



303 Veterans Airpark Lane Midland, TX 79705

Remediation Plan

February 14, 2023

Re: Jim Camp WTL
Case nAPP229832296

Background:

On 10/12/2022 a release occurred due to a buried line failed. The release (GPS: 32.24117, - 103.20868) is located south of Eunice, New Mexico in unit letter M section 6 township 24S range 37E. On 2/7/2023 to determine the depth of groundwater a soil bore (GPS: 32.241089, - 103.208468) was advanced to a depth 110 feet and left open for 72 hours. The bore hole was gauged with no water present to a depth of 110 feet.

On 1/11/2023 and 11/12/2023 vertical delineation was conducted utilizing a backhoe at SP1 and SP2 to depths of 13 to 15 feet. All samples collected were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. 5-point horizontal surface composite samples were collected not to exceed 200 square feet and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. On 1/18/2023 SP 1 was further vertically delineated utilizing a Track-hoe to a depth of 20 feet. All samples collected were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. On 2/7/2023 further vertical delineation was conducted utilizing a soil bore to a depth of 95 feet. All samples collected were submitted to a commercial laboratory for analysis of chloride.

Remediation Plan:

Apache corporation proposes that the release area around SP 1 be excavated to a depth of 10 feet. The remaining release area will be excavated to a depth of 4 feet. All excavated soil will be hauled to an OCD approved disposal facility. 5-point bottom and wall samples will be collected not to exceed 200 square feet and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. Once laboratory analysis meets closure criteria for releases greater than 100 feet to groundwater the 10-foot excavation will be backfill to 4 feet below ground surface. A 20-mil reinforced liner will be installed at 4 feet below ground surface. Imported clean topsoil will be utilized to backfill above the liner and contoured to the surrounding area. The disturbed area will be reseeded to the surface landowner's guidelines. The remediation will be completed within 90 days of OCD approval of the plan.

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

Submitted by.

Larry Baker

Environmental Technician Sr. Staff

larry.baker@apachecorp.com

Office# 432-818-1654

Incident ID	NAPP2229832296
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>110</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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

Incident ID	NAPP2229832296
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. Staff
Signature: Larry Baker Date: 2/14/2023
email: larry.baker@apachecorp.com Telephone: 432-818-1654

OCD Only

Received by: Jocelyn Harimon Date: 02/14/2023

Incident ID	NAPP2229832296
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. Staff
Signature: Larry Baker Date: 2/14/2023
email: larry.baker@apachecorp.com Telephone: 432-818-1654

