



2350 W Marland Blvd Hobbs, NM 88240

Remediation Plan

March 6, 2020

Re: NEDU Satellite 1
Case # NCE200283913

Background:

On 12/3/2019 a release occurred due to a pump seal failure. An initial C-141 was submitted and approved by NMOCD on 2/6/2020. The NEDU Satellite 1 (GPS: 32.505037, -103.135828) is located north of Eunice, New Mexico in unit letter K section 2 township 21S range 37E. A groundwater survey was conducted utilizing data USGS and NMOSE wells of record and data from a soil bore that Apache Corporation conducted in the area from a previous case. The soil bore is 1/2 mile north of the NEDU Satellite 1 and was drilled on 7/31/2019 to a depth of 60 feet. The soil bore data indicates that groundwater is greater than 50 feet.

On 12/31/2019 surface samples were collected and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. The laboratory results for SP1 and SP 3 were above table one standards for TPH. On 1/27/2020 1 foot samples were collected utilizing a hand auger at SP 1 and SP 3 and submitted to a commercial laboratory for analysis of TPH and BTEX. The laboratory results were below table one standards. On 2/18/2020 5 point composite horizontal samples were collected and submitted to a commercial laboratory.

Remediation Plan:

Apache Corporation proposes that the release area (140 cubic yards) surface be loosen and micro-blaze be applied to the release area. 5 point bottom composite samples will be collect not to exceed 500 square feet and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. If table one standards cannot be achieved after 90 days the elevated levels will be excavated and hauled to a NMOCD approved facility and backfilled with clean imported caliche.

Enclosed: C-141, Soil Bore Data, Sample Data, Maps, and Laboratory Results

Submitted by;

Bruce Baker

Environmental Technician SR.

larry.baker@apachecorp.com

Cell# 432-631-6982

Off# 575-393-7106

District I
 1625 N. French Dr., Hobbs, NM 88240
 District II
 311 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: W 32.505037 Longitude: N -103.135828

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: NEDU Satellite 1	Site Type: Battery
Date Release Discovered: December 3, 2019	API #

Unit Letter	Section	Township	Range	County
K	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 checked="" type="checkbox"/> Crude Oil	Volume Released (4 Barrels)	Volume Recovered (2 Barrels)
<input checked="" type="checkbox"/> Produced Water	Volume Released (10 Barrels)	Volume Recovered (3 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

Pump seal failure. All fluid was contained within the containment.


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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? 	

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. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <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:
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> Signature: <u></u> Date: <u>1/28/2020</u> Email: <u>Jeffrey.Broom@apachecorp.com</u> Telephone: <u>(432) 664-4677</u>
<u>OCD Only</u> Received by: _____ Date: _____

Volume Calculation

150.24 cubic feet of soil contamination X 7.48 gallons per cubic foot = 1,123 gallons/42 gallons to a barrel=26 barrels X .33 soil porosity= 9 barrels fluid in soil + 5 barrels recovered = 14 barrels total loss.

State of New Mexico
Oil Conservation Division

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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?	greater than 50 (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 not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" 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 1/2-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 I of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

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Oil Conservation Division

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Printed Name: Bruce Baker Title: Environmental Tech SR.

Signature: Bruce Baker Date: 3-6-20

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

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
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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: 3-6-20

