

## **CONOCOPHILLIPS**

P.O. Box 2197 Houston, TX 77252-2197 Phone 281.293.1000

## VGEU Well 02-27 1RP-3116

# **Corrective Action Plan**

API No. 3002538346

Release Date: June 15<sup>th</sup>, 2014

Unit Letter G, Section 32, Township 17S, Range 35E



August 11<sup>th</sup>, 2014

**Dr. Tomáš Oberding, PhD** Environmental Specialist – New Mexico Oil Conservation Division Energy, Minerals and Natural Resources Department 1625 N. French Dr. Hobbs, NM 88240

#### RE: Corrective Action Plan ConocoPhillips VGEU Well 02-27 (1RP-3116) UL/G sec. 32 T17S R35E API No. 3002538346

Dr. Oberding:

ConocoPhillips (CoP) has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced site.

#### **Background and Previous Work**

The site is located approximately 1.8 miles southeast of Buckeye, New Mexico. Although the C-141 states that the release is located in UL/G, GPS mapping shows the release to be located in UL/F of sec. 32 T17S R35E. NM OSE, BLM and Non-COP monitor well records indicate that groundwater will likely be encountered at a depth of approximately 64 +/- feet.

On June 15<sup>th</sup>, 2014, a hole was found in a flow line, which released 92 barrels of oil over 9,874 square feet of pasture land. A total of 50 barrels of this fluid was recovered. The well was shut in and the line repaired. NMOCD was notified of the release on June 16<sup>th</sup>, 2014, and an initial C-141 was sent to NMOCD for their approval (Appendix A).

RECS personnel were on site beginning on July 14<sup>th</sup>, 2014. Four points within the release area were sampled at the surface, and three of the points were sampled with depth (Figure 1). The samples were field tested for chlorides and organic vapors, and representative samples were taken to a commercial laboratory for analysis (Appendix B). The laboratory analysis showed elevated chlorides and hydrocarbons at Point 1 and Point 2. Given the dramatic drop in chlorides and hydrocarbons in Point 2 between the surface sample and the 6 inches bgs sample, there is a high probability that the area around Point 1 and Point 2 will obtain chloride and hydrocarbon values below regulatory standards fairly quickly with continued depth. Point 3 and Point 4 returned laboratory chloride and hydrocarbon readings below regulatory standards at the surface and at 6 inches bgs.

#### **Corrective Action Plan**

Based on the laboratory analysis, the area around Point 3 and Point 4 will be scraped down to 6 inches bgs to remove the visible staining. The area around Point 1 and Point 2 will be scraped down until field sampling indicates that all constituents will return laboratory readings below regulatory standards (Figure 2). Once this occurs, a bottom composite of the scrape around Point 1 and Point 2 will be taken to a commercial laboratory to confirm that chloride, Gasoline Range Organics (GRO), Diesel Range Organics (DRO) and BTEX levels are below regulatory standards.

All excavated soils will be evaluated for use as backfill, and any soils that do not meet regulatory standards will be taken for disposal at a NMOCD approved site. Clean soil will be imported to the site to replace any soils taken for disposal. The clean soil will be blended with the excavated soil for use as backfill. A sample of the blended soil will be taken to a commercial laboratory to confirm that chloride, GRO and DRO values are below regulatory standards. The scrapes will be backfilled with blended soil and contoured to the surrounding location. The site will then be seeded with a blend of native vegetation.

Once these activities have been completed, a report will be sent to NMOCD requesting 'remediation termination' and site closure.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-2967 or me if you have any questions or wish to discuss the site.

Sincerely,

JC.W.

Lara Weinheimer Project Scientist RECS (575) 441-0431

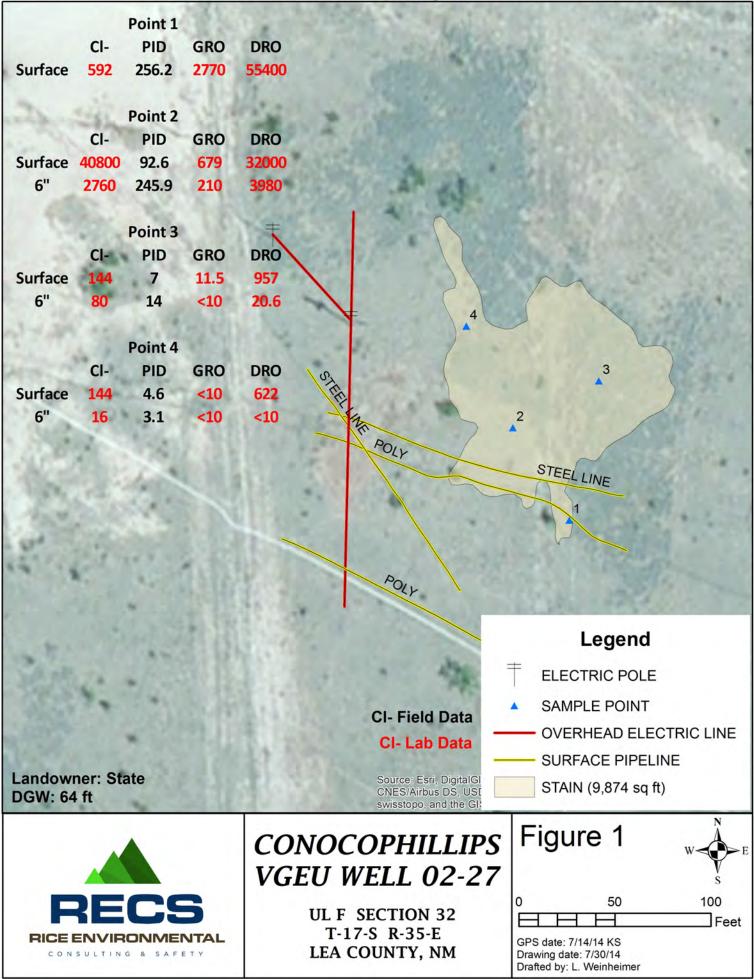
Attachments:

Figure 1 – Initial Sampling Data Figure 2 – Proposed Corrective Actions Appendix A – Initial C-141 Appendix B – Initial Sampling Lab Appendix C – Photo Documentation