OCD Only

Received by: Jocelyn Harimon Date: 02/14/2023

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

Signature: Jennifer Nobui Date: 02/23/2023

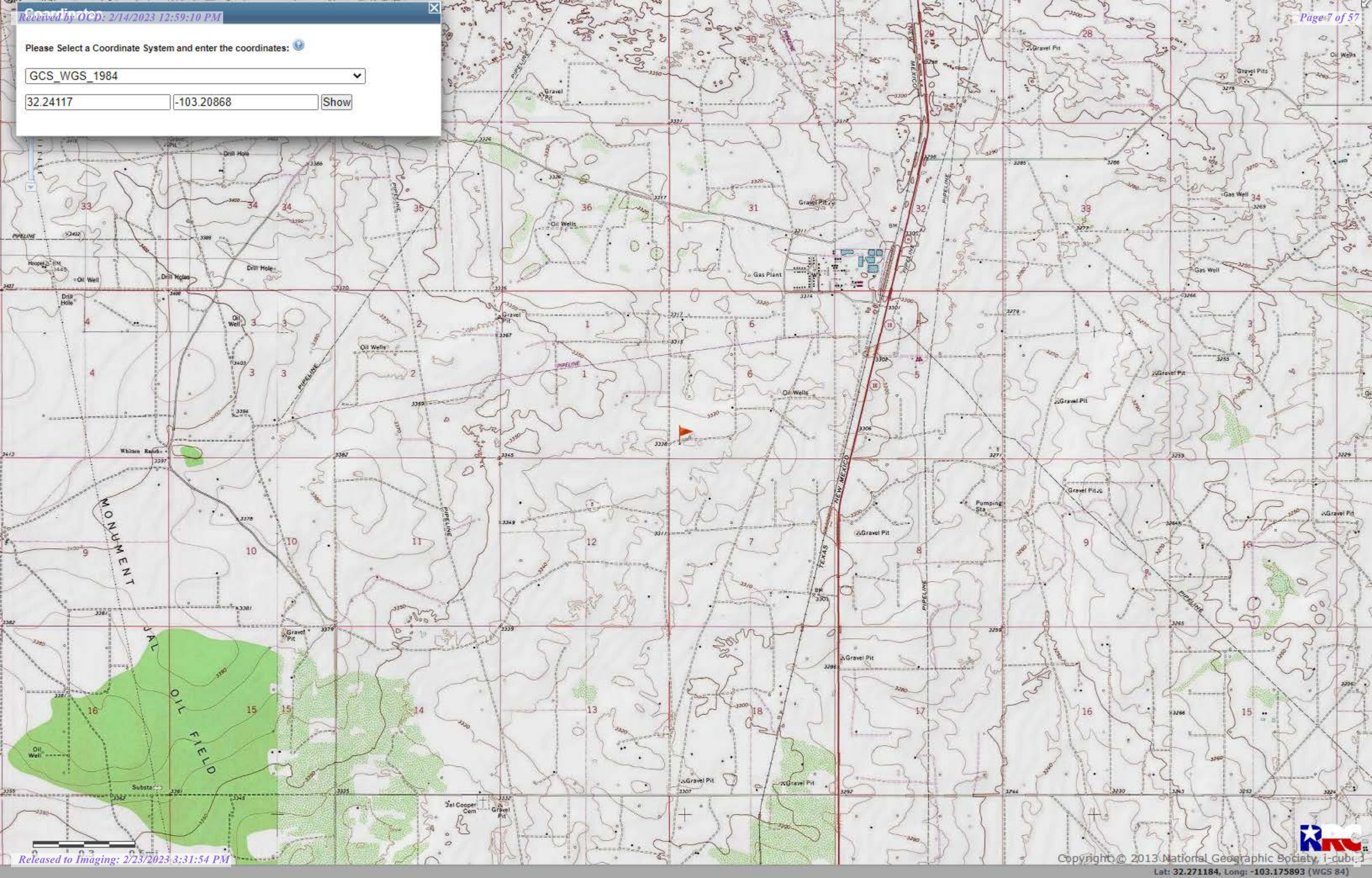
Soil Bore Report

LOG OF WELL

Please Select a Coordinate System and enter the coordinates:

GCS_WGS_1984

32.24117 -103.20868 Show





SB 110'

65 ft

Delineation Samples

Sample Date	Sample ID	Depth	Chloride Lab	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
1/11/2023	SP1	S	4,320	<0.050	<0.050	<0.050	0.698	0.698	62.8	8950	1890	32.241160, -103.208605
		1'	2,800	<0.050	0.118	<0.050	2.58	2.69	325	3520	640	
		2'	1,600	<0.200	2.83	7.39	69.7	79.9	1290	6070	1020	
		3'	7520	<0.050	<0.050	0.197	0.579	0.776	19.6	382	61.3	
		4'	7280	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	29.5	<10.0	
		5'	4800	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	203	31.8	
		6'	7040	<0.050	<0.050	<0.050	0.217	<0.300	<10.0	302	51.3	
		7'	5600	<0.050	<0.050	0.069	0.510	0.579	12.7	307	49.1	
		8'	5840	<0.050	<0.050	<0.050	0.152	<0.300	13.2	644	119	
1/12/2023		9'	5360	<0.050	0.053	0.185	2.25	2.49	81.9	1530	286	
		11'	4000	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	187	59.6	
		13'	4400	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	501	177	
		15'	3440	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	40	<10.0	
1/18/2023		16'	3,960	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		18'	3960	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		20'	2720	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
2/7/2023		25'	4000									
		30'	2880									
		35'	2960									
		40'	2960									
		45'	3200									
		50'	3360									
		55'	2880									
		60'	3000									
		65'	2520									
		70'	2080									
		75'	1600									
		80'	1600									
		85'	1150									
		90'	752									
		95'	288									

1/12/2023	SP2	Surface	1260	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	10200	2220	32.241427, -103.208649
		1'	160	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		3'	1360	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	213	45.5	
		5'	1020	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	70	20.6	
		7'	1720	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		9'	1250	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	31.4	<10.0	
		10'	432	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	18.5	<10.0	
		11'	448	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	65.8	12.9	
		12'	224	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	15	<10.0	
		13'	64	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
1/12/2023	H1	Surface	112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.2413620, -103.2086526
	H2	Surface	176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.24111745, -103.2087421



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

January 16, 2023

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: JIM CAMP WATER TRANSFER LINE

Enclosed are the results of analyses for samples received by the laboratory on 01/11/23 16:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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". The signature is written in a cursive, flowing style.

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:	01/11/2023	Sampling Date:	01/11/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 SURFACE (H230163-01)

BTX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.00	100	2.00	1.76	
Toluene*	<0.050	0.050	01/12/2023	ND	2.17	108	2.00	2.69	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.15	107	2.00	2.59	
Total Xylenes*	0.698	0.150	01/12/2023	ND	6.56	109	6.00	2.24	GC-NC1
Total BTX	0.698	0.300	01/12/2023	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 163 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4320	16.0	01/12/2023	ND	432	108	400	3.64	

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*	62.8	50.0	01/12/2023	ND	214	107	200	3.50	
DRO >C10-C28*	8950	50.0	01/12/2023	ND	250	125	200	9.50	
EXT DRO >C28-C36	1890	50.0	01/12/2023	ND					

Surrogate: 1-Chlorooctane 126 % 48.2-134

Surrogate: 1-Chlorooctadecane 226 % 49.1-148

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

Received:	01/11/2023	Sampling Date:	01/11/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 1' (H230163-02)

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.00	100	2.00	1.76	
Toluene*	0.118	0.050	01/12/2023	ND	2.17	108	2.00	2.69	GC-NC
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.15	107	2.00	2.59	
Total Xylenes*	2.58	0.150	01/12/2023	ND	6.56	109	6.00	2.24	GC-NC1
Total BTEX	2.69	0.300	01/12/2023	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 241 % 71.5-134

Chloride, SM4500Cl-B			mg/kg					Analyzed By: AC	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2800	16.0	01/12/2023	ND	432	108	400	3.64	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	325	50.0	01/12/2023	ND	214	107	200	3.50	
DRO >C10-C28*	3520	50.0	01/12/2023	ND	250	125	200	9.50	
EXT DRO >C28-C36	640	50.0	01/12/2023	ND					

Surrogate: 1-Chlorooctane 130 % 48.2-134

Surrogate: 1-Chlorooctadecane 138 % 49.1-148

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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:	01/11/2023	Sampling Date:	01/11/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 2' (H230163-03)

