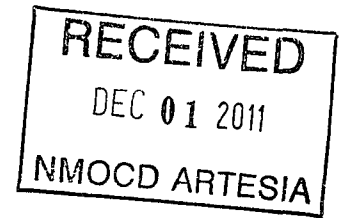




December 1, 2011



Mr. Mike Bratcher  
**NMOCD District 2**  
1301 West Grand Avenue  
Artesia, NM 88210

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 512.989.3478

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

**Subject: Soil Assessment and Remediation Work Plan**  
Quantum Resources Management, LLC  
Artesia Battery 1 to Battery 3 Transfer Line Release  
API # 30-015-01747 – 2RP-775  
Revision

Dear Mr. Bratcher,

Quantum Resources Management, LLC has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the referenced Artesia Battery 1 to Battery 3 Transfer Line release. Talon's soil assessment results and proposed remediation activities consist of the following:

#### **Incident Date**

April 29, 2011

#### **Background Information**

The Artesia Battery 1 to 3 Transfer Line is located approximately sixteen (16) miles southeast of Artesia, New Mexico. The legal location for the site is Section 35, Township 17 South and Range 28 East in Eddy County, New Mexico. More Specifically the latitude and longitude for the release are 32.79069 North and -104.14837 West.

This site lies on undulating plains and low hills consisting of wind worked sandy deposits. Drainage courses in this area are normally dry. The local surface and shallow geology consists of Quaternary Age sedimentary deposits comprised of alluvium and eolian sands underlain by sand stone and hard caliches. The New Mexico State Engineer web site indicates the nearest ground water data to be in S35-T18S-R28E. The ground water in Section 35 is reported to be 65' 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 April 29, 2011 the water transfer line coming from the Artesia Battery No. 1 to the Artesia Battery No. 3 had developed a leak. The line was shut-in, excavated, repaired and placed back into service. Ten (10) barrels of produced water were released with no fluids recovered. The impacted area is located north of the Apache Corporation D State No. 17 well location. It measured approximately 45-feet long by 30-feet wide. The visually impacted soil was immediately excavated to a depth of 5-feet and placed on a liner.

## **Actions Taken**

On May 9, 2011 Talon/LPE mobilized personnel to begin the assessment and soil sampling for the construction of a work plan. Grab soil samples were collected utilizing a backhoe. The soil samples labeled S-1 were collected from the impacted area to a depth of 8-foot.

On May 26, 2011 Talon/LPE mobilized personnel again to the site for soil sampling at greater depths utilizing a split spoon auger rig. Grab soil samples from location S-1 were collected from 10-foot bgs within the impacted area to a depth of 30-feet bgs. Soil samples were also collected from a second location (S-2) east of excavated area for delineation under the lease road. Samples were obtained from location S-2 at 10-feet and 12-feet deep.

All soil samples were collected by Talon personnel wearing clean nitrile gloves. The soil samples were placed in laboratory provided sample containers and transported to Cardinal Laboratories in Hobbs, New Mexico for analysis of chlorides using method SM4500Cl-B. The complete laboratory report is attached as Appendix II.

## **Analytical Results**

Analytical results received from Cardinal Laboratories dated May 17, 2011 and June 4, 2011 are summarized below:

| <u>Sample, Depth</u> | <u>Chlorides (mg/kg)</u> | <u>Sample, Depth</u> | <u>Chlorides (mg/kg)</u> |
|----------------------|--------------------------|----------------------|--------------------------|
| S-1 1'               | 800                      | S-1 16'              | 3600                     |
| S-1 2'               | 10800                    | S-1 18'              | 1200                     |
| S-1 4'               | 12400                    | S-1 20'              | 1250                     |
| S-1 6'               | 11800                    | S-1 24'              | 144                      |
| S-1 8'               | 7000                     | S-1 26'              | 336                      |
| S-1 10'              | 12200                    | S-1 28'              | 624                      |
| S-1 12'              | 12600                    | S-1 30'              | 288                      |
| S-1 14'              | 9800                     |                      |                          |

| <u>Sample, Depth</u> | <u>Chlorides (mg/kg)</u> |
|----------------------|--------------------------|
| S-2 10'              | 128                      |
| S-2 12'              | 272                      |

### **Summary and Conclusion**

- Groundwater in the project vicinity is greater than 50-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 of the chloride release have been documented to be 144 mg/kg in the soil sample S-1 at 24-feet bgs.

