



2350 W Marland Blvd Hobbs, NM 88240

Remediation Plan

December 14, 2018

*Re: Cedar Lake Federal CA 737H
API# 30-015-40901
Case # 2RP-4972*

*To: Mike Bratcher
District Supervisor-New Mexico Oil Conservation Division Energy, Minerals and Natural
Resources Department 811 S. 1st Street Artesia, NM 88210*

Background:

On 9/16/2018 a release occurred due to a 2 inch tee on the well head failed. An initial C-141 was sent to NMOCD and approved by NMOCD on 9/18/2018. The Cedar Lake Federal CA 737H is located east of Loco Hills in unit letter A section 7 township 17S range 31E (GPS Coordinates: 32.85432 -103.90390). A groundwater study was conducted utilizing the NMOSE and USGS sites to search for groundwater wells in the vicinity of the release site. According to the USGS and NMOSE there are no wells in township 17S range 31E. It is common knowledge that there is no groundwater in township 17S and range 31E. The village of Loco Hills water source is the double eagle water pipeline which source of water is on top of the cap-rock located east of the township and range.

To date Apache Corporation has scraped the oil stained area of the pad to approximately six inches. Three preliminary five point bottom composites of the pad scraped area were collected and submitted to a commercial laboratory for analysis of chlorides, TPH, and BTEX. Three delineation verticals were conducted utilizing a backhoe in the pasture area of the release. Field samples were collected and titrated for chlorides. The pasture area was excavated to various depths of one, two and four feet below ground surface. After the pasture area was excavated field five point bottom composites were collected and titrated for chlorides. All excavated material (approximately 350 yards) was placed on plastic.

Remediation Plan:

Apache Corporation purposes to collect final five point bottom samples not to exceed 1,000 square feet and five point wall composite samples not to exceed 200 square feet on the pad. In the pasture Apache Corporation purposes to collect final five point bottom samples not to exceed 500 square feet and five point wall composite samples not to exceed 200 square feet. All samples will be sent to a commercial laboratory for analysis of Cl-, Extended TPH, and BTEX. If the laboratory results yield levels below table 1 standards for releases greater than 100 feet to groundwater and the chloride levels in the pasture are below 600 mg/kg or to a maximum depth of 4 feet. The site will be backfilled with clean imported soil and a closure report will be submitted. If the results yield levels that exceed the table 1 standards those areas will be excavated vertically and horizontally until regulatory standards are met. Once

the standards are met the site will be backfilled with clean imported caliche for the pad and clean imported top soil for the pasture. All excavated material will be exported to an NMOCD approved disposal facility. NMOCD will be notified 48 hours prior to all final sampling events. Apache Corporation will complete remediation activities within 90 days of NMOCD approval of this plan.

Enclosed: Initial C-141, groundwater data, maps, data table, laboratory results, field notes, and photos.

Submitted by;

Bruce Baker

Environmental Technician

larry.baker@apachecorp.com

Cell# 432-631-6982

Off# 575-393-7106

District I
1625 N French Dr., Hobbs, NM 88240
District II
811 S First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NMAP1826165680
District RP	2RP-4972
Facility ID	N/A
Application ID	pMAP1826165277

Release Notification

Responsible Party

Responsible Party	Apache Corp.	OGRID	873
Contact Name	Bruce Baker	Contact Telephone	432-631-6982
Contact email	larry.baker@apachecorp.com	Incident # (assigned by OCD)	
Contact mailing address	2350 W. Marland BLVD Hobbs, NM 88240		

Location of Release Source

Latitude 32.85432 Longitude -103.90390
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Cedar Lake Federal CA #787H	Site Type	Oil well
Date Release Discovered	9/16/18	API# (if applicable)	30-015-40901

Unit Letter	Section	Township	Range	County
A	7	17S	31E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls)	26 barrels	Volume Recovered (bbls)	15 barrels
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls)	52 barrels	Volume Recovered (bbls)	35 barrels
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/l?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Condensate	Volume Released (bbls)		Volume Recovered (bbls)	
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)		Volume Recovered (Mcf)	
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)		Volume/Weight Recovered (provide units)	

Cause of Release

A 2 inch Tee on the well head failed.


