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Work Plan Lime Rock Resources II-A, L.P.:

Falcon 3G Federal #7

December 20, 2016

Prepared By:

Sheldon L. Hitchcock TALON/LPE 408 W. Texas Avenue Artesia, New Mexico 88210

Prepared For:

Lime Rock Resources II-A, L.P.

Mr. Mike Bratcher **NMOCD District 2** 811 S. 1st Street Artesia, NM 88210

Subject:

Soil Assessment and Remediation Work Plan

Lime Rock Resources II-A, L.P. Falcon 3G Federal #7 (30-015-29126)

Dear Mr. Bratcher,

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.

Site Information

The Falcon 3G Federal #7 is located approximately ten (10) miles east of Artesia, New Mexico. The legal location for this release is Unit Letter G, Section 3, Township 18 South and Range 27 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.779365 North and -104.265335 West. A site plan is presented in Appendix I.

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 and Site Ranking

The New Mexico State Engineer web site indicates that groundwater in the project vicinity is 140-feet below ground surface (BGS). See Appendix II for the referenced groundwater data.

Therefore the ranking for this site is a 0 based on the following:

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

Incident Description and Initial Remedial Actions

On December 18, 2016 a midstream operator's line went down causing a backup in Lime Rock's system. This resulted in a failure at the heater treater causing a release of approximately 30bbls of crude oil. Crews were immediately dispatched to the site to begin recovering fluid with a vacuum truck and scraping up the heavily impacted soil with a backhoe. No pasture land was impacted by this release. Talon mobilized personnel to perform a site assessment and collect soil samples within the impacted area utilizing a backhoe. The analytical results from the soil sampling event are summarized in the table below.

Laboratory Results

See Appendix IV 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	1030	4560	7860	15800
S-1	1	ND	1800	· ND	ND
S-1	2	ND	1520	ND	ND
S-1	3	ND	1520	ND	ND
S-1 Refusal	4	ND	416	ND	10.6
S-2	0	1200	6530	9510	26300
S-2	1	0.361	2200	ND	ND
S-2 Refusal	2.5	32.6	1560	90.7	295
S-3	0	2360	160	18500	30700
S-3	1	2.71		22.1	146
S-3 Refusal	2	0.584		ND	31.7

⁽⁻⁻⁾ Analyte Not Tested

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.

⁽ND) Analyte Not Detected

Proposed Remedial Actions

- The impacted area in the vicinity of sample location S-1 will be excavated to a depth of 4-feet BGS.
- Refusal was encountered with a backhoe at a depth of 2.5-feet BGS in the flow path at sample location S-2. This area will be excavated using field chloride titrations to guide the depth of the excavation. Once field data indicates that chloride concentrations are at or below the NMOCD RRAL for total chloride the results will be forwarded to NMOCD and BLM for review prior to backfilling this portion of the excavation.
- The impacted area in the vicinity of sample location S-3 will be excavated to a depth of 1-foot BGS.
- All of the excavated soil will be hauled to an NMOCD approved solid waste disposal facility.
- The excavation will be backfilled with caliche and contoured to match the surrounding location.

If we can provide additional information or be of further assistance, please contact our office at (575)-746-8768.

