2350 W Marland Blvd Hobbs, NM 88240

Remediation Plan

October 27, 2020

Re: Turner Battery Water Transfer Line
Case # NRM2024528755

Background:

On 08/24/2020 a release occurred on a 3" poly flow line due to a split in the flow line. The release (GPS: 32.46367, -103.15219) is located north of Eunice, New Mexico in unit letter K section 22 township 21S range 37E. A groundwater survey was conducted utilizing the NMOSE and USGS wells of record. The nearest well of record suggest the groundwater depth below the release to be 53 feet.

On 9/16/2020 vertical delineation was conducted utilizing a backhoe. Samples were collected in one foot intervals. SP 1 was advanced to a depth of 4 foot and SP 2 was taken to a depth of 10 feet. Samples collected were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. On 10/1/2020 surface horizontal 5-point composite samples not to exceed 200 square feet were collected 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 4 foot. Final 5-point wall composites will be collected not exceeding 200 square feet and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. Once laboratory results for the walls are below table one standards for releases less than or equal to 50 feet to groundwater a 20-mil reinforced liner will be installed to a depth of 4 feet. All excavated material (382 yards) will be hauled to an OCD approved facility and backfilled with clean topsoil from the surrounding sand dunes as per the private surface landowners' guidelines. The remediation will be completed within 90 days of NMOCD approval of the plan.

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

Submitted by;

Jeff Broom
Environmental Technician
Jeffrey.Broom@apachecorp.com
Cell# 432-664-4677
Off# 575-393-7106

State of New Mexico
Oil Conservation Division

Incident ID	NRM2024528755
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?	53 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☑ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☑ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☑ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☑ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☑ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☑ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☑ Yes ☐ No

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

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

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

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

Form C-141 State of New Mexico
Page 4 Oil Conservation Division

Incident ID	NRM2024528755
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: Jeff Broom Title: Environmental Tech III

Signature: Jeff Broom Date: 10/27/2020

email: Jeffrey.Broom@apachecorp.com Telephone: 432.664.4677

OCD Only

Received by: Cristina Eads Date: 01/15/2021

State of New Mexico
Oil Conservation Division

Incident ID	NRM2024528755
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: Jeff Broom Title: Environmental Tech III

Signature: Jeff Broom Date: 10/27/2020

email: Jeffrey.Broom@apachecorp.com Telephone: 432.664.4677

OCD Only

Received by: Cristina Eads Date: 01/15/2021

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

Signature: Date: 01/15/2021

New Mexico Office of the State Engineer

Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Twn	Rng	(NAD83 UTM in meters) X	Y
	CP 00881	4	4		22	21S	37E	674402	3592824*

Driller License: 571 **Driller Company:** "GLASSPOOLE, GEORGE ""BILL"" W.E "

Driller Name: GLASSPOOLE, GEORGE W.

