



303 Veterans Airpark Lane Midland, TX 79705

Remediation Plan

May 19, 2022

Re: Elliot B9 Disposal
Case nAPP2206827379

Background:

On 2/22/2022 a release occurred due a 6 -inch water injection line failed. The release (GPS: 32.41421, -103.19460) is located south of Eunice, New Mexico in unit letter P section 6 township 22S range 37E. A groundwater survey was conducted utilizing NMOSE wells of record. The nearest well suggest groundwater beneath the release to be 73 feet.

On 3/2/2022 vertical delineation was conducted at 4 sample points to a depth of 1 foot. 5-point surface horizontal samples were collected not to exceed 200 square feet. All samples collected were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. Laboratory results were below table one standards for releases 51-100 to groundwater. Laboratory results for H1 was above 600 on chloride. On 4/14/2022 another 5-point surface horizontal samples were collected and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX.

Remediation Plan:

Apache Corporation proposes that final 5-point bottom composite samples be collected not to exceed 500 square feet. All samples collected with be submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. If laboratory results are below table one standards for chloride, TPH, and BTEX at the surface no excavation will occur. If laboratory results are above table one standards for releases 51-100 feet to groundwater, then those area will be excavated to below table one standards. If excavation is required, then all excavated soil will be hauled to an OCD approved disposal facility and the excavation will be backfilled with clean imported caliche to ground surface to restore the lease pad. The remediation will be completed in 90 days of OCD approval of the plan.

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

Submitted by.

Bruce Baker

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

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>73</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: Larry Baker Title: Environmental Tech SR.
Signature: *Larry Baker* Date: 05/17/2022
email: larry.baker@apachecorp.com Telephone: 432-215-2284

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

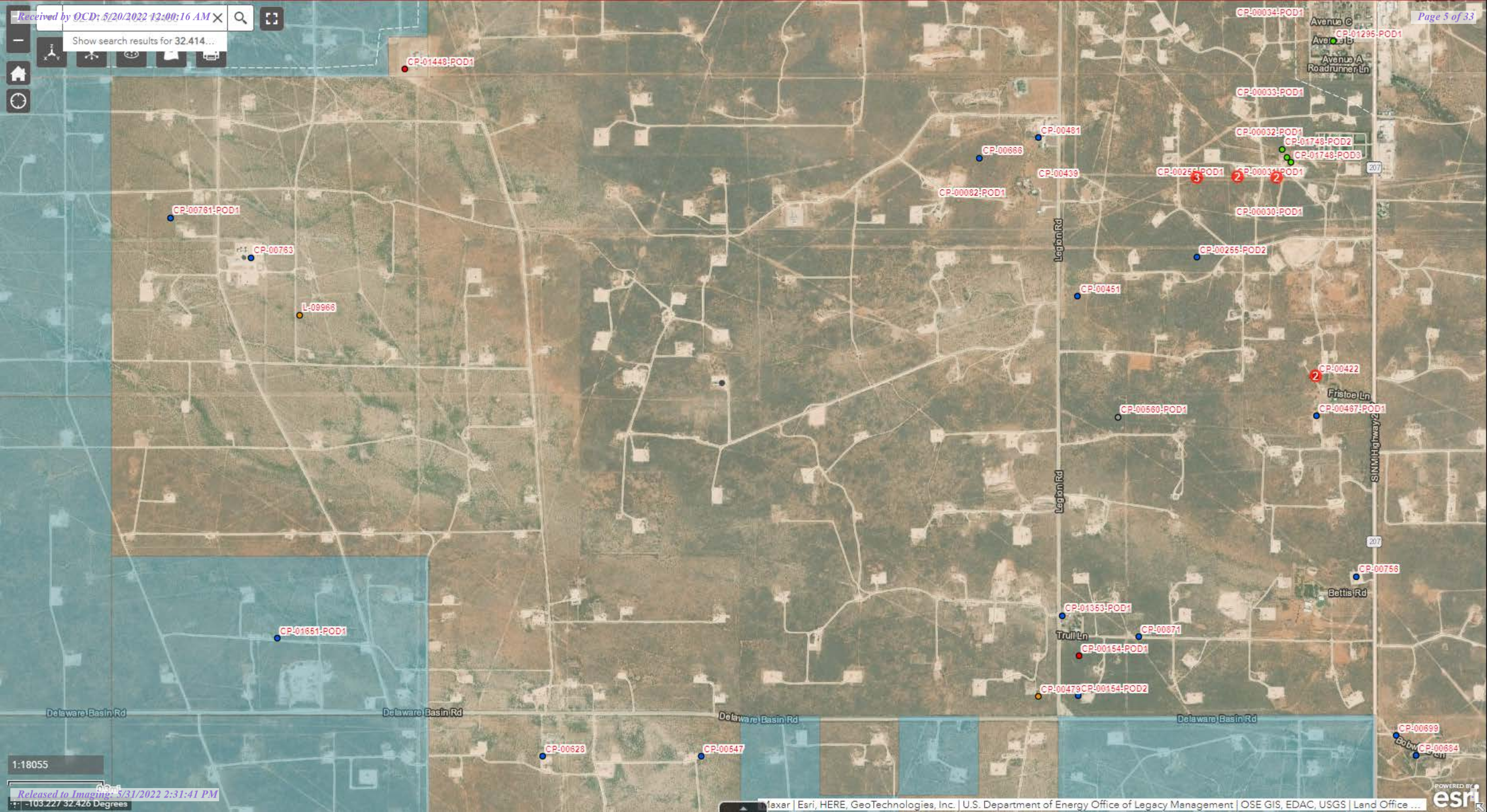
Printed Name: Larry Baker Title: Environmental Tech SR.
Signature: Larry Baker Date: 05/17/2022
email: larry.baker@apachecorp.com Telephone: 432-215-2284

