DAVID FEATHER
ENVIRONMENTAL SUPERVISOR
DIRECT: (432) 818-1615
E-MAIL: DAVID.FEATHER@APACHECORP.COM

November 1, 2019

Mr. Bradford Billings
State of New Mexico Oil Conservation Division
1220 South St Francis Drive
Santa Fe, NM 87505

RE: 1RP-25 NM BZ State Overflow Pit

Mr. Billings,

In compliance with 19.15.29.15(B) NMAC and the agreement submitted by Apache Corporation on November 8, 2018, Apache Corporation is submitting information related to pit closure. Apache is respectfully submitting the closure report based on studies occurring in 2019 that demonstrate the site meeting the requirements of the agency. Unless further information is requested by NMOCD, Apache Corporation considers this release closed.

If there are any questions, please feel free to contact me by telephone at 432-818-1615 or by e-mail at David.Feather@ApacheCorp.com.

Sincerely,

David Feather
Environmental Supervisor
Apache Corporation - Permian Basin Region

Attachment: Closure Report Dated October 30, 2019

Apache

EXPLORING WHAT'S POSSIBLE

Bruce Baker

New Mexico State BZ Battery
(Closest Well: NM State BZ NCT #8)
Closure Report

API NO. 30-025-10766

Overflow Pit

U/L D, Section 16, Township 23S, Range 37E

Lea County, NM

10/30/2019

Prepared By:

Hungry Horse, LLC

4024 Plains Hwy

Lovington, NM 88260

October 15, 2019

New Mexico Energy, Minerals & Natural Resources
Oil Conservation Division, Environmental Bureau – District I
C/O Dylan Rose-Coss
1625 South French Drive
Hobbs, NM 88240

RE: Overflow Pit Closure
Apache Corporation
New Mexico State BZ Battery (NM State BZ NCT #8)
U/L D, Section 16, Township 23S, Range 37E
API No. 30-025-10766

To Whom it May Concern:

Apache Corporation has retained Hungry Horse, LLC., to address the potential environmental impact for the overflow pit associated with the New Mexico State BZ Battery, detailed herein.

Background

The site is located in Lea County, New Mexico, 12.2 miles south of Eunice, New Mexico on the east side of Highway 18.

On May 30th of 1996 Indian Environmental Services submitted the Pit Closure Report for the State BZ Lease. This correspondence, also included pit closures for the State IT, Penrose Battery A #1 and the South Langley Unit; these pit closures will not be detailed in this report.

Samples were taken from the New Mexico State BZ Battery overflow pit on August 29th of 2007 and delivered to Cardinal Laboratory for analysis. The sample data is found below:

SAMPLE ID	DATE	FT	LAB-BTEX	LAB-CHL	LAB-GRO	LAB-DRO	LAB-EXT	TPH
St. Mn B	8/29/1997	11'	<0.012	128	N/A	N/A	N/A	22

On June 26th of 1996, Wayne Price from the NMOCD sent out a letter concerning the pit closures. It is notated that for the New Mexico State BZ Battery as follows:

Took bottom sample PID (BTEX) approx. 84ppm, wet soil due to recent rain. Discharge pipe still in place. Apache will remove. Apache discovered that this pit had a liner on the sides only, pit bottom had no liner. Soil has mild hydrocarbon odor. NM St. Engr. Office indicated ground water was at 65-75 feet. Windmills nearby are located to southeast approx. 400 yards. Two photos were obtained looking east and one looking north to show remediation area. The photographs taken show the before and after excavation of the pit at the New Mexico State BZ Battery.

The Pit Remediation and Closure Report attached herein, indicates that the NMOCD denied the closure of the New Mexico State BZ overflow pit due to no land-farm results and that soil was above the acceptable limits.

On September 11th of 1997 another interoffice correspondence was sent out from the NMOCD. Discrepancies were found in the closure reports. Wayne Price witnessed the sampling event

taken by Apache Corporation. Bottom hole samples were taken. The analyticals for the soil samples were supplied by Apache Corporation. For comparison he took field samples using the PID meter and reported the following:

It was noted that the New Mexico State BZ excavation was 11' deep, sampled soil using a PID meter and BTEX was 15.5ppm, none to very slight hydrocarbon odor, no visual contamination found.

After reviewing the pit closure reports he recommended approval for the New Mexico State BZ.

On September 17th of 1997, the NMOCD sent out a letter to Apache Corporation concerning the Final Pit Closure. For the New Mexico State BZ, it stated the following:

The final pit remedial contaminant levels at the sites listed below are in excess of the OCD's recommended remediation levels. Consequently, the OCD cannot issue final closure approval and approval of closure actions at these sites are denied. The OCD requires that Apache Corporation submit a work plan to determine the extent of and remediate the remaining contamination at these sites. The work plan will be submitted to the OCD in Santa Fe by October 17th, 1997 with a copy provided to the OCD Hobbs District Office. (The New Mexico State BZ is included in the denied pit closures). See attachments for details.

No other information was found on the NMOCD website indicating a closure was submitted and approved after the last correspondence of September 17, 1997.

Groundwater Information

Hungry-Horse, LLC has conducted an extended groundwater study of the area and it has been determined that according to the New Mexico Office of the State Engineer, the two closest wells to the New Mexico State BZ Battery range from 100' to 115'DGW within 898' to 2033' from the site listed herein:

CP 00423: 115'dgw, well is 898' from the site (Data from 02/08/1967)
CP 00762: 100'dgw, well is 2,033' from the site (Data from 06/05/1991)

With the above ground water data determined from the New Mexico Office of the State Engineer, the information provided in the original documentation was correct. The NMOCD indicated on previous correspondence that the ground water data was 65-75'. Therefore we will be using the information provided by the New Mexico Office of the State Engineer showing depth is 110' to 115'bgs.

Using Table I, Closure Criteria for Soils Impacted by a Release Dated after August 14, 2018, this site falls under the ranking of 110' to 115'bgs. This site rankings are as follows:

Closure for Soils Impacted by a Release			
Depth	Constituent	Method	Limit
>100'	Chloride	EPA 300.00 or SM4500 CL B	20,000 mg/kg
	TPH (GRO, DRO, MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Delineation

On September 10th, Hungry-Horse personnel-initiated further delineation of the site. The area of the pad where the overflow pit was located was tested. The overflow pit was sampled by use of hand-auger and sampled in 1' intervals. Please refer to the sampling site map for placement of sample points.

The samples were not field tested but yet taken immediately into Cardinal Laboratories and were tested for Chlorides, BTEX, TPH and Extended Diesel Range Organics (EXT-DRO). The sample analysis was alternated at each 1' intervals.

Below you will find the lab analysis for the delineation of the Apache New Mexico State BZ Battery:

APACHE CORPORATION: NEW MEXICO STATE BZ (CLOSEST WELL NM STATE BZ #8)
OVERFLOW PIT

SAMPLE ID	DATE	FT	LAB-BTEX	LAB-CHL	LAB-GRO	LAB-DRO	LAB-EXT	TPH	SOIL
NORTH SP1	9/10/2019	1'	<0.300	<16	<10	<10	<10	<30	CAL
NORTH SP1	9/10/2019	2'		<16					CAL
NORTH SP1	9/10/2019	3'	<0.300	<16	<10	135	58.8	203.8	CAL
NORTH SP1	9/10/2019	4'		<16					CAL
NORTH SP1	9/10/2019	5'	<0.300	<16	<10	18	<10	38	CAL/SAND
SOUTH SP1	9/10/2019	1'	<0.300	16	<10	<10	<10	30	CAL
EAST SP1	9/10/2019	1'	<0.300	<16	<10	<10	<10	30	CAL
WEST SP1	9/10/2019	1'	<0.300	16	<10	<10	<10	30	CAL
WEST SP1	9/10/2019	2'		16					CAL
WEST SP1	9/10/2019	3'	<0.300	16	<10	<10	<10	30	CAL
WEST SP1	9/10/2019	4'		16					CAL
WEST SP1	9/10/2019	5'	<0.300	16	<10	<10	<10	30	CAL
CENTER SP1	9/10/2019	1'	<0.300	16	<10	<10	<10	30	CAL
CENTER SP1	9/10/2019	2'		<16					CAL

Attached you will find the Analytical Results for the delineation of the Apache New Mexico State BZ Battery performed by Hungry Horse, LLC on September 10th, 2019.

Conclusion

Hungry-Horse, LLC on behalf of Apache Corporation would like to request closure of this overflow pit. Based on the historical data and photos of the previous excavation, along with the current delineation samples the pit has been previously remediated. The soil samples obtained during the delineation process strongly suggest that the soil left in the overflow pit area is in fact clean and natural backfill.

Thank you in advance for allowing Hungry-Horse LLC to assist in this matter. Please contact me with any questions and/or concerns.

Sincerely,

Kathy Rivera
Environmental Office Manager
4024 Plains Highway
Lovington, NM 88260
Email: krivera@hungry-horse.com

Attachments:

- Historical Data
- Groundwater Information
- Current Sample Data
- Current Sample Map
- Current Lab Analysis

jerry brian

From: "Swain, Harold" <Harold.Swain@usa.apachecorp.com>
To: <jrbrian@verizon.net>
Sent: Tuesday, March 13, 2007 6:29 AM
Attach: Figure #4.pdf; Figure #5.pdf; Figure #6.pdf; Table 2 - Analytical Data (soil).xls; Table 3 - Analytical Data (water).xls
Subject: FW: Apache Corporation - NEDU 627 Pit (EPI Ref. #24002)

-----Original Message-----
From: David Duncan [mailto:dduncan@envplus.net]
Sent: Monday, March 12, 2007 2:31 PM
To: Swain, Harold
Cc: cmiller@envplus.net; jstegemoller@envplus.net
Subject: Apache Corporation - NEDU 627 Pit (EPI Ref. #24002)

Mr. Swain:

On 3/9/06 (Friday) EPI received a phone call from Mr. Larry Johnson (NMOCD – Hobbs) concerning Field Analyses and Laboratory Analytical Data for the above referenced project. Although EPI is no longer in charge of the project, the information Mr. Johnson requested was put into tabular form and is being directed to your attention. Included for your review and information are Table #2 (Soil Field and Laboratory Analytical Data), Table #3 (Water Laboratory Analytical Data) and Figures #4-#6 (Soil Sampling Figures - hand drawn). Please give EPI directions as to whether Apache Corporation or EPI will relay this information to Mr. Johnson.

