

**RECEIVED**

*By JKeyes at 12:35 pm, Jun 08, 2016*

**APPROVED**

Please provide sidewall samples to ensure horizontal extent of contamination has been addressed.

talonlpe.com • 866.742.0742



**Work Plan**

**Lime Rock Resources II-A, L.P.:**

**North Vacuum Abo North Unit (NVANU) 5B #2**

June 3, 2016

**Prepared By:**

Kimberly M. Wilson  
TALON/LPE  
408 W. Texas Avenue  
Artesia, New Mexico 88210

**Prepared For:**

Lime Rock Resources II-A, L.P.

Mr. Jamie Keyes  
**NMOCD District 1**  
1625 N. French Dr.  
Hobbs, NM 88240

Subject: **Soil Assessment and Remediation Work Plan**  
Lime Rock Resources II-A, L.P.  
North Vacuum Abo North Unit (NVANU) 5B #2  
API # 30-025-31341

Dear Mr. Keyes,

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 NVANU 5B #02 is located approximately fifteen (15) miles west of Lovington, New Mexico. The legal location for this release is Unit Letter N, Section 1, Township 17 South and Range 34 East in Lea County, New Mexico. More specifically the latitude and longitude for the release are 32.858879 North and -103.514912 West. A site plan is presented in **Appendix I**.

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-Lea land complex. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is comprised of calcareous-loamy alluvium and calcareous-loamy eolian sands which includes silty soils underlain by sedimentary rock and hard caliche. Drainage courses in this area are normally dry.

### **Ground Water and Site Ranking**

The New Mexico State Engineer web site indicates the nearest ground water data to be in S10-T17S-R34E. The ground water in Section 10 is reported to be at depth of 92' below ground surface (bgs). See **Appendix II** for the referenced groundwater data.

Therefore the ranking for this site is a **10** based on the following:

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

Based upon the site ranking of **10**, NMOCD Recommended Remedial Action Levels (RRAL) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, 1,000 mg/kg for TPH and ~~1,000~~ **500** mg/kg for total chlorides.

## Incident Description and Initial Remedial Actions

On April 1, 2016 Amber Groves from the State Land Office (NMSLO) notified Lime Rock Resources of a release on the flow line coming from the NVANU 5B #2 well.

April 6, 2016 Talon mobilized personnel to begin the site assessment and soil sampling activities for the construction of a work plan. During our site assessment no obvious noxious or undesirable weeds such as African rue, Russian thistle, etc. were noted. Grab soil samples were collected utilizing a hand auger to a depth of 1' below ground surface where refusal was encountered.

An air rotary drill rig was then mobilized for further vertical delineation of the impacted area. Vertical delineation sampling was carried out April 12, 2016. Laboratory results are presented below.

## Laboratory Results

See [Appendix IV](#) for complete report of laboratory results.

April 13, 2016

Table 1

| Sample ID          | Depth (feet) | BTEX (mg/kg) | Chlorides (mg/kg) | TPH (mg/kg) GRO | TPH (mg/kg) DRO |
|--------------------|--------------|--------------|-------------------|-----------------|-----------------|
| <b>S-1 Refusal</b> | 0'           | 28.6         | 192               | 346             | 22600           |

April 20, 2016

| Sample ID  | Depth (feet) | BTEX (mg/kg) | Chlorides (mg/kg) | TPH (mg/kg) GRO | TPH (mg/kg) DRO |
|------------|--------------|--------------|-------------------|-----------------|-----------------|
| <b>B-1</b> | 2'           | 1.97         | 144               | <50             | 6760            |
|            | 5'           | <0.300       | 304               | <10             | 366             |
|            | 10'          | <0.300       | <16               | <10             | 20.1            |
|            | 15'          | <0.300       | <16               | <10             | <10             |
|            | 20'          | <0.300       | <16               | <10             | 163             |

## Proposed Remedial actions

- The impacted will be excavated to a depth of 3-feet deep. All of the excavated material will be hauled to an NMOCD approved solid waste disposal facility.
- The excavated areas will be backfilled with locally obtained soil. The backfilled areas in the pasture will be contoured to match the surrounding terrain and left in a "rough" condition to approximate natural surface deviations, control erosion, and promote revegetation.