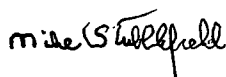
### **Proposed Remedial Actions**

- The chloride impacted soil from this release will be excavated to the maximum extent practicable. The excavated soil will be transported to an NMOCD approved solid waste disposal facility.
- Soil samples will be collected for analytical testing from the side walls of the excavated area. The soil samples collected will be submitted to Cardinal Laboratories for analysis of chlorides using method SM4500Cl-B.
- Upon OCD approval of confirmation samples, a 20 Mil liner may be installed into the bottom of the excavated area.
- The excavated area will be backfilled to grade using new material transported from a local borrow pit, contoured to match existing terrain and seeded using an approved seed mixture for the area.
- A final report documenting all field activities and lab reports will be provided to the NMOCD Artesia Office including Form C-141.

If we can provide additional information or be of further assistance please contact our office at 575.746.8768.

Respectfully submitted,

TALON/LPE



Mike Stubblefield  
Project Manager



David J. Adkins  
District Manager

## **SITE MAP**

Lease Road

Lease Road

Excavated Area

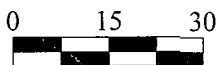
S-1

S-2

Impacted Area

Wellhead

Pumpjack



Scale in Feet

| Legend |  |
|--------|--|
| ○      | - Monitor Well                           |
| ⊙      | - Proposed Monitor Well                  |
| ◇      | - Soil Boring                            |
| ⊕      | - Proposed Soil Boring                   |
| ⊞      | - Recovery Well                          |
| ⊗      | - Vapor Recovery Well                    |
| ⊙      | - Domestic Well                          |
| ⊕      | - Plugged & Abandoned Well               |
| ⊞      | - Observation Well                       |
| △      | - Surface Soil Samples                   |
| ●      | - Vapor Monitoring Point                 |
| —      | - Water Main                             |
| —      | - Gas Line                               |
| —      | - Overhead Powerline                     |
| —      | - Underground Electric Line              |
| —      | - Sanitary Sewer                         |
| —      | - Storm Sewer                            |
| —      | - Telephone Line                         |
| —      | - Fence line                             |
| —      | - City Utilities                         |
| —      | - Underground Cable                      |
| ++++   | - Railroad Tracks                        |
| ~~~~   | - Groundwater Gradient Contour Line      |
| 81.30  | - Groundwater Gradient Contour Elevation |
| ➔      | - Groundwater Flow Direction             |



Date: 07/08/2011

Scale: 1" = 30'

Drawn By: TJS

Artesia Battery 1 to Battery 3 Transfer Line - Artesia Unit No. 22  
Quantum Resources Management, LLC  
Eddy County, New Mexico

APPENDIX I  
INITIAL C-141  
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 Code | Subbasin | County | Q 64 | Q 16 | Q 4 | Sec | Tws | Rng | X      | Y        | Distance | Depth Well | Depth Water Column | Water |
|--------------|----------|----------|--------|------|------|-----|-----|-----|-----|--------|----------|----------|------------|--------------------|-------|
| L 01142 POD1 | L        | LE       |        | 2    | 4    | 15  | 18S | 28E |     | 578921 | 3623453* | 4564     | 80         |                    |       |
| L 01150 POD1 | L        | LE       |        | 1    | 1    | 35  | 18S | 28E |     | 579344 | 3619433* | 8561     | 135        | 65                 | 70    |
| RA 04561     |          | ED       |        | 4    | 2    | 26  | 17S | 27E |     | 570871 | 3630142* | 8782     | 250        |                    |       |
| RA 09588     |          | ED       |        | 1    | 2    | 33  | 18S | 28E |     | 576976 | 3619384* | 8941     | 300        |                    |       |
| RA 04048     |          | LE       |        | 1    | 4    | 4   | 14  | 18S | 27E | 570841 | 3623030* | 9883     | 2096       |                    |       |

