

**PIT
REMEDIATION
&
CLOSURE
REPORT**



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

September 17, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-410-431-222

Mr. Mike Warren
Apache Corporation
3300 N. A, Suite 8220
Midland, Texas 79705

RE: FINAL PIT CLOSURE REPORTS

Dear Mr. Warren:

The New Mexico Oil Conservation Division (OCD) has completed a review of Apache Corporation's (AC) May 30, 1997 "PIT CLOSURE REPORTS" which were received by the OCD Santa Fe Office on September 16, 1997. These documents, which were submitted on behalf of AC by their consultant Indian Environmental Services, contain the results of the closure activities for 4 unlined oil and gas production pits in Lea County, New Mexico.

The OCD's review of the above referenced document is addressed below:

- A. The pit remedial activities conducted at the sites listed below are satisfactory. However, according to the reports, onsite remediation of contaminated soil is still continuing at the sites. Therefore, the OCD cannot issue final closure approval and approval of closure actions at these sites is **denied**. Please resubmit final closure reports for these sites upon completion of the landfarming activities. The final reports will include the results of the soil remediation levels achieved, the laboratory analyses and associated quality assurance/quality control data and the disposition of the remediated soils.
- | | | |
|----|---------------------------------------|-----------------------------|
| 1. | South Jal Langlie Unit (Overflow pit) | Unit ?, Sec. 17, T25S, R37E |
| 2. | State It (Overflow pit) | Unit F, Sec. 16, T26S, R33E |
- B. 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 is **denied**. The OCD requires that AC submit

Mr. Mike Warren
September 17, 1997
Page 2

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 Santa Fe Office by October 17, 1997 with a copy provided to the OCD Hobbs District Office.

- | | | |
|----|--------------------------------------|-----------------------------|
| 1. | Skelly Penrose A Unit (Overflow pit) | Unit ?, Sec. 03, T23S, R37E |
| 2. | New Mexico BZ State (Overflow) | Unit ?, Sec. 16, T23S, R37E |

- C. The OCD has noted some serious errors in reporting the depth to ground water on the pit closure reports. The report forms for each site list the depth to ground water as greater than 100 feet. However, a review of readily available ground water information in the vicinity of these sites shows that the depth to ground water at all of the sites, except the "State It" site, is between 50-100 feet. This error causes the remediation levels for these sites to be greatly in excess of what the true recommended remediation levels should be under the OCD's "SURFACE IMPOUNDMENT CLOSURE GUIDELINES". Please correct this information when the forms are resubmitted.
- D. In order for the OCD to enter pit closure data into a database system, the OCD requires that an OCD "PIT REMEDIATION AND CLOSURE REPORT" form (attached) be submitted for each pit closed. Please provide these completed OCD forms, including appropriate 1/4, 1/4 section locations, when resubmitting the pit closure actions for approval.

To simplify the approval process for both AC and OCD, the OCD requests that AC submit all future pit closure reports only upon completion of all closure activities including onsite landfarming or composting of contaminated soils. The reports will include a completed OCD "PIT REMEDIATION AND CLOSURE REPORT" form and all pertinent information related to the extent of contamination, the results of the soil remediation levels in the pits and landfarms, all laboratory analyses and associated quality assurance/quality control data and the disposition of all remediated soils.

If you have any questions, please call me at (505) 827-7154.

Sincerely,



William C. Olson
Hydrogeologist
Environmental Bureau

attachment

xc: OCD Hobbs District Office
 David Deardorff, New Mexico State Land Office
 Fred Holmes, Indian Environmental Services

RECEIVED

SEP 16 1997

Environmental Bureau
Oil Conservation Division

NMOCD INTER-OFFICE CORRESPONDENCE

TO: Bill Olson-Environmental Bureau, Santa Fe, NM

From: Wayne Price-Environmental Engineer



Date: September 11, 1997

Reference: Apache Corporation

Subject: Pit Closures:

Skelly Penrose A unit: 3-23s-37e.

NM BZ State: 16-Ts23s-R37e.

South Jal Langlie Unit: sec 7-Ts25s-R37e.

State IT Lease (W. Of Jal): F-16-26s-33e.

Comments:

Dear Bill,

Enclosed are the original pit closure forms submitted by Apache. Apparently the originals came to the Hobbs office. Please refer to my field report letter dated June 26, 1996 (attached) for discrepancies that I found in the closure reports. I have also included the results of the most recent sampling event taken by Apache and witness by me.

We took bottom hole samples for locations at Skelly Penrose, NMBZ, and State IT Lease. The analyticals for these soil samples were supplied to me by Apache. For comparison please note I took field samples using the PID and obtained the following results.