Respectfully submitted,

TALON/LPE

Sheldon Hitchcock

Project Manager

David J. Adkins District Manager

Attachments

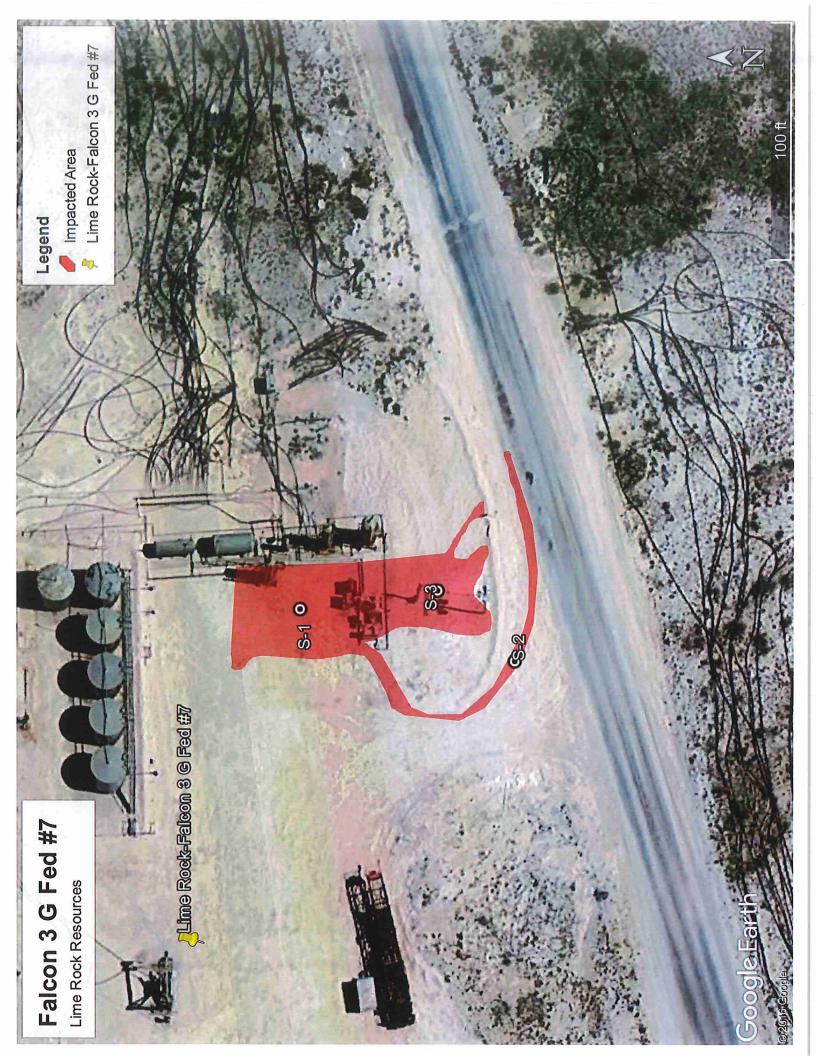
Appendix I Site Plan

Appendix II Groundwater Data

Appendix III Initial C-141

Appendix IV Laboratory Results

APPENDIX I SITE PLAN



APPENDIX II GROUNDWATER 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)

	(, , (,,,,	1,	1001)	
	POD	Het										
	Sub-	Q	QC)						Depth	Depth	Water
POD Number	Code basin County	64	16 4	Sec	: Tws	Rng	Х	Υ	Distance			Column
RA 01493	ED		2 ′	1 27	178	27E	568468	3630529*	3625	876		
RA 04561	ED		4 2	2 26	17S	27E	570871	3630142*	3765	250		
RA 03661	ED	3	2 3	3 32	178	27E	565186	3628038*	3881	330	140	190

Average Depth to Water:

Minimum Depth:

140 feet 140 feet

Maximum Depth:

140 feet

Record Count: 3

Basin/County Search:

County: Eddy

UTMNAD83 Radius Search (in meters):

Easting (X): 568906

Northing (Y): 3626930

Radius: 5000

*UTM location was derived from PLSS - see Help

APPENDIX III INITIAL C-141

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 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.

