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# REPORTS

## DATE:

#### CERTIFIED MAIL RETURN RECEIPT NO. 7099 3400 0017 1737 1841

February 9, 2010

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

#### RE: Investigation and Characterization Report BD Jct. P-30 Site (NMOCD Case No. 1R0426-124) T21S-R37E-Section 30, Unit Letter P Lea County, New Mexico

#### Mr. Hansen:

As agent for Rice Operating Company (ROC), Trident Environmental is submitting this *Investigation and Characterization Report* for the above-referenced site in accordance with 19.15.29 NMAC and the OCD-approved *Investigation and Characterization Plan* (December 26, 2007, Attachment A). The investigation demonstrated that the chloride and total dissolved solids (TDS) concentrations in groundwater at the site are marginally above WQCC standards; however, approximately four more quarters of monitoring data are needed to determine if the cause is due to regional impact from an unknown offsite source(s) and/or if the former junction box contributed to groundwater conditions. A site location map is shown in Figure 1.

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#### Procedures for Soil Borings and Monitoring Well

Using an air rotary drilling rig, five soil borings were completed on June 4, 2008, to delineate vadose zone conditions. On June 16, 2009, one monitoring well (MW-1) was installed using an air rotary drilling rig to assess groundwater conditions. Soil samples were collected at five-foot intervals for the soil borings and at ten-foot intervals for the monitoring well and field titrated to analyze for chloride content. Select duplicate samples were submitted to Cardinal Laboratories for comparison with field values. Groundwater was encountered at approximately 95 feet below ground surface (bgs). The monitoring well was developed and sampled for two quarters pursuant to OCD guidelines.

The lithologic logs and well construction diagram are included in Attachment B. Laboratory analytical reports and chain of custody documentation is provided in Attachment C.



### Vadose Zone Sampling Results

The chloride concentrations measured at each soil boring are summarized in the table and profile below. A site map with the soil boring locations is shown in Figure 2 below.

| Tab      | le 1: V | adose   | Zone S | amplir   | ig Resi | (    | Chloride Profile (ppm) |                                    |
|----------|---------|---------|--------|----------|---------|------|------------------------|------------------------------------|
| Depth    | (       | Chlorid | e Conc | entratio | ons (pp | m)   | Depth                  |                                    |
| (Ft bgs) | B-1     | B-2     | B-3    | B-4      | B-5     | MW-1 | Ft(bgs)                | 0 100 1000 1000 2000 2003 3000 400 |
| 5'       | 1148    | 1016    | 674    | 1635     | 512     |      | 5'                     | Y                                  |
| 10'      | 1555    | 1757    | 687    | 2726     | 710     | 1499 | 10'                    |                                    |
| 15'      | 1162    | 2065    | 1366   | 2073     | 697     |      | 15'                    |                                    |
| 20'      | 1607    | 1600    | 1060   | 1595     | 783     | 644  | 20'                    |                                    |
| 25'      | 1745    | 2240    | 901    | 1779     | 921     |      | 25'                    |                                    |
| 30'      | 2160    | 2639    | 1489   | 1696     | 782     | 432  | 30'                    |                                    |
| 35'      | 3595    | 2070    | 1716   | 1485     | 582     |      | 35'                    |                                    |
| 40'      | 3595    | 2036    | 2138   | 880      | 518     | 248  | 40'                    |                                    |
| 45'      | 3321    | 1480    | 1264   | 1234     | 303     |      | 45'                    |                                    |
| 50'      | 2018    | 1080    | 874    | 758      | 274     | 153  | 50'                    |                                    |
| 55'      | 2426    | 955     | 950    | 859      | 88      |      | 55'                    |                                    |
| 60'      | 2027    | 1151    | 912    | 659      | 173     | 200  | 60'                    |                                    |
| 65'      | 1845    | 896     | 970    | 454      | 91      |      | 65'                    |                                    |
| 70'      | 1611    | 837     | 1064   | 472      | 86      | 200  | 70'                    |                                    |
| 75'      | 1469    | 568     | 840    | 560      | 236     |      | 75'                    |                                    |
| 80'      | 1466    | 982     | 1009   | 493      |         | 118  | 80'                    |                                    |
| 85'      | 1811    | 800     | 1762   | 600      |         |      | 85'                    |                                    |
| 90'      | 1860    | 649     | 979    | 381      |         | 119  | 90'                    |                                    |
| 95'      | 1728    | 522     | 1087   | 406      |         |      | 95'                    |                                    |



Figure 2: Site Map

#### Groundwater Conditions

Groundwater sampling results at monitoring well MW-1 are summarized in Table 2 below.

| Sample<br>Date | Depth to<br>Groundwater<br>(feet BTOC) | Chloride<br>(mg/L) | TDS<br>(mg/L) | Benzene<br>(mg/L) | Toluene<br>(mg/L) | Ethyl-<br>benzene<br>(mg/L) | Xylene<br>(mg/L) |
|----------------|--|--------------------|---------------|-------------------|-------------------|-----------------------------|------------------|
| 07/27/09       | 97.89                                  | 392                | 1,180         | < 0.001           | < 0.001           | < 0.001                     | < 0.003          |
| 10/16/09       | 97.86                                  | 364                | 1,130         | < 0.001           | < 0.001           | < 0.001                     | < 0.003          |
| WQC            | CC Standards:                          | 250                | 1,000         | 0.01              | 0.75              | 0.75                        | 0.62             |

Table 2: Groundwater Monitoring Results (MW-1)

### **Conclusions and Recommendations**

After two quarters of groundwater sampling and laboratory analysis, it has been confirmed that chloride and TDS marginally exceed the WQCC standards at the site; however, approximately four more quarters of monitoring data are needed to determine if the groundwater is regionally impacted from an unknown offsite source(s) and/or if the former junction box contributed to groundwater conditions. After four more quarters of groundwater sampling, Trident will submit a *Termination Request* if it is determined that the impact is from upgradient regional sources or a *Corrective Action Plan* (CAP) to address any contribution of constituents of concern from the former junction box.

ROC is the service provider (agent) for the Blinebry Drinkard (BD) Salt Water Disposal System and has no ownership of any portion of the pipelines, wells, or facilities. The BD System is owned by a consortium of oil producers, System Parties, who provide all operating capital on a percentage ownership/usage basis. Environmental remediation projects of this magnitude require System Parties AFE approval and work begins as funds are received.

Please feel free to call me at 432-638-8740 or Hack Conder at 575-393-9174, if you have any questions.

Sincerely,

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Gilbert J. Van Deventer, REM, PG Trident Environmental - Project Manager

cc: Hack Conder (Rice Operating Co., Hobbs NM))

enclosures: Investigation and Characterization Plan, lithologic logs and well construction diagram, laboratory analytical reports



Attachment A

Investigation and Characterization Plan (December 26, 2007)





CERTIFIED MAIL RETURN RECIEPT NO. 7099 3400 0017 1737 2152

December 26, 2007

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

#### RE: INVESTIGATION & CHARACTERIZATION PLAN BD Jct. P-30 Site T21S-R37E-Section 30, Unit Letter P

Mr. Hansen:

RICE Operating Company (ROC) has retained Trident Environmental to address potential environmental concerns at the above-referenced site. ROC is the service provider (agent) for the Blinebry-Drinkard (BD) 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 Partners, who provide all operating capital on a percentage ownership/usage basis. Environmental projects of this magnitude require System Partner AFE approval and work begins as funds are received. In general, project funding is not forthcoming until NMOCD approves the work plan. Therefore, your timely review of this submission is requested.

For all environmental projects, ROC will choose a path forward that:

- o protects public health,
- o provides the greatest net environmental benefit,
- o complies with NMOCD Rules, and
- is supported by good science.

Each site shall have three submissions or a combination of:

- 1. This <u>Investigation and Characterization Plan</u> (ICP) is a proposal for data gathering and site characterization and assessment.
- 2. Upon evaluating the data and results from this ICP, a recommended remedy will be submitted in a <u>Corrective Action Plan</u> (CAP).
- 3. Finally, after implementing the remedy, a <u>closure report</u> with final documentation will be submitted.

BD Jct. P-30 Site T21S-R37E-Section 30, Unit Letter P December 26, 2007

#### BACKGROUND

The Jct. P-30 site is located at township 21 south, range 37 east, section 30, unit letter P approximately two miles west of Eunice, NM as shown on the attached Site Location Map (Figure 1). According to the Lea County Tax Assessor's Office, the land is owned by Nymeyer Properties. Land in the site area is primarily utilized for crude oil production and pasture land for cattle grazing.

Groundwater in the site area occurs within the High Plains aquifer under water table (unconfined) conditions (Hart & McAda, 1985) at a depth of approximately 95 feet bgs. The saturated portion of the aquifer is estimated to be 50 ft thick at the site (Nicholson and Clebsch, 1961).

#### PREVIOUS WORK

The P-30 junction box was rebuilt at a location approximately 30 feet to the south of its former location as part of the Pipeline Replacement/Upgrade Program. Between June 12 and June 21, 2006, a 30 feet wide by 30 feet long area was excavated to a depth of 12 feet below ground surface (bgs). During the course of excavation activities, soil samples were collected at one-foot intervals to a depth of 12 feet bgs. All soil samples were tested for chloride content using field-adapted Method 9253 (QP-03) and headspace readings were recorded using a Mini-RAE Model 76 photoionization detector (PID). Figures 2 and 3 depict the soil sample locations and provide a summary of the field chloride tests, PID readings, and laboratory analytical results. Chloride levels and PID readings did not conclusively decline vertically within the perimeter of the excavation.

Following the characterization of the soil, the excavated soil was blended and returned to the excavation up to a depth of 6 feet bgs. A 1-foot thick compacted clay barrier was installed to prevent potential downward migration of any residual contaminants and the remaining soil was placed above the clay. An identification plate was placed on the surface to mark the location of the former junction box and the clay barrier.

Notice of potential groundwater impact was sent to the NMOCD on October 13, 2006. A Junction Box Disclosure Report (attached) was submitted to the OCD with the 2006 annual reports.

#### **RECOMMENDATION FOR FURTHER ACTIONS**

The replacement of the junction box has minimized the threat of additional impact from the vadose zone, however further investigation and characterization of the site is necessary to delineate the vadose zone below twelve feet and evaluate the potential for groundwater impact. The additional assessment is also necessary to assist ROC in selecting the appropriate soil and/or groundwater remedy.

#### Task 1 Evaluate Concentrations of Constituents of Concern in the Vadose Zone

Subsurface soil samples for characterization of the lateral and vertical extent of hydrocarbon- and chlorideimpacted soil will be collected at a maximum of 5-foot intervals using a drilling rig in accordance with the procedures explained in QP-02, QP-03, and QP-07 (attached). Soil samples will be field-tested for chloride content using the titration method. If there are indications of hydrocarbon-impact, samples will also be collected for headspace analysis using an organic vapor meter (OVM), which will be calibrated to assume a benzene response factor. Select samples with OVM headspace readings above 100 ppm will also be analyzed





BD Jct. P-30 Site T21S-R37E-Section 30, Unit Letter P December 26, 2007

for benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Method 8021B, and gas and diesel range organics (GRO and DRO) using EPA Method 8015 to determine TPH concentrations.

The following concentrations of analytes will be used to delineate the lateral and vertical extent of impact to the vadose zone:

- o 100 ppm OVM, and/or 10 mg/kg benzene and 50 mg/kg BTEX
- 1,000 ppm chloride

#### Task 2 Evaluate Concentrations of Constituents of Concern in the Groundwater

If we detect evidence of groundwater impact, one monitoring well will be placed in the area with the greatest potential for groundwater impact, in accordance with EPA and industry standards and developed by bailing with a rig or hand bailer, or pumping with a submersible pump to remove fine-grained sediment disturbed during drilling and to ensure collection of representative samples. If data suggest ground water impairment two quarters of ground water monitoring wells may be installed to determine the local groundwater gradient direction and lateral extent of groundwater impact. Groundwater samples will be collected in accordance with procedures explained in QP-04 and QP-05 (attached), and analyzed for BTEX, major ions, and total dissolved solids (TDS).

The information gathered from tasks 1 and 2 will be evaluated and utilized to design a soil and/or ground water remedy if needed. The remedy that offers the greatest environmental benefit while causing the least environmental impairment will be selected. Such recommendations and findings will be presented to NMOCD in a subsequent Corrective Action Plan (CAP). When evaluating any proposed remedy or investigative work, ROC will confirm that there is a reasonable relationship between the benefits created by the proposed remedy or assessment and the economic and social costs.

We appreciate the opportunity to work with you on this project. Please feel free to call me at 432-638-8740 or Kristin Pope at 505-393-9174, if you have any questions.

Sincerely



Gilbert J. Van Deventer, REM, PG Trident Environmental - Project Manager

cc: CDH, JSC, KFP, file

enclosures: site location and sampling maps, disclosure report, photos, and sampling procedures

