



# AE Order Number Banner

## Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.



**App Number: pSAD1416456027**

**1RP - 3081**

**APACHE CORP**



**HOBBS OCD**

**JUN 14 2012**

May 10, 2012

**RECEIVED**

Mr. Geoffrey Leking  
**NMOCD District I**  
1625 N. French Dr.  
Hobbs, NM 88240

**Subject: Soil Assessment and Remediation Work Plan**  
Legacy Reserves Operating, LP  
State K Com No. 3  
API # 30-025-23847

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

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

**AUSTIN**  
911 West Anderson Lane  
Suite 202  
Austin, Texas 78757  
Phone 512.989.3428  
Fax 512.989.3487

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

**MIDLAND**  
2901 State Hwy 349  
Midland, Texas 79706  
Phone 432.522.2133  
Fax 432.522.2180

**SAN ANTONIO**  
11 Commercial Place  
Schertz, Texas 78154  
Phone 210.265.8025  
Fax 210.568.2191

**TULSA**  
525 South Main Street  
Suite 535  
Tulsa, Oklahoma 74103  
Phone 918.742.0871  
Fax 918.382.0232

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

Dear Mr. Leking,

Legacy Reserves Operating, LP has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced State K Com No. 3 release. Our soil sampling results and proposed remediation activities consist of the following:

**Incident Date**

March 14, 2012

**Background Information**

The State K Com No. 3 is located approximately seven (7) miles southwest of Lovington, New Mexico. The legal location for the site is Section 30, Township 16 South and Range 35 East in Lea County, New Mexico. More specifically, the latitude and longitude for the release are 32.887575 North and 103.391621 West.

According to the soil survey provided by the United States Department of Agriculture National Resources Conservation Services, the soil in this area is made up of Kimbrough gravely loam complex soils with 0 to 3 percent slopes. The local surface and shallow geology, Tertiary Age sedimentary deposits within in the Ogallala Formation, is comprised of calcareous-loamy alluvium and calcareous-loamy eolian deposits derived from sedimentary rock and hard caliches. Drainage courses in this area are normally dry. The New Mexico State Engineer's web site indicates the nearest ground water data to be in S30-T16S-R36E. The ground water in Section 30 is reported to be a depth of 80-feet below ground surface (bgs). The referenced groundwater data is presented in Appendix I.

The ranking for this site is 10 based on the as following:

Depth to ground water	50' - 100'
Wellhead Protection Area	>1000'
Distance to surface water body	>1000'

Toll Free: 866.742.0742  
www.talonlpe.com

### **Incident Description**

On March 14, 2012 the Oil Conservation Division (OCD) of Hobbs issued a Letter of Violation (LOV) to Legacy Reserves that there was contamination inside the berms of the tank battery and the southeast corner was leaking outside the berm at the State K Com No. 3. The OCD requested a remediation plan be submitted.

### **Actions Taken**

On March 22, 2012 Talon/LPE mobilized personnel to begin assessment and soil sampling for the construction of a work plan. Grab soil samples were collected in the impacted area utilizing a hand auger. The soil samples were collected from inside the berm (S-1) and from the impacted area located in the pooling area outside berm on southeast corner (S-2).

On March 30, 2012 Talon/LPE mobilized personnel again for soil sampling activities utilizing a backhoe. Grab soil samples were collected from the impacted area inside the flow path (S-3) to a depth of 2-feet deep where refusal was encountered.

All soil samples were collected by Talon personnel wearing clean nitrile gloves. The soil samples were placed in laboratory provided sample containers, iced and transported to Cardinal Laboratories in Hobbs, New Mexico for analysis. The samples were tested for TPH (Total Petroleum Hydrocarbons) using EPA Method 8015M, and volatile organics (BTEX) using EPA Method 8021B. The chlorides were analyzed per Method SM4500Cl-B. The complete laboratory report is attached as Appendix II.

### **Analytical Results**

Analytical results received from Cardinal Laboratories are summarized below:

April 3, 2012

<u>Sample</u>	<u>Depth</u>	<u>BTEX</u>	<u>Chlorides</u>	<u>TPH (mg/kg)</u>
S-1, Berm area	0'	187.255	32	16,410
	2'	96.766	128	10,120
S-2, Outside Berm	0'	<0.150	208	1460

April 5, 2012

<u>Sample</u>	<u>Depth</u>	<u>BTEX</u>	<u>Chlorides</u>	<u>TPH (mg/kg)</u>
S-3, Flow path	0'	<0.150	48	<10
	1'	<0.150	784	<10
	2'	<0.150	368	<10

For this site's ranking, New Mexico Oil Conservation District action level criterion for BTEX is 50 mg/kg, Benzene is 10 mg/kg and TPH is 1,000 mg/kg. The chloride remediation standard is considered to be 1,000 mg/kg.

