APACHE CORPORATION
NEDU INJECTION LINE
REQUEST FOR BACKFILL AND CLOSURE OF SITE

RELEASE DATE: 06/04/2020 and 9/17/2020
CASE NO. NRM201754777 and NRM2026942891
U/L C, SECTION 10, TOWNSHIP 21S, RANGE 37E LEA COUNTY, NEW MEXICO

PREPARED BY:

#7 Compress Road
Artesia, NM 88210

February 3, 2021

State of New Mexico Energy Minerals and Natural Resources Department
Oil Conservation Division
C/O Mike Bratcher, Robert Hamlet, Cristina Eads
1625 N. French Drive
Hobbs, NM 88240

Apache Corporation
C/O Bruce Baker
2350 W. Marland Blvd
Hobbs, NM 88240

RE: NEDU Injection Line – Request for Backfill and Closure
Case No. NRM2017547777 and NRM2026942891

To Whom it May Concern:

On behalf of Apache Corporation, ESS would like to request permission to backfill the site and propose closure of the release that occurred at the NEDU Injection Line on June 4, 2020 and again on September 17, 2020 at the NEDU High Pressure Injection Line.

Apache Corporation submitted a Remediation Work-plan on September 4, 2020 to excavate to a depth of 5'bgs. This would entail excavating and hauling 325 cubic yards of impacted soil to an approved OCD disposal facility. Backfilling the excavation area with clean imported soil and contouring to the surrounding area. Then finishing with seeding the site to surface landowner guidelines. This remediation plan was submitted but not yet approved.

Upon beginning the remediation as approved by the OCD, ESS determined that several buried lines were in the proposed excavation area. At this time, a hydro-vac was dispatched to the site to spot any and all lines in the area of excavation. Upon doing so seven lines were found at the center point of the release. This includes a 2" and 6" fiberglass injection line, 4" steel production line, 6" emulsion poly line, 6" water transfer line belonging to Apache Corporation, a 4" gas line belonging to Energy Transfer and a 12" gas line belonging to Targa. Please find the attached buried line map.

The hydro-vac was then used to install a trench to spot where each line entered the impacted area and where it exited. The line depths were determined and several variations were found, which can cause unwanted line strikes. We then began to hydro-vac out the soil in the area of impact and we encountered unstable ground causing the walls to cave in on-top of the lines.

This then made it unsafe to continue to hydro-vac safely for the remediation staff and for the integrity of the fiberglass and high-pressure gas lines. This release is also 35' from the highway, which causes a danger of a potential release that could occur during excavation, this could cause a release to lines that go under the highway and will cause unsafe driving conditions if released over the highway.

A total of 62 cubic yards of impacted soil was hauled to Sundance Disposal. Please see the attached approved workplan dated September 4, 2020 and site photos from the attempted excavation procedure. At this time on behalf of Apache Corporation, we would like to request a deferral on this active ROW due to Safety and Environmental Hazards that have been presented in this case which restricts site ample reclamation and remediation. The site will be backfilled with clean imported topsoil and final remediation will be conducted when lines have been removed safely from this area.

On behalf of Apache Corporation, ESS would like to request approval to backfill the NEDU Injection Line release and the NEDU High Pressure Injection Line. If you have any questions or concerns, please contact myself or Bruce Baker at larry.baker@apachecorp.com.

Sincerely,

Natalie Gladden

Director of Environmental and Regulatory Services
Energy Staffing Services, LLC.
#7 Compress Rd
Artesia, NM 88210
Cell: 575-390-6397
Email: natalie@energystaffingllc.com

Attachments:

- C141
- Remediation Plan
- Buried Line Map
- Site Photos

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	
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 303 Veterans Airpark Lane Midland TX 79705	

Location of Release Source

Latitude 32.49876 Longitude -103.15274
(NAD 83 in decimal degrees to 5 decimal places)

Site Name NEDU Injection Line	Site Type Injection Line
Date Release Discovered 6/4/2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
C	10	21S	37E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☑ Private (*Name:* Farm and Ranch Limited Partnership)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☑ Produced Water	Volume Released (bbls) 119 barrels	Volume Recovered (bbls) 110 barrels
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☑ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release A 45 connection on injection line developed a hole resulting in the loss of produced water.

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? ☑ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Release volume 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)?
Bruce Baker notified Jim Griswold via email on 6/5/2020

Initial Response

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

☑ The source of the release has been stopped.
☑ The impacted area has been secured to protect human health and the environment.
☑ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☑ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

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: Bruce Baker Title: Environmental Tech SR.

Signature: Bruce Baker Date: 6/22/2020

email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: _____ Date: _____

Volume Calculation

151 cubic feet of soil contamination X 7.48 gallons per cubic foot = 1,131 gallons/42 gallons to a barrel= 26 barrels X .33 soil porosity= 8.8 barrels fluid in soil + 110 barrels recovered = 119 barrels total loss.

District I
1625 N. French Dr., Hobbs, NM 88240
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811 S. First St., Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
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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	NRM2026942891
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Apache Corporation	OGRID 873
Contact Name Larry Baker	Contact Telephone 432-631-6982
Contact email larry.baker@apachecorp.com	Incident # *(assigned by OCD)*
Contact mailing address 303 Veterans Airpark Lane Midland, TX 79705	

Location of Release Source

Latitude 32.498780 Longitude -103.152781
(NAD 83 in decimal degrees to 5 decimal places)

Site Name NEDU High Pressure Injection Line	Site Type Injection Line
Date Release Discovered 9/17/2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
C	10	21S	37E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☑ Private (*Name:* Farm and Ranch Limited Partnership)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☑ Produced Water	Volume Released (bbls) 45 barrels	Volume Recovered (bbls) 40 barrels
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☑ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release A 2 inch steel transition on injection line corroded.

