## L Peter Galusky, Jr PE

5935 Exeter Circle Norcross, GA 30071 | 470 955-5335 | peter@bluerock.pro

April 1st, 2020

## **Bradford Billings**

New Mexico Energy, Minerals, & Natural Resources Oil Conservation Division, Environmental Bureau 1220 S. St. Francis Drive Santa Fe, New Mexico 87504

Re: **2019 Annual Report** 

Rice Operating Company – Vacuum SWD System **Vacuum F-33 Boot** (1R425-37): UL/F, Sec. 33, T17S, R35E

Sent via E-mail

## Mr. Billings:

This letter summarizes progress made over the past calendar year pursuant to remedial actions approved for this site in 2015, which is operated by Rice Operating Company (ROC). The site is located approximately 2.5 miles east of Buckeye, New Mexico at UL/F, Sec. 33, T17S, R35E as shown on the Site Location Map (Figure 1). The depth to the water table is approximately 82 ft bgs.

Background and Previous Work

In 2007, ROC initiated work on the former Vacuum F-33 boot junction box and a junction box disclosure report was submitted to NMOCD. An NMOCD approved Investigation and Characterization Plan (ICP) was implemented in 2009 to delineate residual soil chlorides and hydrocarbons and to evaluate groundwater quality beneath the site. The results of this work were reported to NMOCD in July 2013, along with a Corrective Action Plan (CAP), which proposed the installation of a 20-mil reinforced synthetic liner and an up-gradient groundwater monitor well. The CAP was approved by NMOCD on August 14, 2013.

ROC completed the installation of the liner and restored the ground surface as specified in the CAP in early 2014. The results of this work were summarized and reported to NMOCD as an "Initial CAP Report and Soil Closure Request" on February 10th, 2014 and this was approved on March 28th, 2014. Following continued groundwater monitoring through 2014 ROC submitted a summary report "Proposed Groundwater Recover and Project Update" to NMOCD which proposed limited groundwater extraction from the near-source monitor well (MW-1) to reduce groundwater chloride mass.

NMOCD approved this work on April 2, 2015. ROC subsequently began groundwater pumping in May 2015.

## Rice Operating Company Vacuum F-33 Boot Annual Report

**Groundwater Chlorides & BTEX** 

Results of groundwater sampling from March 2009 through December 2019 are given in the Appendix Figure 3, Table 1 (annual averages) and Tables 2a & 2b (full dataset). Groundwater chloride concentrations in the down-gradient monitor well (MW-1) have varied widely since sampling began in 2009. Groundwater chloride concentrations averaged 885 mg/l over four quarterly measurements taken in 2019, which is up slightly compared to an average of 778 mg/l over four quarterly measurements taken in 2018. Groundwater chloride concentrations in the upgradient monitor well (MW-2) averaged 57 mg/l over the four quarters of 2019, essentially unchanged since 2018 when it averaged 61 mg/l. Water-soluble petroleum hydrocarbons (BTEX) were not detected in any of the groundwater samples taken in 2019 nor in any prior years. Given BTEX concentrations have been below detectable limits since installation, ROC requests to suspend BTEX sampling in both wells (MW-1 and MW-2) in 2020.

A total of approximately 8,985 bbls of high-chloride groundwater were pumped from the near-source monitor well (MW-1) from May 2015 through November 2019 resulting in the removal of an estimated 1,172 kg of chloride. The removed groundwater was hauled to an off-site location and utilized for a beneficial use.

Due to the current climate, and in the interest of safety, ROC proposes to reduce groundwater monitoring from quarterly to semi-annually for the remainder of this year. In addition, ROC is proposing to suspend groundwater recovery for this year. These proposals are only temporary and regularly scheduled groundwater monitoring and recovery will commence as soon as possible.

ROC is the service provider (agent) for the Vacuum Saltwater Disposal (SWD) System and has no ownership of any portion of the pipeline, well, or facility. The system is owned by a consortium of oil producers, System Parties, who provide all operating capital on a percentage ownership/usage basis. The Vacuum system is now abandoned. We thus submit this report for your review and consideration. Please call Rice Operating Company or me if you have any questions or need additional information.

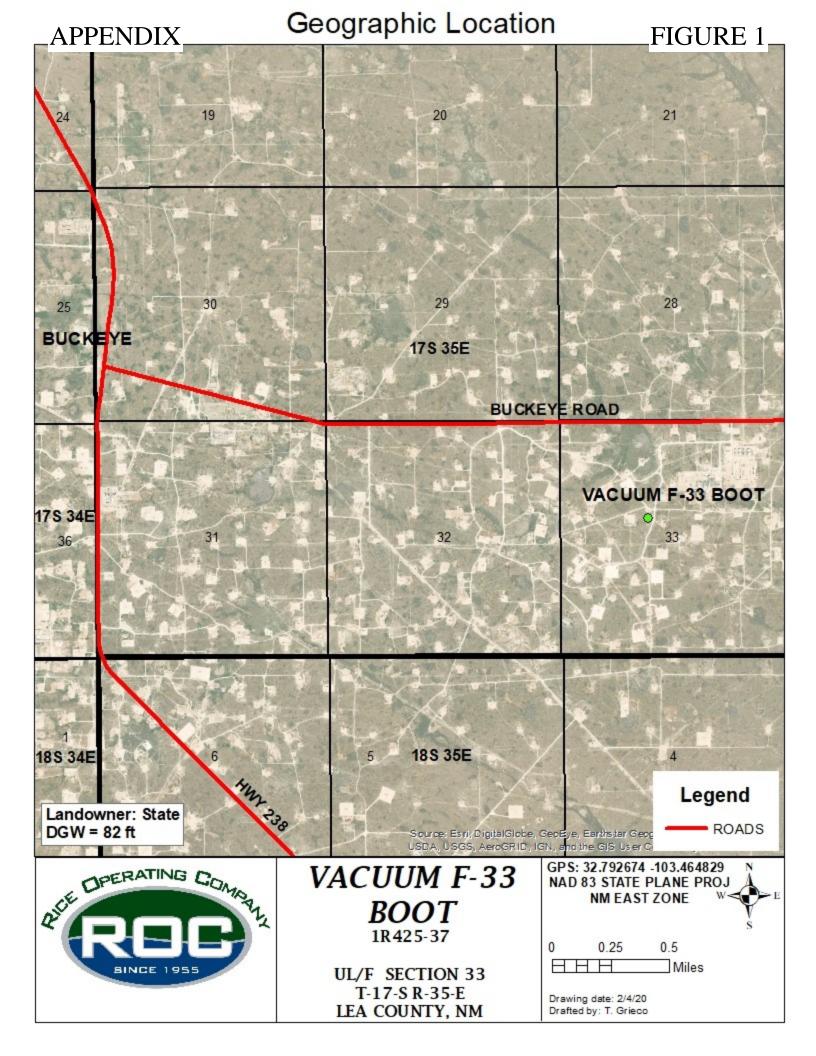
Thank you.

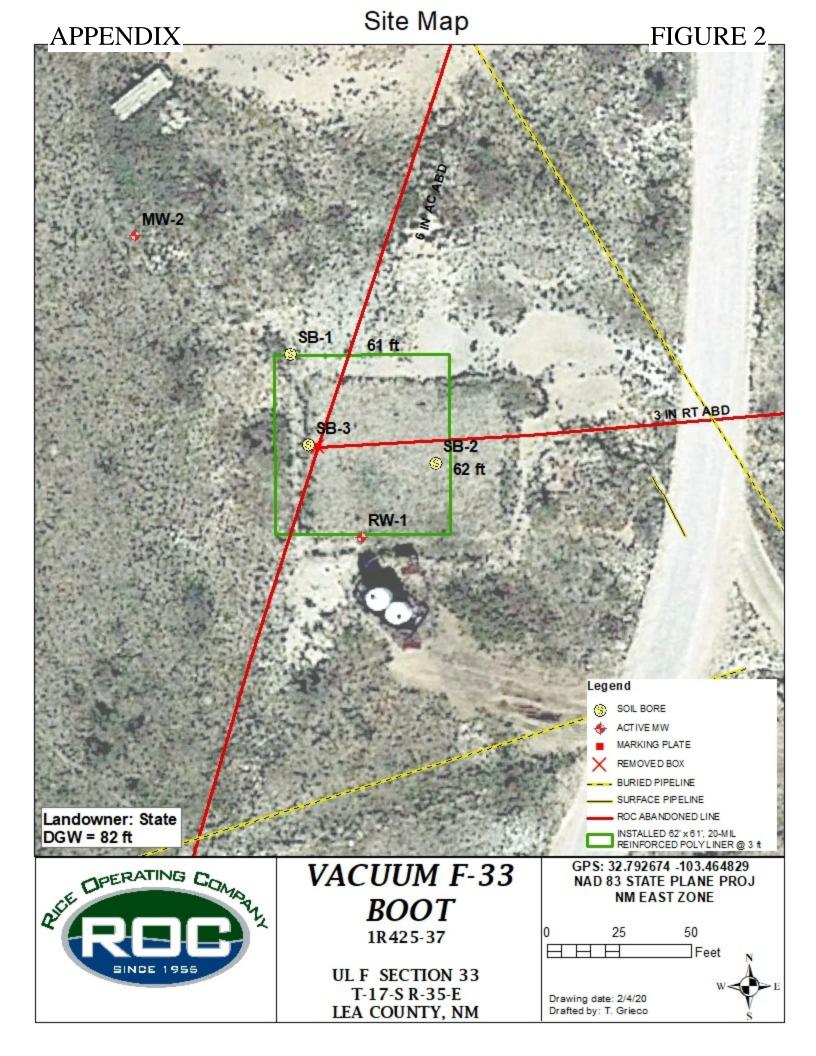
Sincerely,

L. Peter Galusky, Jr. P.E. NM Prof. Engineer No. 22561

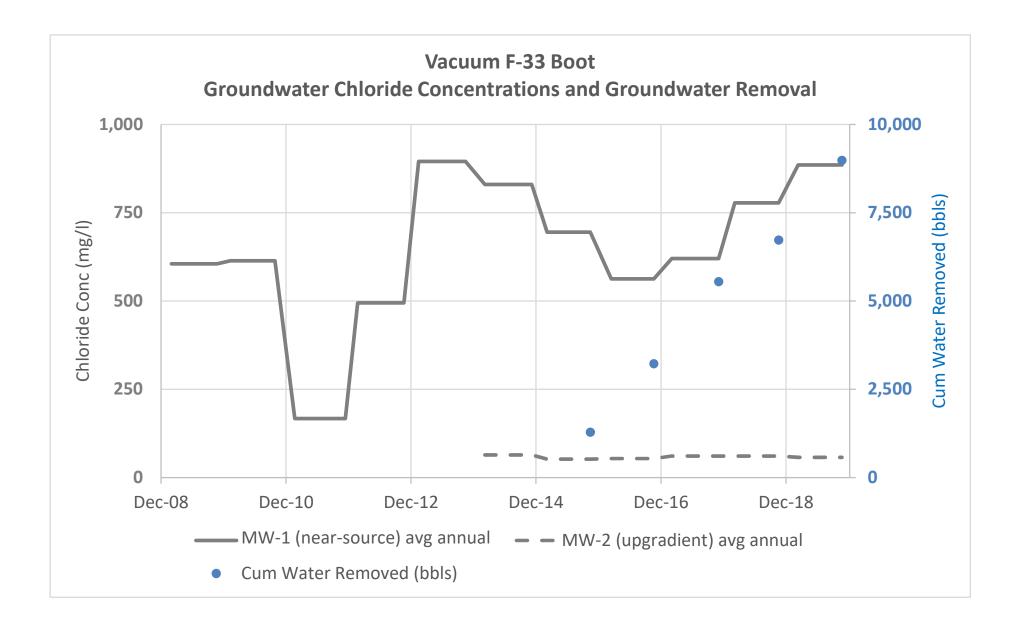
Copy: Rice Operating Company Attachments: ... as noted, above.