Drill Start Date: 09/04/1999 **Drill Finish Date:** 09/07/1999 **Plug Date:**

Log File Date: 09/10/1999 **PCW Rcv Date:** **Source:** Shallow

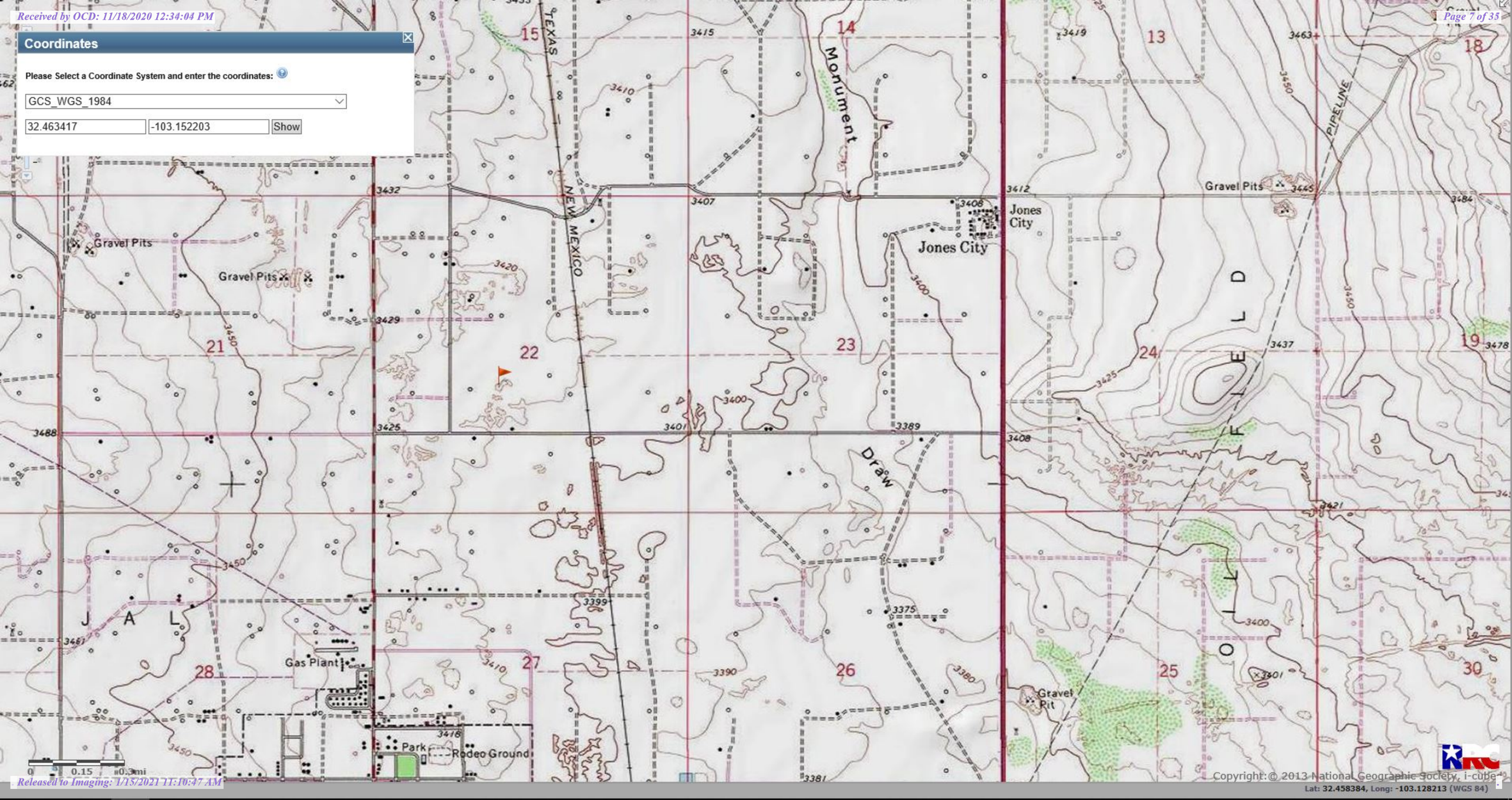
Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 80 GPM

Casing Size: 5.50 **Depth Well:** 95 feet **Depth Water:** 53 feet

Water Bearing Stratifications:	Top	Bottom	Description
	53	95	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	75	95

***UTM location was derived from PLSS - see Help**



NEDU Injection Line

Complete List

Map ID	Sample Date	Sample ID	Depth	Field Chloride	Chloride	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
SP1	9/16/2020	SP1 @ Surface	S	7,431	5,920	<.050	<.050	<.050	<.150	<.300	<10.0	86.7	65.9	32.463693 -103.152332
	9/16/2020	SP1 @ 1'	1'	2,574	2,400	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	
	9/16/2020	SP1 @ 2'	2'	2,018	1,880	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	
	9/16/2020	SP1 @ 3'	3'	1,810	1,440	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	
	9/16/2020	SP1 @ 4'	4'	389	112	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	
	9/16/2020	SP1 @ 5'	5'	282										
SP2	9/16/2020	SP2 @ Surface	S	3,273	3,280	<.050	<.050	<.050	<.150	<.300	<10.0	12.2	<10.0	32.463807 -103.152128
	9/16/2020	SP2 @ 1'	1'	2,609	2,480	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	
	9/16/2020	SP2 @ 2'	2'	3,228	2,800	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	
	9/16/2020	SP2 @ 3'	3'	2,909	2,800	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	
	9/16/2020	SP2 @ 4'	4'	1,791	1,550	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	
	9/16/2020	SP2 @ 5'	5'	1,179										
	9/16/2020	SP2 @ 6'	6'	1,425	1,880	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	
	9/16/2020	SP2 @ 7'	7'	1,255										
	9/16/2020	SP2 @ 8'	8'	881	800	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	
	9/16/2020	SP2 @ 9'	9'	605										
	9/16/2020	SP2 @ 10'	10'	481	256	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	
HC1	10/1/2020	HC1	S	149	<16.0	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	32.46367 -103.15220
HC2	10/1/2020	HC2	S	146	<16.0	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	32.46384 -103.15206
HC3	10/1/2020	HC3	S	119	<16.0	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	32.46387 -103.15217
HC4	10/1/2020	HC4	S	179	32	<.050	<.050	<.050	<.150	<.300	<10.0	<10.0	<10.0	32.46379 -103.15227