State of New Mexico
Oil Conservation Division

Incident ID	NRM2026942891
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☑ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Release was 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)?
Larry Baker notified Jim Griswold via email on 9/18/2020 .

Initial Response

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

☑ The source of the release has been stopped.
☑ The impacted area has been secured to protect human health and the environment.
☑ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☑ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

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: Larry Baker Title: Environmental Tech SR.

Signature: Larry Baker Date: 9/22/2020

email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: Ramona Marcus Date: 9/25/2020

N 202 2 1

Volume Calculation

85 cubic feet of soil contamination X 7.48 gallons per cubic foot = 642 gallons/42 gallons to a barrel= 15 barrels X .33 soil porosity= 4.95 barrels fluid in soil + 40 barrels recovered = 45 barrels total loss.

303 Veterans Airpark Lane Midland, TX 79705

Remediation Plan

September 4, 2020

Re: NEDU Injection Line
Case # NRM2017547777

Background:

On 6/4/2020 a release was discovered due to a 45 connection on injection line developed a hole resulting in the loss of produced water. The release (GPS: 32.49876, -103.15274) is located north of Eunice, New Mexico in unit letter C section 10 township 21S range 37E. The release area is in an area with the potential of a raised aquifer. On 8/18/2020 a soil bore was conducted up gradient of the release to determine the depth of ground water below the release. The bore hole was advanced to a depth of 70 feet and the bore hole was left open for 72 hours and water was gauged at a depth of 60.1 feet.

On 6/5/2020 a vertical was conducted utilizing a backhoe at SP 1 with samples being collected in regular intervals. All samples collected were field titrated for chlorides and representative samples were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. On 6/11/2020 a vertical was conducted utilizing a backhoe at SP 2 with samples being collected in regular intervals. All samples collected were field titrated for chlorides and representative samples were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. On 9/3/2020 5 point horizontal composite samples were collected and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. All laboratory results were below table one standards for release greater than 50 feet to ground water.

Remediation Plan:

Apache Corporation proposes that the release be excavated to a depth of 5 feet. After the excavation is complete final 5 point wall composite samples will be collected not exceeding 200 square feet and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. Once wall laboratory analysis are below reclamation standards in rule 19.15.29 a 20 mil reinforced liner will be installed at the bottom of the excavation.

All excavated soil (325 yards) will be disposed of at an OCD approved disposal facility. The excavation will be backfilled with clean imported soil and contoured to the surrounding area. The disturbed area will be reseeded to surface landowner guidelines. The remediation will be completed within 90 days of OCD approval of the plan.

Enclosed: C-141, Groundwater Data, Maps, Sample Data, Laboratory Results, and Field Notes.

Submitted by;

Bruce Baker

Environmental Technician
larry.baker@apachecorp.com
Cell# 432-631-6982
Off# 432-818-1000

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
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?	60.1 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☑ 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)?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ 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?	☐ Yes ☑ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☑ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☑ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☑ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☑ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☑ Yes ☐ 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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
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: Larry Baker Title: Environmental Tech SR.

Signature: Larry Baker Date: 9/4/2020

email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: _____ Date: _____

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State of New Mexico
Oil Conservation Division

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: Larry Baker Title: Environmental Tech Sr.

Signature: Larry Baker Date: 9/4/2020

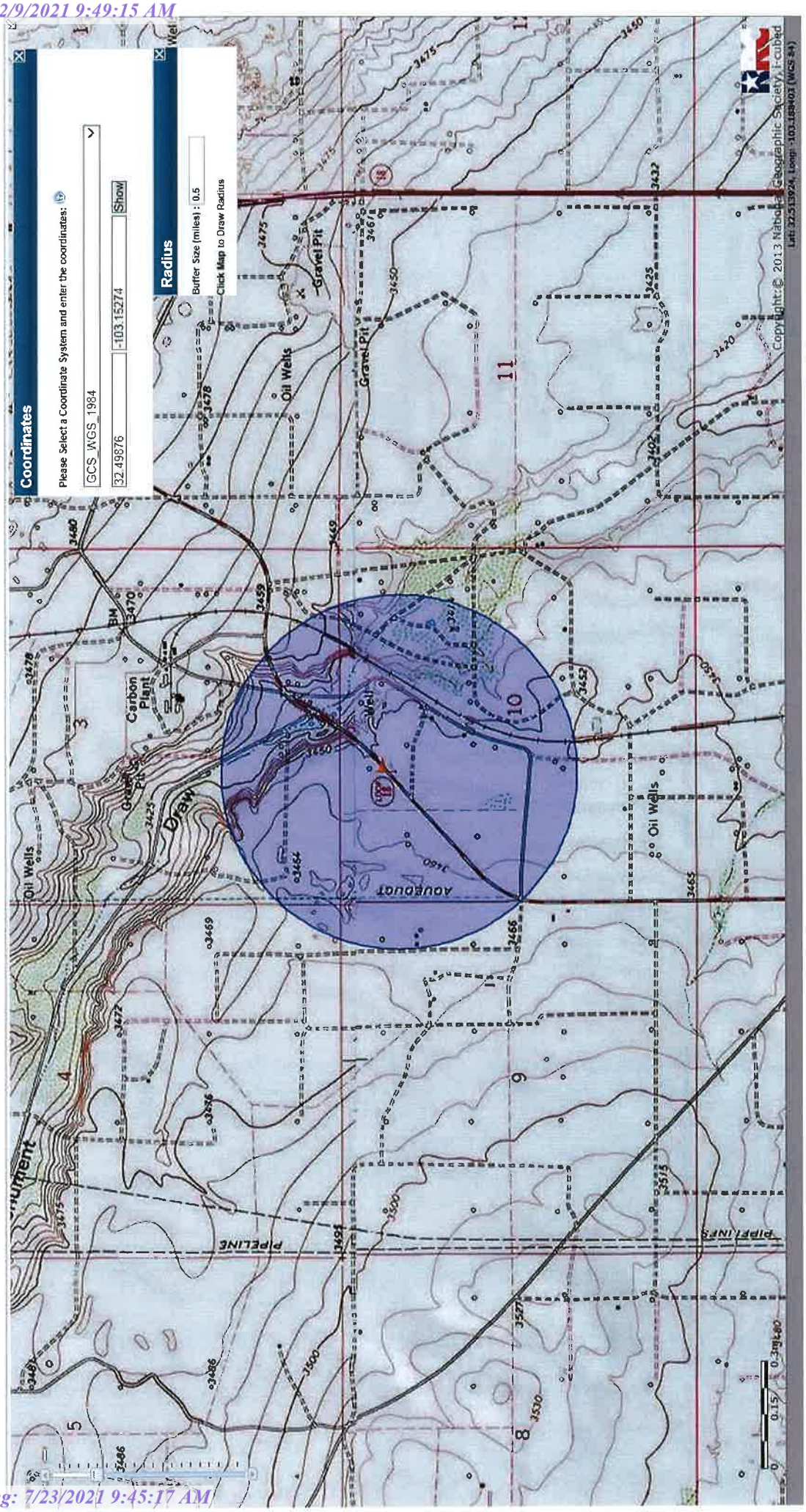
email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____


Coordinates
Please Select a Coordinate System and enter the coordinates:
GCS_WGS_1984
32.49876
-103.15274
Show
Radius
Buffer Size (miles) : 0.5
Click Map to Draw Radius
Gravel Pit
Oil Wells
Carbon Plant
Draw
AOUEDUCT
PIPELINE
Copyright © 2013 National Geographic Society, i-cubed

BORING RECORD

Start: 13:55
Finish: 16:30

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG
	0–5	Fine Sand, 2.5 Yr 4/8, Red, Subrounded, Well Sorted	SW	
	10–15	Caliche, 7.5 Yr 8/3, Pink to White	Caliche	
	25–30	Fine Sand, 7.5 Yr 6/4, Light Brown, Subrounded, Well Sorted	SW	
	35–40	Fine Sand, 7.5 Yr 6/6, Reddish Yellow, Subrounded, Well Sorted	SW	
	50	Fine to Medium Sand, 2.5 Yr 5/8, Red, Well Rounded	SW	
08/21/20 Water Level 60.1'	55–60	Fine to Medium Sand, 2.5 Yr 5/8, Red, Well Rounded, Small Clast, 0-7 mm	SW	
	70	Total Depth: 70'		

PID READING: PPM X _____ (2 4 6 8 10 12 14 16 18)

SAMPLE: NUMBER | PID READING | RECOVERY | DEPTH (1, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75)

REMARKS: BACKGROUND PID READING
SOIL: _____ PPM
SOIL: _____ PPM

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 08-18-2020

BORING NUMBER : BH-1

JOB NUMBER : Apache/20-0101-03
HOLE DIAMETER : 4"
LOCATION : NEDU Injection Line
LAI GEOLOGIST : D. St. Germain
DRILLING CONTRACTOR : SDC
DRILLING METHOD : Air Rotary


Google earth
HC4
SP1
HC1
HC3
SP2
HC2
32.49932, -103.15306
BH1
© 2020 Google

Sample Date	Sample ID	Depth		Chloride	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
6/5/2020	SP1	S	3236	1760	<0.050	0.063	0.085	0.205	0.354	<10.0	218	<10.0	32.49875 -103.15270
		1'	2717										
		2'	3284	880	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	49.5	<10.0	
		3'	2376										
		4'	2099	528	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		5'	3210										
		6'	3258	3280	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		7'	2909										
		8'	3928	5360	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		9'	3945										
		10'	2830										
		11'	1589										
		12'	2549										
		13'	2650										
		14'	739	2320	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		14' 6"	484	288	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
6/11/2020	SP2	S	2811	5680	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.49884 -103.15278
		1'	3284										
		2'	1881										
		3'	3023										
		4'	2586										
		5'	1188										
		6'	817	3680	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		7'	389	320	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
9/3/2020	HC1	S	120	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.498724, -103.152690
	HC2	S	150	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.498799, -103.152807
	HC3	S	120	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.498850, -103.152816
	HC4	S	150	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.498827, -103.152713

CARDINAL Laboratories

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

June 11, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NEDU INJECTION LINE

Enclosed are the results of analyses for samples received by the laboratory on 06/05/20 16:27.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	06/05/2020	Sampling Date:	06/05/2020
Reported:	06/11/2020	Sampling Type:	Soil
Project Name:	NEDU INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	EUNICE NM		

Sample ID: SP 1 @ SURFACE (H001533-01)

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	06/08/2020	ND	1.70	84.8	2.00	12.8	
Toluene*	**0.063**	0.050	06/08/2020	ND	1.72	86.2	2.00	12.7	
Ethylbenzene*	**0.085**	0.050	06/08/2020	ND	1.75	87.4	2.00	12.8	
Total Xylenes*	**0.205**	0.150	06/08/2020	ND	5.08	84.7	6.00	12.6	
Total BTEX	**0.354**	0.300	06/08/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIL 99.2 % 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	**1760**	16.0	06/08/2020	ND	400	100	400	7.69	

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	06/08/2020	ND	187	93.7	200	7.84	
DRO >C10-C28*	**218**	10.0	06/08/2020	ND	188	93.9	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	06/08/2020	ND					

Surrogate: 1-Chlorooctane 111 % 44.3-144

Surrogate: 1-Chlorooctadecane 133 % 42.2-156

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	06/05/2020	Sampling Date:	06/05/2020
Reported:	06/11/2020	Sampling Type:	Soil
Project Name:	NEDU INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	EUNICE NM		

Sample ID: SP 1 @ 2' (H001533-02)

BTEX 8021B mg/kg Analyzed By: ms S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2020	ND	1.86	92.8	2.00	10.9	
Toluene*	<0.050	0.050	06/08/2020	ND	1.99	99.7	2.00	12.9	
Ethylbenzene*	<0.050	0.050	06/08/2020	ND	1.87	93.4	2.00	14.1	
Total Xylenes*	<0.150	0.150	06/08/2020	ND	5.87	97.9	6.00	13.6	
Total BTEX	<0.300	0.300	06/08/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID 130 % 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	**880**	16.0	06/08/2020	ND	400	100	400	7.69	

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	06/08/2020	ND	187	93.7	200	7.84	
DRO >C10-C28*	**49.5**	10.0	06/08/2020	ND	188	93.9	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	06/08/2020	ND					

Surrogate: 1-Chlorooctane 114 % 44.3-144

Surrogate: 1-Chlorooctadecane 131 % 42.2-156

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	06/05/2020	Sampling Date:	06/05/2020
Reported:	06/11/2020	Sampling Type:	Soil
Project Name:	NEDU INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	EUNICE NM		

Sample ID: SP 1 @ 4' (H001533-03)

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	06/10/2020	ND	1.88	93.8	2.00	7.44	
Toluene*	<0.050	0.050	06/10/2020	ND	1.78	89.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	06/10/2020	ND	1.77	88.4	2.00	5.90	
Total Xylenes*	<0.150	0.150	06/10/2020	ND	5.10	85.0	6.00	5.47	
Total BTEX	<0.300	0.300	06/10/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIL *79.1 %* *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	**528**	16.0	06/08/2020	ND	400	100	400	7.69	

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	06/08/2020	ND	187	93.7	200	7.84	
DRO >C10-C28*	<10.0	10.0	06/08/2020	ND	188	93.9	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	06/08/2020	ND					

Surrogate: 1-Chlorooctane *106 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *122 %* *42.2-156*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	06/05/2020	Sampling Date:	06/05/2020
Reported:	06/11/2020	Sampling Type:	Soil
Project Name:	NEDU INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	EUNICE NM		

Sample ID: SP 1 @ 6' (H001533-04)

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	06/10/2020	ND	1.88	93.8	2.00	7.44	
Toluene*	<0.050	0.050	06/10/2020	ND	1.78	89.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	06/10/2020	ND	1.77	88.4	2.00	5.90	
Total Xylenes*	<0.150	0.150	06/10/2020	ND	5.10	85.0	6.00	5.47	
Total BTEX	<0.300	0.300	06/10/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *81.7 %* *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	**3280**	16.0	06/08/2020	ND	400	100	400	7.69	

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	06/08/2020	ND	187	93.7	200	7.84	
DRO >C10-C28*	<10.0	10.0	06/08/2020	ND	188	93.9	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	06/08/2020	ND					

Surrogate: 1-Chlorooctane *109 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *119 %* *42.2-156*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Apache Corporation	**BILL TO**	
Project Manager:	Bruce Baker	P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #:	Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:	NEDU Injection Line	State: Zip:	
Project Location:	NEDU Injection Line	Phone #:	
Sampler Name:	Jose Brown	Fax #:	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	CL.	BTEX	EXT. TPH									
H001533																									
1	SP1 @ Surface	6	1										6/5/20	1100	✓	✓	✓								
2	SP1 @ 2'	6	1										"	1102	✓	✓	✓								
3	SP1 @ 4'	6	1										"	1104	✓	✓	✓								
4	SP1 @ 6'	6	1										6/5/20	1534	✓	✓	✓								

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Jose Brown	Date: 6/5/20 Time: 1127	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
			All Results are emailed. Please provide Email address:
Relinquished By:	Date: Time:	Received By:	REMARKS:

Delivered By: (Circle One)	Observed Temp. °C 5.6°C	Sample Condition Cool Intact	CHECKED BY: (Initials)	Turnaround Time: Standard ☑ Rush ☐	Bacteria (only) Sample Condition Cool Intact Observed Temp. °C
Sampler - UPS - Bus - Other:	Corrected Temp. °C	☒ Yes ☐ Yes ☐ No ☐ No	hs	Thermometer ID #97 Correction Factor ~~+0.1°C~~ #113	☐ Yes ☐ Yes ☐ Nc ☐ No Corrected Temp. °C

FORM-006 R 3.0

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

CARDINAL Laboratories

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

June 16, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NEDU INJECTION LINE

Enclosed are the results of analyses for samples received by the laboratory on 06/11/20 15:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	06/11/2020	Sampling Date:	06/11/2020
Reported:	06/16/2020	Sampling Type:	Soil
Project Name:	NEDU INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	EUNICE NM		

Sample ID: SP 1 @ 8' (H001569-01)

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	06/12/2020	ND	1.84	91.8	2.00	4.63	
Toluene*	<0.050	0.050	06/12/2020	ND	1.88	94.2	2.00	4.74	
Ethylbenzene*	<0.050	0.050	06/12/2020	ND	1.95	97.3	2.00	4.55	
Total Xylenes*	<0.150	0.150	06/12/2020	ND	5.67	94.5	6.00	4.82	
Total BTEX	<0.300	0.300	06/12/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID 97.4 % 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	**5360**	16.0	06/12/2020	ND	448	112	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	06/15/2020	ND	193	96.6	200	2.03	
DRO >C10-C28*	<10.0	10.0	06/15/2020	ND	195	97.5	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	06/15/2020	ND					

Surrogate: 1-Chlorooctane 106 % 44.3-144

Surrogate: 1-Chlorooctadecane 114 % 42.2-156

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	06/11/2020	Sampling Date:	06/11/2020
Reported:	06/16/2020	Sampling Type:	Soil
Project Name:	NEDU INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	EUNICE NM		

Sample ID: SP 1 @ 14' (H001569-02)

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	06/12/2020	ND	1.84	91.8	2.00	4.63	
Toluene*	<0.050	0.050	06/12/2020	ND	1.88	94.2	2.00	4.74	
Ethylbenzene*	<0.050	0.050	06/12/2020	ND	1.95	97.3	2.00	4.55	
Total Xylenes*	<0.150	0.150	06/12/2020	ND	5.67	94.5	6.00	4.82	
Total BTEX	<0.300	0.300	06/12/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.8 %* *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	**2320**	16.0	06/12/2020	ND	448	112	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	06/15/2020	ND	193	96.6	200	2.03	
DRO >C10-C28*	<10.0	10.0	06/15/2020	ND	195	97.5	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	06/15/2020	ND					

Surrogate: 1-Chlorooctane *112 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *120 %* *42.2-156*

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	06/11/2020	Sampling Date:	06/11/2020
Reported:	06/16/2020	Sampling Type:	Soil
Project Name:	NEDU INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	EUNICE NM		

Sample ID: SP 1 @ 14' 6" (H001569-03)

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	06/12/2020	ND	1.84	91.8	2.00	4.63	
Toluene*	<0.050	0.050	06/12/2020	ND	1.88	94.2	2.00	4.74	
Ethylbenzene*	<0.050	0.050	06/12/2020	ND	1.95	97.3	2.00	4.55	
Total Xylenes*	<0.150	0.150	06/12/2020	ND	5.67	94.5	6.00	4.82	
Total BTEX	<0.300	0.300	06/12/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIL *96.7 %* *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	**288**	16.0	06/12/2020	ND	448	112	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	06/15/2020	ND	193	96.6	200	2.03	
DRO >C10-C28*	<10.0	10.0	06/15/2020	ND	195	97.5	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	06/15/2020	ND					

Surrogate: 1-Chlorooctane *112 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *121 %* *42.2-156*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	06/11/2020	Sampling Date:	06/11/2020
Reported:	06/16/2020	Sampling Type:	Soil
Project Name:	NEDU INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	EUNICE NM		

Sample ID: SP 2 @ SURFACE (H001569-04)

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	06/12/2020	ND	1.84	91.8	2.00	4.63	
Toluene*	<0.050	0.050	06/12/2020	ND	1.88	94.2	2.00	4.74	
Ethylbenzene*	<0.050	0.050	06/12/2020	ND	1.95	97.3	2.00	4.55	
Total Xylenes*	<0.150	0.150	06/12/2020	ND	5.67	94.5	6.00	4.82	
Total BTEX	<0.300	0.300	06/12/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID 95.8 % 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	**5680**	16.0	06/12/2020	ND	448	112	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	06/15/2020	ND	193	96.6	200	2.03	
DRO >C10-C28*	<10.0	10.0	06/15/2020	ND	195	97.5	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	06/15/2020	ND					

Surrogate: 1-Chlorooctane 115 % 44.3-144

Surrogate: 1-Chlorooctadecane 123 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	06/11/2020	Sampling Date:	06/11/2020
Reported:	06/16/2020	Sampling Type:	Soil
Project Name:	NEDU INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	EUNICE NM		

Sample ID: SP 2 @ 6' (H001569-05)

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	06/12/2020	ND	1.84	91.8	2.00	4.63	
Toluene*	<0.050	0.050	06/12/2020	ND	1.88	94.2	2.00	4.74	
Ethylbenzene*	<0.050	0.050	06/12/2020	ND	1.95	97.3	2.00	4.55	
Total Xylenes*	<0.150	0.150	06/12/2020	ND	5.67	94.5	6.00	4.82	
Total BTEX	<0.300	0.300	06/12/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID 97.8 % 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	**3680**	16.0	06/12/2020	ND	448	112	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	06/15/2020	ND	193	96.6	200	2.03	
DRO >C10-C28*	<10.0	10.0	06/15/2020	ND	195	97.5	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	06/15/2020	ND					

Surrogate: 1-Chlorooctane 110 % 44.3-144

Surrogate: 1-Chlorooctadecane 118 % 42.2-156

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	06/11/2020	Sampling Date:	06/11/2020
Reported:	06/16/2020	Sampling Type:	Soil
Project Name:	NEDU INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kelly Jacobson
Project Location:	EUNICE NM		

Sample ID: SP 2 @ 7' (H001569-06)

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	06/12/2020	ND	1.84	91.8	2.00	4.63	
Toluene*	<0.050	0.050	06/12/2020	ND	1.88	94.2	2.00	4.74	
Ethylbenzene*	<0.050	0.050	06/12/2020	ND	1.95	97.3	2.00	4.55	
Total Xylenes*	<0.150	0.150	06/12/2020	ND	5.67	94.5	6.00	4.82	
Total BTEX	<0.300	0.300	06/12/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID 96.4 % 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	**320**	16.0	06/12/2020	ND	448	112	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	06/15/2020	ND	193	96.6	200	2.03	
DRO >C10-C28*	<10.0	10.0	06/15/2020	ND	195	97.5	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	06/15/2020	ND					

Surrogate: 1-Chlorooctane 113 % 44.3-144

Surrogate: 1-Chlorooctadecane 121 % 42.2-156

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

		BILL TO	
Company Name:	Apache Corporation	P.O. #:	
Project Manager:	Bruce Baker	Company:	
Address:		Attn:	
City:	State: Zip:	Address:	
Phone #:	Fax #:	City:	
Project #:	Project Owner:	State: Zip:	
Project Name:	NEDU INJECTION LINE	Phone #:	
Project Location:	NEDU INJECTION LINE	Fax #:	
Sampler Name:	Jeff Brown		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	CL-	BTEX	EXT. TPH
H00156																	
1	SP2 @ 8'	G											6/11/20	1050	✓	✓	✓
2	SP1 @ 14'	G												1051	|	|	|
3	SP1 @ 14'6"	G												1052	|	|	|
4	SP2 @ Surface	G												1102	|	|	|
5	SP2 @ 6'	G												1158	|	|	|
6	SP2 @ 7'	G											6/11/20	1153	✓	✓	✓

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Jeff Brown	Date: 6/11/20 Time: 13:15	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: 6-11-20 Time: 1415	Received By:	All Results are emailed. Please provide Email address: REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 21.4 Corrected Temp. °C	Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No	CHECKED BY: (Initials) JHS
Turnaround Time: ☐ Standard ☐ Rush	Thermometer ID #97 Correction Factor ~~-0.4~~ #113	Bacteria (only) Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No	Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.0

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

CARDINAL Laboratories

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

September 03, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NEDU TRUNKLINE

Enclosed are the results of analyses for samples received by the laboratory on 09/03/20 8:36.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/03/2020	Sampling Date:	09/03/2020
Reported:	09/03/2020	Sampling Type:	Soil
Project Name:	NEDU TRUNKLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EUNICE NM		

Sample ID: HC 1 (H002349-01)

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	09/03/2020	ND	2.06	103	2.00	4.16	
Toluene*	<0.050	0.050	09/03/2020	ND	2.07	104	2.00	4.53	
Ethylbenzene*	<0.050	0.050	09/03/2020	ND	2.05	102	2.00	4.52	
Total Xylenes*	<0.150	0.150	09/03/2020	ND	5.90	98.4	6.00	4.47	
Total BTEX	<0.300	0.300	09/03/2020	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	<16.0	16.0	09/03/2020	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/03/2020	ND	200	99.9	200	0.170	
DRO >C10-C28*	<10.0	10.0	09/03/2020	ND	210	105	200	6.90	
EXT DRO >C28-C36	<10.0	10.0	09/03/2020	ND					

Surrogate: 1-Chlorooctane 90.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 102 % 42.2-156

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/03/2020	Sampling Date:	09/03/2020
Reported:	09/03/2020	Sampling Type:	Soil
Project Name:	NEDU TRUNKLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EUNICE NM		

Sample ID: HC 2 (H002349-02)

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	09/03/2020	ND	2.06	103	2.00	4.16	
Toluene*	<0.050	0.050	09/03/2020	ND	2.07	104	2.00	4.53	
Ethylbenzene*	<0.050	0.050	09/03/2020	ND	2.05	102	2.00	4.52	
Total Xylenes*	<0.150	0.150	09/03/2020	ND	5.90	98.4	6.00	4.47	
Total BTEX	<0.300	0.300	09/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *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	<16.0	16.0	09/03/2020	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/03/2020	ND	200	99.9	200	0.170	
DRO >C10-C28*	<10.0	10.0	09/03/2020	ND	210	105	200	6.90	
EXT DRO >C28-C36	<10.0	10.0	09/03/2020	ND					

Surrogate: 1-Chlorooctane *90.1 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *98.2 %* *42.2-156*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/03/2020	Sampling Date:	09/03/2020
Reported:	09/03/2020	Sampling Type:	Soil
Project Name:	NEDU TRUNKLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EUNICE NM		

Sample ID: HC 3 (H002349-03)

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	09/03/2020	ND	2.06	103	2.00	4.16	
Toluene*	<0.050	0.050	09/03/2020	ND	2.07	104	2.00	4.53	
Ethylbenzene*	<0.050	0.050	09/03/2020	ND	2.05	102	2.00	4.52	
Total Xylenes*	<0.150	0.150	09/03/2020	ND	5.90	98.4	6.00	4.47	
Total BTEX	<0.300	0.300	09/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *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	<16.0	16.0	09/03/2020	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/03/2020	ND	200	99.9	200	0.170	
DRO >C10-C28*	<10.0	10.0	09/03/2020	ND	210	105	200	6.90	
EXT DRO >C28-C36	<10.0	10.0	09/03/2020	ND					

Surrogate: 1-Chlorooctane *86.5 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *96.0 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/03/2020	Sampling Date:	09/03/2020
Reported:	09/03/2020	Sampling Type:	Soil
Project Name:	NEDU TRUNKLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EUNICE NM		

Sample ID: HC 4 (H002349-04)

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	09/03/2020	ND	2.06	103	2.00	4.16	
Toluene*	<0.050	0.050	09/03/2020	ND	2.07	104	2.00	4.53	
Ethylbenzene*	<0.050	0.050	09/03/2020	ND	2.05	102	2.00	4.52	
Total Xylenes*	<0.150	0.150	09/03/2020	ND	5.90	98.4	6.00	4.47	
Total BTEX	<0.300	0.300	09/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIL *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	<16.0	16.0	09/03/2020	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/03/2020	ND	200	99.9	200	0.170	
DRO >C10-C28*	<10.0	10.0	09/03/2020	ND	210	105	200	6.90	
EXT DRO >C28-C36	<10.0	10.0	09/03/2020	ND					

Surrogate: 1-Chlorooctane *84.7 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *94.8 %* *42.2-156*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Apache Corporation	**BILL TO**	
Project Manager:	Bruce Baker	P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #:	Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:	NEDU TRUNK LINE	State: Zip:	
Project Location:	NEDU TRUNK LINE	Phone #:	
Sampler Name:	Jeff Rowan	Fax #:	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	CL -	BTEX	EXT. TPH								
H002319																									
1	HC 1					✓							9/3/20	0714	✓	✓	✓								
2	HC 2					✓								0716	✓	✓	✓								
3	HC 3					✓								0718	✓	✓	✓								
4	HC 4					✓							9/3/20	0720	✓	✓	✓								

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Relinquished By: Jeff Rowan	Date: 09/03/20 Time: 8:36	Received By: Jodi Henson	Verbal Result: ☐ Yes ☐ No Add'l Phone #: All Results are emailed. Please provide Email address:
Relinquished By:	Date: Time:	Received By:	REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 6.0 Corrected Temp. °C	Sample Condition Cool ☑ Yes Intact ☑ Yes ☐ No ☐ No	CHECKED BY: (Initials)
Turnaround Time: Standard ☐ Rush ☑	Thermometer ID #113 Correction Factor None	Bacteria (only) Sample Condition Cool ☐ Yes Intact ☐ Yes ☐ No ☐ No	Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.1 08/04/20

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

NEOH Injection Line 6/5/20

SP1 @ Surface - 32.49875, -103.15270

10.6 / 30.0 = 2.84 = 1.14 = 3,236

SP1 @ 1'

10.0 / 30.2 = .90 = 3.02 = 2,717

SP1 @ 2'

10.7 / 30.2 = 1.11 = 2.56 = 3,284

SP1 @ 3'

10.6 / 30.1 = 2.83 = .84 = 2,376

SP1 @ 4'

10.0 / 30.0 = 3 = .70 = 2,099

SP1 @ 5'

10.0 / 30.3 = 3.03 = 1.06 = 3,210

SP1 @ 6'

10.4 / 30.3 = 2.91 = 1.12 = ~~2,609~~ 3,258

SP1 @ 7'

10.4 / 30.3 = 2.91 = 2,909 (- on 6/11/20 -)

SP1 @ 8'

10.0 / 30.8 = 3 = 1.31 = 3,928

SP1 @ 9'

10.1 / 30.2 = 2.99 = 1.32 = 3,945

SP1 @ 10'

10.1 / 30.1 = 2.98 = .95 = 2,830

SP1 @ 11'
10.0/30.0 = 3 = .53 = 1,589

SP1 @ 12'
10.0/30.0 = 3 = .85 = 2,549

SP1 @ 13'
10.3/30.2 = 2.93 = .70 = 2,050

SP1 @ 14'
10.2/30.2 = 2.96 = .25 = 739

SP1 @ 14'6
10.0/30.3 = 3.03 = .16 = 484

SP2 @ Surface - 32.49884, -103.15278
10.2/30.2 = 2.96 = .95 = 2,811

SP2 @ 1'
10.2/30.0 = 2.94 = 1.11 = 3,284

Dirt/ SP2 @ 2'
10.3/30.3 = 2.94 = .64 = 1,881

SP2 @ 3'
10.4/30.0 = 2.88 = 1.05 = 3,023

SP2 @ 4'
10.3/30.3 = 2.94 = .88 = 2,586

SP2 @ 5'
10.6/30.0 = 2.83 = .42 = 1,188

SP2 @ 6'

10.0 / 30.3 = 3.03 = .27 = 817

SP2 @ 7'