OCD Only

Received by: _____ Date: _____

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

Signature: Jennifer Nobui Date: 05/31/2022



Show search results for 32.414...

1:18055



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	
	CP 00666				2	05	22S	37E	671055	3588939*

Driller License:	982	Driller Company:	EADES, GENE		
Driller Name:	EADES, GENE				
Drill Start Date:	08/27/1984	Drill Finish Date:	08/27/1984	Plug Date:	
Log File Date:	11/26/1984	PCW Rev Date:		Source:	Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield:	10 GPM
Casing Size:	4.75	Depth Well:	120 feet	Depth Water:	79 feet

Water Bearing Stratifications:	Top	Bottom	Description
	79	120	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	80	120

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/17/22 7:41 AM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CP 01353 POD1	3	1	3	09	22S	37E	671514	3586640

Driller License:	1292	Driller Company:	BENTLE WATER WELL SERVICE	
Driller Name:	BENTLE, BILLY L.			
Drill Start Date:	05/04/2015	Drill Finish Date:	05/18/2015	Plug Date:
Log File Date:	05/28/2015	PCW Rev Date:		Source: Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield: 9 GPM
Casing Size:	6.00	Depth Well:	93 feet	Depth Water: 73 feet

Water Bearing Stratifications:	Top	Bottom	Description
	83	93	Other/Unknown

Casing Perforations:	Top	Bottom
	73	93

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5/17/22 7:45 AM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CP 00763	2	2	3	01	22S	36E	667372	3588374*

Driller License:	1188	Driller Company:	SCARBOROUGH DRILLING INC.	
Driller Name:	SCARBOROUGH, LANE (LD)			
Drill Start Date:	10/07/1991	Drill Finish Date:	10/11/1991	Plug Date:
Log File Date:	11/25/1991	PCW Rev Date:		Source: Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield: 1 GPM
Casing Size:	6.00	Depth Well:	265 feet	Depth Water: 137 feet

Water Bearing Stratifications:	Top	Bottom	Description
	126	150	Sandstone/Gravel/Conglomerate
	190	260	Shale/Mudstone/Siltstone