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	01/12/2023	ND	2.00	100	2.00	1.76	
Toluene*	2.83	0.200	01/12/2023	ND	2.17	108	2.00	2.69	GC-NC1
Ethylbenzene*	7.39	0.200	01/12/2023	ND	2.15	107	2.00	2.59	
Total Xylenes*	69.7	0.600	01/12/2023	ND	6.56	109	6.00	2.24	
Total BTEX	79.9	1.20	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 239 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1600	16.0	01/12/2023	ND	432	108	400	3.64	

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*	1290	50.0	01/12/2023	ND	214	107	200	3.50	
DRO >C10-C28*	6070	50.0	01/12/2023	ND	250	125	200	9.50	
EXT DRO >C28-C36	1020	50.0	01/12/2023	ND					

Surrogate: 1-Chlorooctane 182 % 48.2-134

Surrogate: 1-Chlorooctadecane 154 % 49.1-148

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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:	01/11/2023	Sampling Date:	01/11/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 3' (H230163-04)

BTX 8021B		mg/kg	Analyzed By: JH					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.00	100	2.00	1.76	
Toluene*	<0.050	0.050	01/12/2023	ND	2.17	108	2.00	2.69	
Ethylbenzene*	0.197	0.050	01/12/2023	ND	2.15	107	2.00	2.59	
Total Xylenes*	0.579	0.150	01/12/2023	ND	6.56	109	6.00	2.24	
Total BTX	0.776	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 142 % 71.5-134

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7520	16.0	01/12/2023	ND	432	108	400	3.64	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	19.6	10.0	01/12/2023	ND	214	107	200	3.50	
DRO >C10-C28*	382	10.0	01/12/2023	ND	250	125	200	9.50	
EXT DRO >C28-C36	61.3	10.0	01/12/2023	ND					

Surrogate: 1-Chlorooctane 92.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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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:	01/11/2023	Sampling Date:	01/11/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 4' (H230163-05)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.00	100	2.00	1.76	
Toluene*	<0.050	0.050	01/12/2023	ND	2.17	108	2.00	2.69	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.15	107	2.00	2.59	
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.56	109	6.00	2.24	
Total BTEx	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7280	16.0	01/12/2023	ND	432	108	400	3.64		

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	01/12/2023	ND	214	107	200	3.50	
DRO >C10-C28*	29.5	10.0	01/12/2023	ND	250	125	200	9.50	
EXT DRO >C28-C36	<10.0	10.0	01/12/2023	ND					

Surrogate: 1-Chlorooctane 82.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.0 % 49.1-148

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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:	01/11/2023	Sampling Date:	01/11/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 5' (H230163-06)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/12/2023	ND	2.00	100	2.00	1.76		
Toluene*	<0.050	0.050	01/12/2023	ND	2.17	108	2.00	2.69		
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.15	107	2.00	2.59		
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.56	109	6.00	2.24		
Total BTEx	<0.300	0.300	01/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4800	16.0	01/12/2023	ND	432	108	400	3.64		

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	01/12/2023	ND	214	107	200	3.50	
DRO >C10-C28*	203	10.0	01/12/2023	ND	250	125	200	9.50	
EXT DRO >C28-C36	31.8	10.0	01/12/2023	ND					

Surrogate: 1-Chlorooctane 96.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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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:	01/11/2023	Sampling Date:	01/11/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 6' (H230163-07)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.00	100	2.00	1.76	
Toluene*	<0.050	0.050	01/12/2023	ND	2.17	108	2.00	2.69	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.15	107	2.00	2.59	
Total Xylenes*	0.217	0.150	01/12/2023	ND	6.56	109	6.00	2.24	
Total BTEX	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 128 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7040	16.0	01/12/2023	ND	432	108	400	3.64		

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	01/12/2023	ND	214	107	200	3.50	
DRO >C10-C28*	302	10.0	01/12/2023	ND	250	125	200	9.50	
EXT DRO >C28-C36	51.3	10.0	01/12/2023	ND					

Surrogate: 1-Chlorooctane 83.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.7 % 49.1-148

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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:	01/11/2023	Sampling Date:	01/11/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 7' (H230163-08)

BTX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.00	100	2.00	1.76	
Toluene*	<0.050	0.050	01/12/2023	ND	2.17	108	2.00	2.69	
Ethylbenzene*	0.069	0.050	01/12/2023	ND	2.15	107	2.00	2.59	
Total Xylenes*	0.510	0.150	01/12/2023	ND	6.56	109	6.00	2.24	
Total BTX	0.579	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 135 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5600	16.0	01/12/2023	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	12.7	10.0	01/12/2023	ND	214	107	200	3.50	
DRO >C10-C28*	307	10.0	01/12/2023	ND	250	125	200	9.50	
EXT DRO >C28-C36	49.1	10.0	01/12/2023	ND					

Surrogate: 1-Chlorooctane 87.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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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:	01/11/2023	Sampling Date:	01/11/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 8' (H230163-09)

BTX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.00	100	2.00	1.76	
Toluene*	<0.050	0.050	01/12/2023	ND	2.17	108	2.00	2.69	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.15	107	2.00	2.59	
Total Xylenes*	0.152	0.150	01/12/2023	ND	6.56	109	6.00	2.24	
Total BTX	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 140 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5840	16.0	01/12/2023	ND	432	108	400	3.64	QM-07

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	13.2	10.0	01/12/2023	ND	214	107	200	3.50	
DRO >C10-C28*	644	10.0	01/12/2023	ND	250	125	200	9.50	
EXT DRO >C28-C36	119	10.0	01/12/2023	ND					