			Rel	ease Notific		n and Co		ction	1				
			1201	DEEDO I VOLIZIA		OPERA'				al Report	П	Final Report	
Name of Co	mpany: L	ime Rock Ro	esources	II-A, L.P.	T	Contact: M			Z IIII	шторог		T mur resport	
Address: 11	11 Bagby	St. Ste. 460		n, TX 77002			No. 505-353-26						
Facility Nar	ne: Falcon	3 G Fed #7				Facility Typ	e: Tank Battery	1					
Surface Ow	ner: Feder	al		Mineral C)wner:	Federal			API No. 30-015-29126				
				LOCA	ATIO	N OF RE	LEASE						
Unit Letter	Section	Township	Range	Feet from the		/South Line	Feet from the	East/\	West Line	County			
G	3	18S	27E	1450		N	2310		E	Eddy			
				Latitude <u>32.77</u>	9365	Longit	ude -104,26533	35		-			
						OF REL							
Type of Rele	ase: Crude	Oil		111,22	UALL		Release: 30bbls			Recovered:			
Source of Re							Hour of Occurrence	ce:		Hour of Dis	covery	:	
						12/18/201	6		12/18/20	16 9:00am			
Was Immedia	ate Notice (If YES, To			1				
		\boxtimes	Yes _	No Not Re	equired	Mike Brate Shelly Tuc	cher-NMOCD						
By Whom?	1. T-1-	/I DP				Date and I							
Sheldon Hitc	ncock-1 alo	n/LPE				12/18/2010	6 at 1:20pm						
Was a Water	course Read			1		If YES, V	olume Impacting t	the Wat	ercourse.				
		L	Yes 🗵	No								*	
If a Watercou													
Describe Cau	se of Probl	em and Reme	diai Actio	n Taken.*									
A midstream	operator's	line went dow	n over nig	th causing a back	cup in Li	me Rock's s	stem which resul	ited in a	failure at t	he heater tre	ater. Th	ne failure	
resulted in the	e loss of ap	proximately 3 scraning un	Obbls of c	rude oil. Upon dis soil utilizing a bac	scovery, khoe a	crews were a	mmediately dispa	atched to reparatio	o the site to on for a rem	begin recov	ering s rk plan	tanding fluid	
Describe Are												·	
The fluid free	n the veloce	a impacted th	a northau	st corner of the loc	nation as	nd ran couth o	off location and in	to the c	ounty road	e ROW Th	e heavi	ly impacted	
soil was scrap	ed up and	hauled to an N	MOCD a	pproved solid was	ste dispo	osal facility. S	Signage was put in	n place t	to notify tra	iffic of work	on the	shoulder and	
			ROW w	ll be obtained. Up	on rece	ipt of analytic	cal data the impac	ted soil	will be ren	nediated per	NMOC	CD and BLM	
I hereby certi	fy that the i	actions. information gi	ven above	e is true and comp	lete to t	he best of my	knowledge and u	ındersta	nd that pur	suant to NM	OCD r	ules and	
regulations al	1 operators	are required t	o report a	nd/or file certain r	elease n	otifications a	nd perform correct	ctive act	ions for rel	eases which	may er	ndanger	
public health	or the envi	ronment. The	acceptan	ce of a C-141 repo	ort by th	e NMOCD m	iarked as "Final R	ceport" o	loes not rel	ieve the ope	rator of iter hij	f liability man health	
or the environ	nment. In a	ddition, NMC	CD accep	otance of a C-141	report d	oes not reliev	e the operator of	respons	ibility for c	compliance v	vith any	y other	
federal, state,	or local lav	ws and/or regi	ılations.				OII CON	arna	7 A TT() N I	DIVIGIO	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		
	11	1 /	, _				OIL CON	SEKV	AHON	DIAISIC	<u>)IV</u>		
Signature: 🏄	In	15											
Printed Name	: Mike Bar	rett				Approved by	Environmental S	pecialis	t:				
Title: Produc	tion Superv	visor				Approval Da	te:		Expiration	Date:			
E-mail Addre	ess: mbarret	tt@limerockre	sources.c	om		Conditions o	f Approval:			Attached			
Date: 12/19/2 * Attach Addit				5-353-2644			5.			1			

APPENDIX IV LABORATORY RESULTS



December 20, 2016

SHELDON HITCHCOCK

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: FALCON 3G FED #7

Enclosed are the results of analyses for samples received by the laboratory on 12/19/16 9:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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 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. Keene

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 SHELDON HITCHCOCK 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

12/19/2016

Reported:

12/20/2016

Project Name:

FALCON 3G FED #7

Project Number:

701307.045.01

Project Location:

EDDY COUNTY, NM

Sampling Date:

12/18/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: S-1 0' (H602825-01)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	63.7	5.00	12/19/2016	ND	2.13	107	2.00	0.0690	
Toluene*	306	5.00	12/19/2016	ND	2.19	110	2.00	2.25	
Ethylbenzene*	179	5.00	12/19/2016	ND	2.16	108	2.00	2.36	
Total Xylenes*	478	15.0	12/19/2016	ND	6.47	108	6.00	2.22	
Total BTEX	1030	30.0	12/19/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	126	% 73.6-14	0						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4560	16.0	12/19/2016	ND	416	104	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	7860	100	12/19/2016	ND	199	99.5	200	7.12	
DRO >C10-C28	15800	100	12/19/2016	ND	206	103	200	9.14	
Surrogate: 1-Chlorooctane	234	% 35-147							
Surrogate: 1-Chlorooctadecane	403	% 28-171							

Cardinal Laboratories

*=Accredited Analyte

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Celeg D. Keene



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

Received:

12/19/2016

Reported:

12/20/2016

Project Name:

FALCON 3G FED #7

Project Number: Project Location: 701307.045.01

EDDY COUNTY, NM

Sampling Date:

12/18/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: S-1 1' (H602825-02)

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	12/19/2016	ND	2.13	107	2.00	0.0690	
Toluene*	0.077	0.050	12/19/2016	ND	2.19	110	2.00	2.25	
Ethylbenzene*	<0.050	0.050	12/19/2016	ND	2.16	108	2.00	2.36	
Total Xylenes*	<0.150	0.150	12/19/2016	ND	6.47	108	6.00	2.22	
Total BTEX	<0.300	0.300	12/19/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	118 9	6 73.6-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					*
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1800	16.0	12/19/2016	ND	416	104	400	3.77	
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	12/19/2016	ND	199	99.5	200	7.12	
DRO >C10-C28	<10.0	10.0	12/19/2016	ND	206	103	200	9.14	
Surrogate: 1-Chlorooctane	60.3	% 35-147	,						
Surrogate: 1-Chlorooctadecane	80.2	% 28-171							

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

Received: Reported: 12/19/2016

12/20/2016

Project Name: Project Number: FALCON 3G FED #7 701307.045.01

Project Location:

EDDY COUNTY, NM

Sampling Date:

12/18/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: S-1 2' (H602825-03)

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	12/19/2016	ND	2.13	107	2.00	0.0690	
Toluene*	<0.050	0.050	12/19/2016	ND	2.19	110	2.00	2.25	
Ethylbenzene*	<0.050	0.050	12/19/2016	ND	2.16	108	2.00	2.36	
Total Xylenes*	<0.150	0.150	12/19/2016	ND	6.47	108	6.00	2,22	
Total BTEX	< 0.300	0.300	12/19/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIL	119	% /3.6-140	!						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1520	16.0	12/19/2016	ND	400	100	400	3.92	QM-07
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	12/19/2016	ND	199	99.5	200	7.12	
DRO >C10-C28	<10.0	10.0	12/19/2016	ND	206	103	200	9.14	

Surrogate: 1-Chlorooctane

67.0 %

35-147

Surrogate: 1-Chlorooctadecane

86.9 %

28-171

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

Received:

12/19/2016

Reported:

12/20/2016

Project Name:

FALCON 3G FED #7

Project Number: Project Location:

701307.045.01 EDDY COUNTY, NM Sampling Date:

12/18/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: S-1 3' (H602825-04)

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	12/19/2016	ND	2.13	107	2.00	0.0690	
Toluene*	<0.050	0.050	12/19/2016	ND	2.19	110	2.00	2.25	
Ethylbenzene*	<0.050	0.050	12/19/2016	ND	2.16	108	2.00	2.36	
Total Xylenes*	<0.150	0.150	12/19/2016	ND	6.47	108	6.00	2.22	
Total BTEX	<0.300	0.300	12/19/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	122 5	% 73.6-14	0						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1520	16.0	12/19/2016	ND	400	100	400	3.92	
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	12/19/2016	ND	199	99.5	200	7.12	
DRO >C10-C28	<10.0	10.0	12/19/2016	ND	206	103	200	9.14	
Surrogate: 1-Chlorooctane	57.3	% 35-147							
Surrogate: 1-Chlorooctadecane	73.0	% 28-171							