### Attachment B

## Lithologic Logs And Monitoring Well Construction Diagram



| the same       | 1              |   | 1-1-                  |            |         |          |        | LITHOLOGIC LOG  |  |
|----------------|----------------|---|-----------------------|------------|---------|----------|--------|---|--|
| 10. 100        |                |   | A                     | -          | -       | SOI      | L BORI | NG NO.: <b>B-1</b>  | TOTAL DEPTH: 95 Feet   |
|                | -11-           | 4   |                       |            | 1       |          | 3      | SITE ID: BD Jct. P-30 Site  | CLIENT: RICE Operating Company   |
|                |                | No  |                       | $\bigcirc$ | -       |          | CONTR  | ACTOR: Harrison & Cooper Inc.   | COUNTY: Lea  |
|                |                |   |                       | Sales I    | 1       | DRIL     | LING M | ETHOD: Air Rotary   | STATE: New Mexico  |
| and the second | 1              | hind  | -                     | -          |         | 00110    | STAR   | T DATE: 06/03/08  | LOCATION: T21S-R37E-Sec 30-Unit P  |
| Set 1          | The La         | -   | No. No.               |            | 23      | COMP     | COM    | MENTE: 06/04/08   | FIELD REP.: G. Van Deventer / L. Weinheimer  |
| 1              | 100            |   |                       | 06/03/200  | 8       | DH       |        | T LEET: Eacing south showing drilling at I  | Junction box location (marker plate).<br>B-1 (background) & plate marking former junction box (foreground) |
| Sec. Service   | AN ST LAND     | 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - | and the second second |            |         | 10       | IOTO A | Boring was backfilled and plugge  | d with bentonite upon completion of sampling.  |
| USCS           | PATTERN        |   | Sample                | e          | Chlorid | le (ppm) | PID    | l 1   | LITHOLOGIC DESCRIPTION   |
|                |                | Depth   | Time                  | Туре       | Field   | Lab      | (ppm)  | Color, Grain size, Sorting, Round   | ding, Consolidation, Moisture, other distinguishiong features  |
| SM             |                |   |                       |            |         |          |        | Fine sand, very pale orange (10YR 8/2) a<br>subangungular/subrounded, unconsolidat  | ind grayish orange pink (5YR 7/2), medium to poorly sorted,<br>led, dry, no odor.                          |
| SC             |                | 5   |                       | Colit      |         |          |        | Clavey sand: moderate reddish brown (10R 4  | 4/6): fine-medium grained: moderately well sorted and subangular grains                                    |
|                |                |   | 1537                  | Spoon      | 1148    |          | 0      | Fine sand, very pale orange (10YR 8/2) a  | and grayish orange pink (5YR 7/2), medium to poorly sorted,  |
|                |                |   |                       |            |         |          |        | subangungular/subrounded, unconsolidat  | ted, dry, no odor.   |
|                |                |   |                       |            |         |          |        |   |  |
|                |                | 10  |                       |            |         |          |        |   |  |
|                |                |   | 1539                  | Split      | 1555    |          | 8      | Fine sand, very pale orange (10YR 8/2) a  | and grayish orange pink (5YR 7/2), medium to poorly sorted,  |
|                |                |   |                       | Spoon      | 1000    |          |        |   |  |
| SM             |                |   |                       |            |         |          |        |   |  |
|                | No.            |   |                       |            |         |          |        |   |  |
|                |                | 15  | -                     | Calla      |         |          |        | Very fine- fine-grained sand, gravish oran  | ae pink (5YR 7/2), medium to poorly sorted.  |
|                |                |   | 1541                  | Spoon      | 1162    |          | 0      | subangungular/subrounded, unconsolidat  | ied, dry, no odor.   |
|                |                |   |                       | ~          |         |          |        |   |  |
|                |                | 840 8800 M  |                       |            |         |          |        |   |  |
|                | and the second | 20  |                       |            |         |          |        |   |  |
|                | 5 5 3          |   | 1547                  | Split      | 1607    |          | 0      | Very fine- to fine-grained sand, very pale  | orange (10YR 8/2) and grayish orange pink (5YR 7/2), some calcium  |
| SM/CAL         | c c            |   |                       | Spoon      |         |          |        |   | a with some inducted scheme, any, no scient  |
|                | c c c          |   |                       |            |         |          |        |   |  |
|                | СС             |   | 150                   |            | 1715    |          |        | Fine sand, very pale orange (10YR 8/2) a  | and gravish orange pink (5YR 7/2) medium sorted  |
|                |                | 25  | 158                   | Cuttings   | 1745    |          |        | subangungular/subrounded, unconsolidat  | ted, dry, no odor.   |
| SM             |                |   |                       |            |         |          |        |   |  |
|                |                | 50.50   |                       |            |         |          |        |   |  |
|                |                |   |                       |            |         |          |        |   |  |
|                | c c c          | 30  | 1559                  | Cuttings   | 2160    |          |        | Fine- to medium grained sand, very pale of calcium carbonate in matrix. Sand grains | orange (10YR 8/2) and grayish orange pink (5YR 7/2), with some   |
|                | с с<br>с       |   |                       |            |         |          |        | unconsolidated with some indurated calic  | he, dry, no odor.  |
|                |                |   |                       |            |         |          |        |   |  |
| SM/CAL         | 0              |   |                       |            |         |          |        |   |  |
|                | c c            | 35  | 1600                  | Cuttings   | 3505    | 4280     | -      |   |  |
| 1              | с<br>с с с     | 55  | 1000                  | Cuttings   | 3393    | 4200     |        | Fine sand, very pale orange (10YR 8/2) a subangungular/subrounded mostly uncor      | ind grayish orange pink (5YR 7/2), medium sorted,  |
|                | сс             |   |                       |            |         |          |        | sabarigarigatarioasi sanasa, mosti yancor   | isolitated with some insurated salishe, ary, no odor.  |
|                |                |   |                       |            |         |          |        |   |  |
|                |                |   |                       |            |         |          | _      |   |  |
|                |                | 40  | 1602                  | Cuttings   | 3595    | 3840     |        | Fine sand, very pale orange (10YR 8/2) a<br>subangungular/subrounded, unconsolidat  | Ind grayish orange pink (5YR 7/2), moderately well sorted,<br>ted, dry, no odor.                           |
| SM             |                |   |                       |            |         |          |        |   |  |
|                |                | e ana series  |                       |            |         |          |        |   |  |
|                |                |   |                       |            |         |          |        |   |  |
|                |                | 45  | 1604                  | Cuttings   | 3321    |          |        | Fine- to medium-grained sand, light brown   | n (5YR 6/4), moderately well sorted, rounded/subrounded,   |
|                |                |   | 1004                  | Gatanga    | JULI    |          |        | unconsolidated, dry, no odor.   |  |
| SW             |                |   |                       |            |         |          |        |   |  |
| 577            |                |   |                       |            |         |          |        |   |  |
|                |                |   |                       |            |         |          |        | Fine- to medium-grained sand, light brown   | n (5YR 6/4), moderately well sorted rounded/subrounded   |
|                |                | 50  | 1606                  | Cuttings   | 2018    |          |        | unconsolidated, dry, no odor.   | (contraction of the second founded autounded,  |

| Bit of the set of the                   |      |             | •                     | B-5                  |                                  |                      |   |       | LITHOLOGIC LOG  |  |  |  |  |
|---|------|-------------|-----------------------|----------------------|----------------------------------|----------------------|---|-------|---|--|--|--|--|
| Out we first       1       CONTRACTOR: Hersion B. Copyr Dining Inc.       CONTRACTOR: 114 Werkson         New Act Box       1       CONTRACTOR: Hersion B. Copyr Dining Inc.       STAT: Issue Mexico         Normalization       1       CONTRACTOR: Hersion B. Copyr Dining Inc.       STAT: Issue Mexico       STAT: Issue Mexico         Normalization       1       1       CONTRACTOR: Hersion B. Copyr Dining Inc.       STAT: Issue Mexico       S  | B-2  | •           | -                     |                      | 8-3                              |                      | SOI   | BORIN | NG NO.: <b>B-1 (continued)</b><br>STTE ID: BD Jct. P-30 Site  | TOTAL DEPTH: 95 Feet<br>CLIENT: RICE Operating Company   |  |  |  |
| New Job Biolog         Description         Description <thdescription< th=""></thdescription<>  | C    | Old Jet Box |                       |                      |                                  |                      |   | CONTR | ACTOR: Harrison & Cooper Drilling Inc.  | COUNTY: Lea  |  |  |  |
| New X8 Box     STATE TME:     CONSTRUCT QUE (%)     CONTENT:  |      |             | -                     | _B-1                 |                                  |                      | DRILL   | ING M | ETHOD: Air Rotary   | STATE: New Mexico  |  |  |  |
| COMMENTS: Loss 19 four 10 former prained subditional subditio | Nev  | W Jet Box   |                       |                      |                                  |                      |   | START | DATE: 06/03/08  | LOCATION: T21S-R37E-Sec 30-Unit P  |  |  |  |
| Bits     Example is fully and of the one proceedings with exoting conception of samples.       JICS     PATTERN     Sample image     Cherois (proc     PD       JICS     Cherois (proc     PD     Calify Costing Rotation     Costing Rotation       JICS     Link     Cherois (proc     PD     Costing Rotation     Costing Rotation       JICS     Link     Cherois (proc     PD     Costing Rotation     PD       JICS     Cutings     2027     File: to medum-grained sand, light brown (SYR 64), moderately well sorted, nondeditudrounded, unconsidiated, dy, no oder.       SN     JICS     Cutings     1611     File: to medum-grained sand, light brown (SYR 64), moderately well sorted, nondeditudrounded, unconsidiated, dy, no oder.       SN     JICS     Cutings     1611     File: to medum-grained sand, light brown (SYR 64), moderately well sorted, nondeditudrounded, unconsid   |      |             |                       |                      |                                  |                      | COMPLETION DATE: 06/04/08 FIELD REP.: G. Van Deventer / L. Weinheimer   |       |   |  |  |  |  |
| SNV         Sample         Chindra (pm)         PID         LUTHOLOGIC DESCRIPTION           2605         PATTER         Time         Type         Feld         Lab         (pm)         Color, Grain ace, Sorting, Rounding, Consolidation, Mosture, other datinguaktiong features           2615         1624         Cutings         2428         Fee-10         Indicating-grained aand, Light brown (SYR 6/4), moderately well sorted, nounded/subrounded, unconsolidated, dry, no oder.           90         1625         Cutings         2428         Fee-10         medium-grained aand, Light brown (SYR 6/4), moderately well sorted, nounded/subrounded, unconsolidated, dry, no oder.           90         1625         Cutings         1644         Fee-10         medium-grained aand, Light brown (SYR 6/4), moderately well sorted, nounded/subrounded, unconsolidated, dry, no oder.           5W         1626         Cutings         1645         Fee-10         medium-grained aand, Light brown (SYR 6/4), moderately well sorted, nounded/subrounded, unconsolidated, dry, no oder.           5W         1626         Cutings         1645         Fee-10         medium-grained aand, Light brown (SYR 6/4), moderately well sorted, nounded/subrounded, unconsolidated, dry, no oder.           5W         1627         Cutings         1468         Fee-10         medium-grained aand, Light brown (SYR 6/4), moderately well sorted, nounded/subrounded, unconsolidated, dry, no oder.   |      |             |                       | <u>-B-4</u>          |                                  |                      | COMMENTS: Located 15 it south or or former junction box location (marker plate).<br>Boring was backfilled and plugged with bentonite upon completion of sampling. |       |   |  |  |  |  |
| NUCE         PATTERN         Dept         Trag         Field         Lab         Opposite         Trag         Field         Lab         Opposite         Color, Grain azis, Sonting, Rounding, Consolidation, Mouslue, Elder distinguishing features           NW  |      | 1           | '                     | Comula               |                                  | Chievid              | - ()  | DID   | boning was backlined and plogge   |  |  |  |  |
| SW  | USCS | PATTERN     | Depth                 | Time                 | Туре                             | Field                | Lab   | (ppm) | Color, Grain size, Sorting, Round   | ding, Consolidation, Moisture, other distinguishiong features  |  |  |  |
| SW       70       1627       Cuttings       1611       Iffine- to medium-grained sand, light brown (SYR 6/4), moderately well sorted, rounded/subrounded, unconsolidated, dry, no odor.         SW       75       0836       Cuttings       1469       Fine- to medium-grained sand, light brown (SYR 6/4), moderately well sorted, rounded/subrounded, unconsolidated, dry, no odor.         80       0838       Cuttings       1466       Fine- to medium-grained sand, light brown (SYR 6/4), moderately well sorted, rounded/subrounded, unconsolidated, dry, no odor.         80       0838       Cuttings       1466       Fine- to medium-grained sand, light brown (SYR 6/4), moderately well sorted, rounded/subrounded, unconsolidated, dry, no odor.         80       0841       Cuttings       1811       Fine- to medium-grained sand, light brown (SYR 6/4), moderately well sorted, rounded/subrounded, unconsolidated, dry, no odor.         80       0841       Cuttings       1811       Fine- to medium-grained sand, light brown (SYR 6/4), moderately well sorted, rounded/subrounded, unconsolidated, dry, no odor.         80       0843       Cuttings       1860       Fine- to medium-grained sand, light brown (SYR 6/4), moderately well sorted, rounded/subrounded, unconsolidated, dry, no odor.         80       0843       Cuttings       1860       Fine- to medium-grained sand, light brown (SYR 6/4), moderately well sorted, subrounded/rounded, unconsolidated, dry, no odor.         80       0845   |      |             | <u>55</u><br>60<br>65 | 1624<br>1625<br>1626 | Cuttings<br>Cuttings<br>Cuttings | 2426<br>2027<br>1845 |   |       | Fine- to medium-grained sand, light brow<br>unconsolidated, dry, no odor.<br>Fine- to medium-grained sand, light brow<br>unconsolidated, dry, no odor.<br>Fine- to medium-grained sand, light brow<br>unconsolidated, dry, no odor. | n (5YR 6/4), moderately well sorted, rounded/subrounded,<br>n (5YR 6/4), moderately well sorted, rounded/subrounded,<br>n (5YR 6/4), moderately well sorted, rounded/subrounded, |  |  |  |
| 80       0838       Cuttings       1466       Fine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted, rounded/subrounded, unconsolidated, dry, no odor.         85       0841       Cuttings       1811       Fine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted, rounded/subrounded, unconsolidated, dry, no odor.         90       0843       Cuttings       1811       Fine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted, rounded/subrounded, unconsolidated, dry, no odor.         90       0843       Cuttings       1860       Fine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted, rounded/subrounded, unconsolidated, dry, no odor.         90       0843       Cuttings       1860       Fine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted, rounded/subrounded, unconsolidated, dry, no odor.         95       0845       Cuttings       1728       1700         Fine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted, subrounded/rounded, unconsolidated, slightly moist, no odor.       Boring terminated at 95 ft (close to groundwater depth).  | SW   | SW          | 70                    | 1627<br>0836         | Cuttings                         | 1611                 |   |       | Fine- to medium-grained sand, light brow<br>unconsolidated, dry, no odor.<br>Fine- to medium-grained sand, light brow<br>unconsolidated, dry, no odor.  | n (5YR 6/4), moderately well sorted, rounded/subrounded,   |  |  |  |
| 85       0841       Cuttings       1811       Fine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted, rounded/subrounded, unconsolidated, dry, no odor.         90       0843       Cuttings       1860       Fine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted, rounded/subrounded, unconsolidated, dry, no odor.         90       0843       Cuttings       1860       Fine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted, rounded/subrounded, unconsolidated, dry, no odor.         95       0845       Cuttings       1728       1700       Fine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted, subrounded/rounded, unconsolidated, slightly moist, no odor.         95       0845       Cuttings       1728       1700       Eine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted, subrounded/rounded, unconsolidated, slightly moist, no odor.         96       0845       Cuttings       1728       1700       Eine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted, subrounded/rounded, unconsolidated, slightly moist, no odor.         96       0845       Cuttings       1728       1700       Boring terminated at 95 ft (close to groundwater depth).   |      |             | 80                    | 0838                 | Cuttings                         | 1466                 |   |       | Fine- to medium-grained sand, light brow unconsolidated, dry, no odor.  | n (5YR 6/4), moderately well sorted, rounded/subrounded,   |  |  |  |
| 90       0843       Cuttings       1860       Fine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted, rounded/subrounded, unconsolidated, dry, no odor.         ▼       95       0845       Cuttings       1728       1700       Fine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted, subrounded/rounded, unconsolidated, dry, no odor.         ▼       95       0845       Cuttings       1728       1700       Fine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted, subrounded/rounded, unconsolidated, slightly moist, no odor.         ●       95       0845       Cuttings       1728       1700       Boring terminated at 95 ft (close to groundwater depth).   |      |             | 85                    | 0841                 | Cuttings                         | 1811                 |   |       | Fine- to medium-grained sand, light brow<br>unconsolidated, dry, no odor.   | n (5YR 6/4), moderately well sorted, rounded/subrounded,   |  |  |  |
| V     95     0845     Cuttings     1728     1700     unconsolidated, slightly moist, no odor.       Boring terminated at 95 ft (close to groundwater depth).     Boring terminated at 95 ft (close to groundwater depth).   |      |             | 90                    | 0843                 | Cuttings                         | 1860                 |   |       | Fine- to medium-grained sand, light brow<br>unconsolidated, dry, no odor.<br>Fine- to medium-grained sand, light brow   | rn (5YR 6/4), moderately well sorted, rounded/subrounded,  |  |  |  |
| Boring terminated at 95 ft (close to groundwater depth).  |      | V           | 95                    | 0845                 | Cuttings                         | 1728                 | 1700  |       | unconsolidated, slightly moist, no odor.  |  |  |  |  |
|   |      |             |                       |                      |                                  |                      |   |       | Boring termin   | ated at 95 ft (close to groundwater depth).  |  |  |  |
|   |      |             |                       |                      |                                  |                      |   |       |   |  |  |  |  |