CARDINAL Laboratories

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

September 21, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: TURNER BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 09/16/20 12:22.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/16/2020	Sampling Date:	09/16/2020
Reported:	09/21/2020	Sampling Type:	Soil
Project Name:	TURNER BATTERY	Sampling Condition:	** (See Notes)
Project Number:	WATER TRANSFER LINE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP - 1 @ SURFACE (H002462-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2020	ND	1.99	99.5	2.00	4.86	
Toluene*	<0.050	0.050	09/16/2020	ND	2.00	100	2.00	5.27	
Ethylbenzene*	<0.050	0.050	09/16/2020	ND	1.97	98.7	2.00	5.60	
Total Xylenes*	<0.150	0.150	09/16/2020	ND	5.68	94.6	6.00	5.62	
Total BTEX	<0.300	0.300	09/16/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *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	**5920**	16.0	09/17/2020	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/16/2020	ND	180	90.2	200	1.55	
DRO >C10-C28*	**86.7**	10.0	09/16/2020	ND	177	88.7	200	1.18	
EXT DRO >C28-C36	**65.9**	10.0	09/16/2020	ND					

Surrogate: 1-Chlorooctane *89.7 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *100 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/16/2020	Sampling Date:	09/16/2020
Reported:	09/21/2020	Sampling Type:	Soil
Project Name:	TURNER BATTERY	Sampling Condition:	** (See Notes)
Project Number:	WATER TRANSFER LINE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP - 1 @ 1' (H002462-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2020	ND	1.99	99.5	2.00	4.86	
Toluene*	<0.050	0.050	09/16/2020	ND	2.00	100	2.00	5.27	
Ethylbenzene*	<0.050	0.050	09/16/2020	ND	1.97	98.7	2.00	5.60	
Total Xylenes*	<0.150	0.150	09/16/2020	ND	5.68	94.6	6.00	5.62	
Total BTEX	<0.300	0.300	09/16/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.9 %* *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	**2400**	16.0	09/17/2020	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/16/2020	ND	184	92.0	200	2.27	
DRO >C10-C28*	<10.0	10.0	09/16/2020	ND	191	95.7	200	2.20	
EXT DRO >C28-C36	<10.0	10.0	09/16/2020	ND					

Surrogate: 1-Chlorooctane *96.5 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *106 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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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:	09/16/2020	Sampling Date:	09/16/2020
Reported:	09/21/2020	Sampling Type:	Soil
Project Name:	TURNER BATTERY	Sampling Condition:	** (See Notes)
Project Number:	WATER TRANSFER LINE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP - 1 @ 2' (H002462-03)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2020	ND	1.99	99.5	2.00	4.86	
Toluene*	<0.050	0.050	09/16/2020	ND	2.00	100	2.00	5.27	
Ethylbenzene*	<0.050	0.050	09/16/2020	ND	1.97	98.7	2.00	5.60	
Total Xylenes*	<0.150	0.150	09/16/2020	ND	5.68	94.6	6.00	5.62	
Total BTEX	<0.300	0.300	09/16/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.2 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1880**	16.0	09/17/2020	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/16/2020	ND	184	92.0	200	2.27	
DRO >C10-C28*	<10.0	10.0	09/16/2020	ND	191	95.7	200	2.20	
EXT DRO >C28-C36	<10.0	10.0	09/16/2020	ND					

Surrogate: 1-Chlorooctane *100 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *109 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