Surrogate: 1-Chlorooctane 88.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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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.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Apache Project Manager: Bruce Baker Address: City: Hobbs State: NM Zip: 88240 Phone #: Fax #: Project #: Project Owner: Project Location: Sim Camp Water Transfer Line Sample Name: Sose Creek FOR LAB USE ONLY				BILL TO P.O. #: Company: Attn: Address: City: State: Zip: Phone #: Fax #:			
Lab I.D. Sample I.D. H235163 1 sp1 surface 2 sp101' 3 sp102' 4 sp103' 5 sp104' 6 sp105' 7 sp106' 8 sp107' 9 sp108'				(G) RAB OR (C) OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :			
MATRIX PRESERV SAMPLING				DATE TIME 1/11 3:10 3:12 3:14 3:14 3:18 3:20 3:22 3:24 3:24			
Relinquished By: Sose Creek Date: 1/11/23 Time: 4:25 pm Received By: [Signature] Relinquished By: [Signature] Date: Time: Observed Temp. °C: 3.1 Corrected Temp. °C: 2.5 Sample Condition: Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No Checked By: [Signature] (Initials) Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Thermometer ID #113 Correction Factor -0.6°C Bacteria (only) Sample Condition: Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No Observed Temp. °C: Corrected Temp. °C:				Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: All Results are emailed. Please provide Email address: REMARKS: E-Mailed Results			



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

January 18, 2023

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: JIM CAMP WATER TRANSFER LINE

Enclosed are the results of analyses for samples received by the laboratory on 01/12/23 17:04.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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". The signature is written in a cursive, flowing style.

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:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/18/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: H 1 (H230185-01)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/14/2023	ND	2.05	102	2.00	3.03	
Toluene*	<0.050	0.050	01/14/2023	ND	2.20	110	2.00	3.12	
Ethylbenzene*	<0.050	0.050	01/14/2023	ND	2.15	107	2.00	3.01	
Total Xylenes*	<0.150	0.150	01/14/2023	ND	6.64	111	6.00	2.45	
Total BTX	<0.300	0.300	01/14/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 71.5-134

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	01/13/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/13/2023	ND	184	92.0	200	6.98	
DRO >C10-C28*	<10.0	10.0	01/13/2023	ND	179	89.4	200	7.18	
EXT DRO >C28-C36	<10.0	10.0	01/13/2023	ND					

Surrogate: 1-Chlorooctane 85.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.4 % 49.1-148

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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:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/18/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: H 2 (H230185-02)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/14/2023	ND	2.05	102	2.00	3.03	
Toluene*	<0.050	0.050	01/14/2023	ND	2.20	110	2.00	3.12	
Ethylbenzene*	<0.050	0.050	01/14/2023	ND	2.15	107	2.00	3.01	
Total Xylenes*	<0.150	0.150	01/14/2023	ND	6.64	111	6.00	2.45	
Total BTX	<0.300	0.300	01/14/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	01/13/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/14/2023	ND	184	92.0	200	6.98	
DRO >C10-C28*	<10.0	10.0	01/14/2023	ND	179	89.4	200	7.18	
EXT DRO >C28-C36	<10.0	10.0	01/14/2023	ND					

Surrogate: 1-Chlorooctane 93.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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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:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/18/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 9' (H230185-03)

BTX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/14/2023	ND	2.05	102	2.00	3.03	
Toluene*	0.053	0.050	01/14/2023	ND	2.20	110	2.00	3.12	GC-NC1
Ethylbenzene*	0.185	0.050	01/14/2023	ND	2.15	107	2.00	3.01	
Total Xylenes*	2.25	0.150	01/14/2023	ND	6.64	111	6.00	2.45	
Total BTX	2.49	0.300	01/14/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 160 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5360	16.0	01/13/2023	ND	416	104	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*	81.9	50.0	01/14/2023	ND	184	92.0	200	6.98	
DRO >C10-C28*	1530	50.0	01/14/2023	ND	179	89.4	200	7.18	
EXT DRO >C28-C36	286	50.0	01/14/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 179 % 49.1-148

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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:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/18/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 11' (H230185-04)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/14/2023	ND	2.05	102	2.00	3.03	
Toluene*	<0.050	0.050	01/14/2023	ND	2.20	110	2.00	3.12	
Ethylbenzene*	<0.050	0.050	01/14/2023	ND	2.15	107	2.00	3.01	
Total Xylenes*	<0.150	0.150	01/14/2023	ND	6.64	111	6.00	2.45	
Total BTEx	<0.300	0.300	01/14/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4000	16.0	01/13/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/14/2023	ND	184	92.0	200	6.98	
DRO >C10-C28*	187	10.0	01/14/2023	ND	179	89.4	200	7.18	
EXT DRO >C28-C36	59.6	10.0	01/14/2023	ND					

Surrogate: 1-Chlorooctane 96.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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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:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/18/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 13' (H230185-05)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/14/2023	ND	2.05	102	2.00	3.03	
Toluene*	<0.050	0.050	01/14/2023	ND	2.20	110	2.00	3.12	
Ethylbenzene*	<0.050	0.050	01/14/2023	ND	2.15	107	2.00	3.01	
Total Xylenes*	<0.150	0.150	01/14/2023	ND	6.64	111	6.00	2.45	
Total BTEx	<0.300	0.300	01/14/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 128 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4400	16.0	01/13/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/14/2023	ND	184	92.0	200	6.98	
DRO >C10-C28*	501	10.0	01/14/2023	ND	179	89.4	200	7.18	
EXT DRO >C28-C36	177	10.0	01/14/2023	ND					