APPENDIX FIGURE 3



APPENDIX TABLE 1

Rice Operating Company Vacuum F-33 Boot

**Groundwater Data Summary** 

|        |            | Groundwater   | CI- conc (mg/I) |               |        |         |
|--------|------------|---------------|-----------------|---------------|--------|---------|
|        |            |               |                 |               | Cum    |         |
|        |            | MW-1 (down    |                 | MW-2 (up      | Water  | Cum Cl- |
|        | MW-1 (near | gradient) Avg | MW-2 (up        | gradient) Avg |        | removed |
|        | source)    | Annual Avg    | gradient)       | Annual        | (bbls) | (kg)    |
| Mar-09 | 432        | 605           |                 |               |        |         |
| Apr-09 |            | 605           |                 |               |        |         |
| Aug-09 |            | 605           |                 |               |        |         |
| Nov-09 | 1,080      | 605           |                 |               |        |         |
| Feb-10 |            | 614           |                 |               |        |         |
| May-10 | 510        | 614           |                 |               |        |         |
| Jul-10 | 710        | 614           |                 |               |        |         |
| Oct-10 | 76         | 614           |                 |               |        |         |
| Feb-11 | 68         | 167           |                 |               |        |         |
| Jun-11 | 240        | 167           |                 |               |        |         |
| Sep-11 |            | 167           |                 |               |        |         |
| Dec-11 | 52         | 167           |                 |               |        |         |
| Feb-12 |            | 495           |                 |               |        |         |
| May-12 |            | 495           |                 |               |        |         |
| Aug-12 |            | 495           |                 |               |        |         |
| Nov-12 |            | 495           |                 |               |        |         |
| Feb-13 | 870        | 895           |                 |               |        |         |
| May-13 | 860        | 895           |                 |               |        |         |
| Sep-13 | 840        | 895           |                 |               |        |         |
| Nov-13 |            | 895           |                 |               |        |         |
| Mar-14 |            | 830           | 60              | 64            |        |         |
| Jun-14 |            | 830           | 64              | 64            |        |         |
| Aug-14 |            | 830           | 64              | 64            |        |         |
| Dec-14 |            | 830           | 68              | 64            |        |         |
| Mar-15 | 940        | 695           | 36              | 52            |        |         |
| Jun-15 | 540        | 695           | 64              | 52            |        |         |
| Aug-15 | 670        | 695           | 40              | 52            |        |         |
| Nov-15 | 630        | 695           | 68              | 52            | 1,285  | 113     |
| Mar-16 |            |               | 68              |               |        |         |
| May-16 |            | 563           | 32              | 54            |        |         |
| Sep-16 |            | 563           | 56              | 54            |        |         |
| Nov-16 |            | 563           | 60              | 54            | 3,225  | 299     |
| Mar-17 |            | 620           | 60              | 61            |        |         |
| Jun-17 | 440        | 620           | 84              | 61            |        |         |
| Sep-17 | 820        | 620           | 68              | 61            |        |         |
| Dec-17 |            | 620           | 32              | 61            | 5,545  | 666     |
| Mar-18 |            | 778           | 56              | 61            |        |         |
| Jun-18 |            | 778           | 64              | 61            |        |         |
| Sep-18 |            | 778           | 60              | 61            |        |         |
| Nov-18 | 580        | 778           | 64              | 61            | 6,725  | 884     |
| Mar-19 | 770        | 885           | 60              | 57            |        |         |
| May-19 | 990        | 885           | 56              | 57            |        |         |
| Aug-19 | 720        | 885           | 56              | 57            |        |         |
| Nov-19 | 1,060      | 885           | 56              | 57            | 8,985  | 1,172   |

APPENDIX TABLE 2a

**Groundwater Sampling - Full Dataset** 

| MW | Depth<br>to<br>Water | I     | Well<br>Volume<br>(gal) | Volume<br>Purged<br>(gal) | Samplel    | Cl<br>(mg/l) | TDS<br>(mg/l) | Benzene<br>(mg/l) | Toluene<br>(mg/l) | Ethyl<br>Benzene<br>(mg/l) |        | Sulfate<br>(mg/l) | Comments      |
|----|----------------------|-------|-------------------------|---------------------------|------------|--------------|---------------|-------------------|-------------------|----------------------------|--------|-------------------|---------------|
| 1  | 80.6                 | 126.5 | 29.8                    | 300.0                     | 3/2/2009   | 432          | 1,070         | <0.001            | <0.001            | <0.001                     | <0.003 | 56.0              | Clear No Odor |
| 1  | 80.7                 | 126.5 | 29.8                    | 150.0                     | 4/28/2009  | 600          | 1,330         | <0.001            | <0.001            | <0.001                     | <0.003 | 38.3              | Clear No Odor |
| 1  | 80.9                 | 126.5 | 29.7                    | 150.0                     | 8/5/2009   | 308          | 845           | <0.001            | <0.001            | <0.001                     | <0.003 | 25.2              | Clear No Odor |
| 1  | 81.0                 | 126.5 | 29.6                    | 150.0                     | 11/23/2009 | 1,080        | 2,340         | <0.001            | <0.001            | <0.001                     | <0.003 | 34.2              | Clear No Odor |
| 1  | 81.1                 | 126.5 | 29.5                    | 150.0                     | 2/9/2010   | 1,160        | 2,240         | <0.001            | <0.001            | <0.001                     | <0.003 | 54.6              | Clear No Odor |
| 1  | 81.3                 | 126.5 | 29.4                    | 150.0                     | 5/28/2010  | 510          | 1,190         | <0.001            | <0.001            | <0.001                     | <0.003 | 29.0              | Clear No Odor |
| 1  | 81.3                 | 126.5 | 29.4                    | 150.0                     | 7/27/2010  | 710          | 1,500         | <0.001            | <0.001            | <0.001                     | <0.003 | 40.8              | Clear No Odor |
| 1  | 81.4                 | 126.5 | 29.3                    | 250.0                     | 10/27/2010 | 76           | 454           | <0.001            | <0.001            | <0.001                     | <0.003 | 17.6              | Clear No Odor |
| 1  | 81.5                 | 126.5 | 29.2                    | 250.0                     | 2/20/2011  | 68           | 365           | <0.001            | <0.001            | <0.001                     | <0.003 | 17.2              | Clear No Odor |
| 1  | 81.7                 | 126.5 | 29.2                    | 400.0                     | 6/3/2011   | 240          | 707           | <0.001            | <0.001            | <0.001                     | <0.003 | 45.9              | Clear No Odor |
| 1  | 81.7                 | 126.5 | 29.1                    | 400.0                     | 9/1/2011   | 308          | 825           | <0.001            | <0.001            | <0.001                     | <0.003 | 56.6              | Clear No Odor |
| 1  | 81.8                 | 126.5 | 29.1                    | 400.0                     | 12/12/2011 | 52           | 395           | <0.001            | <0.001            | <0.001                     | <0.003 | 28.6              | Clear No Odor |
| 1  | 81.9                 | 126.5 | 29.0                    | 500.0                     | 2/23/2012  | 188          | 605           | <0.001            | <0.001            | <0.001                     | <0.003 | 45.2              | Clear No Odor |
| 1  | 81.8                 | 126.5 | 29.0                    | 500.0                     | 5/30/2012  | 730          | 1,740         | <0.001            | <0.001            | <0.001                     | <0.003 | 84.9              | Clear No Odor |
| 1  | 81.9                 | 126.5 | 29.0                    | 500.0                     | 8/23/2012  | 580          | 1,280         | <0.001            | <0.001            | <0.001                     | <0.003 | 81.2              | Clear No Odor |
| 1  | 81.9                 | 126.5 | 29.0                    | 500.0                     | 11/19/2012 | 480          | 1,170         | <0.001            | <0.001            | <0.001                     | <0.003 | 50.4              | Clear No Odor |
| 1  | 82.0                 | 126.5 | 29.0                    | 500.0                     | 2/13/2013  | 870          | 1,680         | <0.001            | <0.001            | <0.001                     | <0.003 | 59.7              | Clear No Odor |
| 1  | 82.0                 | 126.5 | 28.9                    | 500.0                     | 5/29/2013  | 860          | 1,940         | <0.001            | <0.001            | <0.001                     | <0.003 | 79.3              | Clear No Odor |

# **APPENDIX**

| 1 | 82.1 | 126.5 | 28.9 | 500.0   | 9/6/2013   | 840   | 2,000 | <0.001 | <0.001 | <0.001 | <0.003 | 227.0 | Clear No Odor |
|---|------|-------|------|---------|------------|-------|-------|--------|--------|--------|--------|-------|---------------|
| 1 | 82.2 | 126.5 | 28.8 | 500.0   | 11/14/2013 | 1,010 | 2,080 | <0.001 | <0.001 | <0.001 | <0.003 | 61.5  | Clear No Odor |
| 1 | 82.3 | 126.5 | 28.7 | 500.0   | 3/7/2014   | 550   | 1,390 | <0.001 | <0.001 | <0.001 | <0.003 | 63.4  | Clear No Odor |
| 1 | 82.3 | 126.5 | 28.7 | 500.0   | 6/4/2014   | 980   | 2,170 | <0.001 | <0.001 | <0.001 | <0.003 | 53.8  | Clear No Odor |
| 1 | 82.5 | 126.5 | 28.6 | 500.0   | 8/20/2014  | 910   | 2,220 | <0.001 | <0.001 | <0.001 | <0.003 | 50.9  | Clear No Odor |
| 1 | 82.2 | 126.5 | 28.8 | 250.0   | 12/5/2014  | 880   | 2,050 | <0.001 | <0.001 | <0.001 | <0.003 | 53.6  | Clear No Odor |
| 1 | 82.3 | 126.5 | 28.7 | 250.0   | 3/5/2015   | 940   | 2,010 | <0.001 | <0.001 | <0.001 | <0.003 | 50.3  | Clear No Odor |
| 1 | XXX  | 126.5 | XXX  | Running | 6/4/2015   | 540   | 1,360 | <0.001 | <0.001 | <0.001 | <0.003 | 55.5  | Clear No Odor |
| 1 | XXX  | 126.5 | XXX  | Running | 8/21/2015  | 670   | 1,480 | <0.001 | <0.001 | <0.001 | <0.003 | 51.0  | Clear No Odor |
| 1 | XXX  | 126.5 | 0.0  | 200.0   | 11/13/2015 | 630   | 1,500 | <0.001 | <0.001 | <0.001 | <0.003 | 71.4  | Clear No Odor |
| 1 | XXX  | 126.5 | XXX  | 200.0   | 3/14/2016  | 590   | 1,370 | <0.001 | <0.001 | <0.001 | <0.003 | 65.3  | Clear No odor |
| 1 | XXX  | 126.5 | XXX  | 200.0   | 5/25/2016  | 620   | 1,730 | <0.001 | <0.001 | <0.001 | <0.003 | 68.1  | Clear No odor |
| 1 | XXX  | 126.5 | XXX  | Running | 9/13/2016  | 460   | 1,140 | <0.001 | <0.001 | <0.001 | <0.003 | 71.0  | Clear No odor |
| 1 | XXX  | 126.5 | XXX  | 200.0   | 11/17/2016 | 580   | 1,370 | <0.001 | <0.001 | <0.001 | <0.003 | 63.0  | Clear No odor |
| 1 | XXX  | 126.5 | XXX  | 200.0   | 3/2/2017   | 380   | 1,230 | <0.001 | <0.001 | <0.001 | <0.003 | 143.0 | Clear No odor |
| 1 | XXX  | 126.5 | XXX  | Running | 6/1/2017   | 440   | 1,180 | <0.001 | <0.001 | <0.001 | <0.003 | 68.0  | Clear No odor |
| 1 | XXX  | 126.5 | XXX  | Running | 9/11/2017  | 820   | 2,110 | <0.001 | <0.001 | <0.001 | <0.003 | 97.0  | Clear No odor |
| 1 | XXX  | 126.5 | XXX  | 100.0   | 12/1/2017  | 840   | 1,740 | <0.001 | <0.001 | <0.001 | <0.003 | 81.0  | Clear No odor |
| 1 | XXX  | 126.5 | XXX  | 200.0   | 3/5/2018   | 870   | 1,870 | <0.001 | <0.001 | <0.001 | <0.003 | 96.0  | Clear No odor |
| 1 | XXX  | 126.5 | XXX  | 200.0   | 6/4/2018   | 480   | 1,200 | <0.001 | <0.001 | <0.001 | <0.003 | 69.4  | Clear No odor |

# **APPENDIX**

| 1 | XXX | 126.5 | XXX | 200.0   | 9/10/2018  | 1,180 | 2,310 | <0.001 | <0.001 | <0.001 | <0.003 | 82.7 | Clear No odor |
|---|-----|-------|-----|---------|------------|-------|-------|--------|--------|--------|--------|------|---------------|
| 1 | XXX | 126.5 | XXX | 200.0   | 11/16/2018 | 580   | 1,120 | <0.001 | <0.001 | <0.001 | <0.003 | 57.2 | Clear No odor |
| 1 | XXX | 126.5 | XXX | 100.0   | 3/11/2019  | 770   | 1,610 | <0.001 | <0.001 | <0.001 | <0.003 | 57.0 | Clear No odor |
| 1 | XXX | 126.5 | XXX | Running | 5/31/2019  | 990   | 1,940 | <0.001 | <0.001 | <0.001 | <0.003 | 66.0 | Clear No odor |
| 1 | XXX | 126.5 | XXX | Running | 8/30/2019  | 720   | 1,740 | <0.001 | <0.001 | <0.001 | <0.003 | 66.0 | Clear No odor |
| 1 | XXX | 126.5 | XXX | 100.0   | 11/21/2019 | 1,060 | 1,900 | <0.001 | <0.001 | <0.001 | <0.003 | 66.0 | Clear No odor |