If you have any questions, concerns or need additional information, please contact me at (505) 394-3481 or via e-mail at dduncan@envplus.net.

NEDU ~~No.~~ 627
APT
~~30-025-34887~~
30-025-37029000

Sincerely,

ENVIRONMENTAL PLUS, INC.

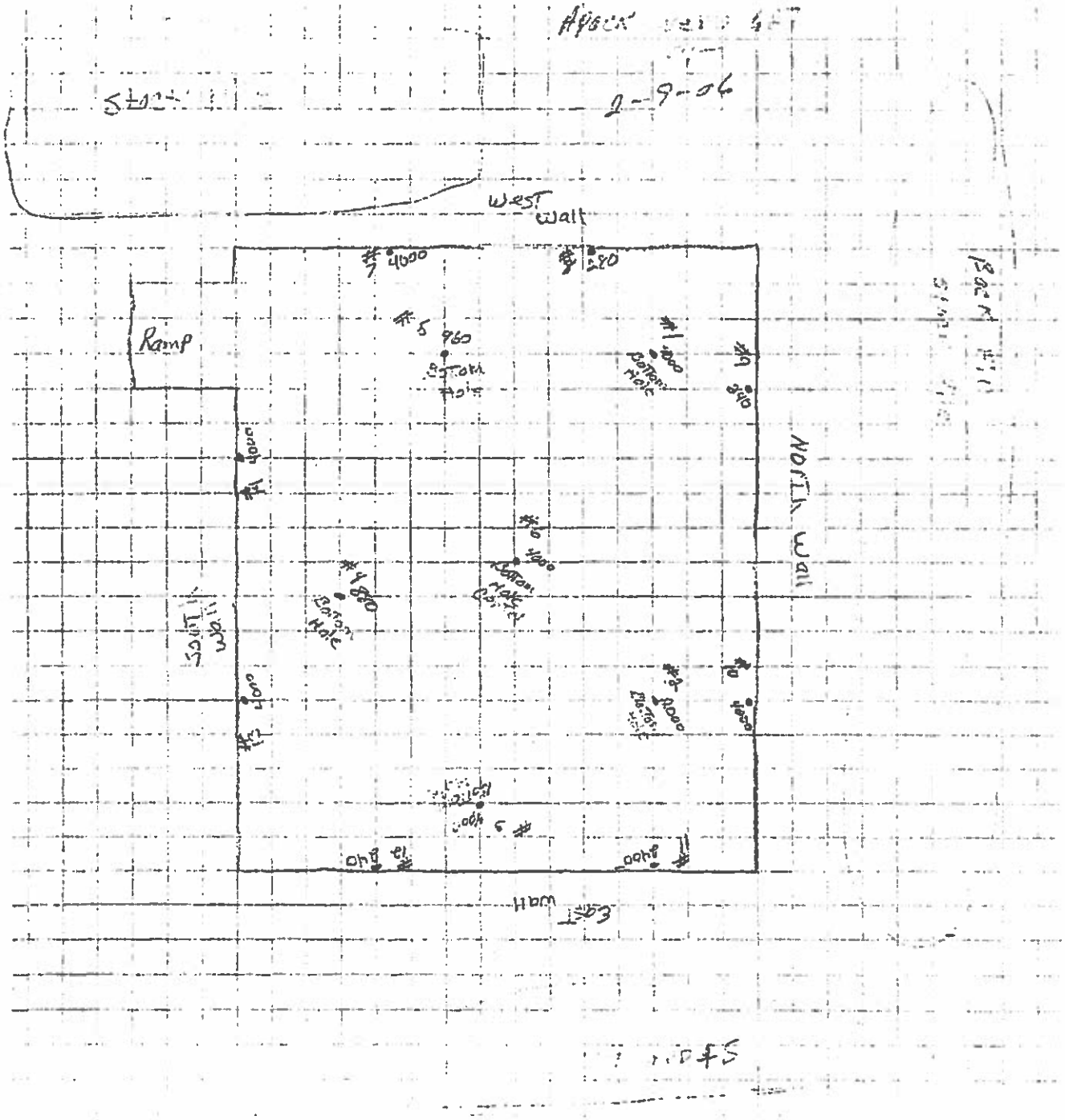
David P. Duncan
Civil Engineer

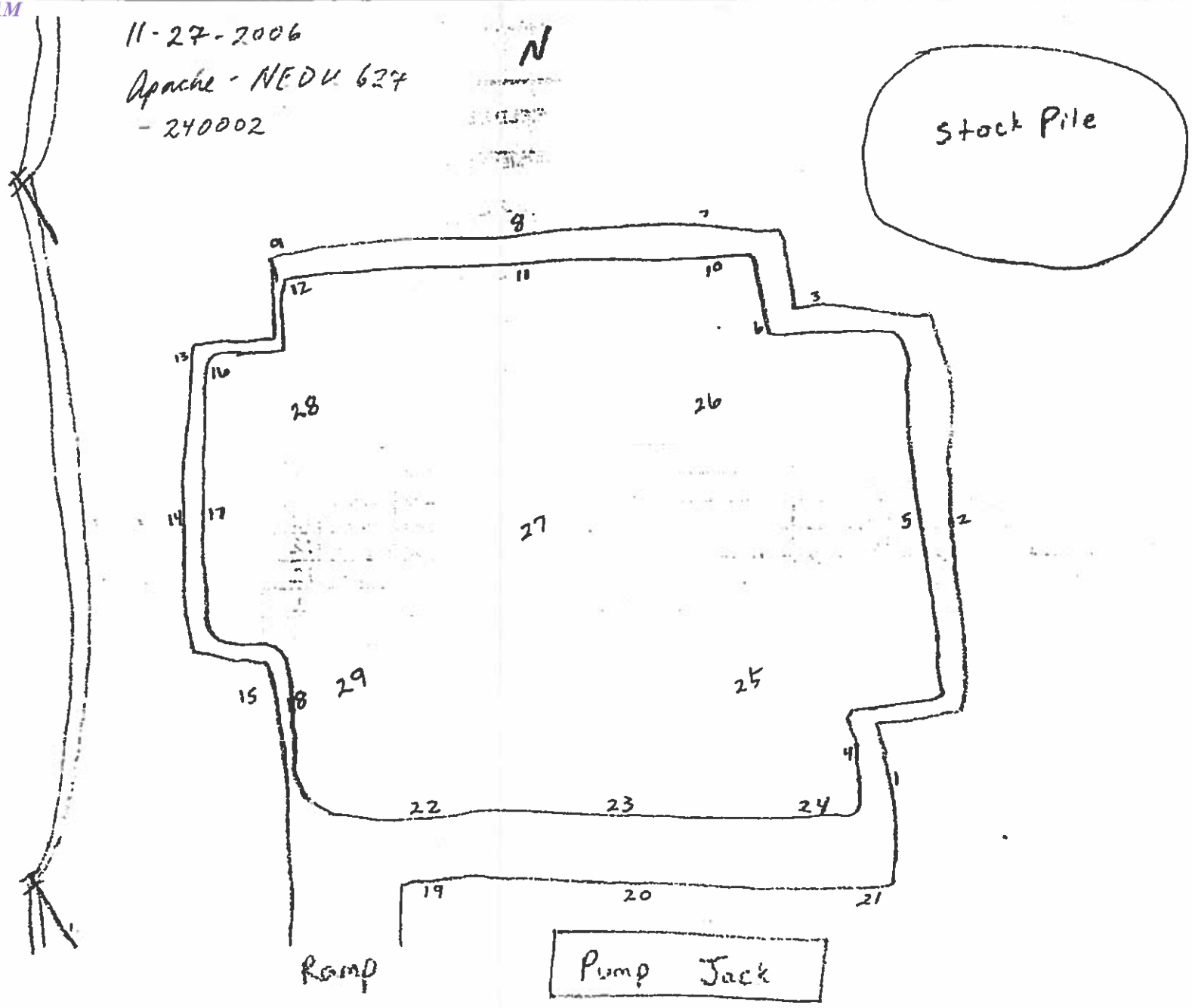
Environmental Plus, Inc.
P.O. Box 1558
2100 Avenue 'O'
Eunice, New Mexico 88231

(505) 394-3481
(505) 394-2601 (facsimile)

RP# 1357

ENVIRONMENTAL PLUS, INC. WATER BASE
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
P.O. BOX 1558 ··· 2100 AVE. O ··· EUNICE, NEW MEXICO 88231
TELEPHONE 505-394-3481 ··· FAX 505-394-2601

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Apache - NEDU 627
- 240002
N
Stock Pile
Ramp
Pump Jack

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STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