Surrogate: 1-Chlorooctane 91.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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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:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/18/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 15' (H230185-06)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/14/2023	ND	2.05	102	2.00	3.03	
Toluene*	<0.050	0.050	01/14/2023	ND	2.20	110	2.00	3.12	
Ethylbenzene*	<0.050	0.050	01/14/2023	ND	2.15	107	2.00	3.01	
Total Xylenes*	<0.150	0.150	01/14/2023	ND	6.64	111	6.00	2.45	
Total BTX	<0.300	0.300	01/14/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3440	16.0	01/13/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/13/2023	ND	208	104	200	9.04	
DRO >C10-C28*	40.0	10.0	01/13/2023	ND	201	100	200	7.38	
EXT DRO >C28-C36	<10.0	10.0	01/13/2023	ND					

Surrogate: 1-Chlorooctane 89.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.7 % 49.1-148

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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:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/18/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 2 @ SURFACE (H230185-07)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/16/2023	ND	2.05	102	2.00	3.03		
Toluene*	<0.050	0.050	01/16/2023	ND	2.20	110	2.00	3.12		
Ethylbenzene*	<0.050	0.050	01/16/2023	ND	2.15	107	2.00	3.01		
Total Xylenes*	<0.150	0.150	01/16/2023	ND	6.64	111	6.00	2.45		
Total BTEx	<0.300	0.300	01/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 125 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1260	16.0	01/13/2023	ND	416	104	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*	<50.0	50.0	01/14/2023	ND	208	104	200	9.04	
DRO >C10-C28*	10200	50.0	01/14/2023	ND	201	100	200	7.38	
EXT DRO >C28-C36	2220	50.0	01/14/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 255 % 49.1-148

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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:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/18/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 2 @ 1' (H230185-08)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/14/2023	ND	2.05	102	2.00	3.03	
Toluene*	<0.050	0.050	01/14/2023	ND	2.20	110	2.00	3.12	
Ethylbenzene*	<0.050	0.050	01/14/2023	ND	2.15	107	2.00	3.01	
Total Xylenes*	<0.150	0.150	01/14/2023	ND	6.64	111	6.00	2.45	
Total BTEx	<0.300	0.300	01/14/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	01/13/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/14/2023	ND	208	104	200	9.04	
DRO >C10-C28*	<10.0	10.0	01/14/2023	ND	201	100	200	7.38	
EXT DRO >C28-C36	<10.0	10.0	01/14/2023	ND					

Surrogate: 1-Chlorooctane 91.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.8 % 49.1-148

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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:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/18/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 2 @ 3' (H230185-09)

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/14/2023	ND	2.05	102	2.00	3.03		
Toluene*	<0.050	0.050	01/14/2023	ND	2.20	110	2.00	3.12		
Ethylbenzene*	<0.050	0.050	01/14/2023	ND	2.15	107	2.00	3.01		
Total Xylenes*	<0.150	0.150	01/14/2023	ND	6.64	111	6.00	2.45		
Total BTX	<0.300	0.300	01/14/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1380	16.0	01/13/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/14/2023	ND	208	104	200	9.04	
DRO >C10-C28*	213	10.0	01/14/2023	ND	201	100	200	7.38	
EXT DRO >C28-C36	45.5	10.0	01/14/2023	ND					

Surrogate: 1-Chlorooctane 91.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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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:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/18/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 2 @ 5' (H230185-10)

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/14/2023	ND	2.05	102	2.00	3.03		
Toluene*	<0.050	0.050	01/14/2023	ND	2.20	110	2.00	3.12		
Ethylbenzene*	<0.050	0.050	01/14/2023	ND	2.15	107	2.00	3.01		
Total Xylenes*	<0.150	0.150	01/14/2023	ND	6.64	111	6.00	2.45		
Total BTX	<0.300	0.300	01/14/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1020	16.0	01/13/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/14/2023	ND	208	104	200	9.04	
DRO >C10-C28*	70.0	10.0	01/14/2023	ND	201	100	200	7.38	
EXT DRO >C28-C36	20.6	10.0	01/14/2023	ND					

Surrogate: 1-Chlorooctane 95.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.8 % 49.1-148

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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:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/18/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 2 @ 7' (H230185-11)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/14/2023	ND	2.05	102	2.00	3.03		
Toluene*	<0.050	0.050	01/14/2023	ND	2.20	110	2.00	3.12		
Ethylbenzene*	<0.050	0.050	01/14/2023	ND	2.15	107	2.00	3.01		
Total Xylenes*	<0.150	0.150	01/14/2023	ND	6.64	111	6.00	2.45		
Total BTEx	<0.300	0.300	01/14/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1720	16.0	01/13/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/14/2023	ND	208	104	200	9.04	
DRO >C10-C28*	<10.0	10.0	01/14/2023	ND	201	100	200	7.38	
EXT DRO >C28-C36	<10.0	10.0	01/14/2023	ND					

Surrogate: 1-Chlorooctane 90.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.5 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/18/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 2 @ 9' (H230185-12)

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/14/2023	ND	2.05	102	2.00	3.03		
Toluene*	<0.050	0.050	01/14/2023	ND	2.20	110	2.00	3.12		
Ethylbenzene*	<0.050	0.050	01/14/2023	ND	2.15	107	2.00	3.01		
Total Xylenes*	<0.150	0.150	01/14/2023	ND	6.64	111	6.00	2.45		
Total BTX	<0.300	0.300	01/14/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 125 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1250	16.0	01/13/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/14/2023	ND	208	104	200	9.04	
DRO >C10-C28*	31.4	10.0	01/14/2023	ND	201	100	200	7.38	
EXT DRO >C28-C36	<10.0	10.0	01/14/2023	ND					

