



303 Veterans Airpark Lane Midland, TX 79705

Remediation Plan

March 29, 2021

Re: NMGSAU # 373
Case nAPP2100442670

Background:

On 12/29/2020 a release occurred due to a 3 inch poly line separated from the collar near the steel to poly transition. The release (GPS: 32.642640, -103.294748) is located west of Monument, New Mexico in unit letter K section 19 township 21S range 37E. A groundwater survey was conducted utilizing NMOSE wells of record. The nearest well of record suggest the groundwater depth below the release to be 21 feet below ground surface.

On 3/9/2021 vertical delineation was conducted utilizing a backhoe. All samples collected were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. Horizontal surface 5 point composite samples were collected not to exceed 200 square feet. All samples collected were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. HC 3 was above chloride standards for release less than 50 feet to groundwater. On 3/16/2021 was further sampled 5 feet out from previous sample point and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX.

Remediation Plan:

Apache Corporation proposes that the release area be excavated to a depth of 2 feet. Once excavation is complete final 5 point bottom and wall composite samples will be collected not to exceed 200 square feet. All samples collected will be submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. All excavated soil (180 yards) will be disposed of at an OCD approved disposal facility. Once laboratory analysis confirm excavation meet the requirements for releases less than 50 feet to groundwater the excavation will be backfilled with clean imported caliche to ground surface. 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

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?	<u>21</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas 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 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.

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: 3/29/2021
email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Larry Baker Title: Environmental Tech SR.
Signature: Larry Baker Date: 3/29/2021
email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: Chad Hensley Date: 05/18/2021

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

Signature: Chad Hensley Date: 05/18/2021

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Legal Description

County	LE
Drill Start Date	3/25/2014
Drill Finish Date	3/25/2014
Plug Date	
Proof of Completion of well Received Date	
Elevation	
Depth of Well	30
Ground Water Source	S
% Shallow	100
Depth to water	21
Well Log File Date	8/17/2014
Scheduled Date	
Use of Well	
Pump Type	

[Zoom to](#)

L-13525-POD1

1:2256

Coordinates

Please Select a Coordinate System and enter the coordinates:

GCS_WGS_1984

32.642640

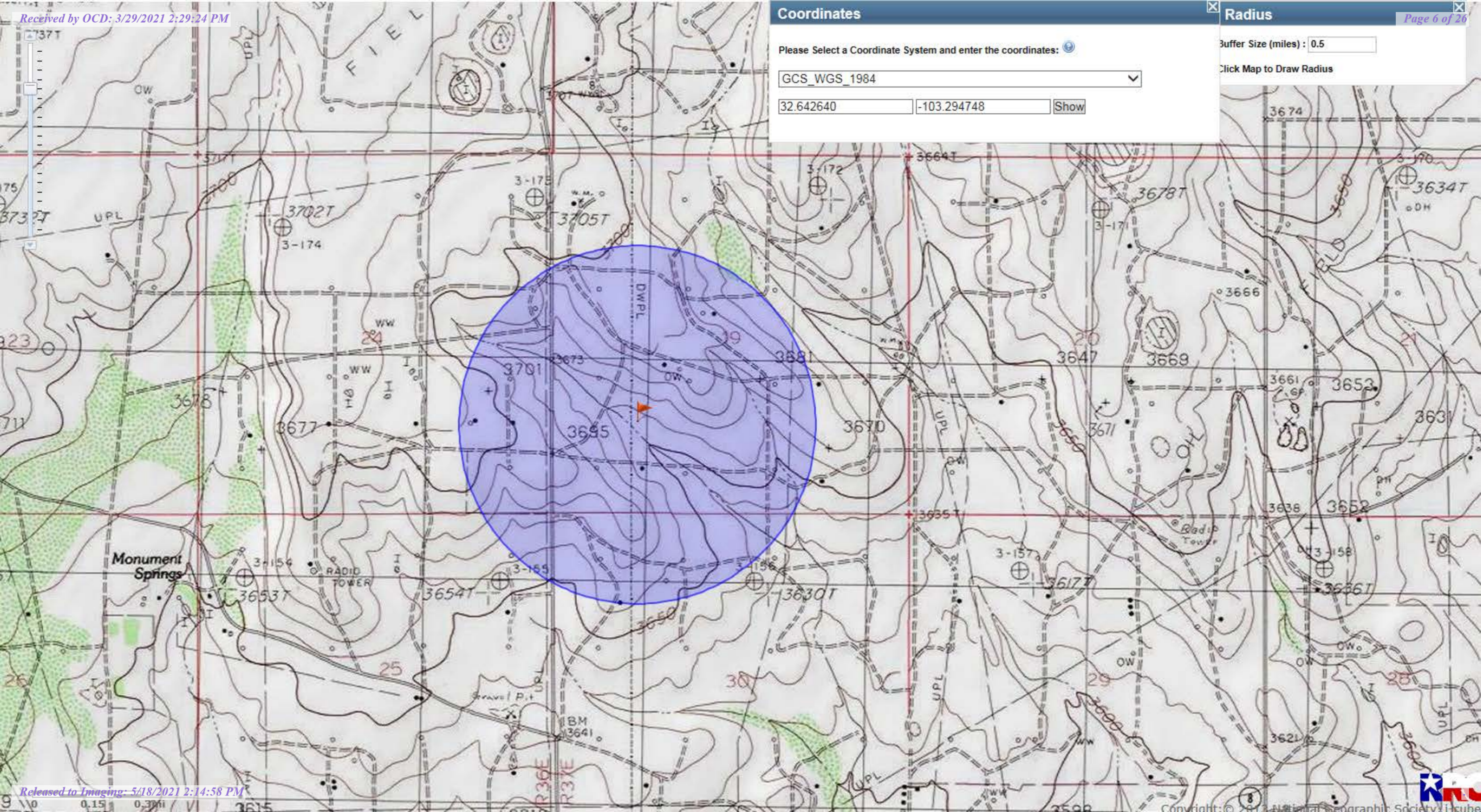
-103.294748

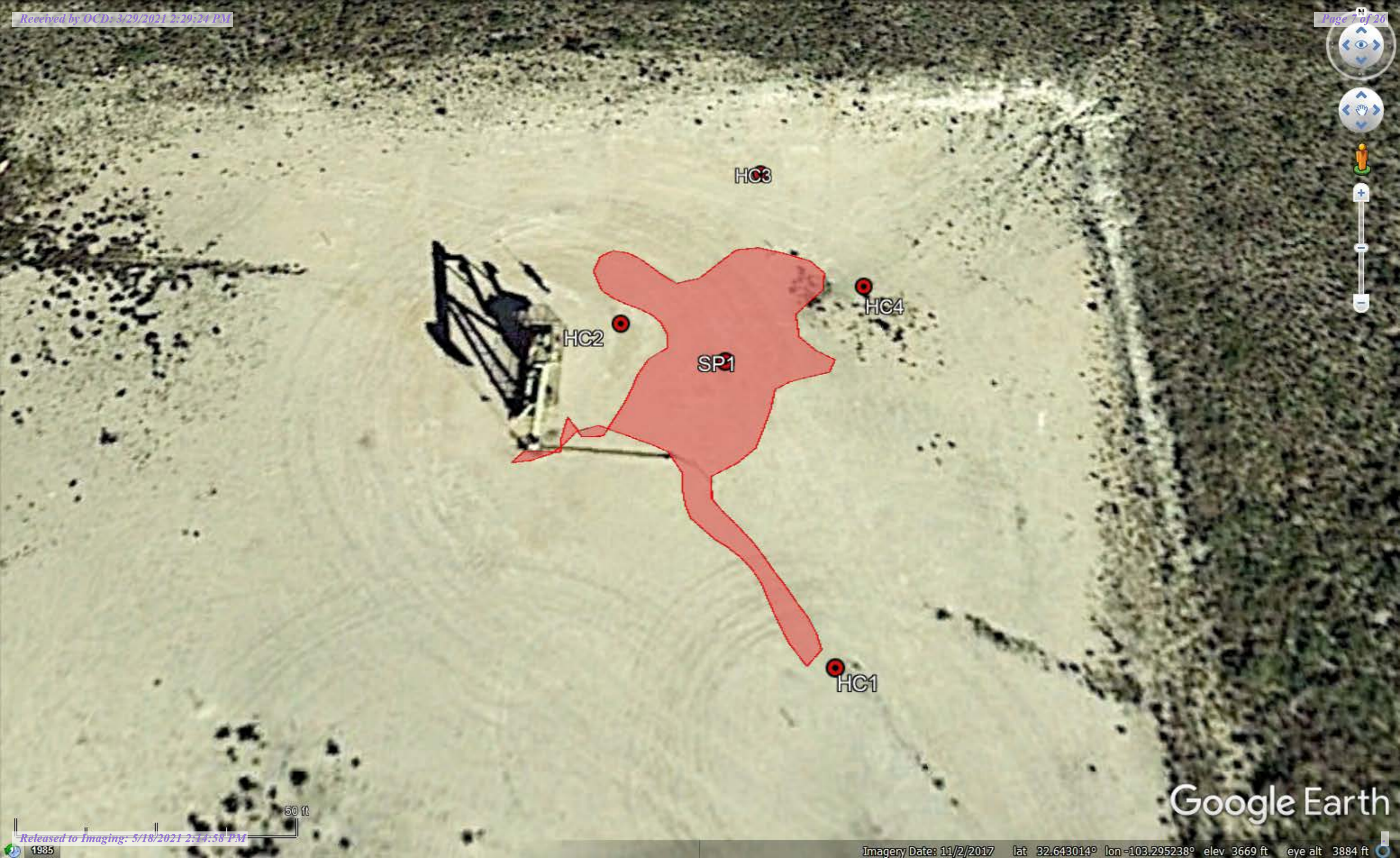
Show

Radius

Buffer Size (miles) : 0.5

Click Map to Draw Radius





Google Earth

NEDU Injection Line

Complete List

Map ID	Sample Date	Sample ID	Depth	Field Chloride	LAB Chloride	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
Delineation Samples														
SP1	3/9/2021	SP1 @ Surface	S	1,835	1,870	<.050	<.050	<.050	<.150	<.300	138	30,200	7,640	32.6427170 -103.2946275
		SP1 @ 1'	1'	507	592	<.050	<.050	<.050	<.150	<.300	19	977	160	
		SP1 @ 2'	2'	274	304	<.050	<.050	<.050	<.150	<.300	<10.0	66.1	21.8	
		SP1 @ 3'	3'	360	544	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	
Horizontal Samples														
HC1	3/9/2021	HC1	S	217	160	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	32.6425053 -103.2945225
HC2	3/9/2021	HC2	S	516	464	<.050	<.050	<.050	<.150	<.300	<10.0	13.2	11.2	32.6427218 -103.2946851
HC3	3/9/2021	HC3	S	529	768	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	32.6428204 -103.2945799
	3/16/2021	HC3	S	300	96	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	32.642846 -103.294572
HC4	3/9/2021	HC4	S	317	224	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	32.6427551 -103.2946275



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

March 15, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NMGSAU #373

Enclosed are the results of analyses for samples received by the laboratory on 03/09/21 16:45.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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: 03/09/2021
 Reported: 03/15/2021
 Project Name: NMGSAU #373
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 03/09/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: HC 1 (H210574-01)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/11/2021	ND	2.02	101	2.00	0.458	
