				Approval Da	ite:		Expiration	Date:		
	ess: mbarre	tt@limerockre		om : 575-623-8424		Conditions of	f Approval:			Attached		

<sup>\*</sup> Attach Additional Sheets If Necessary

# LABORATORY RESULTS



April 14, 2015

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: WINDFOHR WATER TRANSFER LINE

Enclosed are the results of analyses for samples received by the laboratory on 04/13/15 11:00.

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 <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated 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.

Celey D. Keine

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



TALON LPE DAVID ADKINS 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:

04/13/2015

Sampling Date:

04/11/2015

Reported:

04/14/2015

Sampling Type:

Soil

Project Name:

WINDFOHR WATER TRANSFER LINE

Sampling Condition:

\*\* (See Notes)

Project Number:

701307.074.01

Sample Received By:

Jodi Henson

Project Location:

NONE GIVEN

Sample ID: S-1 0' (H500963-01)

Chloride, SM4500CI-B

Chloride

mg/kg

mg/kg

Analyzed By: AP

Analyzed

04/13/2015

Analyzed

04/13/2015

Analyte

Result 26000

Result

5440

592

30800

Reporting Limit

Method Blank ND

BS 416

% Recovery 104

% Recovery

104

True Value QC 400

RPD

Qualifier

Qualifier

Sample ID: S-1 0.5' (H500963-02)

Chloride, SM4500CI-B

Reporting Limit

16.0

16.0

16.0

16.0

Analyzed By: AP

Method Blank

ND

BS

416

BS

416

True Value QC

400

0.00

RPD

0.00

0.00

0.00

Chloride

Analyte

Sample ID: S-1 1.0' (H500963-03)

Chloride, SM4500CI-B

Chloride

mg/kg

Analyzed By: AP

Analyte Result Reporting Limit Analyzed

04/13/2015

Method Blank

ND

% Recovery

104

True Value OC

400

RPD Qualifier

Sample ID: S-2 0' (H500963-04)

Chloride, SM4500CI-B

mg/kg

Analyzed By: AP

Analyte Chloride

' Result Reporting Limit

Analyzed 04/13/2015 Method Blank ND

BS 416

% Recovery 104

True Value QC 400

RPD Qualifier

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg Di Kreene

Celey D. Keene, Lab Director/Quality Manager



TALON LPE DAVID ADKINS 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Reported: 04/14/2015

Project Name: WINDFOHR WATER TRANSFER LINE

04/13/2015

Project Number: 701307.074.01

Project Location: NONE GIVEN Sampling Date:

Sample Received By:

Sampling Type:

Sampling Condition: \*\* (See Notes)

Jodi Henson

04/11/2015

Sample ID: S-2 0.5' (H500963-05)

Chloride, SM4500CI-B

Received:

mg/kg

Analyzed By: AP

Analyte

Result 18400 Reporting Limit

Analyzed 04/13/2015

Analyzed

Method Blank ND

BS 416 % Recovery 104

400

True Value QC

**RPD** 

0.00

0.00

Sample ID: S-2 1.0' (H500963-06)

Chloride, SM4500CI-B Analyte

Reporting Limit

16.0

Reporting Limit

16.0

16.0

Analyzed By: AP

RPD

Qualifier

Qualifier

Chloride

Chloride

Chloride

Chloride

Chloride

Result 19200

Result

2760

Result

12400

16.0 04/13/2015 Method Blank ND

BS 416

BS

416

% Recovery 104

True Value QC 400

Sample ID: S-2 1.5' REFUSAL (H500963-07)

Chloride, SM4500CI-B

mg/kg

Analyzed By: AP

Analyte

Reporting Limit Analyzed

04/13/2015

Method Blank ND

% Recovery

True Value QC

400

400

RPD

Qualifier

Sample ID: S-3 0' (H500963-08) Chloride, SM4500CI-B

Analyte

mg/kg

Analyzed By: AP

Analyzed

04/13/2015

Method Blank

ND

BS

416

% Recovery

104

104

True Value QC

RPD

0.00

0.00

Qualifier

Sample ID: S-3 0.5' (H500963-09)