Casing Perforations:	Top	Bottom
	185	265

*UTM location was derived from PLSS - see Help

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5/17/22 7:46 AM

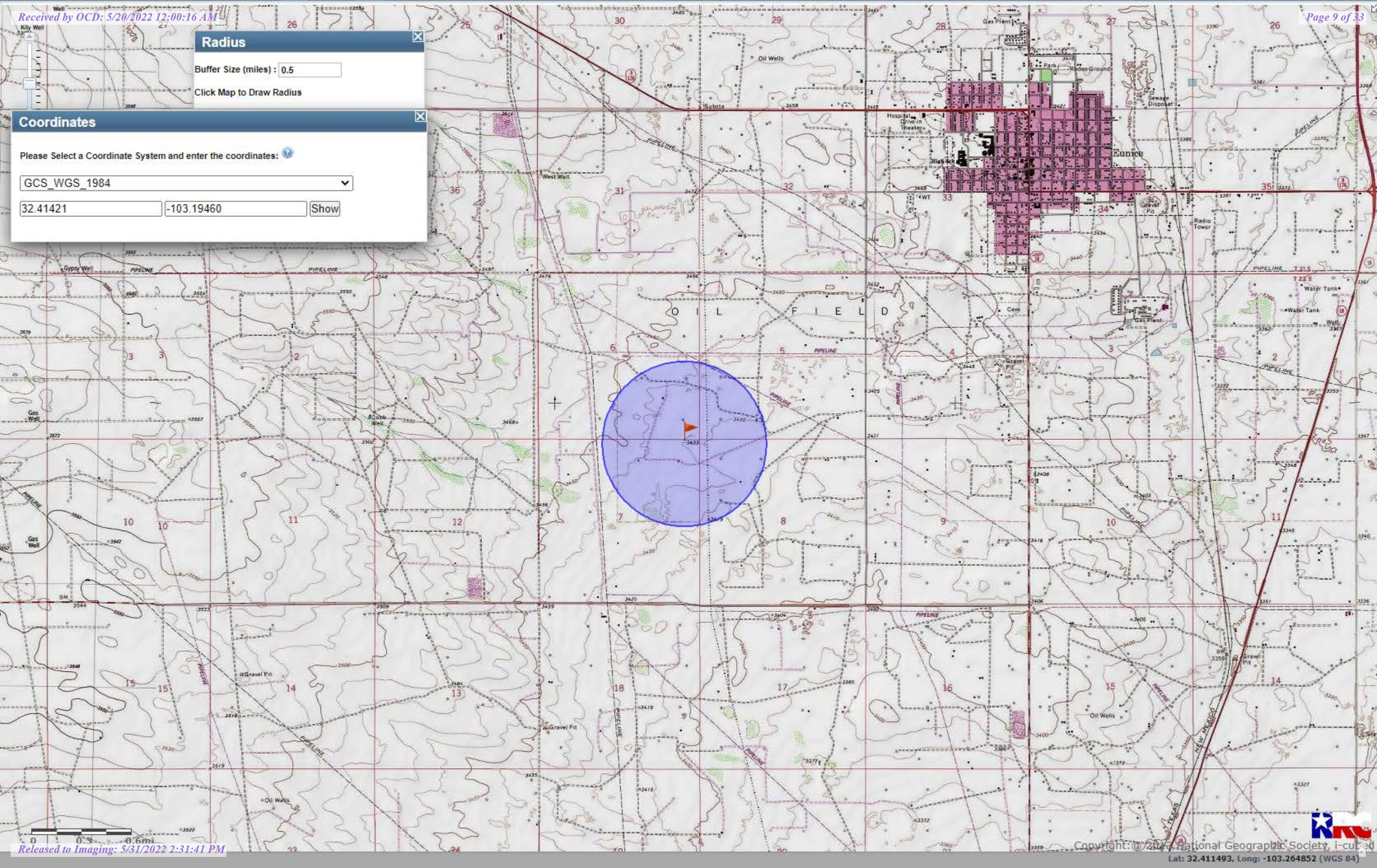
POINT OF DIVERSION SUMMARY

Click Map to Draw Radius

Please Select a Coordinate System and enter the coordinates:

-103.19460

Show



Delineation Samples

Sample Date	Sample ID	Depth	Chloride Lab	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
3/2/2022	SP1	S	2,420	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	32.8	<10.0	32.4143475, -103.1950656
		1'	384	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
3/2/2022	SP2	S	2560	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4143325, -103.1948862
		1'	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
3/2/2022	SP3	S	1220.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4143223, -103.1947631
		1'	128	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
3/2/2022	SP 4	S	1950	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4142855, -103.1948215
		1'	864	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
3/2/2022	H1	S	704	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4142279, -103.194871
3/2/2022	H2	S	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.414407, -103.195014
3/2/2022	H3	S	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.414333, -103.194736
4/14/2022	H4	S	336	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.414084, -103.194893