State of New Mexico
Oil Conservation Division

Incident ID	NMAP1826165680
District RP	2RP-4972
Facility ID	N/A
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Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? <i>release was greater than 25 barrels of total fluid</i>
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? <i>Immediate notice was provided by Bruce Baker to Jim Griswold, Mike Bratcher via email on 9/17/18 at 7:02 am</i>	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: 	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Bruce Baker</u>	Title: <u>Environmental Tech. SR.</u>
Signature: <u>Bruce Baker</u>	Date: <u>9/18/18</u>
email: <u>larry.baker@apachecorp.com</u>	Telephone: <u>432-631-6982</u>
OCD Only Received by: <u></u> Date: <u>09/18/18</u>	

Volume Calculation

$$\text{Affected Area} = 480 \text{ ft}^3 \times 7.48 = 3,590 \text{ gallons} / 42 = 85.47 \text{ bbls}$$

$$85.47 \times .33 \text{ soil porosity} = 28.20 + 50 \text{ recovered} = 78 \text{ barrels}$$

Incident ID	
District RP	
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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>NONE</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
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Facility ID	
Application ID	

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Printed Name: Bruce Baker Title: Environmental Tech SR
Signature: Bruce Baker Date: 12-14-18
email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Bruce Baker Title: Environmental Tech. SR
Signature: Bruce Baker Date: 12-14-18
email: larry.baker@apachecorp.com Telephone: 432-631-6992