### **Summary and Conclusions**

- Ground water in the project vicinity is 80-feet below land surface per the New Mexico State Engineer Database.
- Based upon the results of the laboratory data obtained for this investigation, the vertical impacts of the hydrocarbon release have been documented to extend greater than 2-foot below ground surface inside the bermed area.

### **Proposed Remedial Actions**

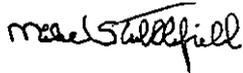
- The impacted area of the southeast corner of the berm will be removed and transported to a NMOCD approved solid waste disposal facility. The southeast corner of the berm will be re-constructed with new material transported from a local borrow pit.
- The impacted area inside the tank battery will be carefully scraped with a backhoe where possible. The remaining visibly impacted soil in the battery will be hand-excavated by a roustabout crew and stockpiled on plastic sheeting.
- The entire area within the tank battery will be treated with Micro Blaze, a petroleum bioremediation agent.
- The impacted soil (S-2) outside the tank battery will be excavated to a depth of 3-4 feet. All excavated soil will be transported to a NMOCD approved solid waste disposal facility.
- Confirmation soil samples will be collected from the impacted areas upon completion of excavation activities. The soil samples will be submitted to the laboratory for TPH analysis using Method 8015M, and BTEX analysis using Method 8021B.
- Upon NMOCD approval of the confirmation samples, the excavated area will be backfilled to grade using new material transported from a local borrow pit. The area will be contoured to match the existing terrain and seeded using an approved seed mixture for the area.
- Remediation of historical contamination remaining in place within the tank battery would be deferred until closure of the facility.

- A final report documenting all field activities and lab reports will be provided to the NMOCD Hobbs Office and BLM utilizing Form C-141 and Form 3160-5 respectively.
- Upon closure of this location, Legacy Reserves Operating, LP will address any remaining concerns necessary to obtain NMOCD approval for final reclamation of this facility.