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

March 07, 2022

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: ELLIOT B9 DISPOSAL RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 03/02/22 8:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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:	03/02/2022	Sampling Date:	03/01/2022
Reported:	03/07/2022	Sampling Type:	Soil
Project Name:	ELLIOT B9 DISPOSAL RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: H 1 (H220806-01)

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	03/03/2022	ND	2.01	100	2.00	2.78	
Toluene*	<0.050	0.050	03/03/2022	ND	1.99	99.4	2.00	2.59	
Ethylbenzene*	<0.050	0.050	03/03/2022	ND	1.91	95.6	2.00	2.91	
Total Xylenes*	<0.150	0.150	03/03/2022	ND	5.95	99.2	6.00	3.02	
Total BTEX	<0.300	0.300	03/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

Chloride, SM4500Cl-B			mg/kg		Analyzed By: GM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	03/04/2022	ND	432	108	400	7.69	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2022	ND	210	105	200	0.608	
DRO >C10-C28*	<10.0	10.0	03/04/2022	ND	213	106	200	0.406	
EXT DRO >C28-C36	<10.0	10.0	03/04/2022	ND					

Surrogate: 1-Chlorooctane 81.0 % 66.9-136

Surrogate: 1-Chlorooctadecane 87.9 % 59.5-142

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:	03/02/2022	Sampling Date:	03/01/2022
Reported:	03/07/2022	Sampling Type:	Soil
Project Name:	ELLIOT B9 DISPOSAL RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: H 2 (H220806-02)

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	03/03/2022	ND	2.01	100	2.00	2.78		
Toluene*	<0.050	0.050	03/03/2022	ND	1.99	99.4	2.00	2.59		
Ethylbenzene*	<0.050	0.050	03/03/2022	ND	1.91	95.6	2.00	2.91		
Total Xylenes*	<0.150	0.150	03/03/2022	ND	5.95	99.2	6.00	3.02		
Total BTEx	<0.300	0.300	03/03/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	03/04/2022	ND	432	108	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2022	ND	207	103	200	6.05	
DRO >C10-C28*	<10.0	10.0	03/04/2022	ND	213	106	200	21.2	
EXT DRO >C28-C36	<10.0	10.0	03/04/2022	ND					

Surrogate: 1-Chlorooctane 85.9 % 66.9-136

Surrogate: 1-Chlorooctadecane 81.6 % 59.5-142

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:	03/02/2022	Sampling Date:	03/01/2022
Reported:	03/07/2022	Sampling Type:	Soil
Project Name:	ELLIOT B9 DISPOSAL RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: H 3 (H220806-03)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/03/2022	ND	2.01	100	2.00	2.78	
Toluene*	<0.050	0.050	03/03/2022	ND	1.99	99.4	2.00	2.59	
Ethylbenzene*	<0.050	0.050	03/03/2022	ND	1.91	95.6	2.00	2.91	
Total Xylenes*	<0.150	0.150	03/03/2022	ND	5.95	99.2	6.00	3.02	
Total BTEx	<0.300	0.300	03/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/04/2022	ND	432	108	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2022	ND	207	103	200	6.05	
DRO >C10-C28*	<10.0	10.0	03/04/2022	ND	213	106	200	21.2	
EXT DRO >C28-C36	<10.0	10.0	03/04/2022	ND					

Surrogate: 1-Chlorooctane 101 % 66.9-136

Surrogate: 1-Chlorooctadecane 97.4 % 59.5-142

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-04	The RPD for the BS/BSD was outside of historical limits.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

March 07, 2022

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: ELLIOT B9 DISPOSAL RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 03/02/22 8:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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:	03/02/2022	Sampling Date:	03/01/2022
Reported:	03/07/2022	Sampling Type:	Soil
Project Name:	ELLIOT B9 DISPOSAL RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ SURFACE (H220807-01)