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Celey D. Keine



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

Received: Reported: 12/19/2016

12/20/2016

Project Name:

FALCON 3G FED #7 701307.045.01

Project Number: Project Location:

EDDY COUNTY, NM

Sampling Date:

12/18/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: S-1 4' (H602825-05)

BTEX 8021B	mg/l	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/19/2016	ND	2.13	107	2.00	0.0690	
Toluene*	<0.050	0.050	12/19/2016	ND	2.19	110	2.00	2.25	
Ethylbenzene*	<0.050	0.050	12/19/2016	ND	2.16	108	2.00	2.36	
Total Xylenes*	<0.150	0.150	12/19/2016	ND	6.47	108	6.00	2.22	
Total BTEX	<0.300	0.300	12/19/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	120 %	6 73.6-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	12/19/2016	ND	400	100	400	3.92	
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	12/19/2016	ND	199	99.5	200	7.12	
DRO >C10-C28	10.6	10.0	12/19/2016	ND	206	103	200	9.14	
Surrogate: 1-Chlorooctane	64.4 5	% 35-147							
Surrogate: 1-Chlorooctadecane	86.0	% 28-171							9

Cardinal Laboratories

*=Accredited Analyte

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Celeg There



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

12/19/2016

Reported: 12/20/2016

Project Name: FALCON 3G FED #7
Project Number: 701307.045.01

Project Location: EDDY COUNTY, NM

Sampling Date:

12/18/2016

Sampling Type: Soil
Sampling Condition: Cool

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: S-2 0' (H602825-06)

Received:

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	92.9	5.00	12/19/2016	ND	2.13	107	2.00	0.0690	
Toluene*	351	5.00	12/19/2016	ND	2.19	110	2.00	2.25	
Ethylbenzene*	203	5.00	12/19/2016	ND	2.16	108	2.00	2.36	
Total Xylenes*	551	15.0	12/19/2016	ND	6.47	108	6.00	2.22	
Total BTEX	1200	30.0	12/19/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	129 9	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6530	16.0	12/19/2016	ND	400	100	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	9510	100	12/19/2016	ND	199	99.5	200	7.12	
DRO >C10-C28	26300	100	12/19/2016	ND	206	103	200	9.14	
Surrogate: 1-Chlorooctane	326 9	% 35-147	7						
Surrogate: 1-Chlorooctadecane	665 9	% 28-171							

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Celeg D. Keene



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

Received:

12/19/2016

Reported:

12/20/2016

Project Name:

FALCON 3G FED #7

Project Number:

701307.045.01

Project Location:

EDDY COUNTY, NM

Sampling Date:

12/18/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: S-2 1' (H602825-07)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.130	0.050	12/19/2016	ND	2.13	107	2.00	0.0690	
Toluene*	0.174	0.050	12/19/2016	ND	2.19	110	2,00	2.25	
Ethylbenzene*	0.057	0.050	12/19/2016	ND	2.16	108	2.00	2.36	
Total Xylenes*	<0.150	0.150	12/19/2016	ND	6.47	108	6.00	2.22	
Total BTEX	0.361	0.300	12/19/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	121 9	% 73.6-14	0						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2200	16.0	12/19/2016	ND	400	100	400	3.92	
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	12/19/2016	ND	199	99.5	200	7.12	
DRO >C10-C28	<10.0	10.0	12/19/2016	ND	206	103	200	9.14	
Surrogate: 1-Chlorooctane	65.4	% 35-147)						
Surrogate: 1-Chlorooctadecane	86.5	% 28-171							

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Received:

12/19/2016

Reported:

12/20/2016

Project Name: Project Number: FALCON 3G FED #7

Project Location:

701307.045.01 EDDY COUNTY, NM Sampling Date:

12/18/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: S-2 2.5' (H602825-08)