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:	09/16/2020	Sampling Date:	09/16/2020
Reported:	09/21/2020	Sampling Type:	Soil
Project Name:	TURNER BATTERY	Sampling Condition:	** (See Notes)
Project Number:	WATER TRANSFER LINE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP - 1 @ 3' (H002462-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2020	ND	1.99	99.5	2.00	4.86	
Toluene*	<0.050	0.050	09/16/2020	ND	2.00	100	2.00	5.27	
Ethylbenzene*	<0.050	0.050	09/16/2020	ND	1.97	98.7	2.00	5.60	
Total Xylenes*	<0.150	0.150	09/16/2020	ND	5.68	94.6	6.00	5.62	
Total BTEX	<0.300	0.300	09/16/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.5 %* *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	**1440**	16.0	09/17/2020	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/16/2020	ND	184	92.0	200	2.27	
DRO >C10-C28*	<10.0	10.0	09/16/2020	ND	191	95.7	200	2.20	
EXT DRO >C28-C36	<10.0	10.0	09/16/2020	ND					

Surrogate: 1-Chlorooctane *93.0 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *102 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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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:	09/16/2020	Sampling Date:	09/16/2020
Reported:	09/21/2020	Sampling Type:	Soil
Project Name:	TURNER BATTERY	Sampling Condition:	** (See Notes)
Project Number:	WATER TRANSFER LINE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP - 1 @ 4' (H002462-05)

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	09/16/2020	ND	2.15	107	2.00	1.34	
Toluene*	<0.050	0.050	09/16/2020	ND	2.18	109	2.00	1.51	
Ethylbenzene*	<0.050	0.050	09/16/2020	ND	2.16	108	2.00	1.27	
Total Xylenes*	<0.150	0.150	09/16/2020	ND	6.21	104	6.00	1.20	
Total BTEX	<0.300	0.300	09/16/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *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	**112**	16.0	09/17/2020	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/16/2020	ND	184	92.0	200	2.27	
DRO >C10-C28*	<10.0	10.0	09/16/2020	ND	191	95.7	200	2.20	
EXT DRO >C28-C36	<10.0	10.0	09/16/2020	ND					

Surrogate: 1-Chlorooctane *92.5 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *101 %* *42.2-156*

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Received:	09/16/2020	Sampling Date:	09/16/2020
Reported:	09/21/2020	Sampling Type:	Soil
Project Name:	TURNER BATTERY	Sampling Condition:	** (See Notes)
Project Number:	WATER TRANSFER LINE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP - 2 @ SURFACE (H002462-06)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2020	ND	2.15	107	2.00	1.34	
Toluene*	<0.050	0.050	09/16/2020	ND	2.18	109	2.00	1.51	
Ethylbenzene*	<0.050	0.050	09/16/2020	ND	2.16	108	2.00	1.27	
Total Xylenes*	<0.150	0.150	09/16/2020	ND	6.21	104	6.00	1.20	
Total BTEX	<0.300	0.300	09/16/2020	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3280**	16.0	09/17/2020	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/16/2020	ND	184	92.0	200	2.27	
DRO >C10-C28*	**12.2**	10.0	09/16/2020	ND	191	95.7	200	2.20	
EXT DRO >C28-C36	<10.0	10.0	09/16/2020	ND					

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

Surrogate: 1-Chlorooctadecane *118 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/16/2020	Sampling Date:	09/16/2020
Reported:	09/21/2020	Sampling Type:	Soil
Project Name:	TURNER BATTERY	Sampling Condition:	** (See Notes)
Project Number:	WATER TRANSFER LINE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP - 2 @ 1' (H002462-07)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2020	ND	2.15	107	2.00	1.34	
Toluene*	<0.050	0.050	09/16/2020	ND	2.18	109	2.00	1.51	
Ethylbenzene*	<0.050	0.050	09/16/2020	ND	2.16	108	2.00	1.27	
Total Xylenes*	<0.150	0.150	09/16/2020	ND	6.21	104	6.00	1.20	
Total BTEX	<0.300	0.300	09/16/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.3 %* *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	**2480**	16.0	09/17/2020	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/16/2020	ND	184	92.0	200	2.27	
DRO >C10-C28*	<10.0	10.0	09/16/2020	ND	191	95.7	200	2.20	
EXT DRO >C28-C36	<10.0	10.0	09/16/2020	ND					