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



Mike Stubblefield  
Project Manager



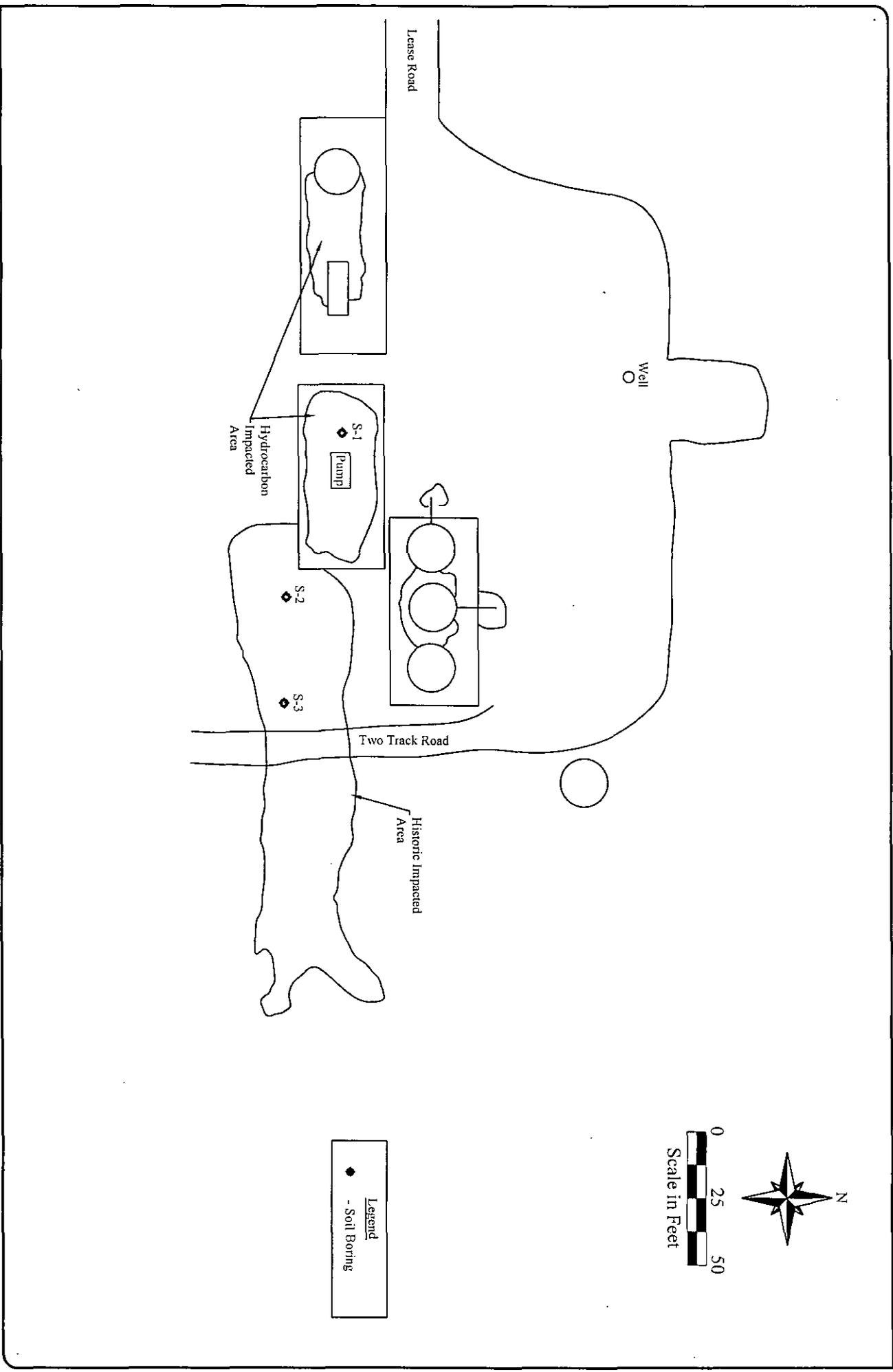
David J. Adkins  
District Manager

**SITE MAP**



Date: 05/14/2012  
Scale: 1" = 50'  
Drawn By: TJS

State K Com No. 3  
Legacy Reserves Operating, LP  
Artesia, New Mexico  
Figure 1 - Site Plan



**APPENDIX I**  
**GROUNDWATER DATA**  
**LETTER OF VIOLATION (LOV)**



# 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)

POD Number	POD Code	Subbasin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
<u>L 01608</u> <u>POD1</u>			LE	2	2	30	16S	36E		650795	3641175*	1311	145	80	65
<u>L 02145</u>	L		LE	2	3	31	16S	36E		650033	3638743*	1313	120	78	42
<u>L 02187</u>	L		LE	2	3	31	16S	36E		650033	3638743*	1313	122	74	48
<u>L 02212</u>	L		LE	2	3	31	16S	36E		650033	3638743*	1313	105	45	60
<u>L 04932</u>	L		LE	2	1	30	16S	36E		649990	3641162*	1484	104	90	14
Average Depth to Water:													<b>73 feet</b>		
Minimum Depth:													<b>45 feet</b>		
Maximum Depth:													<b>90 feet</b>		

**Record Count: 5**

UTMNAD83 Radius Search (in meters):

Easting (X): 650714

Northing (Y): 3639866

Radius: 2000

\*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 ENERGY, MINERALS and  
NATURAL RESOURCES DEPARTMENT

**Susana Martinez**  
Governor

**Jami Bailey**  
Division Director  
Oil Conservation Division

**John H. Bemis**  
Cabinet Secretary

\* Response Required – Deadline Enclosed\*

*Field Inspection Program  
Preserving the Integrity of Our Environment*

14-Mar-12

**HOBBS OCD**

LEGACY RESERVES OPERATING, LP  
P O BOX 10848  
MIDLAND TX 79702

**MAR 15 2012**

**RECEIVED**

**LETTER OF VIOLATION - Inspection**

Dear Operator

The following inspection(s) indicate that the well equipment, location or operational status of the well(s) failed to meet standards of the New Mexico Oil Conservation Division as described in the detail section below. To comply with standards imposed by Rules and Regulations of the Division, corrective action must be taken immediately and the situation brought into compliance. The detail section indicates preliminary findings and/or probable nature of the violation. This determination is based on an inspection of your well or facility by an inspector employed by the Oil Conservation Division on the date(s) indicated.