- Immediately following preparation of the site, a Culti-Pack Seed Drill will be utilized to plant the NMSLO recommended seed mixture for the area, BLM #2 seed mix.
- The site will be monitored by Lime Rock Resources personnel to insure proper revegetation is achieved. It is the intent of the NMSLO to achieve native plant cover and diversity levels equal to or exceeding natural levels
- A final closure report documenting all remedial actions, analytical results, Final C-141 and seeding labels will be provided to the NMSLO and NMOCD Hobbs Office along with the Revegetation Forms.

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



Kimberly M. Wilson  
Project Manager



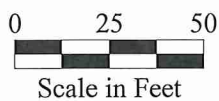
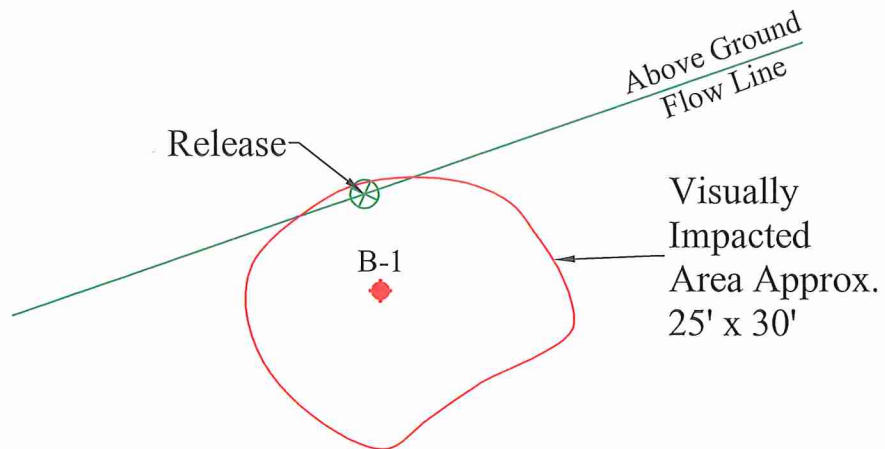
David J. Adkins  
District Manager

Attachments:

Appendix I Site Plan  
Appendix II Groundwater Data  
Appendix III Initial C-141  
Appendix IV Laboratory Results

## **APPENDIX I**

### **SITE MAP**



| Legend |                   |
|--------|-------------------|
| ◆      | - Sample Location |



Date: 05/17/2016

Scale: 1" = 20'

Drawn By: TJS

NVANU 5B #2 Flow Line  
Lime Rock Resources  
Lea County, New Mexico  
Figure 1 - 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)