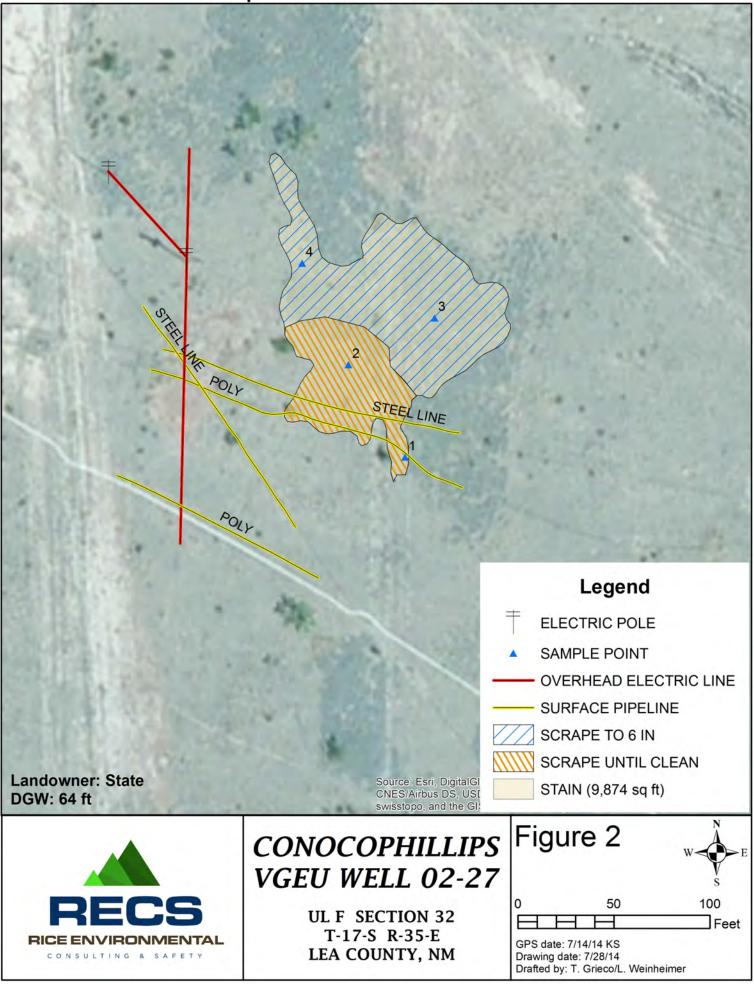
# Figures

RICE Environmental Consulting and Safety (RECS) P.O. Box 2948, Hobbs, NM 88241 Phone 575.393.2967

### **Initial Sampling Data**



### **Proposed Corrective Actions**



## Appendix A Initial C-141

RICE Environmental Consulting and Safety (RECS) P.O. Box 2948 Hobbs, NM 88241 Phone 575.393.2967

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 . District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division

1220 South St. Francis Dr.

HOBBS OCD

Form C-141 Revised August 8, 2011

JUN 1 6 2014 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

RECEIVED

| 220 S. St. Franc                            | cis Dr., Santa                                   | Fe, NM 87505        |            | Sa  | nta Fe     | e, NM 87:  | 505  | ł         | KECEIAF                           | D                          |                |        |  |
|---|--|---------------------|------------|---|------------|--|--|-----------|-----------------------------------|----------------------------|----------------|--------|--|
|   |  |                     | Rel        | ease Notific                                | atior      | and C  | orrective A  | ction     | 1                                 |                            |                |        |  |
|   |  |                     |            |   |            | <b>OPERA</b>   | TOR  |           | 🛛 Initi                           | al Report                  | <b>Final</b>   | Repo   |  |
| Name of Co                                  | mpany: Co  | nocoPhilli          | )S         |   |            | Contact: Spencer Cluff   |  |           |                                   |                            |                |        |  |
| Address: 29                                 |  |                     |            |   |            | Telephone No. 575-391-3143   |  |           |                                   |                            |                |        |  |
| Facility Nan                                | ne: VGEU   | Well 02-2           | 7          |   |            | Facility Ty  | be: Oil Well   |           |                                   |                            |                |        |  |
| Surface Own                                 | ner: NMO   | CD                  |            | Mineral O                                   | wner N     | MOCD   |  |           | APINO                             | 0. 3002538                 | 346            |        |  |
|   |  |                     |            | 1   |            |  |  |           | 1                                 |                            |                |        |  |
| Unit Letter                                 | Section  | Township            | Range      | Feet from the                               |            | <b>N OF RE</b><br>South Line   | Feet from the  | East/     | West Line                         | County                     |                |        |  |
| <u>G</u>                                    |  |                     |            |   |            |  | 1725   | East      |                                   | LEA                        |                |        |  |
| Latitude 32                                 | 2.79155369                                       | 94735 <b>Lon</b>    | gitude -   | 103.4768937702                              | 28         |  |  |           |                                   |                            |                |        |  |
|   |  |                     |            | NAT   | <u>URE</u> | OF REL   |  |           |                                   |                            |                |        |  |
| Type of Relea                               |  |                     |            |   |            |  | f Release: 92 BBI  |           |                                   | Recovered:                 |                |        |  |
| Source of Rel                               | lease: Flow                                      | Line                |            |   |            |  | Hour of Occurren   | ce        |                                   | Hour of Di                 |                |        |  |
| Was Immedia                                 | ta Nation G                                      |                     | . <u> </u> |   |            | 6/15/201   | 4 10:00 p.m.   |           | 6/16/20.                          | 14 10:00 a                 | m.             |        |  |
| was minieula                                | ale Notice G                                     |                     | Yes 🗌      | ] No 🔲 Not Re                               | quired     | Geoffrey   |  |           |                                   |                            |                |        |  |
| By Whom? S                                  |  |                     |            |   |            | Date and I   | Hour: 06/16/2014   | 4:15 p.   | m                                 |                            |                |        |  |
| Was a Waterc                                | course Reacl                                     |                     |            | 2.51  |            | If YES, Volume Impacting the Watercourse.  |  |           |                                   |                            |                |        |  |
|   |  |                     | Yes 🛛      |   |            |  |  |           |                                   |                            |                |        |  |
| If a Watercou                               | irse was Imp                                     | acted, Descr        | be Fully.  | *   |            |  |  | Dep.      | the to                            | 740                        | 7100'          |        |  |
| Describe Cau                                | se of Proble                                     | m and Reme          | dial Actio | n Taken.* On S                              | unday      | June 15 20   | 114 @ 2200 hrs   | MST       | @ the VG                          | FU 02-27                   | an accidental  |        |  |
|   |  |                     |            | ng daily rounds c                           |            |  |  |           |                                   |                            |                |        |  |
|   |  |                     |            | t. X 0.5 inches de                          |            |  |  |           |                                   |                            |                | 1010   |  |
|   |  |                     |            | ir the hole has be                          |            |  |  |           |                                   |                            |                | )      |  |
|   | a Affected a                                     | nd Cleanup A        | Action Tal | ken.* Spill area                            | a was 2    | 43 ft. X 21  | 3 ft. X 0.5 inche  | s deep,   | all in pas                        | tor area. N                | ISO turned s   | hut in |  |
|   |  |                     |            | olate well. A wor                           |            |  |  |           |                                   |                            |                |        |  |
| remediated a                                |  |                     |            |   |            |  |  |           |                                   | <u></u>                    |                |        |  |
|   |  |                     |            | e is true and compl                         |            |  |  |           |                                   |                            |                |        |  |
|   |  |                     |            | nd/or file certain re<br>ce of a C-141 repo |            |  |  |           |                                   |                            |                |        |  |
|   |  |                     |            | y investigate and re                        |            |  |  |           |                                   |                            |                |        |  |
|   |  |                     |            | ptance of a C-141 r                         | report d   | oes not relie  | e the operator of  | respons   | ibility for c                     | compliance                 | with any other |        |  |
| federal, state,                             | or local law                                     | s and/or regu       | liations.  |   |            |  |  | SEDV      |                                   | DIVISI                     | <u></u>        |        |  |
|   |  |                     |            |   |            | _  |  | IDDIX V   | ATION                             | 1010101                    |                |        |  |
| Signature: S                                | pencer A. C                                      | Uuff                |            |   |            | -  | 2  |           |                                   |                            |                |        |  |
| Printed Name: Spencer Cluff                 |  |                     |            |   |            | Approved by  | Environmental  | Specialis | t:                                |                            |                |        |  |
| Title: LEAD                                 | HSE  |                     |            |   |            | Approval Da  | te: 6-26-14  | 4         | Expiration                        | Date:                      | - 21-14        |        |  |
|   |  |                     |            | anhilling ages                              |            |  |  |           |                                   |                            |                |        |  |
| E-mail Addre                                | ss: spenc  | er.a.ciuπ@          | conoc      | oprimps.com                                 |            | Conditions (   | Approval: 5, 7   | : Jamph   | <del>-</del> 5 ·                  |                            | _              |        |  |
|   |  |                     |            |   |            | and and  | Delimierel   | remeption | vie the                           | Attache                    | d 🗌            |        |  |
|   |  |                     |            |   |            | erer as  | par Nmocl  | ) g ui o  | les,                              |                            |                |        |  |
| Date: 06/16/2                               |  |                     |            | Phone:575-391-31                            |            | Submit f   | inel C-141   | by 8      | 21-14                             | 08-1                       | 4-3116         |        |  |
| Printed Name<br>Title: LEAD<br>E-mail Addre | e: Spencer C<br>HSE<br>ess: <b>spenc</b><br>2014 | luff<br>er.a.cluff@ |            | ophillips.com                               |            | Approval Da<br>Conditions of<br>Conditions of Conditions of Conditions of Conditions of Conditions of Conditions of Conditions<br>Conditions of Conditions of Conditions of Conditions of Conditions of Conditions of Conditions<br>Conditions of Conditions | OIL CON<br>Cavironmental S<br>te: 6-26-14<br>f Approval: 5:77<br>Deliminere 6<br>par Mm OCL<br>ine 1 C-141 | Specialis | t:<br>Expiration<br>55<br>M- 76-e | Date: <b>5</b><br>Attached | - 21-10<br>H   |        |  |