Surrogate: 1-Chlorooctane *107 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *117 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/16/2020	Sampling Date:	09/16/2020
Reported:	09/21/2020	Sampling Type:	Soil
Project Name:	TURNER BATTERY	Sampling Condition:	** (See Notes)
Project Number:	WATER TRANSFER LINE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP - 2 @ 2' (H002462-08)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2020	ND	2.15	107	2.00	1.34	
Toluene*	<0.050	0.050	09/16/2020	ND	2.18	109	2.00	1.51	
Ethylbenzene*	<0.050	0.050	09/16/2020	ND	2.16	108	2.00	1.27	
Total Xylenes*	<0.150	0.150	09/16/2020	ND	6.21	104	6.00	1.20	
Total BTEX	<0.300	0.300	09/16/2020	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2800**	16.0	09/17/2020	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/16/2020	ND	184	92.0	200	2.27	
DRO >C10-C28*	<10.0	10.0	09/16/2020	ND	191	95.7	200	2.20	
EXT DRO >C28-C36	<10.0	10.0	09/16/2020	ND					

Surrogate: 1-Chlorooctane *107 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *117 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/16/2020	Sampling Date:	09/16/2020
Reported:	09/21/2020	Sampling Type:	Soil
Project Name:	TURNER BATTERY	Sampling Condition:	** (See Notes)
Project Number:	WATER TRANSFER LINE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP - 2 @ 3' (H002462-09)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2020	ND	2.15	107	2.00	1.34	
Toluene*	<0.050	0.050	09/16/2020	ND	2.18	109	2.00	1.51	
Ethylbenzene*	<0.050	0.050	09/16/2020	ND	2.16	108	2.00	1.27	
Total Xylenes*	<0.150	0.150	09/16/2020	ND	6.21	104	6.00	1.20	
Total BTEX	<0.300	0.300	09/16/2020	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2800**	16.0	09/17/2020	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/16/2020	ND	184	92.0	200	2.27	
DRO >C10-C28*	<10.0	10.0	09/16/2020	ND	191	95.7	200	2.20	
EXT DRO >C28-C36	<10.0	10.0	09/16/2020	ND					

Surrogate: 1-Chlorooctane *99.1 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *110 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/16/2020	Sampling Date:	09/16/2020
Reported:	09/21/2020	Sampling Type:	Soil
Project Name:	TURNER BATTERY	Sampling Condition:	** (See Notes)
Project Number:	WATER TRANSFER LINE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP - 2 @ 4' (H002462-10)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2020	ND	2.15	107	2.00	1.34	
Toluene*	<0.050	0.050	09/16/2020	ND	2.18	109	2.00	1.51	
Ethylbenzene*	<0.050	0.050	09/16/2020	ND	2.16	108	2.00	1.27	
Total Xylenes*	<0.150	0.150	09/16/2020	ND	6.21	104	6.00	1.20	
Total BTEX	<0.300	0.300	09/16/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.5 %* *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	**1550**	16.0	09/17/2020	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	09/16/2020	ND	184	92.0	200	2.27	
DRO >C10-C28*	<10.0	10.0	09/16/2020	ND	191	95.7	200	2.20	
EXT DRO >C28-C36	<10.0	10.0	09/16/2020	ND					

Surrogate: 1-Chlorooctane *98.2 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *109 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/16/2020	Sampling Date:	09/16/2020
Reported:	09/21/2020	Sampling Type:	Soil
Project Name:	TURNER BATTERY	Sampling Condition:	** (See Notes)
Project Number:	WATER TRANSFER LINE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP - 2 @ 6' (H002462-11)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2020	ND	2.15	107	2.00	1.34	
Toluene*	<0.050	0.050	09/16/2020	ND	2.18	109	2.00	1.51	
Ethylbenzene*	<0.050	0.050	09/16/2020	ND	2.16	108	2.00	1.27	
Total Xylenes*	<0.150	0.150	09/16/2020	ND	6.21	104	6.00	1.20	
Total BTEX	<0.300	0.300	09/16/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *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	**1880**	16.0	09/17/2020	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	09/16/2020	ND	184	92.0	200	2.27	
DRO >C10-C28*	<10.0	10.0	09/16/2020	ND	191	95.7	200	2.20	
EXT DRO >C28-C36	<10.0	10.0	09/16/2020	ND					