10.1 / 30.3 = 3 = .13 = 385

NEDU INJECTION LINE 9/3/20 Horizontals

SAND HC2 - 32.498724, -103.152690 0714

10.0 / 30.1 = 3.01 = .04 = 120 ✓

SAND HC2 - 32.498759, -103.152807 0716

10.0 / 30.2 = 3.02 = .05 = 150 ✓

SAND HC3 - 32.498850, -103.152816 0718

10.0 / 30.2 = 3.02 = .04 = 120 ✓

SAND HC4 - 32.498827, -103.152713 0720

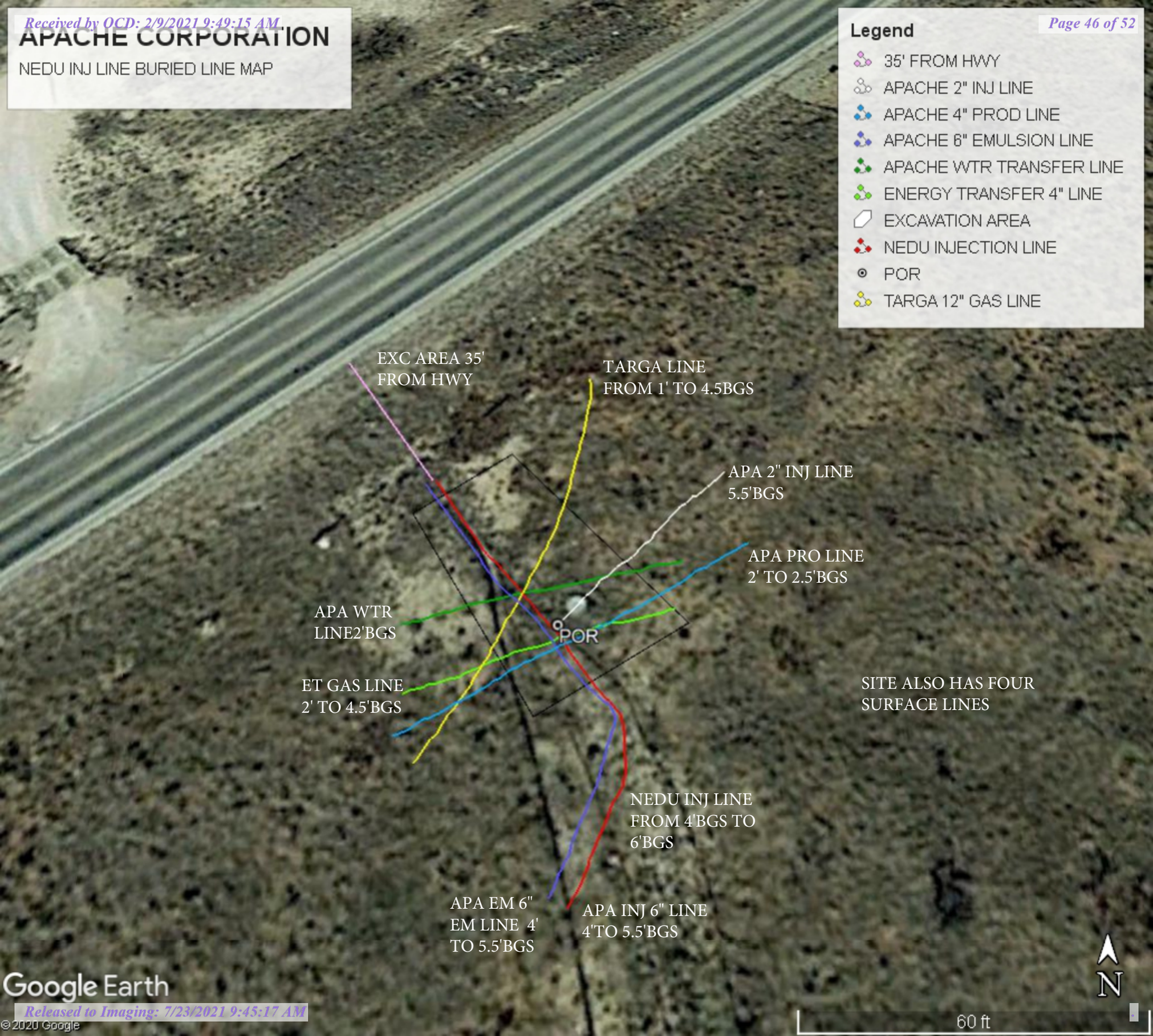
10.0 / 30.1 = 3.01 = .05 = 150 ✓

APACHE CORPORATION

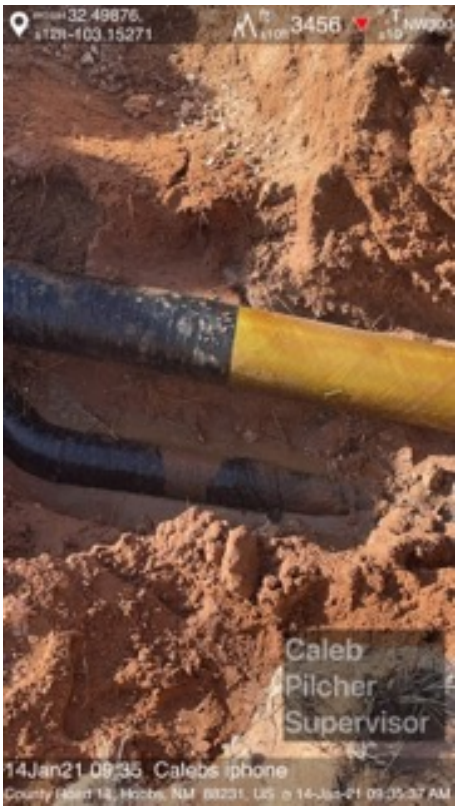
NEDU INJ LINE BURIED LINE MAP

Legend

- 35' FROM HWY
- APACHE 2" INJ LINE
- APACHE 4" PROD LINE
- APACHE 6" EMULSION LINE
- APACHE WTR TRANSFER LINE
- ENERGY TRANSFER 4" LINE
- EXCAVATION AREA
- NEDU INJECTION LINE
- POR
- TARGA 12" GAS LINE



NEDU INJECTION LINE SITE PHOTOS




WGS84 32.49873,
±15ft -103.15283
ft ±12ft 3463
°,T ±13 NE17
Caleb
Pilcher
Supervisor
14Jan21 12:20 Calebs iphone
County Road 18, Hobbs, NM 88231, US 14-Jan-21 12:20:59 PM


WGS84 32.49873,
±12ft -103.15267
ft ±10ft 3458
°,T ±19 NW328
Caleb
Pilcher
Supervisor
15Jan21 13:32 Calebs iphone
County Road 18, Hobbs, NM 88231, US 15-Jan-21 01:32:06 PM


32.49874, -103.15266
3458
NW288
Caleb Pilcher
Supervisor

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☑ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☑ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☑ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☑ Description of remediation activities

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Larry Baker Title: Environmental Tech SR.

Signature: Larry Baker Date: 2/9/2021

email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: Chad Hensley Date: 07/23/2021

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Chad Hensley Date: 07/23/2021

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID: 873
	Action Number: 17510
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	7/23/2021