|                |  |               |        | _        |         |                        |  |  |  |  |  |  |
|----------------|--|---------------|--------|----------|---------|------------------------|--|--|--|--|--|--|
|                | •  | 1             |        |          |         |                        | LITHOLOGIC LOG   |  |  |  |  |  |
|                |  |               |        | É.       | 50      | IL BORIN<br>S<br>CONTR | NG NO.: <b>B-2</b><br>ITTE ID: BD Jct. P-30 Site<br>ACTOR: Harrison & Cooper Inc.  | TOTAL DEPTH: 95 Feet<br>CLIENT: RICE Operating Company<br>COUNTY: Lea  |  |  |  |  |
| -              |  |               |        |          | DRIL    | LING ME                | ETHOD: Air Rotary  | STATE: New Mexico  |  |  |  |  |
| and in         | 防止在  |               |        |          |         | START                  | T DATE: 06/04/08   | LOCATION: T21S-R37E-Sec 30-Unit P  |  |  |  |  |
| and the second |  | the second    |        |          | COM     | PLETION                | DATE: 06/04/08   | FIELD REP.: G. Van Deventer / L. Weinheimer  |  |  |  |  |
| New York       |  |               |        |          |         | COM                    | MENTS: Located approximately 46 feet we  | est of former junction box location (marker plate).  |  |  |  |  |
| 2000           | and Select   | Surger Stanly | -      |          | P       | HOTOA                  | I LEFT: Facing west showing drilling at B-   | -2 (background) & plate marking former junction box (foreground).  |  |  |  |  |
|                |  |               | Sample | 9        | Chlorid | e (ppm)                | boring was backlined and plugged   | LITHOLOGIC DESCRIPTION   |  |  |  |  |
| USCS           | PATTERN  | Depth         | Time   | Туре     | Field   | Lab                    | Color, Grain size, Sorting   | , Rounding, Consolidation, Moisture, other distinguishiong features  |  |  |  |  |
| SW             |  | 5             | 0905   | Cuttings | 1016    |                        | Fine- to medium-grained sand, light brown  | n (5YR 5/6), moderately well sorted, rounded/subrounded, unconsolidated, dry, no                                       |  |  |  |  |
|                | 0 0 0<br>0 0 0<br>0 0<br>0 0                         | - 21          |        |          |         |                        |  | 5<br>5   |  |  |  |  |
|                | с с<br>с с с<br>с с с                                | 10            | 0910   | Cuttings | 1757    |                        | Very fine- to fine-grained sand, very pale of<br>carbonate in matrix, unconsolidated except  | orange (10YR 8/2) and grayish orange pink (5YR 7/2), with some calcium<br>of for some indurated caliche, dry, no odor. |  |  |  |  |
|                | c c c c c c c c c c c c c c c c c c c                |               | 0911   | Cuttings | 2065    |                        | Very fine- to fine-grained sand, very pale orange (10YR 8/2) and grayish orange pink (5YR 7/2), with some calcium carbonate in matrix, unconsolidated except for some indurated caliche, dry, no odor. |  |  |  |  |  |
|                |  | 20            | 0912   | Cuttings | 1600    |                        | Very fine- to fine-grained sand, light browr<br>some indurated caliche, dry, no odor.  | n (5YR 6/4), with some calcium carbonate in matrix, unconsolidated except for  |  |  |  |  |
| SM/CAL         |  | 25            | 0914   | Cuttings | 2240    |                        | Very fine- to fine-grained sand, very pale c<br>carbonate in matrix, unconsolidated excep  | orange (10YR 8/2) and grayish orange pink (5YR 7/2), with some calcium<br>pt for some indurated caliche, dry, no odor. |  |  |  |  |
|                |  | 30            | 0916   | Cuttings | 2639    | 2530                   | Very fine- to fine-grained sand, very pale of carbonate in matrix, unconsolidated exception  | orange (10YR 8/2) and grayish orange pink (5YR 7/2), with some calcium<br>of for some indurated caliche, dry, no odor. |  |  |  |  |
|                | с с<br>с с<br>с с<br>с с<br>с с<br>с с<br>с с<br>с с | 35            | 0917   | Cuttings | 2070    |                        | Very fine- to fine-grained sand, very pale o<br>unconsolidated, dry, no odor.  | orange (10YR 8/2) and grayish orange pink (5YR 7/2), with some caliche in matrix,                                      |  |  |  |  |
|                | с с<br>с<br>с с                                      | 40            | 0918   | Cuttings | 2036    |                        | Very fine- to fine-grained sand, grayish or.   | ange pink (5YR 7/2), medium sorted, subrounded,, unconsolidated, dry, no odor.   |  |  |  |  |
| SM             |  | 45            | 0950   | Cuttings | 1480    |                        | Very fine- to fine-grained sand, grayish ora   | ange pink (5YR 7/2), medium sorted, subrounded,, unconsolidated, dry, no odor.   |  |  |  |  |
|                |  | 50            | 0952   | Cuttings | 1080    |                        | Very fine- to fine-grained sand, grayish or odor.  | ange pink (5YR 7/2), moderately sorted, subrounded,, unconsolidated, dry, no   |  |  |  |  |





|      |               |                    | B-5   |          |          |         | LITHOLOGIC LOG  |  |
|------|---------------|--------------------|-------|----------|----------|---------|---|--|
| B-2  | ~             |                    |       | B-3      | SOI      |         | G NO.: B-2 (continued)                                | TOTAL DEPTH: 95 Feet   |
|      |               | 1                  |       | •        |          | S       | ITE ID: BD Jct. P-30 Site                             | CLIENT: RICE Operating Company   |
| C    | Old Jct Box   | 11 .               |       |          |          | CONTR   | ACTOR: Harrison & Cooper Drilling Inc.                | COUNTY: Lea  |
|      |               | <b>#</b>           | -B-1  |          | DRIL     | LING ME | ETHOD: Air Rotary                                     | STATE: New Mexico  |
| New  | w Jct Box     |                    |       |          |          | STAR    | DATE: 06/04/08  | LOCATION: T21S-R37E-Sec 30-Unit P  |
|      |               |                    |       |          | COM      | PLETION | DATE: 06/04/08  | FIELD REP.: G. Van Deventer / L. Weinheimer                                  |
|      |               |                    | -B-4  |          |          | COM     | MENTS: Located approximately 46 feet we               | est of former junction box location (marker plate).                          |
|      |               | •                  |       |          |          |         | Boring was backfilled and plugge                      | d with bentonite upon completion of sampling.                                |
| ISCS | PATTER        |                    | Sampl | e        | Chloride | e (ppm) |   | LITHOLOGIC DESCRIPTION   |
|      |               | Depth              | Time  | Туре     | Field    | Lab     | Color, Grain size, Sorting                            | g, Rounding, Consolidation, Moisture, other distinguishiong features         |
|      | S             |                    |       |          |          |         | Fine-grained sand, light brown (5YR 6/4),             | moderately well sorted, subrounded/rounded,, unconsolidated, dry, no odor.   |
|      | 1.1.2         |                    |       |          |          |         |   |  |
|      | an final      |                    |       |          |          |         |   |  |
|      | 1. 10         |                    |       |          |          |         |   |  |
|      |               | 55                 | 0953  | Cuttings | 955      |         | Fine-grained sand, light brown (5YR 6/4),             | moderately well sorted, subrounded/rounded,, unconsolidated, dry, no odor    |
|      | 1.5           |                    |       |          |          |         |   |  |
|      | 5.92.3        |                    |       |          |          |         |   |  |
|      |               |                    |       |          |          |         |   |  |
|      |               |                    |       |          |          |         |   |  |
|      | Sec. 1        | 60                 | 0954  | Cuttings | 1151     |         | Fine-grained sand, light brown (5YR 6/4),             | moderately well sorted, subrounded/rounded,, unconsolidated, dry, no odor    |
|      |               |                    |       |          |          |         |   |  |
|      | 1. 1. 2.      |                    |       |          |          |         |   |  |
|      |               |                    |       |          |          |         |   |  |
|      |               | -                  |       |          |          |         |   |  |
|      | 200           | 65                 | 0955  | Cuttings | 896      |         | Fine-grained sand, light brown (5YR 6/4),             | moderately well sorted, subrounded/rounded,, unconsolidated, dry, no odor    |
| 8    | 1.5           | 8                  |       |          |          |         |   |  |
|      |               |                    |       |          |          |         |   |  |
|      |               |                    |       |          |          |         |   |  |
|      |               |                    |       |          |          |         |   |  |
| _    |               | 70                 | 0956  | Cuttings | 837      |         | Fine-grained sand, light brown (5YR 6/4),             | moderately well sorted, subrounded/rounded,, unconsolidated, dry, no odor    |
|      |               |                    |       |          |          |         |   |  |
|      |               |                    |       |          |          |         |   |  |
| 500  |               |                    |       |          |          |         |   |  |
|      | 1.0           |                    |       | -        |          |         |   |  |
|      | d and         | 75                 | 0958  | Cuttings | 568      |         | Fine- to medium-grained sand, light brown             | n (5YR 6/4), moderately well sorted, subrounded/rounded,, unconsolidated,    |
|      |               |                    |       |          |          |         |   |  |
|      | 1 Jacob       | and a second state |       |          |          |         |   |  |
|      |               |                    |       |          |          |         |   |  |
|      |               |                    | 0.05  | 0        |          |         | Charles and the second second                         |  |
|      |               | 80                 | 0959  | Cuttings | 982      |         | Fine- to medium-grained sand, light brown<br>no odor. | n (5YR 6/4), moderately well sorted, subrounded/rounded,, unconsolidated,    |
|      |               |                    |       |          |          |         |   |  |
|      |               |                    |       |          |          |         |   |  |
|      | 20.5          |                    |       |          |          |         |   |  |
|      |               | QE                 | 1022  | Cutting  | 800      |         | Final to medium grained cond light house              | (5VP 6/4) moderately well control as the second state                        |
|      |               | 00                 | 1032  | Cuttings | 600      |         | no odor.  | in to the oral, moderately well softed, subrounded/rounded, unconsolidated,  |
|      |               |                    |       |          |          |         |   |  |
|      |               |                    |       |          |          |         |   |  |
|      | Carlos Martin |                    |       |          |          |         |   |  |
|      |               | 90                 | 1034  | Cuttings | 649      |         | Fine- to medium-orained sand light brown              | n (5VR 6/4) moderately well sorted subrounded/rounded upserselicited         |
|      |               | 50                 | 1034  | outtings | 049      |         | no odor.  | in torns oray, moderately well solited, subrounded/rounded,, unconsolidated, |
|      |               |                    | _     |          |          |         |   |  |
|      |               | nan an             |       |          |          |         |   |  |
|      |               |                    |       |          |          |         |   |  |
|      | -             | 0E                 | 1026  | Cutting  | 622      | 220     | Fine- to medium-grained sand, light brown             | n (5YR 6/4), moderately well sorted, subrounded/rounded,, unconsolidated,    |
|      |               | 90                 | 1036  | Guttings | 522      | 320     | Boring  | terminated at 95 ft (close to groundwater depth).                            |
|      |               |                    |       | _        |          |         |   |  |
|      |               |                    |       | _        |          |         |   |  |
|      |               | 5.551 25.589       |       |          |          |         |   |  |
|      |               |                    |       |          |          | 1.1     |   |  |

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|        |              |            |                  | TT        |                |                                    | LITHOLOGIC LOG   |   |
|--------|--------------|------------|------------------|-----------|----------------|------------------------------------|--|---|
|        |              |            |                  |           |                | CONTE<br>CONTE<br>ILLING N<br>STAR | NG NO.: <b>B-3</b><br>SITE ID: BD Jct. P-30 Site<br>IACTOR: Harrison & Cooper Inc.<br>IETHOD: Air Rotary<br>T DATE: 06/04/08 | TOTAL DEPTH: 95 Feet<br>CLIENT: RICE Operating Company<br>COUNTY: Lea<br>STATE: New Mexico<br>LOCATION: T21S-R37E-Sec 30-Unit P<br>EFELD REP: 6. Van Deventer ( 1. Weinheimer |
|        | 1.14         | Surger and |                  |           |                | CON                                | IMENTS: Located 40 ft east of former junc  | tion box location (marker plate).   |
| P. And | a start      | ier        | and and a second | Marsho Qu | <mark>.</mark> | РНОТО А                            | T LEFT: View facing east showing plugge  | d B-2 in foreground and drilling B-3 in background.   |
| 14     |              | I          | Samol            | 0         | Chloric        |                                    | Boring was backfilled and plugge   | d with bentonite upon completion of sampling.   |
| USCS   | PATTERN      | Depth      | Time             | Туре      | Field          | Lab                                | Color, Grain size, Sorting, Ro   | punding, Consolidation, Moisture, other distinguishiong features  |
|        |              |            | 1110             |           |                |                                    |  |   |
|        |              | a          | 4                |           |                |                                    |  |   |
| SC     |              | 1.4.5.5    |                  |           |                |                                    |  |   |
|        |              | 5          | 1113             | Cuttings  | 674            |                                    | Silty clayey sand, moderate reddish brow   | n (10R 4/6), fine- to medium-grained sand, moderately well sorted,  |
|        |              |            |                  |           |                |                                    | subrounded, unconsolidated, dry, no odol   |   |
|        |              |            |                  |           |                |                                    |  |   |
|        |              |            |                  |           |                |                                    |  |   |
|        |              | 10         | 1114             | Cuttings  | 687            |                                    | Fine- medium-grained sand, very pale ora   | ange (10YR 8/2) and grayish orange pink (5YR 7/2), medium sorted,   |
| 000000 |              |            |                  |           |                |                                    | subrounded/subangungular, unconsolidat   | ted except for some mildly indurated caliche; dry, no odor.   |
| SW     | 5.84%        |            |                  |           |                |                                    |  |   |
|        |              |            |                  |           |                |                                    |  |   |
|        |              | 15         | 1116             | Cuttings  | 1366           |                                    | Fine- to medium-grained sand, light brown  | n (5YR 5/6), moderately well sorted, subrounded,, unconsolidated, dry, no   |
|        |              |            |                  |           |                |                                    | odor.  |   |
|        |              |            |                  |           |                |                                    |  |   |
|        |              |            |                  |           |                |                                    |  |   |
|        |              | 20         | 1117             | Cuttings  | 1060           |                                    | Very fine, to fine, grained cand, light brown  | n (EVP G/4) modium acted subsounded unacceptidated day as oder  |
|        |              |            |                  |           |                |                                    | very meeto meegramed sand, light brown   | (STR 6/4), medium sortea, subroundea, unconsolidatea, ary, no odor.   |
|        |              |            |                  |           |                |                                    |  |   |
| SM     |              |            |                  |           |                |                                    |  |   |
|        |              | 25         | 1121             | Cuttings  | 901            |                                    | Very fine- to fine-grained sand, light brown   | n (5YR 6/4), medium sorted, subrounded/subangular, unconsolidated, dry,   |
|        |              |            |                  |           |                |                                    |  |   |
|        |              |            |                  |           |                |                                    |  |   |
|        |              |            |                  |           |                |                                    |  |   |
|        | c c c        | 30         | 1122             | Cuttings  | 1489           |                                    | Very fine- to fine-grained sand, very pale of  | orange (10YR 8/2) and grayish orange pink (5YR 7/2), with 5-10% calcium   |
|        | с с<br>с     |            |                  |           |                |                                    | carbonate in matrix, unconsolidated excep  | ot for some indurated caliche, dry, no odor.  |
|        | c c c        |            |                  |           |                |                                    |  |   |
|        | c<br>c c c   |            |                  |           |                |                                    |  |   |
|        | c c          | 35         | 1123             | Cuttings  | 1716           |                                    | Very fine- to fine-grained sand, very pale of carbonate and caliche in matrix upconso  | prange (10YR 8/2) and grayish orange pink (5YR 7/2), with 5-10% calcium   |
|        | c c c<br>c c |            |                  |           |                |                                    | sarbonate and sanche in matrix, anconso  | nualeu, ury, no ouor.   |
|        | c<br>c c     |            |                  |           |                |                                    |  |   |
|        | c c          |            |                  |           |                |                                    |  |   |
| SM/CAL | с с с        | 40         | 1124             | Cuttings  | 2138           | 2920                               | Very fine- to fine-grained sand, very pale of carbonate and caliche in matrix upconso  | prange (10YR 8/2) and grayish orange pink (5YR 7/2), with 5-10% calcium   |
|        | C C          |            |                  |           |                |                                    | carbonate and canche in matrix, unconso  |   |
|        | с с<br>с с   |            |                  |           |                |                                    |  |   |
|        | с<br>с с с   |            |                  |           |                |                                    |  |   |
|        | C C<br>C     | 45         | 1304             | Cuttings  | 1264           |                                    | Fine-grained sand, very pale orange (10Y)  | R 8/2) and grayish orange pink (5YR 7/2), with <5% calcium carbonate in durated caliche, dry, no oder.  |
|        | c c c        |            |                  |           |                |                                    | many, unconsolidated exception some im   | anarea canello, di y, lio ouor.   |
|        | c c          |            |                  |           |                |                                    |  |   |
|        | c<br>c c c   |            |                  |           |                |                                    |  |   |
|        | сс           | 50         | 1305             | Cuttings  | 874            |                                    | Fine-grained sand, very pale orange (10Y)<br>matrix, unconsolidated except for some inc                                      | R 8/2) and grayish orange pink (5YR 7/2), with <5% calcium carbonate in<br>durated caliche, dry, no odor.   |