Chloride, SM4500CI-B

mg/kg

Analyzed By: AP

Analyte

Result 9330 Reporting Limit 16.0

Analyzed 04/13/2015 Method Blank ND

BS % Recovery 416 104

True Value QC 400

RPD

Qualifier 0.00

Cardinal Laboratories

\*=Accredited Analyte

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TALON LPE DAVID ADKINS 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

04/13/2015

Sampling Date:

04/11/2015

Reported:

04/14/2015

Sampling Type:

Soil

WINDFOHR WATER TRANSFER LINE

Sampling Condition:

\*\* (See Notes)

Project Name: Project Number:

701307.074.01

Sample Received By:

Jodi Henson

Project Location: NONE GIVEN

Sample ID: S-3 0.75' REFUSAL (H500963-10)

Chloride, SM4500CI-B

mg/kg

Analyzed By: AP

Analyte

Result Reporting Limit

12500

16.0

Analyzed 04/13/2015 Method Blank ND

BS

432

% Recovery 108

% Recovery

108

True Value QC 400

Qualifier

Sample ID: S-4 0' (H500963-11)

Chloride, SM4500CI-B

Analyte

Analyte

Analyte

mg/kg

Analyzed By: AP

RPD

7.69

Chloride

Chloride

Result

35600

Result

19600

Result

25200

Reporting Limit Analyzed 16.0 04/13/2015 Method Blank ND

432

BS

True Value QC

400

RPD

Qualifier 7.69

Sample ID: S-4 0.5' (H500963-12)

Chloride, SM4500CI-B

mg/kg

Analyzed By: AP

Analyzed

Analyzed

04/13/2015

Method Blank

% Recovery

True Value QC

Qualifier

Chloride

Chloride

Reporting Limit

Reporting Limit

16.0

16.0 04/13/2015 ND

BS 432

108

400

RPD 7.69

Sample ID: S-4 1.0' REFUSAL (H500963-13)

Chloride, SM4500CI-B

mg/kg

Analyzed By: AP

Method Blank

ND

BS

432

% Recovery

108

True Value QC

400

RPD

7.69

Qualifier

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene

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. Keine



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

5/5) 383-2320 FAS		ANALYSIS REQUEST
TALONIL	PO # 70	74.01
Address: 400 B. Texas	3	0V/LP6
Artesia	ip: 88210 Attn:	3
e# 875 746.8768 F	Address:	DE
701307.07	Line Rock City:	211
5	usfer Live State: Zip:	
Project Location:	Phone #:	+L
Sampler Name: U. ASICIES	Fax#:	
	MATRIX PRESERV	SAMPLING
	ERS ATER ER	TA-L.
Lab I.D. Sample I.D.	G)RAB OR CONTAIN GROUNDW WASTEWA SOIL OIL SLUDGE OTHER: ACID/BASE ICE / COOL OTHER:	DATE TIME
1 5-1 0	6- 1	111/15 125 Am V
7 6-1 0.5		135
		INS N
		7.00
3 1		2:0
		220
5-2		230
8 5-3 0'		250
3.0 5-3		255
10 5-3 0.75 refuse		500
PLEASE NOTE: Labifity and Damages. Cardina's liability and client's exclusive remedy for any claim arising whether based in contract or bot, shall be limited to the amount pold by the client for the pplicable analyses. All balaims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardina's within 30 days after completion of the applicable analyses. All balaims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and cereived by Cardina's within 30 days after completion.	emed waived unless made in writing and received by Cardinal will be sented to the second second will be sented to the second sec	the amount paid by the eleration the thin and the state of the state of the state of the spokens
service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, you are used, and we have a province of the above stated reasons or otherwise.  The control of the stated to the performance of services hereunder by Cardinal, reparalless of whether such claim is based upon any of the above stated reasons or otherwise.	without limitation, business interruptions, uses or use, or week or pro- irdinal, regardless of whether such claim is based upon any of the z	Vec
Relinquished By:	Received By:	Fax Result: Yes No
Time:	In A	REMARKS: D 1 2 2