Average Depth to Water: **65 feet**

Minimum Depth: **65 feet**

Maximum Depth: **65 feet**

Record Count: 5

### UTMNAD83 Radius Search (in meters):

Easting (X): 579387

Northing (Y): 3627994

Radius: 10000

\*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

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

30-015-01747

Release Notification and Corrective Action

NMLB 1112932046

243874

OPERATOR

☒ Initial Report ☐ Final Report

|  |                                   |
|--|-----------------------------------|
| Name of Company Quantum Resources Management, LLC          | Contact Garrett Newton            |
| Address 1905 West Sears Ave., Artesia, New Mexico 88210    | Telephone No. 575-513-0230        |
| Facility Name Artesia Battery 1 to Battery 3 Transfer line | Facility Type Water Transfer line |

|                     |                     |           |
|---------------------|---------------------|-----------|
| Surface Owner State | Mineral Owner State | Lease No. |
|---------------------|---------------------|-----------|

LOCATION OF RELEASE

|                  |               |                  |               |                        |                         |                        |                       |                |
|------------------|---------------|------------------|---------------|------------------------|-------------------------|------------------------|-----------------------|----------------|
| Unit Letter<br>K | Section<br>35 | Township<br>T17S | Range<br>R28E | Feet from the<br>2187' | North/South Line<br>FSL | Feet from the<br>2310' | East/West Line<br>FWL | County<br>EDDY |
|------------------|---------------|------------------|---------------|------------------------|-------------------------|------------------------|-----------------------|----------------|

Latitude 32.79069N Longitude 104.14837W

NATURE OF RELEASE

|  |   |                                    |
|--|---|------------------------------------|
| Type of Release Produced Water   | Volume of Release 10 BBLS                         | Volume Recovered -0-               |
| Source of Release Water Transfer line  | Date and Hour of Occurrence<br>04/29/2011 2:00 pm | Date and Hour of Discovery<br>same |
| Was Immediate Notice Given?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required | If YES, To Whom?<br>NMOCD/Mike Bratcher           |                                    |
| By Whom? Garrett Newton  | Date and Hour 04/29/2011 2:15 pm                  |                                    |
| 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.\*

The water transfer line coming from the Artesia Battery No. 1 to the Artesia Battery No. 3 was found to be leaking. The line was shut-in, excavated and repaired.

Describe Area Affected and Cleanup Action Taken.\*

The impacted area is located north of the Apache Corporation D State No. 17 well location. The weather at the time of the release was dry and windy. The impacted area was measured to be by forty-five feet (45') long by thirty feet (30') wide. The impacted soil was immediately excavated and placed on a liner. Talon/LPE has been contracted for the construction of a work plan and the correction of the impacted area.

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:

*Garrett L Newton*

Printed Name: Garrett Newton

Title: Field Supervisor

E-mail Address: gnewton@pvtnetworks.net

Date: 05/4/2011

Phone: 575-513-0230

OIL CONSERVATION DIVISION

Signed By

*Mike Bratcher*

Approved by District Supervisor:

Approval Date: 5/9/2011

Expiration Date:

Conditions of Approval:

Remediation per OCD Rules &  
Guidelines. SUBMIT REMEDIATION  
PROPOSAL NOT LATER THAN:

6/9/2011

Attached ☐

\* Attach Additional Sheets If Necessary

Incident Tracking: Artesia Unit #22  
30-015-01747

2RP-775



APPENDIX II

LABORTORY REPORT



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

---

May 17, 2011

MIKE STUBBLEFIELD

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: ARTESIA BATTERY 1 TO BATTERY 3 TRANSFER LINE

Enclosed are the results of analyses for samples received by the laboratory on 05/13/11 13:02.