Please notify the proper district office of the Division, in writing, of the date corrective actions are scheduled to be made so that arrangements can be made to reinspect the well and/or facility.

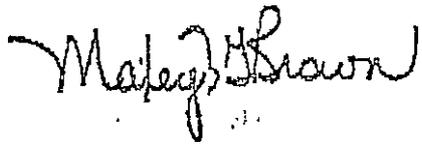
**INSPECTION DETAIL SECTION**

STATE K COM No.003		O-30-16S-36E	30-025-23847-00-00			
Inspection Date	Type Inspection	Inspector	Violation?	Significant Non-Compliance?	Corrective Action Due By	Inspection No
03/14/2012	Routine/Periodic	Maxey Brown	Yes	No	6/17/2012	MGB1207434480
Violations:						
Absent Well Identification Signs (Rule 103)						
Surface Leaks/Spills						
Comments on Inspection		NEED TO INSTALL SIGN AT TANK BATTERY. RULE 19.15.16.8. MUST INCLUDE CURRENT OPERATOR. ALSO CONTAMINATION INSIDE OF BERM AND LEAKING TO THE SOUTHEAST CORNER ON THE OUTSIDE. IDENTIFY FILE C-141 REPORT AND TAKE CORRECTIVE ACTION. PROD IS CURRENT. NEW LEGACY SIGN AT WELL MGB.				

**MAR 15 2012**

In the event that a satisfactory response is not received to this letter of direction by the "Corrective Action Due By" date shown above further enforcement will occur. Such enforcement may include this office applying to the Division for an order summoning you to a hearing before a Division Examiner in Santa Fe to show cause why you should not be ordered to permanently plug and abandon this well. Such a hearing may result in imposition of CIVIL PENALTIES for your violation of OCD rules.

Sincerely,



Hobbs OCD District Office

**COMPLIANCE OFFICER**

Note: Information in Detail Section comes directly from field inspector data entries - not all blanks will contain data  
Significant Non-Compliance events are reported directly to the LPA, Region VI Dallas, Texas

**APPENDIX II**  
**LABORATORY RESULTS**



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

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April 03, 2012

MIKE STUBBLEFIELD  
TALON LPE  
408 W. TEXAS AVE.  
ARTESIA, NM 88210

RE: STATE K COM. NO. 3

Enclosed are the results of analyses for samples received by the laboratory on 03/26/12 16:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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](http://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 cursive script that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/26/2012	Sampling Date:	03/22/2012
Reported:	04/03/2012	Sampling Type:	Soil
Project Name:	STATE K COM. NO. 3	Sampling Condition:	Cool & Intact
Project Number:	701047.048.01	Sample Received By:	Jodi Henson
Project Location:	SEC.30.T16S-R36E		

**Sample ID: S-1 0' IMPACTED AREA IN BERM (H200723-01)**

BTEX 8021B		mg/kg		Analyzed By: AP				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.655</b>	0.200	03/30/2012	ND	1.97	98.3	2.00	4.99	
<b>Toluene*</b>	<b>14.7</b>	0.500	03/30/2012	ND	2.11	105	2.00	5.41	
<b>Ethylbenzene*</b>	<b>14.9</b>	0.500	03/30/2012	ND	2.13	106	2.00	5.66	
<b>Total Xylenes*</b>	<b>157</b>	1.50	03/30/2012	ND	6.66	111	6.00	6.07	

*Surrogate: 4-Bromofluorobenzene (PII)* 144 % 64.4-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	03/27/2012	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>3910</b>	100	03/28/2012	ND	193	96.3	200	3.15	
<b>DRO &gt;C10-C28</b>	<b>12500</b>	100	03/28/2012	ND	181	90.4	200	7.27	

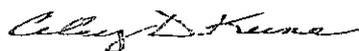
*Surrogate: 1-Chlorooctane* 176 % 55.5-154

*Surrogate: 1-Chlorooctadecane* 151 % 57.6-158

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/26/2012	Sampling Date:	03/22/2012
Reported:	04/03/2012	Sampling Type:	Soil
Project Name:	STATE K COM. NO. 3	Sampling Condition:	Cool & Intact
Project Number:	701047.048.01	Sample Received By:	Jodi Henson
Project Location:	SEC.30.T16S-R36E		