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

OCD Only

Received by: _____ Date: _____

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

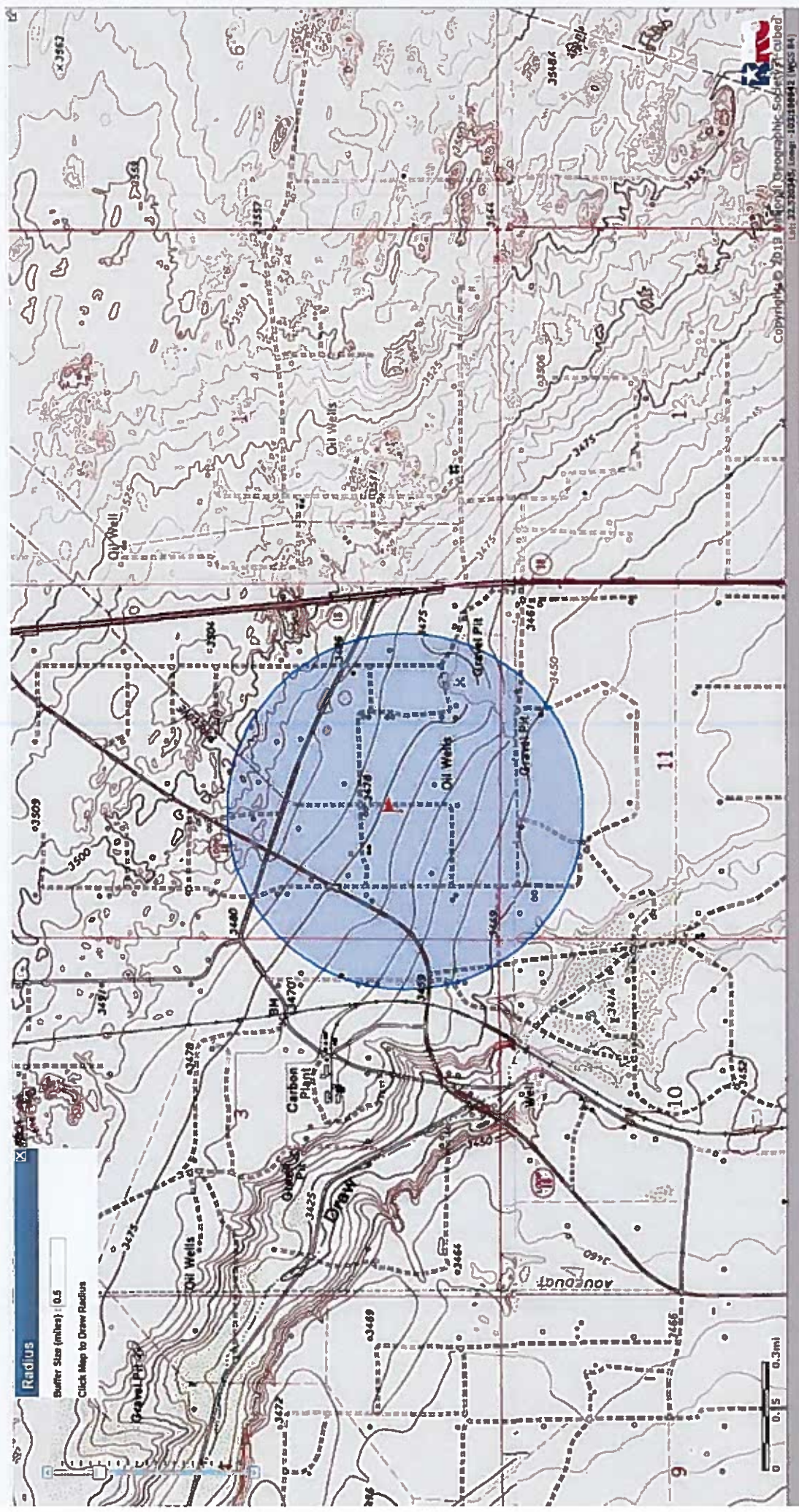
Signature: _____ Date: _____



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

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Remediation Level:				10	50				100	600
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





Sample Points

Sample ID	Sample Date	Depth	Chloride	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
SP1	12/31/2019	S	5120	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	2000	452	32.505076 -103.135656
SP1	1/27/2019	1'	N/A	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	14.4	<10.0	
SP2	12/31/2019	S	2960	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	458	121	32.505077 -103.135768
SP3	12/31/2019	S	416	0.675	14.9	25.7	70.1	111	2260	25600	4720	32.504974 -103.135598
SP3	1/27/2019	1'	N/A	<0.050	0.052	0.277	0.384	0.713	<10.0	685	145	
SP4	12/31/2019	S	3360	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	776	196	32.504923 -103.135731

Horizontal Samples

Sample ID	Sample Date	Depth	Chloride	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
HC1	2/18/2020	Surface	112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.50514 -103.13572
HC2	2/18/2020	Surface	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.50502 -103.13580
HC3	2/18/2020	Surface	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.50490 -103.13568
HC4	2/18/2020	Surface	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.50507 -103.13566

Note: Horizontal Samples GPS is the middle point of the 5 point composite



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

January 06, 2020

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NEDU SATELLITE 1

Enclosed are the results of analyses for samples received by the laboratory on 12/31/19 11:50.