Cardinal Laboratories is accredited through Texas NELAP for:

|                    |  |
|--------------------|--|
| Method SW-846 8021 | Benzene, Toluene, Ethyl Benzene, and Total Xylenes |
| Method SW-846 8260 | Benzene, Toluene, Ethyl Benzene, and Total Xylenes |
| Method TX 1005     | Total Petroleum Hydrocarbons                       |

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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 (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:         | 05/13/2011                         | Sampling Date:      | 05/09/2011     |
| Reported:         | 05/17/2011                         | Sampling Type:      | Soil           |
| Project Name:     | ARTESIA BATTERY 1 TO BATTERY 3 TRA | Sampling Condition: | ** (See Notes) |
| Project Number:   | 701407.011.01                      | Sample Received By: | Jodi Henson    |
| Project Location: | 701407.008.01                      |                     |                |

**Sample ID: S - 1 1' (H100990-01)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 800    | 16.0            | 05/16/2011 | ND              | 432 | 108        | 400           | 0.00 |           |

**Sample ID: S - 1 2' (H100990-02)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 10800  | 16.0            | 05/16/2011 | ND              | 432 | 108        | 400           | 0.00 |           |

**Sample ID: S - 1 4' (H100990-03)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 12400  | 16.0            | 05/16/2011 | ND              | 416 | 104        | 400           | 3.77 |           |

**Sample ID: S - 1 6' (H100990-04)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 11800  | 16.0            | 05/16/2011 | ND              | 416 | 104        | 400           | 3.77 |           |

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

|                   |                                    |                     |                |
|-------------------|------------------------------------|---------------------|----------------|
| Received:         | 05/13/2011                         | Sampling Date:      | 05/09/2011     |
| Reported:         | 05/17/2011                         | Sampling Type:      | Soil           |
| Project Name:     | ARTESIA BATTERY 1 TO BATTERY 3 TRA | Sampling Condition: | ** (See Notes) |
| Project Number:   | 701407.011.01                      | Sample Received By: | Jodi Henson    |
| Project Location: | 701407.008.01                      |                     |                |

**Sample ID: S - 1 8' (H100990-05)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 7000   | 16.0            | 05/16/2011 | ND              | 416 | 104        | 400           | 3.77 |           |

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

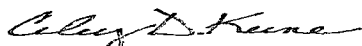
|     |   |
|-----|---|
| ND  | Analyte NOT DETECTED at or above the reporting limit                            |
| RPD | Relative Percent Difference   |
| **  | Samples not received at proper temperature of 6°C or below.                     |
| *** | Insufficient time to reach temperature.   |
| - 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

---

Cardinal Laboratories

\* = Accredited Analyte

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---

Celey D. Keene, Lab Director/Quality Manager

LABORATORIES

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

|   |  |  |                             |  |  |                         |  |  |  |  |  |  |  |  |  |  |  |
|---|--|--|-----------------------------|--|--|-------------------------|--|--|--|--|--|--|--|--|--|--|--|
| <b>Company Name:</b> Talon / LPE  |  |  | <b>BILL TO</b>              |  |  | <b>ANALYSIS REQUEST</b> |  |  |  |  |  |  |  |  |  |  |  |
| <b>Project Manager:</b> Mike Stubblefield                               |  |  | <b>P.O. #:</b>              |  |  |                         |  |  |  |  |  |  |  |  |  |  |  |
| <b>Address:</b> 408 W. Texas Ave.                                       |  |  | <b>Company:</b> Talon / LPE |  |  |                         |  |  |  |  |  |  |  |  |  |  |  |
| <b>City:</b> Artesia <b>State:</b> NM <b>Zip:</b> 83210                 |  |  | <b>Attn:</b>                |  |  |                         |  |  |  |  |  |  |  |  |  |  |  |
| <b>Phone #:</b> 505-441-2254 <b>Fax #:</b> 505-746-8905                 |  |  | <b>Address:</b>             |  |  |                         |  |  |  |  |  |  |  |  |  |  |  |
| <b>Project #:</b> 701407.011.01 <b>Project Owner:</b> Quantum Resources |  |  | <b>City:</b>                |  |  |                         |  |  |  |  |  |  |  |  |  |  |  |
| <b>Project Name:</b> Artesia Battery 1 to Battery 3 Transfer Line       |  |  | <b>State:</b> <b>Zip:</b>   |  |  |                         |  |  |  |  |  |  |  |  |  |  |  |
| <b>Project Location:</b> 701407.018.01                                  |  |  | <b>Phone #:</b>             |  |  |                         |  |  |  |  |  |  |  |  |  |  |  |
| <b>Sampler Name:</b> msa SLOD/pd  |  |  | <b>Fax #:</b>               |  |  |                         |  |  |  |  |  |  |  |  |  |  |  |