| POD Number                 | POD Sub-Code | basin | County | Q 64 | Q 16 | Q 4 | Sec | Tws | Rng | X      | Y        | Distance | Depth Well | Depth Water | Water Column |
|----------------------------|--------------|-------|--------|------|------|-----|-----|-----|-----|--------|----------|----------|------------|-------------|--------------|
| <a href="#">L 03241</a>    | L            | LE    |        | 2    | 2    | 10  | 17S | 34E |     | 636425 | 3636145* | 584      | 122        | 92          | 30           |
| <a href="#">L 06134</a>    | L            | LE    |        | 2    | 4    | 03  | 17S | 34E |     | 636411 | 3636949* | 710      | 175        | 95          | 80           |
| <a href="#">L 03011</a>    | L            | LE    |        |      |      | 02  | 17S | 34E |     | 637425 | 3637158* | 865      | 121        | 80          | 41           |
| <a href="#">L 05806</a>    | L            | LE    |        | 2    | 2    | 11  | 17S | 34E |     | 638036 | 3636179* | 1148     | 155        | 105         | 50           |
| <a href="#">L 02749</a>    | L            | LE    |        | 4    | 2    | 11  | 17S | 34E |     | 638043 | 3635776* | 1310     | 150        | 85          | 65           |
| <a href="#">L 06074</a>    | L            | LE    |        | 2    | 2    | 03  | 17S | 34E |     | 636395 | 3637753* | 1401     | 172        | 95          | 77           |
| <a href="#">L 06771</a>    | L            | LE    |        | 1    | 1    | 1   | 12  | 17S | 34E | 638338 | 3636287* | 1426     | 165        | 86          | 79           |
| <a href="#">L 03846 X</a>  | L            | LE    |        | 3    | 3    | 11  | 17S | 34E |     | 636847 | 3634945* | 1510     | 200        | 130         | 70           |
| <a href="#">L 06894</a>    | L            | LE    |        | 1    | 4    | 1   | 10  | 17S | 34E | 635524 | 3635825* | 1532     | 175        | 103         | 72           |
| <a href="#">L 06766</a>    | L            | LE    |        | 4    | 1    | 1   | 12  | 17S | 34E | 638538 | 3636087* | 1658     | 160        | 90          | 70           |
| <a href="#">L 06752</a>    | L            | LE    |        | 4    | 4    | 4   | 10  | 17S | 34E | 636542 | 3634836* | 1661     | 170        | 55          | 115          |
| <a href="#">L 03846 X2</a> | L            | LE    |        | 1    | 1    | 14  | 17S | 34E |     | 636853 | 3634543* | 1912     | 200        | 90          | 110          |

Average Depth to Water: **92 feet**

Minimum Depth: **55 feet**

Maximum Depth: **130 feet**

Record Count: 12

UTMNAD83 Radius Search (in meters):

Easting (X): 636921

Northing (Y): 3636454

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.



**APPENDIX III**

**INITIAL C-141**

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

### Release Notification and Corrective Action

#### OPERATOR

☒ Initial Report ☐ Final Report

|  |                                     |
|--|-------------------------------------|
| Name of Company : <b>LIME ROCK RESOURCES II-A, LP</b>            | Contact : <b>Mike Barrett</b>       |
| Address : <b>1111 Bagby Street Suite 4600, Houston ,TX 77002</b> | Telephone No. : <b>575-365-9724</b> |
| Facility Name : <b>North Vacuum Abo North Unit 5B #2</b>         | Facility Type: <b>Flow Line</b>     |

|                              |                |                               |
|------------------------------|----------------|-------------------------------|
| Surface Owner : <b>State</b> | Mineral Owner: | Lease No. <b>30-025-31341</b> |
|------------------------------|----------------|-------------------------------|

#### LOCATION OF RELEASE

|                         |                     |                        |                     |               |                  |               |                |                    |
|-------------------------|---------------------|------------------------|---------------------|---------------|------------------|---------------|----------------|--------------------|
| Unit Letter<br><b>N</b> | Section<br><b>1</b> | Township<br><b>17S</b> | Range<br><b>34E</b> | Feet from the | North/South Line | Feet from the | East/West Line | County <b>Eddy</b> |
|-------------------------|---------------------|------------------------|---------------------|---------------|------------------|---------------|----------------|--------------------|

Latitude **32.858879 N** Longitude **-103.514912 W**

#### NATURE OF RELEASE


|   |  |                                  |
|---|--|----------------------------------|
| Type of Release : <b>Unknown</b>  | Volume of Release : <b>Unknown</b>             | Volume Recovered: <b>Unknown</b> |
| Source of Release : <b>Unknown</b>  | Date and Hour of Occurrence:<br><b>Unknown</b> | Date and Hour of Discovery:      |
| Was Immediate Notice Given?<br><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required | If YES, To Whom?                               |                                  |
| By Whom? <b>Amber Groves</b>  | Date and Hour:                                 |                                  |
| Was a Watercourse Reached?<br><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.\* **Amber Groves with the NM State Land Office and the NMOCD required the impacted area in the pasture along the flow line be delineated to determine the extent of the vertical contamination.**