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.

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,

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: 12/31/2019
Reported: 01/06/2020
Project Name: NEDU SATELLITE 1
Project Number: NONE GIVEN
Project Location: NONE GIVEN

Sampling Date: 12/31/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 1 @ SURFACE (H904322-01)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/02/2020	ND	1.95	97.7	2.00	2.10	
Toluene*	<0.050	0.050	01/02/2020	ND	1.95	97.6	2.00	1.84	
Ethylbenzene*	<0.050	0.050	01/02/2020	ND	2.00	100	2.00	2.09	
Total Xylenes*	<0.150	0.150	01/02/2020	ND	5.83	97.1	6.00	2.08	
Total BTEX	<0.300	0.300	01/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 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	5120	16.0	12/31/2019	ND	432	108	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	01/01/2020	ND	208	104	200	1.37	
DRO >C10-C28*	2000	10.0	01/01/2020	ND	226	113	200	2.30	
EXT DRO >C28-C36	452	10.0	01/01/2020	ND					

Surrogate: 1-Chlorooctane 87.4 % 41-142

Surrogate: 1-Chlorooctadecane 147 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Fax To: (575) 393-2432

Received: 12/31/2019
Reported: 01/06/2020
Project Name: NEDU SATELLITE 1
Project Number: NONE GIVEN
Project Location: NONE GIVEN

Sampling Date: 12/31/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 2 @ SURFACE (H904322-02)

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	01/02/2020	ND	1.95	97.7	2.00	2.10	
Toluene*	<0.050	0.050	01/02/2020	ND	1.95	97.6	2.00	1.84	
Ethylbenzene*	<0.050	0.050	01/02/2020	ND	2.00	100	2.00	2.09	
Total Xylenes*	<0.150	0.150	01/02/2020	ND	5.83	97.1	6.00	2.08	
Total BTEX	<0.300	0.300	01/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 98.5 % 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	2960	16.0	12/31/2019	ND	432	108	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	01/01/2020	ND	208	104	200	1.37	
DRO >C10-C28*	458	10.0	01/01/2020	ND	226	113	200	2.30	
EXT DRO >C28-C36	121	10.0	01/01/2020	ND					

Surrogate: 1-Chlorooctane 87.5 % 41-142

Surrogate: 1-Chlorooctadecane 111 % 37.6-147

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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APACHE CORP - HOBBS
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Fax To: (575) 393-2432

Received: 12/31/2019
Reported: 01/06/2020
Project Name: NEDU SATELLITE 1
Project Number: NONE GIVEN
Project Location: NONE GIVEN

Sampling Date: 12/31/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 3 @ SURFACE (H904322-03)

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.675	0.500	01/02/2020	ND	1.95	97.7	2.00	2.10	
Toluene*	14.9	0.500	01/02/2020	ND	1.95	97.6	2.00	1.84	
Ethylbenzene*	25.7	0.500	01/02/2020	ND	2.00	100	2.00	2.09	
Total Xylenes*	70.1	1.50	01/02/2020	ND	5.83	97.1	6.00	2.08	
Total BTEX	111	3.00	01/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 147 % 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	416	16.0	12/31/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	2260	50.0	01/01/2020	ND	208	104	200	1.37	
DRO >C10-C28*	25600	50.0	01/01/2020	ND	226	113	200	2.30	
EXT DRO >C28-C36	4720	50.0	01/01/2020	ND					

Surrogate: 1-Chlorooctane 213 % 41-142

Surrogate: 1-Chlorooctadecane 675 % 37.6-147

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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HOBBS NM, 88240
Fax To: (575) 393-2432

Received: 12/31/2019
Reported: 01/06/2020
Project Name: NEDU SATELLITE 1
Project Number: NONE GIVEN
Project Location: NONE GIVEN

Sampling Date: 12/31/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 4 @ SURFACE (H904322-04)