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	03/03/2022	ND	2.01	100	2.00	2.78	
Toluene*	<0.050	0.050	03/03/2022	ND	1.99	99.4	2.00	2.59	
Ethylbenzene*	<0.050	0.050	03/03/2022	ND	1.91	95.6	2.00	2.91	
Total Xylenes*	<0.150	0.150	03/03/2022	ND	5.95	99.2	6.00	3.02	
Total BTEX	<0.300	0.300	03/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.9-140

Chloride, SM4500Cl-B			mg/kg		Analyzed By: GM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2420	16.0	03/04/2022	ND	432	108	400	7.69	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2022	ND	207	103	200	6.05	
DRO >C10-C28*	32.8	10.0	03/04/2022	ND	213	106	200	21.2	
EXT DRO >C28-C36	<10.0	10.0	03/04/2022	ND					

Surrogate: 1-Chlorooctane 127 % 66.9-136

Surrogate: 1-Chlorooctadecane 128 % 59.5-142

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:	03/02/2022	Sampling Date:	03/01/2022
Reported:	03/07/2022	Sampling Type:	Soil
Project Name:	ELLIOT B9 DISPOSAL RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ SURFACE (H220807-02)

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	03/03/2022	ND	2.01	100	2.00	2.78		
Toluene*	<0.050	0.050	03/03/2022	ND	1.99	99.4	2.00	2.59		
Ethylbenzene*	<0.050	0.050	03/03/2022	ND	1.91	95.6	2.00	2.91		
Total Xylenes*	<0.150	0.150	03/03/2022	ND	5.95	99.2	6.00	3.02		
Total BTEx	<0.300	0.300	03/03/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2560	16.0	03/04/2022	ND	432	108	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2022	ND	207	103	200	6.05	
DRO >C10-C28*	<10.0	10.0	03/04/2022	ND	213	106	200	21.2	
EXT DRO >C28-C36	<10.0	10.0	03/04/2022	ND					

Surrogate: 1-Chlorooctane 131 % 66.9-136

Surrogate: 1-Chlorooctadecane 128 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	03/02/2022	Sampling Date:	03/01/2022
Reported:	03/07/2022	Sampling Type:	Soil
Project Name:	ELLIOT B9 DISPOSAL RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ SURFACE (H220807-03)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/03/2022	ND	2.01	100	2.00	2.78		
Toluene*	<0.050	0.050	03/03/2022	ND	1.99	99.4	2.00	2.59		
Ethylbenzene*	<0.050	0.050	03/03/2022	ND	1.91	95.6	2.00	2.91		
Total Xylenes*	<0.150	0.150	03/03/2022	ND	5.95	99.2	6.00	3.02		
Total BTEx	<0.300	0.300	03/03/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1220	16.0	03/04/2022	ND	432	108	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2022	ND	207	103	200	6.05	
DRO >C10-C28*	<10.0	10.0	03/04/2022	ND	213	106	200	21.2	
EXT DRO >C28-C36	<10.0	10.0	03/04/2022	ND					

Surrogate: 1-Chlorooctane 134 % 66.9-136

Surrogate: 1-Chlorooctadecane 131 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	03/02/2022	Sampling Date:	03/01/2022
Reported:	03/07/2022	Sampling Type:	Soil
Project Name:	ELLIOT B9 DISPOSAL RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ SURFACE (H220807-04)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/03/2022	ND	2.01	100	2.00	2.78		
Toluene*	<0.050	0.050	03/03/2022	ND	1.99	99.4	2.00	2.59		
Ethylbenzene*	<0.050	0.050	03/03/2022	ND	1.91	95.6	2.00	2.91		
Total Xylenes*	<0.150	0.150	03/03/2022	ND	5.95	99.2	6.00	3.02		
Total BTEx	<0.300	0.300	03/03/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1950	16.0	03/04/2022	ND	432	108	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2022	ND	207	103	200	6.05	
DRO >C10-C28*	<10.0	10.0	03/04/2022	ND	213	106	200	21.2	
EXT DRO >C28-C36	<10.0	10.0	03/04/2022	ND					