Sample Condition
Cool Intact
Yes Yes
No No

Sampler - UPS - Bus - Other:

By: (Gizele One)

Relinquished By:



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: TALON/LPE	BILLIO	
Sor	P.O. #: 70/307.074.01	
OB W. Texas	Company: THOULPE	
Artesia State: Jul Zip: 88210	Attn:	era de altre
e#: 878746.8768 Fax#:	Address:	
Project Owner: Luc lock	City:	A. PAT
water Transfer Line	State: Zip:	
	Phone #:	
Sampler Name: D. ADILINS		
FOR LAB USE ONLY MATRIX	PRESERV. SAMPLING	
(C)OMP. IERS JATER		A. A. C.
(G)RABO # CONTAI GROUND WASTEW SOIL OIL SLUDGE	OTHER: ACID/BAS ICE / COO OTHER: DATE TIME	
1 5-4 0'	4/11/15 3:150	
14	4/11 320 V	
5-4	4/11 330 V	
the state of the s	are the shall be limited to the amount paid by the cilent for the	
PLEASE (XOTE: Usually and unmagest. Justimus assume year of the applicable analyses. All calms industing these for regisfered and any other cause windscover shall be deemed waived inless made in writing and received by Cardinal within 30 days after completion of the applicable analyses. All claims including those for regisfered and any other causes windscover shall be deemed waived inhibition, business interruptions, less of tase, or loss of profile incurred by client, its substitutions. It is substituted by client, its substitutions, and the state of the completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, less of tase, or loss of profile incurred by client, its substitution and the state of the state of the applicable analysis.	sa made in writing and received by Cardinal within 30 days after completion of the applicable uniques and received by Cardinal within and the completion of the applicable uniques interruptions, less of true, or loss of profits incurred by client, its statistical interruptions are considered to the constant of the above that the constant of the cons	

Sampler - UPS - Bus - Other:

(Circle One)

Relinquished By:

Time:

such claim is based upon any of the above stated reasons or otherwise.

Fax Result:

REMARKS:

P. 20f 2

RUSH

☐ Yes ☐ No

Add'I Fax #:



April 22, 2015

KIMBERLY WILSON

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: WINDFOHR WATER TRANSFER LINE

Enclosed are the results of analyses for samples received by the laboratory on 04/21/15 15:35.

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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accred certif.html.

Cardinal Laboratories is accreditated 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.

Celey D. Keine

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



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

Received:

04/21/2015

Sampling Date:

04/21/2015

Reported:

04/22/2015

Sampling Type:

Soil

Project Name:

WINDFOHR WATER TRANSFER LINE

Sampling Condition:

Cool & Intact

Project Number:

701307.074.01

Project Location:

NONE GIVEN

Sample Received By:

Jodi Henson

Sample ID: S-1 0' (H501037-01)

BTEX 8021B	mg,	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/22/2015	ND	2.13	106	2.00	0.0278	
Toluene*	<0.050	0.050	04/22/2015	ND	1.90	95.2	2.00	0.400	
Ethylbenzene*	<0.050	0.050	04/22/2015	ND	1.81	90.3	2.00	0.992	
Total Xylenes*	<0.150	0.150	04/22/2015	ND	5.72	95.4	6.00	1.48	
Total BTEX	<0.300	0.300	04/22/2015	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 9	% 61-154							
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	04/21/2015	ND	210	105	200	0.511	
DRO >C10-C28	<10.0	10.0	04/21/2015	ND	228	114	200	2.63	
Surrogate: 1-Chlorooctane	83.9	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	80.6	% 52.1-17	6						