\*JUN 3 0 2014

## Appendix B Initial Sampling Lab

RICE Environmental Consulting and Safety (RECS) P.O. Box 2948 Hobbs, NM 88241 Phone 575.393.2967



July 29, 2014

LAURA FLORES RICE ENVIRONMENTAL CONSULTING & SAFETY LLC 419 W. CAIN HOBBS, NM 88240

RE: VGEU #02-27

Enclosed are the results of analyses for samples received by the laboratory on 07/22/14 15:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Whe Singh

Mike Snyder For Celey D. Keene Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES 419 W. CAIN HOBBS NM, 88240 Fax To: (575) 397-1471

| Received:         | 07/22/2014  | Sampling Date:      | 07/14/2014    |
|-------------------|-------------|---------------------|---------------|
| Reported:         | 07/29/2014  | Sampling Type:      | Soil          |
| Project Name:     | VGEU #02-27 | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVNE  | Sample Received By: | Kathy Perez   |
| Project Location: | COP         |                     |               |

#### Sample ID: POINT 1 @ SURFACE (H402227-01)

| Chloride, SM4500Cl-B          | mg/    | ′kg             | Analyze         | d By: AP     |     |            |               |      |           |
|-------------------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte                       | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                      | 592    | 16.0            | 07/28/2014      | ND           | 416 | 104        | 400           | 3.92 |           |
| TPH 8015M                     | mg/kg  |                 | Analyzed By: MS |              |     |            |               |      | S-06      |
| Analyte                       | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10                    | 2770   | 200             | 07/24/2014      | ND           | 194 | 97.0       | 200           | 1.39 |           |
| DRO >C10-C28                  | 55400  | 200             | 07/24/2014      | ND           | 203 | 101        | 200           | 3.56 |           |
| Surrogate: 1-Chlorooctane     | 935 9  | 65.2-14         | 0               |              |     |            |               |      |           |
| Surrogate: 1-Chlorooctadecane | 561 9  | 63.6-15         | 4               |              |     |            |               |      |           |

#### Sample ID: POINT 2 @ SURFACE (H402227-02)

| Chloride, SM4500Cl-B          | mg/    | 'kg             | Analyze    | d By: AP     |     |            |               |      |           |
|-------------------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte                       | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                      | 40800  | 16.0            | 07/28/2014 | ND           | 416 | 104        | 400           | 3.92 |           |
| TPH 8015M                     | mg/    | kg              | Analyze    | d By: MS     |     |            |               |      | S-06      |
| Analyte                       | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10                    | 679    | 100             | 07/24/2014 | ND           | 194 | 97.0       | 200           | 1.39 |           |
| DRO >C10-C28                  | 32000  | 100             | 07/24/2014 | ND           | 203 | 101        | 200           | 3.56 |           |
| Surrogate: 1-Chlorooctane     | 380 9  | 65.2-14         | 0          |              |     |            |               |      |           |
| Surrogate: 1-Chlorooctadecane | 388 9  | 63.6-15         | 4          |              |     |            |               |      |           |