Surrogate: 1-Chlorooctane 126 % 66.9-136

Surrogate: 1-Chlorooctadecane 124 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	03/02/2022	Sampling Date:	03/01/2022
Reported:	03/07/2022	Sampling Type:	Soil
Project Name:	ELLIOT B9 DISPOSAL RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ 1' (H220807-05)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/03/2022	ND	2.01	100	2.00	2.78		
Toluene*	<0.050	0.050	03/03/2022	ND	1.99	99.4	2.00	2.59		
Ethylbenzene*	<0.050	0.050	03/03/2022	ND	1.91	95.6	2.00	2.91		
Total Xylenes*	<0.150	0.150	03/03/2022	ND	5.95	99.2	6.00	3.02		
Total BTEx	<0.300	0.300	03/03/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	384	16.0	03/04/2022	ND	432	108	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2022	ND	207	103	200	6.05	
DRO >C10-C28*	<10.0	10.0	03/04/2022	ND	213	106	200	21.2	
EXT DRO >C28-C36	<10.0	10.0	03/04/2022	ND					

Surrogate: 1-Chlorooctane 140 % 66.9-136

Surrogate: 1-Chlorooctadecane 138 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	03/02/2022	Sampling Date:	03/01/2022
Reported:	03/07/2022	Sampling Type:	Soil
Project Name:	ELLIOT B9 DISPOSAL RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ 1' (H220807-06)

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	03/03/2022	ND	2.01	100	2.00	2.78		
Toluene*	<0.050	0.050	03/03/2022	ND	1.99	99.4	2.00	2.59		
Ethylbenzene*	<0.050	0.050	03/03/2022	ND	1.91	95.6	2.00	2.91		
Total Xylenes*	<0.150	0.150	03/03/2022	ND	5.95	99.2	6.00	3.02		
Total BTEx	<0.300	0.300	03/03/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	03/04/2022	ND	432	108	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2022	ND	207	103	200	6.05	
DRO >C10-C28*	<10.0	10.0	03/04/2022	ND	213	106	200	21.2	
EXT DRO >C28-C36	<10.0	10.0	03/04/2022	ND					

Surrogate: 1-Chlorooctane 136 % 66.9-136

Surrogate: 1-Chlorooctadecane 136 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	03/02/2022	Sampling Date:	03/01/2022
Reported:	03/07/2022	Sampling Type:	Soil
Project Name:	ELLIOT B9 DISPOSAL RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ 1' (H220807-07)

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	03/03/2022	ND	2.01	100	2.00	2.78		
Toluene*	<0.050	0.050	03/03/2022	ND	1.99	99.4	2.00	2.59		
Ethylbenzene*	<0.050	0.050	03/03/2022	ND	1.91	95.6	2.00	2.91		
Total Xylenes*	<0.150	0.150	03/03/2022	ND	5.95	99.2	6.00	3.02		
Total BTEx	<0.300	0.300	03/03/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	03/04/2022	ND	432	108	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2022	ND	207	103	200	6.05	
DRO >C10-C28*	<10.0	10.0	03/04/2022	ND	213	106	200	21.2	
EXT DRO >C28-C36	<10.0	10.0	03/04/2022	ND					

Surrogate: 1-Chlorooctane 113 % 66.9-136

Surrogate: 1-Chlorooctadecane 108 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	03/02/2022	Sampling Date:	03/01/2022
Reported:	03/07/2022	Sampling Type:	Soil
Project Name:	ELLIOT B9 DISPOSAL RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ 1' (H220807-08)

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	03/03/2022	ND	2.01	100	2.00	2.78		
Toluene*	<0.050	0.050	03/03/2022	ND	1.99	99.4	2.00	2.59		
Ethylbenzene*	<0.050	0.050	03/03/2022	ND	1.91	95.6	2.00	2.91		
Total Xylenes*	<0.150	0.150	03/03/2022	ND	5.95	99.2	6.00	3.02		
Total BTEx	<0.300	0.300	03/03/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	864	16.0	03/04/2022	ND	432	108	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2022	ND	207	103	200	6.05	
DRO >C10-C28*	<10.0	10.0	03/04/2022	ND	213	106	200	21.2	
EXT DRO >C28-C36	<10.0	10.0	03/04/2022	ND					