BTEX 80218			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/02/2020	ND	1.95	97.7	2.00	2.10	
Toluene*	<0.050	0.050	01/02/2020	ND	1.95	97.6	2.00	1.84	
Ethylbenzene*	<0.050	0.050	01/02/2020	ND	2.00	100	2.00	2.09	
Total Xylenes*	<0.150	0.150	01/02/2020	ND	5.83	97.1	6.00	2.08	
Total BTEX	<0.300	0.300	01/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 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	3360	16.0	12/31/2019	ND	432	108	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	01/03/2020	ND	215	107	200	4.76	
DRO >C10-C28*	776	10.0	01/03/2020	ND	239	119	200	2.39	QM-07
EXT DRO >C28-C36	196	10.0	01/03/2020	ND					

Surrogate: 1-Chlorooctane 103 % 41-142

Surrogate: 1-Chlorooctadecane 129 % 37.6-147

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

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

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

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

Company Name: <u>Apache Corporation</u>		P.O. #:		BILL TO		ANALYSIS REQUEST	
Project Manager:		Company:					
Address:		Attn:					
City:		Address:					
State:		City:					
Zip:		State:					
Phone #:		Fax #:					
Project #:		Project Owner:					
Project Name: <u>Neda Satellite 1</u>		City:					
Project Location: <u>Neda Satellite 1</u>		State:					
Sample Name: <u>Jeff Brown</u>		Phone #:					
Fax #:							
FOR LAB USE ONLY		PRESERV		SAMPLING			
Lab I.D.		DATE		TIME			
Sample I.D.		CL -					
SP2 @ Surface		BTEX					
SP3 @ Surface		EXT. TPH					
SP4 @ Surface							
(G)RAB OR (C)OMP							
# CONTAINERS							
GROUNDWATER							
WASTEWATER							
SOIL							
OIL							
SLUDGE							
OTHER							
ACID/BASE							
ICE / COOL							
OTHER							
Matrix							
PRESERV							
SAMPLING							
Relinquished By: <u>Jeff Brown</u>		Date: <u>12/11/14</u>		Time: <u>11:50</u>			
Received By: <u>Shadi Mervan</u>		Date: <u>12/11/14</u>		Time: <u>11:50</u>			
Delivered By: (Circle One)		Observed Temp. °C <u>4.7</u>		Corrected Temp. °C <u>5.1</u>			
Sampler - UPS - Bus - Other:		Sample Condition		CHECKED BY: <u>(initials)</u>			
		Cool <input type="checkbox"/> Intact <input checked="" type="checkbox"/>					
		Yes <input type="checkbox"/> No <input type="checkbox"/>					
		Yes <input type="checkbox"/> No <input type="checkbox"/>					
		Turnaround Time:		Standard <input type="checkbox"/> Rush <input type="checkbox"/>			
		Thermometer ID #97		Bacteria (only) Sample Condition			
		Correction Factor +0.4 °C		Cool <input type="checkbox"/> Intact <input type="checkbox"/>			
				Yes <input type="checkbox"/> No <input type="checkbox"/>			
				Observed Temp. °C			
				Corrected Temp. °C			

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



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

January 28, 2020

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NEDU SATELLITE 1

Enclosed are the results of analyses for samples received by the laboratory on 01/27/20 14:42.

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/ga/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,

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: 01/27/2020
Reported: 01/28/2020
Project Name: NEDU SATELLITE 1
Project Number: NONE GIVEN
Project Location: NONE GIVEN

Sampling Date: 01/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 1 @ 1' (H000250-01)

BTEX 80218			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/28/2020	ND	1.89	94.4	2.00	13.4	
Toluene*	<0.050	0.050	01/28/2020	ND	1.84	92.0	2.00	13.7	
Ethylbenzene*	<0.050	0.050	01/28/2020	ND	1.83	91.3	2.00	13.9	
Total Xylenes*	<0.150	0.150	01/28/2020	ND	5.36	89.4	6.00	14.1	
Total BTEX	<0.300	0.300	01/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 98.8 % 73.3-129

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	01/28/2020	ND	200	100	200	1.10	
DRO >C10-C28*	14.4	10.0	01/28/2020	ND	214	107	200	0.308	
EXT DRO >C28-C36	<10.0	10.0	01/28/2020	ND					

Surrogate: 1-Chlorooctane 103 % 41-142

Surrogate: 1-Chlorooctadecane 107 % 37.6-147

Cardinal Laboratories

*=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: 01/27/2020
 Reported: 01/28/2020
 Project Name: NEDU SATELLITE 1
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