Skelly Penrose A Unit (SPAU); 11' deep, sampled soil using PID BTEX 460 ppm, medium to strong hydrocarbon odors, visual contamination.

NM BZ State: 16-Ts23s-R37e; 11' deep, sampled soil using PID BTEX 15.5 ppm, none to very slight hydrocarbon odor, no visual contamination.

State IT Lease (W. Of Jal): F-16-26s-33e; 8' deep, sampled soil using PID 43 ppm, no hydrocarbon odor, had earth smell of organic

material, no visual contamination.

After reviewing the pit closure reports I recommend approval for the following three sites;

NM BZ State: 16-Ts23s-R37e.

South Jal Langlie Unit: sec 7-Ts25s-R37e.

State IT Lease (W. Of Jal): F-16-26s-33e.

As for the Skelly Penrose A unit: 3-23s-37e, I recommend that Apache install a monitor well in the center of the pit to determine if ground water has been impacted.

cc: Chris Williams-NMOCD District I Supervisor

attachments-pit closure reports, analyticals.



INDIAN

Environmental Services

May 30, 1996

State of New Mexico
Oil Conservation Division
District I
P.O. Box 1980
Hobbs, New Mexico 88241

Re: Pit Closure Reports

To Whom it May Concern:

Please find enclosed two (2) copies of the Pit Closure Reports and required attachments for the following locations that are operated by APACHE Corporation:

1. State IT Lease
2. State BZ Lease
3. Penrose Battery A#1
4. South Jal Langley Unit

As indicated on the routing header, a second copy has been forwarded to the OCD office in Santa Fe, NM.

Once received, would you please execute one copy and return to the address indicated above to acknowledge receipt of the document.

Thank you for your attention to this matter. Should you have any questions, please contact me at (915) 520-2968.

Sincerely

Fred Holmes
Consultant

3703 Oakridge Ct.
Midland, Texas 79707
Tele: (915) 520-2984
Fax: (915) 520-3172

*FORWARD TO
STATE FC
9/14/97
JP*

JUN 11 1996

OLD HOBBS
TEXAS

RECEIVED

SEP 16 1997

Environmental Bureau
Oil Conservation Division

JUN 11 1996
OCD HOBBS
OFFICE

*Revised
Soil above
Unit*

*to landfill
results*

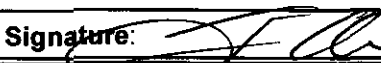
APACHE CORPORATION PIT REMEDIATION AND CLOSURE REPORT									
Routing									
OCD Dist. I, P.O. Box 1980 Hobbs, New Mexico 87410				x		OCD Santa Fe, P.O. Box 2088 Santa Fe, New Mexico 87504-2088			x
APACHE CORPORATION EH&S GRP. 2000 Post Oak Blvd. Houston, Texas 77056				x					
Operator: APACHE CORPORATION						Telephone: (915) 527-3311			
Address: P.O. Box 848 Wink, Texas 79789									
Facility or Well Name: Skelly Penrose A Unit									
Location: Unit or Qtr/Qtr Sec.				Sec 3		T 23S		R 37E	
County Lea									
Pit Type:		Separator		Dehydrator		Other: Overflow			
Land Type:		BLM		State		Fee		Other: Private	
PIT LOCATION (Diagram Attached)									
Pit Dimensions:		Length: 60'		Width: 40'		Depth: 10'			
Reference:		Wellhead		Other: NE Corner					
Footage From Reference:		256'							
Direction From Reference:		40 Degrees				East		North	
						x			
						of			
						x		West	
								South	
								x	
Depth to Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water)		Less than 50 feet		(20 Points)		0			
		50 feet to 99 feet		(10 Points)					
		Greater than 100 feet		(0 Points)					
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources)		Yes		(20 Points)		0			
		No		(0 Points)					
Distance to Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)		Less than 200 feet		(20 Points)		0			
		200 feet to 1000 feet		(10 Points)					
		Greater than 1000 feet		(0 Points)					
Ranking Score (Total Points):								0	

60'-70'