Surrogate: 1-Chlorooctane 111 % 66.9-136

Surrogate: 1-Chlorooctadecane 110 % 59.5-142

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-04	The RPD for the BS/BSD was outside of historical limits.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Apache Project Manager: Bruce B. Address: City: Hobbs State: NM Zip: 88240 Phone #: Fax #: Project #: Project Owner: Project Name: Project Location: Elliot Bq Disposal Release Sampler Name: J. Anderson				BILL TO P.O. #: Company: Attn: Address: City: State: Zip: Phone #: Fax #:				ANALYSIS REQUEST			
Lab I.D. H20867		Sample I.D.		(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: <input checked="" type="checkbox"/> COOL OTHER :		DATE TIME		C GXT TAP BTEX			
1 SP1 Surface 2 SP2 Surface 3 SP3 Surface 4 SP4 Surface 5 SP1 01' 6 SP2 01' 7 SP3 01' 8 SP4 01'		5 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1		1 1 1 1 1 1 1 1		8/1 9:58 10:00 10:02 10:04 11:20 11:22 11:24 11:26		X X X X X X X X X X			
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.				Date: 3/12/22 Received By: J. Anderson Time: 8:55 Received By: J. Anderson Date: Received By:		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: All Results are emailed. Please provide Email address: REMARKS: Bruce B.		Turnaround Time: Standard <input checked="" type="checkbox"/> Rush Thermometer ID #113 Bacteria (only) <input type="checkbox"/> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Corrected Temp. °C		Delivered By: (Circle One) Observed Temp. °C -0.4 Sample Condition <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No CHECKED BY: (Initials) J.A. Sampler - UPS - Bus - Other: Corrected Temp. °C -0.9	



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

April 20, 2022

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: ELLIOT B9 DISPOSAL RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 04/14/22 9:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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 fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

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:	04/14/2022	Sampling Date:	04/14/2022
Reported:	04/20/2022	Sampling Type:	Soil
Project Name:	ELLIOT B9 DISPOSAL RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	NOT GIVEN		

Sample ID: H 4 (H221555-01)

BTX 8021B		mg/kg		Analyzed By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/19/2022	ND	2.13	106	2.00	0.916	
Toluene*	<0.050	0.050	04/19/2022	ND	2.11	106	2.00	1.95	
Ethylbenzene*	<0.050	0.050	04/19/2022	ND	2.11	105	2.00	1.64	
Total Xylenes*	<0.150	0.150	04/19/2022	ND	6.53	109	6.00	2.03	
Total BTX	<0.300	0.300	04/19/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	04/19/2022	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	04/19/2022	ND	203	101	200	1.68	
DRO >C10-C28*	<10.0	10.0	04/19/2022	ND	215	107	200	1.04	
EXT DRO >C28-C36	<10.0	10.0	04/19/2022	ND					

Surrogate: 1-Chlorooctane 104 % 66.9-136

Surrogate: 1-Chlorooctadecane 111 % 59.5-142

Cardinal Laboratories

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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.
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: NM

Zip: 88240

Phone #:

Fax #:

Project #:

Project Owner:

Project Name:

Project Location: Pilot 84 Disposal Release

Sample Name: Joe Casadeja Jr

P.O. #:

Company:

Attn:

Address:

City:

State:

Zip:

Phone #:

Fax #:

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

H2A1555

1

H4

(G)RAB OR (C)OMP

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

8:00

CC

Ext TPH

BTEX

MATRIX

PRESERV

SAMPLING

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Relinquished By:

Date: 9/14

Received By:

Time:

Reimquished By:

Date:

Received By:

Time:

Delivered By: (Circle One)

Observed Temp. °C

Corrected Temp. °C

Sample Condition

Cool Intact

Yes

No

Checked By: (Initials)

Turnaround Time:

Standard

Rush

Bacteria (only)

Cool Intact

Yes

No

Sample Condition

Observed Temp. °C

Corrected Temp. °C

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

All Results are emailed. Please provide Email address:

REMARKS:

Cardinal cannot accept verbal changes. Please email changes to cardinal@cardinal.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 108813

CONDITIONS

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID: 873
	Action Number: 108813
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Remediation Plan Approved with Conditions. Composite confirmation samples will be collected from the bottom and sidewalls of the excavation from areas representing no more than four hundred (400) square feet.	5/31/2022