Cardinal Laboratories

\*=Accredited Analyte

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Celeg & Keene



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Received:

04/21/2015

Sampling Date:

04/21/2015

Reported:

04/22/2015

Sampling Type:

Soil

Project Name:

WINDFOHR WATER TRANSFER LINE

Sampling Condition:

Cool & Intact

Project Number:

701307.074.01

Sample Received By:

Jodi Henson

Project Location:

NONE GIVEN

Sample	ID: S-2	יור) יח	501037	7-071

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/22/2015	ND	2.13	106	2.00	0.0278	
Toluene*	<0.050	0.050	04/22/2015	ND	1.90	95.2	2.00	0.400	
Ethylbenzene*	<0.050	0.050	04/22/2015	ND	1.81	90.3	2.00	0.992	
Total Xylenes*	<0.150	0.150	04/22/2015	ND	5.72	95.4	6.00	1.48	
Total BTEX	<0.300	0.300	04/22/2015	ND					
Surrogate: 4-Bromofluorobenzene (PIL	111 9	61-154	!						
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/21/2015	ND	210	105	200	0.511	
DRO >C10-C28	<10.0	10.0	04/21/2015	ND	228	114	200	2.63	
Surrogate: 1-Chlorooctane	87.8	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	82.9	% 52.1-17	6						

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Celeg to Kreene



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

Received:

04/21/2015

Sampling Date:

04/21/2015

Reported:

04/22/2015

Sampling Type:

Soil

WINDFOHR WATER TRANSFER LINE

Sampling Condition:

Cool & Intact

Project Name:

Project Number: Project Location:

701307.074.01 NONE GIVEN

Sample Received By:

Jodi Henson

# Sample ID: S-3 0' (H501037-03)

BTEX 8021B	mg	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/22/2015	ND	2.13	106	2.00	0.0278	
Toluene*	<0.050	0.050	04/22/2015	ND	1.90	95.2	2.00	0.400	
Ethylbenzene*	<0.050	0.050	04/22/2015	ND	1.81	90.3	2.00	0.992	
Total Xylenes*	<0.150	0.150	04/22/2015	ND	5.72	95.4	6.00	1.48	
Total BTEX	<0.300	0.300	04/22/2015	ND					
Surrogate: 4-Bromofluorobenzene (PIL	113 9	% 61-154							
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/21/2015	ND	210	105	200	0.511	
DRO >C10-C28	<10.0	10.0	04/21/2015	ND	228	114	200	2,63	
Surrogate: 1-Chlorooctane	83.3	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	79.1	% 52.1-17	6						

# Sample ID: S-3 2' (H501037-04)

Chloride, SM4500Cl-B	mg	/kg	Analyze	Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	04/22/2015	ND	416	104	400	0.00	

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Received:

04/21/2015

Sampling Date:

04/21/2015

Reported:

04/22/2015

Sampling Type:

BS

416

Soil

Project Name:

WINDFOHR WATER TRANSFER LINE

Sampling Condition:

Cool & Intact

Project Number:

701307.074.01

Sample Received By:

Jodi Henson

Project Location:

NONE GIVEN

Sample ID: S-3 2.5' REFUSAL (H501037-05)

Chloride, SM4500CI-B

mg/kg

1060

Analyzed By: AP

Analyte

Chloride

Result Reporting Limit

16.0

Analyzed 04/22/2015 Method Blank ND

% Recovery 104

True Value QC

400

RPD 0.00 Qualifier

Sample ID: S-4 0' (H501037-06)

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/22/2015	ND	2.13	106	2.00	0.0278	
Toluene*	<0.050	0.050	04/22/2015	ND	1.90	95.2	2.00	0.400	
Ethylbenzene*	<0.050	0.050	04/22/2015	ND	1.81	90.3	2.00	0.992	
Total Xylenes*	<0.150	0.150	04/22/2015	ND	5.72	95.4	6.00	1.48	
Total BTEX	<0.300	0.300	04/22/2015	ND					
Surrogate: 4-Bromofluorobenzene (PIE	112 %	61-154	3						

TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/21/2015	ND	210	105	200	0.511	
DRO >C10-C28	<10.0	10.0	04/21/2015	ND	228	114	200	2.63	

Surrogate: 1-Chlorooctane 87.3 % 47.2-157 Surrogate: 1-Chlorooctadecane 84.1 % 52.1-176

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Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager



TALON LPE KIMBERLY WILSON 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

04/21/2015

Sampling Date:

04/21/2015

Reported:

04/22/2015

Sampling Type:

Soil

Project Name:

WINDFOHR WATER TRANSFER LINE

Sampling Condition:

Cool & Intact

Project Number:

701307.074.01

Jodi Henson

Project Location:

NONE GIVEN

Sample Received By:

# Sample ID: S-4 2' (H501037-07)

CLI	avida	SM4500CI	n
CHI	oride.	. 31430000	٠n

mg/kg

Analyzed By: AP

Analyte

Result Reporting Limit

Analyzed

Method Blank

BS % Recovery

416

BS

True Value QC

RPD

0.00

Chloride

1280

16.0

04/22/2015

ND

104

400

Qualifier

Sample ID: S-4 2.5' REFUSAL' (H501037-08)

Chloride, SM4500CI-B

Analyte

mg/kg

Analyzed By: AP

% Recovery

True Value QC

400

Chloride

Result 752

Reporting Limit 16.0

Analyzed 04/22/2015 Method Blank ND

416

104

RPD 0.00 Qualifier

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Celeg Theene

Celey D. Keene, Lab Director/Quality Manager

Page 6 of 8



ND

## **Notes and Definitions**

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

Analyte NOT DETECTED at or above the reporting limit

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 & Keene



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Talon/LPE		BILL TO		ANALYSI	ANALYSIS REQUEST
Project Manager: K 12/15/00/		P.O. #:			
Address: 408 W. Texas Ave.		Company: Talon/LPE	E		
City: Artesia State: NM Zip: 88210		Attn:			
Phone #: 575-746-8768 Fax #: 575-746-8905		Address:			
Project #: 70 307,074,0 Project Owner:	Project Owner: Lipse Rock	City:			
0	`	State: Zip:			
Project Location:		Phone #:			
Sampler Name: 5, Hitchicaric	-	Fax #:			
FOR LAB USE ONLY	MATRIX	PRESERV. SAMPLING			
Lab I.D. Sample I.D.	DGE	D/BASE: / COOL	Lherid	3ТБХ	
H501037	GRO WAS SOIL OIL SLUI		TIME C		
24-20,	() 1	) /	1/04		
3 6-30	7 119	\ \	11:11		
4 5-3 2',	6 1 /	/ //	1:30 /		
5 5-3 2.5 roscubal	/, 119		1:50 /	_	
6 5-40'	6 1 /	` /	11:12		
7 4-42	6     /		1 08.12)		
8 5-42,5' ropusal	61 /	) /	1115/		
Branching				_	
PLEASE NOTE: Lability and Damages. Cardinal's lability and client's exclusive renedy for any claim arising whether based in contract or for, shall be limited to the amount pad by the client for the analyses. All claims including those for neptigence and any other cause whatsoever shall be deemed varied unless made in writing and received by Cardinal within 30 days after completion of the applicable and the completi	y claim arising whether based in contract or semed waived unless made in writing and re	r tort, shall be limited to the amount pail eceived by Cardinal within 30 days afte	d by the client for the completion of the applicable		

Relinquished By: Relinquished By: Delivered By: (Circle One) Time: Date: Received By: Sample Condition
Cool Intact
Yes Yes
No No CHECKED BY: stated reasons or otherwise.

Phone Result:
Fax Result:
REMARKS: Rush ☐ Yes ☐ No Add'I Phone #:

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

Sampler - UPS - Bus - Other: