



2350 W Marland Blvd Hobbs, NM 88240

## **Remediation Plan**

May 15, 2020

Re: NEDU High Pressure Line  
Case # NRM2005558733

On 2/15/2020 a release occurred due to a buried 3 inch fiberglass line failed resulting in the loss of produced water. The release (GPS 32.51222, -103.13648) is located north of Eunice NM in unit letter C section 2 township 21S range 37E. Data from a soil bore conducted on 7/31/2019 to a depth of 60 feet from a previous case at the same location. The data from the soil bore indicates that the depth of groundwater is greater than 50 feet. The majority of the release is above a buried 20 mil reinforced liner from a previous remediation.

On 3/3/2020 vertical delineation was conducted utilizing a backhoe. Samples were collected in 1 foot intervals to a depth of 4 feet. All samples collected were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. On 5/7/2020 five point horizontal samples were collected and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX.

### **Remediation Plan:**

Apache Corporation proposes that the release be excavated to 600 chlorides or to a maximum depth of 4 feet. All excavated soil (2500 yards) will be disposed of at an NMOCD approved facility. Final 5 point bottom and wall samples will be collected not to exceed 500 square feet and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. The excavation will be backfilled with imported clean top soil and contoured to the surrounding area. The disturbed area will be seeded to landowner specifications. Remediation activities will be completed within one year of NMOCD approval of remediation plan.

Enclosed: C-141, Groundwater Data, Sample Data, Maps, Laboratory Results, and revegetation plan

Submitted by;

*Bruce Baker*

**Environmental Technician**  
larry.baker@apachecorp.com  
**Cell# 432-631-6982**  
**Off# 575-393-7106**

**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 Department

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

|                |              |
|----------------|--------------|
| Incident ID    | NCE200839139 |
| District RP    |              |
| Facility ID    |              |
| Application ID |              |

## Release Notification

### Responsible Party

|  |                                   |
|--|-----------------------------------|
| Responsible Party: Apache Corporation                          | OGRID 873                         |
| Contact Name: Bruce Baker                                      | Contact Telephone: (432) 631-6982 |
| Contact email: Larry.Baker@apachecorp.com                      | Incident # (assigned by OCD)      |
| Contact Mailing Address: 2350 W. Marland Blvd, Hobbs, NM 88240 |                                   |

### Location of Release Source

Latitude: 32.51222 Longitude: -103.13648

(NAD 83 in decimal degrees to 5 decimal places)

|                                     |                           |
|-------------------------------------|---------------------------|
| Site Name: NEDU High Pressure Line  | Site Type: Injection Line |
| Date Release Discovered: 02/15/2020 | API #                     |

| Unit Letter | Section | Township | Range | County |
|-------------|---------|----------|-------|--------|
| C           | 2       | 21S      | 37E   | LEA    |

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (Name: Not Applicable)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

|  |  |   |
|--|--|---|
| <input type="checkbox"/> Crude Oil                 | Volume Released (bbls)   | Volume Recovered (bbls)   |
| <input checked="" type="checkbox"/> Produced Water | Volume Released (735 Barrels)  | Volume Recovered (650 Barrels)                                      |
|  | Is the concentration of dissolved chloride in the produced water >10,000 mg/l? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <input type="checkbox"/> Condensate                | Volume Released (bbls)   | Volume Recovered (bbls)   |
| <input type="checkbox"/> Natural Gas               | Volume Released (Mcf)  | Volume Recovered (Mcf)  |
| <input type="checkbox"/> Other (describe)          | Volume/Weight Released (provide units)   | Volume/Weight Recovered (provide units)                             |

Cause of Release

Failure in buried 3" high pressure injection line.

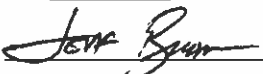
State of New Mexico  
Oil Conservation Division

|                |  |
|----------------|--|
| Incident ID    |  |
| District RP    |  |
| Facility ID    |  |
| Application ID |  |

|  |   |
|--|---|
| Was this a major release as defined by 19.15.29.7(A) NMAC?<br><br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  | If YES, for what reason(s) does the responsible party consider this a major release?<br><br>Release is greater than 25 barrels. |
| If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?<br>NMOCD was notified on 02/15/2020 via email by, Jeff Broom, Environmental Technician, Apache Corporation. |   |

### Initial Response

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

|  |
|--|
| <input checked="" type="checkbox"/> The source of the release has been stopped.<br><input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.<br><input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.<br><input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.   |
| If all the actions described above have <u>not</u> been undertaken, explain why:<br><br><br>   |
| Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.  |
| I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. |
| Printed Name: <u>Jeff Broom</u> Title: <u>Environmental Technician</u><br>Signature: <u></u> Date: <u>02/21/2020</u><br>Email: <u>Jeffrey.Broom@apachecorp.com</u> Telephone: <u>(432) 664-4677</u>   |
| <b><u>OCD Only</u></b><br>Received by: _____ Date: _____   |

### Volume Calculation

12,503 cubic feet of soil contamination X 7.48 gallons per cubic foot = 93,522/42 gallons to a barrel=2,227 barrels X .33 soil porosity= 735 barrels fluid in soil + 650 barrels recovered = 1,385 barrels total loss.

|                |  |
|----------------|--|
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| Application ID |  |

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

|   |   |
|---|---|
| What is the shallowest depth to groundwater beneath the area affected by the release?   | <u>51-100</u> (ft bgs)  |
| Did this release impact groundwater or surface water?   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of a wetland?  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release overlying a subsurface mine?   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release overlying an unstable area such as karst geology?  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within a 100-year floodplain?  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

|                |  |
|----------------|--|
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| Application ID |  |

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Bruce Baker Title: Environmental Tech SR.  
Signature: Bruce Baker Date: 5/15/20  
email: larry.baker@apachecorp.com Telephone: 432-631-6982

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

|                |  |
|----------------|--|
| Incident ID    |  |
| District RP    |  |
| Facility ID    |  |
| Application ID |  |

## Remediation Plan

**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Bruce Baker Title: Environmental Tech SR.  
Signature: Bruce Baker Date: 5/15/20  
email: larry.baker@apachecorp.com Telephone: 432-631-6982

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Table 1**  
**Confirmation Soil Sample Analytical Data Summary**  
**Apache Corporation, NEDU 218**  
**Lea County, New Mexico**  
**32° 30' 44.10 North 103° 08' 11.80 West**

Page 1 of 1

| Sample                    | Depth<br>(Feet) | Collection<br>Date | Status  | Benzene<br>(mg/Kg) | BTEX<br>(mg/Kg) | C6 - C12<br>(mg/Kg) | C12 - C28<br>(mg/Kg) | C28 - C35<br>(mg/Kg) | TPH<br>(mg/Kg) | Chloride<br>(mg/Kg) |
|---------------------------|-----------------|--------------------|---------|--------------------|-----------------|---------------------|----------------------|----------------------|----------------|---------------------|
| <b>Remediation Level:</b> |                 |                    |         | <b>10</b>          | <b>50</b>       |                     |                      |                      | <b>100</b>     | <b>600</b>          |
| BH-1                      | 15              | 02/28/2019         | In-Situ |                    |                 |                     |                      |                      |                | 678                 |
|                           | 20              | 02/28/2019         | In-Situ |                    |                 |                     |                      |                      |                | 848                 |
|                           | 25              | 02/28/2019         | In-Situ |                    |                 |                     |                      |                      |                | 1170                |
|                           | 30              | 02/28/2019         | In-Situ |                    |                 |                     |                      |                      |                | 1120                |
|                           | 31              | 02/28/2019         | In-Situ |                    |                 |                     |                      |                      |                | 1250                |
|                           | 40              | 7/31/2019          | In-Situ |                    |                 |                     |                      |                      |                | 1670                |
|                           | 45              | 7/31/2019          | In-Situ |                    |                 |                     |                      |                      |                | 1120                |
|                           | 50              | 7/31/2019          | In-Situ |                    |                 |                     |                      |                      |                | 1810                |
|                           | 55              | 7/31/2019          | In-Situ |                    |                 |                     |                      |                      |                | 1350                |
|                           | 60              | 7/31/2019          | In-Situ |                    |                 |                     |                      |                      |                | 272                 |

Notes: analysis performed by Permian Basin Environmental Lab, Midland, Texas by EPA 300 (chloride)

Depth in feet below ground surface (bgs)

mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

< denotes concentration less than analytical method reporting limit





Buried 20 ml reinforced liner

Soil Bore

HC3

SP 1

HC4

HC2

HC1

© 2020 Google

Google earth



NEDU Injection Line

## Complete List

| Map ID              | Sample Date | Sample ID | Depth | Chloride | Benzene | Toulene | Ethybenzene | Total Xylenes | Total BTEX | GRO   | DRO   | EXT DRO | GPS Coordinates          |
|---------------------|-------------|-----------|-------|----------|---------|---------|-------------|---------------|------------|-------|-------|---------|--------------------------|
| <b>Wall Samples</b> |             |           |       |          |         |         |             |               |            |       |       |         |                          |
| HC1                 | 3/12/2020   | HC1       | S     | 64       | <0.050  | <0.050  | <0.050      | <0.150        | <0.300     | <10.0 | <10.0 | <10.0   | 32.511811<br>-103.136635 |
| HC2                 | 3/12/2020   | HC2       | S     | 32       | <0.050  | <0.050  | <0.050      | <0.150        | <0.300     | <10.0 | <10.0 | <10.0   | 32.511962<br>-103.136251 |
| HC3                 | 3/12/2020   | HC3       | S     | 16       | <0.050  | <0.050  | <0.050      | <0.150        | <0.300     | <10.0 | <10.0 | <10.0   | 32.512179<br>-103.136406 |
| HC4                 | 3/12/2020   | HC4       | S     | <16.0    | <0.050  | <0.050  | <0.050      | <0.150        | <0.300     | <10.0 | <10.0 | <10.0   | 32.512069<br>-103.136734 |

### NEDU Injection Line

## Complete List

[illegible]





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

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May 11, 2020

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NEDU HIGH PRESSURE LINE

Enclosed are the results of analyses for samples received by the laboratory on 05/07/20 12:28.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

|                   |                         |                     |                |
|-------------------|-------------------------|---------------------|----------------|
| Received:         | 05/07/2020              | Sampling Date:      | 05/07/2020     |
| Reported:         | 05/11/2020              | Sampling Type:      | Soil           |
| Project Name:     | NEDU HIGH PRESSURE LINE | Sampling Condition: | Cool & Intact  |
| Project Number:   | NONE GIVEN              | Sample Received By: | Tamara Oldaker |
| Project Location: | NONE GIVEN              |                     |                |

**Sample ID: HC 1 (H001273-01)**

| BTX 8021B      |        | mg/kg           |            | Analyzed By: MS |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 05/07/2020 | ND              | 1.85 | 92.7       | 2.00          | 9.16 |           |
| Toluene*       | <0.050 | 0.050           | 05/07/2020 | ND              | 1.83 | 91.5       | 2.00          | 9.03 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 05/07/2020 | ND              | 1.84 | 92.2       | 2.00          | 9.15 |           |
| Total Xylenes* | <0.150 | 0.150           | 05/07/2020 | ND              | 5.30 | 88.3       | 6.00          | 9.35 |           |
| Total BTX      | <0.300 | 0.300           | 05/07/2020 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: GM |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 64.0   | 16.0            | 05/08/2020 | ND              | 416 | 104        | 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            | 05/08/2020 | ND              | 192 | 95.8       | 200           | 2.45 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 05/08/2020 | ND              | 188 | 94.2       | 200           | 3.65 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 05/08/2020 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 93.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 95.6 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

|                   |                         |                     |                |
|-------------------|-------------------------|---------------------|----------------|
| Received:         | 05/07/2020              | Sampling Date:      | 05/07/2020     |
| Reported:         | 05/11/2020              | Sampling Type:      | Soil           |
| Project Name:     | NEDU HIGH PRESSURE LINE | Sampling Condition: | Cool & Intact  |
| Project Number:   | NONE GIVEN              | Sample Received By: | Tamara Oldaker |
| Project Location: | NONE GIVEN              |                     |                |

**Sample ID: HC 2 (H001273-02)**

| BTX 8021B      |        | mg/kg           |            | Analyzed By: MS |      |            |               |      |           |  |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|--|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |  |
| Benzene*       | <0.050 | 0.050           | 05/08/2020 | ND              | 1.93 | 96.5       | 2.00          | 3.33 |           |  |
| Toluene*       | <0.050 | 0.050           | 05/08/2020 | ND              | 1.97 | 98.5       | 2.00          | 3.71 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 05/08/2020 | ND              | 2.03 | 101        | 2.00          | 4.10 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 05/08/2020 | ND              | 5.93 | 98.8       | 6.00          | 4.01 |           |  |
| Total BTX      | <0.300 | 0.300           | 05/08/2020 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: GM |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 32.0   | 16.0            | 05/08/2020 | ND              | 416 | 104        | 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            | 05/08/2020 | ND              | 192 | 95.8       | 200           | 2.45 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 05/08/2020 | ND              | 188 | 94.2       | 200           | 3.65 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 05/08/2020 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 88.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.1 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

|                   |                         |                     |                |
|-------------------|-------------------------|---------------------|----------------|
| Received:         | 05/07/2020              | Sampling Date:      | 05/07/2020     |
| Reported:         | 05/11/2020              | Sampling Type:      | Soil           |
| Project Name:     | NEDU HIGH PRESSURE LINE | Sampling Condition: | Cool & Intact  |
| Project Number:   | NONE GIVEN              | Sample Received By: | Tamara Oldaker |
| Project Location: | NONE GIVEN              |                     |                |

**Sample ID: HC 3 (H001273-03)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: MS |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 05/08/2020 | ND              | 1.93 | 96.5       | 2.00          | 3.33 |           |
| Toluene*       | <0.050 | 0.050           | 05/08/2020 | ND              | 1.97 | 98.5       | 2.00          | 3.71 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 05/08/2020 | ND              | 2.03 | 101        | 2.00          | 4.10 |           |
| Total Xylenes* | <0.150 | 0.150           | 05/08/2020 | ND              | 5.93 | 98.8       | 6.00          | 4.01 |           |
| Total BTEx     | <0.300 | 0.300           | 05/08/2020 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: GM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 16.0   | 16.0            | 05/08/2020 | ND              | 416 | 104        | 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            | 05/08/2020 | ND              | 192 | 95.8       | 200           | 2.45 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 05/08/2020 | ND              | 188 | 94.2       | 200           | 3.65 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 05/08/2020 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 91.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.4 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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

**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

|                   |                         |                     |                |
|-------------------|-------------------------|---------------------|----------------|
| Received:         | 05/07/2020              | Sampling Date:      | 05/07/2020     |
| Reported:         | 05/11/2020              | Sampling Type:      | Soil           |
| Project Name:     | NEDU HIGH PRESSURE LINE | Sampling Condition: | Cool & Intact  |
| Project Number:   | NONE GIVEN              | Sample Received By: | Tamara Oldaker |
| Project Location: | NONE GIVEN              |                     |                |

**Sample ID: HC 4 (H001273-04)**

| BTX 8021B      |        | mg/kg           |            | Analyzed By: MS |      |            |               |      |           |  |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|--|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |  |
| Benzene*       | <0.050 | 0.050           | 05/11/2020 | ND              | 2.03 | 102        | 2.00          | 5.11 |           |  |
| Toluene*       | <0.050 | 0.050           | 05/11/2020 | ND              | 2.00 | 99.9       | 2.00          | 6.15 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 05/11/2020 | ND              | 2.01 | 101        | 2.00          | 6.06 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 05/11/2020 | ND              | 5.84 | 97.4       | 6.00          | 5.33 |           |  |
| Total BTX      | <0.300 | 0.300           | 05/11/2020 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 73.3-129

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: GM |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | <16.0  | 16.0            | 05/08/2020 | ND              | 416 | 104        | 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            | 05/08/2020 | ND              | 192 | 95.8       | 200           | 2.45 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 05/08/2020 | ND              | 188 | 94.2       | 200           | 3.65 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 05/08/2020 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 88.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 89.2 % 42.2-156

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### Notes and Definitions

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

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A handwritten signature in cursive script, appearing to read "Celey D. Keene", written in black ink.

---

Celey D. Keene, Lab Director/Quality Manager



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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

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March 09, 2020

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NEDU HIGH PRESSURE LINE

Enclosed are the results of analyses for samples received by the laboratory on 03/03/20 15:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

A handwritten signature in black ink that reads "Celey D. Keene". The signature is fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

|                   |                         |                     |                |
|-------------------|-------------------------|---------------------|----------------|
| Received:         | 03/03/2020              | Sampling Date:      | 03/03/2020     |
| Reported:         | 03/09/2020              | Sampling Type:      | Soil           |
| Project Name:     | NEDU HIGH PRESSURE LINE | Sampling Condition: | Cool & Intact  |
| Project Number:   | NONE GIVEN              | Sample Received By: | Tamara Oldaker |
| Project Location: | NONE GIVEN              |                     |                |

**Sample ID: SP1 @ SURFACE (H000689-01)**

| BTEX 8021B     |        | mg/kg           |            | Analyzed By: MS |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 03/04/2020 | ND              | 2.00 | 100        | 2.00          | 20.7 |           |
| Toluene*       | <0.050 | 0.050           | 03/04/2020 | ND              | 2.02 | 101        | 2.00          | 21.0 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 03/04/2020 | ND              | 2.03 | 102        | 2.00          | 21.0 |           |
| Total Xylenes* | <0.150 | 0.150           | 03/04/2020 | ND              | 5.94 | 99.1       | 6.00          | 21.4 |           |
| Total BTEX     | <0.300 | 0.300           | 03/04/2020 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 73.3-129

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AC |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 656    | 16.0            | 03/04/2020 | ND              | 416 | 104        | 400           | 10.9 |           |  |

| 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            | 03/05/2020 | ND              | 190 | 95.1       | 200           | 2.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 03/05/2020 | ND              | 181 | 90.7       | 200           | 6.89 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 03/05/2020 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 86.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.5 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

|                   |                         |                     |                |
|-------------------|-------------------------|---------------------|----------------|
| Received:         | 03/03/2020              | Sampling Date:      | 03/03/2020     |
| Reported:         | 03/09/2020              | Sampling Type:      | Soil           |
| Project Name:     | NEDU HIGH PRESSURE LINE | Sampling Condition: | Cool & Intact  |
| Project Number:   | NONE GIVEN              | Sample Received By: | Tamara Oldaker |
| Project Location: | NONE GIVEN              |                     |                |

**Sample ID: SP1 @ 1' (H000689-02)**

| BTX 8021B      |        | mg/kg           |            | Analyzed By: MS |      |            |               |      |           |  |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|--|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |  |
| Benzene*       | <0.050 | 0.050           | 03/04/2020 | ND              | 2.00 | 100        | 2.00          | 20.7 |           |  |
| Toluene*       | <0.050 | 0.050           | 03/04/2020 | ND              | 2.02 | 101        | 2.00          | 21.0 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 03/04/2020 | ND              | 2.03 | 102        | 2.00          | 21.0 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 03/04/2020 | ND              | 5.94 | 99.1       | 6.00          | 21.4 |           |  |
| Total BTX      | <0.300 | 0.300           | 03/04/2020 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: AC |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 784    | 16.0            | 03/04/2020 | ND              | 416 | 104        | 400           | 10.9 |           |  |

| 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            | 03/05/2020 | ND              | 190 | 95.1       | 200           | 2.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 03/05/2020 | ND              | 181 | 90.7       | 200           | 6.89 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 03/05/2020 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 83.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.3 % 42.2-156

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**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

|                   |                         |                     |                |
|-------------------|-------------------------|---------------------|----------------|
| Received:         | 03/03/2020              | Sampling Date:      | 03/03/2020     |
| Reported:         | 03/09/2020              | Sampling Type:      | Soil           |
| Project Name:     | NEDU HIGH PRESSURE LINE | Sampling Condition: | Cool & Intact  |
| Project Number:   | NONE GIVEN              | Sample Received By: | Tamara Oldaker |
| Project Location: | NONE GIVEN              |                     |                |

**Sample ID: SP1 @ 2' (H000689-03)**

| BTX 8021B      |        | mg/kg           |            | Analyzed By: MS |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 03/05/2020 | ND              | 1.86 | 93.0       | 2.00          | 5.82 |           |
| Toluene*       | <0.050 | 0.050           | 03/05/2020 | ND              | 1.90 | 95.0       | 2.00          | 5.84 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 03/05/2020 | ND              | 1.91 | 95.5       | 2.00          | 5.85 |           |
| Total Xylenes* | <0.150 | 0.150           | 03/05/2020 | ND              | 5.52 | 92.0       | 6.00          | 5.81 |           |
| Total BTX      | <0.300 | 0.300           | 03/05/2020 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: AC |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 768    | 16.0            | 03/04/2020 | ND              | 416 | 104        | 400           | 10.9 |           |  |

| 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            | 03/05/2020 | ND              | 190 | 95.1       | 200           | 2.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 03/05/2020 | ND              | 181 | 90.7       | 200           | 6.89 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 03/05/2020 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 83.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.6 % 42.2-156

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**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

|                   |                         |                     |                |
|-------------------|-------------------------|---------------------|----------------|
| Received:         | 03/03/2020              | Sampling Date:      | 03/03/2020     |
| Reported:         | 03/09/2020              | Sampling Type:      | Soil           |
| Project Name:     | NEDU HIGH PRESSURE LINE | Sampling Condition: | Cool & Intact  |
| Project Number:   | NONE GIVEN              | Sample Received By: | Tamara Oldaker |
| Project Location: | NONE GIVEN              |                     |                |

**Sample ID: SP1 @ 3' (H000689-04)**

| BTX 8021B      |        | mg/kg           |            | Analyzed By: MS |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 03/05/2020 | ND              | 1.86 | 93.0       | 2.00          | 5.82 |           |
| Toluene*       | <0.050 | 0.050           | 03/05/2020 | ND              | 1.90 | 95.0       | 2.00          | 5.84 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 03/05/2020 | ND              | 1.91 | 95.5       | 2.00          | 5.85 |           |
| Total Xylenes* | <0.150 | 0.150           | 03/05/2020 | ND              | 5.52 | 92.0       | 6.00          | 5.81 |           |
| Total BTX      | <0.300 | 0.300           | 03/05/2020 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AC |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 1150   | 16.0            | 03/04/2020 | ND              | 416 | 104        | 400           | 10.9 |           |  |

| 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            | 03/05/2020 | ND              | 190 | 95.1       | 200           | 2.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 03/05/2020 | ND              | 181 | 90.7       | 200           | 6.89 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 03/05/2020 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 82.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.8 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

|                   |                         |                     |                |
|-------------------|-------------------------|---------------------|----------------|
| Received:         | 03/03/2020              | Sampling Date:      | 03/03/2020     |
| Reported:         | 03/09/2020              | Sampling Type:      | Soil           |
| Project Name:     | NEDU HIGH PRESSURE LINE | Sampling Condition: | Cool & Intact  |
| Project Number:   | NONE GIVEN              | Sample Received By: | Tamara Oldaker |
| Project Location: | NONE GIVEN              |                     |                |

**Sample ID: SP1 @ 4' (H000689-05)**

| BTX 8021B      |        | mg/kg           |            | Analyzed By: MS |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 03/05/2020 | ND              | 1.86 | 93.0       | 2.00          | 5.82 |           |
| Toluene*       | <0.050 | 0.050           | 03/05/2020 | ND              | 1.90 | 95.0       | 2.00          | 5.84 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 03/05/2020 | ND              | 1.91 | 95.5       | 2.00          | 5.85 |           |
| Total Xylenes* | <0.150 | 0.150           | 03/05/2020 | ND              | 5.52 | 92.0       | 6.00          | 5.81 |           |
| Total BTX      | <0.300 | 0.300           | 03/05/2020 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 99.0 % 73.3-129

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: AC |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 336    | 16.0            | 03/04/2020 | ND              | 416 | 104        | 400           | 10.9 |           |

| 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            | 03/05/2020 | ND              | 190 | 95.1       | 200           | 2.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 03/05/2020 | ND              | 181 | 90.7       | 200           | 6.89 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 03/05/2020 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 83.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.1 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager





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### Notes and Definitions

|       |   |
|-------|---|
| QR-02 | The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data. |
| ND    | Analyte NOT DETECTED at or above the reporting limit  |
| RPD   | Relative Percent Difference   |
| **    | Samples not received at proper temperature of 6°C or below.   |
| ***   | Insufficient time to reach temperature.   |
| -     | Chloride by SM4500Cl-B does not require samples be received at or below 6°C<br>Samples reported on an as received basis (wet) unless otherwise noted on report  |

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A handwritten signature in black ink, appearing to read "C. D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager

8 jo 8 eba



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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

|   |  |                   |  |         |  |                  |  |
|---|--|-------------------|--|---------|--|------------------|--|
| Company Name: <u>Acrylic</u>                          |  | P.O. #:           |  | BILL TO |  | ANALYSIS REQUEST |  |
| Project Manager: <u>Seif Brown</u>                    |  | Company:          |  |         |  |                  |  |
| Address:  |  | Attn:             |  |         |  |                  |  |
| City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u> |  | Address:          |  |         |  |                  |  |
| Phone #: _____ Fax #: _____                           |  | City:             |  |         |  |                  |  |
| Project #: _____ Project Owner:                       |  | State:            |  |         |  |                  |  |
| Project Name:   |  | Zip:              |  |         |  |                  |  |
| Project Location: <u>NEDU High Pressure 6.5m</u>      |  | Phone #:          |  |         |  |                  |  |
| Sampler Name: <u>Sosa Chubaca</u>                     |  | Fax #:            |  |         |  |                  |  |
| FOR LAB USE ONLY                                      |  |                   |  |         |  |                  |  |
| Lab I.D.  |  | Sample I.D.       |  |         |  |                  |  |
| <u>H000689</u>  |  |                   |  |         |  |                  |  |
| 1 SP10 Surface  |  | (G)RAB OR (C)OMP. |  |         |  |                  |  |
| 2 SP10 1'   |  | # CONTAINERS      |  |         |  |                  |  |
| 3 SP10 2'   |  | GROUNDWATER       |  |         |  |                  |  |
| 4 SP10 3'   |  | WASTEWATER        |  |         |  |                  |  |
| 5 SP10 4'   |  | SOIL              |  |         |  |                  |  |
|   |  | OIL               |  |         |  |                  |  |
|   |  | SLUDGE            |  |         |  |                  |  |
|   |  | OTHER:            |  |         |  |                  |  |
|   |  | ACID/BASE:        |  |         |  |                  |  |
|   |  | ICE / COOL        |  |         |  |                  |  |
|   |  | OTHER:            |  |         |  |                  |  |
|   |  | DATE              |  |         |  |                  |  |
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|   |  | 8:28pm            |  |         |  |                  |  |
|   |  | 8:30pm            |  |         |  |                  |  |
|   |  | 8:32pm            |  |         |  |                  |  |
|   |  | 8:34pm            |  |         |  |                  |  |
|   |  | 8:36pm            |  |         |  |                  |  |
|   |  | 8:38pm            |  |         |  |                  |  |
|   |  | 8:40pm            |  |         |  |                  |  |
|   |  | 8:42pm            |  |         |  |                  |  |
|   |  | 8:44pm            |  |         |  |                  |  |
|   |  | 8:46pm            |  |         |  |                  |  |
|   |  | 8:48pm            |  |         |  |                  |  |
|   |  | 8:50pm            |  |         |  |                  |  |
|   |  | 8:52pm            |  |         |  |                  |  |
|   |  | 8:54pm            |  |         |  |                  |  |
|   |  | 8:56pm            |  |         |  |                  |  |
|   |  | 8:58pm            |  |         |  |                  |  |
|   |  | 9:00pm            |  |         |  |                  |  |



**Revegetation  
and  
Noxious Weed Plan**

**Revegetation Plan:**

All the disturbed area in the pasture will be properly prepared and prior to seeding will contact the Authorized Officer for seed mixture and will be reseeded. The disturbed area will be monitored to ensure successful revegetation is achieved. If revegetation is not successful after a couple of growing seasons the site will be reseeded.

**Noxious Weed Plan:**

Apache Corporation will treat noxious weeds if they become established within the area of remediation. Weed control will be maintained on the disturbed land where noxious weeds exist both prior to remediation and restoration. Apache Corporation will consult with the Authorized Officer for acceptable weed control methods.