Toluene*	<0.050	0.050	03/11/2021	ND	2.09	105	2.00	1.47	
Ethylbenzene*	<0.050	0.050	03/11/2021	ND	2.12	106	2.00	1.20	
Total Xylenes*	<0.150	0.150	03/11/2021	ND	6.68	111	6.00	1.25	
Total BTX	<0.300	0.300	03/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	160	16.0	03/11/2021	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2021	ND	208	104	200	1.61	
DRO >C10-C28*	<10.0	10.0	03/10/2021	ND	218	109	200	0.365	
EXT DRO >C28-C36	<10.0	10.0	03/10/2021	ND					

Surrogate: 1-Chlorooctane 62.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 58.1 % 42.2-156

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

Received: 03/09/2021
 Reported: 03/15/2021
 Project Name: NMGS AU #373
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 03/09/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: HC 2 (H210574-02)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/11/2021	ND	2.02	101	2.00	0.458	
Toluene*	<0.050	0.050	03/11/2021	ND	2.09	105	2.00	1.47	
Ethylbenzene*	<0.050	0.050	03/11/2021	ND	2.12	106	2.00	1.20	
Total Xylenes*	<0.150	0.150	03/11/2021	ND	6.68	111	6.00	1.25	
Total BTX	<0.300	0.300	03/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	464	16.0	03/11/2021	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2021	ND	208	104	200	1.61	
DRO >C10-C28*	13.2	10.0	03/10/2021	ND	218	109	200	0.365	
EXT DRO >C28-C36	11.2	10.0	03/10/2021	ND					

Surrogate: 1-Chlorooctane 65.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 60.5 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 03/09/2021
 Reported: 03/15/2021
 Project Name: NMGS AU #373
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 03/09/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: HC 3 (H210574-03)