Surrogate: 1-Chlorooctane *92.2 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *101 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/16/2020	Sampling Date:	09/16/2020
Reported:	09/21/2020	Sampling Type:	Soil
Project Name:	TURNER BATTERY	Sampling Condition:	** (See Notes)
Project Number:	WATER TRANSFER LINE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP - 2 @ 8' (H002462-12)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2020	ND	2.15	107	2.00	1.34	
Toluene*	<0.050	0.050	09/16/2020	ND	2.18	109	2.00	1.51	
Ethylbenzene*	<0.050	0.050	09/16/2020	ND	2.16	108	2.00	1.27	
Total Xylenes*	<0.150	0.150	09/16/2020	ND	6.21	104	6.00	1.20	
Total BTEX	<0.300	0.300	09/16/2020	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**800**	16.0	09/17/2020	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	09/16/2020	ND	184	92.0	200	2.27	
DRO >C10-C28*	<10.0	10.0	09/16/2020	ND	191	95.7	200	2.20	
EXT DRO >C28-C36	<10.0	10.0	09/16/2020	ND					

Surrogate: 1-Chlorooctane *104 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *113 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/16/2020	Sampling Date:	09/16/2020
Reported:	09/21/2020	Sampling Type:	Soil
Project Name:	TURNER BATTERY	Sampling Condition:	** (See Notes)
Project Number:	WATER TRANSFER LINE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP - 2 @ 10' (H002462-13)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2020	ND	2.15	107	2.00	1.34	
Toluene*	<0.050	0.050	09/16/2020	ND	2.18	109	2.00	1.51	
Ethylbenzene*	<0.050	0.050	09/16/2020	ND	2.16	108	2.00	1.27	
Total Xylenes*	<0.150	0.150	09/16/2020	ND	6.21	104	6.00	1.20	
Total BTEX	<0.300	0.300	09/16/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.6 %* *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	**256**	16.0	09/17/2020	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	09/16/2020	ND	184	92.0	200	2.27	
DRO >C10-C28*	<10.0	10.0	09/16/2020	ND	191	95.7	200	2.20	
EXT DRO >C28-C36	<10.0	10.0	09/16/2020	ND					

Surrogate: 1-Chlorooctane *67.7 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *72.9 %* *42.2-156*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

		BILL TO	
Company Name:	Apache	P.O. #:	
Project Manager:	Seth Broom	Company:	
Address:		Attn:	
City:	Hobbs	State: NM Zip: 88240	Address:
Phone #:	Fax #:	City:	
Project #:	Project Owner:	State: Zip:	
Project Name:	Twine Battery wash water Transfer Line	Phone #:	
Project Location:		Fax #:	
Sampler Name:	Jose Quesada		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Cl	BTEX	8XT TPH
H002462																	
1	Sp1@ Surface	G	1			✓					✓		9/16	10:38	1	1	1
2	Sp1@1'	G	1			✓					✓			10:40	1	1	1
3	Sp1@2'	G	1			✓					✓			10:42	1	1	1
4	Sp1@3'	G	1			✓					✓			10:44	1	1	1
5	Sp1@4'	G	1			✓					✓			10:46	1	1	1
6	Sp2@ Surface	G	1			✓					✓			1051	1	1	1
7	Sp2@1'	G	1			✓					✓			10:53	1	1	1
8	Sp2@2'	G	1			✓					✓			10:55	1	1	1
9	Sp2@3'	G	1			✓					✓			10:57	1	1	1
10	Sp2@4	G	1			✓					✓			10:59	1	1	1

Relinquished By: Jose Quesada	Date: 9/16/20 Time: 12:22pm	Received By: Tamara Oldaker	Verbal Result: ☐ Yes ☐ No Add'l Phone #: All Results are emailed. Please provide Email address:
Relinquished By:	Date: Time:	Received By:	REMARKS: E-Mail Results Brought to lab from field
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 8.3 Corrected Temp. °C	Sample Condition Cool: ☐ Yes ☑ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials) TO.

Turnaround Time: Standard ☑ Rush ☐ Bacteria (only) Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No Observed Temp. °C
Thermometer ID ~~#97~~ TP. #113 Correction Factor ~~+0.4 °C~~ 9/16/20 Corrected Temp. °C

FORM-006 R 3.0

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

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

		BILL TO	
Company Name:	Apache	P.O. #:	
Project Manager:	Jeff Broom	Company:	
Address:		Attn:	
City:	Hobbs	State: NM Zip: 88240	Address:
Phone #:	Fax #:	City:	
Project #:	Project Owner:	State: Zip:	
Project Name:	Turner Bethay Water Transfer Line	Phone #:	
Project Location:		Fax #:	
Sampler Name:	Jose Rosales		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST												
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Cl	BTEX	EXT+TPH										
H002462																										
11	SP2@6'	G	1			1					1		9/16	11:32	1	1	1									
12	SP2@8'	G	1			1					1		9/16	11:34	1	1	1									
13	SP2@10	G	1			1					1		9/16	11:36	1	1	1									