Describe Area Affected and Cleanup Action Taken.\* **Lime Rock Resources contacted Talon/LPE to perform initial site assessment and sampling activities in order to generate a work plan.**

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:  | <b>OIL CONSERVATION DIVISION</b> |                  |                                   |
| Printed Name: <b>Michael Barrett</b>   | Approved by District Supervisor: |                  |                                   |
| Title: <b>Production Superintendent</b>  | Approval Date:                   | Expiration Date: |                                   |
| E-mail Address: <b>mbarrett@limerockresources.com</b>  | Conditions of Approval:          |                  | Attached <input type="checkbox"/> |
| Date: <b>4/18/2016</b> Phone: <b>575-365-9724</b>  |                                  |                  |                                   |

\* Attach Additional Sheets If Necessary

**APPENDIX IV**  
**LABORATORY RESULTS**

April 13, 2016

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: NVANU #5B #2

Enclosed are the results of analyses for samples received by the laboratory on 04/07/16 12:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. 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](http://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:**

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

Received: 04/07/2016  
Reported: 04/13/2016  
Project Name: NVANU #5B #2  
Project Number: NONE GIVEN  
Project Location: LEA COUNTY, NM

Sampling Date: 04/06/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S-1 0' (R) (H600751-01)**

| BTX 8021B             |             | mg/kg           |            | Analyzed By: MS |      |            |               |      |           |
|-----------------------|-------------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte               | Result      | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Benzene*</b>       | <b>2.15</b> | 0.200           | 04/08/2016 | ND              | 1.97 | 98.5       | 2.00          | 1.73 |           |
| <b>Toluene*</b>       | <b>9.30</b> | 0.200           | 04/08/2016 | ND              | 1.86 | 92.8       | 2.00          | 3.49 |           |
| <b>Ethylbenzene*</b>  | <b>6.90</b> | 0.200           | 04/08/2016 | ND              | 1.64 | 82.2       | 2.00          | 4.52 |           |
| <b>Total Xylenes*</b> | <b>10.2</b> | 0.600           | 04/08/2016 | ND              | 5.09 | 84.9       | 6.00          | 4.15 |           |
| <b>Total BTEX</b>     | <b>28.6</b> | 1.20            | 04/08/2016 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.6-140

| Chloride, SM4500Cl-B |            | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result     | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>192</b> | 16.0            | 04/12/2016 | 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>346</b>   | 100             | 04/08/2016 | ND              | 164 | 82.0       | 200           | 17.7 | QM-07     |      |
| <b>DRO &gt;C10-C28</b> | <b>22600</b> | 100             | 04/08/2016 | ND              | 166 | 83.0       | 200           | 6.94 | QM-07     |      |

Surrogate: 1-Chlorooctane 102 % 35-147

Surrogate: 1-Chlorooctadecane 522 % 28-171

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.  |
| QR-02 | The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data. |
| 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<br>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





ANALYSIS REQUEST

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

April 20, 2016

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: NVANU #5B #2

Enclosed are the results of analyses for samples received by the laboratory on 04/15/16 11:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. 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,



Caley D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 04/15/2016  
 Reported: 04/20/2016  
 Project Name: NVANU #5B #2  
 Project Number: NONE GIVEN  
 Project Location: LEA COUNTY, NM

 Sampling Date: 04/12/2016  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: B-1 2' (H600826-01)**

| BTEX 8021B     |              | mg/kg           |            | Analyzed By: MS |      |            |               |      |           |
|----------------|--------------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result       | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.200       | 0.200           | 04/15/2016 | ND              | 2.06 | 103        | 2.00          | 5.88 |           |
| Toluene*       | <0.200       | 0.200           | 04/15/2016 | ND              | 1.95 | 97.7       | 2.00          | 6.73 |           |
| Ethylbenzene*  | <b>1.03</b>  | 0.200           | 04/15/2016 | ND              | 1.74 | 86.9       | 2.00          | 6.74 |           |
| Total Xylenes* | <b>0.946</b> | 0.600           | 04/15/2016 | ND              | 5.38 | 89.6       | 6.00          | 6.09 |           |
| Total BTEX     | <b>1.97</b>  | 1.20            | 04/15/2016 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.6-140