Surrogate: 1-Chlorooctane 85.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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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.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
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

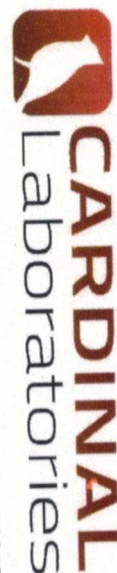
CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Hobbs</u>		P.O. #:		BILL TO																		
Project Manager: <u>Bruce Baker</u>		Company:		ANALYSIS REQUEST																		
Address:		Attn:																				
City: <u>Hobbs</u>		Address:																				
State: <u>NM</u> Zip: <u>88240</u>		City:																				
Phone #:		State:																				
Project #:		Zip:																				
Project Name:		Phone #:																				
Project Location: <u>Sim Canyon Water Transfer Line</u>		Fax #:																				
Sampler Name: <u>Steve Keene</u>																						
FOR LAB USE ONLY																						
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX			PRESERV.	SAMPLING														
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME								
<u>H230185</u>													<u>1/12</u>	<u>10:46</u>	<u>01</u>	<u>BTEX</u>	<u>EXT 7 PH</u>					
<u>1 H1</u>		<u>C</u>				<u>✓</u>							<u>✓</u>	<u>10:48</u>	<u>1</u>	<u>1</u>						
<u>2 H2</u>		<u>C</u>				<u>✓</u>							<u>✓</u>	<u>11:00</u>	<u>1</u>	<u>1</u>						
<u>3 SP109'</u>		<u>C</u>				<u>✓</u>							<u>✓</u>	<u>1:02</u>	<u>1</u>	<u>1</u>						
<u>4 SP1011'</u>		<u>C</u>				<u>✓</u>							<u>✓</u>	<u>1:04</u>	<u>1</u>	<u>1</u>						
<u>5 SP1013'</u>		<u>C</u>				<u>✓</u>							<u>✓</u>	<u>1:06</u>	<u>1</u>	<u>1</u>						
<u>6 SP1015'</u>		<u>C</u>				<u>✓</u>							<u>✓</u>	<u>4:12 PM</u>	<u>1</u>	<u>1</u>						
<u>7 SP2 Surface</u>		<u>C</u>				<u>✓</u>							<u>✓</u>	<u>4:14 PM</u>	<u>1</u>	<u>1</u>						
<u>8 SP201'</u>		<u>C</u>				<u>✓</u>							<u>✓</u>	<u>4:16 PM</u>	<u>1</u>	<u>1</u>						
<u>9 SP203'</u>		<u>C</u>				<u>✓</u>							<u>✓</u>	<u>4:18 PM</u>	<u>1</u>	<u>1</u>						
<u>10 SP205'</u>		<u>C</u>				<u>✓</u>							<u>✓</u>									

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Relinquished By: <u>Steve Keene</u>	Date: <u>1/12/23</u>	Received By: <u>Bruce Baker</u>	Time: <u>5:04 PM</u>
Relinquished By:	Date:	Received By:	Time:
Delivered By: (Circle One)	Observed Temp. °C	Corrected Temp. °C	Sample Condition
Sampler - UPS - Bus - Other:	<u>30</u>	<u>2.4</u>	Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>
Turnaround Time:	Thermometer ID #113	Correction Factor -0.6°C	Checked By: (Initials) <u>AK</u>
Remarks: <u>C-M-1/Rush</u>	Bacteria (only) Sample Condition	Cool Intact	Observed Temp. °C
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	Corrected Temp. °C

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

January 23, 2023

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: JIM CAMP WATER TRANSFER LINE

Enclosed are the results of analyses for samples received by the laboratory on 01/18/23 16:31.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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". The signature is written in a cursive, flowing style.

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:	01/18/2023	Sampling Date:	01/18/2023
Reported:	01/23/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 16' (H230264-01)

BTEX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/20/2023	ND	2.19	110	2.00	2.59	
Toluene*	<0.050	0.050	01/20/2023	ND	2.26	113	2.00	0.454	
Ethylbenzene*	<0.050	0.050	01/20/2023	ND	2.17	108	2.00	0.983	
Total Xylenes*	<0.150	0.150	01/20/2023	ND	6.67	111	6.00	0.781	
Total BTEX	<0.300	0.300	01/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3960	16.0	01/19/2023	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	01/19/2023	ND	197	98.6	200	4.55	
DRO >C10-C28*	<10.0	10.0	01/19/2023	ND	233	117	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	01/19/2023	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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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:	01/18/2023	Sampling Date:	01/18/2023
Reported:	01/23/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 18' (H230264-02)