Relinquished By: Jose Rosales	Date: 9/16/20 Time: 12:22 pm	Received By: Tamara Oldaker	Verbal Result: ☐ Yes ☐ No Add'l Phone #: All Results are emailed. Please provide Email address:
Relinquished By:	Date: Time:	Received By:	REMARKS: E-mail Results Brought to lab from field
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 83 Corrected Temp. °C	Sample Condition Cool ☑ Yes ☐ No Intact ☐ Yes ☑ No	CHECKED BY: (Initials) JO
Turnaround Time: Standard ☑ Rush ☐	Thermometer ID #97 ~~#113~~ JO Correction Factor ~~+0.4 °C~~ 9/16/20	Bacteria (only) Sample Condition Cool ☐ Yes Intact ☐ Yes ☐ No ☐ No	Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.0

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

CARDINAL Laboratories

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

October 07, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: TURNER BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 10/01/20 12:26.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/01/2020	Sampling Date:	10/01/2020
Reported:	10/07/2020	Sampling Type:	Soil
Project Name:	TURNER BATTERY	Sampling Condition:	Cool & Intact
Project Number:	WATER TRANSFER LINE	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: HC 1 (H002610-01)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/03/2020	ND	2.13	107	2.00	2.86	
Toluene*	<0.050	0.050	10/03/2020	ND	2.14	107	2.00	2.35	
Ethylbenzene*	<0.050	0.050	10/03/2020	ND	2.11	106	2.00	2.19	
Total Xylenes*	<0.150	0.150	10/03/2020	ND	6.50	108	6.00	2.15	
Total BTEX	<0.300	0.300	10/03/2020	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/02/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/02/2020	ND	210	105	200	6.29	
DRO >C10-C28*	<10.0	10.0	10/02/2020	ND	213	106	200	8.52	
EXT DRO >C28-C36	<10.0	10.0	10/02/2020	ND					

Surrogate: 1-Chlorooctane *108 %* *44.3-144*

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/01/2020	Sampling Date:	10/01/2020
Reported:	10/07/2020	Sampling Type:	Soil
Project Name:	TURNER BATTERY	Sampling Condition:	Cool & Intact
Project Number:	WATER TRANSFER LINE	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: HC 2 (H002610-02)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/03/2020	ND	2.13	107	2.00	2.86	
Toluene*	<0.050	0.050	10/03/2020	ND	2.14	107	2.00	2.35	
Ethylbenzene*	<0.050	0.050	10/03/2020	ND	2.11	106	2.00	2.19	
Total Xylenes*	<0.150	0.150	10/03/2020	ND	6.50	108	6.00	2.15	
Total BTEX	<0.300	0.300	10/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/02/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/02/2020	ND	220	110	200	8.64	
DRO >C10-C28*	<10.0	10.0	10/02/2020	ND	214	107	200	8.07	
EXT DRO >C28-C36	<10.0	10.0	10/02/2020	ND					

Surrogate: 1-Chlorooctane *95.4 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *92.9 %* *42.2-156*

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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:	10/01/2020	Sampling Date:	10/01/2020
Reported:	10/07/2020	Sampling Type:	Soil
Project Name:	TURNER BATTERY	Sampling Condition:	Cool & Intact
Project Number:	WATER TRANSFER LINE	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: HC 3 (H002610-03)

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	10/03/2020	ND	2.13	107	2.00	2.86	
Toluene*	<0.050	0.050	10/03/2020	ND	2.14	107	2.00	2.35	
Ethylbenzene*	<0.050	0.050	10/03/2020	ND	2.11	106	2.00	2.19	
Total Xylenes*	<0.150	0.150	10/03/2020	ND	6.50	108	6.00	2.15	
Total BTEX	<0.300	0.300	10/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/02/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/02/2020	ND	220	110	200	8.64	
DRO >C10-C28*	<10.0	10.0	10/02/2020	ND	214	107	200	8.07	
EXT DRO >C28-C36	<10.0	10.0	10/02/2020	ND					