|      | ●           |            |        |          |         |   |           | LITHOLOGIC LOO                    | G            |                     |                             |                               |  |
|------|-------------|------------|--------|----------|---------|---|-----------|-----------------------------------|--------------|---------------------|-----------------------------|-------------------------------|--|
| B-2  | ~           |            |        | B-3      | S       | DIL BORI  | NG NO.:   | B-3 (continued)                   |              | TOTAL DEPTH:        | 95 Feet                     |                               |  |
|      |             | -          |        |          |         |   | SITE ID:  | BD Jct. P-30 Site                 |              | CLIENT:             | RICE Operating Comp         | any                           |  |
| (    | Old Jet Box | 1 .        |        |          |         | CONTR   | ACTOR:    | Harrison & Cooper Drillir         | ing Inc.     | COUNTY:             | Lea                         | ,                             |  |
|      |             | -          | -B-1   |          | DR      | ILLING M  | ETHOD:    | Air Rotary                        |              | STATE               | New Mexico                  |                               |  |
| Ner  | w Jct Box   |            |        |          |         | STAR  | T DATE:   | 06/04/08                          |              | LOCATION:           | T21S-R37E-Sec 30-Un         | it P                          |  |
|      |             |            |        |          | CO      | MPLETIO   | N DATE:   | 06/04/08                          |              | FIELD REP.:         | G. Van Deventer / L. V      | Veinheimer                    |  |
|      |             |            | -B-4   |          |         | COM   | IMENTS:   | Located 40 ft east of for         | rmer junctio | on box location (   | (marker plate).             |                               |  |
|      |             | •          |        |          |         | Boring was backfilled and plugged with bentonite upon completion of sampling. |           |                                   |              |                     |                             |                               |  |
|      |             |            | Sample | 9        | Chloric | le (ppm)  | 1         |                                   |              |                     | DESCRIPTION                 |                               |  |
| USCS | PATTERN     | Depth      | Time   | Туре     | Field   | Lab   |           | Color, Grain size, So             | orting, Rour | nding, Consolida    | ation, Moisture, other dis  | inguishiong features          |  |
|      |             |            |        |          |         |   | Fine- to  | medium-grained sand, ve           | very pale or | ange (10YR 8/2      | ) and grayish orange pin    | k (5YR 7/2), medium sorted,   |  |
|      |             |            |        |          |         |   | Subroun   | ded, unconsolidated, dry          | y, no odor.  |                     |                             |                               |  |
|      |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      | 1.1.1.1.1.1 |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             | 55         | 1306   | Cuttings | 950     |   | Fine- to  | medium-grained sand, ve           | very pale or | ange (10YR 8/2      | ) and grayish orange pin    | k (5YR 7/2), medium sorted,   |  |
|      |             |            |        |          |         |   | subroun   | ded, unconsolidated, dry          | y, no odor.  |                     |                             |                               |  |
|      |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      | 1.990.00    | 60         | 1307   | Cuttings | 912     |   | Fine- to  | medium-grained sand, ve           | very pale or | ange (10YR 8/2      | ) and grayish orange pin    | k (5YR 7/2), moderately well  |  |
|      |             |            |        |          |         |   | sorted, s | subrounded/rounded, und           | consolidate  | ea, ary, no oaor.   |                             |                               |  |
|      |             | 2          |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             | den ser me |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             | 65         | 1309   | Cuttings | 970     |   | Fine- to  | medium-grained sand, ve           | very pale or | ange (10YR 8/2      | ) and grayish orange pin    | k (5YR 7/2), moderately well  |  |
|      |             |            |        |          |         |   | sorred, a | abiounded/ounded, und             | consolidate  | a, ary, no odor.    |                             |                               |  |
|      |             | 1.00       |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      | al real fa  |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             |            | 10.10  |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             | 70         | 1310   | Cuttings | 1064    |   | dry, no d | medium-grained sand, lig<br>odor. | ight brown ( | (5YR 6/4), mode     | erately well sorted, subro  | unded/rounded, unconsolidated |  |
|      |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
| SW   |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             | 75         | 1314   | Cuttings | 840     |   | Fine to   | modium arained cand list          | ight brown ( | (EVP 6/4) mode      | visitely well costed, subro | unded/munded_uneenselidete.   |  |
|      | 125         | 15         | 1314   | Cuttings | 040     |   | dry, no c | odor.                             | ight brown i | (311004), 11006     | rately well sorted, subro   | unded/founded, unconsolidated |  |
|      |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             | 80         | 1315   | Cuttings | 1009    |   | Fine- to  | medium-grained sand, lic          | iaht brown ( | (5YR 6/4), mode     | erately well sorted, subro  | unded/rounded_unconsolidated  |  |
|      | 1.1.1       |            |        |          | 1.545.5 |   | dry, no c | odor.                             | .g           | (0111011), 11000    |                             |                               |  |
|      |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
| -    |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             | 85         | 1317   | Cuttings | 1762    |   | Fine- to  | medium-grained sand, lig          | ight brown ( | (5YR 6/4), mode     | erately well sorted, subro  | unded/rounded, unconsolidated |  |
|      |             |            |        |          |         |   | dry, no c | odor.                             |              |                     |                             |                               |  |
|      |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             |            |        |          |         |   | _         |                                   |              |                     |                             |                               |  |
|      |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             | 90         | 1318   | Cuttings | 979     |   | Fine- to  | medium-grained sand, lig          | ight brown ( | (5YR 6/4), well s   | orted, rounded/subround     | ded, unconsolidated, dry, no  |  |
|      |             |            |        |          |         |   | ouor.     |                                   |              |                     |                             |                               |  |
|      |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             |            |        |          |         |   | Fine- to  | medium-grained sand, lic          | ight brown ( | (5YR 6/4), well s   | orted, rounded/subroun      | ded, unconsolidated. slightly |  |
|      |             | 95         | 1319   | Cuttings | 1087    | 1220  | moist, no | o odor.                           | oring torm   | ated at 05.4 /-1    | an to group to star i i     |                               |  |
|      |             |            |        |          |         |   |           | Во                                | oring termin | ialeo al 95 ft (clo | ose to groundwater dept     | n).                           |  |
|      |             | in intern  |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             |            |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             | 100        |        |          |         |   |           |                                   |              |                     |                             |                               |  |
|      |             | 100        |        |          |         |   |           |                                   |              |                     |                             |                               |  |

|        |                                       | 1           |   |                |         |          | LITHOLOGIC LOG  |  |
|--------|---------------------------------------|-------------|---|----------------|---------|----------|---|--|
|        |                                       | Lin         |   |                | SO      | IL BORIN | IG NO.: <b>B-4</b>  | TOTAL DEPTH: 95 Feet   |
| -      | -                                     | 1           | 1the  | and and        | 2       | 5        | ITE ID: BD Jct. P-30 Site   | CLIENT: RICE Operating Company   |
|        | -                                     | -           | e de la compañía de l |                |         | CONTR    | ACTOR: Harrison & Cooper Inc.   | COUNTY: Lea  |
|        |                                       | Jan -       |   |                | DRII    | LLING M  | ETHOD: Air Rotary   | STATE: New Mexico  |
|        | all series                            |             |   | 1              |         | START    | DATE: 06/04/08  | LOCATION: T21S-R37E-Sec 30-Unit P  |
|        | A A A A A A A A A A A A A A A A A A A |             |   | 6.20           | COM     | IPLETION | DATE: 06/04/08  | FIELD REP.: G. Van Deventer / L. Weinheimer  |
| the s  | The state                             | - And -     | -   | (Bridler, L.L. |         | СОМ      | MENTS: Located 82 ft south of former jur  | nction box location (marker plate).  |
| 5      | Alex A                                | Sain!       | Startings.  | Star Phil      | P       | HOTO A   | LEFT: View facing north showing plugg   | ed B-4 in foreground and drilling B-5 in background.   |
|        |                                       |             | Sample  | 9              | Chlorid | e (ppm)  | Boring was backfilled and plugge  | LITHOLOGIC DESCRIPTION   |
| USCS   | PATTERN                               | Depth       | Time  | Туре           | Field   | Lab      | Color, Grain size, Sorting,   | , Rounding, Consolidation, Moisture, other distinguishiong features  |
|        |                                       |             | 1350  |                |         |          |   |  |
|        |                                       |             |   |                |         |          |   |  |
|        |                                       |             |   |                |         |          |   |  |
|        |                                       |             |   |                |         |          |   |  |
| SC     |                                       | 5           | 1354  | Cuttings       | 1635    |          | Clayey sand, moderate reddish brown (10<br>subrounded/rounded_unconsolidated_dry  | 0R 4/6), fine- to medium-grained sand, moderately well sorted,<br>v. no.odor   |
|        |                                       |             |   |                |         |          | and a second s |  |
|        |                                       |             |   |                |         |          |   |  |
|        |                                       | 200 II 8105 |   |                |         |          |   |  |
|        |                                       |             |   |                |         |          | Clayey sand, moderate reddish brown (10   | 0R 4/6), fine- to medium-grained sand, moderately well sorted,   |
|        |                                       | 10          | 1355  | Cuttings       | 2726    | 2920     | subrounded/rounded, unconsolidated, dry   | y, no odor.  |
|        |                                       |             |   |                |         |          |   |  |
|        | and the                               |             |   |                |         |          |   |  |
|        | 1.00                                  | est el s    |   |                |         |          |   |  |
|        |                                       | 16          | 1256  | Cuttings       | 2072    |          | Fine-grained sand light brown (5YR 5/6)   | moderately well sorted subrounded/rounded mostly unconsolidated with   |
| SW     |                                       | 15          | 1350  | Cuttings       | 2073    |          | some indurated rock up to $1/2$ ", dry, no od   | dor.   |
|        |                                       |             |   |                |         |          |   |  |
|        |                                       |             |   |                |         |          |   |  |
|        |                                       |             |   |                |         |          |   |  |
|        | (Sept.)                               | 20          | 1357  | Cuttings       | 1595    |          | Very fine- to fine-grained sand, very pale<br>subrounded/subangular, mostly unconsol  | orange (10YR 8/2) and grayish orange pink (5YR 7/2), medium sorted, lidated with some indurated rock up to 1", dry, no odor.           |
|        | c c c                                 |             |   | 5              |         |          |   |  |
|        | c c<br>c                              |             |   |                |         |          |   |  |
|        | ссс                                   |             |   |                |         |          |   |  |
|        | c c                                   |             |   |                |         |          |   |  |
|        | ссс                                   | 25          | 1401  | Cuttings       | 1779    |          | Very fine- to fine-grained sand, very pale  | orange (10YR 8/2) and grayish orange pink (5YR 7/2), medium sorted,<br>lideted with some industed rock up to $\frac{1}{2}$ dry no oder |
|        | c . c                                 |             |   |                |         |          | sae oundearsabangular, mostly unconsol  | nation mitri donio indurato i don up to 1/4 , ury, no dudi.  |
| SM/CAL | c                                     |             |   |                |         |          |   |  |
|        | c c c                                 |             |   |                |         |          |   |  |
|        | с с<br>с с                            |             |   |                |         |          | Very fine- to fine-grained sand you sale  | orange (10YR 8/2) and gravish orange nink (5YP 7/2) medium sected  |
|        | c                                     | 30          | 1402  | Cuttings       | 1696    |          | subrounded/subangular, mostly unconsol  | lidated with some indurated rock up to 1/4", dry, no odor.   |
|        | c c                                   |             |   |                |         |          |   |  |
|        | c c                                   |             |   |                |         |          |   |  |
|        | c c                                   | -           |   |                |         |          |   |  |
|        | с                                     | 35          | 1403  | Cuttings       | 1485    |          | Very fine- to fine-grained sand, very pale  | orange (10YR 8/2) and grayish orange pink (5YR 7/2), medium sorted,  |
|        |                                       | 00          |   | Counigo        |         |          | subrounded/subangular, unconsolidated,  | dry, no odor.  |
|        |                                       |             |   |                |         |          |   |  |
|        |                                       |             |   |                |         |          |   |  |
| SM     |                                       |             |   |                |         |          |   |  |
| GIVI   | 1 Acti                                | 40          | 1404  | Cuttings       | 880     |          | Very fine- to fine-grained sand, very pale  | orange (10YR 8/2) and grayish orange pink (5YR 7/2), medium sorted, dv. no odor.   |
|        |                                       |             |   |                |         |          | subrounded/subangular, unconsolidated,  | ury, no odor.  |
|        |                                       |             |   |                |         |          |   |  |
|        | and the second                        |             |   |                |         |          |   |  |
|        | e Bana                                |             |   |                |         |          |   |  |
|        |                                       | 45          | 1405  | Cuttings       | 1234    |          | Fine-grained sand, light brown (5YR 5/6)  | , medium sorted, subrounded, unconsolidated, dry, no odor.   |
|        | and the                               |             |   |                |         |          |   |  |
| SW     | 1.18                                  |             |   |                |         |          |   |  |
|        |                                       |             |   |                |         |          |   |  |
|        |                                       |             |   |                | 10      |          | Fine- to medium-grained sand, light brow  | n (5YR 5/6), moderately well sorted, subrounded/rounded, unconsolidated,   |
|        |                                       | 50          | 1406  | Cuttings       | 758     |          | dry, no odor.   |  |