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	03/11/2021	ND	2.02	101	2.00	0.458	
Toluene*	<0.050	0.050	03/11/2021	ND	2.09	105	2.00	1.47	
Ethylbenzene*	<0.050	0.050	03/11/2021	ND	2.12	106	2.00	1.20	
Total Xylenes*	<0.150	0.150	03/11/2021	ND	6.68	111	6.00	1.25	
Total BTEx	<0.300	0.300	03/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	768	16.0	03/11/2021	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2021	ND	208	104	200	1.61	
DRO >C10-C28*	<10.0	10.0	03/10/2021	ND	218	109	200	0.365	
EXT DRO >C28-C36	<10.0	10.0	03/10/2021	ND					

Surrogate: 1-Chlorooctane 67.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 63.1 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 03/09/2021
 Reported: 03/15/2021
 Project Name: NMGS AU #373
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 03/09/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: HC 4 (H210574-04)

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	03/11/2021	ND	2.02	101	2.00	0.458	
Toluene*	<0.050	0.050	03/11/2021	ND	2.09	105	2.00	1.47	
Ethylbenzene*	<0.050	0.050	03/11/2021	ND	2.12	106	2.00	1.20	
Total Xylenes*	<0.150	0.150	03/11/2021	ND	6.68	111	6.00	1.25	
Total BTEx	<0.300	0.300	03/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	03/11/2021	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2021	ND	208	104	200	1.61	
DRO >C10-C28*	<10.0	10.0	03/10/2021	ND	218	109	200	0.365	
EXT DRO >C28-C36	<10.0	10.0	03/10/2021	ND					

Surrogate: 1-Chlorooctane 78.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 72.8 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 03/09/2021
 Reported: 03/15/2021
 Project Name: NMGSAU #373
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 03/09/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: SP 1 SURFACE (H210574-05)

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	03/12/2021	ND	2.02	101	2.00	0.458		
Toluene*	<0.050	0.050	03/12/2021	ND	2.09	105	2.00	1.47		
Ethylbenzene*	<0.050	0.050	03/12/2021	ND	2.12	106	2.00	1.20		
Total Xylenes*	<0.150	0.150	03/12/2021	ND	6.68	111	6.00	1.25		
Total BTEx	<0.300	0.300	03/12/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 89.4 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1870	16.0	03/11/2021	ND	416	104	400	3.92		

TPH 8015M	mg/kg		Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	138	50.0	03/10/2021	ND	208	104	200	1.61	
DRO >C10-C28*	30200	50.0	03/10/2021	ND	218	109	200	0.365	
EXT DRO >C28-C36	7640	50.0	03/10/2021	ND					

Surrogate: 1-Chlorooctane 128 % 44.3-144

Surrogate: 1-Chlorooctadecane 562 % 42.2-156

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

Received: 03/09/2021
 Reported: 03/15/2021
 Project Name: NMGSAU #373
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 03/09/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 1' (H210574-06)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/11/2021	ND	2.02	101	2.00	0.458	
Toluene*	<0.050	0.050	03/11/2021	ND	2.09	105	2.00	1.47	
Ethylbenzene*	<0.050	0.050	03/11/2021	ND	2.12	106	2.00	1.20	
Total Xylenes*	<0.150	0.150	03/11/2021	ND	6.68	111	6.00	1.25	
Total BTX	<0.300	0.300	03/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	03/11/2021	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	18.8	10.0	03/10/2021	ND	188	94.2	200	5.06	
DRO >C10-C28*	977	10.0	03/10/2021	ND	217	109	200	2.75	QM-07, QR-03
EXT DRO >C28-C36	160	10.0	03/10/2021	ND					

Surrogate: 1-Chlorooctane 92.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.5 % 42.2-156

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

Received: 03/09/2021
 Reported: 03/15/2021
 Project Name: NMGS AU #373
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 03/09/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 2' (H210574-07)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/11/2021	ND	2.02	101	2.00	0.458	
Toluene*	<0.050	0.050	03/11/2021	ND	2.09	105	2.00	1.47	
Ethylbenzene*	<0.050	0.050	03/11/2021	ND	2.12	106	2.00	1.20	
Total Xylenes*	<0.150	0.150	03/11/2021	ND	6.68	111	6.00	1.25	
Total BTX	<0.300	0.300	03/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	304	16.0	03/11/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2021	ND	188	94.2	200	5.06	
DRO >C10-C28*	66.1	10.0	03/10/2021	ND	217	109	200	2.75	
EXT DRO >C28-C36	21.8	10.0	03/10/2021	ND					

Surrogate: 1-Chlorooctane 89.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.7 % 42.2-156