Surrogate: 1-Chlorooctane *96.3 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *99.9 %* *42.2-156*

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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:	10/01/2020	Sampling Date:	10/01/2020
Reported:	10/07/2020	Sampling Type:	Soil
Project Name:	TURNER BATTERY	Sampling Condition:	Cool & Intact
Project Number:	WATER TRANSFER LINE	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: HC 4 (H002610-04)

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	10/03/2020	ND	2.13	107	2.00	2.86	
Toluene*	<0.050	0.050	10/03/2020	ND	2.14	107	2.00	2.35	
Ethylbenzene*	<0.050	0.050	10/03/2020	ND	2.11	106	2.00	2.19	
Total Xylenes*	<0.150	0.150	10/03/2020	ND	6.50	108	6.00	2.15	
Total BTEX	<0.300	0.300	10/03/2020	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	10/02/2020	ND	416	104	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	10/02/2020	ND	220	110	200	8.64	
DRO >C10-C28*	<10.0	10.0	10/02/2020	ND	214	107	200	8.07	
EXT DRO >C28-C36	<10.0	10.0	10/02/2020	ND					

Surrogate: 1-Chlorooctane *99.5 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *96.9 %* *42.2-156*

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Notes and Definitions

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

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: APACHE CORPORATION
Project Manager: BRUCE BAKER
Address:
City: State: Zip:
Phone #: Fax #:
Project #: Project Owner:
Project Name: Turner Battery Water Transfer Line
Project Location: " " " " "
Sampler Name: Jeff Brown

BILL TO
P.O. #:
Company:
Attn:
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	CL	BTEX	EXT. TPH
H002610																	
1	HC2	C				✓							10/1/20	1128	✓	✓	✓
2	HC2	C				✓								1130	✓	✓	✓
3	HC3	C				✓								1132	✓	✓	✓
4	HC4	C				✓							10/1/20	1134	✓	✓	✓

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

Relinquished By: Jeff Brown Date: 10/1/20 Time: 1226
Received By: Jodi Henson
Relinquished By: Date: Time:
Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
REMARKS:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 2.0 Corrected Temp. °C
Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials)
Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #113 Correction Factor None
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.1 06/04/20

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

Sept 16, 2020 Apache Turner Argo Flow line
Soil Delineation

Sp1 surface 32.463693 -103.152332
10.9 / 30.3 2.5² 2.77 = 7.431 x lab
Sp1@1'
10.0 / 30.3 0.85 3.03 = 2574 x lab
Sp1@2'
10.3 / 30.6 0.68 2.97 = 2,018 x lab
Sp1@3'
10.6 / 30.0 0.64 2.83 = 1,810 x lab
Sp1@4'
10.1 / 30.3 0.13 3.00 = 389 ✓ Lab
Sp1@5'
10.4 / 30.1 0.10 2.83 = 282 ✓
Sp1@6'
10.3 / 30.4 2.95 =
Sp2 surface 32.463807 -103.152128
10.2 / 30.1 1.11 2.95 = 3,273 ✓ Lab
Sp2@1'
10.4 / 30.2 0.90 2.90 = 2,609 x Lab
Sp2@2
10.2 / 30.5 1.08 2.99 = 3,228 x Lab
Sp2@3'
10.31 30.0 1.0 2.91 = 2909 x Lab
Sp2@4'
10.4 / 30.1 .62 2.89 = 1,791 x Lab
Sp2@5'
10.3 / 30.4 0.40 2.95 = 1,179 x
Sp2@6'
10.2 / 30.3 .48 2.97 = 1425 x
Sp2@7'
10.1 / 30.2 0.42 2.99 = 1255 x
Sp2@8'
10.2 / 30.0 0.3 2.94 = 881 x
Sp2@9'
10.0 / 30.3 .20 3.03 = 605 x
Sp2@10'
10.0 / 30.1 0.16 3.01 = 481 ✓

= 211 ✓
= 158 ✓
= 750 x
375 ✓
= 186 ✓
344 ✓

Lea Com 26-35-19
WA #2H

295 ✓
2556 x
242 ✓
213 ✓
1006 x
294 ✓
= 326 ✓

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 11250

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
APACHE CORPORATION 303 Veterans Airpark Ln #1000 Midland, TX79705	873	11250	C-141

OCD Reviewer	Condition
ceads	None