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____



New Mexico Office of the State Engineer Water Column/Average Depth to Water

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

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 602678

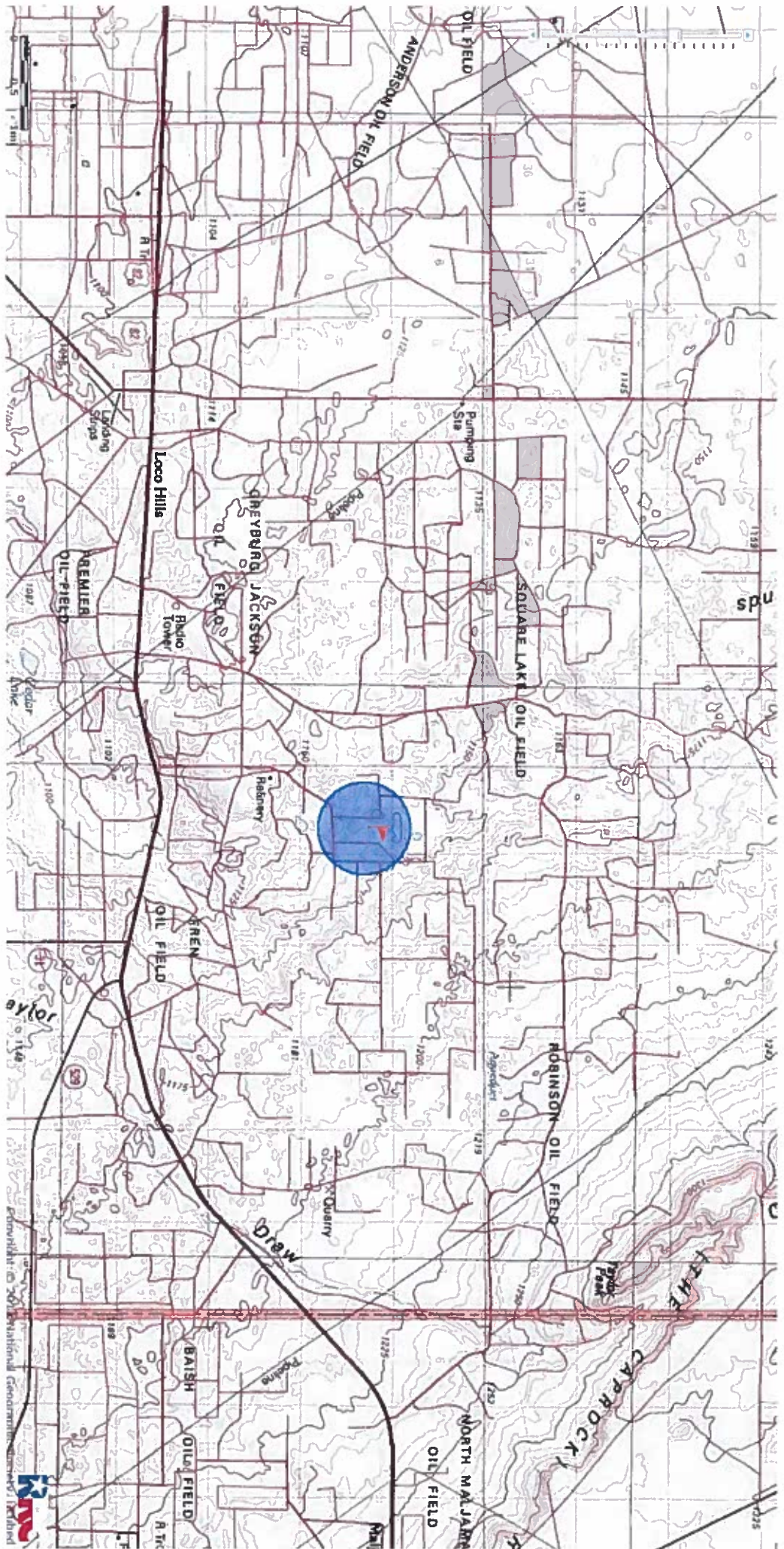
Northing (Y): 3635683

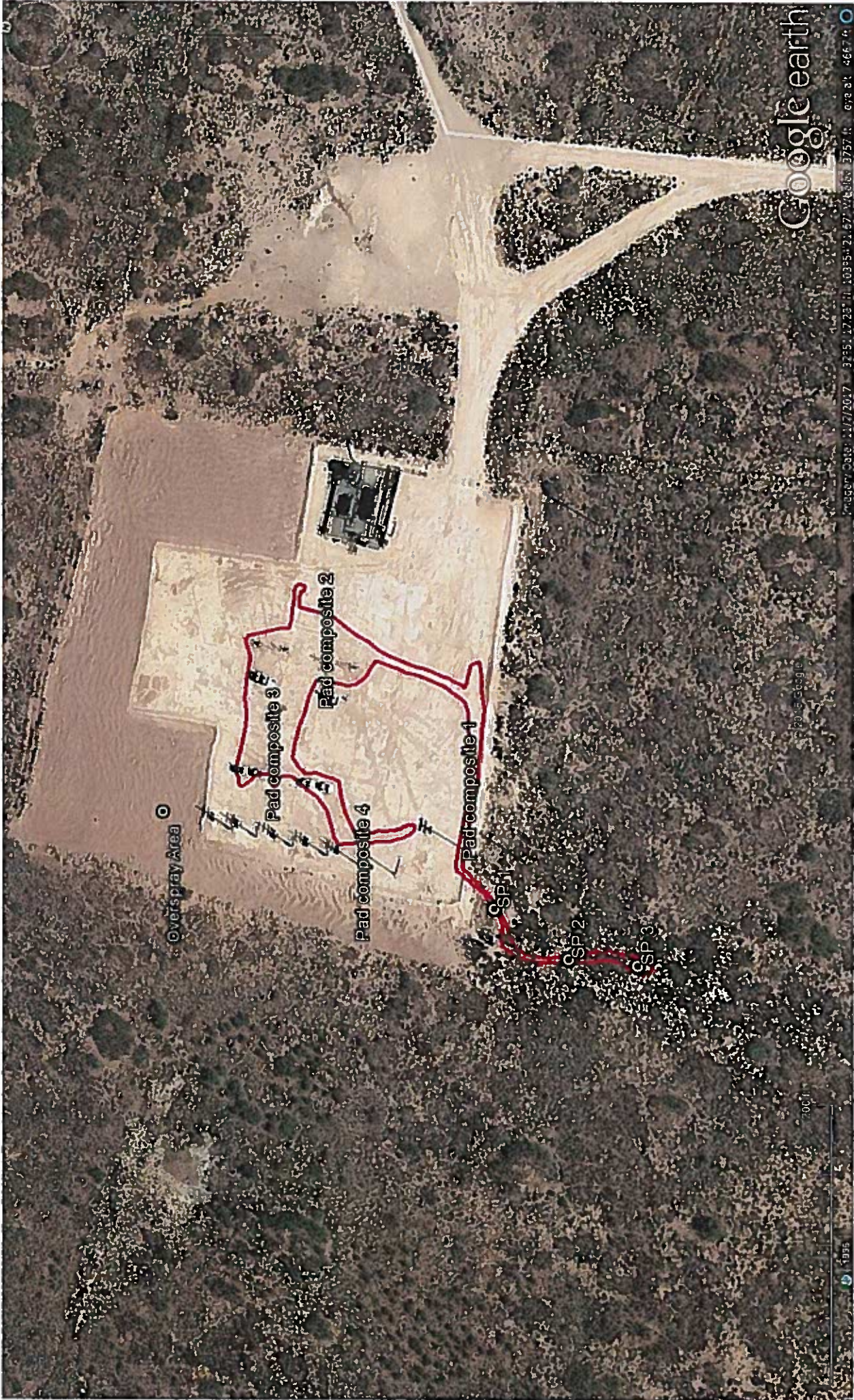
Radius: 3000

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.