APPENDIX TABLE 2b

**Groundwater Sampling - Full Dataset** 

| MW | Depth<br>to<br>Water | Total<br>Depth<br>(ft) | Well<br>Volume<br>(gal) | Volume<br>Purged<br>(gal) | Sample<br>Date | Cl<br>(mg/l) |     | Benzene<br>(mg/l) | Toluene<br>(mg/l) | Ethyl<br>Benzene<br>(mg/l) | Total<br>Xylenes<br>(mg/l) | Sulfate<br>(mg/l) | Comments      |
|----|----------------------|------------------------|-------------------------|---------------------------|----------------|--------------|-----|-------------------|-------------------|----------------------------|----------------------------|-------------------|---------------|
| 2  | 82.0                 | 95.1                   | 2.1                     | 10.0                      | 3/7/2014       | 60           | 412 | <0.001            | <0.001            | <0.001                     | <0.003                     | 37.4              | Clear No odor |
| 2  | 82.0                 | 95.1                   | 2.1                     | 10.0                      | 6/4/2014       | 64           | 378 | <0.001            | <0.001            | <0.001                     | <0.003                     | 39.6              | Clear No odor |
| 2  | 82.1                 | 95.1                   | 2.1                     | 10.0                      | 8/20/2014      | 64           | 400 | <0.001            | <0.001            | <0.001                     | <0.003                     | 37.7              | Clear No odor |
| 2  | 81.7                 | 95.1                   | 2.1                     | 10.0                      | 12/5/2014      | 68           | 370 | <0.001            | <0.001            | <0.001                     | <0.003                     | 30.7              | Clear No odor |
| 2  | 81.9                 | 95.1                   | 2.1                     | 10.0                      | 3/5/2015       | 36           | 400 | <0.001            | <0.001            | <0.001                     | <0.003                     | 59.8              | Clear No odor |
| 2  | 82.1                 | 95.1                   | 2.1                     | 10.0                      | 6/4/2015       | 64           | 422 | <0.001            | <0.001            | <0.001                     | <0.003                     | 31.3              | Clear No odor |
| 2  | 82.3                 | 95.1                   | 2.0                     | 10.0                      | 8/21/2015      | 40           | 398 | <0.001            | <0.001            | <0.001                     | <0.003                     | 45.1              | Clear No odor |
| 2  | 82.3                 | 95.1                   | 2.0                     | 10.0                      | 11/13/2015     | 68           | 440 | <0.001            | <0.001            | <0.001                     | <0.003                     | 34.6              | Clear No odor |
| 2  | 82.4                 | 95.1                   | 2.0                     | 10.0                      | 3/14/2016      | 68           | 436 | <0.001            | <0.001            | <0.001                     | <0.003                     | 45.7              | Clear No odor |
| 2  | 82.4                 | 95.1                   | 2.0                     | 10.0                      | 5/25/2016      | 32           | 406 | <0.001            | <0.001            | <0.001                     | <0.003                     | 58.8              | Clear No odor |
| 2  | 82.4                 | 95.1                   | 2.0                     | 10.0                      | 9/13/2016      | 56           | 402 | <0.001            | <0.001            | <0.001                     | <0.003                     | 77.0              | Clear No odor |
| 2  | 82.5                 | 95.1                   | 2.0                     | 10.0                      | 11/17/2016     | 60           | 202 | <0.001            | <0.001            | <0.001                     | <0.003                     | 64.0              | Clear No odor |
| 2  | 82.6                 | 95.1                   | 2.0                     | 10.0                      | 3/2/2017       | 60           | 446 | <0.001            | <0.001            | <0.001                     | <0.003                     | 76.0              | Clear No odor |
| 2  | 82.7                 | 95.1                   | 2.0                     | 10.0                      | 6/1/2017       | 84           | 486 | <0.001            | <0.001            | <0.001                     | <0.003                     | 57.0              | Clear No odor |
| 2  | 82.9                 | 95.1                   | 1.9                     | 10.0                      | 9/11/2017      | 68           | 424 | <0.001            | <0.001            | <0.001                     | <0.003                     | 80.0              | Clear No odor |
| 2  | 82.8                 | 95.1                   | 2.0                     | 10.0                      | 12/1/2017      | 32           | 396 | <0.001            | <0.001            | <0.001                     | <0.003                     | 59.0              | Clear No odor |
| 2  | 82.9                 | 95.1                   | 1.9                     | 10.0                      | 3/5/2018       | 56           | 424 | <0.001            | <0.001            | <0.001                     | <0.003                     | 67.2              | Clear No odor |
| 2  | 83.0                 | 95.1                   | 1.9                     | 10.0                      | 6/4/2018       | 64           | 448 | <0.001            | <0.001            | <0.001                     | <0.003                     | 72.4              | Clear No odor |

# **APPENDIX**

| 2 | 83.1 | 95.1 | 1.9 | 8.0  | 9/10/2018  | 60 | 302 | <0.001 | <0.001 | <0.001 | <0.003 | 69.2 | Clear No odor |
|---|------|------|-----|------|------------|----|-----|--------|--------|--------|--------|------|---------------|
| 2 | 83.4 | 95.1 | 1.9 | 10.0 | 11/16/2018 | 64 | 452 | <0.001 | <0.001 | <0.001 | <0.003 | 66.6 | Clear No odor |
| 2 | 83.5 | 95.1 | 1.8 | 10.0 | 3/11/2019  | 60 | 368 | <0.001 | <0.001 | <0.001 | <0.003 | 66.0 | Clear No odor |
| 2 | 83.6 | 95.1 | 1.8 | 10.0 | 5/31/2019  | 56 | 413 | <0.001 | <0.001 | <0.001 | <0.003 | 62.0 | Clear No odor |
| 2 | 83.6 | 95.1 | 1.8 | 10.0 | 8/30/2019  | 56 | 422 | <0.001 | <0.001 | <0.001 | <0.003 | 56.0 | Clear No odor |
| 2 | 83.7 | 95.1 | 1.8 | 10.0 | 11/21/2019 | 56 | 241 | <0.001 | <0.001 | <0.001 | <0.003 | 60.0 | Clear No odor |



March 20, 2019

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM F-33 BOOT

Enclosed are the results of analyses for samples received by the laboratory on 03/15/19 15:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Celey D. Keine

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



Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 03/15/2019 Sampling Date: 03/11/2019
Reported: 03/20/2019 Sampling Type: Water

Project Name: VACUUM F-33 BOOT Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MS

Project Location: T17S-R35E-SEC33 F - LEA CTY, NM

mg/L

### Sample ID: MONITOR WELL #1 (H901022-01)

BTEX 8021B

| DIEX 8021B                           | ilig/   | <u> </u>        | Allalyze   | u by. M3     |       |            |               |       |           |
|--------------------------------------|---------|-----------------|------------|--------------|-------|------------|---------------|-------|-----------|
| Analyte                              | Result  | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*                             | <0.001  | 0.001           | 03/20/2019 | ND           | 0.020 | 102        | 0.0200        | 2.30  |           |
| Toluene*                             | <0.001  | 0.001           | 03/20/2019 | ND           | 0.020 | 98.8       | 0.0200        | 2.51  |           |
| Ethylbenzene*                        | < 0.001 | 0.001           | 03/20/2019 | ND           | 0.020 | 97.5       | 0.0200        | 0.470 |           |
| Total Xylenes*                       | <0.003  | 0.003           | 03/20/2019 | ND           | 0.063 | 105        | 0.0600        | 1.28  |           |
| Total BTEX                           | <0.006  | 0.006           | 03/20/2019 | ND           |       |            |               |       |           |
| Surrogate: 4-Bromofluorobenzene (PID | 93.7 9  | % 81.3-12       | 8          |              |       |            |               |       |           |
| Chloride, SM4500CI-B                 | mg/     | L               | Analyze    | d By: AC     |       |            |               |       |           |
| Analyte                              | Result  | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD   | Qualifier |
| Chloride*                            | 770     | 4.00            | 03/18/2019 | ND           | 100   | 100        | 100           | 0.00  |           |
| Sulfate 375.4                        | mg/     | L               | Analyze    | d By: AC     |       |            |               |       |           |
| Analyte                              | Result  | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD   | Qualifier |
| Sulfate*                             | 57.1    | 10.0            | 03/19/2019 | ND           | 22.7  | 113        | 20.0          | 1.31  |           |
| TDS 160.1                            | mg/     | L               | Analyze    | d By: AC     |       |            |               |       |           |
| Analyte                              | Result  | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD   | Qualifier |
| TDS*                                 | 1610    | 5.00            | 03/18/2019 | 5.00         | 514   | 97.5       | 527           | 2.27  |           |
|                                      |         |                 |            |              |       |            |               |       |           |

Cardinal Laboratories \*=Accredited Analyte

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Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

 Received:
 03/15/2019

 Reported:
 03/20/2019

 Project Name:
 VACUUM F-33 BOOT

Sampling Date:
Sampling Type:
Sampling Condition:
Sample Received By:

Cool & Intact Tamara Oldaker

03/11/2019

Water

Project Location: T17S-R35E-SEC33 F - LEA CTY, NM

NOT GIVEN

#### Sample ID: MONITOR WELL #2 (H901022-02)

Project Number:

| BTEX 8021B                           | mg/     | <sup>/</sup> L  | Analyze    | d By: MS     |       |            |               |       |           |
|--------------------------------------|---------|-----------------|------------|--------------|-------|------------|---------------|-------|-----------|
| Analyte                              | Result  | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*                             | <0.001  | 0.001           | 03/20/2019 | ND           | 0.020 | 102        | 0.0200        | 2.30  |           |
| Toluene*                             | < 0.001 | 0.001           | 03/20/2019 | ND           | 0.020 | 98.8       | 0.0200        | 2.51  |           |
| Ethylbenzene*                        | < 0.001 | 0.001           | 03/20/2019 | ND           | 0.020 | 97.5       | 0.0200        | 0.470 |           |
| Total Xylenes*                       | <0.003  | 0.003           | 03/20/2019 | ND           | 0.063 | 105        | 0.0600        | 1.28  |           |
| Total BTEX                           | <0.006  | 0.006           | 03/20/2019 | ND           |       |            |               |       |           |
| Surrogate: 4-Bromofluorobenzene (PID | 101 9   | % 81.3-12       | 8          |              |       |            |               |       |           |
| Chloride, SM4500CI-B                 | mg/     | /L              | Analyze    | d By: AC     |       |            |               |       |           |
| Analyte                              | Result  | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD   | Qualifier |
| Chloride*                            | 60.0    | 4.00            | 03/18/2019 | ND           | 100   | 100        | 100           | 0.00  |           |
| Sulfate 375.4                        | mg/     | /L              | Analyze    | d By: AC     |       |            |               |       |           |
| Analyte                              | Result  | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD   | Qualifier |
| Sulfate*                             | 66.2    | 10.0            | 03/19/2019 | ND           | 22.7  | 113        | 20.0          | 1.31  |           |
| TDS 160.1                            | mg/     | /L              | Analyze    | d By: AC     |       |            |               |       |           |
| Analyte                              | Result  | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD   | Qualifier |
| TDS*                                 | 368     | 5.00            | 03/18/2019 | 5.00         | 514   | 97.5       | 527           | 2.27  |           |
|                                      |         |                 |            |              |       |            |               |       |           |