**Sample ID: S-1 2' (H200723-02)**

BTX 8021B		mg/kg		Analyzed By: AP				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.446</b>	0.050	03/30/2012	ND	1.97	98.3	2.00	4.99	
<b>Toluene*</b>	<b>3.12</b>	0.050	03/30/2012	ND	2.11	105	2.00	5.41	
<b>Ethylbenzene*</b>	<b>10.0</b>	0.050	03/30/2012	ND	2.13	106	2.00	5.66	
<b>Total Xylenes*</b>	<b>83.2</b>	0.150	03/30/2012	ND	6.66	111	6.00	6.07	

*Surrogate: 4-Bromofluorobenzene (PIL) 240 % 64.4-134*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>128</b>	16.0	03/27/2012	ND	416	104	400	0.00	

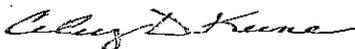
TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>2970</b>	100	03/28/2012	ND	193	96.3	200	3.15	
<b>DRO &gt;C10-C28</b>	<b>7150</b>	100	03/28/2012	ND	181	90.4	200	7.27	

*Surrogate: 1-Chlorooctane 245 % 55.5-154*
*Surrogate: 1-Chlorooctadecane 132 % 57.6-158*

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/26/2012	Sampling Date:	03/22/2012
Reported:	04/03/2012	Sampling Type:	Soil
Project Name:	STATE K COM. NO. 3	Sampling Condition:	Cool & Intact
Project Number:	701047.048.01	Sample Received By:	Jodi Henson
Project Location:	SEC.30.T16S-R36E		

**Sample ID: S-2 0' IMPACTED AREA OUT OF BERM (H200723-03)**

BTEX 80218		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/03/2012	ND	1.97	98.3	2.00	4.99	
Toluene*	<0.050	0.050	04/03/2012	ND	2.11	105	2.00	5.41	
Ethylbenzene*	<0.050	0.050	04/03/2012	ND	2.13	106	2.00	5.66	
Total Xylenes*	<0.150	0.150	04/03/2012	ND	6.66	111	6.00	6.07	

Surrogate: 4-Bromofluorobenzene (PII) 100 % 64.4-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	03/27/2012	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	03/28/2012	ND	193	96.3	200	3.15	
DRO >C10-C28	1460	10.0	03/28/2012	ND	181	90.4	200	7.27	

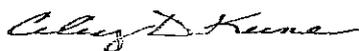
Surrogate: 1-Chlorooctane 103 % 55.5-154

Surrogate: 1-Chlorooctadecane 128 % 57.6-158

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

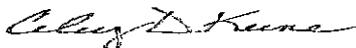
- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- ND Analyte NOT DETECTED 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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Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

# Chain of Custody and Analysis Request

## CHAIN OF CUSTODY AND ANALYSIS REQUEST

401 East Maryland, Norfolk, NH 02054  
(678) 384-2820 FAX (678) 382-2478

Company Name: Talon LEP

Project Manager: Mike Stubblefield State: NM Zip: 88210

Address: 408 West Talon Ave.

City: Alto

Phone #: 505-941-2254 Fax #: \_\_\_\_\_

Project #: 001047-043.01 Project Owner: Legacy Resources

Project Name: State K. Com. No. 3

Project Location: see 30-TMS-R36E

Sampler Name: Mike Stubblefield

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	MATRIX				PRESERVATIVE				DATE	TIME	
		GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE/COOL			OTHER
H200783												
	1-S-10' Impacted area in berm.										3/22/2012	1:26 P
	2-S-12'										3/22/2012	1:35 P
	3-S-20' Impacted area on I of berm.										3/22/2012	1:43 P

80218 QTR  
8015M TRH  
Total chlorides

PLEASE NOTE: Liability and Damages: Client's liability and client's exclusive remedy for any claim arising out of this service shall be limited to the amount of the fee charged for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Chain of Custody 30 days after completion of the report. No claim shall be made for incidental or consequential damages, including attorney's fees, 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 this service. Chain of Custody 30 days after completion of the report. No claim shall be made for incidental or consequential damages, including attorney's fees, 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 this service.