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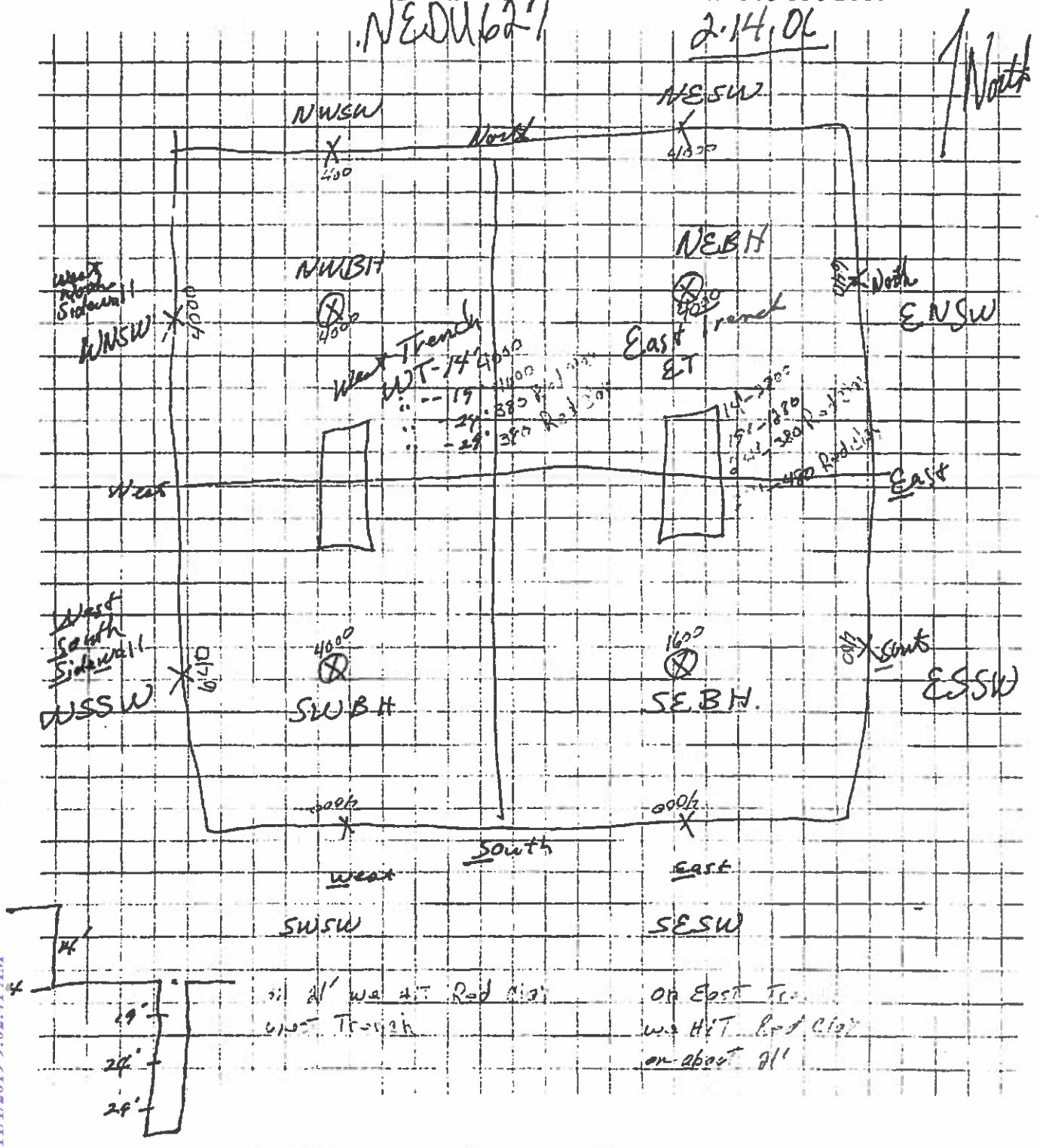

TABLE 2

Summary of Water Sample Laboratory Analytical Results

Apache Corporation

NEDU 627 Pit (EPI Ref.# 240002)

Sample I.D	Date	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity ($mgCaCO_3/L$)	Cl (mg/L)	SO (mg/L)	CO_3 (mg/L)	HCO (mg/L)	pH (s.u.)	TDS (mg/L)
W-18'	07-Nov-06	40,975	3,206	972	465	183,200	110	69,978	2,895	0	134	6.48	212,090
C-22'	07-Nov-06	41,183	2,806	729	305	126,200	110	68,979	2,563	0	134	6.93	117,360
SE-22'	07-Nov-06	15,233	1,603	729	93	62,700	130	27,591	1,201	0	159	6.94	51,550
Chaparral Brine	07-Nov-06	124,790	1,202	2,430	1,135	278,400	110	195,939	9,273	0.0	134.0	6.61	333,420
NMWQCC Remedial Thresholds		100		10				50			100		250

Bolded values are in excess of NMOCD Remediation Threshold Goals
– = Not Analyzed
BH = Soil samples collected from the bottom of the excavation, SW = Soil samples collected from the side walls of the excavation (E=East, W=West, N=North and S=South)

TABLE 2

Summary of Soil Sample Field Analyses and Laboratory Analytical Results

Apache Corporation

NEDU 627 Pit (EPI Ref.# 240082)

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analysis (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO (C6-C10) (mg/Kg)	DRO (>C10-C28) (mg/Kg)	Total Hydrocarbons nC6-nC28 (mg/Kg)	Chloride (mg/Kg)
BH-1	--	Excavated	9-Feb-06	--	4,000	--	--	--	--	--	--	--	--	--
BH-2	--	Excavated	9-Feb-06	--	2,000	--	--	--	--	--	--	--	--	--
BH-3	--	Excavated	9-Feb-06	--	4,000	--	--	--	--	--	--	--	--	--
BH-4	--	Excavated	9-Feb-06	--	880	--	--	--	--	--	--	--	--	--
BH-5	--	Excavated	9-Feb-06	--	960	--	--	--	--	--	--	--	--	--
BH-6 (center)	--	Excavated	9-Feb-06	--	4,000	--	--	--	--	--	--	--	--	--
WSW-7	--	Excavated	9-Feb-06	--	4,000	--	--	--	--	--	--	--	--	--
WSW-8	--	Excavated	9-Feb-06	--	280	--	--	--	--	--	--	--	--	--
NSW-9	--	Excavated	9-Feb-06	--	240	--	--	--	--	--	--	--	--	--
NSW-10	--	Excavated	9-Feb-06	--	4,000	--	--	--	--	--	--	--	--	--
ESW-11	--	Excavated	9-Feb-06	--	2,400	--	--	--	--	--	--	--	--	--
ESW-12	--	Excavated	9-Feb-06	--	240	--	--	--	--	--	--	--	--	--
SSW-13	--	Excavated	9-Feb-06	--	4,000	--	--	--	--	--	--	--	--	--
SSW-14	--	Excavated	9-Feb-06	--	4,000	--	--	--	--	--	--	--	--	--
NWSW-5	5	In situ	14-Feb-06	--	400	--	--	--	--	--	<10.0	<10.0	<20.0	64
NESW-5	5	In situ	14-Feb-06	--	4,000	--	--	--	--	--	<10.0	<10.0	<20.0	7,678

TABLE 2

Summary of Soil Sample Field Analyses and Laboratory Analytical Results

Apache Corporation

NEDU 627 Pit (EPI Ref.# 240002)

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO (C6-C10) (mg/Kg)	DRO (>C10-C28) (mg/Kg)	Total Hydrocarbons nC6-nC28 (mg/Kg)	Chloride (mg/Kg)
ENSW-5	5	In situ	14-Feb-06	--	640	--	--	--	--	--	--	--	--	192
ESSW-5	5	in-situ	14-Feb-06	--	400	--	--	--	--	--	--	--	--	16
SESW-5	5	In situ	14-Feb-06	--	4,000	--	--	--	--	--	--	--	--	17,195
SWSW-4	4	In situ	14-Feb-06	--	4,000	--	--	--	--	--	--	--	--	19,594
WSSW-4	4	in-situ	14-Feb-06	--	640	--	--	--	--	--	--	--	--	272
WNSW-4	4	In situ	14-Feb-06	--	960	--	--	--	--	--	<10.0	<10.0	<20.0	480
NWBH	14	Excavated	14-Feb-06	--	4,000	--	--	--	--	--	<10.0	<10.0	<20.0	13,996
NEBH	14	Excavated	14-Feb-06	--	4000	--	--	--	--	--	<10.0	<10.0	<20.0	2,175
SEBH	14	Excavated	14-Feb-06	--	1600	--	--	--	--	--	<10.0	<10.0	<20.0	9,757
SWBH	14	Excavated	14-Feb-06	--	4000	--	--	--	--	--	<10.0	<10.0	<20.0	688
West Trench-14	14	Excavated	14-Feb-06	--	4000	--	--	--	--	--	--	--	--	21,993
West Trench-19	19	In situ	14-Feb-06	--	4000	--	--	--	--	--	<10.0	<10.0	<20.0	8,157
West Trench-24	24	In situ	14-Feb-06	--	380	--	--	--	--	--	--	--	--	96
West Trench-29	29	In situ	14-Feb-06	--	380	--	--	--	--	--	<10.0	<10.0	<20.0	144
East Trench-14	14	Excavated	14-Feb-06	--	2800	--	--	--	--	--	--	--	--	1,727
East Trench-19	19	In situ	14-Feb-06	--	1280	--	--	--	--	--	<10.0	<10.0	<20.0	912

TABLE 2

Summary of Soil Sample Field Analyses and Laboratory Analytical Results

Apache Corporation

NEDU 627 Pit (EPI Ref.# 240082)

Sample I.D	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO (C6-C10) (mg/Kg)	DRO (>C10-C28) (mg/Kg)	Total Hydrocarbons nC6-nC28 (mg/Kg)	Chloride (mg/Kg)
East Trench-24	24	In situ	14-Feb-06	--	380	--	--	--	--	--	--	--	--	96
East Trench-29	29	In situ	14-Feb-06	--	480	--	--	--	--	--	<10.0	<10.0	<20.0	288
NESW-5'	5	In situ	27-Feb-06	--	--	--	--	--	--	--	<50.0	<50.0	<100	48
NWSW-5'	5	In situ	27-Feb-06	--	--	--	--	--	--	--	<50.0	<50.0	<100	32
SWSW-6'	6	In situ	27-Feb-06	--	--	--	--	--	--	--	<50.0	<50.0	<100	96
SESW-6'	6	In situ	27-Feb-06	--	--	--	--	--	--	--	<50.0	<50.0	<100	32
ESW1-6'	6	In situ	22-Nov-06	--	240	--	--	--	--	--	--	--	--	80
ESW2-7'	7	In situ	11/220/06	--	320	--	--	--	--	--	--	--	--	160
ESW3-6'	6	In situ	22-Nov-06	--	160	--	--	--	--	--	--	--	--	48
ESW4-12'	12	In situ	22-Nov-06	--	320	--	--	--	--	--	--	--	--	160
ESW5-12'	12	In situ	22-Nov-06	--	640	--	--	--	--	--	--	--	--	736
ESW6-13'	13	In situ	22-Nov-06	--	240	--	--	--	--	--	--	--	--	32
NSW7-6'	6	In situ	22-Nov-06	--	240	--	--	--	--	--	--	--	--	32
NSW8-6'	6	In situ	22-Nov-06	--	240	--	--	--	--	--	--	--	--	16
NSW9-6'	6	In situ	22-Nov-06	--	240	--	--	--	--	--	--	--	--	32
NSW10-12'	12	In situ	22-Nov-06	--	320	--	--	--	--	--	--	--	--	96