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/20/2023	ND	2.19	110	2.00	2.59	
Toluene*	<0.050	0.050	01/20/2023	ND	2.26	113	2.00	0.454	
Ethylbenzene*	<0.050	0.050	01/20/2023	ND	2.17	108	2.00	0.983	
Total Xylenes*	<0.150	0.150	01/20/2023	ND	6.67	111	6.00	0.781	
Total BTX	<0.300	0.300	01/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3960	16.0	01/19/2023	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	01/19/2023	ND	197	98.6	200	4.55	
DRO >C10-C28*	<10.0	10.0	01/19/2023	ND	233	117	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	01/19/2023	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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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:	01/18/2023	Sampling Date:	01/18/2023
Reported:	01/23/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 20' (H230264-03)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/20/2023	ND	2.19	110	2.00	2.59		
Toluene*	<0.050	0.050	01/20/2023	ND	2.26	113	2.00	0.454		
Ethylbenzene*	<0.050	0.050	01/20/2023	ND	2.17	108	2.00	0.983		
Total Xylenes*	<0.150	0.150	01/20/2023	ND	6.67	111	6.00	0.781		
Total BTEx	<0.300	0.300	01/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2720	16.0	01/19/2023	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	01/19/2023	ND	197	98.6	200	4.55	
DRO >C10-C28*	<10.0	10.0	01/19/2023	ND	233	117	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	01/19/2023	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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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:	01/18/2023	Sampling Date:	01/18/2023
Reported:	01/23/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 2 @ 10' (H230264-04)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/20/2023	ND	2.19	110	2.00	2.59	
Toluene*	<0.050	0.050	01/20/2023	ND	2.26	113	2.00	0.454	
Ethylbenzene*	<0.050	0.050	01/20/2023	ND	2.17	108	2.00	0.983	
Total Xylenes*	<0.150	0.150	01/20/2023	ND	6.67	111	6.00	0.781	
Total BTEX	<0.300	0.300	01/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	432	16.0	01/19/2023	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	01/19/2023	ND	197	98.6	200	4.55	
DRO >C10-C28*	18.5	10.0	01/19/2023	ND	233	117	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	01/19/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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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:	01/18/2023	Sampling Date:	01/18/2023
Reported:	01/23/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 2 @ 11' (H230264-05)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/20/2023	ND	2.19	110	2.00	2.59		
Toluene*	<0.050	0.050	01/20/2023	ND	2.26	113	2.00	0.454		
Ethylbenzene*	<0.050	0.050	01/20/2023	ND	2.17	108	2.00	0.983		
Total Xylenes*	<0.150	0.150	01/20/2023	ND	6.67	111	6.00	0.781		
Total BTEx	<0.300	0.300	01/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	448	16.0	01/19/2023	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	01/19/2023	ND	190	95.1	200	3.70	
DRO >C10-C28*	65.8	10.0	01/19/2023	ND	189	94.5	200	0.126	
EXT DRO >C28-C36	12.9	10.0	01/19/2023	ND					

Surrogate: 1-Chlorooctane 89.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.5 % 49.1-148

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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:	01/18/2023	Sampling Date:	01/18/2023
Reported:	01/23/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 2 @ 12' (H230264-06)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/20/2023	ND	2.23	111	2.00	0.654		
Toluene*	<0.050	0.050	01/20/2023	ND	2.26	113	2.00	3.64		
Ethylbenzene*	<0.050	0.050	01/20/2023	ND	2.15	108	2.00	2.33		
Total Xylenes*	<0.150	0.150	01/20/2023	ND	6.50	108	6.00	2.32		
Total BTEx	<0.300	0.300	01/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

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	01/19/2023	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	01/19/2023	ND	190	95.1	200	3.70	
DRO >C10-C28*	15.0	10.0	01/19/2023	ND	189	94.5	200	0.126	
EXT DRO >C28-C36	<10.0	10.0	01/19/2023	ND					

Surrogate: 1-Chlorooctane 96.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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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:	01/18/2023	Sampling Date:	01/18/2023
Reported:	01/23/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 2 @ 13' (H230264-07)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/20/2023	ND	2.23	111	2.00	0.654		
Toluene*	<0.050	0.050	01/20/2023	ND	2.26	113	2.00	3.64		
Ethylbenzene*	<0.050	0.050	01/20/2023	ND	2.15	108	2.00	2.33		
Total Xylenes*	<0.150	0.150	01/20/2023	ND	6.50	108	6.00	2.32		
Total BTX	<0.300	0.300	01/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	01/19/2023	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	01/19/2023	ND	190	95.1	200	3.70	
DRO >C10-C28*	<10.0	10.0	01/19/2023	ND	189	94.5	200	0.126	
EXT DRO >C28-C36	<10.0	10.0	01/19/2023	ND					

Surrogate: 1-Chlorooctane 91.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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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.
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: Apache Project Manager: Bruce Baker Address: City: Hobbs State: ND Zip: 88240 Phone #: Fax #: Project #: Project Owner: Project Name: Project Location: Sim Camp Water Transfer Line Sampler Name: Rose Quezada FOR LAB USE ONLY				BILL TO P.O. #: Company: Attn: Address: City: State: Zip: Phone #: Fax #: 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		C1 BTEx EXT TPH	
HB30264		1 SPI 014' 2 SPI 018' 3 SPI 020' 4 SPI 010' 5 SPI 011' 6 SPI 012' 7 SPI 013'		5 5 5 5 5 5 5		1 1 1 1 1 1 1		1 1 1 1 1 1 1		1 1 1 1 1 1 1		1 1 1 1 1 1 1		1 1 1 1 1 1 1	
Relinquished By:		Date: 11/1/23		Received By:		Date: 11/1/23		Time: 4:31		Received By:		Date: 11/1/23		Time: 4:31	
Relinquished By:		Date: 11/1/23		Received By:		Date: 11/1/23		Time: 4:31		Received By:		Date: 11/1/23		Time: 4:31	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Observed Temp. °C Corrected Temp. °C		Sample Condition Cool Intact Yes Yes No No		CHECKED BY: (Initials)		Turnaround Time:		Standard Rush		Bacteria (only) Sample Condition Cool Intact Yes Yes No No		Corrected Temp. °C	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Observed Temp. °C Corrected Temp. °C		Sample Condition Cool Intact Yes Yes No No		CHECKED BY: (Initials)		Turnaround Time:		Standard Rush		Bacteria (only) Sample Condition Cool Intact Yes Yes No No		Corrected Temp. °C	



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

February 09, 2023

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: JIM CAMP WATER TRANSFER LINE

Enclosed are the results of analyses for samples received by the laboratory on 02/07/23 16:32.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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". The signature is written in a cursive, flowing style.