Sampling Date: 01/27/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 3 @ 1' (H000250-02)

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	01/28/2020	ND	1.89	94.4	2.00	13.4	
Toluene*	0.052	0.050	01/28/2020	ND	1.84	92.0	2.00	13.7	
Ethylbenzene*	0.277	0.050	01/28/2020	ND	1.83	91.3	2.00	13.9	
Total Xylenes*	0.384	0.150	01/28/2020	ND	5.36	89.4	6.00	14.1	
Total BTEX	0.713	0.300	01/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 171 % 73.3-129

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	01/28/2020	ND	200	100	200	1.10	
DRO >C10-C28*	685	10.0	01/28/2020	ND	214	107	200	0.308	
EXT DRO >C28-C36	145	10.0	01/28/2020	ND					

Surrogate: 1-Chlorooctane 106 % 41-142

Surrogate: 1-Chlorooctadecane 103 % 37.6-147

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



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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

Cardinal Laboratories

*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>Apac Corporation</u> Project Manager: <u>Brute Baker</u> Address: City: State: Zip: Phone #: Fax #: Project #: Project Owner: Project Name: <u>NEML SAT. 2</u> Project Location: <u>NEML SAT. 2</u> Sampler Name: <u>Left Spool</u>				P.O. #: Company: Attn: Address: City: State: Zip: Phone #: Fax #:							
FOR LAB USE ONLY				BILL TO				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		MATRIX PRESERV		SAMPLING					
<u>H000250</u> <u>1 SP1 @ 1'</u> <u>2 SP3 @ 1'</u>				DATE TIME <u>1/8/00</u> <u>10:42</u> <u>1/8/00</u> <u>10:45</u>		<u>✓</u> <u>BTEX</u> <u>✓</u> <u>DET. TPH</u>					
PLEASE NOTE: Liability and Damages. Customer's liability and claims are excluded for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the service. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Caledon within 30 days after completion of the applicable service. In no event shall Caledon be liable for incidental or consequential damages, including without limitation, business interruption, loss of time, or loss of profits sustained by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Caledon, regardless of whether such claim is based upon any of the above stated theories of damages.											
Relinquished By: <u>[Signature]</u> Date: <u>1/8/00</u> Relinquished By: <u>[Signature]</u> Date: <u>1/8/00</u> Received By: <u>[Signature]</u> Date: <u>1/8/00</u> Received By: <u>[Signature]</u> Date: <u>1/8/00</u>				Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: All Results are emailed. Please provide Email address:				REMARKS:			
Delivered By: (Circle One) Sampler - UPS - Bus - Other:				Observed Temp. °C <u>2.90</u> Corrected Temp. °C				Sample Condition <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No CHECKED BY: <u>[Signature]</u>			
Turnaround Time: Standard <input type="checkbox"/> Rush <input type="checkbox"/> Thermometer ID <u>222-113</u> Correction Factor + 0.4 °C				Bacteria (only) Sample Condition <input type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No Observed Temp. °C Corrected Temp. °C							



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

February 20, 2020

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NEDU SATELLITE 1

Enclosed are the results of analyses for samples received by the laboratory on 02/18/20 15:35.

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/ga/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,

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: 02/18/2020
Reported: 02/20/2020
Project Name: NEDU SATELLITE 1
Project Number: NONE GIVEN
Project Location: NONE GIVEN

Sampling Date: 02/18/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: HORIZONTAL C 1 @ SURFACE 32.50514 -103.13572 (H00050)

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	02/19/2020	ND	1.99	99.6	2.00	2.34	
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	2.52	
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	2.02	101	2.00	3.11	
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.87	97.8	6.00	3.08	
Total BTEX	<0.300	0.300	02/19/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 102 % 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	112	16.0	02/19/2020	ND	432	108	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	02/19/2020	ND	194	97.1	200	0.915	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	182	90.8	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 86.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.4 % 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: 02/18/2020
Reported: 02/20/2020
Project Name: NEDU SATELLITE 1
Project Number: NONE GIVEN
Project Location: NONE GIVEN

Sampling Date: 02/18/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: HORIZONTAL C 2 @ SURFACE 32.50502 -103.13580 (H00050)