Refiniquished By: \_\_\_\_\_ Date: 3/26/2012

Received By: Jodi Anson Time: 5:30 PM

Delivered By: Jodi Anson Date: 3/26/12 Time: 4:40

Sampler - DPS - Fus - (Other)

Sample Condition: 50 Cook - Hit Checked By: JJA

For Results:  Yes  No  Yes  No

Additional Phone #: \_\_\_\_\_ Additional Fax #: \_\_\_\_\_

REMARKS:

Cardinal cannot accept verbal changes. Please fax written changes to 505-384-2820 #126

April 05, 2012

MIKE STUBBLEFIELD

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: STATE K COM. NO. 3

Enclosed are the results of analyses for samples received by the laboratory on 03/30/12 16:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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](http://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:**

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

Received:	03/30/2012	Sampling Date:	03/30/2012
Reported:	04/05/2012	Sampling Type:	Soil
Project Name:	STATE K COM. NO. 3	Sampling Condition:	Cool & Intact
Project Number:	701047.048.01	Sample Received By:	Jodi Henson
Project Location:	SEC.30.T16S-R36E		

**Sample ID: S-3 0' FLOWPATH (H200770-01)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/05/2012	ND	2.02	101	2.00	4.99	
Toluene*	<0.050	0.050	04/05/2012	ND	2.11	105	2.00	4.78	
Ethylbenzene*	<0.050	0.050	04/05/2012	ND	2.11	105	2.00	4.56	
Total Xylenes*	<0.150	0.150	04/05/2012	ND	6.52	109	6.00	4.30	

*Surrogate: 4-Bromofluorobenzene (PII) 100 % 64.4-134*

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	04/02/2012	ND	400	100	400	3.92	

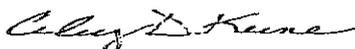
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/02/2012	ND	238	119	200	14.0	
DRO >C10-C28	<10.0	10.0	04/02/2012	ND	216	108	200	2.13	

*Surrogate: 1-Chlorooctane 113 % 55.5-154*
*Surrogate: 1-Chlorooctadecane 108 % 57.6-158*

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/30/2012	Sampling Date:	03/30/2012
Reported:	04/05/2012	Sampling Type:	Soil
Project Name:	STATE K COM. NO. 3	Sampling Condition:	Cool & Intact
Project Number:	701047.048.01	Sample Received By:	Jodi Henson
Project Location:	SEC.30.T16S-R36E		

**Sample ID: S-3 1' (H200770-02)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/05/2012	ND	2.02	101	2.00	4.99		
Toluene*	<0.050	0.050	04/05/2012	ND	2.11	105	2.00	4.78		
Ethylbenzene*	<0.050	0.050	04/05/2012	ND	2.11	105	2.00	4.56		
Total Xylenes*	<0.150	0.150	04/05/2012	ND	6.52	109	6.00	4.30		

*Surrogate: 4-Bromofluorobenzene (PIL) 103 % 64.4-134*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	784	16.0	04/02/2012	ND	400	100	400	3.92		

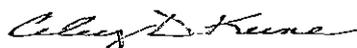
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/02/2012	ND	238	119	200	14.0		
DRO >C10-C28	<10.0	10.0	04/02/2012	ND	216	108	200	2.13		

*Surrogate: 1-Chlorooctane 118 % 55.5-154*
*Surrogate: 1-Chlorooctadecane 110 % 57.6-158*

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/30/2012	Sampling Date:	03/30/2012
Reported:	04/05/2012	Sampling Type:	Soil
Project Name:	STATE K COM. NO. 3	Sampling Condition:	Cool & Intact
Project Number:	701047.048.01	Sample Received By:	Jodi Henson
Project Location:	SEC.30.T16S-R36E		

**Sample ID: S-3 2' (H200770-03)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/05/2012	ND	2.02	101	2.00	4.99		
Toluene*	<0.050	0.050	04/05/2012	ND	2.11	105	2.00	4.78		
Ethylbenzene*	<0.050	0.050	04/05/2012	ND	2.11	105	2.00	4.56		
Total Xylenes*	<0.150	0.150	04/05/2012	ND	6.52	109	6.00	4.30		

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 64.4-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	04/02/2012	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	04/02/2012	ND	238	119	200	14.0		
DRO >C10-C28	<10.0	10.0	04/02/2012	ND	216	108	200	2.13		

Surrogate: 1-Chlorooctane 121 % 55.5-154

Surrogate: 1-Chlorooctadecane 116 % 57.6-158

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

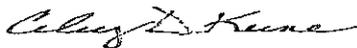
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