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#### **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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Celeg D. Freene

| 101 East Marland - Hobbs, NM 88240   | ma   | l Laboratories, Inc.                         |           |          |          |       |          |          |          |                  |          |   |                    |         |                | C  | HAI       | N-C   | F-     | CUS      | STC             | DY                        | AN     | D A                  | NA       | LY           | SIS                     | RE         | QU                     | EST  | ų.                          |          |
|--|--|--|-----------|----------|----------|-------|----------|----------|----------|------------------|----------|---|--------------------|---------|----------------|--|-----------|---|--------|----------|-----------------|---------------------------|--------|----------------------|----------|--------------|-------------------------|------------|------------------------|------|-----------------------------|----------|
| power to a second secon | Ша   |  | ia        | U        | JI       | al    | U        |          | US.      | 9                | H        | C.  |                    |         |                |  |           | LA  | ВОг    | der l    | D#              |                           |        |                      |          |              |                         |            |                        |      |                             |          |
| Company Name:  |  | BILL T                                       |           |          |          |       |          |          |          | T                | PO#      |   |                    |         |                |  | _         | -   | 12     | 1.6740   |                 |                           |        |                      | 38000    |              |                         |            | _                      |      |                             | $\neg$   |
| RICE Operating Company   |  | RICE   | Op        | era      | ting (   | Con   | npa      | ηV       |          |                  |          |   |                    |         |                |  |           |   |        |          |                 |                           |        | QUE                  |          |              |                         |            |                        |      |                             |          |
| Project Manager:   |  |  |           | Addre    |          |       |          |          | (Stre    | et, C            | ity, Zip | ):  |                    | 1       |                |  |           |   | (Ci    | rcle     | or S            | pecif                     | у Ме   | thod                 | No.      | )            |                         |            |                        |      |                             |          |
| Katie Jones  |  | 122 W  | Taylo     | r Stre   | et ~ H   | obbs, | New      | Mex      | ico 8    | 8240             | 0        |   |                    |         |                |  |           | 1   | 1      | П        | 1               |                           |        | 1                    | I        | 1            |                         | I          |                        | 1    |                             | ř        |
| Address: (Street, City, Zip)   |  |  |           | Phon     |          |       |          |          |          |                  | Fax#:    |   |                    |         |                |  |           | _   |        | П        |                 |                           |        |                      | 1        |              |                         | - 1        |                        | 1    |                             |          |
| 122 W Taylor Street ~ Hobbs, New Mexico 88240  |  | (575   | 39        | 3-91     | 174      |       |          |          |          | 1                | (575)    | 397-  | 1471               |         |                |  |           | <u>e</u>  |        |          |                 |                           |        |                      | 1        |              |                         |            |                        |      |                             |          |
| Phone #: (575) 202 0474  | Fax #:   |  |           |          |          |       |          | 4        |          |                  |          |   |                    | 1       |                | 2)                                       |           | B   |        | П        |                 | -                         | 1      |                      |          |              |                         |            |                        |      |                             |          |
| (575) 393-9174 Project #: Project Name:  | (575   | 397-   | 147       | 1        | 7        | _     | 1        | 7        |          |                  |          |   |                    |         |                | 3  |           | 601   |        | П        |                 |                           |        |                      |          |              | 1                       |            |                        |      |                             |          |
| Vacuum F-33 Boot   |  |  |           | //       |          | /     | /        |          | )        |                  |          |   |                    |         |                | TPH 418.1/TX1005 / TX1005 Extended (C35) |           | I otal Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7<br>TCI P Metals এন ১৩ Ba Cd Cr Ph Se Hd |        |          |                 | İ                         |        |                      |          |              |                         |            |                        |      |                             |          |
| Project Location:<br>T17S-R35E-Sec33 F ~ Lea County New M  | exico  |  | 1         | Samp     | oler Sig | natur | e:/      | Roza     | nne      | Joh              | nson (5  | 75)631  | -9310              |         |                | 5 Exte                                   |           | Pb S  |        |          |                 | 315                       | ž,     |                      |          |              |                         | é          | (3)                    |      |                             | rıs      |
| - 110 1002 Cooct   Lou County New M  | I  |  |           |          | 2        | 1     | F        | RES      | SER      | VAT              | IVE      | LONG THE STATE OF | erie and votatoras | -       |                | 100                                      | 1         | ع اع  |        |          |                 |                           | l s    |                      |          |              |                         |            | 2                      |      |                             | 훈        |
| H901022  |  | MATRIX PRESERVATIVE SAMPLING METHOD SAMPLING |           |          |          |       |          |          |          |                  |          |   |                    |         | XT/S           | 1  | Bac       |   | S      |          | 3               | GC/MS Semi Vol. 8250E/624 |        | 80                   |          |              | Cations (Ca, Mg, Na, K) | 3          | Total Dissolved Solids |      | Turn Around Time ~ 24 Hours |          |
| LAB#   | METHOD SAMPLING                                |  |           |          |          |       |          |          |          |                  |          |   | 302                | 02      | 100            | ŀ  | S S       | TCLP Volatiles  | atile  | S        | 1 5             | Eng.                      |        | Pesticides 8081A/608 |          | ig           | 6                       | į.         | d Sc                   |      | ime                         |          |
| FIELD CODE   | Ιğ   | =  |           |          |          |       | Ž        | 1        |          |                  | 뮢        | (61   |                    | 1B/(    | 1B/6           | Ě  | 0         | 8 8   | iles   | No       | cide            | 18                        | ğ [    | 109                  | 808      | 핆            | o le                    | ا ج<br>ا ک | 8                      | lve  |                             | Ļ p      |
| / LAB USE \  | ь  | 🗦  | 2         |          | 냳        | 3     | 2 40r    |          | o<br>o   | _                | Ĭ        | 50  |                    | 802     | 302            | 1.8                                      | 8270C     | eta   | olat   | emi      | esti            |                           | NO N   | 88                   | es       | SS,          | e C                     | 9 5        | ر [5]                  | sso  | Se                          | l g      |
| ONLY   | g<br>g   | Ö  |           | ا ≒      | ~15      | 3     | Ľ        | ဝိ       | 외        | ο̈́              |          | 끧   | ш                  | 띪       | ×              | 4  | 8         | 2 2   | P .    | PS       | P P             | 19                        | S N    | [s]                  | icid     | Ţ,           | Įį.                     | Suo        | afe                    |      | oride                       | Ā        |
| ` '  | 9  | #  | ≶         | SO       | A S      | 3     | 임        | 至        | Na<br>S  | H <sub>2</sub> S | 의용       | DA.   | ≧                  | M       | BTEX 8021B/602 | 싵  | PAH       |   | 털      | 12       | TCLP Pesticides |                           |        | PCB's 8082/608       | Pest     | BOD, TSS, pH | Moisture Content        | Sati       | Sulfates               | Fota | Chlorides                   | 5        |
| / Monitor Well #1  |  |  |           |          |          |       |          |          |          |                  |          |   |                    |         | х              |  | Ť         | Ť   |        | Ħ        |                 |                           |        |                      | Ī        | 1            |                         |            |                        | Х    | ×                           |          |
| Monitor Well #2  |  |  |           |          |          |       |          |          |          |                  |          |   |                    |         | х              | П  |           |   |        |          |                 |                           |        |                      |          |              |                         | $\top$     | _                      | х    | х                           |          |
|  |  |  | П         | $\neg$   |          | П     |          |          |          |                  |          |   |                    |         |                |  |           |   | $\top$ |          | $\top$          | $\top$                    | $\top$ | $\top$               |          |              | $\dashv$                | $\top$     | 1                      | Ť    | Ť                           |          |
|  |  |  | П         |          |          | Т     | П        |          | $\neg$   |                  |          |   |                    |         |                | $\Box$                                   | T         |   |        |          | 1               | +                         | +      | $\top$               | $\vdash$ |              | $\dashv$                | $\top$     | +                      | Н    |                             | $\Box$   |
|  |  |  | П         | $\neg$   |          | Т     | П        | $\dashv$ | $\dashv$ | $\dashv$         |          |   |                    |         |                | Н  | $\forall$ | $\top$  | +      | $\dashv$ | $\dashv$        | +                         | +      | +                    |          | $\vdash$     | $\dashv$                | +          | ╁                      | Н    |                             | -        |
|  |  |  | П         |          | 7        |       | П        | $\neg$   | _        | $\neg$           |          |   |                    |         |                | $\vdash$                                 | $\dashv$  | +   | +      | $\dashv$ | +               | +                         | +      | +                    | -        | H            | $\dashv$                | +          | +                      | Н    |                             | $\vdash$ |
|  |  |  | Н         |          | 1        | T     | П        | $\dashv$ | +        | +                | 1        |   |                    | H       | Н              | $\vdash$                                 | +         | +   | +      | $\dashv$ | +               | +                         | +      | ╁                    | ┢        | $\vdash$     | $\dashv$                | +          | +                      | Н    |                             | -        |
|  |  |  | $\Box$    |          | $\neg$   | +     | Н        | $\dashv$ | -        | +                |          |   | 1                  |         | H              |  | +         | +   | ╁      | $\dashv$ | +               | $\dashv$                  | +      | ╁                    | ⊢        | Н            | -                       | +          | _                      | Н    | _                           | -        |
|  | $\vdash$                                       |  | $\forall$ | $\dashv$ | +        | +     | Н        | $\dashv$ | +        | $\dashv$         | +        |   | -                  |         | $\vdash$       | -  | +         | +   | +      | -        | +               | $\dashv$                  | +      | +                    | $\vdash$ | Н            | $\dashv$                | +          | +                      | Н    |                             |          |
|  |  |  | $\vdash$  | $\dashv$ | +        | +     |          | $\dashv$ | +        | +                |          |   | -                  | -       |                | $\dashv$                                 | +         | ╫   | ╁      | +        | +               | +                         | +      | +                    | ⊢        | $\vdash$     | -                       | +          | +                      | Н    |                             |          |
| Relinquished by: / Date: Time:   | Receiv   | /ed by:                                      |           |          | 0        | ٠,    |          | Da       | te:      |                  | Time:    |   | _                  | Dho     | ne i           | Resu                                     | ltc       | +   | Ye     | +        |                 | 10                        |        | _                    |          | _            |                         |            |                        |      |                             |          |
| Rozanne Johnson 3/5/2019 15:00   |  |  |           |          |          |       |          |          |          |                  |          | _   | 112/11/11/11       | 1110000 | 113            | ╁  | 1         | +   | _      |          | William .       | an water                  |        |                      | 600      |              |                         |            |                        |      |                             |          |
| Refinquished by: Date: Time:   | Received By: (Laboratory Staff) Date: Time: RE |  |           |          |          |       |          |          |          |                  |          |   |                    |         |                | Ye                                       | S         |   | 10     | A        | dditio          | nall                      | Fax    | Vum                  | ber:     |              |                         |            |                        |      |                             |          |
| Date. Time.  |  |  |           |          |          |       |          |          |          |                  |          |   | KE                 | WAR     | KNS:           |  |           |   |        |          |                 |                           |        |                      |          |              |                         |            |                        |      |                             |          |
|  |  | Received By: (Laboratory Staff) Date: Time:  |           |          |          |       |          |          |          |                  |          |   |                    |         | Em             | ail R                                    | esu       | lts:  | kjo    | one      | s@ı             | rice                      | SWO    | .cor                 | n        |              |                         |            |                        |      |                             |          |
| Delivered By: (Circle One)   | Sample   | ample Condition CHECKED BY:                  |           |          |          |       |          |          |          |                  |          |   |                    |         |                |  |           |   | ro     | zan      | ne1             | 1@                        | win    | dstr                 | ean      | n.ne         | et                      |            |                        |      |                             |          |
|  | 1  | Vac  | Cool      | _ F      | ntact    |       | <i>n</i> | Secon    |          |                  |          |   |                    |         |                |  |           |   |        |          |                 |                           |        |                      |          |              | 100                     |            |                        |      |                             |          |
| Sampler - UPS - Bus - Other:   |  | Yes  | H         | Yes      |          |       | (Initi   | als)     |          |                  |          |   |                    |         |                |  |           |   |        |          |                 |                           |        |                      |          |              |                         |            |                        | 05   |                             |          |
| Variplei  - UPS - Bus - Utiler.  |  | Yes Yes (Initials) No No No                  |           |          |          |       |          |          |          |                  |          |   |                    |         |                |  |           |   |        |          |                 |                           |        |                      |          |              |                         |            |                        |      |                             |          |



June 06, 2019

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM F-33 BOOT

Enclosed are the results of analyses for samples received by the laboratory on 06/03/19 10:12.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Celey D. Keine

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



Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 06/03/2019 Sampling Date: 05/31/2019
Reported: 06/06/2019 Sampling Type: Water

Project Name: VACUUM F-33 BOOT Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: T17S-R35E-SEC33 F - LEA CTY, NM

### Sample ID: MONITOR WELL #1 (H901930-01)

| BTEX 8021B                           | mg/           | L               | Analyze    | d By: ms     |       |            |               |      |           |
|--------------------------------------|---------------|-----------------|------------|--------------|-------|------------|---------------|------|-----------|
| Analyte                              | Result        | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*                             | <0.001        | 0.001           | 06/04/2019 | ND           | 0.021 | 106        | 0.0200        | 2.52 |           |
| Toluene*                             | < 0.001       | 0.001           | 06/04/2019 | ND           | 0.022 | 110        | 0.0200        | 1.67 |           |
| Ethylbenzene*                        | <0.001        | 0.001           | 06/04/2019 | ND           | 0.020 | 101        | 0.0200        | 2.26 |           |
| Total Xylenes*                       | <0.003        | 0.003           | 06/04/2019 | ND           | 0.063 | 105        | 0.0600        | 2.19 |           |
| Total BTEX                           | <0.006        | 0.006           | 06/04/2019 | ND           |       |            |               |      |           |
| Surrogate: 4-Bromofluorobenzene (PID | 101 9         | % 81.3-12       | 8          |              |       |            |               |      |           |
| Chloride, SM4500CI-B                 | mg/           | L               | Analyze    | d By: AC     |       |            |               |      |           |
| Analyte                              | Result        | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride*                            | 990           | 4.00            | 06/04/2019 | ND           | 100   | 100        | 100           | 0.00 |           |
| Sulfate 375.4                        | mg/           | L               | Analyze    | d By: AC     |       |            |               |      |           |
| Analyte                              | Result        | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD  | Qualifier |
| Sulfate*                             | 66.5          | 10.0            | 06/04/2019 | ND           | 21.1  | 105        | 20.0          | 4.96 |           |
|                                      |               | -               |            | d B 40       |       |            |               |      |           |
| TDS 160.1                            | mg/           | L               | Analyze    | а ву: АС     |       |            |               |      |           |
| TDS 160.1  Analyte                   | mg/<br>Result | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD  | Qualifier |