| FOR LAB USE ONLY |        | Lab I.D. | Sample I.D. | # CONTAINERS | GRAB OR (C)OMP | MATRIX      |            |      |     |        |       | PRESERV   |            |       | SAMPLING |        | DATE | TIME | Total Chlorides |
|------------------|--------|----------|-------------|--------------|----------------|-------------|------------|------|-----|--------|-------|-----------|------------|-------|----------|--------|------|------|-----------------|
|                  |        |          |             |              |                | GROUNDWATER | WASTEWATER | SOIL | OIL | SLUDGE | OTHER | ACID/BASE | ICE / COOL | OTHER |          |        |      |      |                 |
| H100990          |        |          |             |              |                |             |            |      |     |        |       |           |            |       |          |        |      |      |                 |
| 1                | S-1 1' |          |             |              |                |             |            |      |     |        |       |           |            |       | 5/9/2011 | 10:40A | ✓    |      |                 |
| 2                | S-1 2' |          |             |              |                |             |            |      |     |        |       |           |            |       | 5/9/2011 | 10:44A | ✓    |      |                 |
| 3                | S-1 4' |          |             |              |                |             |            |      |     |        |       |           |            |       | 5/9/2011 | 11:04A | ✓    |      |                 |
| 4                | S-1 6' |          |             |              |                |             |            |      |     |        |       |           |            |       | 5/9/2011 | 12:45P | ✓    |      |                 |
| 5                | S-1 8' |          |             |              |                |             |            |      |     |        |       |           |            |       | 5/9/2011 | 12:53P | ✓    |      |                 |

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|  |                    |                                 |   |                |
|--|--------------------|---------------------------------|---|----------------|
| Relinquished By:<br><br>msa Stubblefield | Date:<br>5/13/2011 | Received By:<br><br>Godi Benson | Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Add'l Phone #: |
|  | Time:<br>1:02 PM   |                                 | Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   | Add'l Fax #:   |
| REMARKS:                                 |                    |                                 |   |                |

|  |       |              |  |
|--|-------|--------------|--|
| Relinquished By:   | Date: | Received By: |  |
|  |       |              |  |
| Delivered By: (Circle One)<br>Sampler - UPS - Bus - Other: | Date: | Received By: |  |
|  |       |              |  |
|  | Time: |              |  |
|  |       |              |  |

Sample Condition

Cool Intact

☒ Yes ☐ No     ☐ Yes ☒ No

CHECKED BY:

(Initials)

GDB

RUSH!

BS/13/11

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



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

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June 04, 2011

MIKE STUBBLEFIELD

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: ARTESIA BATTERY 1 TO BATTERY 3 TRANSFER LINE

Enclosed are the results of analyses for samples received by the laboratory on 06/02/11 11:45.

Cardinal Laboratories is accredited through Texas NELAP for:

|                    |  |
|--------------------|--|
| Method SW-846 8021 | Benzene, Toluene, Ethyl Benzene, and Total Xylenes |
| Method SW-846 8260 | Benzene, Toluene, Ethyl Benzene, and Total Xylenes |
| Method TX 1005     | Total Petroleum Hydrocarbons                       |

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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 (V2, V3)      |

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Celey D. Keene". The signature is fluid and cursive, with the first name "Celey" being more prominent.