TABLE 2

Summary of Soil Sample Field Analyses and Laboratory Analytical Results

Apache Corporation

NEDU 627 Pit (EPI Ref.# 240002)

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analysis (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO (C6-C10) (mg/Kg)	DRO (>C10-C28) (mg/Kg)	Total Hydrocarbons nC6-nC28 (mg/Kg)	Chloride (mg/Kg)
NSW11-12'	12	In situ	22-Nov-06	--	400	--	--	--	--	--	--	--	--	160
NSW12-12'	12	In situ	22-Nov-06	--	240	--	--	--	--	--	--	--	--	48
NSW13-6'	6	In situ	22-Nov-06	--	560	--	--	--	--	--	--	--	--	880
WSW14-7'	7	In situ	22-Nov-06	--	400	--	--	--	--	--	--	--	--	240
WSW15-6'	6	In situ	22-Nov-06	--	480	--	--	--	--	--	--	--	--	640
WSW16-12'	12	In situ	22-Nov-06	--	240	--	--	--	--	--	--	--	--	48
WSW17-11'		In situ	22-Nov-06	--	240	--	--	--	--	--	--	--	--	64
WSW18-12'	12	In situ	22-Nov-06	--	160	--	--	--	--	--	--	--	--	48
SSW19-6'	6	In situ	22-Nov-06	--	400	--	--	--	--	--	--	--	--	240
SSW20-7'	7	In situ	22-Nov-06	--	240	--	--	--	--	--	--	--	--	48
SSW21-6'	6	In situ	22-Nov-06	--	240	--	--	--	--	--	--	--	--	32
SSW22-12'	12	In situ	22-Nov-06	--	240	--	--	--	--	--	--	--	--	336
SSW23-6'	6	In situ	22-Nov-06	--	240	--	--	--	--	--	--	--	--	64
SSW24-12'	12	In situ	22-Nov-06	--	160	--	--	--	--	--	--	--	--	224
BH25-19'	19	In situ	22-Nov-06	--	--	--	--	--	--	--	--	--	--	8,317
BH26-19'	19	In situ	22-Nov-06	--	--	--	--	--	--	--	--	--	--	2,607

TABLE 2

Summary of Soil Sample Field Analyses and Laboratory Analytical Results

Apache Corporation

NEDU 627 Pit (EPI Ref.# 240082)

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analysis (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO (C6-C10) (mg/Kg)	DRO (>C10-C28) (mg/Kg)	Total Hydrocarbons nC6-nC28 (mg/Kg)	Chloride (mg/Kg)
BH27-19'	19	In situ	22-Nov-06	--	--	--	--	--	--	--	--	--	--	11,676
BH28-19'	19	In situ	22-Nov-06	--	--	--	--	--	--	--	--	--	--	13,356
BH29-19'	19	In situ	22-Nov-06	--	--	--	--	--	--	--	--	--	--	160
NMOCD Remedial Thresholds				100		10				50			100	250

Bolded values are in excess of NMOCD Remediation Threshold Goals
-- = Not Analyzed
BH = Soil samples collected from the bottom of the excavation, SW = Soil samples collected from the side walls of the excavation (E=East, W=West, N=North and S=South)

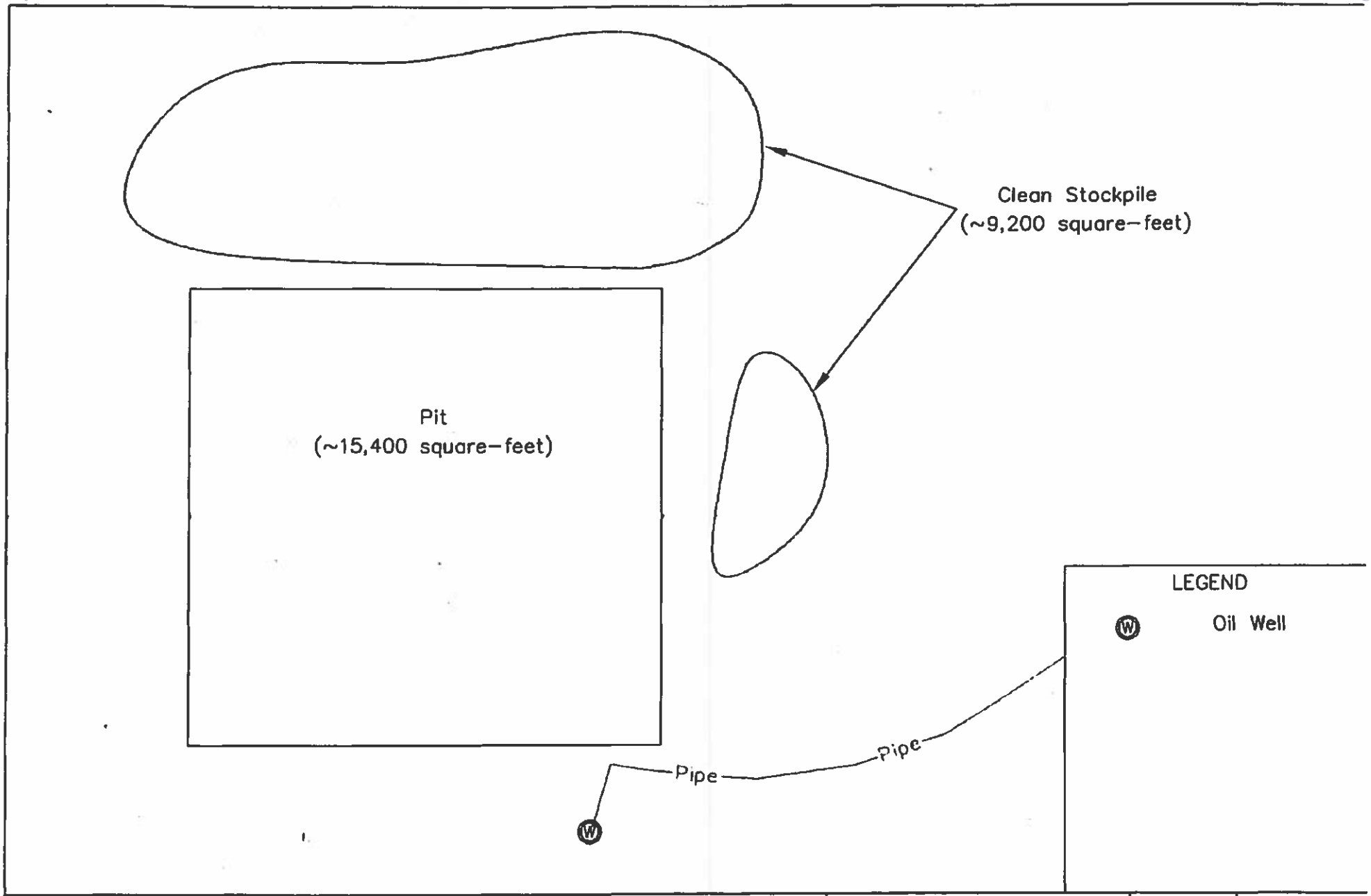

Figure 3 Site Map Apache Corporation N.E.D.U. Pit #627	Lea County, New Mexico SW 1/4 of the NW 1/4, Sec. 14, T21S, R37E N 32° 28' 48.21" W 103° 08' 30.28" Elevation: 3,416 feet amsl	DWG By: Daniel Dominguez February 2006	REVISED:	N
			SHEET 1 of 1	

CARDINAL LABORATORIES

PHONE (325) 673-7001 · 2111 BEECHWOOD · ABILENE, TX 79603
PHONE (505) 393-2326 · 101 E. MARLAND · HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HUNGRY HORSE ENVIRONMENTAL
ATTN: JERRY BRIAN
P.O. BOX 1058
HOBBS, NM 88241
FAX TO: (505) 391-4585

Receiving Date: 04/117/07
Reporting Date: 04/20/07
Project Owner: APACHE
Project Name: NEDU 627
Project Location: LEA CTY., NM

Sampling Date: 04/17/07
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: NF
Analyzed By: HM/AB

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (uS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		04/19/07	04/19/07	04/19/07	04/19/07	04/18/07	04/19/07
H12474-1	E. TRENCH 22' BGS	7223	2794	1230	122	47200	96
H12474-2	SE CORNER/PIT	1782	938	456	31.5	15210	60
Quality Control		NR	45.2	54.1	1.93	1381	NR
True Value QC		NR	50.0	50.0	2.00	1413	NR
% Recovery		NR	90.4	108	96.5	97.7	NR
Relative Percent Difference		NR	5.8	3.6	3.7	1.1	NR
METHODS:			SM3500-Ca-D	3500-Mg E	6049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		04/18/07	04/19/07	04/19/07	04/19/07	04/18/07	04/18/07
H12474-1	E. TRENCH 22' BGS	18794	1286	0	117	7.04	36336
H12474-2	SE CORNER/PIT	5338	536	0	73.2	7.47	11210
Quality Control		490	23.9	NR	964	6.96	NR
True Value QC		500	25.0	NR	1000	7.00	NR
% Recovery		98	95.7	NR	96.4	99.4	NR
Relative Percent Difference		2.0	14	NR	12.0	0.3	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

04-20-07
Date

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240   2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476   (325) 673-7001 FAX (325)673-7020

		BILL TO	
Company Name:	HWE	P.O. #:	
Project Manager:	Jerry Brian	Company:	
Address:	Box 1058	Attn:	
City:	Hobbs State: NM Zip: 88240	Address:	
Phone #:	3-3386 Fax #:	City:	
Project #:	Project Owner: Apache	State: Zip:	
Project Name:	NEDU 627	Phone #:	
Project Location:	Lea Cty	Fax #:	
Sampler Name:	K. Beaird		

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	Ions
H12474-1	E. Trench 22'BGS	X	2	X									4-17-07	2:00	X
-2	SE Corner / Pit	X	2	X									✓	2:30	✓

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.