Cardinal Laboratories \*=Accredited Analyte

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Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 06/03/2019 Reported: 06/06/2019 Project Name: VACUUM F-33 BOOT Sampling Date: Sampling Type: Sampling Condition: Sample Received By:

Water Cool & Intact Tamara Oldaker

05/31/2019

Project Number: NOT GIVEN Project Location: T17S-R35E-SEC33 F - LEA CTY, NM

#### Sample ID: MONITOR WELL #2 (H901930-02)

| BTEX 8021B                           | mg/     | L               | Analyze    | d By: ms     |       |            |               |      |           |
|--------------------------------------|---------|-----------------|------------|--------------|-------|------------|---------------|------|-----------|
| Analyte                              | Result  | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*                             | <0.001  | 0.001           | 06/04/2019 | ND           | 0.021 | 106        | 0.0200        | 2.52 |           |
| Toluene*                             | < 0.001 | 0.001           | 06/04/2019 | ND           | 0.022 | 110        | 0.0200        | 1.67 |           |
| Ethylbenzene*                        | < 0.001 | 0.001           | 06/04/2019 | ND           | 0.020 | 101        | 0.0200        | 2.26 |           |
| Total Xylenes*                       | <0.003  | 0.003           | 06/04/2019 | ND           | 0.063 | 105        | 0.0600        | 2.19 |           |
| Total BTEX                           | <0.006  | 0.006           | 06/04/2019 | ND           |       |            |               |      |           |
| Surrogate: 4-Bromofluorobenzene (PID | 102 %   | 6 81.3-12       | 8          |              |       |            |               |      |           |
| Chloride, SM4500Cl-B                 | mg/     | L               | Analyze    | d By: AC     |       |            |               |      |           |
| Analyte                              | Result  | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride*                            | 56.0    | 4.00            | 06/04/2019 | ND           | 100   | 100        | 100           | 0.00 |           |
| Sulfate 375.4                        | mg/     | L               | Analyze    | d By: AC     |       |            |               |      |           |
| Analyte                              | Result  | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD  | Qualifier |
| Sulfate*                             | 62.9    | 10.0            | 06/04/2019 | ND           | 21.1  | 105        | 20.0          | 4.96 |           |
| TDS 160.1                            | mg/     | L               | Analyze    | d By: AC     |       |            |               |      |           |
|                                      | ilig/   |                 |            |              |       |            |               |      |           |
| Analyte                              | Result  | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD  | Qualifier |

Cardinal Laboratories \*=Accredited Analyte

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#### **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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Celeg D. Freene

Page 1 of 1

| 101 East Marland - Hobbs, NM 88240<br>Tel (575) 393-2326 | ัทอ             | al Laboratories, Inc.                            |       |         |         |          |                  |      |                    |          |                  |             |       |                |  | C      | HAI   | N-C           | DF-    | CU     | STO             | DDY                      | AN                   | ID A           | NA    | LY           | SIS                     | RE                     | QUI      | ST       |                             | 5 5-7-    |
|--|-----------------|--|-------|---------|---------|----------|------------------|------|--------------------|----------|------------------|-------------|-------|----------------|--|--------|---|---------------|--------|--------|-----------------|--------------------------|----------------------|----------------|-------|--------------|-------------------------|------------------------|----------|----------|-----------------------------|-----------|
| Fax (575) 393-2476  Company Name:                        | IIIa            |  |       |         |         | aı       | U.               |      | C3                 | <u> </u> |                  | C.          | ¥8    |                |  |        |   | LA            | ВО     | der    | ID#             |                          |                      |                |       |              |                         |                        |          |          |                             |           |
| RICE Operating Company                                   |                 | BILL 1   |       |         |         | Con      | nna              | nv   |                    | F        | PO#              |             |       |                |  |        |   |               | Д      | NA     | LY:             | SIS                      | RE                   | QUE            | ST    |              |                         |                        |          |          |                             |           |
| Project Manager:   |                 |  |       | Addre   |         | 001      | ipu              |      | (Stree             | et, C    | ity, Zip         | )           |       | 1              |  |        |   |               | (Ci    | rcle   | or S            | pecit                    | у Ме                 | thod           | No.   | )            |                         |                        |          |          |                             | - 1       |
| Katie Jones  |                 | 122 W  | Taylo | or Stre | et ~ H  | lobbs    | New              |      |                    |          | 1,500            |             |       |                | l  |        | 1   | 1             | 1      | 11     | 1               | - 1                      | Ĩ                    |                | 1     | 1            | ĺΙ                      | 1                      | Ī        | ΠI       |                             | i I       |
| Address: (Street, City, Zip)                             |                 |  |       | Phon    |         |          |                  |      |                    |          | ax#:             |             |       | 1              |  |        |   |               |        | Н      |                 |                          |                      |                |       |              |                         | - 1                    |          |          |                             |           |
| 122 W Taylor Street ~ Hobbs, New Mexico 88240            |                 | (575   | 39 (  | 3-91    | 174     |          |                  |      |                    | (        | (575)            | 397-        | 1471  |                |  |        |   | 8             |        | Н      |                 |                          |                      |                |       |              |                         |                        |          |          |                             |           |
| Phone #:<br>(575) 393-9174                               | Fax #:          | \ 207  | 447   | 4       |         |          |                  |      |                    |          |                  |             |       | 1              |  | (2)    |   | 0B/           |        | П      | - 1             |                          |                      |                |       |              |                         |                        |          |          |                             |           |
| Project #: Project Name:                                 | (575            | ) 397-   | 147   | Į       |         |          | 7                | 1    |                    |          |                  |             |       |                |  | 3      |   | []            |        | Н      |                 |                          |                      |                |       |              |                         |                        |          | П        |                             |           |
| Vacuum F-33 Boot   |                 |  |       |         |         | 1        | 4                | /    | 1                  |          |                  |             |       |                |  | papu   |   | 윈             | 2      | П      |                 |                          |                      |                |       |              |                         |                        | 1        | П        |                             |           |
| Project Location:  | ***             |  | /     | Samp    | ler Sig | natur    | e.               | Roza | nne .              | John     | nson (5          | 75)631      | -9310 | 1              |  | Exter  | 1   | b Se          |        | П      |                 |                          | 1                    | 1              |       |              |                         | _                      |          |          |                             |           |
| T17S-R35E-Sec33 F ~ Lea County New M                     | exico           | 1  |       | 1       |         | //       | 1                | _    | /                  |          |                  |             |       |                |  | 05 E   | 1   |               | 5      | П      |                 |                          | 305                  | 3              |       |              |                         | Š                      | 3        |          |                             | ours      |
| 110-1021   |                 | MATRIX PRESERVATIVE SAMPLING METHOD SAMPLING     |       |         |         |          |                  |      |                    |          |                  |             |       |                | TPH 418.1/TX1005 / TX1005 Extended (C35) |        | TCLP Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7 | 2             |        |        |                 | GC/MS Semi Vol 8270C/625 |                      |                |       |              | Cations (Ca, Mg, Na, K) |                        | sp       |          | Turn Around Time ~ 24 Hours |           |
| H901930  | 윤               | WE THOD  |       |         |         |          |                  |      |                    |          |                  |             | 2     | 902            | 1  | AS B   | TCLP Volatiles                                  | tiles         |        | RCI    |                 |                          | Pesticides 8081A/608 |                | =     | ž            | 2                       | Total Dissolved Solids |          | _ e_ ~   |                             |           |
| FIELD CODE   | S               | =  |       |         | 1       |          | /0/              |      |                    | 1        | 훈                | 6           |       | B/6(           | B/60                                     | IXI    |   | 8 8           | es     | Vola   | ides            | 8                        | 020                  | 809            | 081   | Į            | ntei                    | Ž Š                    |          | ved      |                             | 트         |
| / LAB USE \  | , io            | \frac{1}{2}                                      | 2     |         | 4       | 4        | 40m              | ١,   | ol.                |          | 1Lite            | 201         |       | 3021           | 8021B/602                                | 8.1/   | <u> </u>  | stals<br>etal | olatil | emi    | estic           |                          | Sell vol.            | 082            | SS 8  | SS, p        | ပ္                      | S 5                    | 5        | ssol     | S                           | ğ         |
| ONLY   | G)rab or (C)omp | Į į  | WATER | SOIL    | AIR     | 3        | HCL (2 40ml VOA) | HNO3 | NaHSO <sub>4</sub> |          | ICE (1-1<br>NONE | DATE (2019) | ш     | MTBE 8021B/602 | ×  | 14     | PAH 8270C                                       |               | ΡV     | P S    | TCLP Pesticides |                          | NS NS                | PCB's 8082/608 | licid | BOD, TSS, pH | Moisture Content        | Suo                    | Sulfates |          | Chlorides                   | Arc       |
|  | ଚ               | #  | 3     | Š       | AIR I   | <u> </u> | Ĭ                | 도 :  | ž i                | 2 2      | 2   Z            | A           | TIME  | Σ              | BTEX                                     | TP     | E E   |               |        | TCI    | 길               |                          | 5                    | Pe             | Pes   | BOL          | Moi                     | Cat                    | Suff     | Total    | Chic                        | Ē         |
| Monitor Well #1  | G               | 3  | X     |         |         |          | 2                |      |                    |          | 1                | 5/31        | 11:30 |                | х  |        |   |               |        |        |                 |                          |                      |                |       |              |                         |                        | -        | х        | Х                           |           |
| Monitor Well #2  | G               | 3  | X     |         |         |          | 2                |      |                    |          | 1                | 5/31        | 10:05 |                | Х  |        |   |               |        |        |                 |                          | T                    | T              |       |              |                         |                        |          | х        | Х                           |           |
|  |                 |  |       |         |         |          |                  |      |                    |          |                  |             |       |                |  |        |   |               |        |        |                 | T                        |                      |                |       |              |                         |                        | T        |          |                             |           |
|  |                 |  |       |         |         |          |                  |      |                    |          |                  |             |       |                |  |        |   |               |        |        |                 |                          |                      | $\top$         |       | П            | $\neg$                  |                        |          |          | -1                          |           |
| ·  |                 |  |       |         |         |          |                  |      |                    |          |                  |             |       |                |  |        |   | T             |        |        |                 |                          | $\top$               | T              | 1     | П            |                         |                        | 1        | $\Box$   |                             | $\exists$ |
|  |                 |  |       |         |         |          |                  |      |                    |          |                  |             |       |                |  |        | T   | T             | П      | $\neg$ | $\neg$          |                          |                      |                | T     |              | $\neg$                  |                        | +        | $\Box$   |                             |           |
|  |                 |  |       |         |         |          |                  |      |                    |          |                  |             |       |                |  |        |   | 1             |        | $\top$ |                 | $\top$                   | T                    |                |       |              | $\dashv$                | $\top$                 | 1        | $\vdash$ |                             |           |
|  |                 |  |       |         |         |          | П                |      | $\top$             |          |                  |             |       |                |  |        | 1   | $\top$        |        | 寸      | $\neg$          | $\top$                   | $\top$               | $\top$         |       |              | $\dashv$                | $\top$                 |          |          |                             | -         |
|  |                 |  |       |         |         |          |                  |      | $\top$             | T        |                  |             |       |                |  | $\neg$ | T   |               | T      | $\top$ | $\top$          | $\top$                   | +                    | +              |       | П            | $\dashv$                | +                      | $\vdash$ | $\vdash$ |                             |           |
|  |                 |  |       |         |         |          |                  |      |                    | $\top$   |                  |             |       |                |  | $\neg$ | $\top$  | 1             | П      | $\top$ | +               | +                        | ╈                    |                | m     | $\vdash$     | 1                       | +                      | +        | $\dashv$ |                             |           |
| Relinquished by: Date: Time:                             | Recei           | ed by:   | h     | , ,     |         |          |                  | Par  | te:                | 1        | Time:            |             |       | Pho            | ne F                                     | Resu   | lts   |               | Ye     | s      | N               | lo                       |                      |                | _     |              |                         |                        | _        |          |                             |           |
| Rozanne Johnson (13/219 8:0)                             | the             | then 10/3/2019 8:01 Fax                          |       |         |         |          |                  |      |                    |          |                  |             | Res   | ults           |  | Т      | Yes   |               |        | lo     | Ac              | ditio                    | nal F                | Fax I          | Jum   | her          |                         |                        |          |          |                             |           |
| Relinquished (%): Date: Time:                            | Receiv          | Received By: (Laboratory Staff) Date: Time: REM/ |       |         |         |          |                  |      |                    |          |                  |             |       | MAR            | KS:                                      |        |   |               |        |        |                 |                          | unio                 | i car i        | ux i  | Tarri        | oci.                    | _                      |          |          | _                           |           |
| Jew Mlun 4/3/2014 19:00                                  | 1               | nun  | UR    | 1       | ld      | 4        | Sul              | 1    | 6-                 | 3-       | 19               | 10          | :12   |                | Ema                                      | ail Re | esul  | ts:           | kic    | nes    | രി              | ice                      | bwa                  | .cor           | n     |              |                         |                        |          |          |                             |           |
| Delivered By: (Circle One)                               | Sample          | Condition  | on    |         | ,       | 1        | CHE              | _    | D BY:              | _        | . /              | 6           | .,,,  |                |  |        |   |               |        |        |                 |                          |                      | dstre          | _     | n ne         | at .                    |                        |          |          |                             |           |
|  |                 | 200  | Cool  | In      | tact    |          |                  |      |                    |          |                  |             |       |                |  |        |   |               |        |        | 101             | , 00                     |                      | JULI           | Juil  | 1.110        | ~                       |                        |          |          |                             |           |
| Sampler LIDS Bus Others                                  |                 | Yes  | 1     | Yes     | 1       |          | (Initia          | als) |                    |          |                  |             | ĺ     |                |  |        |   |               |        |        |                 |                          |                      |                |       |              |                         |                        |          |          |                             |           |
| Sampler - UPS - Bus Other:                               |                 | No   |       | No      |         |          | _                | _    |                    |          |                  |             |       |                |  |        |   |               |        |        |                 | -                        |                      |                |       |              |                         |                        |          |          |                             |           |