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:         | 06/02/2011                         | Sampling Date:      | 05/26/2011     |
| Reported:         | 06/04/2011                         | Sampling Type:      | Soil           |
| Project Name:     | ARTESIA BATTERY 1 TO BATTERY 3 TRA | Sampling Condition: | ** (See Notes) |
| Project Number:   | 701407.011.01                      | Sample Received By: | Jodi Henson    |
| Project Location: | 35-T17S-R28E                       |                     |                |

**Sample ID: S - 1 10' (H101135-01)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 12200  | 16.0            | 06/03/2011 | ND              | 416 | 104        | 400           | 3.77 |           |

**Sample ID: S - 1 12' (H101135-02)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 12600  | 16.0            | 06/03/2011 | ND              | 416 | 104        | 400           | 3.77 |           |

**Sample ID: S - 1 14' (H101135-03)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 9800   | 16.0            | 06/03/2011 | ND              | 416 | 104        | 400           | 3.77 |           |

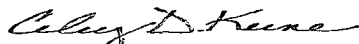
**Sample ID: S - 1 16' (H101135-04)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 3600   | 16.0            | 06/03/2011 | ND              | 416 | 104        | 400           | 3.77 |           |

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:         | 06/02/2011                         | Sampling Date:      | 05/26/2011     |
| Reported:         | 06/04/2011                         | Sampling Type:      | Soil           |
| Project Name:     | ARTESIA BATTERY 1 TO BATTERY 3 TRA | Sampling Condition: | ** (See Notes) |
| Project Number:   | 701407.011.01                      | Sample Received By: | Jodi Henson    |
| Project Location: | 35-T17S-R28E                       |                     |                |

**Sample ID: S - 1 18' (H101135-05)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 1200   | 16.0            | 06/03/2011 | ND              | 416 | 104        | 400           | 3.77 |           |

**Sample ID: S - 1 20' (H101135-06)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 1250   | 16.0            | 06/03/2011 | ND              | 416 | 104        | 400           | 3.77 |           |

**Sample ID: S - 1 24' (H101135-07)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 144    | 16.0            | 06/03/2011 | ND              | 416 | 104        | 400           | 3.77 |           |

**Sample ID: S - 1 26' (H101135-08)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 336    | 16.0            | 06/03/2011 | ND              | 416 | 104        | 400           | 3.77 |           |

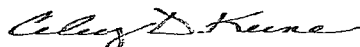
**Sample ID: S - 1 28' (H101135-09)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 624    | 16.0            | 06/03/2011 | ND              | 416 | 104        | 400           | 3.77 |           |

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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:         | 06/02/2011                        | Sampling Date:      | 05/26/2011     |
| Reported:         | 06/04/2011                        | Sampling Type:      | Soil           |
| Project Name:     | ARTESIA BATTERY 1 TO BATTERY 3 TR | Sampling Condition: | ** (See Notes) |
| Project Number:   | 701407.011.01                     | Sample Received By: | Jodi Henson    |
| Project Location: | 35-T17S-R28E                      |                     |                |

**Sample ID: S - 1 30' (H101135-10)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 288    | 16.0            | 06/03/2011 | ND              | 416 | 104        | 400           | 3.77 |           |

**Sample ID: S - 2 10' (H101135-11)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 128    | 16.0            | 06/03/2011 | ND              | 416 | 104        | 400           | 3.77 |           |

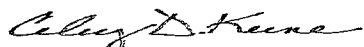
**Sample ID: S - 2 12' (H101135-12)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 272    | 16.0            | 06/03/2011 | ND              | 416 | 104        | 400           | 3.77 |           |

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

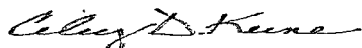
|     |  |
|-----|--|
| ND  | Analyte NOT DETECTED at or above the reporting limit   |
| RPD | Relative Percent Difference  |
| **  | Samples not received at proper temperature of 6°C or below.  |
| *** | Insufficient time to reach temperature.  |
| -   | Chloride by SM4500Cl-B does not require samples be received at or below 6°C<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

# Laboratories

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]

# Laboratories

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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]