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	02/19/2020	ND	1.99	99.6	2.00	2.34	
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	2.52	
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	2.02	101	2.00	3.11	
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.87	97.8	6.00	3.08	
Total BTEX	<0.300	0.300	02/19/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 101 % 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	80.0	16.0	02/19/2020	ND	432	108	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	02/19/2020	ND	194	97.1	200	0.915	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	182	90.8	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 87.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.5 % 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: 02/18/2020
Reported: 02/20/2020
Project Name: NEDU SATELLITE 1
Project Number: NONE GIVEN
Project Location: NONE GIVEN

Sampling Date: 02/18/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: HORIZONTAL C 3 @ SURFACE 32.50490 -103.13568 (H00050)

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	02/19/2020	ND	1.99	99.6	2.00	2.34	
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	2.52	
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	2.02	101	2.00	3.11	
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.87	97.8	6.00	3.08	
Total BTEX	<0.300	0.300	02/19/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 102 % 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	<16.0	16.0	02/19/2020	ND	432	108	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	02/19/2020	ND	194	97.1	200	0.915	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	182	90.8	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 89.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.6 % 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: 02/18/2020
Reported: 02/20/2020
Project Name: NEDU SATELLITE 1
Project Number: NONE GIVEN
Project Location: NONE GIVEN

Sampling Date: 02/18/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: HORIZONTAL C 4 @ SURFACE 32.50507 -103.13566 (H00050)

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	02/19/2020	ND	1.99	99.6	2.00	2.34	
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	2.52	
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	2.02	101	2.00	3.11	
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.87	97.8	6.00	3.08	
Total BTEX	<0.300	0.300	02/19/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 102 % 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	<16.0	16.0	02/19/2020	ND	432	108	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	02/19/2020	ND	194	97.1	200	0.915	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	182	90.8	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 91.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.2 % 42.2-156

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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

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Agate Corporation</u> Project Manager: <u>Agate Baker</u>				BILL TO				ANALYSIS REQUEST			
Address: City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____ Project #: _____ Project Owner: _____ Project Name: <u>NEON SAT. 1</u> Project Location: <u>NEON SAT. 1</u> Sampler Name: <u>J. Brown</u>				P.O. #: _____ Company: _____ Attn: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____							
For use only Lab I.D. <u>H000508</u> Sample I.D. _____				(G)RAB OR (C)OMP. _____ # CONTAINERS _____ GROUNDWATER _____ WASTEWATER _____ SOIL _____ OIL _____ SLUDGE _____ OTHER: _____ ACID/BASE: _____ ICE / COOL _____ OTHER: _____				MATRIX _____ PRESERV. _____ SAMPLING _____			
1 <u>Horizontal C1 @ Surface</u> <u>3d. 50514, -103.13572</u> 2 <u>Horizontal C2 @ Surface</u> <u>3d. 50508, -103.13580</u> 3 <u>Horizontal C3 @ Surface</u> <u>3d. 50514, -103.13568</u> 4 <u>Horizontal C4 @ Surface</u> <u>3d. 50507, -103.13566</u>				DATE TIME <u>8/18/20 10:20</u> <u>7-22 10:22</u> <u>10-22 10:24</u> <u>10-26 10:26</u>				CL - BTEX EXT. TPH			
PLEASE NOTE: Liability and claims exclude remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. 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 in whole or in part related to the performance of services rendered by Cardinal, regardless of whether such claim is based upon any of the above stated remedies or otherwise.				Relinquished By: _____ Date: <u>8/18/20</u> Received By: _____ Relinquished By: <u>Jeff</u> Date: <u>10/30</u> Received By: <u>Jamesa Black</u> Time: _____ Date: _____ Time: _____ Date: _____				Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: _____ All Results are emailed. Please provide Email address: _____ REMARKS: _____			
Delivered By: (Circle One) Observed Temp. °C <u>41.6</u> Sampler - UPS - Bus - Other: Corrected Temp. °C _____ Sample Condition: Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Checked By: (Initials) _____ Turnaround Time: _____ Standard <input checked="" type="checkbox"/> Thermometer ID: <u>4113</u> Bacteria (only) Sample Condition: <input type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Correction Factor: <u>1.0</u> Yes <input type="checkbox"/> No <input type="checkbox"/> Observed Temp. °C _____ Corrected Temp. °C _____											