Relinquished By: [signature]	Date: 4-17-07 Time: 3:30	Received By: [signature]	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler (circled) - UPS - Bus - Other:	Sample Condition: Cool ☐ Yes ☐ No; Intact ☒ Yes ☐ No	CHECKED BY: (Initials) JH	REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HUNGRY HORSE
ATTN: JERRY BRIAN
P.O. BOX 1058
HOBBS, NM 88241
FAX TO: (505) 391-4585

Receiving Date: 03/16/07
Reporting Date: 03/23/07
Project Owner: APACHE
Project Name: NEDU 627
Project Location: LEA COUNTY, NM

Sampling Date: 03/16/07
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: NF
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (uS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		03/23/07	03/23/07	03/23/07	03/23/07	03/20/07	03/23/07
H12345-1	INJECTION WELL	7276	2295	222	199	39000	372
H12345-2	WELL-HEAD	9344	2462	484	220	48600	280
Quality Control		NR	50.6	52.4	1.97	1378	NR
True Value QC		NR	50.0	50.0	2.00	1413	NR
% Recovery		NR	101	105	98.5	99.1	NR
Relative Percent Difference		NR	2.8	0.0	3.6	0.3	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		03/21/07	03/21/07	03/23/07	03/23/07	03/20/07	03/21/07
H12345-1	INJECTION WELL	13696	2939	0.0	454	7.94	29764
H12345-2	WELL-HEAD	17794	3262	0	342	8.07	36048
Quality Control		500	25.0	NR	854	6.94	NR
True Value QC		500	25.0	NR	1000	7.00	NR
% Recovery		100	100	NR	85.4	99.1	NR
Relative Percent Difference		0.0	4.9	NR	9.5	0.3	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

03-23-07
Date

H12345

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

		BILL TO	
Company Name:	HHS	P.O. #:	
Project Manager:	Jerry Brian	Company:	
Address:	Box 1058	Attn:	
City:	Hobbs State: NM Zip: 88240	Address:	
Phone #:	393-3386 Fax #:	City:	
Project #:	Project Owner: Apache	State: Zip:	
Project Name:	NEDU 627	Phone #:	
Project Location:	Lea County	Fax #:	
Sampler Name:	K. Renird		

ANALYSIS REQUEST

Lab I.D. (FOR LAB USE ONLY)	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	TDS											
H12345-1	Injection Well	X	1						X				3-16-07	10:00	X											
-2	Well-Head	↓	↓						↓				↓	↓	↓											

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Relinquished By: [signature]	Date: 3-16-07 Time: 10:25	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By: [signature]	Date: 3-16-07 Time: 10:25	Received By: [signature]	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) (Sampler) UPS - Bus - Other:	Sample Condition Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No	CHECKED BY: (Initials) [initials]	REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HUNGRY HORSE
ATTN: JERRY BRIAN
P.O. BOX 1058
HOBBS, NM 88241
FAX TO: (505) 391-4585

Receiving Date: 02/27/07
Reporting Date: 02/28/07
Project Owner: APACHE
Project Name: NEDU #627
Project Location: LEA CTY., NM

Sampling Date: 02/27/07
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: NF
Analyzed By: AB

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (uS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		02/27/07	02/27/07	02/27/07	02/27/07	02/27/07	02/27/07
H12252-1	PIT WATER	8373	2428	1755	67.5	53300	96
Quality Control		NR	53.2	49.2	1.75	1380	NR
True Value QC		NR	50.0	50.0	2.00	1413	NR
% Recovery		NR	106	98.4	87.5	97.7	NR
Relative Percent Difference		NR	0.0	4.8	11.0	0.2	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		02/27/07	02/27/07	02/27/07	02/27/07	02/27/07	02/28/07
H12252-1	PIT WATER	21393	1299	0	117	6.98	40592
Quality Control		490	28.2	NR	903	6.91	NR
True Value QC		500	25.0	NR	1000	7.00	NR
% Recovery		98	113	NR	90.3	98.7	NR
Relative Percent Difference		0.0	18	NR	1.3	0.0	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

02-28-07
Date

H12252

CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	HHS	**BILL TO**	
Project Manager:	Jerry Bozard	P.O. #:	
Address:	Box 1059	Company:	
City:	Hobbs State: NM Zip: 88240	Attn:	
Phone #:	393 3386 Fax #:	Address:	
Project #:	Project Owner: Apache	City:	
Project Name:	NSAU #627	State: Zip:	
Project Location:	Loco Cty.	Phone #:	
Sampler Name:	K. Beard	Fax #:	

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	TCLP	TI									
H12252-1	Pit Water.	X	2	X									2-27-07	8:00	X	X									

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Relinquished By:	Date: 2-27-07 Time: 4:10	Received By:	
Relinquished By:	Date: Time:	Received By:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool: Yes / No Intact: Yes / No	CHECKED BY: (Initials)

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

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HUNGRY HORSE
ATTN: JERRY BRIAN
P.O. BOX 1058
HOBBS, NM 88241
FAX TO: (505)-391-4585

Source

Receiving Date: 11/28/06
Reporting Date: 12/07/06
Project Owner: APACHE
Project Name: NM STATE "S" #42
Project Location: UNIT 0, SEC. 34 T21S-R37E

Sampling Date: 11/28/06
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: HM
Analyzed By: HM/AB

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (uS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		12/06/06	12/06/06	12/06/06	12/06/06	11/29/06	11/30/06
H11850-1	P&S BRINE SALES	124714	2400	2570	1120	74200	288
Quality Control		NR	48.1	48.6	2.77	1304	NR
True Value QC		NR	50.0	50.0	3.00	1413	NR
% Recovery		NR	96	97	92.0	92	NR
Relative Percent Difference		NR	0.0	0.0	8.3	1.0	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

		Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		12/04/06	12/05/06	11/30/06	11/30/06	11/29/06	11/29/2006
H11850-1	P&S BRINE SALES	201000	5510	0	351	6.62	325588
Quality Control		510	17.9	NR	952	7.00	NR
True Value QC		500	20.0	NR	1000	7.00	NR
% Recovery		102.0	90	NR	95.2	100	NR
Relative Percent Difference		6.1	12	NR	3.1	0	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

12-07-06
Date

H11850

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES, INC.
2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Page ____ of ____

Company Name:	Hungry Horse	BILL TO	
Project Manager:	J Brim	P.O. #:	
Address:	P.O. Box 1058	Company:	
City:	Hobbs State: NM Zip: 88241	Attn:	
Phone #:	393-3386 Fax #: 391-4585	Address:	
Project #:	Project Owner: Apache	City:	
Project Name:	NM State "S" #42	State: Zip:	
Project Location:	Unit O, Sec. 34 T21S-R37E	Phone #:	
Sampler Name:	J. Brim	Fax #:	

ANALYSIS REQUEST

Total Chlorides

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	Total Chlorides
#11850-1	P&S Brine Sales	G							X				11/28/06	10:35AM	X

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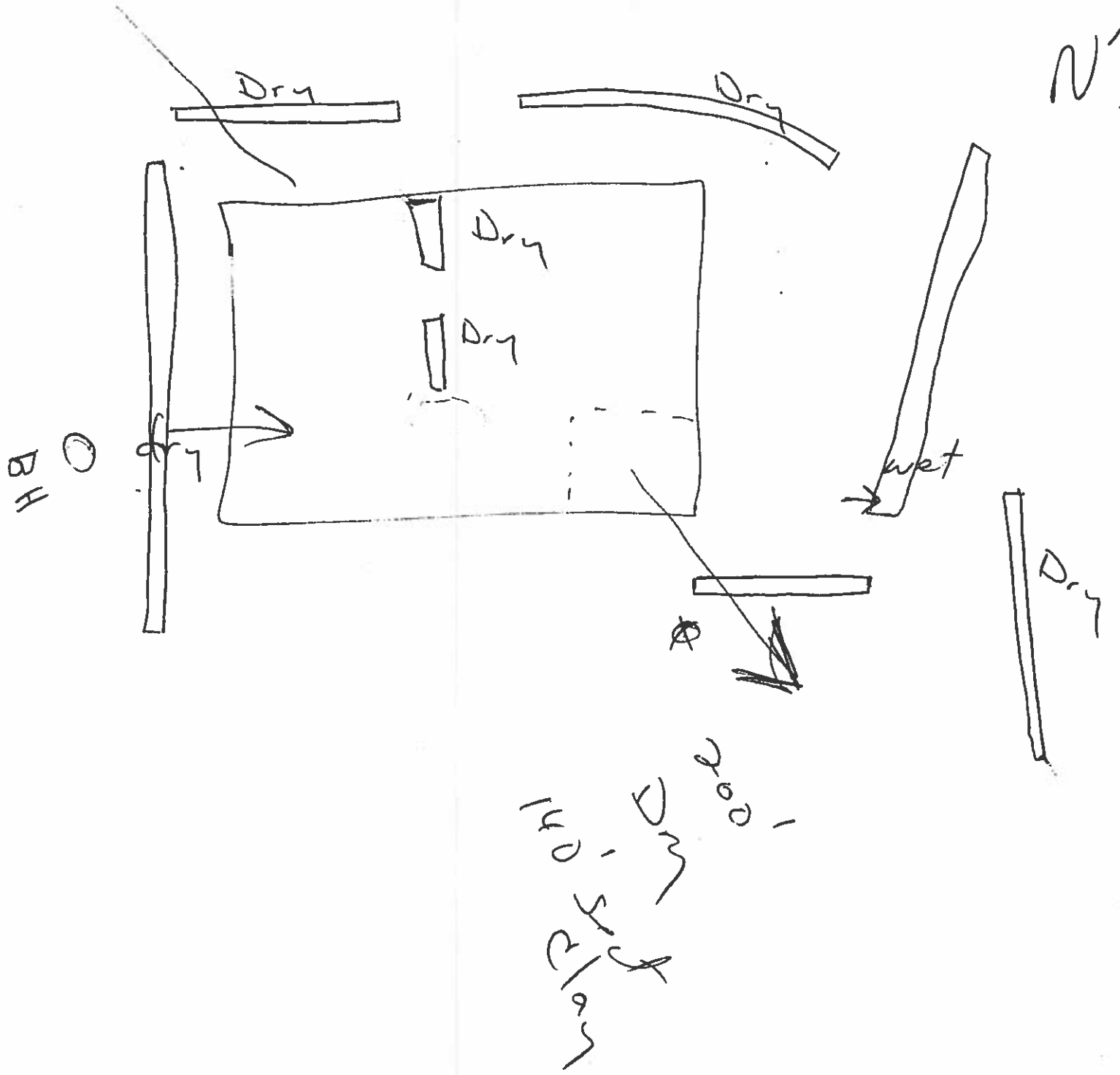
Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: J Brim	Date: 11/28/06 Time: 3:00pm	Received By:	
Relinquished By:	Date: Time:	Received By: (Lab Staff) Hope L. Mcraw	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials)	

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

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.