12/11/18 1:21 PM

WATER COLUMN/ AVERAGE
DEPTH TO WATER





Cedar Lake Federal CA 737H											
Pasture SP 1		Pature SP 2		Pasture SP 3		Pasture CP 1		Pasture CP 2		Pasture CP 3	
Depth	Field CL	Depth	Field CL	Depth	Field CL	Depth	Field CL	Depth	Field CL	Depth	Field CL
6"	951	6"	1364	6"	>5,000	1"	257	2'	217	4'	430
		1'	335	3'	782						
		2'	2599	4'	672						
		3'	489								
		4'	157								

Pad Composite Samples* laboratory samples at surface are actually at 6"										
Comp Pt.	Depth	CL-	Benzene	Toluene	Ethylbenz ene	Total Xylenes	Total BTEX	GRO	DRO	EXT. DRO
1	6"	5860	<0.050	<0.050	<0.050	<0.150	<0.300	<10	31.8	<10
2	6"	1660	<0.050	<0.050	<0.050	<0.150	<0.300	<10	99.3	15.4
3	6"	912	<0.050	0.833	3.19	4.22	8.24	168	1670	217
4	6"	3240	<0.050	<0.050	<0.050	<0.150	<0.300	<10	553	103

Pasture Overspray	
Depth	Field CL
Surface	210



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

October 22, 2018

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: CEDAR LAKE FED CA 737H

Enclosed are the results of analyses for samples received by the laboratory on 10/16/18 16:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 10/16/2018
Reported: 10/22/2018
Project Name: CEDAR LAKE FED CA 737H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: COM POINT 1 @ SURFACE (H802968-01)**BTEX 80218**

mg/kg

Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/18/2018	ND	2.02	101	2.00	0.618	
Toluene*	<0.050	0.050	10/18/2018	ND	1.90	95.2	2.00	1.04	
Ethylbenzene*	<0.050	0.050	10/18/2018	ND	1.90	95.0	2.00	0.383	
Total Xylenes*	<0.150	0.150	10/18/2018	ND	5.73	95.4	6.00	0.0104	
Total BTEX	<0.300	0.300	10/18/2018	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 98.5 % 69.8-142

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5860	16.0	10/18/2018	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	10/18/2018	ND	186	93.1	200	7.22	
DRO >C10-C28*	31.8	10.0	10/18/2018	ND	202	101	200	1.16	
EXT DRO >C28-C36	<10.0	10.0	10/18/2018	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 97.8 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/16/2018
Reported: 10/22/2018
Project Name: CEDAR LAKE FED CA 737H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: COM POINT 2 @ SURFACE (H802968-02)
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	10/18/2018	ND	2.02	101	2.00	0.618	
Toluene*	<0.050	0.050	10/18/2018	ND	1.90	95.2	2.00	1.04	
Ethylbenzene*	<0.050	0.050	10/18/2018	ND	1.90	95.0	2.00	0.383	
Total Xylenes*	<0.150	0.150	10/18/2018	ND	5.73	95.4	6.00	0.0104	
Total BTEX	<0.300	0.300	10/18/2018	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 99.0 % 69.8-142

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1660	16.0	10/18/2018	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	10/18/2018	ND	186	93.1	200	7.22	
DRO >C10-C28*	99.3	10.0	10/18/2018	ND	202	101	200	1.16	
EXT DRO >C28-C36	15.4	10.0	10/18/2018	ND					

Surrogate: 1-Chlorooctane 90.3 % 41-142

Surrogate: 1-Chlorooctadecane 89.7 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 10/16/2018
Reported: 10/22/2018
Project Name: CEDAR LAKE FED CA 737H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: COM POINT 3 @ SURFACE (H802968-03)**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	10/18/2018	ND	2.02	101	2.00	0.618	
Toluene*	0.833	0.050	10/18/2018	ND	1.90	95.2	2.00	1.04	
Ethylbenzene*	3.19	0.050	10/18/2018	ND	1.90	95.0	2.00	0.383	
Total Xylenes*	4.22	0.150	10/18/2018	ND	5.73	95.4	6.00	0.0104	
Total BTEX	8.24	0.300	10/18/2018	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 121 % 69.8-142

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	912	16.0	10/18/2018	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*	168	10.0	10/18/2018	ND	186	93.1	200	7.22	
DRO >C10-C28*	1670	10.0	10/18/2018	ND	202	101	200	1.16	
EXT DRO >C28-C36	217	10.0	10/18/2018	ND					