|      |             | •     | P.F.   |          |         |         | LITHOLOGIC LOG   |   |
|------|-------------|-------|--------|----------|---------|---------|--|---|
| B-2  | <b>`</b>    | -     | 8-0    | B-3      | SO      | IL BORI | NG NO.: <b>B-4 (Continued)</b><br>SITE ID: BD Jct. P-30 Site | TOTAL DEPTH: 95 Feet<br>CLIENT: RICE Operating Company  |
| (    | Old Jet Box |       |        |          | DRI     |         | ACTOR: Harrison & Cooper Drilling Inc.                       | COUNTY: Lea   |
|      |             |       | B-1    |          | DRI     |         | ETHOD: Air Rotary  | STATE: New Mexico   |
| Ner  | w Jct Box   |       |        |          |         | STAR    | DATE: 06/04/08   | LOCATION: 121S-R3/E-Sec 30-Unit P   |
|      |             |       |        |          | LCOM    | IPLETIO | DATE: 06/04/08   | FIELD REP.: G. Van Deventer / L. Weinheimer   |
|      |             | /     | -B-4   |          |         | COM     | MENTS: Located 82 ft south of former ju                      | nction box location (marker plate).   |
|      |             | •     |        |          |         |         | Boring was backfilled and plugge                             | ed with bentonite upon completion of sampling.  |
| USCS | PATTERN     |       | Sample | e        | Chlorid | e (ppm) |  | LITHOLOGIC DESCRIPTION  |
|      | 11-15-03    | Depth | Time   | Туре     | Field   | Lab     | Color, Grain size, Sorting                                   | g, Rounding, Consolidation, Moisture, other distinguishiong features<br>(5XP, 5/6), moderately well sorted, subrounded/rounded, upconsolide |
|      | 1.16        |       |        |          |         |         | dry, no odor.  | (STR 50), moderately well solled, subrounded rounded, unconsolida   |
|      |             |       |        |          |         |         |  |   |
|      | 24118       |       |        |          |         |         |  |   |
|      |             |       |        |          |         |         |  |   |
|      |             | 55    | 1407   | Cuttings | 859     |         | Fine- to medium-grained sand, light brow                     | vn (5YR 5/6), moderately well sorted, subrounded/rounded, unconsolida   |
|      | - 4.900     |       |        |          |         |         |  |   |
|      | al Hay      |       |        |          |         |         |  |   |
|      |             |       |        |          |         |         |  |   |
|      |             |       |        |          |         |         |  |   |
|      |             | 60    | 1408   | Cuttings | 659     |         | Fine- to medium-grained sand, light brow                     | n (5YR 5/6), moderately well sorted, subrounded/rounded, unconsolid   |
|      |             |       |        |          |         |         | ary, no odor.  |   |
|      |             |       |        |          |         |         |  |   |
|      |             |       |        |          |         |         |  |   |
|      |             |       |        |          |         |         |  |   |
|      | and the     | 65    | 1409   | Cuttings | 454     |         | Fine- to medium-grained sand, light brow                     | n (5YR 5/6), moderately well sorted, subrounded/rounded, unconsolid   |
|      |             |       |        |          |         |         | dry, no odor.  |   |
|      |             |       |        |          |         |         |  |   |
|      |             |       |        |          |         |         |  |   |
|      |             |       |        |          |         |         |  |   |
|      |             | 70    | 1410   | Cuttings | 472     |         | Fine- to medium-grained sand, light brow                     | n (5YR 5/6), moderately well sorted, subrounded/rounded, unconsolidation  |
|      | 1.1.1       |       |        |          |         |         | dry, no odor.  |   |
|      |             |       |        |          |         |         |  |   |
| SW   |             |       |        |          |         |         |  |   |
|      |             |       |        |          |         |         |  |   |
|      |             | 75    | 1411   | Cuttings | 560     |         | Fine- to medium-grained sand, light brow                     | m (5YR 6/4), moderately well sorted, subrounded/rounded, unconsolidation  |
|      |             |       |        |          |         |         | dry, no odor.  |   |
|      |             |       |        |          |         |         |  |   |
|      |             |       |        |          |         |         |  |   |
|      |             |       |        |          |         |         |  |   |
|      |             | 80    | 1413   | Cuttings | 493     |         | Fine-grained sand, gravish grange pink (                     | 5YR 7/2), medium sorted, subrounded, unconsolidated, dry, no odor   |
|      |             |       |        |          |         |         |  | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,   |
|      |             |       |        |          |         |         |  |   |
|      |             |       |        |          |         |         |  |   |
|      |             |       |        |          |         |         |  |   |
|      |             | 85    | 1415   | Cuttings | 600     |         | Fine- to medium-grained sand, light brow                     | n (5YR 6/4), moderately well sorted, subrounded/rounded, unconsolid   |
|      | 12          |       |        |          |         |         | dry, no odor.  |   |
|      | S. R. M.    |       |        |          |         |         |  |   |
|      | 1000        |       |        |          |         |         |  |   |
|      |             |       |        |          |         |         |  |   |
|      |             | 90    | 1416   | Cuttings | 381     |         | Fine- to medium-grained sand, light brow                     | n (5YR 6/4), well sorted, rounded/subrounded, unconsolidated, dry, no   |
|      |             |       |        |          |         |         | odor.  |   |
|      |             |       |        |          |         |         |  |   |
|      |             |       |        |          |         |         |  |   |
|      |             |       |        |          |         |         | Fine- to medium-grained sand, light brown                    | n (5YR 6/4) well sorted rounded/subrounded unconsolidated aliabilit   |
|      | V           | 95    | 1417   | Cuttings | 406     | 304     | moist, no odor.  | (critection), weinschied, rounded/subrounded, unconsolidated, slightly  |
|      |             |       |        |          |         |         | Boring terr  | minated at 95 ft (close to groundwater depth).  |
| -    |             |       |        |          |         |         |  |   |
|      |             |       |        |          |         |         |  |   |
|      |             |       |        |          |         |         |  |   |
|      |             | 100   |        |          |         |         |  |   |

|        |  |       |       |           |            |                                      | LITHOLOGIC LOC   | 3   |
|--------|--|-------|-------|-----------|------------|--------------------------------------|--|---|
|        |  |       |       |           | SO<br>DRII | IL BORII<br>CONTR<br>LLING M<br>STAR | NG NO.: <b>B-5</b><br>SITE ID: BD Jct. P-30 Site<br>ACTOR: Harrison & Cooper Inc.<br>ETHOD: Air Rotary<br>T DATE: 06/04/08<br>N DATE: 06/04/08 | TOTAL DEPTH: 95 Feet<br>CLIENT: RICE Operating Company<br>COUNTY: Lea<br>STATE: New Mexico<br>LOCATION: T21S-R37E-Sec 30-Unit P<br>FIELD REP.: G. Van Deventer / L. Weinheimer                                      |
|        |  |       | 1     | 5         | F          | СОМ<br>РНОТО А                       | MENTS: Located 37 ft north of former ji<br>T LEFT: View facing south showing plug<br>Boring was backfilled and plugo                           | unction box location (marker plate).<br>gged B-5 in foreground.<br>aed with bentonite upon completion of sampling.  |
| USCS   | PATTERM                                      | Depth | Sampl | e<br>Type | Chlorid    | e (ppm)                              | Color Grain size S   | LITHOLOGIC DESCRIPTION  |
| SC     |  | 5     | 1520  | Cuttings  | 512        |                                      | Clayey sand, moderate reddish brown (10F<br>unconsolidated, dry, no odor.  | R 4/6), fine- to medium-grained sand, moderately well sorted, subrounded/rounded,   |
|        |  | 10    | 1522  | Cuttings  | 710        |                                      | Very fine- to fine-grained sand, very pale o<br>-5-10% calcium carbonate in matrix. Unco   | range (10YR 8/2) and gravish orange pink (5YR 7/2), medium sorted and subrounded, with<br>nsolidated except for some indurated caliche, dry, no odor.   |
|        | 0 0 0<br>0 0 0<br>0 0 0<br>0 0<br>0 0<br>0 0 | 15    | 1524  | Cuttings  | 697        |                                      | Very fine- to fine-grained sand, grayish ora<br>~5-10% calcium carbonate in matrix. Unco   | nge pink (5YR 7/2) and very pale orange (10YR 8/2), medium sorted and subrounded, with<br>nsolidated except for some indurated caliche, dry, no odor.   |
|        | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0        | 20    | 1525  | Cuttings  | 783        |                                      | Very fine- to fine-grained sand, grayish ora<br>-5-10% calcium carbonate in matrix. Unco   | nge pink (5YR 7/2) and very pale orange (10YR 8/2), medium sorted and subrounded, with<br>nsolidated except for some indurated caliche, dry, no odor.   |
| SM/CAL | с с с с с<br>с с с с с с                     | 25    | 1526  | Cuttings  | 921        | 1340                                 | Very fine- to fine-grained sand, grayish ora<br>-5-10% calcium carbonate in matrix. Unco   | nge pink (5YR 7/2) and very pale orange (10YR 8/2), medium sorted and subrounded, with<br>insolidated except for some indurated caliche, dry, no odor.  |
|        | 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0       | 30    | 1528  | Cuttings  | 782        |                                      | Very fine- to fine-grained sand, very pale o<br>Sand grains are medium sorted, subrounde   | range (10YR 8/2) and grayish orange pink (5YR 7/2) with -5-10% calcium carbonate in matrix.<br>ed, unconsolidated except for some indurated caliche, dry, no odor.  |
|        | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2        | 35    | 1529  | Cuttings  | 582        |                                      | Very fine- to fine-grained sand, very pale o<br>Sand grains are medium sorted, subrounde   | range (10YR 8/2) and grayish orange pink (5YR 7/2) with ~5-10% calcium carbonate in matrix.<br>ad, unconsolidated except for some indurated caliche, dry, no odor.  |
|        | 0 0 0 0<br>0 0 0 0 0 0 0                     | 40    | 1530  | Cuttings  | 518        |                                      | Very fine- to fine-grained sand, grayish ora<br>< 5% calcium carbonate in matrix. Uncons   | nge pink (5YR 7/2) and very pale orange (10YR 8/2), medium sorted and subrounded, with<br>olidated except for some indurated caliche, dry, no odor.   |
| SW     | C C  | 45    | 1531  | Cuttings  | 303        |                                      | Very fine- to fine-grained sand, grayish ora<br>< 5% calcium carbonate in matrix. Uncons<br>Fine-grained sand, light brown (SYR 5/6), n        | nge pink (SYR 7/2) and very pale orange (10YR 8/2), medium sorted and subrounded, with<br>olidated except for some indurated caliche, dry, no odor.<br>noderately sorted, subrounded, unconsolidated, dry, no odor. |
|        |  | 50    | 1532  | Cuttings  | 274        |                                      | Fine-grained sand, light brown (5YR 6/4), n  | noderately sorted, subrounded, unconsolidated, dry, no odor.  |





|      |             | •                |              |          |         |          | LITHOLOGIC LOG   |   |
|------|-------------|------------------|--------------|----------|---------|----------|--|---|
| B-2  | Old Jct Box | -                | B-5          | B-3      | SO      | IL BORII | G NO.: B-5 (Continued) TOTAL DEP<br>TE ID: BD Jct. P-30 Site CLIEI<br>CTOR: Harrison & Cooper Drilling Inc. COUN | TH: 95 Feet<br>IT: RICE Operating Company<br>IY: Lea  |
|      |             | <b>#</b>         | - <b>B-1</b> |          | DRII    | LING M   | THOD: Air Rotary STA   | TE: New Mexico  |
| Ne   | w Jet Box   |                  |              |          | COM     | STAR     | DATE: 06/04/08 LOCATIO   | N: T21S-R37E-Sec 30-Unit P  |
|      |             |                  |              |          |         | COM      | INTS: Located 37 ft porth of former junction box loc   | P.: G. Van Deventer / L. weinneimer   |
|      |             |                  | -B-4         |          |         | COLL     | Boring was backfilled and plugged with bento   | nite upon completion of sampling.   |
|      | 1           | 1                | Carrol       | 0        | Chlorid |          |  |   |
| JSCS | PATTERN     | Depth            | Time         | Type     | Field   | Lab      | Color, Grain size, Sorting, Rounding,  | Consolidation, Moisture, other distinguishiong features   |
|      | 136.33      |                  |              |          |         |          | Fine-grained sand, light brown (5YR 6/4), moderately sorte   | d, subrounded, unconsolidated, dry, no odor.  |
|      | 19191.47    |                  |              |          |         |          |  |   |
|      |             |                  |              |          |         |          |  |   |
|      |             |                  |              |          |         |          |  |   |
|      | - He with   | 55               | 1533         | Cuttings | 88      |          | Fine- to medium-grained sand, light brown (5YR 6/4) and g<br>unconsolidated, dry, no odor.                       | rayish orange pink (5YR 7/2), moderately well sorted, subrounded/rounded                                      |
|      |             |                  |              |          |         |          |  |   |
|      |             |                  |              |          |         |          |  |   |
|      |             |                  |              |          |         |          |  |   |
|      | Sec. 1      | 60               | 1534         | Cuttings | 173     | 1        | Fine- to medium-grained sand, light brown (5YR 6/4) and g  | rayish orange pink (5YR 7/2), medium sorted, subrounded/rounded,  |
|      |             |                  |              |          |         |          | unconsolidated, dry, no odor.  |   |
|      |             |                  |              |          |         |          |  |   |
|      |             |                  |              |          |         |          |  |   |
|      |             | 65               | 1535         | Cuttings | 91      |          | Fina to modium arained send light brown (EVP C/4) mod  | rately well control, subrounded/rounded, unconsolidated, day, no oder   |
|      |             |                  |              |          |         |          | Fine- to medium-grained sand, light brown (SYR 6/4), mode  | rately well sorted, subrounded/rounded, unconsolidated, dry, no odor.   |
|      |             |                  |              |          |         |          |  |   |
|      |             |                  |              |          |         |          |  |   |
|      |             | 70               | 1540         | 0        | 0.0     |          |  |   |
|      |             | 70               | 1540         | Cuttings | 00      |          | Fine- to medium-grained sand, light brown (5YR 6/4), mode  | arately well sorted, subrounded/rounded, unconsolidated, dry, no odor.  |
|      |             |                  |              |          |         |          |  |   |
| SW   |             | Contract Charter |              |          |         |          |  |   |
|      |             |                  |              |          |         |          |  |   |
|      |             | 75               | 1545         | Cuttings | 236     |          | Fine- to medium-grained sand, light brown (5YR 6/4), mode  | erately well sorted, subrounded/rounded, unconsolidated, dry, no odor.  |
|      |             | a landar manar   |              |          |         |          |  |   |
|      |             |                  |              |          |         |          |  |   |
|      |             |                  |              |          |         |          |  |   |
|      |             | 80               | 1547         | Cuttings | *       |          | Fine- to medium-grained sand, light brown (5YR 6/4), mode  | arately well sorted, subrounded/rounded, unconsolidated, dry, no odor.  |
|      |             |                  |              |          |         |          |  |   |
|      |             |                  |              |          |         |          |  |   |
|      |             |                  |              |          |         |          |  |   |
|      |             | 85               | 1552         | Cuttings | *       |          | Fine- to medium-grained sand light brown (5YR 6/4) mod   | arately well sorted, subrounded/rounded, unconsolidated, dry, no odor   |
|      | 111         |                  |              |          |         |          |  | sately were derived, address address and a state solution address and state solutions.                        |
|      |             |                  |              |          |         |          |  |   |
|      |             |                  |              |          |         |          |  |   |
|      |             | 90               | 1553         | Cuttings |         |          |  |   |
|      | Sec. 18     |                  |              | ooningo  |         |          | Fine- to medium-grained sand, light brown (5YR 6/4), mode  | arately well sorted, subrounded/rounded, unconsolidated, dry, no odor.  |
|      |             |                  |              |          |         |          |  |   |
|      |             |                  |              |          |         |          |  |   |
|      |             |                  |              |          |         |          |  |   |
|      |             | 95               | 1554         | Cuttings |         | 32       | Fine- to medium-grained sand, light brown (5YR 6/4), mode<br>Boring terminated at                                | erately well sorted, subrounded/rounded, unconsolidated, dry, no odor.<br>95 ft (close to groundwater depth). |
|      |             |                  |              |          |         |          | * Soil boring was continued to 95 ft to provide soil lithe   | logy. Samples were not field tested for chloride since  |
|      |             |                  |              |          |         |          | concentrations decreased to less than 250 ppm from the laboratory.   | 50 to 75 ft. Bottom sample collected for chloride analysis by   |
|      |             |                  |              |          |         |          |  |   |
|      |             | 100              |              |          |         |          |  |   |