| Chloride, SM4500Cl-B |            | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result     | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | <b>144</b> | 16.0            | 04/18/2016 | ND              | 416 | 104        | 400           | 8.00 |           |

| TPH 8015M    |             | mg/kg           |            | Analyzed By: MS |     |            |               |      |           | S-06 |
|--------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|------|
| Analyte      | Result      | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |      |
| GRO C6-C10   | <50.0       | 50.0            | 04/15/2016 | ND              | 182 | 90.8       | 200           | 6.71 |           |      |
| DRO >C10-C28 | <b>6760</b> | 50.0            | 04/15/2016 | ND              | 193 | 96.7       | 200           | 6.92 |           |      |

Surrogate: 1-Chlorooctane 98.8 % 35-147

Surrogate: 1-Chlorooctadecane 214 % 28-171

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.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

|                   |                |                     |                |
|-------------------|----------------|---------------------|----------------|
| Received:         | 04/15/2016     | Sampling Date:      | 04/12/2016     |
| Reported:         | 04/20/2016     | Sampling Type:      | Soil           |
| Project Name:     | NVANU #5B #2   | Sampling Condition: | Cool & Intact  |
| Project Number:   | NONE GIVEN     | Sample Received By: | Celey D. Keene |
| Project Location: | LEA COUNTY, NM |                     |                |

**Sample ID: B-1 5' (H600826-02)**

| 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           | 04/15/2016 | ND              | 2.06 | 103        | 2.00          | 5.88 |           |
| Toluene*       | <0.050 | 0.050           | 04/15/2016 | ND              | 1.95 | 97.7       | 2.00          | 6.73 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 04/15/2016 | ND              | 1.74 | 86.9       | 2.00          | 6.74 |           |
| Total Xylenes* | <0.150 | 0.150           | 04/15/2016 | ND              | 5.38 | 89.6       | 6.00          | 6.09 |           |
| Total BTEX     | <0.300 | 0.300           | 04/15/2016 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PIE) 104 % 73.6-140

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 304    | 16.0            | 04/18/2016 | ND              | 416 | 104        | 400           | 8.00 |           |
| 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            | 04/15/2016 | ND              | 182 | 90.8       | 200           | 6.71 |           |
| DRO >C10-C28         | 366    | 10.0            | 04/15/2016 | ND              | 193 | 96.7       | 200           | 6.92 |           |

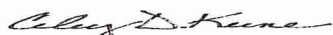
Surrogate: 1-Chlorooctane 85.6 % 35-147

Surrogate: 1-Chlorooctadecane 103 % 28-171

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

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

|                   |                |                     |                |
|-------------------|----------------|---------------------|----------------|
| Received:         | 04/15/2016     | Sampling Date:      | 04/12/2016     |
| Reported:         | 04/20/2016     | Sampling Type:      | Soil           |
| Project Name:     | NVANU #5B #2   | Sampling Condition: | Cool & Intact  |
| Project Number:   | NONE GIVEN     | Sample Received By: | Celey D. Keene |
| Project Location: | LEA COUNTY, NM |                     |                |

**Sample ID: B-1 10' (H600826-03)**

| 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           | 04/15/2016 | ND              | 2.06 | 103        | 2.00          | 5.88 |           |
| Toluene*       | <0.050 | 0.050           | 04/15/2016 | ND              | 1.95 | 97.7       | 2.00          | 6.73 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 04/15/2016 | ND              | 1.74 | 86.9       | 2.00          | 6.74 |           |
| Total Xylenes* | <0.150 | 0.150           | 04/15/2016 | ND              | 5.38 | 89.6       | 6.00          | 6.09 |           |
| Total BTEx     | <0.300 | 0.300           | 04/15/2016 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PIE) 106 % 73.6-140

| 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            | 04/18/2016 | ND              | 416 | 104        | 400           | 8.00 |           |  |

| 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            | 04/15/2016 | ND              | 182 | 90.8       | 200           | 6.71 |           |
| DRO >C10-C28 | 20.1   | 10.0            | 04/15/2016 | ND              | 193 | 96.7       | 200           | 6.92 |           |