September 12, 2019

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM F-33 BOOT

Enclosed are the results of analyses for samples received by the laboratory on 09/04/19 14:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Celey D. Keine

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



Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 09/04/2019 Sampling Date: 08/30/2019
Reported: 09/12/2019 Sampling Type: Water

Project Name: VACUUM F-33 BOOT Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: T17S-R35E-SEC33 F - LEA CTY, NM

### Sample ID: MONITOR WELL #1 (H903058-01)

|                                      | mg/  | 'L              | Analyze    | d By: BF       |            |                    |                     |             |           |
|--------------------------------------|--|-----------------|------------|----------------|------------|--------------------|---------------------|-------------|-----------|
| Analyte                              | Result   | Reporting Limit | Analyzed   | Method Blank   | BS         | % Recovery         | True Value QC       | RPD         | Qualifier |
| Benzene*                             | <0.001   | 0.001           | 09/12/2019 | ND             | 0.021      | 104                | 0.0200              | 1.81        |           |
| Toluene*                             | <0.001   | 0.001           | 09/12/2019 | ND             | 0.021      | 104                | 0.0200              | 0.145       |           |
| Ethylbenzene*                        | <0.001   | 0.001           | 09/12/2019 | ND             | 0.021      | 107                | 0.0200              | 0.975       |           |
| Total Xylenes*                       | <0.003   | 0.003           | 09/12/2019 | ND             | 0.065      | 108                | 0.0600              | 1.24        |           |
| Total BTEX                           | <0.006   | 0.006           | 09/12/2019 | ND             |            |                    |                     |             |           |
| Surrogate: 4-Bromofluorobenzene (PIL | ogate: 4-Bromofluorobenzene (PID 91.8 % 81.3-12a |                 |            |                |            |                    |                     |             |           |
| Chloride, SM4500Cl-B                 | mg/  | 'L              | Analyze    | d By: AC       |            |                    |                     |             |           |
| Analyte                              | Result   | Reporting Limit | Analyzed   | Method Blank   | BS         | % Recovery         | True Value QC       | RPD         | Qualifier |
| Chloride*                            | 720  | 4.00            | 09/06/2019 | ND             | 100        | 100                | 100                 | 0.00        |           |
| Sulfate 375.4                        | mg/  | 'L              | Analyze    | d By: AC       |            |                    |                     |             |           |
| Analyte                              | Result   | Reporting Limit | Analyzed   | Method Blank   | BS         | % Recovery         | True Value QC       | RPD         | Qualifier |
|                                      |  |                 |            |                | 40.0       | 0.4.6              |                     |             |           |
| Sulfate*                             | 66.2   | 10.0            | 09/06/2019 | ND             | 18.3       | 91.6               | 20.0                | 9.85        |           |
| Sulfate*<br>TDS 160.1                | 66.2<br>mg/                                      |                 |            | ND<br>d By: AC | 18.3       | 91.6               | 20.0                | 9.85        |           |
|                                      |  |                 |            |                | 18.3<br>BS | 91.6<br>% Recovery | 20.0  True Value QC | 9.85<br>RPD | Qualifier |

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Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

 Received:
 09/04/2019

 Reported:
 09/12/2019

 Project Name:
 VACUUM F-33 BOOT

Sampling Date:
Sampling Type:
Sampling Condition:
Sample Received By:

Cool & Intact Tamara Oldaker

Water

08/30/2019

Project Number: NOT GIVEN
Project Location: T17S-R35E-SEC33 F - LEA CTY, NM

## Sample ID: MONITOR WELL #2 (H903058-02)

RTFY 8021R

| Analyte Result Reporting Limit                 |  |                              |              | BS     | % Recovery | True Value QC | RPD         | Qualifier              |
|--|--|------------------------------|--------------|--------|------------|---------------|-------------|------------------------|
| <0.001   | 0.001  | 09/12/2019                   | ND           | 0.021  | 104        | 0.0200        | 1.81        |                        |
| <0.001   | 0.001  | 09/12/2019                   | ND           | 0.021  | 104        | 0.0200        | 0.145       |                        |
| <0.001   | 0.001  | 09/12/2019                   | ND           | 0.021  | 107        | 0.0200        | 0.975       |                        |
| <0.003   | 0.003  | 09/12/2019                   | ND           | 0.065  | 108        | 0.0600        | 1.24        |                        |
| <0.006   | 0.006  | 09/12/2019                   | ND           |        |            |               |             |                        |
| tte: 4-Bromofluorobenzene (PID 89.7 % 81.3-128 |  |                              |              |        |            |               |             |                        |
| mg/l   | -  | Analyze                      | d By: AC     |        |            |               |             |                        |
| Result   | Reporting Limit  | Analyzed                     | Method Blank | BS     | % Recovery | True Value QC | RPD         | Qualifier              |
| 56.0   | 4.00   | 00/06/2010                   | ND           | 100    | 100        | 100           |             |                        |
| 50.0   | 4.00   | 09/06/2019                   | ND           | 100    | 100        | 100           | 0.00        |                        |
| mg/l   |  | 09/06/2019<br><b>Analyze</b> |              | 100    | 100        | 100           | 0.00        |                        |
|  |  |                              |              | BS     | % Recovery | True Value QC | 0.00<br>RPD | Qualifier              |
| mg/l   | L  | Analyze                      | d By: AC     |        |            |               |             | Qualifier              |
| mg/l   | Reporting Limit  | <b>Analyze</b> Analyzed      | Method Blank | BS     | % Recovery | True Value QC | RPD         | Qualifier              |
| mg/l<br>Result<br>56.5                         | Reporting Limit  | Analyzed  O9/06/2019         | Method Blank | BS     | % Recovery | True Value QC | RPD         | Qualifier<br>Qualifier |
|  | <0.001<br><0.001<br><0.001<br><0.003<br><0.006<br>89.7 %<br>mg/L | <0.001                       | <0.001       | <0.001 | <0.001     | <0.001        | <0.001      | <0.001                 |