|         |   |          |        | 1        |         | I   | LITHOLOGIC LOG  |   | ]            |                          |              |
|---------|---|----------|--------|----------|---------|---|---|---|--------------|--------------------------|--------------|
|         |   |          |        |          |         | DIL BORIN<br>S<br>CONTR<br>ILLING MI<br>START<br>MPLETION | NG NO.: <b>MW-1</b><br>SITE ID: BD Jct. P-30 Site<br>ACTOR: Harrison & Cooper Inc.<br>ETHOD: Air Rotary<br>F DATE: 06/16/09<br>N DATE: 06/16/09 | TOTAL DEPTH: 110 Feet<br>CLIENT: RICE Operating Company<br>COUNTY: Lea<br>STATE: New Mexico<br>LOCATION: T21S-R37E-Sec 30-Unit P<br>FIELD REP.: G. Van Deventer<br>insting (markor plata) |              |                          |              |
| there . | NOT THE   |          | 1      |          | PHOTO   | AT LEFT:  | View facing northwest showing drilling a  | at monitoring well MW-1.  |              |                          |              |
| USCS    | PATTERN   |          | Sample | 9        | Chloric | le (ppm)  | LITHOL  | OGIC DESCRIPTION  |              |                          | ]            |
|         |   | Depth    | Time   | Туре     | Field   | Lab   | Color, Grain size, Sorting, Rounding, C   | onsolidation, Moisture, other distinguishiong features  | 5            |                          |              |
|         |   | 5        |        |          |         |   | Fine sand, very pale orange (10YR 8/2)<br>poorly sorted, subangungular/subround   | ) and grayish orange pink (5YR 7/2), medium to<br>ed, unconsolidated, dry, no odor.   | Cement       |                          | Cement       |
| SM      |   | 10       | 1620   | Cuttings | 1499    | 1820  | Fine sand, very pale orange (10YR 8/2)<br>poorly sorted, subangungular/subround   | ) and grayish orange pink (5YR 7/2), medium to<br>ied, unconsolidated, dry, no odor.  |              |                          |              |
|         | ссс   | 15       | 1622   | Cuttings | 644     |   |   |   |              |                          |              |
|         |   | 25       | 1022   | Cuttings | 044     |   | Very fine- to fine-grained sand, very pal<br>7/2), some calcium carbonate in matrix,<br>dry, no odor.   | le orange (10YR 8/2) and grayish orange pink (5YR<br>, mostly unconsolidated with some indurated caliche  | te Hole Plug | ched 40 PVC Blank Casing | te Hole Plug |
| SM/CAL  | C C C<br>C C<br>C C C<br>C C<br>C C<br>C C<br>C C<br>C C<br>C C | 30       | 1625   | Cuttings | 432     |   | Very fine- to fine-grained sand, very pa<br>7/2), some calcium carbonate in matrix,<br>dry, no odor.  | le orange (10YR 8/2) and grayish orange pink (5YR<br>, mostly unconsolidated with some indurated caliche  | 3/8 Bentoni  | 2" S                     | 3/8 Bentoni  |
|         |   | 35<br>40 | 1628   | Cuttings | 248     |   | Very fine, to fine-grained sand, you go   | Is orange (10YR $8/2$ ) and gravish grange pipt (SVR  |              |                          |              |
|         |   | 45       |        |          |         |   | 7/2), some calcium carbonate in matrix.<br>dry, no odor.  | , mostly unconsolidated with some indurated caliche   |              |                          |              |
| SW      |   | 50       | 1630   | Cuttings | 153     |   | Fine- to medium-grained sand, light bro<br>rounded/subrounded, unconsolidated, o  | own (5YR 6/4), moderately well sorted,<br>dry, no odor.   |              |                          |              |

|       |                   | 1     |       | and the state |       |          |  |        |        |   |
|-------|-------------------|-------|-------|---------------|-------|----------|--|--------|--------|---|
| 11808 | DATTERN           | Dopth | Sampl | Tupo          | Eield | de (ppm) | LITHOLOGIC DESCRIPTION   |        |        |   |
| 0303  | PATTERN           | Depth | Time  | Туре          | Tield | Lab      | Color, Grain size, Sorting, Rounding, Consolidation, Moisture, other distinguismong reature                      | es     |        |   |
|       |                   |       |       |               |       |          |  |        |        |   |
|       | 1                 |       |       |               |       |          |  |        |        |   |
|       |                   |       |       |               |       |          |  |        |        |   |
|       |                   | 55    |       |               |       |          |  |        |        |   |
|       |                   |       |       |               |       |          |  |        |        |   |
|       |                   |       |       |               |       |          |  |        |        |   |
|       |                   |       |       |               |       |          |  |        |        |   |
|       |                   |       | 1000  | 0.00          |       |          |  |        |        |   |
|       |                   | 60    | 1632  | Cuttings      | 200   |          | Fine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted,                                     |        |        |   |
|       | 1685              |       |       |               |       |          | ioundeusabioundeu, unconsolidateu, ary, no odor.   |        |        |   |
|       | 1689              |       |       |               |       |          |  |        |        |   |
|       |                   |       |       |               |       |          |  |        |        |   |
|       |                   | 65    |       |               |       |          |  | bn     |        |   |
|       |                   |       |       |               |       |          |  | ole P  |        |   |
|       | 199               |       |       |               |       |          |  | te Ho  | sing   | 1 |
|       | 2.5               |       |       |               |       |          |  | ntoni  | K Ca   |   |
|       |                   |       |       |               |       |          |  | 8 Be   | Blar   |   |
|       | 12.12             | 70    | 1634  | Cuttings      | 200   |          | Fine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted,                                     | 3/     | PVC    |   |
|       |                   |       |       |               |       |          | rounded/subrounded, unconsolidated, dry, no odor.  |        | d 40   |   |
|       |                   |       |       |               |       |          |  |        | Sche   |   |
|       |                   |       |       |               |       |          |  |        | 2" 0   |   |
|       |                   | 75    |       |               |       |          |  |        |        |   |
|       | 1250              |       |       |               |       |          |  |        |        |   |
|       | 1.0               |       |       |               |       |          |  |        |        |   |
|       | 1.00              |       |       |               |       |          |  |        |        |   |
|       | 1166              | 00    | 1000  | 0             | 110   |          |  |        |        |   |
| SW    |                   | 80    | 1636  | Cuttings      | 118   |          | Fine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted,                                     |        |        |   |
|       | - 220             |       |       |               |       | -        | rounded/subrounded, unconsolidated, ary, no odor.  |        |        |   |
|       | 1000              |       |       |               |       |          |  |        |        |   |
|       |                   |       |       | -             |       |          |  |        |        |   |
|       |                   | 85    |       |               |       |          |  |        |        |   |
|       |                   |       |       |               |       |          | and the second |        |        |   |
|       |                   |       |       |               |       |          |  |        |        |   |
|       |                   |       |       |               |       |          |  |        |        |   |
|       |                   | 00    | 1000  | 0             | 110   | 10       |  |        |        |   |
|       |                   | 90    | 1030  | Cuttings      | 119   | 10       | Fine- to medium-grained sand, light brown (5YR 6/4), moderately well sorted,                                     |        |        |   |
|       |                   |       |       |               |       |          |  |        |        |   |
|       |                   |       |       |               |       |          |  |        |        |   |
|       |                   |       | _     |               |       |          |  |        | s      |   |
|       | V                 | 95    |       |               |       |          |  | Pack   | " Slot |   |
|       |                   |       |       |               |       |          | Groundwater encountered at approximately 95 ft below ground surface  | Sand   | 010    |   |
|       |                   |       |       |               |       |          |  | lica S | vith 0 |   |
| _     |                   |       |       |               |       |          |  | dy Sil | N UBB  |   |
|       |                   | 100   |       |               |       |          |  | Brac   | Scre   |   |
|       |                   | 100   |       |               |       |          |  | 20/40  | Dia    |   |
|       |                   |       |       |               |       |          |  |        | 2      |   |
|       | 199.85            |       | -     |               |       |          |  |        | E      |   |
|       |                   |       |       |               |       |          |  |        |        |   |
| _     |                   | 105   |       | -             |       |          |  |        |        |   |
|       |                   |       |       |               |       |          |  |        |        |   |
|       |                   |       |       |               |       |          |  |        |        | - |
|       |                   |       |       |               |       |          |  | -      | 5'     | - |
|       |                   |       |       |               |       |          |  |        | E      | Ę |
|       | The second second | 110   |       |               |       |          | Bottom of monitoring well at 110 ft bos  |        | V      |   |

Attachment C

Laboratory Analytical Reports

and

Chain of Custody Documentation



ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: HACK CONDER 122 WEST TAYLOR HOBBS, NM 88240 FAX TO: (575) 397-1471

Receiving Date: 06/13/08 Reporting Date: 06/13/08 Project Number: NOT GIVEN Project Name: BD JCT. P-30 Project Location: BD JCT. P-30 Analysis Date: 06/13/08 Sampling Date: 06/03/08 & 06/04/08 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: ML Analyzed By: KS

| LAD NO.               | SAIVIFEEID                             | (119/69) |
|-----------------------|--|----------|
| H14980-1              | SB #1 @ 40'                            | 3,840    |
| H14980-2              | SB #1 @ 95'                            | 1,700    |
| H14980-3              | SB #2 @ 30'                            | 2,530    |
| H14980-4              | SB #2 @ 95'                            | 320      |
| H14980-5              | SB #3 @ 40'                            | 2,920    |
| H14980-6              | SB #4 @ 10'                            | 2,920    |
|                       |  |          |
| Quality Contro        | bl                                     | 490      |
| True Value Q          | C                                      | 500      |
| % Recovery            |  | 98.0     |
| <b>Relative Perce</b> | ent Difference                         | 2.0      |
|                       | ······································ |          |
| = I HOD: Stand        | dard Methods                           | 4500-CFB |

METHOD: Standard Methods 4 Note: Analyses performed on 1:4 w:v aqueous extracts.

Kist Suproto

06/13/08



PLEASE NOTE: Llability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable Service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

| N YSIS REDUEST          |   | REQUEST                         |                              |                          |                      |                   |                |                            |                                |                                 |                          |  |                        |   |                   |   |  |                            |   |  |  |                   | priceswd.com;  |
|-------------------------|---|---------------------------------|------------------------------|--------------------------|----------------------|-------------------|----------------|----------------------------|--------------------------------|---------------------------------|--------------------------|--|------------------------|---|-------------------|---|--|----------------------------|---|--|--|-------------------|--|
| AIN-OF-CLISTODY AND AND |   | ANALYSIS                        |                              |                          |                      |                   |                | sət                        | Diric                          | Dlr                             | CI                       |  |                        | ٤. ٢  |                   | ► K:  | × 1  | 35 V                       | e clent for the<br>period of the splicable<br>ts entherications   | or otherwise.  | one result: U res 2 No Add I Phone #:<br>Result: U Yes 2 No Add I Fax #:<br>MARKS: | mail results      | conder@riceswd.com; jpurvis@<br>weinheimer@rice.swd.com                    |
|                         |   | BILLTO                          | P.O. #:                      | Company:                 | Attn:                | Address:          | City:          | State: Zip:                | Phone #:                       | Fax #:                          | MATRIX PRESERV. SAMPLING | DIHER :<br>DIHER :<br>SLUDGE<br>SLUDGE<br>SLUDGE<br>SOIL<br>SOIL<br>SOIL | < e/e/08               | <ul> <li>✓</li> <li>✓</li> <li>√</li> <li>√</li></ul> | V 6/4/08 %        | <ul> <li>✓</li> <li>✓</li> <li>6/4/08</li> <li>№</li> </ul> | <ul> <li>✓</li> <li>√</li> <li>6/4/08</li> </ul> | <ul> <li>6/4/08</li> </ul> | based in contract or tort, shall be limited to the amount paid by t<br>ade in writing and received by Cardinal within 30 days after com<br>as interminitions. Loss of use to hose of morely is intermed to Gant | ether such daim is based upon any of the above stated reasons  | L COBAT RE   |                   | the Condition CHECKED BY: H<br>Intact (Initials) Lives 2 Yes<br>No 1 No No |
|                         | ORATORIES<br>, Hobbs, NM 88240 2111 Bee<br>FAX (505) 393-2476 (325) 673 | ompany                          |                              |                          | State: NM Zip: 88240 | Fax #: 397-1471   | Project Owner: |                            |                                | Jarnell Mitchell                |                          |  |                        | Ċ 1   | 6 1               | حر ،  | <u>در</u>  | <del>-</del><br>১          | d disent's exclusive remody for any claim arising whether i<br>ther cause whatsoever shall be deemed waived unless m<br>mecountral farmaces including whitehen husing   | ance of services hereunder by Cardinal, regendess of whe       |  | Date: Received BY |  |
| •                       | ARDINAL LAB   | Company Name: Rice Operating Co | Project Manager: Hack Conder | Address: 122 West Tavlor | city: Hobbs          | Phone #: 393-9174 | Project #:     | Project Name: BD jct. P-30 | Project Location: BD jct. P-30 | Sampler Name: Lara Weinheimer/C | FOR LAB USE ONLY         | Lab I.D. Sample  | 14/490-1 SB #1 @ 40' · | - 2 SB #1 @ 95'   | - 3 SB #2 @ 30' · | -4 SB #2 @ 95' ·  | √ SB #3 @ 40' ·                                  | -(0 SB #4 @ 10.            | EASE NOTE: Liability and Demages. Cardinal's fiability an<br>abyees. All claims including those for negligence and any ot<br>(Ree. In no event shall Cardinal he liable for inclurual or or                     | mastes or successors arising out of or related to the perform. | L. Weinheimer  | telinquished By:  | Delivered By: (Circle One)<br>Sampler - UPS - Bus - Other:                 |



ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: HACK CONDER 122 WEST TAYLOR HOBBS, NM 88240 FAX TO: (575) 397-1471

Receiving Date: 06/18/08 Reporting Date: 06/18/08 Project Number: NOT GIVEN Project Name: BD JCT. P-30 Project Location: BD JCT. P-30 Analysis Date: 06/18/08 Sampling Date: 06/03/08 & 06/04/08 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: ML Analyzed By: KS

|                |                | CI                     |
|----------------|----------------|------------------------|
| LAB NO.        | SAMPLE ID      | (mg/kg)                |
| H15005-1       | SB #5 @ 25'    | 1,340                  |
| H15005-2       | SB #3 @ 95'    | 1,220                  |
| H15005-3       | SB #5 @ 95'    | 32                     |
| H15005-4       | SB #1 @ 35'    | 4,280                  |
| H15005-5       | SB #4 @ 95'    | 304                    |
|                |                |                        |
| Quality Contro | bl             | 500                    |
| True Value Q   | C              | 500                    |
| % Recovery     |                | 100                    |
| Relative Perce | ent Difference | < 0.1                  |
| ETHOD: Stan    | dard Methods   | 4500-CI <sup>-</sup> B |

Blist Supreto

6/18/08



H15005 RICE

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|  |   |  |  |  |   |  |   |  |  |   | CHAIN   | I-OF-CUSTOD                             | Y AND ANALYSIS REQUENT                |          |
|--|---|--|--|--|---|--|---|--|--|---|---|---|---------------------------------------|----------|
| YA   | RDINAL LABORATORI   | ES<br>38240  | 211  | 2<br>1<br>1                                      | sech                                    | MOC  | d. A  | bile   | e  | TX 79603  |   |   |                                       |          |
| :  | (505) 393-2326 FAX (505) 393  | -2476  | (32  | 5) 6   | 73-7                                    | 6  | F   | (32  | 5)67   | 3-7020  |   |   |                                       | ſ        |
| Company Name.  | E Rice Operating Company  |  |  |  |   |  | NUK   |  | Å  | NLL TU  |   |   | ANALYSIS REQUEST                      | T        |
| <b>Project Manager</b>   | r: Hack Conder  |  |  |  |   |  | ٩   | #<br>0                                       |  |   |   |   |                                       |          |
| Address: 122   | West Tavlor   |  |  |  |   |  | O   | dmo  | any:   |   |   |   |                                       |          |
| City: Hobbs  | State: NN   | 1 Zif  | 3: 88  | 240  |   |  | <u>۲</u>                                    | Ë  |  |   |   |   |                                       | <u>.</u> |
| Phone #: 393-9   | )174 Fax #: 397   | -1471  |  |  |   |  | <u>۲</u>                                    | ddre   | :55  |   |   |   |                                       |          |
| Project #:   | Project Ow  | ner:   |  |  |   |  | <u></u>                                     | ž  |  |   |   |   |                                       |          |
| Project Name:  | BD jct. P-30  |  |  |  |   | 1  | S   | tate:  |  | Zip:  |   |   |                                       |          |
| Project Location   | r: BD jct. P-30   |  |  |  |   |  | <u>a</u>                                    | hon  | #  |   |   | 57                                      |                                       |          |
| Sampler Name:  | Lara Weinheimer/Darnell Mitchell  |  |  |  |   |  |   | ax #:  |  |   |   | <u>.</u>                                | · · · · · · · · · · · · · · · · · · · |          |
| FOR LAB USE ONLY   |   | -  | Ľ  |  | MA                                      | TRIX   |   | Ĕ  | ESEI   | RV, SAMI  | PLING   | ĴG .                                    |                                       |          |
| Lab I.D.   | Sample I.D.   | .9MO(3) AO 8AA(9)  | # CONTAINERS   |  |   | סור  | STHEB · STODEE                              | ACID/BASE:                                   | ICE / COOF                                   | отнея :<br>DA<br>Д  | T   | וזא                                     |                                       |          |
| 115775-1   | (N # 5 6 25'  | 6  |  |  | 7                                       |  |   | 1  | 7  | 5-2-3   | \$ 1.26   |   |                                       |          |
| 2-2-   | Ch#3 C 45'  | <u>ه (</u>   | -  |  | 5                                       |  | ╆   | +  | 7  | 1   | or 11 30  | >                                       |                                       |          |
| 2  | 5645 6 45   | <u>ۍ</u> و   |  |  | 3                                       |  |   |  | 2  | E. Nog  | 8 5:49  | )                                       |                                       |          |
| ナー   | 56 B ( C 35'  | و.   | ~  |  | 2                                       |  |   |  | 7  | à.  | \$ 7.59   | .7                                      |                                       |          |
| ý  | 33#4 C 95   | ن  | -  |  | >                                       |  |   |  | 3  | C. r. J   | 2.15  | <u> </u>                                |                                       |          |
|  |   |  |  |  |   |  |   |  |  |   |   |   |                                       |          |
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| PLEASE NOTE: Liability an<br>analyses. All claims includin<br>servica. In no event shall Ca<br>affiliates or successory affilian | nd Damages. Cardinal's liability and dent's axclusive remedy<br>and those for medigence and any other cause whatsoever sine<br>and those for incidental or consequential damages, ind<br>anyout of or related to the performance of sources hereunder<br>anyout of or related to the performance of sources hereunder | y for any cla<br>hil be deems<br>huding witho.<br>' by Cardina | ulm arisin<br>ed walver<br>ut Emitati<br>ti. regard. | ng whett.<br>d unless<br>tion, bus<br>tless of s | er base<br>made i<br>Ineus in<br>mether | d in con<br>n wrtting<br>terruptic<br>such cli | bact or<br>and re-<br>ns, loss<br>tim is be | tort, sha<br>ceived t<br>of use,<br>seed up. | ll be lin<br>ry Cardi<br>or loss<br>on any c | thed to the amoun<br>nal within 30 days<br>of profits incurred<br>if the above stated | paid by the client (f<br>after completion of<br>by client, its subsidi<br>d reasons or otherw | r the<br>he applicable<br>aries.<br>Se. |                                       |          |
| Relinquished By  | Date:   | Å<br>Å   | ecel v   |  |   |  | ľ   |  | $ \land $                                    |   | Phone Re  | sult:                                   | Add'I Phone #:<br>Add'I Fax #:        |          |
| Relinquished By  | Sinheimer Time:<br>10:05  | °ď   |  |  |   | tet  | $\bigcirc$                                  | X  |  | n   | email   | s:<br>results                           |                                       |          |
|  |   |  | -  | Ű  |   |  | lition                                      |  | 2HC  |   | Hcon  | der@riceswd.co                          | im; jpurvis@riceswd.com;              |          |
| Veilvered by<br>Sampler - UPS  | - Bus - Other:  |  |  | ă Ū Ľ Ľ  | a_∖ä v                                  |  | No No                                       |  | $\mathbb{R}^{-}\mathcal{V}$                  | Initials)   | Lwein   | heimer@rice.sv                          | vd.com                                |          |

t Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476 🗶 Java Medo Remples Atturned



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ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: HACK CONDER/LARA WEINHEIMER 122 WEST TAYLOR HOBBS, NM 88240 FAX TO: (575) 397-1471

Receiving Date: 06/17/09 Reporting Date: 06/18/09 Project Number: NOT GIVEN Project Name: BD JCT. P-30 Project Location: T21S R37E SECTION 30 P LEA CO., NM

Analysis Date: 06/18/09 Sampling Date: 06/16/09 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: AB Analyzed By: AB

| LAB NO.         | SAMPLE ID  | (mg/kg)  |
|-----------------|--|--|
| H17647-1        | MW-1 (10')   | 1,820  |
| H17647-2        | MW-1 (90')   | 16   |
|                 |  | 1979 - 1979 |
|                 |  |  |
|                 |  |  |
| Quality Control | 99 Yilde v I 1990 v narðiðins vaðiðkonstatalina naraða angan Finnan að hann með hann samti annan siðina a  | 500  |
| True Value QC   | e (Me e.e., Me Vient) é Me (MMM de 193) dans sons queques queques anno que conserve d'activation de l'activation de que conserve de la conserve de   | 500  |
| % Recovery      | na ta name en antenne sur antenne a materia de antenne de antenne particular antenne de antenne e i o un attender de   | 100  |
|                 | NAME AND ADDRESS OF ADDRESS ADDR<br>EXCENTER ADDRESS ADDRESS<br>ADDRESS ADDRESS ADDR |  |

METHOD: Standard Methods 4500-CI'B Note: Analyses performed on 1:4 w:v aqueous extracts.

Chemist

Date



#### H17647 RICE

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|   | LABORA<br>Aarland, Hob |
|---|------------------------|
| ۲ | ARDINAL<br>101 East P  |
| K | Š                      |

| IES            | 88240                    |   |
|----------------|--------------------------|---|
| RO             | WN                       | í |
| RDINAL LABORAT | 101 East Marland, Hobbs, |   |

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|   | No Add'I Phone #:  | No Add'I Fax #:                         | مار | : Java Corjuscul com a                | gul & Hrident - En Virenn  |                           |                       |
| ssons ar atheowise  | Phone Result:  | Fax Result:                             | REMARKS:                                | Please email to                       |  |                           |                       |
| lether such claim is based upon any of the above stated rea |  | ۲۰۰۰<br>۲01:5                           | ۲<br>~                                  | · · · · · · · · · · · · · · · · · · · | and a second sec | The Condition CHECKED BY: |                       |
| steunder by Cardinal, regardless of wh                      | 🍌 🔬 🖓 Received Bv  | 1 1 Los                                 |   | Received By                           | 2  | Temp. San                 | š⊠Ω                   |
| sted to the performance of services he                      | Date   | J                                       | C Time:                                 | Date:                                 | Time:  | : One)                    | Other:                |
| infiliates of successors arrang out of at rela              | Sampler Religquished:  | · / / / / / / / / / / / / / / / / / / / | 1210-KS                                 | Relinquished By:                      |  | Delivered Bv: (Circle     | Sampler - UPS - Bus - |





05

ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: HACK CONDER 122 WEST TAYLOR HOBBS, NM 88240 FAX TO: (575) 397-1471

Receiving Date: 07/29/09 Reporting Date: 07/31/09 Project Number: NOT GIVEN Project Name: BD JUNCTION P-30 Project Location: T21S R37E SEC30 P ~ LEA CO., NM Sampling Date: 07/27/09 Sample Type: WATER Sample Condition: COOL & INTACT Sample Received By: ML Analyzed By: HM

00

700

| LAB NO.  | SAMPLE ID       | (mg/L)   | (mg/L)   | (mg/L)                                   |
|--|-----------------|----------|----------|--|
| Analysis Date  | 9:              | 07/30/09 | 07/30/09 | 07/30/09                                 |
| H17892-1   | MONITOR WELL #1 | 392      | 90.6     | 1,180                                    |
| ne daared waa old 100000 a gaaraanaa aa ah daaraa aa ah daaraa baaraa ba |                 |          |          | anna ann an a |
| <u></u>  |                 |          |          |  |
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|                               | (1, ) - (1) |  |  |
|                               |   |  |  |
|                               |   |  |  |
| Quality Control               | 500   | 38.5   | NR                                     |
| True Value QC                 | 500   | 40.0   | NR                                     |
| % Recovery                    | 100   | 96.3   | NR                                     |
| Relative Percent Difference   | 2.0   | 3.7  | 9.0                                    |
|                               |   | and a construction of the second | ************************************** |
| METHOD: Standard Methods, EPA | 4500-CI B   | 375.4  | 160.1                                  |

METHOD: Standard Methods, EPA Not accredited for chloride, sulfate and TDS.