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

Received: 03/09/2021
 Reported: 03/15/2021
 Project Name: NMGS AU #373
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 03/09/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 3' (H210574-08)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/11/2021	ND	2.02	101	2.00	0.458	
Toluene*	<0.050	0.050	03/11/2021	ND	2.09	105	2.00	1.47	
Ethylbenzene*	<0.050	0.050	03/11/2021	ND	2.12	106	2.00	1.20	
Total Xylenes*	<0.150	0.150	03/11/2021	ND	6.68	111	6.00	1.25	
Total BTX	<0.300	0.300	03/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	03/11/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2021	ND	188	94.2	200	5.06	
DRO >C10-C28*	<10.0	10.0	03/10/2021	ND	217	109	200	2.75	
EXT DRO >C28-C36	<10.0	10.0	03/10/2021	ND					

Surrogate: 1-Chlorooctane 86.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 82.8 % 42.2-156

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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.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
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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A handwritten signature in black ink, appearing to read "Celey D. Keene".

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: Harbor Project Manager: Rance Baker Address: City: Hobbs State: NM Zip: 88240 Phone #: Fax #: Project Owner: Project #: State: Zip: Project Name: Project Location: UMBSAU #373 Sampler Name: DeGruede, D Fax #:				P.O. #: Company: Attn: Address: City: State: Zip: Phone #: Fax #:	
Lab I.D. Sample I.D.				# CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: <input checked="" type="checkbox"/> COOL OTHER :	
#210574 1 HC1 2 HC2 3 HC3 4 HC4 5 SD1 Surface 6 SR101' 7 SR102' 8 SR103'				DATE TIME 3/9 10:03 10:05 10:07 10:09 10:11 10:15 10:17	
Relinquished By:				Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Relinquished By:				All Results are emailed. Please provide Email address:	
Delivered By: (Circle One) Observed Temp. °C 8.4				Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Sampler - UPS - Bus - Other:				CHECKED BY: (Initials) AB	
Date: 3-9-21 Time: 1645				Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>	
Received By: DeGruede, D				Bacteria (only) Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Corrected Temp. °C	



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

March 18, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NMGSAU #373

Enclosed are the results of analyses for samples received by the laboratory on 03/16/21 15:53.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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: 03/16/2021
 Reported: 03/18/2021
 Project Name: NMGSAU #373
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 03/16/2021
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: HC 3 (H210666-01)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/18/2021	ND	2.11	105	2.00	4.03	
Toluene*	<0.050	0.050	03/18/2021	ND	2.03	102	2.00	4.55	
Ethylbenzene*	<0.050	0.050	03/18/2021	ND	1.99	99.5	2.00	3.73	
Total Xylenes*	<0.150	0.150	03/18/2021	ND	5.92	98.7	6.00	2.78	
Total BTX	<0.300	0.300	03/18/2021	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	96.0	16.0	03/18/2021	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/18/2021	ND	206	103	200	7.30	
DRO >C10-C28*	<10.0	10.0	03/18/2021	ND	210	105	200	6.06	
EXT DRO >C28-C36	<10.0	10.0	03/18/2021	ND					

Surrogate: 1-Chlorooctane 72.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 69.8 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager



ANALYSIS REQUEST

Page 4 of 4

Apache NMGSAU 373 Mar
 SPI Surface 32.6427170 -103.2946275
 11.0/30.2 .67 2.74 = 1,835 V
 SPI 01' 11.2/30.0 .19 2.67 = 507 V
 SPI 02' 11.0/30.3 .10 2.75 = 274 V
 HC1 32.6425053 -103.2945225
 11.1/30.3 .08 2.72 = 217 V
 HC2 32.6427218 -103.2946851
 11.0/30.0 .19 2.72 = 516 V
 HC3 32.6428204 -103.2945799
 11.1/30.0 .05 2.72 = 2,855 X
 HC4 32.6427551 -103.2944981
 11.3/30.0 .12 2.65 = 317 V
 SPI 03' 11.1/30.5 .17 2.72 = 360 V
 HC3 10' out NE 11.0/30.3 .82 2.75 = 2,254 X
 HC3 20' out 11.0/30.0 .41 2.72 = 1,114 X
 HC3 30' out 32.6428732 -103.2945222
 11.1/30.3 .20 2.65 = 529 V

NMGSAN 373 3/16/21

HC3 - 32.642846, -103.294572

10.0/30.1 = 3.01 = .10 = 300

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

Action 22247

CONDITIONS OF APPROVAL

Operator: #1000	APACHE CORPORATION Midland, TX79705	303 Veterans Airpark Ln	OGRID: 873	Action Number: 22247	Action Type: C-141
OCD Reviewer chensley	Condition None				