Analyzed By: BE

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#### **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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|--|---------------------------------|------------------------------|--|-------|---------|--------|---------|------------------|------------------|---------------------------------------|--------------------------------|--------------------------|-------------|--------|-----------|----------------|--|-------|--|----------------|---------------------|-----------------|------|----------------------|----------------------------|----------------|----------------------|--------------|------------------|------------------------------|----------|------------------------|-----------|-----------------------------|
| Tel (575) 393<br>Fax (575) 393   | 3-2326<br>3-2476 <b>Cardi</b>   | na.                          | L  | a     | D       | r      | at      | O)               |                  | es                                    | 9                              | In                       | lC.         |        |           |                |  |       | LA   | ВО             | rder                | ID#             | ¥    |                      |                            |                |                      |              |                  |                              |          |                        |           |                             |
| Company Name:  |                                 |                              | BILL T   | 0     | Comp    | any:   |         |                  |                  |                                       | F                              | PO#                      |             |        |           |                |  |       |  |                |                     |                 |      | _                    |                            |                | _                    |              |                  |                              |          |                        |           |                             |
| RICE Opera   | ting Company                    |                              | RICE   | 0     | era     | ting   | Com     | npa              | ηy               |                                       |                                |                          |             |        |           |                |  |       |  |                |                     |                 |      |                      |                            | JES            |                      |              |                  |                              |          |                        |           |                             |
| Project Manager:   |                                 |                              |  |       | Addre   |        |         |                  |                  | (Stre                                 | et, C                          | ity, Zip                 | )           |        | 7         |                |  |       |  | (C             | ircle               | or S            | Spec | ify N                | leth.                      | od N           | lo.)                 |              |                  |                              |          |                        |           |                             |
| Katie Jones  |                                 |                              | 122 W  | Taylo | or Stre | et ~ H | obbs,   | New              | Mex              | ico 8                                 | 8240                           | )<br>)                   |             |        |           |                |  |       | 1  |                |                     |                 |      |                      | 1                          | -              |                      | 1            |                  | 1                            |          |                        |           |                             |
| Address: (S  | Street, City, Zip)              |                              |  |       | Phon    | e#:    |         |                  |                  |                                       | F                              | Fax#:                    |             |        |           |                |  |       |  |                |                     |                 |      |                      | - 1                        | - 1            |                      |              |                  |                              |          |                        |           |                             |
|  | eet ~ Hobbs, New Mexico 88240   |                              | (575) 393-9174 (575)397-1471                     |       |         |        |         |                  |                  |                                       |                                |                          |             |        |           | 200            |  |       |  |                |                     | -               |      |                      | ı                          |                |                      |              | P                |                              |          |                        |           |                             |
| Phone #:<br>(575) 202 01   | 174                             | Fax #:                       | Fax #:<br>(575) 397-1471                         |       |         |        |         |                  |                  |                                       |                                |                          |             | 35)    |           | 10B/           |  |       |  |                |                     |                 | 1    |                      |                            |                | į                    |              |                  |                              |          |                        |           |                             |
| (575) 393-91<br>Project #:   | Project Name:                   | (5/5)                        | 397-   | 147   | d       | /      |         | _                | 1                | /                                     |                                |                          |             |        | -         |                | 9  |       | 8  | 5              |                     |                 |      |                      | -                          |                |                      | - 1          |                  |                              |          | - 0                    |           |                             |
|  | Vacuum F-33 Boot                |                              |  |       |         |        |         |                  |                  |                                       |                                |                          |             |        |           | epue           |  | Se Hg | D D D  |                |                     |                 |      |                      |                            |                |                      |              |                  |                              | A        |                        |           |                             |
| Project Location:<br>T17S-R35F-  | -Sec33 F ~ Lea County New Me    | vica                         | Sampler Signature: Rezanne Johnson (575)631-9310 |       |         |        |         |                  |                  |                                       |                                |                          |             |        |           |                | TPH 418.1/TX1005 / TX1005 Extended (C35) |       | Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7 | TCLP Volatiles |                     |                 |      |                      | 52                         |                |                      | - 1          |                  | 03)                          |          |                        |           | nrs                         |
| 1170-R00E-   | Lea County New IVIE             |                              |  | 7     |         | 2      | 4       | F                | RES              | SER                                   | VAT                            | IVE                      | T           |        | -         |                | 100                                      |       |  | 3              |                     |                 |      |                      | C/62                       |                |                      |              |                  | 기오                           |          |                        |           | 울                           |
|  |                                 | -                            | 1/1  | L     | IVIZ    | TRIX   |         |                  |                  |                                       | HOD                            |                          | SAI         | MPLING |           |                | È  |       | Bac  | Da             | s                   |                 |      | GC/MS Vol. 8260B/624 | GC/MS Semi. Vol. 8270C/625 | 1              | 808                  |              | 2                | Cations (Cl. SO4, CO3, HCO3) |          | olids                  |           | Turn Around Time ~ 24 Hours |
| LAB#   | 6                               | dw                           | # CONTAINERS                                     |       |         |        |         | (AC              |                  |                                       |                                | DE)                      |             |        | 602       | 302            | 100                                      |       | g As   | B .            | TCLP Semi Volatiles | Se              |      | 260B                 | S.                         | 8              | Pesticides 8081A/608 |              | ent              | 74,0                         |          | Total Dissolved Solids |           | Lime                        |
|  | FIELD CODE                      | (G)rab or (C)omp             | A N  |       |         | ١.     |         | HCL (2 40ml VOA) |                  |                                       |                                | ICE (1-1Liter HDPE) NONE | DATE (2019) |        | 8021B/602 | BTEX 8021B/602 | ΙĚ                                       | ပ္က   | ls A   | TCLP Volatiles | از<br>ا             | TCLP Pesticides |      |                      | iE.                        | PCB's 8082/608 | 808                  | BOD, TSS, pH | Moisture Content | SC SC                        |          | olve                   |           | - F                         |
| / LAB USE \  |                                 | b                            | 5  | K.    |         | AIR    | 5       | 2 40             |                  | Q                                     | 4                              | ₹                        | 8           |        | 80        | 802            | 18                                       | 8270C | leta   |                | Sen                 | Ses             |      |                      | Se                         | 8              | des                  | SS           | e                | 20                           | S        | iss.                   | les       | 0.                          |
| ONLY   |                                 | l de                         | Ņ  | WATER | =       | ~ 15   | 31      | بَـ              | HNO <sub>3</sub> | 뙤                                     | H <sub>2</sub> SO <sub>4</sub> | ICE (3                   | 12          | l w    | 띪         | ×              | 4  | 8     | <u>~</u> [≥                                      | ج ام           | ď                   | 4               | _    | NS I                 | MS                         | 3,8            | ţici                 | 7            | stn              | <u> </u>                     | age      | al                     | oric      | A L                         |
| 1403058  |                                 | 9                            | #  | 3     | SOIL    | AIR    | 7       | 모                | 壬                | NaHSO <sub>4</sub>                    | T Z                            | 의일                       | M           | TIME   | MTBE      | BTE            | TP                                       | PAH   |  | <u> </u>       | 15                  | []              | RCI  | GC                   | GC.                        | PCI            | Pes                  | B            |                  | A E                          | Sulfates | Tot                    | Chlorides | اغ                          |
| 1  | Monitor Well #1                 | G                            | 3  | Х     |         |        |         | 2                |                  |                                       |                                | 1                        | 8/3         | 0 11:3 |           | X              |  |       |  | T              |                     |                 |      |                      |                            |                |                      |              |                  | T                            | X        | X                      | Х         |                             |
| 2  | Monitor Well #2                 | G                            | 3  | Х     |         |        |         | 2                |                  |                                       |                                | 1                        | 8/3         | 0 13:0 | 0         | x              |  |       |  |                |                     |                 |      |                      |                            |                |                      |              |                  |                              | Х        | X                      | Х         |                             |
|  |                                 |                              |  | Ш     |         |        | ┸       |                  |                  |                                       |                                | $\perp$                  | L           |        |           |                |  | Ш     | $\perp$  |                |                     |                 |      |                      |                            |                |                      |              |                  |                              |          |                        |           |                             |
|  |                                 |                              |  |       |         |        | _       |                  |                  |                                       |                                |                          | L           |        |           |                |  |       |  |                |                     |                 |      |                      |                            |                |                      |              | $\perp$          |                              |          |                        |           |                             |
|  |                                 | _                            |  | Ш     |         | _      | $\perp$ |                  |                  | _                                     |                                | $\perp$                  |             |        |           | _              |  | Ц     | 4  | _              |                     |                 |      |                      |                            |                |                      |              | 4                | $\perp$                      |          |                        |           | Ш                           |
|  |                                 | _                            |  | Ш     |         | 4      | $\perp$ |                  |                  | _                                     |                                |                          | _           |        | ┸         | $\perp$        |  |       | _  | 4              |                     |                 |      |                      |                            |                |                      |              | $\perp$          | _                            |          |                        |           | Ш                           |
|  |                                 | _                            |  | Ш     |         | 4      | +       |                  | $\Box$           | 4                                     | _                              | _                        |             |        | _         | _              |  | Ш     | 4  | $\perp$        |                     |                 |      |                      |                            |                |                      | -            | _                | _                            |          |                        |           | Ш                           |
|  |                                 |                              |  | Ш     | _       | +      | $\perp$ |                  | Щ                | 4                                     | 4                              |                          | _           |        | $\bot$    | $\perp$        | $\vdash$                                 | Щ     | 4  | _              | L                   |                 |      |                      | _                          | _              |                      | _            | 4                | _                            | $\perp$  |                        |           | Ш                           |
|  | A                               | -                            | -  | Н     |         | +      | +       | _                | Н                | $\dashv$                              | -                              | $\perp$                  | _           | +-     | ╀         | +              | -  | Н     | +  | +              | $\vdash$            |                 |      | Н                    | $\dashv$                   | $\dashv$       |                      |              | +                | $\perp$                      | -        | Ц                      |           | Ш                           |
| Relinguished by:   | Date: / Time:                   | Possi                        | ved by:  |       |         |        | _       |                  | <u> </u>         | ate:                                  |                                | Time:                    | _           |        | Di        |                | Res                                      |       | +  | - V            |                     | $\vdash$        | No   |                      |                            |                |                      |              |                  |                              |          |                        |           | $\Box$                      |
|  |                                 | Kecen                        | yeu by.  |       |         | 1      | 1/1     | 1                | ٥                |                                       | 2 /                            |                          |             | 11.7.  | _         |                |  |       | ╁  | Y              | _                   | H               |      |                      | 82 76 9                    | HE CEY         | 40111111             | V 20         | e 790            |                              |          | _                      |           | $\dashv$                    |
| Relinguished by  | 9/4/2019 14:25 \<br>Date: Time: | Pacai                        | ved By:  | ra    | bors    | Ra     | (toff)  | XI               | D.               | ate:                                  | -4                             | Time:                    |             | 4:25   | _         |                | RKS                                      |       |  | Y              | es                  |                 | No   |                      | Add                        | lition         | al F                 | ax N         | lumk             | oer:                         | _        | _                      |           | _                           |
| The state of the s | Time.                           | recen                        | rea by.  | ( _ c | 20018   | tory   | nan j   |                  | ٥٠               | alC.                                  |                                | i iiile.                 |             |        | 1         |                |  |       | 50   |                |                     | -0              |      |                      |                            |                |                      |              |                  |                              |          |                        |           |                             |
|  |                                 |                              |  |       |         |        |         |                  |                  |                                       |                                | 4                        | En          | nail I | Resi      | ılts:          | -  |       |  |                |                     |                 | com  |                      |                            |                |                      |              |                  |                              |          |                        |           |                             |
| Delivered By: (  | (Circle One)                    | Sample Condition CHECKED BY: |  |       |         |        |         |                  |                  |                                       |                                |                          |             |        |           | ro             | za                                       | nne   | 11(  | @w             | inds                | stre            | am   | .ne                  | <u>t</u>                   |                |                      |              |                  |                              |          |                        |           |                             |
| 1  |                                 | Yes Yes (Initials)           |  |       |         |        |         |                  |                  |                                       |                                |                          |             |        |           |                |  |       |  |                |                     |                 |      |                      |                            |                |                      |              |                  |                              |          |                        |           |                             |
| Sampler - U  | JPS - Bus - Other:              | No No To                     |  |       |         |        |         |                  |                  |                                       |                                |                          |             |        |           |                |  |       |  |                |                     |                 |      |                      |                            |                |                      |              |                  |                              |          |                        |           |                             |
|  |                                 | -                            |  |       | _       |        |         | -                |                  |                                       |                                |                          |             |        |           | -              |  |       | _  | -              |                     |                 |      |                      | _                          |                | -                    | _            | _                |                              | -        |                        |           |                             |



December 04, 2019

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM F-33 BOOT

Enclosed are the results of analyses for samples received by the laboratory on 11/25/19 16:31.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Celey D. Keine

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



Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240 Fax To: (575) 397-1471

Received: 11/25/2019 Sampling Date: 11/21/2019
Reported: 12/04/2019 Sampling Type: Water

Project Name: VACUUM F-33 BOOT Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Jodi Henson

A ... - L ... - - - I D. .. MC

Project Location: T17S-R35E-SEC33 F - LEA CTY, NM

### Sample ID: MONITOR WELL #1 (H904000-01)

| BTEX 8021B                           | mg/                            | 'L              | Analyze    | d By: MS     |       |            |               |       |           |
|--------------------------------------|--------------------------------|-----------------|------------|--------------|-------|------------|---------------|-------|-----------|
| Analyte                              | alyte Result Reporting Limit A |                 |            |              | BS    | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*                             | < 0.001                        | 0.001           | 11/27/2019 | ND           | 0.021 | 105        | 0.0200        | 0.744 |           |
| Toluene*                             | < 0.001                        | 0.001           | 11/27/2019 | ND           | 0.020 | 101        | 0.0200        | 0.637 |           |
| Ethylbenzene*                        | <0.001                         | 0.001           | 11/27/2019 | ND           | 0.021 | 104        | 0.0200        | 1.69  |           |
| Total Xylenes*                       | <0.003                         | 0.003           | 11/27/2019 | ND           | 0.064 | 106        | 0.0600        | 2.54  |           |
| Total BTEX                           | <0.006                         | 0.006           | 11/27/2019 | ND           |       |            |               |       |           |
| Surrogate: 4-Bromofluorobenzene (PID | % 58.2-13                      | 3               |            |              |       |            |               |       |           |
| Chloride, SM4500CI-B                 | mg/                            | 'L              | Analyze    | d By: AC     |       |            |               |       |           |
| Analyte                              | Result                         | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD   | Qualifier |
| Chloride*                            | 1060                           | 4.00            | 11/26/2019 | ND           | 104   | 104        | 100           | 0.00  |           |
| Sulfate 375.4                        | mg/                            | ′L              | Analyze    | d By: AC     |       |            |               |       |           |
| Analyte                              | Result                         | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD   | Qualifier |
| Sulfate*                             | 65.6                           | 10.0            | 11/27/2019 | ND           | 18.3  | 91.6       | 20.0          | 18.5  |           |
| TDS 160.1                            | mg/                            | 'L              | Analyze    | d By: AC     |       |            |               |       |           |
| Analyte                              | Result                         | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD   | Qualifier |
| TDS*                                 | 1900                           | 5.00            | 12/03/2019 | ND           | 515   | 97.7       | 527           | 15.3  |           |
|                                      |                                |                 |            |              |       |            |               |       |           |

Cardinal Laboratories \*=Accredited Analyte

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11/21/2019

Cool & Intact

Jodi Henson

Water



## Analytical Results For:

Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Sampling Date:

Sampling Type:

Received: 11/25/2019 Reported: 12/04/2019 Project Name: VACUUM F-33 BOOT

Sampling Condition: Sample Received By: NOT GIVEN

Project Location: T17S-R35E-SEC33 F - LEA CTY, NM

#### Sample ID: MONITOR WELL #2 (H904000-02)

Project Number:

| •                                    | •   |                 |            |              |       |            |               |       |           |
|--------------------------------------|---|-----------------|------------|--------------|-------|------------|---------------|-------|-----------|
| BTEX 8021B                           | mg/   | L               | Analyze    | d By: MS     |       |            |               |       |           |
| Analyte                              | Result                                      | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*                             | < 0.001                                     | 0.001           | 11/27/2019 | ND           | 0.021 | 105        | 0.0200        | 0.744 |           |
| Toluene*                             | < 0.001                                     | 0.001           | 11/27/2019 | ND           | 0.020 | 101        | 0.0200        | 0.637 |           |
| Ethylbenzene*                        | < 0.001                                     | 0.001           | 11/27/2019 | ND           | 0.021 | 104        | 0.0200        | 1.69  |           |
| Total Xylenes*                       | <0.003                                      | 0.003           | 11/27/2019 | ND           | 0.064 | 106        | 0.0600        | 2.54  |           |
| Total BTEX                           | <0.006                                      | 0.006           | 11/27/2019 | ND           |       |            |               |       |           |
| Surrogate: 4-Bromofluorobenzene (PID | :: 4-Bromofluorobenzene (PID 99.2 % 58.2-13 |                 |            |              |       |            |               |       |           |
| Chloride, SM4500Cl-B                 | mg/   | L               | Analyze    | d By: AC     |       |            |               |       |           |
| Analyte                              | Result                                      | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD   | Qualifier |
| Chloride*                            | 56.0  | 4.00            | 11/26/2019 | ND           | 104   | 104        | 100           | 0.00  |           |
| Sulfate 375.4                        | mg/   | L               | Analyze    | d By: AC     |       |            |               |       |           |
| Analyte                              | Result                                      | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD   | Qualifier |
| Sulfate*                             | 59.9  | 10.0            | 11/27/2019 | ND           | 18.3  | 91.6       | 20.0          | 18.5  |           |
| TDS 160.1                            | mg/   | L               | Analyze    | d By: AC     |       |            |               |       |           |
| Analyte                              | Result                                      | Reporting Limit | Analyzed   | Method Blank | BS    | % Recovery | True Value QC | RPD   | Qualifier |
| TDS*                                 | 241   | 5.00            | 12/03/2019 | ND           | 515   | 97.7       | 527           | 15.3  |           |
|                                      |   |                 |            |              |       |            |               |       |           |