Chemist

8/05/09

Date

H17892 RICE

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ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: HACK CONDER 122 W. TAYLOR HOBBS, NM 88240 FAX TO: (575) 397-1471

Receiving Date: 07/29/09 Reporting Date: 08/04/09 Project Number: NOT GIVEN Project Name: BD JUNCTION P-30 Project Location: T21S-R37E-SEC30 P~ LEA CO., NM Sampling Date: 07/27/09 Sample Type: WATER Sample Condition: COOL & INTACT Sample Received By: ML Analyzed By: ZL

| LAB NUMBER SAMP             | PLE ID       | BENZENE<br>(mg/L) | TOLUENE<br>(mg/L) | ETHYL<br>BENZENE<br>(mg/L) | TOTAL<br>XYLENES<br>(mg/L) |
|-----------------------------|--------------|-------------------|-------------------|----------------------------|----------------------------|
| ANALYSIS DATE               |              | 08/03/09          | 08/03/09          | 08/03/09                   | 08/03/09                   |
| H17892-1 MONI               | ITOR WELL #1 | <0.001            | <0.001            | <0.001                     | <0.003                     |
|                             |              |                   |                   |                            |                            |
| Quality Control             |              | 0.049             | 0.050             | 0.050                      | 0.151                      |
| True Value QC               |              | 0.050             | 0.050             | 0.050                      | 0.150                      |
| % Recovery                  |              | 98.0              | 100               | 100                        | 101                        |
| Relative Percent Difference | rence        | 8.3               | 18.2              | 6.1                        | 16.6                       |

METHOD: EPA SW-846 8021 B

TEXAS NELAP ACCREDITATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE, AND TOTAL XYLENES./

rene Chemist



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|--------------|--------|---------------------------|--|--------|-----------------------------|--------|--------|---------------|-------------------|----------|--------------|------------------------|---|-----------------------|-----------|----------|----------|----------|---|---------------|---------------|---|--------------|-------------|-----------|---|------------|---------------|
| <del>ب</del> | Ĕ      |                           |  | -      |                             |        |        |               |                   |          |              | sp                     | ilos bavic                                  | Seciol Instor         | ×         |          |          |          |   |               |               |   |              |             |           |   |            |               |
|              | UES    |                           |  | -      |                             |        |        |               |                   |          |              |                        |   | sətetluð              | ×         |          |          |          |   |               |               |   |              |             |           |   |            |               |
|              | ğ      |                           |  | -      |                             |        |        | ÷             |                   |          | (203)        | 03' H                  | 204°CC                                      | IO) enoina            |           |          |          |          |   | -             |               |   | <b> </b>     |             | er.       |   |            |               |
| ge           | S R    |                           |  | -      |                             |        |        |               |                   |          |              |                        |   |                       | +         |          |          |          |   | $\rightarrow$ | -+            | + |              |             | - Angle   |   | FI         |               |
| ď            | YSI    |                           |  | -      |                             |        |        |               |                   |          |              |                        | Hq  | SOD, TSS,             |           |          |          |          |   |               |               | + |              | :           | ax N      |   | <u>.</u> 8 | E             |
|              | IAL.   |                           | 1.   | 3      |                             |        |        |               |                   |          |              | 8(                     | 09/A1808                                    | Pesticides            |           |          |          |          |   |               |               |   |              |             | alF       | Ę   | N N        | CO            |
|              | AN     |                           | NH N   | 3.     |                             |        |        |               |                   |          |              |                        | 809/2                                       | BCB. <sup>2</sup> 808 |           |          |          |          | _ |               |               |   |              |             | ditio     | Pw.   | ice i      | net           |
|              | N      |                           | Ŭ te   |        |                             |        |        |               |                   |          | 9 <b>7</b> 9 | 210CI                  | 8 .loV .in                                  | GC/MS Set             |           |          |          |          |   |               |               |   |              |             | Add       | a s   | ē          | alor          |
|              | ΥÞ     |                           | S R  |        |                             |        |        |               |                   |          |              | 924                    | ¥80928                                      | ION SW/DO             |           |          |          |          |   |               |               |   | Ļ            |             |           | Ģ   | E E        | <u>8</u>      |
|              | 0      | #                         | YSI:   | anto - |                             |        |        |               |                   |          |              |                        |   | BCI                   |           |          |          |          |   | _             |               |   | <b> </b>     | ž           | Ž         |   | hei        | nne           |
|              | ารบ    | ē                         | AL'  | 5.     |                             |        |        |               |                   |          |              |                        | cides                                       | TCLP Pesti            |           |          |          |          |   | _             |               | _ | <b> </b>     | Щ           | -         |   | veir       | oza           |
|              | õ      | Örd                       | AN S   | 5.     |                             |        |        |               |                   |          |              | dan ser står för stare | seli<br>iles                                | LCLP Volat            |           |          |          |          |   | -+            |               |   | +-           | Yes         | Yes       |   | 1 21       |               |
|              | Q      | AB                        |  |        |                             |        |        |               | бн                | əS d     | Cr PI        | 60 Gd                  | i sa ga si                                  | TCLP Meta             |           |          |          |          |   |               |               |   |              | Ó           | Ć         | ġ   | į          |               |
|              | AIN    |                           |  |        |                             | 1      | 007    | 2/8010        | 9 61              | 1 95 1   | d9 hC        | b) b                   | 8 aA pA a                                   | Total Metal           |           |          |          |          |   |               |               | _ | <u> </u>     |             |           |   | 3          |               |
|              | F      |                           |  |        |                             |        |        | (000          | 102               |          | 00 5         | <u></u>                | · :<br>/ :::::::::::::::::::::::::::::::::: | 0728 HAG              |           |          |          |          |   |               |               |   |              | sults       | ts.       | S:  | ź          |               |
|              |        |                           |  |        |                             |        |        | 1960          | ,, <del>p</del> o |          | 00 10        | 0FXT                   | 700/91                                      | 1709 YTIS             | ×         |          |          |          |   |               | -+            | _ | +            | e Re        | kesu      | ARK   |            |               |
|              |        |                           |  | -      |                             |        |        |               |                   |          |              |                        | 209/E                                       | NTBE 802              |           |          |          |          |   |               | -+            |   | +            | Lord        | axF       | EN .  | 1          |               |
|              |        |                           |  | ľ      |                             | Γ      | _      |               | Γ                 | L        |              | 9                      | T T   |                       | 8         |          |          | <b> </b> |   |               | -             |   | +            | <u>u</u>    | <u> </u>  |   | Т          |               |
|              |        |                           |  |        |                             |        | 7-147  |               |                   | 31-9310  | st.com       | AMPLIN                 | 16  |                       | 27 13     |          |          |          |   |               |               | + | -            |             | 10:       | S.  | 2          | $\mathcal{D}$ |
|              | 2      |                           |  |        |                             |        | )39    |               |                   | 5051     | E E          | 8                      |   |                       | ļř        |          | <u> </u> | <u> </u> |   | _             |               | _ | <u> </u>     |             | $\sigma$  | M (M  | 3          | K             |
|              |        |                           | 8  | ζ, Ż   |                             | ax#    | 575    |               | dohnson (         | ) uos    | valo         | PRESERVATIVE<br>METHOD | HD6E)                                       | HNONE<br>AUTI-U HO    |           |          |          |          |   |               | -+            | _ | ┢            | l m         |           | E   |            | Ľ,            |
|              |        | •                         | <b>a</b> .   | r<br>G | 3240                        | L.     | -      |               |                   | e@       | OF S         |                        |   | 1 <sup>3</sup> 20*    |           |          | <u> </u> | $\vdash$ |   | -+            |               |   | ┢            | ľ           | 8         | ۲ <u>ې</u>  | 10         | 2             |
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|              | •      |                           | 2  | Ĩ      | Mexi                        |        |        |               |                   | Roz      | Ę            |                        |   | <sup>€</sup> ON⊦      |           |          |          |          |   |               |               |   | $\mathbf{T}$ | å           | 7         | Dat<br>7/-  | NO.        | als)          |
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|              |        |                           | E<br>B   |        | bbs,                        |        |        |               |                   | Table 1  | $\sum$       |                        |   |                       |           |          | ļ        |          |   |               |               |   |              |             | ₹, '      | ē +   | Ĺ          |               |
|              |        |                           | j<br>≩ g   |        | 유                           |        | 4      |               |                   | Sec.     |              |                        | ┫   | <u>erndee</u>         | -         | <u> </u> | <b> </b> |          |   |               |               |   | <u> </u>     | $\geq$      | Z         | 2<br>S  | ₹<br>\     | ¥ \           |
|              |        | 0                         | mpar<br>Tatir  | drese  | treet                       | onet   | 917    |               |                   | alom     | 1            | K                      | <u> </u>                                    |                       |           |          |          |          |   | _             |               | _ | ┣──          | - · ·       | S         | , lato  | Ľ          | SS -          |
|              |        |                           | ပိရဲ   | 8      | vtor S                      | æ      | 93-    | 7             |                   | Sa       |              | M                      | $- \lambda$                                 |                       |           | <u> </u> |          | <b> </b> |   |               | $\rightarrow$ |   | _            |             | $\sim$    | da<br>V   |            | ⇒ Ž           |
|              | ` ۱    | 50                        | ъй   |        | N Ta                        |        | 5) 3   | -14           |                   |          |              | $\vdash$               | <u>d</u>                                    | ATTER .               | ₩ <u></u> |          |          |          |   |               |               |   |              | `،<br>ب     | .5        | 2 x   | - Se       | ۶LL           |
|              |        |                           | RIC<br>RIC   |        | 122 V                       |        | (57    | 397           |                   |          |              |                        | INERSI                                      | # CONTA               | 5         |          |          |          |   |               |               |   |              | a<br>p      | E         | B<br>B  | Sond       | Yes<br>No     |
|              |        | æ                         |  | Ĩ      |                             | Î      |        | ix #:<br>575) |                   |          | <u>ic</u>    |                        | dwo(;                                       | G)rab or ((           | υ         |          |          |          |   |               |               |   |              | eceive      | 6         | BCEIV   | Ĵ ₽        |               |
|              |        |                           |  |        |                             |        |        | u             | 1                 |          | Me           |                        | ورويار داردانه ينفت                         |                       | ┢         |          |          |          |   |               | _             |   | -            | <u>α</u> `  |           | α<br>α  | <u>, 0</u> |               |
|              |        | 5<br>L                    |  |        |                             |        |        |               |                   |          | New          |                        |   |                       |           |          |          |          |   |               |               |   |              |             | 3         | 4. S  | 2          |               |
|              | r      | <b>6</b>                  | ,  |        |                             |        | 38240  |               |                   | UO       | unty         |                        | ų   |                       |           |          |          |          |   |               |               |   |              | e:          | 6         | ne:<br>)  |            | <b>_</b> \$   |
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ANALYTICAL RESULTS FOR **RICE OPERATING COMPANY** ATTN: HACK CONDER **122 WEST TAYLOR** HOBBS, NM 88240 FAX TO: (575) 397-1471

Receiving Date: 10/16/09 Reporting Date: 10/22/09 Project Number: NOT GIVEN Project Name: BD JUNCTION P-30 Project Location: T21S R37E SEC30 P ~ LEA CO., N.M. Sampling Date: 10/16/09 Sample Type: WATER Sample Condition: COOL & INTACT Sample Received By: CK Analyzed By: HM

SO.

TDS

|   |                 | •  |   |  |
|---|-----------------|--|---|--|
| LAB NO.   | SAMPLE ID       | (mg/L)   | (mg/L)  | (mg/L)                                   |
| Analysis Date:  |                 | 10/19/09   | 10/21/09  | 10/19/09                                 |
| H18522-1  | MONITOR WELL #1 | 364  | 85.0  | 1,130                                    |
| <b></b>   |                 | 10000000000000000000000000000000000000   |   | an a |
| ******  |                 | 4 million (1997) | $\label{eq:second} a = 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0$ |  |
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| Quality Contro  | 1               | 500  | 41.3  | NR                                       |
| True Value QC   | 2               | 500  | 40.0  | NR                                       |
| % Recovery  |                 | 100  | 103   | NR                                       |
| Relative Perce  | ent Difference  | < 0.1  | 13.2  | 8.5                                      |

METHOD: Standard Methods, EPA Not accredited for Chloride, Sulfate and TDS.

lene Chemist

10/26/09 Date

375.4

160.1

4500-CI'B

H18522 RICE

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ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: HACK CONDER 122 W. TAYLOR HOBBS, NM 88240 FAX TO: (575) 397-1471

Receiving Date: 10/16/09 Reporting Date: 10/22/09 Project Number: NOT GIVEN Project Name: BD JUNCTION P-30 Project Location: T21S-R37E-SEC30 P~ LEA CO., NM Sampling Date: 10/16/09 Sample Type: WATER Sample Condition: COOL & INTACT Sample Received By: CK Analyzed By: ZL

CTUVI

TOTAL

| LAB NUMBER SAMPLE ID        | BENZENE<br>(mg/L) | TOLUENE<br>(mg/L) | BENZENE<br>(mg/L) | XYLENES<br>(mg/L) |
|-----------------------------|-------------------|-------------------|-------------------|-------------------|
| ANALYSIS DATE               | 10/20/09          | 10/20/09          | 10/20/09          | 10/20/09          |
| H18522-1 MONITOR WELL #1    | <0.001            | <0.001            | <0.001            | <0.003            |
|                             |                   |                   |                   |                   |
| Quality Control             | 0.046             | 0.048             | 0.048             | 0.139             |
| True Value QC               | 0.050             | 0.050             | 0.050             | 0.150             |
| % Recovery                  | 92.0              | 96.0              | 96.0              | 92.7              |
| Relative Percent Difference | 7.4               | 9.3               | 9.3               | 8.8               |

METHOD: EPA SW-846 8021

TEXAS NELAP ACCREDITATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE, AND TOTAL XYLENES.

elhe hemist

10/26/09 Date



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| Pa | ŝ           |                  |            | -             |       |               |          |             |  |                   |                 | Hd        | BOD, TSS,      |          |   |   | -+       | -+ |     | +        | <u>†</u> |             |           | N        |          | -               |                      |               |
|    | F           |                  | F          | <u>-</u>      |       |               |          |             |  |                   | 80              | )a\A1808  | Pesticides     |          |   |   |          | -† |     | +        | t        |             |           | al Fa    |          | LO<br>LO        | 2 0                  |               |
|    | AN          |                  | ES         | ž-            |       |               |          |             |  |                   |                 | 809/2     | PCB's 808      |          |   |   |          | -† | +   | +        | ╈        |             |           | tions    |          | <u>v</u> q.0    | Ses.                 |               |
|    | Q           |                  | D<br>D     | etho          |       | _             |          |             |  | ŞZ                | 570C/6          | 8 JoV .in | GC/MS Ser      |          |   |   |          |    |     | +        | <u>†</u> |             |           | Vddi     |          | esv             | ji<br>Li<br>Li<br>Li |               |
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|    | Ч<br>Ц      | ŏ                | ₹          | Į             |       |               |          |             |  |                   |                 | səli      | TCLP Volat     |          |   |   |          |    |     |          |          |             | ĕ         | Yes      |          |                 |                      |               |
|    | 2           | Γ                |            |               |       |               |          |             | 6H9                                    | S 94 JC           | ) b) eE         | SA 6A S   | TCLP Meta      |          |   |   |          |    |     |          | Ļ        | L           | $\square$ |          |          | ĝ               |                      |               |
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|    | 1 Eas       | Ηŭ               | ξÜ         | N N           | ack   | ess:          | 2 W T    | 175)<br>175 | <u>م</u> #                             | el Loc<br>21S     | [               | Ĩ         |                |          |   |   |          |    |     |          |          | Ň           | 1 de l    |          | duis     |                 | erec                 | βĮd           |
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### Gil Van Deventer

From:"Gil Van Deventer" <gilbertvandeventer@suddenlink.net><br/>"Hansen, Edward J., EMNRD" <edwardj.hansen@state.nm.us><br/>"Haskell Conder" <hconder@riceswd.com>; "Katie Jones" <kjones@riceswd.com><br/>Sent:Sent:Tuesday, February 09, 2010 11:27 AM<br/>Attach:BD Jct. P-30 ICR.pdfSubject:BD Jct. P-30 Site (1R0426-124) - Investigation and Characterization Report

To: Edward Hansen, New Mexico Oil Conservation Division - Environmental Bureau Subject: Investigation and Characterization Report Site Name: BD Jct. P-30 Site NMOCD Case No.: 1R0426-124 Site Agent: RICE Operating Company Site Location: T21S-R37E-Section 30, Unit Letter P, Lea County, New Mexico

#### Greetings Edward:

Attached is the *Investigation and Characterization Report* for the BD Jct. P-30 Site (1R0426-124). One complete hard copy and one copy on compact disk will be sent to you via USPS Certified Mail (# 7099 3400 0017 1737 1841) today. Please feel free to contact me at 432-638-8740, or Hack Conder at ROC (575-393-9174).

Thank you, Gil

Gilbert J. Van Deventer, PG, REM Trident Environmental P. O. Box 7624, Midland TX 79708 Work/Mobile: 432-638-8740

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Home: 432-682-0727

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