Basin Environmental Service Technologies, LLC

3100 Plains Highway
P. O. Box 301
Lovington, New Mexico 88260
jwlowry@basinenv.com
Office: (575) 396-2378
Fax: (575) 396-1429

٤Ľ Effective Solutions

REMEDIATION SUMMARY AND

RISK-BASED SITE CLOSURE REQUEST

BOPCO, LP JAMES RANCH UNIT #55 WELL PAD Eddy County, New Mexico Unit Letter "F" (SE/NW), Section 17, Township 23 South, Range 31 East Latitude 32.306285° North, Longitude 103.801920° West NMOCD References #2RP-548 & 1177

Prepared For:

BOPCO, LP 522 W. Mermod, Suite 704 Carlsbad, New Mexico 88220

Prepared By: Basin Environmental Service Technologies, LLC 3100 Plains Highway Lovington, New Mexico 88260

June 2014

NM OIL CONSERVATION

ARTESIA DISTRICT

JUL 01 2014

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Project Manager

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1.0 INTRODUCTION & BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin), on behalf of BOPCO, LP (BOPCO), has prepared this *Remediation Summary and Risk-Based Site Closure Request* for the release site known as James Ranch Unit #55 Well Pad (JRU #55). The legal description of the release site is Unit Letter "F" (SE/NW), Section 17, Township 23 South, Range 31 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.306285° North latitude and 103.801920° West longitude. The property affected by the release is owned by the United States Department of the Interior - Bureau of Land Management (BLM). A "Site Location Map" is provided as Figure 1.

There have been two reportable releases on the JRU #55 Well Pad. The first reportable release occurred on March 9, 2010. The release was attributed to the failure of a temporary hose being used while circulating the well. The "Release Notification and Corrective Action" (Form C-141) indicated a release of approximately ten barrels (10 bbls) of produced water and ten barrels (10 bbls) of crude oil affected approximately two thousand, five hundred square feet (2,500 ft²) of caliche well pad, one thousand, six hundred and twenty square feet (1,620 ft²) of caliche road and five hundred and twenty-five square feet (525 ft²) of adjacent pasture land. During initial response activities approximately five barrels (5 bbls) of produced water and three barrels (3 bbls) of crude oil were recovered using a vacuum truck. Heavily saturated soil was excavated from the well pad and pasture and transported to an NMOCD-approved disposal facility. Between March 25 and 31, 2010, remediation activities were conducted by an alternative environmental contractor. Final closure was never sought as a non-reportable release occurred atop the previously remediated area. The Form C-141 for the March 9, 2010, release is provided as Appendix A.

The second reportable release occurred on May 18, 2012. The release was attributed to the failure of the packing in the stuffing box. The initial Form C-141 indicated a release of approximately five barrels (5 bbls) of produced water and three barrels (3 bbls) of crude oil affected approximately four hundred and ten square feet (410 ft^2) of the caliche well pad. During initial response activities, approximately three barrels (3 bbls) of free-standing fluid were recovered using a vacuum truck. The Form C-141 for the May 18, 2012, release is provided as Appendix B. General photographs of the release site are provided as Appendix C.

As per the NMOCD, the releases were remediated simultaneously.

2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated information was unavailable for Section 17, Township 23 South, Range 31 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately ninety feet (90') below ground surface (bgs). Based on the NMOCD ranking system, ten (10) points will be assigned to the site as a result of this criterion.

A search of the NMWRRS database indicated there are no water wells within one thousand feet (1,000') of the release. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

There are no surface water bodies within one thousand feet (1,000') of the release. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

NMOCD guidelines indicate the JRU #55 Well Pad release site has an initial ranking score of ten (10) points. The soil remediation levels for a site with a ranking score of ten (10) points are as follows:

- Benzene 10 ppm
- Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) –ppm
- Total Petroleum Hydrocarbons (TPH) 1,000 ppm

The New Mexico Administrative Code (NMAC) does not currently specify a remediation level for chloride concentrations in soil. Chloride remediation levels are set by the NMOCD on a site-specific basis.

3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

On May 19, 2014, Basin began excavating impacted soil at the release site. The excavation floor and sidewalls were advanced until field tests suggested concentrations of BTEX, TPH and chloride were below NMOCD regulatory standards. Excavated soil was stockpiled on-site, pending final disposition.

On May 20, 2014, six (6) soil samples (NSW, SSW, ESW #1, WSW #1, WSW #2 and Floor #1 (a) 2') were collected from the excavated area and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory method detection limit (MDL) for soil sample WSW #1 to 256 ppm for soil sample NSW. Soil sample Floor #1 (a) 2' was also analyzed for concentrations of TPH, which were determined to be less than the appropriate laboratory MDL. A summary of "Concentrations of Benzene, BTEX, TPH & Chloride in Soil" is provided in Table 1. A "Site and Sample Location Map" is provided as Figure 2. Laboratory analytical reports are provided as Appendix D.

On May 21, 2014, a delineation trench (DT 1) was advanced south of the well head in area exhibiting elevated chloride concentrations at four feet (4') bgs. During the advancement of the delineation trench, four (4) soil samples (DT 1 @ 6', DT 1 @ 9', DT 1 @ 17' and DT 1 @ 18.5') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 2,600 ppm for soil sampled 1 @ 9' to 352 ppm for soil sample DT 1 @ 18.5'.

In addition, two (2) soil samples (ESW #2 and ESW #3) were collected from the excavated area and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated the concentration of chloride was 304 ppm for both samples.

On May 22, 2014, three (3) soil samples (NSW #2, NSW #3, and SSW #2) were collected from the excavated area and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 144 ppm for soil sample NSW #2 to 320 ppm for soil sample NSW #3.

On May 27, 2014, one (1) soil sample (NESW) was collected from the northeast edge of the environmental excavation and submitted to the laboratory for analysis of chloride, BTEX and TPH concentrations. Laboratory analytical results indicate soil sample NESW exhibited a chloride concentration of 32.0 ppm. BTEX and TPH concentrations were less than the appropriate laboratory MDL.

In addition, two (2) soil samples (Road #1, Road #2) were collected from the caliche road adjacent to the well pad affected by the May 9, 2010, release in an effort to determine if previous remediation activities were sufficient. Laboratory analytical results indicated soil sample Road #1 exhibited a chloride concentration of 288 ppm, soil sample Road #2 exhibited a chloride concentration of 272 ppm. Soil sample Road #2 was also analyzed for concentrations of BTEX and TPH, which were determined to be less than the appropriate laboratory MDL. Laboratory analytical results suggest previous remediation activities on the affected caliche road met the requirements of the NMOCD.

An initial investigation was conducted in an area of pasture adjacent to the PLU #55 Well Pad that was inferred to have been affected by the March 9, 2010, release. During the initial investigation, four (4) hand-augered soil bores (SP #1 through SP #4) were advanced in the disturbed area north of the well pad. Soil samples were collected from SP #1 at the surface, two feet (2') and four feet (4') bgs and field screened for concentrations of chloride. During the advancement of SP #1, a twenty-millimeter (20-mil) polyurethane liner was encountered at approximately four feet (4') bgs. Chloride field test results ranged from less than 120 ppm for the soil sample collected at the surface to 1,280 ppm for the soil sample collected at four feet (4') bgs. The remaining hand-augered soil bores (SP #2 though SP #4) were only advanced to two feet (2') bgs in an effort to maintain the integrity of the polyurethane liner. Soil samples collected from the surface and two feet (2') bgs from SP #2 through SP #4 were field screened for concentrations of chloride. Chloride field test results indicated chloride concentrations were less than 120 ppm in each of the field samples. Based on field test results it was determined that the soil column above the 20-mil polyurethane liner was not impacted above NMOCD regulatory standards. The liner was left undisturbed as per the NMOCD.

On May 28, 2014, upon receiving NMOCD approval, a 20-mil polyurethane liner was installed in the floor of the excavation atop areas exhibiting chloride concentrations above NMOCD regulatory standards. This engineering control was designed to inhibit the vertical migration of contaminants left in-situ and help mitigate any future releases on the well pad. Upon installing the approved liner, the remaining portion of the excavation was backfilled with non-impacted caliche.

Between May 22 and 28, 2014, approximately seven hundred and forty cubic yards (740 yd³) of impacted material was transported to Lea Land, LLC (NMOCD Permit #WM-01-035), for disposal. Prior to backfilling, the final dimensions of the excavation were approximately twelve (12) to thirty feet (30') in width, one hundred and thirty feet (130') in length and two (2) to four feet (4') in depth.

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

Soil samples were delivered to Cardinal Laboratories, Inc., in Hobbs, New Mexico, for BTEX, TPH and/or chloride analyses using the methods described below:

- BTEX concentrations in accordance with EPA Method SW-846 8021b
- TPH concentrations in accordance with EPA Method SW-846 8015M
- Chloride concentrations in accordance with EPA Method 4500 Cl-B

4.2 Decontamination of Equipment

Cleaning of the sampling equipment was the responsibility of the environmental technician. Prior to use, and between each sample, the sampling equipment was cleaned with Liqui-Nox® detergent and rinsed with distilled water.

4.3 Laboratory Protocol

The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody form(s). These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

5.0 SITE CLOSURE REQUEST

Remediation activities at the JRU #55 Well Pad were conducted in accordance with an NMOCDapproved work plan. Confirmation soil samples collected from the excavation sidewalls were submitted to an NMOCD approved laboratory, which determined concentrations of BTEX, TPH and chloride were below NMOCD regulatory standards. A 20-mil polyurethane liner was installed in the floor of the excavation at approximately four feet (4') bgs. Based on laboratory analytical results and the installation of an approved engineering control, Basin recommends BOPCO provide the NMOCD-Artesia District Office and the BLM a copy of this *Remediation Summary and Risk-Based Site Closure Request* and request the NMOCD grant site closure to the JRU #55 Well Pad release site.

6.0 LIMITATIONS

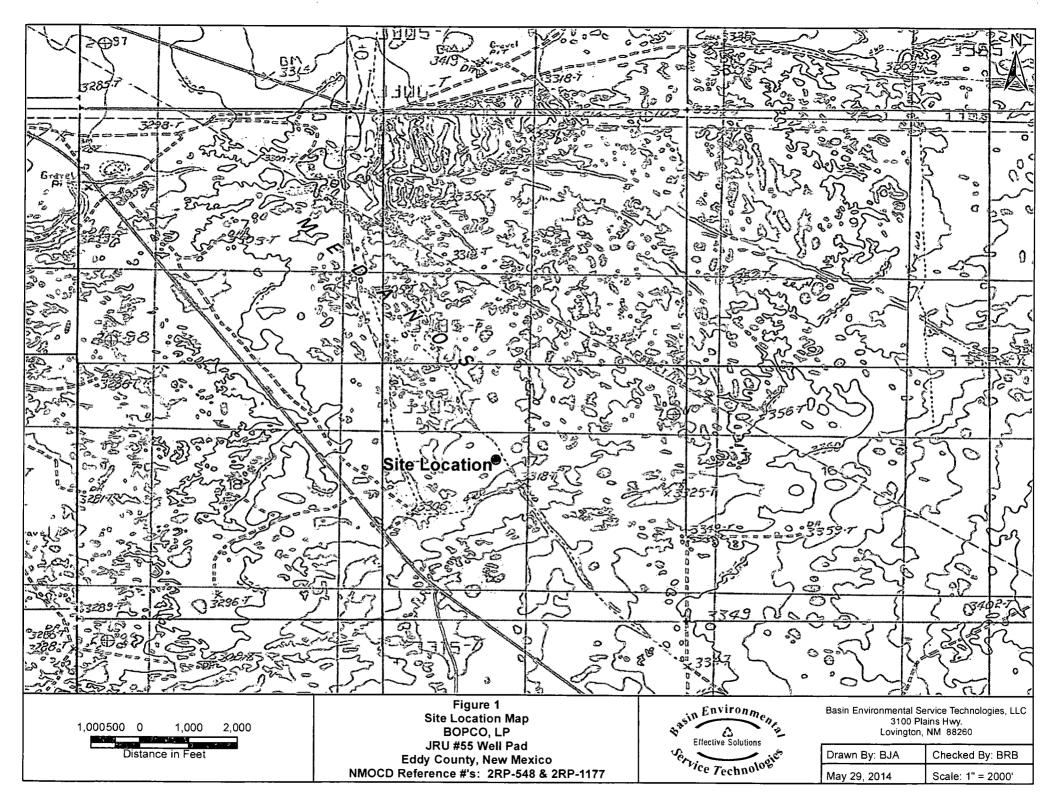
Basin Environmental Service Technologies, LLC, has prepared this *Remediation Summary and Risk-Based Site Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin has not conducted an independent examination of the facts contained in referenced materials and statements. Basin has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

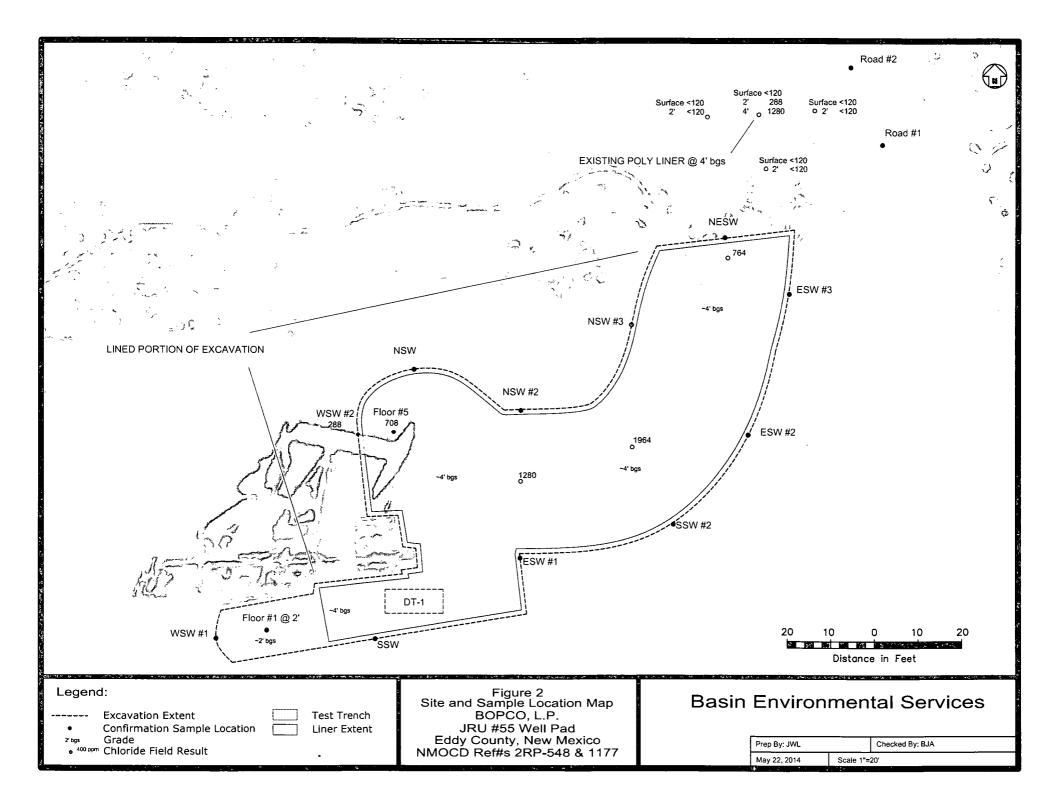
This report has been prepared for the benefit of BOPCO, LP. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or BOPCO, LP.

7.0 **DISTRIBUTION:**

- Copy 1: Mike Bratcher New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (District 2) 1301 E. Grand Avenue Artesia, NM 88210
- Copy 2: James Amos Bureau of Land Management 602 E. Greene Street Carlsbad, New Mexico 88220
- Copy 3: Tony Savoie BOPCO, LP 522 W. Mermod, Suite 704 Carlsbad, NM 88220
- Copy 4: Basin Environmental Service Technologies, LLC P.O. Box 301 Lovington, NM 88260

FIGURES





TABLES

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TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDES IN SOIL

BOPCO, LP JAMES RANCH UNIT #55 WELL PAD EDDY COUNTY, NEW MEXICO

| | | | | | METHOD: E | PA SW 846 | -8021B, 503 | 0 | MET | HOD: 80 | 15M | TOTAL | 4500 CI-B |
|-----------------|--------------------------|----------------|----------------|--------------------|--------------------|------------------------------|-----------------------------|--------------------------|---------------------------------------------------|----------------------------------------------------|----------------------------------------------------|------------|---------------------|
| SAMPLE LOCATION | SAMPLE DEPTH (BGS) | SAMPLE DATE | SOIL STATUS | BENZENE (mg/Kg) | TOLUENE (mg/Kg) | ETHYL- BENZENE (mg/Kg) | TOTAL XYLENES (mg/Kg) | TOTAL BTEX (mg/Kg) | GRO C ₆ -C ₁₂ (mg/Kg) | DRO C ₁₂ -C ₂₈ (mg/Kg) | ORO C ₂₈ -C ₃₅ (mg/Kg) | C6-C35 (mc | CHLORIDE (mg/Kg) |
| NSW | 2' | 5/20/2014 | In-Situ | - | - | - | - | - | - | - | - | - | 256 |
| SSW | 2' | 5/20/2014 | In-Situ | - | - | - | _ | - | - | - | - | - | 96.0 |
| ESW #1 | 2' | 5/20/2014 | In-Situ | - | - | - | _ | - | - | - | - | - | 64.0 |
| WSW #1 | 1.5' | 5/20/2014 | In-Situ | - | - | - | - | - | - | - | - | - | <16.0 |
| WSW #2 | 2' | 5/20/2014 | In-Situ | - | - | - | - | - | - | - | - | - | 176 |
| Floor #1 @ 2' | 2' | 5/20/2014 | In-Situ | - | - | - | - | - | <10.0 | <10.0 | <10.0 | <10.0 | 112 |
| DT 1 @ 6' | 6' | 5/21/2014 | In-Situ | - | - | - | - | - | | | - | - | 1,100 |
| DT 1 @ 9' | 9' | 5/21/2014 | In-Situ | - | - | - | - | - | - | - | - | - | 2,600 |
| DT 1 @ 17' | 17' | 5/21/2014 | In-Situ | - | - | - | - | - | - | - | - | • | 480 |
| DT 1 @ 18.5' | 18.5' | 5/21/2014 | In-Situ | - | - | - | - | - | - | - | - | - | 352 |
| ESW #2 | 2' | 5/21/2014 | In-Situ | - | - | - | - | _ | - | - | - | - | 304 |
| ESW #3 | 2' | 5/21/2014 | In-Situ | - | - | - | - | - | - | | - | - | 304 |
| NSW #2 | 2' | 5/22/2014 | In-Situ | - | - | - | - | - | - | - | - | _ | 144 |
| NSW #3 | 2' | 5/22/2014 | In-Situ | - | - | - | - | - | - | - | - | - | 320 |
| SSW #2 | 2' | 5/22/2014 | In-Situ | - | - | - | - | - | - | - | - | - | 160 |
| Road #1 | 3' | 5/27/2014 | In-Situ | - | - | - | - | - | - | - | - | - | 288 |
| Road #2 | 3' | 5/27/2014 | In-Situ | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | <10.0 | <10.0 | <10.0 | <10.0 | 272 |
| NESW | 2' | 5/27/2014 | In-Situ | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | <10.0 | <10.0 | <10.0 | <10.0 | 32.0 |
| NMOCD Criteria | | | | 10 | | | | 50 | | | | 1.000 | 500 |

- = Not analyzed.

APPENDICES

Appendix A Release Notification and Corrective Action (Form C-141) - March 9, 2010

,

| District I 625 N. French Dr., Hobbs, NM 88240 State 'o | f New Mexico RECEIVED Form C-14 | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| District II Energy Mineral | s and Natural Resources Revised October 10, 200 | | | | |
| 301 W. Grand Avenue, Artesia, NM 88210 District III Oil Consu | ervation Division MAR 31 2010 Submit 2 Copies to appropriat | | | | |
| (IO) Rin Brizes Read, Aztec NM 8/410 | th St. Francis Dr. NIMOOD ADTEOLA with Rule 116 on bac | | | | |
| DOLO DE DE CALENDA DE DE DINA ODEDE | Fe, NM 87505 NMOCD ARTESIA | | | | |
| | on and Corrective Action | | | | |
| mw 110/253579 | OPERATOR 🛛 Initial Report 🗌 Final Rep | | | | |
| Name of Company BOPCO, L.P. | Contact Tony Savoie | | | | |
| Address 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220 | Telephone No. 432-556-8730 | | | | |
| Facility Name James Ranch Unit #55 | Facility Type E&P | | | | |
| Surface Owner Federal Mineral Owner | r Federal Lease No. | | | | |
| LOCATIO | ON OF RELEASE | | | | |
| | th/South Line Feet from the East/West Line County | | | | |
| F 17 238 31E | Eddy | | | | |
| | | | | | |
| Latitude_N 32.30628 | 85 Longitude W 103.801920 | | | | |
| NATUR | E OF RELEASE | | | | |
| Type of Release: Produced water and crude oil | Volume of Release: 10 Bbls of Volume Recovered: 5 bbls water and 3 | | | | |
| | Produced water and 10 Bbls of bbls crude oil | | | | |
| Source of Release: Faulty circulating hose on the wellhead | crude oil Date and Hour of Discovery | | | | |
| · · · · | 3/9/10 Approximately 2:00 p.m. 3/24/10 8:00 a.m. | | | | |
| Was Immediate Notice Given? | If YES, To Whom? | | | | |
| | | | | | |
| By Whom? Was a Watercourse Reached? | Date and Hour If YES, Volume Impacting the Watercourse. | | | | |
| Yes X No | in 123, volume impacting the watercourse. | | | | |
| If a Watercourse was Impacted, Describe Fully.* | | | | | |
| n a materiouse was impleted, beschoe rang. | , | | | | |
| | | | | | |
| | | | | | |
| Describe Cause of Problem and Remedial Action Taken.* A temporary | hose failed while circulating the well, the hose was removed and the well put bac | | | | |
| on production. | | | | | |
| Describe Area Affected and Cleanup Action Taken.* Approximately 2. | 500 sq.ft. of caliche well pad, 1620 sq. ft. of caliche road, and 525 sq.ft. of pasture | | | | |
| and nasture, then transported to CRL Soil samples were collected after | with a vacuum truck and the heavily saturated soil was excavated from the well pa the initial response and field tested for the presence of chlorides. Remediation | | | | |
| activities will resume following the results of the soil sample results. | | | | | |
| I hereby certify that the information given above is true and complete to | o the best of my knowledge and understand that pursuant to NMOCD rules and | | | | |
| | e notifications and perform corrective actions for releases which may endanger the NMOCD marked as "Final Report" does not relieve the operator of liability | | | | |
| | liate contamination that pose a threat to ground water, surface water, human health | | | | |
| or the environment. In addition, NMOCD acceptance of a C-141 report | n does not relieve the operator of responsibility for compliance with any other | | | | |
| federal, state, or local laws and/or regulations. | | | | | |
| rederal, size, or local laws and/or regulations. | OIL CONCEDVATION DIVISION | | | | |
| | OIL CONSERVATION DIVISION | | | | |
| | A | | | | |
| Signature: Tory Darme | <u>OIL CONSERVATION DIVISION</u> Approved by District Supervisor | | | | |
| Signature: Tory Darme | Approved by District Supervisor 1/4 Benness | | | | |
| Signature: Tory Darme | | | | | |
| Signature: Com Service Printed Name: Tony Savoie Title: Waste Mgmt.& Remediation Specialist | Approved by District Supervisorality Beamure Signed By Approval Date: 3/3/11 Expiration Date: | | | | |
| Signature: Service Printed Name: Tony Savoie Title: Waste Mgmt.& Remediation Specialist E-mail Address: TASavoie@BassPet.com | Approved by District Supervisor III BEANTINE Signed By Approval Date: 3/3/11 Expiration Date: Conditions of Approval: Remediation per OCD Bules & | | | | |
| Signature: Cong Service Printed Name: Tony Savoie Title: Waste Mgmt.& Remediation Specialist E-mail Address: TASavoie@BassPet.com Date: 3/29/10 Phone:432-556-8730 | Approved by District Supervisor Life Barmura Approval Date: 3/3/11 Expiration Date: Conditions of Approval: Remediation per OCD Rules & Guidelines SUBMIT REMEDIATION | | | | |
| Signature: Service Printed Name: Tony Savoie Title: Waste Mgmt.& Remediation Specialist E-mail Address: TASavoie@BassPet.com | Approved by District Supervisorality Basenusa Approval Date: 3/3/11 Expiration Date: Conditions of Approval: Remediation per OCD Bules & Attached | | | | |

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

API No. 30-015-27589

Release Notification and Corrective Action

| | OPERATOR | Initial Report | Final Report |
|--------------------------------------------------------|----------------------------|----------------|--------------|
| Name of Company: BOPCO, L.P. | Contact: Tony Savoie | | |
| Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220 | Telephone No. 575-887-7329 | | |
| Facility Name: James Ranch Unit #55(2RP-548) | Facility Type: E & P | | |

| Surface Owner: Federal | Mineral Owner: Federal |
|------------------------|------------------------|

LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County: |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|---------|
| F | 17 | 23\$ | 31E | | | | | Eddy |
| | | 1 | | 1 | | | | |

Latitude N 32.306285 Longitude W 103.801920

NATURE OF RELEASE

| Type of Release: Produced water and crude oil | Volume of Release: 10 bbls of | Volume Recovered: 5 bbls water and 3 | | | | | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-----------------------------------------------|--|--|--|--|--|--|--|--|--|
| | produced water and 10 bbls of | bbls crude oil | | | | | | | | | |
| | crude oil | | | | | | | | | | |
| Source of Release: Faulty circulating hose on the wellhead | Date and Hour of Occurrence: | Date and Hour of Discovery: | | | | | | | | | |
| | 3/9/10 approximately 2:00 p.m. | 3/24/10 8:00 a.m. | | | | | | | | | |
| Was Immediate Notice Given? | If YES, To Whom? | | | | | | | | | | |
| 🗌 Yes 🔲 No 🛛 Not Required | NM OI | L CONSERVATION | | | | | | | | | |
| By Whom? Tony Savoie | Date and Hour | DIFCIA DICTOR | | | | | | | | | |
| Was a Watercourse Reached? | If YES, Volume Impacting the Wa | ţerçourse. | | | | | | | | | |
| 🗌 Yes 🖾 No | If YES, Volume Impacting the Wa | JUL 0 1 2014 | | | | | | | | | |
| If a Watercourse was Impacted, Describe Fully.* | J | | | | | | | | | | |
| | RECEIVED | | | | | | | | | | |
| | | | | | | | | | | | |
| Describe Cause of Problem and Remedial Action Taken.* A temporary ho | ose failed while circulating the well, t | he hose was removed and the well put back | | | | | | | | | |
| on production. | | | | | | | | | | | |
| Describe Area Affected and Cleanup Action Taken.* Approximately 2500 | sa ft of caliche well pad 1620 sa | ft of caliche road and 525 sq. ft of pasture | | | | | | | | | |
| land were affected by the release. All of the free product was removed wit | | | | | | | | | | | |
| and pasture, then transported to CRI. Soil samples were collected after the | | | | | | | | | | | |
| activities will resume following the results of the soil sample. | initial response and nord tested for t | | | | | | | | | | |
| | | | | | | | | | | | |
| Approximately 740 cu. yds of impacted soil was excavated from an area n | neasuring approximately 12' to 30' ir | width, 130' in length, and 2' to 4' in depth. | | | | | | | | | |
| Impacted soil was hauled to an NMOCD-approved disposal facility. Pleas | e reference the attached Remediati | ion Summary and Risk-Based Site | | | | | | | | | |
| Closure Request for detail of Remediation Activities. | | | | | | | | | | | |
| | | | | | | | | | | | |
| I hereby certify that the information given above is true and complete to the | | | | | | | | | | | |
| regulations all operators are required to report and/or file certain release no | | | | | | | | | | | |
| public health or the environment. The acceptance of a C-141 report by the | e NMOCD marked as "Final Report" | does not relieve the operator of liability | | | | | | | | | |
| should their operations have failed to adequately investigate and remediate or the environment. In addition, NMOCD acceptance of a C-141 report de | | | | | | | | | | | |
| federal, state, or local laws and/or regulations. | bes not reneve the operator of respon | sibility for comphance with any other | | | | | | | | | |
| rederal, state, or local laws and/or regulations. | OH CONCERN | | | | | | | | | | |
| | <u>OIL CONSER</u> | VATION DIVISION | | | | | | | | | |
| Signature: Ton Skulu | | | | | | | | | | | |
| | | | | | | | | | | | |
| Printed Name: Tony Savoie | Approved by Environmental Speciali | st: | | | | | | | | | |
| Title West Mensennet et Demodiation Specialist | | | | | | | | | | | |
| Title: Waste Management and Remediation Specialist | Approval Date: | Expiration Date: | | | | | | | | | |
| E-mail Address: tasavoie@basspet.com | Conditions of Approval: | | | | | | | | | | |
| | r r | Attached | | | | | | | | | |

Phone: 432-556-8730

Date: 4/9/14 7/1/14... * Attach Additional Sheets If Necessary

Appendix B

Release Notification and Corrective Action (Form C-141) – May 18, 2012

State of New Mexico **Energy Minerals and Natural Resources**

Oil Conservation Division 1220 South St. Francis Dr. Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back

| 20 S. St. Fran | ncis Dr., Sant | a Fe, NM 8750 | 5 | Sa | nta Fe | e, NM 875 | 505 | | | | side o | f for |
|-------------------------------------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------|
| | <u> </u> | | Rel | ease Notific | | | | ction | 1 | | and the state of the | |
| MML | 21724 | 2281 | | | | OPERA | FOR | | 🛛 Initi | al Report | 🗌 Final | Rep |
| Name of Co | ompany B | OPCO, L.P. | | 260737 | | Contact Tor | | | | | | |
| | | | | ad, N.M. 88220 | | | No. 432-556-87 | 30 | | | | |
| Facility Na | me James | Ranch Unit | <u> </u> | | | Facility Typ | e E&P | | | · | | |
| Surface Ow | ner Federa | al | · · · | Mineral O | wner I | Federal | | | Lease | No. | | _ |
| | | | | LOCA | TIO | NOEDE | | AT | I 3 | 0-015- | 27589 | |
| Unit Letter | Section | Tourshin | Range | Feet from the | | N OF REI | Feet from the | East/ | West Line | County | | |
| F | 17 | Township 23S | 31E | reet nom me | Norus | South Line | reet nom me | Lasu | west Line | County Eddy | | |
| | | | | | | | | | | | | |
| | | | 1 | Latitude_N 32.3 | 06285 | Longitu | de W 103.8019 | 920 | | | | |
| | | | - | _ | | | | | | | | |
| | | | | NAT | URE | OF REL | | | | | | <u> </u> |
| Type of Rele | ease: Produc | ced water and | crude oil | | | | Release: 5 Bbls | | Volume I | Recovered: | 3 Bbls total flui | ıd |
| | | | | | | crude oil | water and 3 Bbls of | UI I | | | | |
| Source of Re | elease: Stuff | fing box on th | e wellhead | 1 | | Date and H | lour of Occurrence | ce | | Hour of Di | scovery | |
| | | | | <u> </u> | | | me unkown | | 5/18/12 8 | :00 a.m. | | |
| Was Immedi | ate Notice (| | |] No 🛛 Not Re | auired | If YES, To | Whom? | | | | | |
| | | | | | | | · · · · · · · · · · · · · · · · · · · | | | <u>,</u> | | |
| By Whom? Was a Water | course Rea | ched? | | | | Date and H | lour folume Impacting t | the Wate | Produtse | | | |
| was a water | course read | | Yes 🗵 |] No | | II 123, VC | nume impacting i | ine wait | icouise. | | | |
| Describe Are ruck, the sta hereby cert egulations a public health | a Affected ined soil wa ify that the il operators or the envir | and Cleanup A as left in place information gi are required t ronment. The | Action Tal pending r ven above o report ar acceptance | n Taken.* The pac cen.* Approximate remediation activit is true and compl nd/or file certain re- ce of a C-141 repor- v investigate and re- | ely 410 ies that ete to the elease no rt by the | sq.ft. of calicl will follow th the best of my otifications ar NMOCD mathematical mathematical solutions are supported by the second second second second second second second second second second second second second second second se | he well pad. All of the NMOCD and I knowledge and u and perform correct arked as "Final R | of the from BLM guinderstar anderstar stive action eport d | ee product idelines for id that purs ions for rel oes not rel | was remove leaks and s suant to NM eases which ieve the ope | spills. IOCD rules and may endanger rator of liability | l y |
| | | | | stance of a C-141 r | eport de | pes not reliev | e the operator of i | responsi | bility for c | ompliance v | vith any other | |
| cuerai, state, | | ws and/or regu | nations. | | <u> </u> | | OIL CON | SERV | ATION | DIVISI | <u>N</u> | |
| lignature. | 1 au | Bavu | р 14 | | / / | Approved by | District Supervise | | 1. | | <u>///</u> | |
| rinted Name | : Tony Sav | oie | | | | | Signed By | A. 14 | Butan | all an | | |
| itle: Waste | Mgmt.& Re | mediation Sp | ecialist | | | J Approval Dat | IN 2 0 2012 | 2 | Expiration | | | |
| -mail Addre | ss: TASavo | oie@BassPet.c | om | | | Conditions of | Approval: | , | | Attached | | |
| Date: 6/2/12 | | | | Phone:432-556-87 | 30 | | | | | | | |
| ttach Addi | tional Shee | ets If Necess | ary | | | | - | | 2 | RP | 1177 | |
| | | | | | | REC | EIVED | ן הו | | | r OCD Rules REMEDIATI | |
| | | | | | | 1 | 12 2012 | | | | TER THAN: | |
| | | | | | | NMOOL |) ARTESIA | _ | | 1 | | |

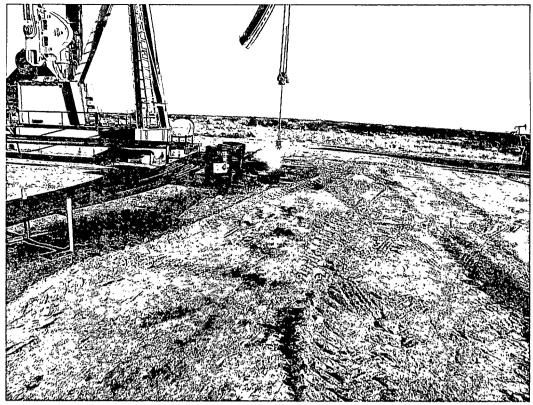
NMOCD ARTESIA

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

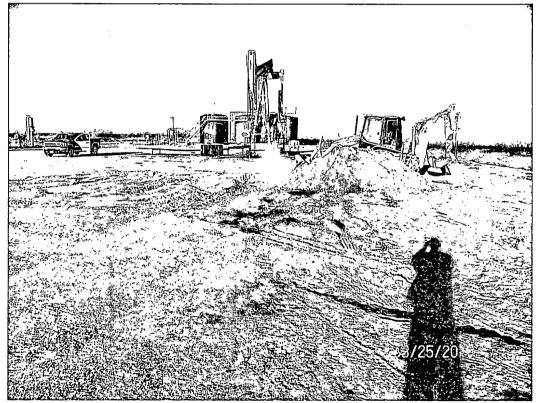
| Release Notification and Corrective Action | | | | | | | | | | | | |
|---------------------------------------------|-------------------|---------------------------------------|----------------------------------------------|---------------------------------------|------------|----------------------|--------------------|-------------------|----------------|-------------|----------------|--|
| | | | | | | OPERAT | FOR | 🗌 Ir | itial Report | \boxtimes | Final Report | |
| Name of Co | | | | | | Contact: Tony Savoie | | | | | | |
| | | · · · · · · · · · · · · · · · · · · · | | oad, N.M. 88220 | · · · | Telephone N | No. 575-887-732 | 29 | | | | |
| Facility Nar | ne: James | Ranch Unit | #55 | (2RP-117 | 7) | Facility Typ | e: E & P | | | | | |
| Surface Ow | ner: Feder | al | | Mineral C | wner: l | Federal | | API | No. 30-015-2 | 27589 | | |
| | | | | LOCA | TION | N OF REI | EASE | | | | | |
| Unit Letter | Section | Township | Range | Feet from the | | South Line | Feet from the | East/West Lir | e County: | | | |
| F | 17 | 238 | 31E | | | | | | Eddy | | | |
| | | | [| | | | | | | | | |
| Latitude N 32.306285 Longitude W 103.801920 | | | | | | | | | | | | |
| | NATURE OF RELEASE | | | | | | | | | | | |
| Type of Rele | ase: Produc | ed water and | crude oil | | | | Release: 5 bbls o | | e Recovered: | 3 bbls to | otal fluid | |
| | | | | | | 1 - | vater and 3 bbls o | f | | | | |
| Source of Re | lease: Stuff | ing hox on we | llhead | | | Crude oil | lour of Occurrenc | e: Date a | nd Hour of Di | scoverv | | |
| 500.00 01 10 | iouse. Sturi | ing oox on it. | meuu | | | | ne unknown | | 2 8:00 a.m. | 300 101 9 | - | |
| Was Immedi | ate Notice (| | ···· - | | | If YES, To | Whom? | | | | | |
| | | | Yes _ | No 🛛 Not Re | quired | | | | | | | |
| By Whom? Was a Water | | | <u> </u> | | | Date and H | lour | NM O | IL CONSE | RVAT | ION | |
| was a water | course Read | | Yes 🗵 | 1 No | | If YES, VC | olume Impacting t | ne watercourse | ARTESIA DIST | RICT | | |
| 16 o Watanaa | | | | | | <u> </u> | | | JUL 012 | 014 | | |
| If a Watercou | Irse was Im | pacted, Descr | ibe rully. | T | | | | | | | | |
| | | | | | | | | | RECEIVE | | | |
| Describe Cau | ise of Probl | em and Reme | dial Actio | n Taken.* The pag | king in | the stuffing b | oox failed. The pa | cking was repla | ced. | | | |
| | | | | cen.* Approximat | | | | | | | a vacuum | |
| truck, the sta | ined soil wa | is left in place | pending r | remediation activi | ties that | will follow th | ne NMOCD and I | BLM guidelines | for leak and s | pills. | | |
| Approximate | lv 740 cu. v | ds of impacte | ed soil was | excavated from a | n area n | neasuring and | proximately 12' to | 30' in width | 30' in length. | and 2' t | o 4' in depth. | |
| | | | | ed disposal facili | | | | | | | | |
| Closure Req | uest for de | tail of Reme | liation Ac | tivities. | | | | | | | | |
| I hereby certi | fy that the | information g | iven above | e is true and comp | lete to th | he best of my | knowledge and u | inderstand that | oursuant to NM | 10CD r | ules and | |
| regulations a | ll operators | are required t | o report a | nd/or file certain r | elease n | otifications a | nd perform correct | tive actions for | releases which | n may ei | ndanger | |
| | | | | ce of a C-141 repo | | | | | | | | |
| | | | | investigate and r | | | | | | | | |
| | | ws and/or regi | | otance of a C-141 | report d | oes not renev | e the operator of | responsibility is | or compliance | with any | / other | |
| | | | | | | | OIL CON | SERVATIO | N DIVISI | <u>ON</u> | | |
| Signature: | | 9. 6 | > | | | | | | | | | |
| Signature: | Cong- | <u>Saun</u> | <u>د </u> | · · · · · · · · · · · · · · · · · · · | | | F | · • | | | | |
| Printed Nam | e: Tony Sav | oie | | | | Approved by | Environmental S | pecialist: | | | | |
| Title Waste | Manageme | nt and Remed | iation Spe | cialist | | Approval Da | te. | Fynirat | on Date: | | | |
| THE WASE | manageme | | anon ope | viunot | | | | Expilat | | | | |
| E-mail Addr | ess: tasavoi | e@basspet.co | m | | | Conditions o | f Approval: | | Attache | d 🔲 | | |
| Date: 4/9/14 | · · /// | 14 | 1 | Phone: 432-556-8 | 730 | | | | | | | |

* Attach Additional Sheets If Necessary

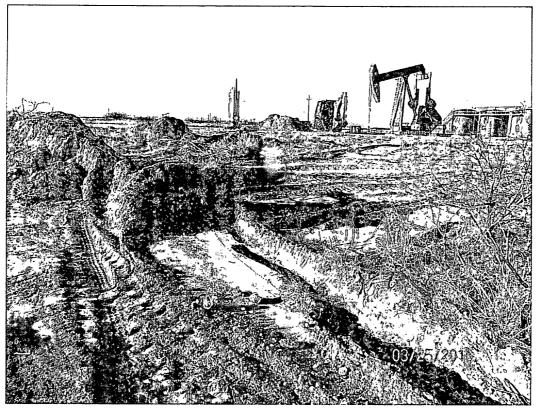
Appendix C Photographs



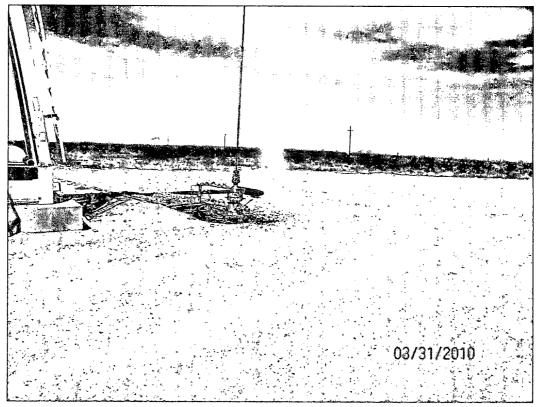
Photograph of surface staining from the March 9, 2013, release at the JRU #55 Well Pad.



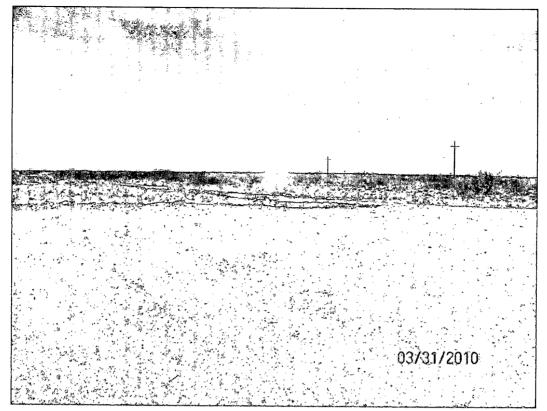
Photograph of remediation activities associated with the March 9, 2013, release at the JRU #55 Well Pad.



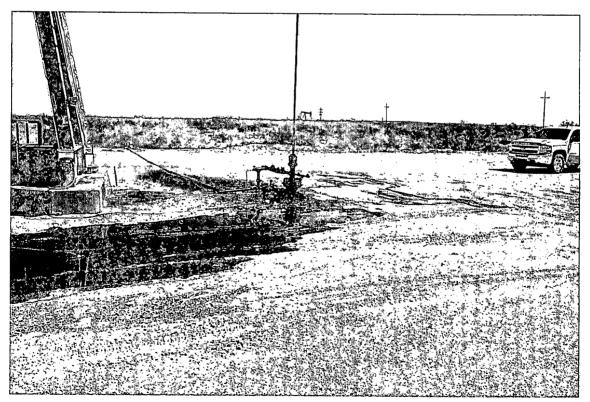
Photograph of remediation activities associated with the March 9, 2013, release at the JRU #55 Well Pad.



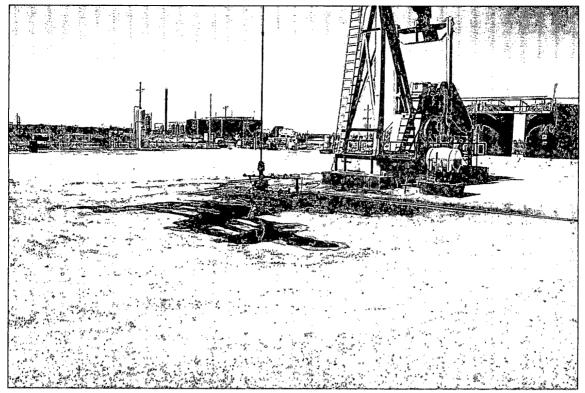
Photograph of JRU #55 Well Pad after remediation activities associated with the March 9, 2010, release.



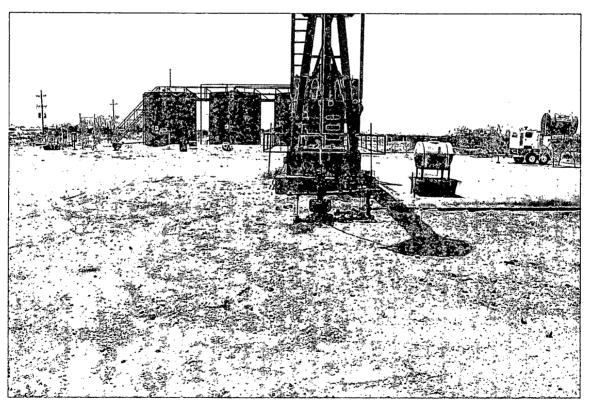
Photograph of JRU #55 Well Pad after remediation activities associated with the March 9, 2010, release.



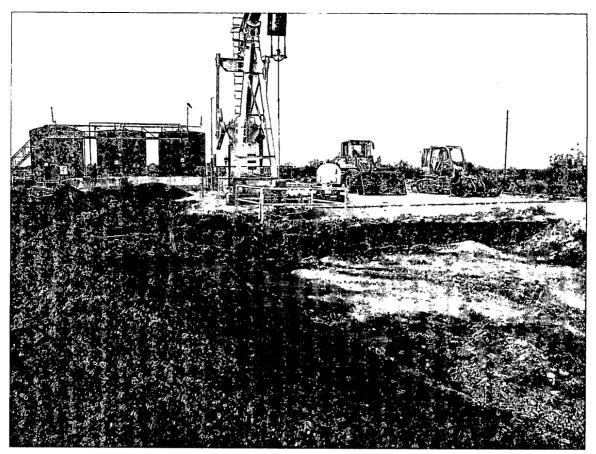
Photograph of the May 18, 2012, release at the JRU #55 Well Pad.



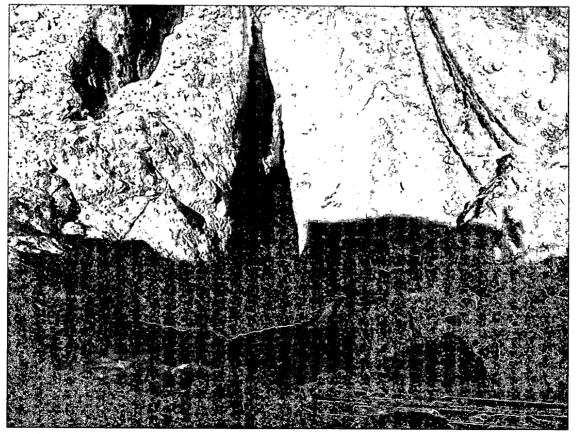
Photograph of the May 18, 2012, release at the JRU #55 Well Pad.



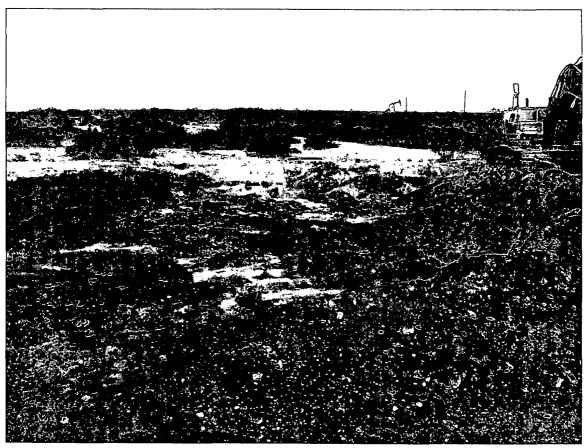
Photograph of surface staining after removing free-standing fluid at the JRU #55 Well Pad release site.



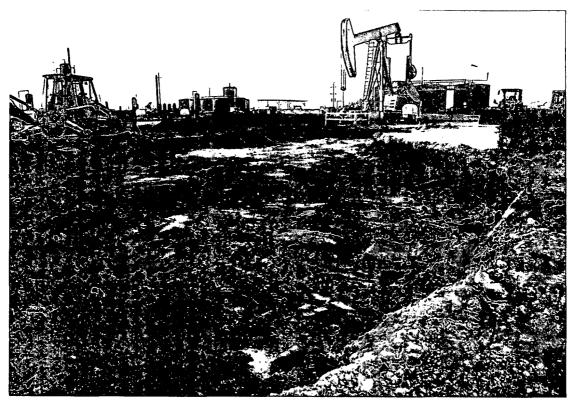
Photograph of recent excavation activities at the JRU #55 Well Pad.



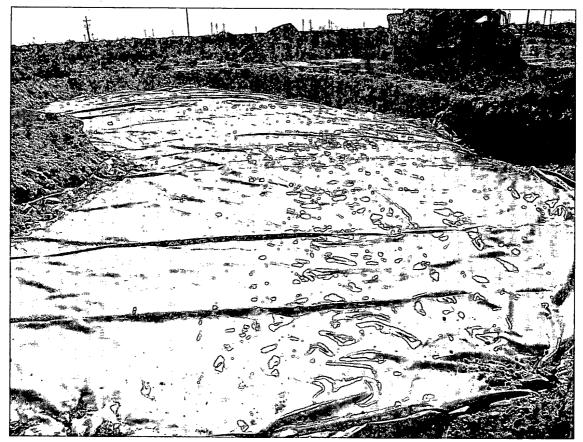
Photograph of the delineation trench at the JRU #55 Well Pad environmental remediation site.



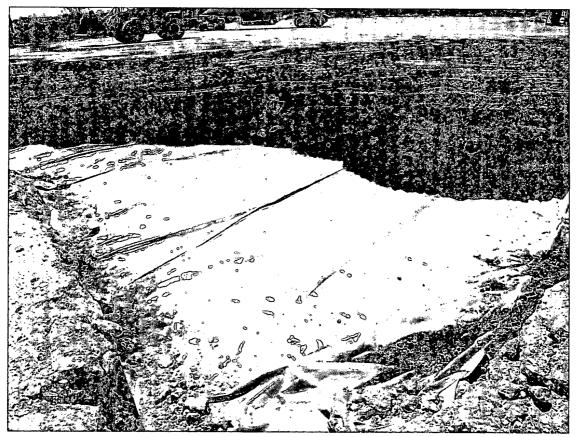
Photograph of recent excavation activities at the JRU #55 Well Pad.



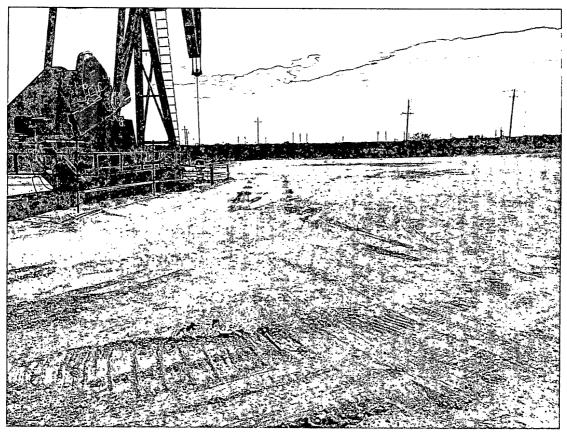
Photograph of the excavated area at the JRU #55 Well Pad.



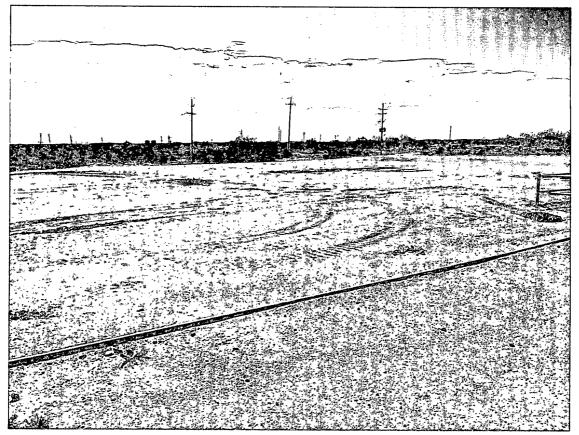
Photograph of the installation of the poly liner at the JRU #55 Well Pad.



Photograph of backfilling activities at the JRU #55 Well Pad.



Photograph of the JRU #55 Well Pad after remediation activities.



Photograph of the JRU #55 Well Pad after remediation activities.

Appendix D

Laboratory Analytical Reports



May 28, 2014

JOEL LOWRY Basin Environmental Service P.O. Box 301 Lovington, NM 88260

RE: JRU #55 WELL PAD

Enclosed are the results of analyses for samples received by the laboratory on 05/22/14 11:30.

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 www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



Basin Environmental Service JOEL LOWRY P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

| Received: | 05/22/2014 | Sampling Date: | 05/21/2014 |
|-------------------|------------------|---------------------|---------------|
| Reported: | 05/28/2014 | Sampling Type: | Soil |
| Project Name: | JRU #55 WELL PAD | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Jodi Henson |
| Project Location: | EDDY COUNTY, NM | | |

Sample ID: DT 1 @ 6' (H401571-01)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AP | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 1100 | 16.0 | 05/28/2014 | ND | 416 | 104 | 400 | 0.00 | |

Sample ID: DT 1 @ 9' (H401571-02)

| Chloride, SM4500CI-B mg/kg | | | Analyze | lyzed By: AP | | | | | |
|----------------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 2600 | 16.0 | 05/28/2014 | ND | 416 | 104 | 400 | 0.00 | |

Sample ID: DT 1 @ 17' (H401571-03)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AP | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 480 | 16.0 | 05/28/2014 | ND | 416 | 104 | 400 | 0.00 | |

Sample ID: DT 1 @ 18.5' (H401571-04)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AP | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 352 | 16.0 | 05/28/2014 | ND | 416 | 104 | 400 | 0.00 | |

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service JOEL LOWRY P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

| Received: | 05/22/2014 | Sampling Date: | 05/21/2014 |
|-------------------|------------------|---------------------|---------------|
| Reported: | 05/28/2014 | Sampling Type: | Soil |
| Project Name: | JRU #55 WELL PAD | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Jodi Henson |
| Project Location: | EDDY COUNTY, NM | | |

Sample ID: ESW #2 (H401571-05)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AP | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 304 | 16.0 | 05/28/2014 | ND | 416 | 104 | 400 | 0.00 | |

Sample ID: ESW #3 (H401571-06)

| Chloride, SM4500Cl-B mg/kg | | | Analyzed By: AP | | | | | | |
|----------------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 304 | 16.0 | 05/28/2014 | ND | 416 | 104 | 400 | 0.00 | |

Sample ID: NSW (H401571-07)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AP | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 256 | 16.0 | 05/28/2014 | ND | 416 | 104 | 400 | 0.00 | |

Sample ID: SSW (H401571-08)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AP | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 96.0 | 16.0 | 05/28/2014 | ND | 416 | 104 | 400 | 0.00 | |

Sample ID: ESW #1 (H401571-09)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AP | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 64.0 | 16.0 | 05/28/2014 | ND | 416 | 104 | 400 | 0.00 | |

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*=Accredited Analyte

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service JOEL LOWRY P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

| Received: | 05/22/2014 | Sampling Date: | 05/20/2014 |
|-------------------|------------------|---------------------|---------------|
| Reported: | 05/28/2014 | Sampling Type: | Soil |
| Project Name: | JRU #55 WELL PAD | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Jodi Henson |
| Project Location: | EDDY COUNTY, NM | • | |

Sample ID: WSW #1 (H401571-10)

| 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 | 05/28/2014 | ND | 416 | 104 | 400 | 0.00 | |

Sample ID: WSW #2 (H401571-11)

| Chloride, SM4500Cl-B | mg, | /kg | Analyze | d By: AP | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 176 | 16.0 | 05/28/2014 | ND | 416 | 104 | 400 | 0.00 | |

Sample ID: FLOOR #1 @ 2' (H401571-12)

| Chloride, SM4500Cl-B mg/kg | | | Analyze | d By: AP | | | | | |
|-------------------------------|--------|-----------------|------------|---------------------------------------|-----|------------|---------------|--------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 112 | 16.0 | 05/28/2014 | ND | 416 | 104 | 400 | 0.00 | |
| трн 8015м | 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 | 05/27/2014 | ND | 199 | 99.5 | 200 | 1.11 | |
| DRO >C10-C28 | <10.0 | 10.0 | 05/27/2014 | ND | 213 | 107 | 200 | 0.0136 | |
| EXT DRO >C28-C35 | <10.0 | 10.0 | 05/27/2014 | ND | | | | | |
| Surrogate: 1-Chlorooctane | 119 | % 65.2-14 | 0 | · · · · · · · · · · · · · · · · · · · | | | - <u>n</u> | | |
| Surrogate: 1-Chlorooctadecane | 119 | % 63.6-15 | 4 | | | | | | |

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*=Accredited Analyte

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

 ND
 Analyte NOT DETECTED at or above the reporting limit

 RPD
 Relative Percent Difference

 **
 Samples not received at proper temperature of 6°C or below.

 Insufficient time to reach temperature.

 Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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*=Accredited Analyte

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager

Page 5 of 7

RDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 303.2226 EAX (575) 302-2476

| Composed Normal | | | | 110 | | | | | | | | | | T | | | | A N I A | 1. 1/01 | | | ~ 7 | | | |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|----------------------|-----------------|-----------------------|-----------------------|-------------------|-----------------|----------------|----------------------|------------------------------------------|------------------------------------------|------------------|-------------|--------------|--------------|----------|---------|----|---|---------|-------------|---|---|
| Company Name: | Basin Environmental Service Tech | noiog | jies, | | <i>.</i> | | | - | | 4 | DI | ll to | | | 1 | 1 | | ANA T | | | | <u></u> | | | |
| Project Manager: | | | | | | | | Ľ | . O . | #: | | | | - | l | | | | | | | | | 1 | |
| · | Box 301 | | | | | | | _ <u> c</u> | om | pan | y : | BOP | CO, LP | | [| | | [| | | | | 1 | | [|
| City: Lovingtor | State: NM | Zip | : 8 | 826 | 0 | | | _ <u>A</u> | ttn: | | | Tony Sav | oie | | | | | | ŀ | | | | | | |
| Phone #: (575) | 396-2378 Fax #: (575)3 | 396-1 | 429 | | | | | A | ddr | ess | : | 522 W. N | larland | | | | | | | | | | | | |
| Project #: | Project Owne | er: | | | | | | С | ity: | | | Carlsba | d | | | | II | | | 1 | 1 | | | | |
| Project Name: | JRU #55 Well Pad | | | | | | | -1- | | : 1 | NM | Zip: | 88220 | | Ω. | 18 | 1 d | | | | | | | | |
| Project Location: | Eddy Co., NM | | | | | | | | hon | | | (432)556 | ······································ | Ë | 01 | 802 | В В | | 1 | 1 | | | | ĺ | [|
| Sampler Name: | SOOL LOWAY | | | | | | | -1 | ax # | | <u> </u> | (402,000 | | Chloride | TPH (8015M) | BTEX (8021B) | HOLD FOR TPH | | | | | | | ĺ | |
| FOR LAB USE ONLY | | Т | Г | Г | 1 | MATE | RIX | <u> </u> | - | _ | ERV. | SAMPL | ING | 1 | TP | BT | Б | | | | | | | ĺ | |
| Lab I.D. H40157 | Sample I.D. | (G)RAB OR (C)OMP. | # CONTAINERS | GROUNDWATER | WASTEWATER | SOIL | OIL SI UDGF | OTHER : | ACID/BASE: | ICE / COOL | OTHER : | DATE | TIME | | | | - | | | | | | | | |
| 1 | DT 1 @ 6' | 6 | 1 | | | 1 | | - | Т | 11 | 1 | 5/21/14 | 1115 | x | | | | | | | | | | | |
| 2 | DT 1 @ 9' | 6 | 1 | | | | | | | Ti | Τ | 5/21/14 | 1130 | × | | | | | | | | | | | |
| 3 | DT 1 @ 17' | 6 | 1 | | | 1 | | | | 1 | | 5/21/14 | 1145 | x | | | | _ | | | | | | | |
| 4 | DT 1 @ 18.5' | 6 | 1 | | | 1 | | Τ | 1 | 1 | | 5/21/14 | 1200 | x | | | | | | | 1 | | | | |
| ँ | ESW #2 | 6 | 1 | | | | | | | 1 | | 5/21/14 | 1205 | x | | | | | | | | | | | |
| b | ESW #3 | 6 | 1 | | | | | | | X | | 5/21/14 | 1210 | x | | | | | | | | | | | |
| - | | | | | | | | | | | | | | | | | | | | | | | | | |
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| analyses. All claims including service. In no event shall Can | Damages. Cardina's liability and client's exclusive remedy for a those for negligence and any ofter cause whatsoever shall be sinal be liable for incidental or consequental damages, including out of or related to the performance of services hersunder by C | teemed without | waived limdati | t unless ion, bus | s mad siness | ie in wrl interruț | ting and xtions, k | t recei oss of | vecíby use,c | Card r loss | inai witi of prof | hin 30 days after its incurred by cli | completion of the ent, ta subsidiarie | applicable s, | | | | | | | | | | | |
| Relinguished By: | Date: | Re | | ved | | | | | | | | | Phone Re | sult: | C Ye | | No | | Phone | #: | | | | | |
| Joel Jou | 1) Date: 5/22/14 Time: 7:30 | | 1 | G A | | ſ | la | h | /u | س | ę | | Fax Resul | | □ Ye | <u>s D</u> | No | Add'l | Fax #: | | | | | | |
| Relinguished By: | Date: | R | cei | ved | | | T | | | | | | 1 | | | | L | | | 00 | | | | | |

HOLD FOR TPH

Please email results to pm@basinenv.com, TASavoie@BassPet.com & SJWalters@BassPet.com

Delivered By: (Circle One)

Time

Sampler - UPS - Bus - Other:

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

CHECKED BY:

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FORM-006 **Revision 1.0**

Sample Condition

Cool Intact

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Page 6 of 7

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| | REQUEST | | | | | | | - <u></u> - | | | | | | | | | | | | | | | | | 어 M, BassPet.com | | |
| CITATIN-OL-COSTODI AND ANALISIS NEGOLST 9 C | ANALYSIS | | | | | H | ЧТ — | <u>୪୦-</u> | 1 Q. | 101 | | ····· | | | | | | | | | | | | lo Add'I Fax #: | HOLD FOR TPH Please email results to pm@basinenv.com, TASavoie@BassPet.com & SJWalters@BassPet.com | | |
| 210 | | | | | | (| 818 | Z08) | хэ | та | | | | | | | 1 | | | | | | | ON D | sults to I sPet.col | | |
| | | | | | | <u> </u> | | orid 8019 | | | | | | × | × | | ۲ ۲ | × | × | × | + | eable | | D Yes | email re ie@Bas | | |
| | | | ٩ | | p | | | | | | | <u></u> | TIME | 1215 > | 1220 | 1225 | 1230 | 1235 > | 1240 > | 1245 | | ction of the applic subsidiarios, | or otherwise. hone Result | Fax Result: REMARKS: | Please (TASavo | | |
| וכ | BILL TO | | BOPCO, LP | Tony Savoie | 522 W. Martand | Carlsbad | Zip: 88220 | 32)556 | | SAMPLING | | | DATE | 5/20/14 | 5/20/14 | 5/20/14 | 5/20/14 | 5/20/14 | 5/20/14 | 5/20/14 | | it on unnood to the amount pairs by the cherr av the by Cardinal within 30 days after completion of the applicable , or bass of profits incurred by client, its subsidiaries, | ove stated reasons o | RIFE | | TX TX | |
| | BIL | 0.#: | Company: | in: | Address: | ž | WN | # | x #: | PRESERV. | | нек : \ СООГ | ICE | | - ` | | | V | · , | ~ | | strail oe ismood io und ed by Cardinal within ise, or hoss of profits | d upon any of the above stated reas | Jan | WOW | (stepini) | |
| | | ю. Ч | ŭ | | Ac | City: | St | 5 | Fax | MATRIX | | | פרח סור צסוו | - | | • | | | | | | pased in contract of brit, nade in writing and receiv ess interruptions, bess of (| services hereunder by Cardrel, regardless of whether such daim is based ur 1 Date: 1 Date: | | BV: MLV | Cool Intact | |
| 240 476 | hologies, LLC | | | Zip: 88260 | (575)396-1429 | | | | | | АЭТА | RO 845 NIATNC MONUC AWJT2 | วชอ วว # | | 5 1 | 6 1 | 1-1-1-9 | 17 | 6) | | | y ctam ansing whather cemed waived unless m without fantation, busine | I Received B | X | Received | 100 | |
| RA TORIES Hobbs, NM 88 AX (575) 393-2 | Ital Service Techr | | | State: NM | Fax #: (575)3 | Project Owner: | | | | | | | | - | 1 | | #2~~ | #1 | #2 | @ 2' | | arif's exclusive remedy for an cause whatsoever shall be d quental damages, including | of services hereunder by Co 1 Date: | 5/31/14 Time: | Date: Date: Time://.U0 | 7- | |
| ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476 | Basin Environmental Service Technologies, LLC | Joel Lowry | 301 | | 2378 | | JRU 55 Well Pad | Eddy Co., NM | SOPE LOWAY | | | Sample I.D. | | MSN | SSW | ESW #1 | E3W#2 | 1# MSM | WSW #2 | Floor #1 | | PLEASE NOTE: Liably and Damages. Cartari's liabity and dears exclase remery for any cam arrang wanter toso in corrand or to an analyses. Al deima including those for nogigence and any other cause withonce a trail be deemed variest unless made in wing and forcined. service, in no event shall Cautaria be liable for incidental or nosceptiental damages, including windu finaltion, business mate in without and evended areas and any advection in the | filiates or successors ariaing out of or related to the performance of Relinentic head Rv. | s s | aven C | is - Other: | |
| ARDII 101 (5 | Company Name: | Project Manager: | Address: P.O. Box 301 | Lovington | Phone #: (575)396-2378 | Project #: | Project Name: JRU | ino | Sampler Name: 50 | - | - <u></u> | Lab I.D. | 17210HH | 7 | Þ | 5 | t | Q | | -12 | | IOTE: Lablity and Damor Il claims including those I no event shaft Cardinal be | Relince or successors artsing out of o Relince is short RV | wel Jan | hed by | | 000 |



May 29, 2014

JOEL LOWRY Basin Environmental Service P.O. Box 301

Lovington, NM 88260

RE: JRU #55 WELL PAD

Enclosed are the results of analyses for samples received by the laboratory on 05/23/14 12:55.

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 www.tceq.texas.gov/field/ga/lab_accred_certif.html.

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

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

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,

Celez D. Keine

Celey D. Keene Lab Director/Quality Manager



Basin Environmental Service JOEL LOWRY P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

| Received: | 05/23/2014 | Sampling Date: | 05/22/2014 |
|-------------------|------------------|---------------------|---------------|
| Reported: | 05/29/2014 | Sampling Type: | Soil |
| Project Name: | JRU #55 WELL PAD | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Jodi Henson |
| Project Location: | EDDY COUNTY, NM | | |

Sample ID: NSW #2 (H401586-01)

| Chloride, SM4500CI-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 | 05/29/2014 | ND | 432 | 108 | 400 | 3.77 | |

Sample ID: NSW #3 (H401586-02)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AP | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 320 | 16.0 | 05/29/2014 | ND | 432 | 108 | 400 | 3.77 | |

Sample ID: SSW #2 (H401586-03)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AP | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 160 | 16.0 | 05/29/2014 | ND | 432 | 108 | 400 | 3.77 | |

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

- ND
 Analyte NOT DETECTED at or above the reporting limit

 RPD
 Relative Percent Difference

 **
 Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by 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

Cardinal Laboratories

*=Accredited Analyte

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Celey D.Keine

Celey D. Keene, Lab Director/Quality Manager

ARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

| Company Name: Basin Environmental Service Technologies, LLC | | | | | | | | | | 6 | Į | LL TO | | | | | | ANA | LYSI | SR | EQUE | ST | | | |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------|--------------------|-----------------------|----------------------|---------------------|------------------|--------------------|-----------------------|------------------|-----------------------------------------|------------------------------------------------------------------------------------------|--------------|-------------|--------------|--------------|--------------------|----------------|----------|----------|----------|-------|--|---|
| Project Manager: | Joel Lowry | | | | | | | P.C |). # | : | | | | | 1 | | | | | Γ | T | | | | |
| Address: P.O. | Box 301 | | | | | | | Co | mpa | any: | | BOP | CO, LP |] | | l | | 1 | | | | | 1 | | |
| City: Lovington | State: NM | Zip: | 8 | 826 |) | | | Att | n: | | | Tony Sav | oie | J | | 1 | | | [| | | 1 | ļ | | |
| Phone #: (575) | 396-2378 Fax #: (575)39 | 96-14 | 129 | | | | | Add | dres | ss: | | 522 W. N | larland | ļ | | | | | 1 | | | | | | |
| Project #: | Project Owner | r: | | | | | | City | y: | | | Carlsba | đ | | | | Ŧ | | | | | | | | |
| Project Name: | JRU #55 Well Pad | | | | | | | Sta | te: | NM | | Zip: | 88220 | ę | TPH (8015M) | BTEX (8021B) | HOLD FOR TPH | | | | | | | | |
| Project Location: | Eddy Co., NM | | _ | | | | | Pho | опе | #: | | (432)556 | -8730 | Chloride | | | | | | | | | | | |
| Sampler Name: | | - | | | | | | Fax | :#: | _ | | | | ਤਿ | н Н | ТЩ. | Ē | | | | | | | | |
| FOR LAB USE ONLY | | | | | MA | TRIX | (1 | | PRE | SER | Υ | SAMPL | NG | | | 8 | Ŷ | [| | | | | | | |
| Lab I.D. 11401586 | Sample I.D. | (G)RAB OR (C)OMP | # CONTAINERS | GROUNDWATER | WASTEWATER SOIL | OIL | SLUDGE | OTHER : | ACID/BASE: | ICE / COOL | | DATE | TIME | | | | | | | | | | | | |
| 1 | NSW #2 | 9 | 1 | | × | | | | | | | 5/22/14 | 1005 | x | | | | | | | | | | | |
| 2 | NSW #3 | <u> </u> | 1 | | <u> </u> | | | | | | | 5/22/14 | 1010 | x | | | | | · | <u> </u> | | ļ | | | |
| 3 | SSW #2 | 9 | 1 | _ | <u> </u> | | | | _ | | | 5/22/14 | 1015 | × | | | | | ļ | ļ | <u> </u> | _ | | | |
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| analyses. All claims including t service, in no event shall Card | Damages. Cardinal's liability and client's exclusive remody for any these for negligence and any other cause whatsoever shall be dee inst be liable for incidental or consequential damages, including wh aud of or related to the performance of services hereautiet by Card | emed wa thout lin | aived : nitatio | uniess n, busir | made in Iess inter | writing : nuption | and rec 13, 1053 | crived of use | i by Ca a, or k | ndinal v oss of pr | vithir Office | n 30 days after o s incurred by clie | ompletion of the a nt, its subsidiaries | spolicable | | | | | | | | | | | |
| Relinquished By: | Date: 5/23/14 | | | edE | | | | | | | | | Phone Res Fax Result | | O Yes | | | Add'i i Add'i i | Phone Fay # | #: | | | ····· | | |
| - hulle | tun Time: 26 | / | \boldsymbol{I} | L | 11 | | U | U | N | SI | y | K | REMARKS | | | | | | | | | | | | |
| Relinquished By: | Date: | Rg | ceiv | ed f | By: | 9 | | | | | | | | HOLD FOR TPH | | | | | | | | | | | |
| - | Time: | 1 | | | | | | | | | | | Please email results to pm@basinenv.com, TASavoie@BassPet.com & SJWalters@BassPet.com | | | | | | | | | | | | |
| Delivered By: | | ! , | 1 | S | ample | Con | iditio | n | (| | | ED BY: | | | 5-400 | | | | | 3003 | UI UL.U | | | | ł |
| Sampler - UPS - | Bus - Other: -5. | ЧC | 2 | | ool Ye No | | res No | | | Ĥ | Ä | als) | | | | | | | | | | | | | |
| FORM-006 | FORM-006 t Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476 | | | | | | | | | | | | | | | | | | | | | | | | |

Page 4 of 4

Revision 1.0



June 10, 2014

JOEL LOWRY Basin Environmental Service P.O. Box 301 Lovington, NM 88260

RE: JRU #55 WELL PAD

Enclosed are the results of analyses for samples received by the laboratory on 05/29/14 11:25.

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 www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

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,

Celeg D. Keene

Celey D. Keene Lab Director/Quality Manager



Basin Environmental Service JOEL LOWRY P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

| Received: | 05/29/2014 | Sampling Date: | 05/27/2014 |
|-------------------|------------------|---------------------|---------------|
| Reported: | 06/10/2014 | Sampling Type: | Soil |
| Project Name: | JRU #55 WELL PAD | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Jodi Henson |
| Project Location: | EDDY COUNTY, NM | | |

Sample ID: ROAD #1 (H401646-01)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AP | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 288 | 16.0 | 06/04/2014 | ND | 400 | 100 | 400 | 3.92 | |

Sample ID: ROAD #2 (H401646-02)

| BTEX 8260B | mg, | /kg | Anaiyze | d By: ms | | | | | |
|---------------------------------|--------|-----------------|------------|--------------|-------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 06/10/2014 | ND | 0.461 | 115 | 0.400 | 5.25 | |
| Toluene* | <0.050 | 0.050 | 06/10/2014 | ND | 0.392 | 97.9 | 0.400 | 3.62 | |
| Ethylbenzene* | <0.050 | 0.050 | 06/10/2014 | ND | 0.418 | 104 | 0.400 | 3.26 | |
| Total Xylenes* | <0.150 | 0.150 | 06/10/2014 | ND | 1.22 | 101 | 1.20 | 2.16 | |
| Total BTEX | <0.300 | 0.300 | 06/10/2014 | ND | | | | | |
| Surrogate: Dibromofluoromethane | 97.2 | % 61.3-14 | 2 | | | | | | |
| Surrogate: Toluene-d8 | 106 | 106 % 71.3-129 | | | | | | | |
| Surrogate: 4-Bromofluorobenzene | 96.9 | % 65.7-14 | 1 | | | | | | |
| Chloride, SM4500CI-B | mg, | /kg | Analyze | d By: AP | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 272 | 16.0 | 06/04/2014 | ND | 400 | 100 | 400 | 3.92 | |
| 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 | 06/03/2014 | ND | 214 | 107 | 200 | 5.51 | |
| DRO >C10-C28 | <10.0 | 10.0 | 06/03/2014 | ND | 226 | 113 | 200 | 7.38 | |
| EXT DRO >C28-C35 | <10.0 | 10.0 | 06/03/2014 | ND | | | | | |
| | | | | | | | | | |

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*=Accredited Analyte

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Celey D.Kune

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service JOEL LOWRY P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

| Received: | 05/29/2014 | Sampling Date: | 05/27/2014 |
|-------------------|------------------|---------------------|---------------|
| Reported: | 06/10/2014 | Sampling Type: | Soil |
| Project Name: | JRU #55 WELL PAD | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Jodi Henson |
| Project Location: | EDDY COUNTY, NM | | |

Sample ID: ROAD #2 (H401646-02)

| трн 8015м | mg/kg | | Analyz | ed By: MS | | | | | |
|-------------------------------|--------------|------------|----------|--------------|----|------------|---------------|-----|-----------|
| Analyte | Result Repor | ting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Surrogate: 1-Chlorooctane | 103 % | 65.2-140 | | | | | | | |
| Surrogate: 1-Chlorooctadecane | 110 % | 63.6-154 | | | | | | | |

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



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| Received: | 05/29/2014 | Sampling Date: | 05/27/2014 |
|-------------------|------------------|---------------------|---------------|
| Reported: | 06/10/2014 | Sampling Type: | Soil |
| Project Name: | JRU #55 WELL PAD | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Jodi Henson |
| Project Location: | EDDY COUNTY, NM | | |

Sample ID: NESW (H401646-03)

| BTEX 8260B | mg, | /kg | Analyze | d By: ms | | | | | |
|---------------------------------|--------|-----------------|------------|--------------|-------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 06/10/2014 | ND | 0.461 | 115 | 0.400 | 5.25 | |
| Toluene* | <0.050 | 0.050 | 06/10/2014 | ND | 0.392 | 97.9 | 0.400 | 3.62 | |
| Ethylbenzene* | <0.050 | 0.050 | 06/10/2014 | ND | 0.418 | 104 | 0.400 | 3.26 | |
| Total Xylenes* | <0.150 | 0.150 | 06/10/2014 | ND | 1.22 | 101 | 1.20 | 2.16 | |
| Total BTEX | <0.300 | 0.300 | 06/10/2014 | ND | | | | | |
| Surrogate: Dibromofluoromethane | 99.3 | % 61.3-14 | 2 | i | | | | | |
| Surrogate: Toluene-d8 | 106 | % 71.3-12 | 9 | | | | | | |
| Surrogate: 4-Bromofluorobenzene | 98.5 | % 65.7-14 | 1 | | | | | | |
| Chloride, SM4500CI-B | mg, | /kg | Analyze | d By: AP | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 32.0 | 16.0 | 06/04/2014 | ND | 400 | 100 | 400 | 3.92 | |
| 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 | 06/10/2014 | ND | 204 | 102 | 200 | 5.28 | |
| DRO >C10-C28 | <10.0 | 10.0 | 06/10/2014 | ND | 215 | 107 | 200 | 7.85 | |
| EXT DRO >C28-C35 | <10.0 | 10.0 | 06/10/2014 | ND | | | | | |
| Surrogate: 1-Chlorooctane | 94. I | % 65.2-14 | 0 | | | | | | |
| Surrogate: 1-Chlorooctadecane | 105 | % 63.6-15 | 4 | | | | | | |

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

 ND
 Analyte NOT DETECTED at or above the reporting limit

 RPD
 Relative Percent Difference

 **
 Samples not received at proper temperature of 6°C or below.

 Insufficient time to reach temperature.

 Chloride by 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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Celey D. Keene, Lab Director/Quality Manager

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RDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Please email results to pm@basinenv.com, TASavoie@BassPet.com & SJWalters@BassPet.com

101 East Marland, Hobbs, NM 88240

(575) 393-2326 EAX (575) 393-2476

| | (575) 393-2326 FAX (575) 393-24 | - | | | | | | | 1993 | | ::::: | | | in: Cai | | r | | | | | | | <u> </u> | | | | |
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| Company Name: | Basin Environmental Service Techr | nolog | ies, | | ن | | | | | | | В | 11 | .L TO | | | | | T | | LYS | SR | EQUE | 51 | | 1 | |
| Project Manager: | Joel Lowry | | | | | | | | P.(| 0. ŧ | ¥: | | | | | | | | | 1 | | | | | | 1 | |
| Address: P.O. E | | | | | | | | | Co | mp | ban | ıy: | | BOPC | O, LP | | \mathcal{V} | | I | 1 | | | | | | | |
| City: Lovington | State: NM | Zip | : 8 | 826 | 50 | | | | At | tn: | | | | Tony Save | oie | | Ž | j j | 1 | | | ł | | | | | |
| Phone #: (575)3 | 396-2378 Fax #: (575)3 | 96-14 | 429 | | | | | | Ad | ldre | ess | : | _ | 522 W. M | arland | | R | | | | | | | | | | |
| Project #: | Project Owner | r: | | | | | | | Ci | ty: | | | | Carlsba | t | | 6 | | I | | | | | | | | |
| Project Name: | JRU #55 Well Pad | | | | | | | | St | ate: | : . | NM | -7 | Zip: | 88220 | | 2W) | 28 | TPH | | | | | | | | |
| Project Location: | Eddy Co., NM | | | - | | | | | - | ion | | | | (432)556 | -8730 | Chloride | 801 | (80 | l n | 1 | | 1 | | 1 | | | |
| Sampler Name: | SOFT LOWRY | | | | | | | | Fa | x # | : | | | | | Ē | TPH (8015M) | BTEX (8021B | HOLD FOR | | | | | | | | |
| FOR LAB USE ONLY | | Т | | _ | | MA | TRIX | (| , | PR | ES | ERV | 4 | SAMPLI | NG | | 1 H | 81 | Į | | | | | | | | |
| Lab I.D. НЧ <i>О</i> 1646 | Sample I.D. | G)RAB OR (C)OMP. | # CONTAINERS | GROUNDWATER | VASTEWATER | SOIL | OIL | SLUDGE | DTHER : | ACID/BASE: | CF / COOI | OTHER : | | DATE | TIME | | | | - | | | | | | | | |
| 1 | Road #1 | 9 | 1 | Γ | | × | | | 1 | Γ | × | 1 | _ | 5/27/14 | 900 | x | | , | 1 | 1 | | | | 1 | | | 1 |
| 2 | Road #2 | 9 | 1 | - | - | x | Γ | | 1 | | , | | | 5/27/14 | 910 | x | x | \mathbf{X} | | 1 | | 1 | | 1 | | | 1 |
| 3 | NESW | g | 1 | | | x | | | | | > | <u>ر</u> | | 5/27/14 | 920 | x | \mathbf{X} | Х | | | | | | | | | |
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| | | | _ | | | - | L | | L . | _ | | | ₋⊢ | | | | | | | 1 | | | | | <u> </u> | | |
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| | | | _ | - | | 1 | | | <u> </u> | | - | - | ₋┝ | | | | | | | <u> </u> | - | _ | | | <u> </u> | ļ | _ |
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| analyses. All claims including d | homages, calificates includy and cical is obtained removy for any hose for negligence and any other cause whatsoever shall be do inal be liable for incidental or consequental damages, including v | eemed v | raived | i untes | 55 Ma | de in v | maing | and r | eceiv | od by | Çart | linal w | nthin | n 30 days after c | ompletion of the | applicable | | | | | | | | | | | |
| | rai be liable for incidental or consequential camages, including up of or related to the performance of services hereunder by Ca Date: 5/79/14 | ntinal, r | ogard | | l whe | ther su | | | | | | | | | | sult: | U Ye | <u>s</u> | No No | | Phone Fax #: | #: | | | | | |
| Belinguished By: | $\begin{array}{c} \begin{array}{c} & & \\ & & \\ \hline \\ & & \\ \end{array} \end{array} \begin{array}{c} & & \\ \hline \\ & & \\ \hline \\ & & \\ \end{array} \begin{array}{c} & & \\ \hline \\ & & \\ \end{array} \begin{array}{c} & & \\ \hline \\ & & \\ \end{array} \begin{array}{c} & & \\ \hline \\ & & \\ \end{array} \begin{array}{c} & & \\ \hline \\ & & \\ \end{array} \begin{array}{c} & & \\ \hline \\ & & \\ \end{array} \begin{array}{c} & & \\ \hline \\ & & \\ \end{array} \begin{array}{c} & & \\ \hline \\ & & \\ \end{array} \begin{array}{c} & & \\ \hline \\ & & \\ \end{array} \begin{array}{c} & & \\ \hline \\ & & \\ \end{array} \begin{array}{c} & & \\ \hline \\ & & \\ \end{array} \begin{array}{c} & & \\ \end{array} \begin{array}{c} & & \\ & & \\ \end{array} \end{array}$ | Re | Z | 5) ved | К | 2 r. | 6 | 1 | | k | | s ļ | <u>N</u> | L | REMARKS | | | = | | | | | | | | | |

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FORM-006 **Revision 1.0**

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