BTEX 8021B	mg/	kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.655	0.050	12/19/2016	ND	2.13	107	2.00	0.0690	
Toluene*	6.48	0.050	12/19/2016	ND	2.19	110	2.00	2.25	
Ethylbenzene*	6.23	0.050	12/19/2016	ND	2.16	108	2.00	2.36	
Total Xylenes*	19.2	0.150	12/19/2016	ND	6.47	108	6.00	2.22	
Total BTEX	32,6	0.300	12/19/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	159 5	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1560	16.0	12/19/2016	ND	400	100	400	3.92	
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	90.7	10.0	12/19/2016	ND	199	99.5	200	7.12	
DRO >C10-C28	295	10.0	12/19/2016	ND	206	103	200	9.14	
Surrogate: 1-Chlorooctane	65.5	% 35-147	!						
Surrogate: 1-Chlorooctadecane	79.4	% 28-171							

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TALON LPE SHELDON HITCHCOCK 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

12/19/2016

Sampling Date: Sampling Type: 12/18/2016

Reported:

12/20/2016

Soil

Project Name:

FALCON 3G FED #7

Sampling Condition:

Cool & Intact

Project Number:

701307.045.01

Sample Received By:

Jodi Henson

Project Location:

EDDY COUNTY, NM

Sample ID: S-3 0' (H602825-09)

BTEX 8021B	mg/	kg	Analyze	d By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	184 10.0		12/19/2016 ND		2.13	107	2.00	0.0690		
Toluene*	756	10.0	12/19/2016	ND	2.19	110	2.00	2.25		
Ethylbenzene*	397	10.0	12/19/2016 ND		2.16	108	2.00	2.36		
Total Xylenes*	1020	30.0	12/19/2016	ND	6.47	108	6.00	2,22		
Total BTEX	2360	60.0	12/19/2016	ND						
Surrogate: 4-Bromofluorobenzene (PIL	127 % 73.6-14		0							
Chloride, SM4500CI-B	mg/kg		Analyze	d By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160 16.0 mg/kg		12/19/2016	ND	400	100	400	3.92	S-06	
TPH 8015M			Analyze	d By: MS						
Analyte	Result Reporting Limit		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	18500	100	12/19/2016	12/19/2016 ND		99.5	200	7.12		
DRO >C10-C28	30700 100		12/19/2016	ND	206	103	200	9.14		
Surrogate: 1-Chlorooctane	457	% 35-147								
Surrogate: 1-Chlorooctadecane	772 % 28-171									

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

Received:

12/19/2016

Reported:

12/20/2016

Project Name:

FALCON 3G FED #7

Project Number: Project Location: 701307.045.01 EDDY COUNTY, NM Sampling Date:

12/18/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: S-3 1' (H602825-10)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.417	0.050	12/19/2016	ND	2.13	107	2.00	0.0690	
Toluene*	0.776	0.050	12/19/2016	ND	2.19	110	2.00	2.25	
Ethylbenzene*	0.374	0.050	12/19/2016	ND	2.16	108	2.00	2.36	
Total Xylenes*	1.14	0.150	12/19/2016	ND	6.47	108	6,00	2.22	
Total BTEX	2.71	0.300	12/19/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	122	% 73.6-14	0						
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	22.1	10.0	12/19/2016	ND	199	99.5	200	7.12	
DRO >C10-C28	146	10.0	12/19/2016	ND	206	. 103	200	9.14	
Surrogate: 1-Chlorooctane	85.6	% 35-147							
Surrogate: 1-Chlorooctadecane	98.7	% 28-171							

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

Received:

12/19/2016

Sampling Date:

12/18/2016

Reported:

12/20/2016

Sampling Type:

Soil

Project Name:

FALCON 3G FED #7

Sampling Condition: Sample Received By: Cool & Intact Jodi Henson

Project Number: Project Location: 701307.045.01

EDDY COUNTY, NM

Sample ID: S-3 2' (H602825-11)