Surrogate: 1-Chlorooctane 85.7 % 35-147

Surrogate: 1-Chlorooctadecane 95.9 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

|                   |                |                     |                |
|-------------------|----------------|---------------------|----------------|
| Received:         | 04/15/2016     | Sampling Date:      | 04/12/2016     |
| Reported:         | 04/20/2016     | Sampling Type:      | Soil           |
| Project Name:     | NVANU #5B #2   | Sampling Condition: | Cool & Intact  |
| Project Number:   | NONE GIVEN     | Sample Received By: | Celey D. Keene |
| Project Location: | LEA COUNTY, NM |                     |                |

**Sample ID: B-1 15' (H600826-04)**

| BTX 8021B      |        |                 | mg/kg      |              | Analyzed By: MS |            |               |      |           |  |
|----------------|--------|-----------------|------------|--------------|-----------------|------------|---------------|------|-----------|--|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank | BS              | % Recovery | True Value QC | RPD  | Qualifier |  |
| Benzene*       | <0.050 | 0.050           | 04/15/2016 | ND           | 2.06            | 103        | 2.00          | 5.88 |           |  |
| Toluene*       | <0.050 | 0.050           | 04/15/2016 | ND           | 1.95            | 97.7       | 2.00          | 6.73 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 04/15/2016 | ND           | 1.74            | 86.9       | 2.00          | 6.74 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 04/15/2016 | ND           | 5.38            | 89.6       | 6.00          | 6.09 |           |  |
| Total BTX      | <0.300 | 0.300           | 04/15/2016 | ND           |                 |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PIE) 107 % 73.6-140

| 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            | 04/18/2016 | ND           | 416             | 104        | 400           | 8.00 |           |  |

| 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            | 04/15/2016 | ND              | 182 | 90.8       | 200           | 6.71 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 04/15/2016 | ND              | 193 | 96.7       | 200           | 6.92 |           |

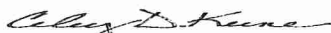
Surrogate: 1-Chlorooctane 96.0 % 35-147

Surrogate: 1-Chlorooctadecane 108 % 28-171

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

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

Received: 04/15/2016  
Reported: 04/20/2016  
Project Name: NVANU #5B #2  
Project Number: NONE GIVEN  
Project Location: LEA COUNTY, NM

Sampling Date: 04/12/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: B-1 20' (H600826-05)**

| 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           | 04/15/2016 | ND           | 2.06            | 103        | 2.00          | 5.88 |           |
| Toluene*       | <0.050 | 0.050           | 04/15/2016 | ND           | 1.95            | 97.7       | 2.00          | 6.73 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 04/15/2016 | ND           | 1.74            | 86.9       | 2.00          | 6.74 |           |
| Total Xylenes* | <0.150 | 0.150           | 04/15/2016 | ND           | 5.38            | 89.6       | 6.00          | 6.09 |           |
| Total BTEx     | <0.300 | 0.300           | 04/15/2016 | ND           |                 |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PIE) 106 % 73.6-140

| 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            | 04/18/2016 | ND           | 416             | 104        | 400           | 8.00 |           |  |

| 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            | 04/15/2016 | ND              | 182 | 90.8       | 200           | 6.71 |           |
| DRO >C10-C28 | 163    | 10.0            | 04/15/2016 | ND              | 193 | 96.7       | 200           | 6.92 |           |

Surrogate: 1-Chlorooctane 90.4 % 35-147

Surrogate: 1-Chlorooctadecane 101 % 28-171

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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.         |
| 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<br>Samples reported on an as received basis (wet) unless otherwise noted on report |

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Celey D. Keene, Lab Director/Quality Manager



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