N
Dry
Dry
Dry
Dry
Dry
wet
Dry

Apache Corporation
New Mexico State BZ Battery - Overflow Pit Sample by: Indian Fire

SAMPLE ID	DATE	FT	LAB-BTEX	LAB-CHL	LAB-GRO	LAB-DRO	LAB-EXT	TPH
BZ HT	1/17/1996	N/A	N/A	N/A	N/A	1400	N/A	N/A
BZ C	1/17/1996	N/A	N/A	N/A	N/A	1000	N/A	N/A

Apache Corporation
New Mexico State BZ Battery - Overflow Pit Sample by: Don Baucham

SAMPLE ID	DATE	FT	LAB-BTEX	LAB-CHL	LAB-GRO	LAB-DRO	LAB-EXT	TPH
St. Mn B	8/29/1997	11'	<0.012	128	N/A	N/A	N/A	22

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00423		CP	LE	3	4		16	23S	37E	672702	3575050*	898	175	115	60

Average Depth to Water: **115 feet**

Minimum Depth: **115 feet**

Maximum Depth: **115 feet**

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 672399.14 **Northing (Y):** 3575896.27 **Radius:** 1000

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

7/16/19 1:35 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

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

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00423		CP	LE		3	4	16	23S	37E	672702	3575050*	898	175	115	60
CP 00762		CP	LE		1	1	09	23S	37E	671849	3577854*	2033	185	100	85
CP 00374 POD1		CP	LE		2	1	20	23S	37E	670702	3574615*	2126	110		
CP 00373 POD1		CP	LE		2	2	08	23S	37E	671449	3577847*	2169	150		
CP 01702 POD1		CP	LE	2	1	1	20	23S	37E	670367	3574794	2311			
CP 01749 POD1		CP	LE	4	1	1	20	23S	37E	670434	3574468	2429			
CP 00375 POD1		CP	LE		4	4	21	23S	37E	673133	3573448*	2555	160		
CP 00816		CP	LE			3	04	23S	37E	672043	3578457*	2585	250		
CP 01005 POD1		CP	LE	3	4	2	10	23S	37E	674560	3577487	2683	95		
CP 01104 POD1		CP								673178	3578773	2980	21		
CP 00480 POD1		CP	LE		3	4	22	23S	37E	674340	3573467*	3109	6281	600	5681
CP 00855		CP	LE		3	3	20	23S	37E	670321	3573402*	3246	200	120	80
CP 00389 POD1		CP	LE	3	1	1	04	23S	37E	671723	3579362*	3531	100		
CP 00561		CP	LE	3	3	3	34	22S	37E	673324	3579834*	4044	137	60	77
CP 00390 POD1		CP	LE	2	4	1	06	23S	37E	669120	3579111*	4592	100		
CP 00198 POD1		CP	LE	3	2	4	02	23S	37E	676157	3578627*	4645	80		
CP 00350 POD1		CP	LE	3	2	2	32	23S	37E	671458	3571309*	4682	7		
CP 00354 POD1		CP	LE	3	1	2	32	23S	37E	671056	3571302*	4786	125		
CP 00037 POD4		CP	LE		2	1	32	23S	37E	670755	3571396*	4791	178	106	72
CP 00143 POD1		CP	LE	1	1	4	34	22S	37E	674121	3580450*	4868	140		

Average Depth to Water: **183 feet**

Minimum Depth: **60 feet**

Maximum Depth: **600 feet**

Record Count: 20

UTMNAD83 Radius Search (in meters):

Easting (X): 672399.14 **Northing (Y):** 3575896.27 **Radius:** 5000

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

7/16/19 1:37 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

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	Tws	Rng	(NAD83 UTM in meters) X	Y
	CP 00762	1	1		09	23S	37E	671849	3577854*

Driller License:	882	**Driller Company:**	LARRY'S DRILLING & PUMP CO.		
Driller Name:	FELKINS, LARRY				
Drill Start Date:	05/01/1991	**Drill Finish Date:**	05/09/1991	**Plug Date:**	
Log File Date:	06/05/1991	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	40 GPM
Casing Size:	6.00	**Depth Well:**	185 feet	**Depth Water:**	100 feet

Water Bearing Stratifications:	Top	Bottom	Description
	100	160	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	160	185

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

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	Tws	Rng	(NAD83 UTM in meters) X	Y
	CP 00423	3	4		16	23S	37E	672702	3575050*

Driller License:	46	**Driller Company:**	ABBOTT BROTHERS COMPANY		
Driller Name:	ABBOTT, MURRELL				
Drill Start Date:	01/20/1967	**Drill Finish Date:**	01/20/1967	**Plug Date:**	
Log File Date:	02/08/1967	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	7.00	**Depth Well:**	175 feet	**Depth Water:**	115 feet

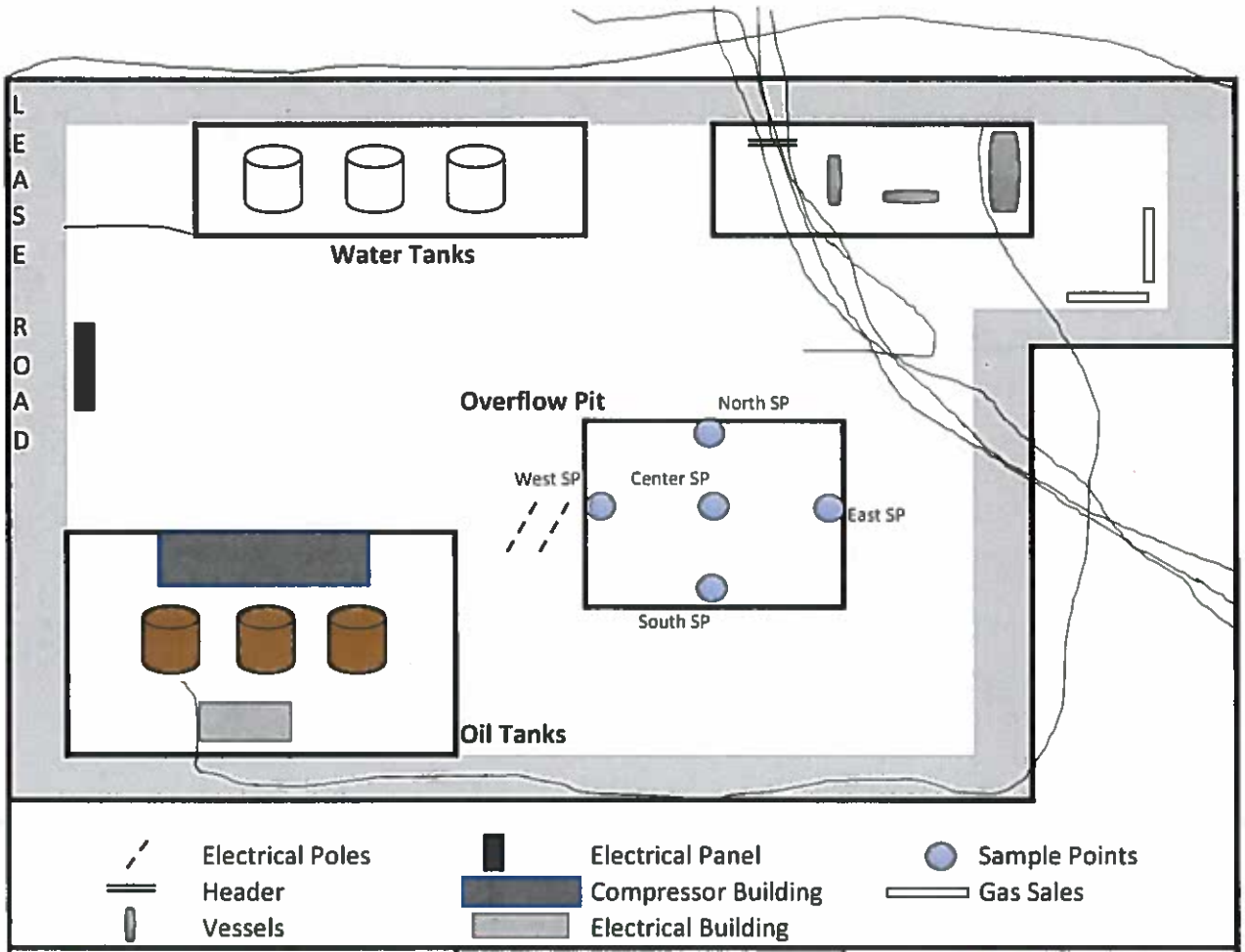
Water Bearing Stratifications:	Top	Bottom	Description
	145	165	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	125	165

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

APACHE CORPORATION: NEW MEXICO STATE BZ (CLOSEST WELL NM STATE BZ #8)
OVERFLOW PIT

SAMPLE ID	DATE	FT	LAB-BTEX	LAB-CHL	LAB-GRO	LAB-DRO	LAB-EXT	TPH	SOIL	NOTES
NORTH SP1	9/10/2019	1'	<0.300	<16	<10	<10	<10	<30	CAL	
NORTH SP1	9/10/2019	2'		<16					CAL	
NORTH SP1	9/10/2019	3'	<0.300	<16	<10	135	58.8	203.8	CAL	
NORTH SP1	9/10/2019	4'		<16					CAL	
NORTH SP1	9/10/2019	5'	<0.300	<16	<10	18	<10	38	CAL/SAND	
SOUTH SP1	9/10/2019	1'	<0.300	16	<10	<10	<10	30	CAL	
EAST SP1	9/10/2019	1'	<0.300	<16	<10	<10	<10	30	CAL	
WEST SP1	9/10/2019	1'	<0.300	16	<10	<10	<10	30	CAL	
WEST SP1	9/10/2019	2'		16					CAL	
WEST SP1	9/10/2019	3'	<0.300	16	<10	<10	<10	30	CAL	
WEST SP1	9/10/2019	4'		16					CAL	
WEST SP1	9/10/2019	5'	<0.300	16	<10	<10	<10	30	CAL	
CENTER SP1	9/10/2019	1'	<0.300	16	<10	<10	<10	30	CAL	
CENTER SP1	9/10/2019	2'		<16					CAL	



Apache
EXPLORING WHAT'S POSSIBLE

Apache Corporation
New Mexico State BZ Bty
API No. 30-025-37029
32.306625 -103.168822

HUNGRY HORSE, LLC

Sample ID	Footage	Lab-BTEX	Lab-CHL	Lab-GRO	Lab-DRO	Lab Ext
North SP1	1'	<0.300	<16	18	<10	38
South SP1	1'	<0.300	16	<10	<10	<10
East SP1	1'	<0.300	<16	<10	<10	<10
West SP1	1'	<0.300	16	<10	<10	<10
Center SP1	1'	<0.300	16	<10	<10	<10

CARDINAL Laboratories

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

September 13, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: BZ STATE #8

Enclosed are the results of analyses for samples received by the laboratory on 09/10/19 12:15.