Surrogate: 1-Chlorooctane 121 % 41-142

Surrogate: 1-Chlorooctadecane 113 % 37.6-147

Cardinal Laboratories

* = Accredited Analyte

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 client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/16/2018
Reported: 10/22/2018
Project Name: CEDAR LAKE FED CA 737H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: COM POINT 4 @ SURFACE (H802968-04)

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	10/18/2018	ND	2.02	101	2.00	0.618	
Toluene*	<0.050	0.050	10/18/2018	ND	1.90	95.2	2.00	1.04	
Ethylbenzene*	<0.050	0.050	10/18/2018	ND	1.90	95.0	2.00	0.383	
Total Xylenes*	<0.150	0.150	10/18/2018	ND	5.73	95.4	6.00	0.0104	
Total BTEX	<0.300	0.300	10/18/2018	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 98.4 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3240	16.0	10/18/2018	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	10/18/2018	ND	186	93.1	200	7.22	
DRO >C10-C28*	553	10.0	10/18/2018	ND	202	101	200	1.16	
EXT DRO >C28-C36	103	10.0	10/18/2018	ND					

Surrogate: 1-Chlorooctane 93.4 % 41-142

Surrogate: 1-Chlorooctadecane 110 % 37.6-147

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Hyperche Project Manager: Bruce Butler Address: City: Hobbs State: NM Zip: 88240 Phone #: Fax #: Project #: Project Owner: Project Name: Project Location: Caterlake Rd CA 73714 Sampler Name: K. Lawrence FOR LAB USE ONLY				BILL TO P.O. #: Company: Attn: Address: City: State: Zip: Phone #: Fax #:				ANALYSIS REQUEST												
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX				PRESERV	SAMPLING	DATE	TIME	CI	EXT. TTH	BTEx						
H802948	Don Port 1 @ 3	(G)	1	GROUNDWATER						10-16-16	9:15AM	1								
	Lev Port 2 @ 3	(G)	3	WASTEWATER						10-16-16	9:30AM	1								
	Lev Port 3 @ 3	(G)	3	SOIL						10-16-16	9:24AM	1								
	Lev Port 4 @ 3	(G)	3	OIL						10-16-16	9:39AM	1								
				SLUDGE																
				OTHER:																
				ACID/BASE:																
				CE COOL																
				OTHER:																

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Relinquished By: *Scott Reed* **Date:** 10-16-16 **Time:** 10:40 **Received By:** *Janetta Williams*

Relinquished By: **Date:** **Time:** **Received By:**

Delivered By: (Circle One) **Sampler - UPS - Bus - Other:** 3.36 #47 **Sample Condition:** Cool ☒ Intact ☐ Yes ☐ No **CHECKED BY:** (Initials) *TO*