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#### **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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|--|--|--------------------|--|-------|--------|--------|--------|------------------|-----------|--------------------|---------------------------------------|------------|-------------|--|---|----------------|----------|-----------|--------------|----------------|---------------------|-----------------|----------|----------------------|----------------|---------|--------------|------------------|----------------|-----------------------------|------------------------------------|-----------|-----------------------------|----------|
| Tel (575) 393<br>Fax (575) 393   | 3-2326<br>3-2476 <b>Caru</b> i   | IIa.               |  |       |        |        | al     | Ul               |           | es,                | , ]                                   |            | C.          |  |   |                |          |           | LA           | 3 Or           | der l               | D#              |          |                      |                |         |              |                  |                |                             |                                    |           |                             |          |
| Company Name:  |  |                    | BILL T   |       |        |        |        |                  |           |                    | PC                                    | <b>)</b> # |             |  |   |                |          |           |              | A              | ALA                 | IV              | CIC      | DE                   | <u> </u>       | E0.     | _            |                  |                |                             |                                    |           |                             | ٦        |
|  | ting Company   |                    | RICE   |       |        |        | Com    | par              |           |                    |                                       |            |             |  |   |                |          |           |              |                |                     |                 |          |                      | QU             |         |              |                  |                |                             |                                    |           |                             | ļ        |
| Project Manager:   |  |                    |  |       | Addre  | SS:    |        |                  | (         | Street,            | Cit                                   | y, Zip)    |             |  |   |                |          |           |              | (0)            | CIE.                | 01 3            | peci     | ry ivi               | etho:          | a INC   | ).)          |                  | *5 <b>4</b> 07 |                             |                                    |           | _                           | ı        |
| Katie Jones  |  |                    | 122 W  | Taylo | r Stre | et ~ H | obbs,  | New              | Mexi      | co 882             | 40                                    |            |             |  |   |                |          |           |              |                |                     |                 |          | - 1                  |                |         | 1            | 1                |                | Н                           |                                    |           |                             | Î        |
| Address: (S  | Street, City, Zip)   |                    |  |       | Phone  | 20100  |        |                  |           |                    |                                       | ax#:       |             |  |   |                |          | ,         | ٠,           | 1              |                     |                 |          |                      |                |         | 1            |                  |                | П                           |                                    |           | ı                           |          |
| The state of the s | eet ~ Hobbs, New Mexico 88240  |                    | (575) 393-9174 (575)397-1471                     |       |        |        |        |                  |           |                    |                                       |            |             |  | 18  | 3              |          |           |              |                |                     |                 |          |                      |                |         | П            |                  |                |                             | ı                                  |           |                             |          |
| Phone #:   | ·  | Fax #:             | PROFILE  |       |        |        |        |                  |           |                    |                                       |            |             | 2)                                       | 1   | )B             |          |           |              | - 1            |                     |                 |          |                      |                |         | П            |                  |                | 1                           |                                    |           |                             |          |
| (575) 393-91   |  | (575)              | 575) 397-1471                                    |       |        |        |        |                  |           |                    |                                       |            |             | (3                                       | 3   | 5              |          |           |              |                |                     |                 |          | 1                    |                | -       |              |                  |                | 1                           |                                    |           |                             |          |
| Project #:   | Project Name: Vacuum F-33 Boot   |                    |  |       |        |        |        |                  |           |                    |                                       |            |             | TPH 418.1/TX1005 / TX1005 Extended (C35) | -   | E E            |          |           |              |                |                     |                 |          |                      |                |         |              |                  |                |                             |                                    |           |                             |          |
| Project Location:<br>T17S_R35F_  | -Sec33 F ~ Lea County New Me   | vico               | Sampler Signature: Rozanne Johnson (575)631-9310 |       |        |        |        |                  |           |                    |                                       |            |             |  | 5 Exte  | ā              |          |           |              |                |                     |                 | 2        |                      |                |         |              | 33)              |                |                             | 2                                  | 2         |                             |          |
| 1170-ROOL  | Lea County New Me  | XICO               |  |       |        | //     | 10     | 2                | PES       | ERV                | TI                                    | /E         |             |  | MTBE 8021B/602 BTEX 8021B/602 TPH 418.1/TX1005 / TX1005 Extended (C35) TPH 418.1/TX1005 / TX1005 Extended (C35) TOtal Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7 TCLP Metals Ag As Ba Cd Cr Pb Se Hg TCLP Volatiles TCLP Pesticides RCI GC/MS Vol. 8260B/624 GC/MS Semi. Vol. 8270C/625 PCB's 8082/608 Pesticides 8081A/608 |                |          |           |              |                |                     |                 |          |                      |                | 1       |              |                  | 일              |                             |                                    | 로         | 2                           |          |
|  |  |                    | m  | 2     | MA     | TRIX   |        |                  |           | ETHO               |                                       | <u> </u>   | SAMI        | PLING                                    |   |                | 3/TX     |           | Ba C         |                | S                   |                 |          | GC/MS Vol. 8260B/624 | 8270(          | 80      | 90           |                  | la, K          | Anions (Cl, SO4, CO3, HCO3) | Sulfates<br>Total Dissolved Solids | 2         | Turn Around Time ~ 24 Hours | i        |
| LAB#   |  | (G)rab or (C)omp   | # CONTAINERS                                     |       | - 1    |        |        | ₹                |           |                    | CE (1-1Liter HOPE)                    |            |             |  | 302   | 302            | 100      |           | A A          |                | TCLP Semi Volatiles | SS              |          | . 60E                | ē   º          | 9 4     | ROD TSS AH   | Moisture Content | lg,            | 4,                          | 0                                  | 5         | in e                        | 2        |
|  | FIELD CODE   | )<br>Ö             | Z  |       |        |        |        | ۱<br>۲           |           |                    | H                                     |            | 19)         |  | 1B/   | 1B/6           | Ě        | 0         | SAS          | iles           | 8                   | cide            |          | . 8                  | . le           | 200     | 울   글        | ont              | a, s           | SC                          | 1 9                                |           | - F                         | 3        |
| / LAB USE \  |  | ō                  | È  | WATER |        | AIR    | 3      | HCL (2 40ml VOA) |           | ړ   ک              | 17                                    |            | DATE (2019) |  | MTBE 8021B/602  | BTEX 8021B/602 | 18.1     | PAH 8270C | leta<br>Aeta | TCLP Volatiles | em                  | TCLP Pesticides |          | 9                    | GC/MS Semi. Vo | 000     | ROD TSS all  | e C              | 10             | ō                           | S                                  | 2 0       |                             | 5        |
| ONLY   |  | rab                | 000  |       | SOIL   | ≘ا ہ   | 3      | ابرا             | HNO3      | NaHSO <sub>4</sub> | 1 5                                   | NONE       | 끧           | <b>P</b>                                 | BE  | ×              | 4        | 8         |              | 1              | 9                   | 4               |          | WS                   | S   S          | S Sigit |              | stu              | ioi            | ons                         | age                                | j   5     | A                           |          |
| H904000  |  | ( <u>0</u>         | #  | 3     | SC     | AIR I  | 3      | 윈                | 도):       | E F                | 0                                     |            | DA          | TIME                                     | M   | BTE            | TP       | A I       |              | 12             | 길                   | 길               | 교        | CC                   | 3 3            | 2 8     |              | Moi              | Cat            | Ani                         | Sulfates<br>Total Die              | Chloridae |                             | 3        |
| 1  | Monitor Well #1  | G                  | 3  | x     |        |        |        | 2                |           |                    | 1                                     |            | 11/21       | 11:15                                    |   | Х              |          |           |              |                |                     |                 |          |                      |                |         |              |                  |                | -                           | x x                                | _         | x                           |          |
| 7  | Monitor Well #2  | G                  | 3  | X     |        |        |        | 2                |           |                    | 1                                     |            | 11/21       | 14:20                                    |   | X              |          |           |              |                |                     |                 |          | ł                    |                |         |              |                  |                |                             | x >                                |           | x                           |          |
|  |  |                    |  |       |        |        |        |                  |           |                    |                                       |            |             |  |   |                |          |           |              |                |                     |                 | $\neg$   |                      | T              |         |              |                  | Π              | П                           |                                    | Т         |                             | ٦        |
|  |  |                    |  |       |        |        |        |                  |           |                    |                                       |            |             |  |   |                |          |           | $\top$       |                |                     |                 | $\neg$   |                      | 1              |         | T            | T                | T              | П                           | 7                                  | $\top$    | $\top$                      |          |
|  |  |                    |  | П     |        | T      |        | П                | T         |                    |                                       | $\Box$     |             |  |   |                | $\dashv$ | 寸         | $\top$       |                | $\dashv$            |                 | $\dashv$ | $\forall$            | +              | $\top$  | $\top$       | +                | t              | Н                           | +                                  | $\dagger$ | _                           | ٦        |
|  |  |                    |  | П     |        |        |        |                  |           | $\top$             |                                       | П          |             |  | Т   |                |          | $\dagger$ | $\dagger$    |                | $\Box$              | $\dashv$        | 1        | $\top$               | +              | $^{+}$  | $^{\dagger}$ | $\dagger$        | $^{\dagger}$   | $\Box$                      | +                                  | +         |                             | ٦        |
|  |  |                    |  | П     |        |        | $\top$ |                  |           | $\top$             | 1                                     | $\Box$     |             |  |   |                | $\dashv$ | 1         | +            | T              | $\vdash$            | $\dashv$        | $\dashv$ | $\dashv$             | $\top$         | +       | +            | +                | +              | Н                           | 1                                  | +         |                             | ٦        |
|  |  |                    | 7  | П     |        |        |        | П                | $\exists$ |                    |                                       | $\Box$     |             |  |   |                |          | 1         | +            | T              | $\vdash$            | 7               | $\dashv$ | $\top$               | +              | +       | +            | +                | +              | Н                           | +                                  | +         | +                           | 4        |
|  |  |                    |  | П     | $\neg$ | $\top$ | $\top$ | П                | $\dashv$  | $\top$             | T                                     | $\forall$  |             |  |   |                |          | $\top$    | +            | +              | $\forall$           | $\dashv$        | 1        | +                    | +              | +       | +            | +                | +              | H                           | +                                  | +         | +                           | $\dashv$ |
|  |  |                    |  | П     |        |        | T      | П                | 7         | $\top$             | T                                     | $\top$     |             |  |   | Н              |          | $\top$    | +            | $\vdash$       | $\vdash$            | +               | +        | $\dashv$             | +              | +       | +            | +                | $\vdash$       | H                           | +                                  | +         | -                           | 4        |
| Relinquished by:   | Date: Time:  | Receiv             | ed by:   |       |        |        |        |                  | Da        | te:                | Т                                     | ime:       |             |  | Pho   | one l          | Resu     | lts       | $\top$       | Ye             | s                   |                 | No       | _                    | _              |         |              |                  | _              |                             |                                    |           | _                           | -        |
| Rozanne Johnson  | Ata 1/25/19 16:30  |                    |  |       |        |        |        |                  |           |                    |                                       |            |             |  | Fax   | Res            | sults    |           |              | Ye             |                     |                 | No       |                      | dditi          | iona    | l Fa         | z Nu             | mhe            | r.                          |                                    |           |                             | 1        |
| Relinquished by:   | Date: Time:  | Receiv             | ed By:   | (La   | pora   | tory S | taff)  |                  | Da        | te:                | T                                     | ime:       |             |  | REI   | MAF            | KS:      |           |              | 10             |                     | _               | -        |                      | duit           | ona     | i i u        | · i · c          | IIIDC          |                             |                                    | _         |                             | -        |
| l  |  | 90                 | De   | 1     | De     | Mo     | 10     | 1                | 1         | 11/                | 25                                    | 5/10       | 116         | :31                                      |   | Em             | ail R    | esu       | lts:         | kjo            | one                 | s@              | rice     | esw                  | d.cc           | m       |              |                  |                |                             |                                    |           |                             |          |
| Delivered By: (  | Circle One)  | Sample             | Sample Condition CHECKED BY:                     |       |        |        |        |                  |           |                    |                                       |            |             |  |   |                |          |           |              |                |                     | ndst            |          | m.r                  | net            |         |              |                  |                |                             |                                    |           |                             |          |
|  |  |                    | Cool Intact                                      |       |        |        |        |                  |           |                    |                                       |            |             |  |   |                |          |           |              |                |                     |                 |          |                      |                |         |              |                  |                |                             |                                    |           |                             |          |
|  |  | Yes Yes (Initials) |  |       |        |        |        |                  |           |                    |                                       |            |             |  |   |                |          |           |              |                |                     |                 |          |                      |                |         |              |                  |                |                             |                                    |           |                             |          |
| Sampler - U  | JPS - Bus - Other:   |                    | No No V  |       |        |        |        |                  |           |                    |                                       |            |             |  |   |                |          |           |              |                |                     |                 |          |                      |                |         |              |                  |                |                             |                                    |           |                             |          |
|  |  |                    |  |       |        |        |        |                  |           |                    |                                       |            |             |  |   |                |          |           |              |                |                     |                 |          |                      |                |         |              |                  | _              |                             |                                    |           |                             | _        |