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 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:	09/10/2019	Sampling Date:	09/10/2019
Reported:	09/13/2019	Sampling Type:	Soil
Project Name:	BZ STATE #8	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: NORTH SP - 1' (H903117-01)

BTEX 8021B mg/kg **Analyzed By: BF**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2019	ND	1.99	99.4	2.00	0.0332	
Toluene*	<0.050	0.050	09/11/2019	ND	2.00	100	2.00	1.34	
Ethylbenzene*	<0.050	0.050	09/11/2019	ND	2.03	102	2.00	0.393	
Total Xylenes*	<0.150	0.150	09/11/2019	ND	6.08	101	6.00	0.808	
Total BTEX	<0.300	0.300	09/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL 85.9 % 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	09/11/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2019	ND	214	107	200	4.27	
DRO >C10-C28*	<10.0	10.0	09/11/2019	ND	217	109	200	7.72	
EXT DRO >C28-C36	<10.0	10.0	09/11/2019	ND					

Surrogate: 1-Chlorooctane 83.4 % 41-142

Surrogate: 1-Chlorooctadecane 90.9 % 37.6-147

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:	09/10/2019	Sampling Date:	09/10/2019
Reported:	09/13/2019	Sampling Type:	Soil
Project Name:	BZ STATE #8	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: NORTH SP - 2' (H903117-02)

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	09/11/2019	ND	432	108	400	0.00	

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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:	09/10/2019	Sampling Date:	09/10/2019
Reported:	09/13/2019	Sampling Type:	Soil
Project Name:	BZ STATE #8	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: NORTH SP - 3' (H903117-03)

BTEX 8021B mg/kg Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2019	ND	1.99	99.4	2.00	0.0332	
Toluene*	<0.050	0.050	09/11/2019	ND	2.00	100	2.00	1.34	
Ethylbenzene*	<0.050	0.050	09/11/2019	ND	2.03	102	2.00	0.393	
Total Xylenes*	<0.150	0.150	09/11/2019	ND	6.08	101	6.00	0.808	
Total BTEX	<0.300	0.300	09/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL 87.8 % 73.3-129

Chloride, SM4500CI-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	09/11/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2019	ND	214	107	200	4.27	
DRO >C10-C28*	**135**	10.0	09/12/2019	ND	217	109	200	7.72	
EXT DRO >C28-C36	**58.8**	10.0	09/12/2019	ND					

Surrogate: 1-Chlorooctane 93.2 % 41-142

Surrogate: 1-Chlorooctadecane 101 % 37.6-147

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:	09/10/2019	Sampling Date:	09/10/2019
Reported:	09/13/2019	Sampling Type:	Soil
Project Name:	BZ STATE #8	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: NORTH SP - 4' (H903117-04)

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	09/11/2019	ND	432	108	400	0.00	

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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:	09/10/2019	Sampling Date:	09/10/2019
Reported:	09/13/2019	Sampling Type:	Soil
Project Name:	BZ STATE #8	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: NORTH SP - 5' (H903117-05)

BTEX 8021B mg/kg Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2019	ND	1.99	99.4	2.00	0.0332	
Toluene*	<0.050	0.050	09/11/2019	ND	2.00	100	2.00	1.34	
Ethylbenzene*	<0.050	0.050	09/11/2019	ND	2.03	102	2.00	0.393	
Total Xylenes*	<0.150	0.150	09/11/2019	ND	6.08	101	6.00	0.808	
Total BTEX	<0.300	0.300	09/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC 88.6 % 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	09/11/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2019	ND	214	107	200	4.27	
DRO >C10-C28*	**18.0**	10.0	09/11/2019	ND	217	109	200	7.72	
EXT DRO >C28-C36	<10.0	10.0	09/11/2019	ND					

Surrogate: 1-Chlorooctane 93.1 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 37.6-147

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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:	09/10/2019	Sampling Date:	09/10/2019
Reported:	09/13/2019	Sampling Type:	Soil
Project Name:	BZ STATE #8	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SOUTH SP - 1' (H903117-06)

BTEX 8021B mg/kg Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2019	ND	1.99	99.4	2.00	0.0332	
Toluene*	<0.050	0.050	09/11/2019	ND	2.00	100	2.00	1.34	
Ethylbenzene*	<0.050	0.050	09/11/2019	ND	2.03	102	2.00	0.393	
Total Xylenes*	<0.150	0.150	09/11/2019	ND	6.08	101	6.00	0.808	
Total BTEX	<0.300	0.300	09/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL 85.8 % 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	09/11/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2019	ND	216	108	200	2.15	
DRO >C10-C28*	<10.0	10.0	09/11/2019	ND	233	117	200	0.432	
EXT DRO >C28-C36	<10.0	10.0	09/11/2019	ND					

Surrogate: 1-Chlorooctane 85.9 % 41-142

Surrogate: 1-Chlorooctadecane 92.0 % 37.6-147

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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:	09/10/2019	Sampling Date:	09/10/2019
Reported:	09/13/2019	Sampling Type:	Soil
Project Name:	BZ STATE #8	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: EAST SP - 1' (H903117-07)

BTEX 8021B mg/kg **Analyzed By: BF**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2019	ND	1.99	99.4	2.00	0.0332	
Toluene*	<0.050	0.050	09/11/2019	ND	2.00	100	2.00	1.34	
Ethylbenzene*	<0.050	0.050	09/11/2019	ND	2.03	102	2.00	0.393	
Total Xylenes*	<0.150	0.150	09/11/2019	ND	6.08	101	6.00	0.808	
Total BTEX	<0.300	0.300	09/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID 87.2 % 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	09/11/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2019	ND	216	108	200	2.15	
DRO >C10-C28*	<10.0	10.0	09/11/2019	ND	233	117	200	0.432	
EXT DRO >C28-C36	<10.0	10.0	09/11/2019	ND					

Surrogate: 1-Chlorooctane 80.3 % 41-142

Surrogate: 1-Chlorooctadecane 87.1 % 37.6-147

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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:	09/10/2019	Sampling Date:	09/10/2019
Reported:	09/13/2019	Sampling Type:	Soil
Project Name:	BZ STATE #8	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: WEST SP - 1' (H903117-08)

BTEX 8021B mg/kg Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2019	ND	1.99	99.4	2.00	0.0332	
Toluene*	<0.050	0.050	09/11/2019	ND	2.00	100	2.00	1.34	
Ethylbenzene*	<0.050	0.050	09/11/2019	ND	2.03	102	2.00	0.393	
Total Xylenes*	<0.150	0.150	09/11/2019	ND	6.08	101	6.00	0.808	
Total BTEX	<0.300	0.300	09/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID 88.5 % 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	09/11/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2019	ND	216	108	200	2.15	
DRO >C10-C28*	<10.0	10.0	09/12/2019	ND	233	117	200	0.432	
EXT DRO >C28-C36	<10.0	10.0	09/12/2019	ND					

Surrogate: 1-Chlorooctane 90.3 % 41-142

Surrogate: 1-Chlorooctadecane 96.0 % 37.6-147

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:	09/10/2019	Sampling Date:	09/10/2019
Reported:	09/13/2019	Sampling Type:	Soil
Project Name:	BZ STATE #8	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: WEST SP - 2' (H903117-09)

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	09/11/2019	ND	432	108	400	0.00	

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:	09/10/2019	Sampling Date:	09/10/2019
Reported:	09/13/2019	Sampling Type:	Soil
Project Name:	BZ STATE #8	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: WEST SP - 3' (H903117-10)

BTEX 8021B mg/kg Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2019	ND	1.99	99.4	2.00	0.0332	
Toluene*	<0.050	0.050	09/11/2019	ND	2.00	100	2.00	1.34	
Ethylbenzene*	<0.050	0.050	09/11/2019	ND	2.03	102	2.00	0.393	
Total Xylenes*	<0.150	0.150	09/11/2019	ND	6.08	101	6.00	0.808	
Total BTEX	<0.300	0.300	09/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL 87.0 % 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	09/11/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2019	ND	216	108	200	2.15	
DRO >C10-C28*	<10.0	10.0	09/12/2019	ND	233	117	200	0.432	
EXT DRO >C28-C36	<10.0	10.0	09/12/2019	ND					

Surrogate: 1-Chlorooctane 90.4 % 41-142

Surrogate: 1-Chlorooctadecane 97.0 % 37.6-147

Cardinal Laboratories

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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:	09/10/2019	Sampling Date:	09/10/2019
Reported:	09/13/2019	Sampling Type:	Soil
Project Name:	BZ STATE #8	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: WEST SP - 4' (H903117-11)

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	09/11/2019	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

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

Received:	09/10/2019	Sampling Date:	09/10/2019
Reported:	09/13/2019	Sampling Type:	Soil
Project Name:	BZ STATE #8	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: WEST SP - 5' (H903117-12)