REMARKS: Email Results Please

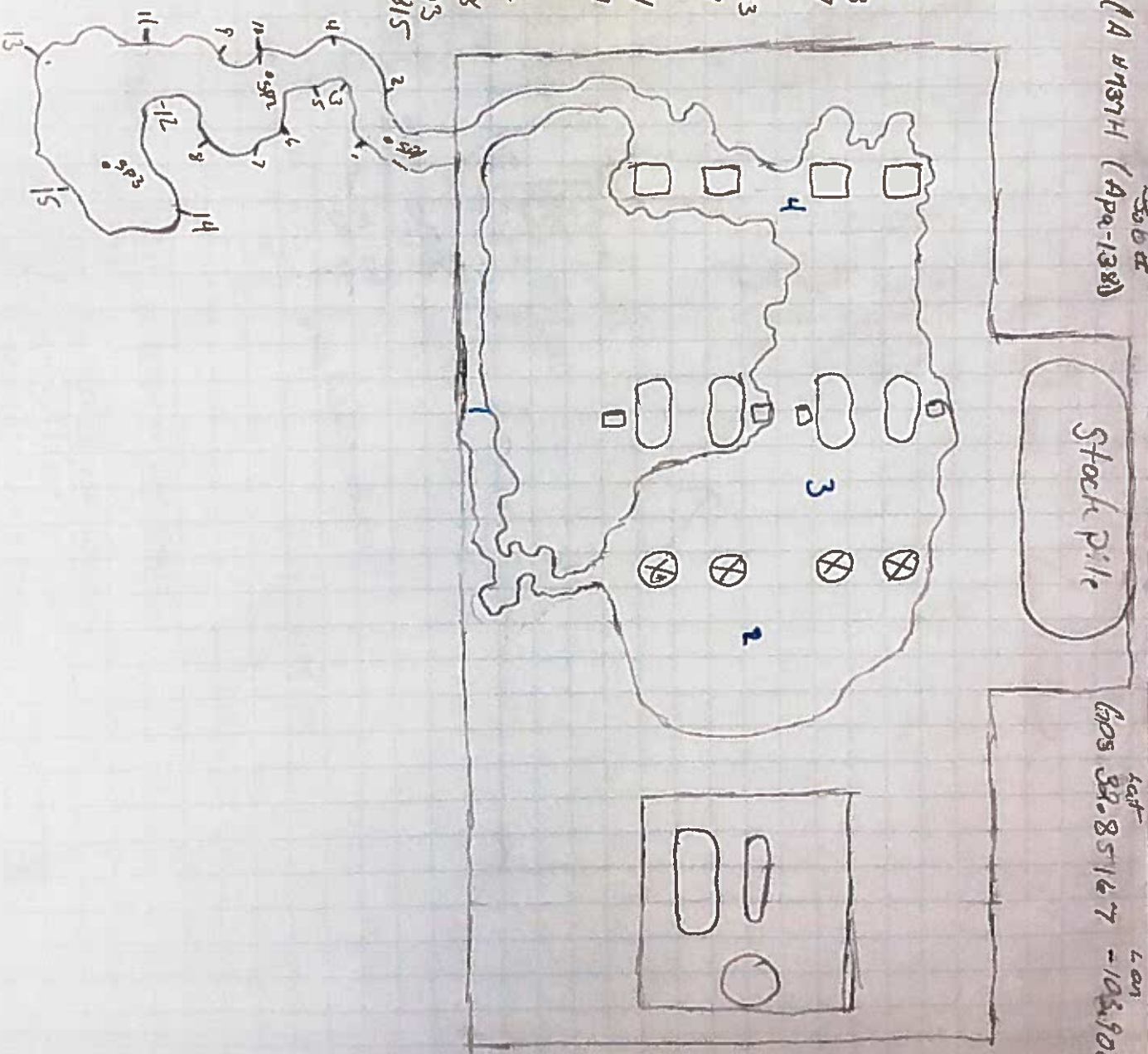
Phone Result: ☐ Yes ☐ No **Add'l Phone #:**
Fax Result: ☐ Yes ☐ No **Add'l Fax #:**

10-18-18
Apache Cedar Lake Fed (A 41374 (Apr-138))

14 ft
603 32.85167 - 103.906301

CP 1 @ 1' GPS of walls

- 1) 32.8537864 - 103.9042617
 - 2) 32.8537877 - 103.9042617
 - 3) 32.8538162 - 103.9043281
 - 4) 32.8537742 - 103.9043653
 - 5) 32.8537770 - 103.9043687
- from 2 @ 2' GPS of wall
- 6) 32.8537086 - 103.9042933
 - 7) 32.8536672 - 103.9043207
 - 8) 32.8536292 - 103.9043368
 - 9) 32.8536469 - 103.9043714
 - 10) 32.8537060 - 103.9043717
- from 3 @ 4' of wall
- 11) 32.8536021 - 103.9044823
 - 12) 32.8535706 - 103.9044015
 - 13) 32.8535387 - 103.9043838
 - 14) 32.8534911 - 103.9043573
 - 15) 32.8535010 - 103.90442815



Loc: Cedar Lake Ford CA 737H

10-03-18

SP Paster North of location @ Surface

Brown
Sncl

11.5/30.3 0.08 2.63 210

SP 1 @ Paster South

Brown
Sand

@6" 11.2/30.5 0.35 2.72 951

SP 2 @ Paster South

@6" 11.1/30.4 0.50 2.73 1,364

SP 3 @ Paster South

@6" 11.2/30.5 Greater than 2.0

SP 2

Brown
Sand

@1' 11.0/30.9 0.12/ 2.80 335

SP 2 a

@2' 11.7/31.0 1.02/ 2.64 2,599

Loc Cedar Lake Fed Ct 7374 10-16-18

Soil/water

Results below 4000

SP 2 @ 3'

11.81 30.8 0.18 2.72 489

SP 2 @ 4'

11.41 30.0 0.06 2.63 157

SP 3 @ 3'

11.71 30.6 0.30 2.61 782

SP 3 @ 4'