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:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 25 (H230533-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4000	16.0	02/09/2023	ND	432	108	400	0.00	

Sample ID: SP 1 @ 30 (H230533-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2880	16.0	02/09/2023	ND	432	108	400	0.00	

Sample ID: SP 1 @ 35 (H230533-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2960	16.0	02/09/2023	ND	432	108	400	0.00	

Sample ID: SP 1 @ 40 (H230533-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2960	16.0	02/09/2023	ND	432	108	400	0.00	

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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:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 45 (H230533-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3200	16.0	02/09/2023	ND	432	108	400	0.00	

Sample ID: SP 1 @ 50 (H230533-06)

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	02/09/2023	ND	432	108	400	0.00	

Sample ID: SP 1 @ 55 (H230533-07)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2880	16.0	02/09/2023	ND	432	108	400	0.00		

Sample ID: SP 1 @ 60 (H230533-08)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3000	16.0	02/09/2023	ND	432	108	400	0.00	

Sample ID: SP 1 @ 65 (H230533-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2520	16.0	02/09/2023	ND	432	108	400	0.00	

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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:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 70 (H230533-10)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2080	16.0	02/09/2023	ND	432	108	400	0.00		

Sample ID: SP 1 @ 75 (H230533-11)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1600	16.0	02/09/2023	ND	432	108	400	0.00		

Sample ID: SP 1 @ 80 (H230533-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1600	16.0	02/09/2023	ND	416	104	400	0.00	QM-07	

Sample ID: SP 1 @ 85 (H230533-13)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1150	16.0	02/09/2023	ND	416	104	400	0.00	

Sample ID: SP 1 @ 90 (H230533-14)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	752	16.0	02/09/2023	ND	416	104	400	0.00	

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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:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	JIM CAMP WATER TRANSFER LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ 95 (H230533-15)

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	02/09/2023	ND	416	104	400	0.00		

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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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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: B. Baker Apacela			P.O. #:			BILL TO					
Project Manager: B. Baker			Company:			ANALYSIS REQUEST					
Address:											
City: Hobbs			State: NM			Attn:					
Phone #:			Fax #:			Address:					
Project #:			Project Owner:			City:					
Project Name:			State:			Zip:					
Project Location: San Juan Water Transfer Line			Phone #:								
Sampler Name: Jose Quasada			Fax #:								
FOR LAB USE ONLY											
Lab I.D.			Sample I.D.								
H230533											
1 SP1e25			(G)RAB OR (C)OMP.								
2 SP1e30			# CONTAINERS								
3 SP1e35			GROUNDWATER								
4 SP1e40			WASTEWATER								
5 SP1e45			SOIL								
6 SP1e50			OIL								
7 SP1e55			SLUDGE								
8 SP1e60			OTHER :								
9 SP1e65			ACID/BASE:								
10 SP1e70			ICE / COOL								
			OTHER :								
			DATE								
			TIME								
			11:14								
			11:18								
			11:20								
			11:22								
			11:24								
			11:26								
			11:28								
			11:30								
			11:32								
			11:34								
PLEASE NOTE: Liability and Damages. Cardinal's liability and clients 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:			Date: 7/7			Received By:					
Jose Quasada			Time: 4:30 pm			Received By:					
Reinquinshed By:			Date:			Received By:					
			Time:								
Delivered By: (Circle One)			Observed Temp. °C 3.1			Sample Condition Cool Intact Yes Yes No No			CHECKED BY: (Initials) JQ		
Sampler - UPS - Bus - Other:			Corrected Temp. °C 8.5								
FORM-000 K-3.3-07/16/22											



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Apache		P.O. #:		BILL TO												ANALYSIS REQUEST																									
Project Manager: B. Baker		Company:																																							
Address:		Attn:																																							
City: Hobbs		Address:																																							
State: NM Zip: 88240		City:																																							
Phone #:		State:																																							
Fax #:		Zip:																																							
Project #:		Project Owner:																																							
Project Name:		Phone #:																																							
Project Location: 5m Camp Water Transfer Line		Fax #:																																							
Sampler Name:		PRESERV																																							
FOR LAB USE ONLY		SAMPLING																																							
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													
H230533		11 SPIE75		9		1																				2/2		11:36		1											
12 SPIE50		9		1																						11:38		1													
13 SPIE85		9		1																						11:40		1													
14 SPIE50		9		1																						11:42		1													
15 SPIE95		9		1																						11:44		1													

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Relinquished By: Sosek, Bob		Date: 4/7		Received By: [Signature]		Date: 4/30		Time: 4:30pm		Observed Temp. °C: 3.1		Corrected Temp. °C: 2.5		Sample Condition: Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: (Initials) AS		Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Bacteria (only) Sample Condition: Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID #113		Correction Factor -0.6°C		REMARKS: E-Mail Results	
Relinquished By:		Date:		Received By:		Date:		Time:		Observed Temp. °C:		Corrected Temp. °C:		Sample Condition:		CHECKED BY:		Turnaround Time:		Bacteria (only) Sample Condition:		Thermometer ID #113		Correction Factor -0.6°C		REMARKS:	

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

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 186064

CONDITIONS

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID: 873
	Action Number: 186064
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Remediation Plan Approved with Conditions. Variance for a liner is approved. Sidewall samples should be delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release, regardless of depth to groundwater.	2/23/2023