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

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| Received:         | 07/22/2014  | Sampling Date:      | 07/14/2014    |
|-------------------|-------------|---------------------|---------------|
| Reported:         | 07/29/2014  | Sampling Type:      | Soil          |
| Project Name:     | VGEU #02-27 | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVNE  | Sample Received By: | Kathy Perez   |
| Project Location: | COP         |                     |               |

#### Sample ID: POINT 3 @ SURFACE (H402227-03)

| Chloride, SM4500Cl-B          | mg,    | /kg             | Analyze         | d By: AP     |     |            |               |      |           |
|-------------------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte                       | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                      | 144    | 16.0            | 07/28/2014      | ND           | 400 | 100        | 400           | 0.00 |           |
| TPH 8015M                     | mg/kg  |                 | Analyzed By: MS |              |     |            |               |      |           |
| Analyte                       | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10                    | 11.5   | 10.0            | 07/24/2014      | ND           | 194 | 97.0       | 200           | 1.39 |           |
| DRO >C10-C28                  | 957    | 10.0            | 07/24/2014      | ND           | 203 | 101        | 200           | 3.56 |           |
| Surrogate: 1-Chlorooctane     | 116    | % 65.2-14       | 0               |              |     |            |               |      |           |
| Surrogate: 1-Chlorooctadecane | 147    | % 63.6-15       | 4               |              |     |            |               |      |           |

#### Sample ID: POINT 4 @ SURFACE (H402227-04)

| Chloride, SM4500Cl-B          | mg,    | /kg             | Analyze         | d By: AP     |     |            |               |      |           |
|-------------------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte                       | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                      | 144    | 16.0            | 07/28/2014      | ND           | 400 | 100        | 400           | 0.00 |           |
| TPH 8015M                     | mg/kg  |                 | Analyzed By: MS |              |     |            |               |      |           |
| Analyte                       | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10                    | <10.0  | 10.0            | 07/24/2014      | ND           | 194 | 97.0       | 200           | 1.39 |           |
| DRO >C10-C28                  | 622    | 10.0            | 07/24/2014      | ND           | 203 | 101        | 200           | 3.56 |           |
| Surrogate: 1-Chlorooctane     | 122    | % 65.2-14       | 20              |              |     |            |               |      |           |
| Surrogate: 1-Chlorooctadecane | 143    | % 63.6-15       | 4               |              |     |            |               |      |           |

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#### \*=Accredited Analyte

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| Received:         | 07/22/2014  | Sampling Date:      | 07/14/2014    |
|-------------------|-------------|---------------------|---------------|
| Reported:         | 07/29/2014  | Sampling Type:      | Soil          |
| Project Name:     | VGEU #02-27 | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVNE  | Sample Received By: | Kathy Perez   |
| Project Location: | COP         |                     |               |

#### Sample ID: POINT 2 @ 6" (H402227-05)

| Chloride, SM4500Cl-B          | mg,    | /kg             | Analyze         | d By: AP     |     |            |               |      |           |
|-------------------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte                       | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                      | 2760   | 16.0            | 07/28/2014      | ND           | 400 | 100        | 400           | 0.00 |           |
| TPH 8015M                     | mg/kg  |                 | Analyzed By: MS |              |     |            |               |      | S-06      |
| Analyte                       | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10                    | 210    | 50.0            | 07/24/2014      | ND           | 194 | 97.0       | 200           | 1.39 |           |
| DRO >C10-C28                  | 3980   | 50.0            | 07/24/2014      | ND           | 203 | 101        | 200           | 3.56 |           |
| Surrogate: 1-Chlorooctane     | 168    | % 65.2-14       | 0               |              |     |            |               |      |           |
| Surrogate: 1-Chlorooctadecane | 113 9  | 63.6-15         | 4               |              |     |            |               |      |           |