11.31 30.5 0.25 2.64 672

Apache

10-18-18

loc Cedar Lake Fed Ch 737 H

Brown

CP 1 @ 1#

Snd

11.7/30.3

0.10

2.58

257

Brown

CP 2 @ 2#

Snd

11.1/30.2

0.08

2.72

217

CP 3 @ 4#

11.4/30.7

0.16

2.69

430

Cedar Lake Federal CA 737H Photos



Photo of Pasture Excavation

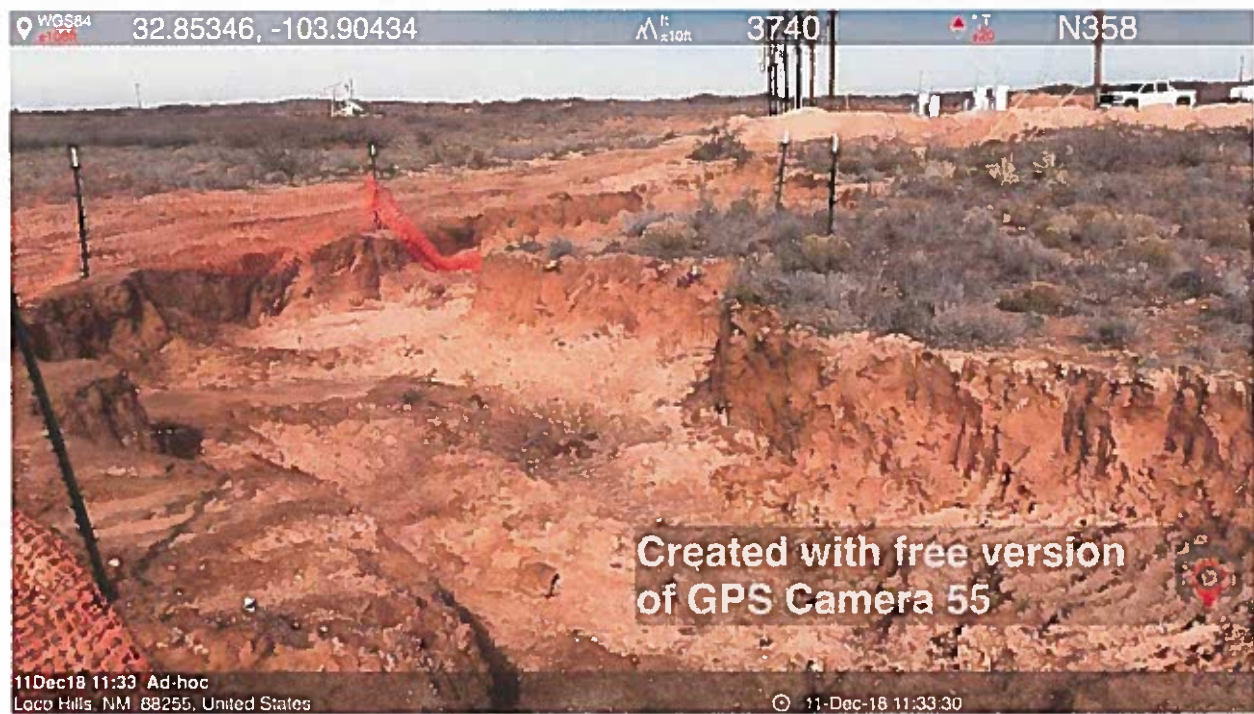


Photo of Pasture Excavation

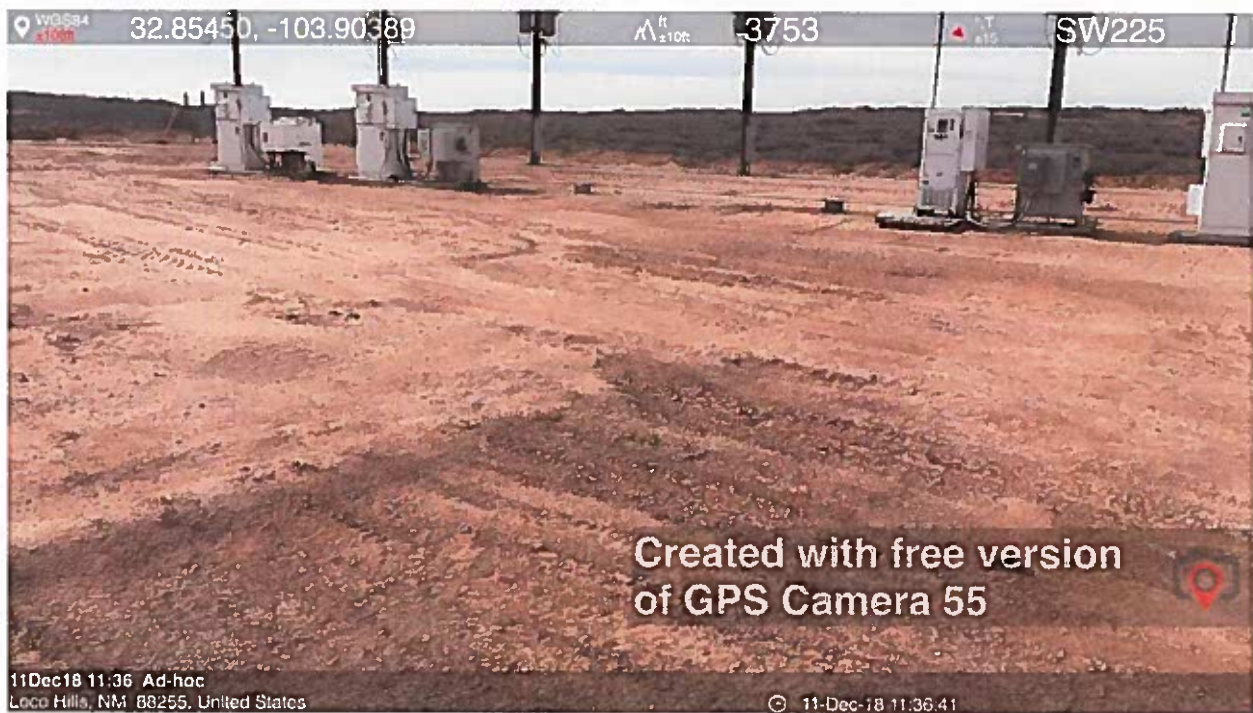


Photo of Pad Scrape

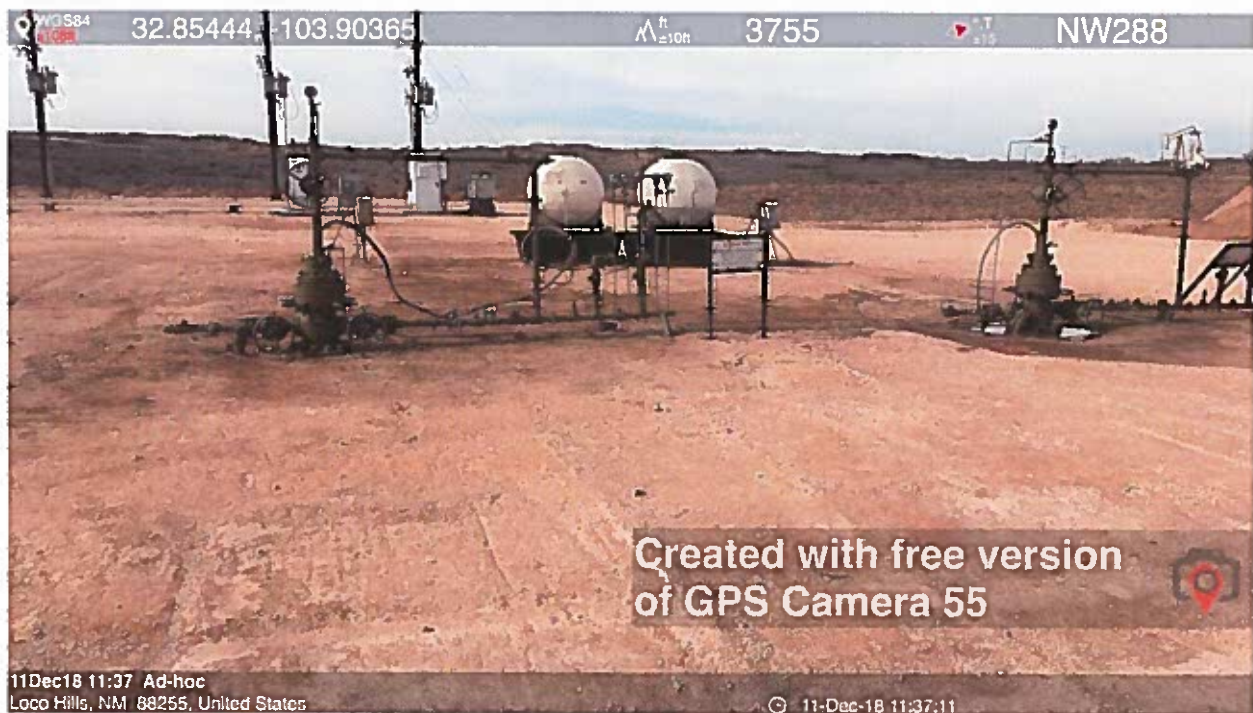


Photo of Pad Scrape