BTEX 8021B mg/kg Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2019	ND	1.99	99.4	2.00	0.0332	
Toluene*	<0.050	0.050	09/11/2019	ND	2.00	100	2.00	1.34	
Ethylbenzene*	<0.050	0.050	09/11/2019	ND	2.03	102	2.00	0.393	
Total Xylenes*	<0.150	0.150	09/11/2019	ND	6.08	101	6.00	0.808	
Total BTEX	<0.300	0.300	09/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID 88.0 % 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	09/11/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2019	ND	216	108	200	2.15	
DRO >C10-C28*	<10.0	10.0	09/12/2019	ND	233	117	200	0.432	
EXT DRO >C28-C36	<10.0	10.0	09/12/2019	ND					

Surrogate: 1-Chlorooctane 89.8 % 41-142

Surrogate: 1-Chlorooctadecane 94.6 % 37.6-147

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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:	09/10/2019	Sampling Date:	09/10/2019
Reported:	09/13/2019	Sampling Type:	Soil
Project Name:	BZ STATE #8	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: CENTER SP - 1' (H903117-13)

BTEX 8021B mg/kg Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2019	ND	1.99	99.4	2.00	0.0332	
Toluene*	<0.050	0.050	09/11/2019	ND	2.00	100	2.00	1.34	
Ethylbenzene*	<0.050	0.050	09/11/2019	ND	2.03	102	2.00	0.393	
Total Xylenes*	<0.150	0.150	09/11/2019	ND	6.08	101	6.00	0.808	
Total BTEX	<0.300	0.300	09/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL 88.1 % 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	09/11/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2019	ND	216	108	200	2.15	
DRO >C10-C28*	<10.0	10.0	09/12/2019	ND	233	117	200	0.432	
EXT DRO >C28-C36	<10.0	10.0	09/12/2019	ND					

Surrogate: 1-Chlorooctane 88.1 % 41-142

Surrogate: 1-Chlorooctadecane 94.4 % 37.6-147

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:	09/10/2019	Sampling Date:	09/10/2019
Reported:	09/13/2019	Sampling Type:	Soil
Project Name:	BZ STATE #8	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: CENTER SP - 2' (H903117-14)

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	09/11/2019	ND	432	108	400	0.00	

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

1 of 2

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Apache Corp
Project Manager:
Address:
City: State: Zip:
Phone #: Fax #:
Project #: Project Owner:
Project Name:
Project Location: BZ State #8
Sampler Name:

BILL TO

P.O. #:
Company: Apache
Attn: Bruce Barker
Address: 2350 Marlone
City: Hobbs
State: NM Zip: 88240
Phone #: 432-631-6980
Fax #:

ANALYSIS REQUEST

Chlorides
BTEX
TPH

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
H903117														
1	north Sp-1'	G	1			X					X		9-10-19	9:07
2	north Sp-2'	G	1			X					X			7:25
3	north Sp-3'	G	1			X					X			7:29
4	north Sp-4'	G	1			X					X			7:34
5	north Sp-5'	G	1			X					X			7:38
6	South Sp-1'	G	1			X					X			9:15
7	East Sp-1'	G	1			X					X			9:11

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.

Relinquished By: Date: 9-10-19 Time: 12:15 Received By: Tamara Oldaker
Relinquished By: Date: Time: Received By:
Delivered By: (Circle One) 0.6° #77 Corrected 1.0°
Sampler - UPS - Bus - Other:

Sample Condition: Cool: Yes / No; Intact: Yes / No
CHECKED BY: (Initials) T.O.

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:
kmontanez@Hungry-Horse.com
larry.Barker@ApachCorp.com

CARDINAL Laboratories

2050

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Apache Corp
Project Manager:	
Address:	
City:	State: Zip:
Phone #:	Fax #:
Project #:	Project Owner:
Project Name:	
Project Location:	BZ State #8
Sampler Name:	

BILL TO

P.O. #:	
Company:	Apache
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	Chlorides	BTEX	TPH
H903117																	
8	West SP-1'	G	1			X					X		9-10-19	9:21	X	X	X
9	West SP-2'	G	1			X					X			7:54	X		
10	West SP-3'	G	1			X					X			7:57	X	X	X
11	West SP-4'	G	1			X					X			8:00	X		
12	West SP-5'	G	1			X					X			8:04	X	X	X
13	Center SP-1'	G	1			X					X			9:27	X	X	X
14	Center SP-2'	G	1			X					X		↓	8:10	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.

Relinquished By:	Date: 9-10-19	Received By:	
	Time: 12:15		
Relinquished By:	Date:	Received By:	
	Time:		

Delivered By: (Circle One) 0.6° #97
Sampler - UPS - Bus - Other: Corrected 1.0°

Sample Condition: Cool: ☐ Yes ☐ No; Intact: ☐ Yes ☐ No

CHECKED BY: (Initials) TO

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:
kmaitanez@Hungry-Horse.com
kerry.Baker@Apachecorp.com

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-144
Revised April 3, 2017

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Overflow Pit 1
Closure Report

Type of action:
- ☐ Below grade tank registration
- ☐ Permit of a pit or proposed alternative method
- ☐ Closure of a pit, below-grade tank, or proposed alternative method
- ☐ Modification to an existing permit/or registration
- ☐ Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: Apache Corporation OGRID #: 873
Address: 800 East Broadway Hobbs, NM 88240
Facility or well name: NM State BZ Battery (closest well NM State BZ NCT #8)
API Number: 30-025-10766 OCD Permit Number:
U/L or Qtr/Qtr D Section 16 Township 23S Range 37E County: Lea
Center of Proposed Design: Latitude 32.306625 Longitude -103.168822 NAD83
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC
Temporary: ☐ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no
☒ Lined ☐ Unlined Liner type: Thickness mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other
☐ String-Reinforced
Liner Seams: ☒ Welded ☐ Factory ☐ Other 12mil Volume: Unknown bbl Dimensions: L x W x D

3.
☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: bbl Type of fluid:
Tank Construction material:
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other
Liner type: Thickness mil ☐ HDPE ☐ PVC ☐ Other

4.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5.
Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*
☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*
☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
☐ Alternate. Please specify

6.

Netting: Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☐ Other_____

☐ Monthly inspections (If netting or screening is not physically feasible)

7.

Signs: Subsection C of 19.15.17.11 NMAC

☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☐ Signed in compliance with 19.15.16.8 NMAC

8.

Variances and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. **Siting criteria does not apply to drying pads or above-grade tanks.**

General siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. - ☐ NM Office of the State Engineer - iWATERS database search; ☐ USGS; ☐ Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit . NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. **(Does not apply to below grade tanks)** - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within the area overlying a subsurface mine. **(Does not apply to below grade tanks)** - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. **(Does not apply to below grade tanks)** - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain. **(Does not apply to below grade tanks)** - FEMA map	☐ Yes ☒ No
Below Grade Tanks	
Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter) Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ N
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ N
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☒ N

Within 100 feet of a wetland.
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site ☐ Yes ☒ No

Temporary Pit Non-low chloride drilling fluid

Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).
- Topographic map; Visual inspection (certification) of the proposed site ☐ Yes ☒ No

Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image ☐ Yes ☒ No

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, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;
- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site ☐ Yes ☒ No

Within 300 feet of a wetland.
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site ☐ Yes ☒ No

Permanent Pit or Multi-Well Fluid Management Pit

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).
- Topographic map; Visual inspection (certification) of the proposed site ☐ Yes ☒ No

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image ☐ Yes ☒ No

Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.
- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site ☐ Yes ☒ No

Within 500 feet of a wetland.
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site ☐ Yes ☒ No

10.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

11.
Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ A List of wells with approved application for permit to drill associated with the pit.
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

13.
Proposed Closure: 19.15.17.13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Multi-well Fluid Management Pit ☐ Alternative

Proposed Closure Method:
- ☐ Waste Excavation and Removal
- ☐ Waste Removal (Closed-loop systems only)
- ☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
  - ☐ In-place Burial ☐ On-site Trench Burial
- ☐ Alternative Closure Method

14.
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15.
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC
Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 25 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	

adopted pursuant to NMSA 1978, Section 3-27-3, as amended.
- Written confirmation or verification from the municipality; Written approval obtained from the municipality — ☐ Yes ☒ No

Within the area overlying a subsurface mine.
- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division — ☐ Yes ☒ No

Within an unstable area.
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map — ☐ Yes ☒ No

Within a 100-year floodplain.
- FEMA map — ☐ Yes ☒ No

16.
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC
- ☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC
- ☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☒ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- ☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17.
Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): Larry (Bruce) Baker Title: Sr. Environmental Tech

Signature: Larry Bruce Baker Date: 10/31/2019

e-mail address: larry.baker@apachecorp.com Telephone: 432-631-6982

18.
OCD Approval: ☐ Permit Application (including closure plan) ☒ Closure Plan (only) ☐ OCD Conditions (see attachment)

Report

OCD Representative Signature: Jaclyn Burdine **Approval Date:** 07/06/2022

Title: Environmental Specialist-A **OCD Permit Number:** Overflow Pit 1

19.
Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ **Closure Completion Date:**

20.
Closure Method:

☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
☒ If different from approved plan, please explain. Pit Closes in 1997

21.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

- ☒ Proof of Closure Notice (surface owner and division)
- ☐ Proof of Deed Notice (required for on-site closure for private land only)
- ☒ Plot Plan (for on-site closures and temporary pits)
- ☒ Confirmation Sampling Analytical Results (if applicable)
- ☐ Waste Material Sampling Analytical Results (required for on-site closure)
- ☐ Disposal Facility Name and Permit Number
- ☐ Soil Backfilling and Cover Installation
- ☐ Re-vegetation Application Rates and Seeding Technique
- ☐ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude Longitude NAD: ☐ 1927 ☐ 1983

22.

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Larry (Bruce) Baker Title: Sr. Environmental Tech

Signature: Larry Bruce Baker Date: 10/31/19

e-mail address: larry.baker@apachecorp.com Telephone: 432-631-6982

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

Operator:	OGRID:
APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	873
	Action Number: 2200
	Action Type: [C-144] PIT Generic Plan (C-144)

CONDITIONS

Created By	Condition	Condition Date
jburdine	None	7/6/2022