#### Sample ID: POINT 3 @ 6" (H402227-06)

| Chloride, SM4500Cl-B          | mg,    | /kg             | Analyze         | d By: AP     |     |            |               |      |           |
|-------------------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte                       | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                      | 80.0   | 16.0            | 07/28/2014      | ND           | 400 | 100        | 400           | 0.00 |           |
| TPH 8015M                     | mg/kg  |                 | Analyzed By: MS |              |     |            |               |      |           |
| Analyte                       | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10                    | <10.0  | 10.0            | 07/24/2014      | ND           | 194 | 97.0       | 200           | 1.39 |           |
| DRO >C10-C28                  | 20.6   | 10.0            | 07/24/2014      | ND           | 203 | 101        | 200           | 3.56 |           |
| Surrogate: 1-Chlorooctane     | 126    | % 65.2-14       | 0               |              |     |            |               |      |           |
| Surrogate: 1-Chlorooctadecane | 139    | % 63.6-15       | 4               |              |     |            |               |      |           |

#### Cardinal Laboratories

#### \*=Accredited Analyte

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| Received:         | 07/22/2014  | Sampling Date:      | 07/14/2014    |
|-------------------|-------------|---------------------|---------------|
| Reported:         | 07/29/2014  | Sampling Type:      | Soil          |
| Project Name:     | VGEU #02-27 | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVNE  | Sample Received By: | Kathy Perez   |
| Project Location: | COP         |                     |               |

#### Sample ID: POINT 4 @ 6" (H402227-07)

| Chloride, SM4500Cl-B          | mg,    | /kg             | Analyze    | d By: AP     |     |            |               |      |           |
|-------------------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte                       | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                      | 16.0   | 16.0            | 07/28/2014 | ND           | 400 | 100        | 400           | 0.00 |           |
| TPH 8015M                     | mg/kg  |                 | Analyze    | d By: MS     |     |            |               |      |           |
| Analyte                       | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10                    | <10.0  | 10.0            | 07/24/2014 | ND           | 194 | 97.0       | 200           | 1.39 |           |
| DRO >C10-C28                  | <10.0  | 10.0            | 07/24/2014 | ND           | 203 | 101        | 200           | 3.56 |           |
| Surrogate: 1-Chlorooctane     | 115    | % 65.2-14       | 0          |              |     |            |               |      |           |
| Surrogate: 1-Chlorooctadecane | 130    | % 63.6-15       | 4          |              |     |            |               |      |           |

#### **Cardinal Laboratories**

\*=Accredited Analyte

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Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



#### **Notes and Definitions**

| S-06 | The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's. |
|------|--|
| ND   | Analyte NOT DETECTED at or above the reporting limit   |
| RPD  | Relative Percent Difference  |
| **   | Samples not received at proper temperature of 6°C or below.  |
| ***  | Insufficient time to reach temperature.  |
| -    | Chloride by SM4500CI-B does not require samples be received at or below 6°C  |
|      | Samples reported on an as received basis (wet) unless otherwise noted on report  |