BTEX 8021B	mg/	'kg	Analyze	d By: MS				,	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.060	0.050	12/19/2016	ND	2.13	107	2.00	0.0690	
Toluene*	0.117	0.050	12/19/2016	ND	2.19	110	2.00	2,25	
Ethylbenzene*	0.098	0.050	12/19/2016	ND	2.16	108	2.00	2.36	
Total Xylenes*	0.309	0.150	12/19/2016	ND	6.47	108	6.00	2,22	
Total BTEX	0.584	0.300	12/19/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	121 9	% 73.6-14	0						
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	12/19/2016	ND	199	99.5	200	7.12	
DRO >C10-C28	31.7	10.0	12/19/2016	ND	206	103	200	9.14	
Surrogate: 1-Chlorooctane	80.2	% 35-147	,						-
Surrogate: 1-Chlorooctadecane	81.5	% 28-171							

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Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Talon/LPE		
Project Manager: 5, Hitch Cock	P.O. #:	
Address: 408 W. Texas Ave.	Company: Talon/LPF	
State: NM	- 1	
-746-8768 Fax #: 575-		
2,0 Project Owner:	ime ROM City:	
Project Name: Pallon 36 Prod #7		
Project Location:	Phone #:	
Sampler Name: 5. Hit Ch COCK	Fax #:	
FOR LAB USE ONLY	MATRIX PRESERV SAMPLING	
	TER	
Lab I.D. Sample I.D.	ROUNDWAT ASTEWATE DIL L L LUDGE THER: CID/BASE: E/COOL THER:	TPH BTCX
5-10'	/	
25-1,	1 1 1 1 20 2	
- 2	12:04	
	12:06	
, c	10,21	< 1
7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	12:30	
5-22.5'	(
5-30	Ø:21 / /	
6 5-3 T		
my ana consuges. Cardonius stationy and clerits overlasty challing those for negligence and any other cause whethe called the fathe for incidental or consequental damp	o formedy for early dam arteing wheeler based in contract or fort, shall be limited to the amount paid by the claims fair the even shall be deemed valwed unbear mode in whiting and received by Cardinal which jid days after completion of the a gain, including without limitation, business interruptions, loss of early of best of profile incurred by claim to exhausterns.	of the applicable area.
Relinquished By: Date: 19/1/ Rece	Representation of the store much claim is based upon any of the above stand reasons or otherwise. Represent the standard reasons or otherwise. Phone Result:	t: 1 Yes 1 No
8	Stevioon	☐ Yes ☐ No
Sale:	Received By:	CIOCAL CALCINGTON

Sample Condition
Cool Infact
The Pes
No No No

Sampler - UPS - Bus - Other:

Delivered By: (Circle One)

Time:

2400 CL IS 5 220 moles

Rush



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Time: 1.50 M.	those for negligence and any other of dnal be liable for incidental or conce out of or related to the performance	**LEASE NOTE: Liability and Damagos, Cardoptin inhibity and clearly ambalance and a second sec				7 2 5-4	(G)RAE # CON GROUI WASTE SOIL OIL	Sample D. Sample	R	MATRIX	Sampler Name: 5, 4, +Ch COCK	Project Location:	Project Name: トル(のいうらには歩)	Project #: 7 01307, 095,01 Project Owner: Line Rock	Phone #: 575-746-8768 Fax #: 575-746-8905	City: Artesia state: NM zip: 88210	Address: 408 W. Texas Ave.	Project Manager: 5, #:XCx cock	
Phone Result:	vaci or lost, shall be limited to the amount part by the client for the and received by Cardinal width jud being after completion of the applicable rin, less of use, or less of profile incursed by client, its autobalantes,					1 2/18/121	SLUDGOTHER ACID/B, ICE / CO OTHER TIME	ASE:	Contraction of the Contraction o	PRESERV SAMPING	Faxer	Phone 弊:	State: Zip:	City:	Address:		Company: Talon/LPE		BILL_TO ANALYSIS REQUEST

Sample Condition
Cool Intact
Pes Pes
No No

Rush

5top cl is 5 250 mg/Kg

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Relinquished By:

Time:

[†] Cardinal cannot accept verbal changes. Please fax written changes to (575) 393/2526