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Mite Sigh

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

RDINAL LABORATORIES

| (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 F<br>Company Name: RFC5  |  |   |                           |  |                           | BILL TO     |           |          |                    |   | ANALYSIS REQUEST   |                   |         |           |                |                                 |          |         |    |  |
|---|--|---|---------------------------|--|---------------------------|-------------|-----------|----------|--------------------|---|--|-------------------|---------|-----------|----------------|---------------------------------|----------|---------|----|--|
| roject Manager: Laura Flores , Kyle Normun  |  |   |                           |  |                           | P.O. #:     |           |          |                    |   |  |                   |         |           | 1              |                                 |          |         |    |  |
| Address:  |  |   |                           |  |                           | Company:    |           |          |                    | 1   |  |                   |         |           | S              |                                 |          |         |    |  |
| ity: Hobbs  | S State: NM Zip: 88240   |   |                           |  |                           | Attn:       |           |          |                    |   |  |                   |         |           | o              |                                 |          |         |    |  |
| hone #:   | Fax #:   |   |                           |  |                           | Address:    |           |          |                    |   |  | 1.3               |         |           | An             |                                 |          |         |    |  |
| Project #:  |  |   |                           |  |                           | City:       |           |          |                    |   | S  | Σ                 |         | I         | IS/            |                                 |          |         |    |  |
| Project Name:   |  |   |                           |  |                           | State: Zip: |           |          |                    |   | ge   | 15                | ×       | E E       | DO             | 0                               |          |         |    |  |
|   | 16EU #02-27  | -   |                           |  |                           | Phone #:    |           |          |                    |   | Chlorides  | <b>TPH 8015 M</b> | BTEX    | Texas TPH | Cations/Anions | TDS                             |          |         |    |  |
| Sampler Name: Ky  | 12 Schnaidt  |   |                           |  | -                         | Fax #:      |           |          |                    |   | Ĕ  |                   |         |           |                |                                 |          |         |    |  |
| FOR LAB USE ONLY MATRI  |  |   | RIX                       | -  | PRESERV. SAMPLI           |             |           | ING      | 0                  | a   |  | e                 | omplete |           |                |                                 |          |         |    |  |
| 3 point<br>3 point<br>4 point<br>5 point<br>5 point   | Sample I.D.<br>+ 10 Sorface<br>+ 2 @ Sorface<br>+ 3 @ Sorface<br>+ 4 @ Sorface<br>+ 2 @ 6"<br>+ 3 @ 6"<br>+ 4 @ 5"   | A A A A A A A A GIRAB OR (C)OMP<br>A X X X X X A A A CONTAINERS |                           | XXXXX X Soll                                   | OIL SLUDGE                | OTHER:      |           |          | DATE<br>7-19-14    | TIME<br>2:00<br>2:05<br>2:10<br>2:15<br>2:20<br>2:25<br>2:30                        | X X X X X X X  | XXXXXX            |         |           | Cor            |                                 |          |         |    |  |
| analyses. All claims including those for  | es. Cardinal's liability and client's exclusive remedy for<br>r regigence and any other cause whatsoever shall be<br>liable for incidental or consequential damages, includi<br>r related to the performance of services hereunder by<br>Date:<br>Date:<br>Date: | a deemed wa   | aved unitation, gardleips | ess made i<br>business in<br>of whether<br>By: | n writing a<br>terruption | s, loss o   | shed by u | des of p | rofits incurred by | client, its subsidi<br>easons or otherw<br>Phone Re<br>Fax Resu<br>REMARK<br>email: | aries,<br>ise.<br>esult:<br>ult:<br>(S:<br>hcc   |                   | r@rio   | No<br>No  | Add'l          | Phone #:<br>Fax #:<br>m; Iflore | es@rice- | ecs.con | n; |  |
| Delivered By: Date: Date: Delivered by:   Delivered By: (Circle One)   Sampler - UPS - Bus - Other: Image: Condition (Initials) |  |   |                           |  |                           |             |           |          |                    | lweinh<br>jkamp<br>cursa  | email: hconder@riceswd.com; lflores@rice-ecs.com;<br>lweinheimer@rice-ecs.com; knorman@rice-ecs.com;<br>jkamplain@rice-ecs.com; sedwards@rice-ecs.com;<br>cursanic@rice-ecs.com<br>Environmental Tech: @rice-ecs.com |                   |         |           |                |                                 |          |         |    |  |

40 c #31 † Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

### Appendix C Photo Documentation

RICE Environmental Consulting and Safety (RECS) P.O. Box 2948 Hobbs, NM 88241 Phone 575.393.2967

# ConocoPhillips VGEU Well 02-27 Unit Letter F, Section 32, T17S, R35E



Initial release area, facing west

7/14/14



Initial release area, facing southeast

7/14/14



Auguring for depth, facing northwest