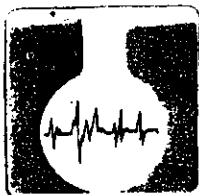
RECEIVED

SEP 16 1997

Environmental Bureau
Oil Conservation Division

Date Remediation Started: 12/95		Date Completed: In Progress	
Remediation Method: (Check all appropriate Sections)	Excavation	<input checked="" type="checkbox"/>	Approx. Cu. Yds.: 200
	Land Farmed	<input type="checkbox"/>	In-situ Bioremediation
	Other: On-site Biological degradation		
Remediation Location: (ie. landfarmed onsite, name and location of offsite facility)	Onsite	<input type="checkbox"/>	Offsite:
General Description of Remedial Action:			
Impacted soils from the pit were removed and placed into separate treatment cells. Excavated soils were then treated with nitrogen, water and surfactants to stimulate natural production of bacteria. Analysis of excavated area shows then interior of the pit to be less than 5000 ppm TPH. Once soils reach acceptable limits (less than 5000 ppm TPH), they will be used for construction material (ie: tank battery berms, etc.).			
? IT APPEARS THEY ARE ALREADY USING SOILS! CAP!			
Ground Water Encountered:	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	Depth:
Final Pit Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths.	Sample Location: Multiple Samples See Attached Analysis.		
	Sample Depth:	13'	
	Sample Date:	12/6/96	Sample Time: 1000
Sample Results			
Benzene (ppm)	ND	Field Headspace (ppm)	ND
Total BTEX (ppm)	ND	TPH	See Attached
Ground Water Sample	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	(If yes, attach sample results)
I hereby certify that the information above is true and complete to the best of my knowledge and belief.			
Date: 03/22/96		Printed Name: Fred Holmes	
Signature: 		Title: Consultant	
I hereby certify that the closure of this site is approved and has been accepted			
Date:		Printed Name:	
Signature:		Org. and Title:	

JUN 11 1996
 UGD HUBBS
 OFFICE



ASSAIGA ANALYTICAL LABORATORIES

7300 Jefferson, N.E. • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259

3332 Wedgewood, E-5 • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820

Report Generated:
January 4, 1996 09:49

CERTIFICATE OF ANALYSIS RESULTS BY SAMPLE

SENT INDIAN FIRE & SAFETY, INC.
TO: 3703 OAKRIDGE
MIDLAND, TX 79707

WORKORDER # : 9512114
WORK ID : PENROSE
CLIENT CODE : APA02
DATE RECEIVED : 12/11/95

JUN 11 1996
CDD HUBBS
OFFICE

ATTN: FRED HOLMES

Page: 1

Lab ID: 9512114-01A
Sample ID: EX-NE

Collected: 12/08/95 09:30:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
HCs DIESEL/CAL DHS 8015M Diesel	1500	mg/Kg	5.0	50	12/22/95	SLFTD56
HCs DSL XT/CAL DHS 8015M	12/18/95	N/A				

Lab ID: 9512114-02A
Sample ID: EX-SW

Collected: 12/08/95 09:30:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
HCs DIESEL/CAL DHS 8015M Diesel	2200	mg/Kg	5.0	50	12/22/95	SLFTD56
HCs DSL XT/CAL DHS 8015M	12/18/95	N/A				

Lab ID: 9512114-03A
Sample ID: EX-CEN

Collected: 12/08/95 09:30:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
HCs DIESEL/CAL DHS 8015M Diesel	ND	mg/Kg	5.0	500	12/21/95	SLFTD56
HCs DSL XT/CAL DHS 8015M	12/18/95	N/A				

Lab ID: 9512114-04A
Sample ID: EX-SE

Collected: 12/08/95 09:30:00
Matrix: SOIL

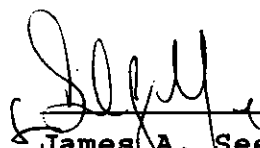
TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
HCs DIESEL/CAL DHS 8015M Diesel	2100	mg/Kg	5.0	50	12/22/95	SLFTD56
HCs DSL XT/CAL DHS 8015M	12/18/95	N/A				



Lab ID: 9512114-05A
Sample ID: EX-NW

Collected: 12/08/95 09:30:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
HCs DIESEL/CAL DHS 8015M	2100	mg/Kg	5.0	50	12/22/95	SLFTD56
Diesel						
HCs DSL XT/CAL DHS 8015M	12/18/95	N/A				


James A. Seely
Operations Manager

JUN 11 1998
JOD HUBBS
OFFICE

WORKORDER COMMENTS

DATE : 01/04/96
WORKORDER:

DEFINITIONS/DATA QUALIFIERS

The following are definitions, abbreviations, and data qualifiers which may have been utilized in your report:

- ND = Analyte "not detected" in analysis at the sample specific detection limit.
- D_F = Sample "dilution factor"
- NT = Analyte "not tested" per client request.
- B = Analyte was also detected in laboratory method QC blank.
- E = Analyte concentration (result) is an estimated value or exceeds analysis calibration range.
- LIMIT = The minimum amount of the analyte that AAL can detect utilizing the specified analysis.

Please Note: Multiply the "Limit" value (AAL's Detection Limit) by Dilution Factor (D_F) to obtain the sample specific Detection Limit.

REPORT COMMENTS

JUN 11 1998
JED HUBBS
OFFICE

Indian Fire & Safety, Inc.
P.O. Box 1306
Hobbs, New Mexico 88241

Request for Analysis

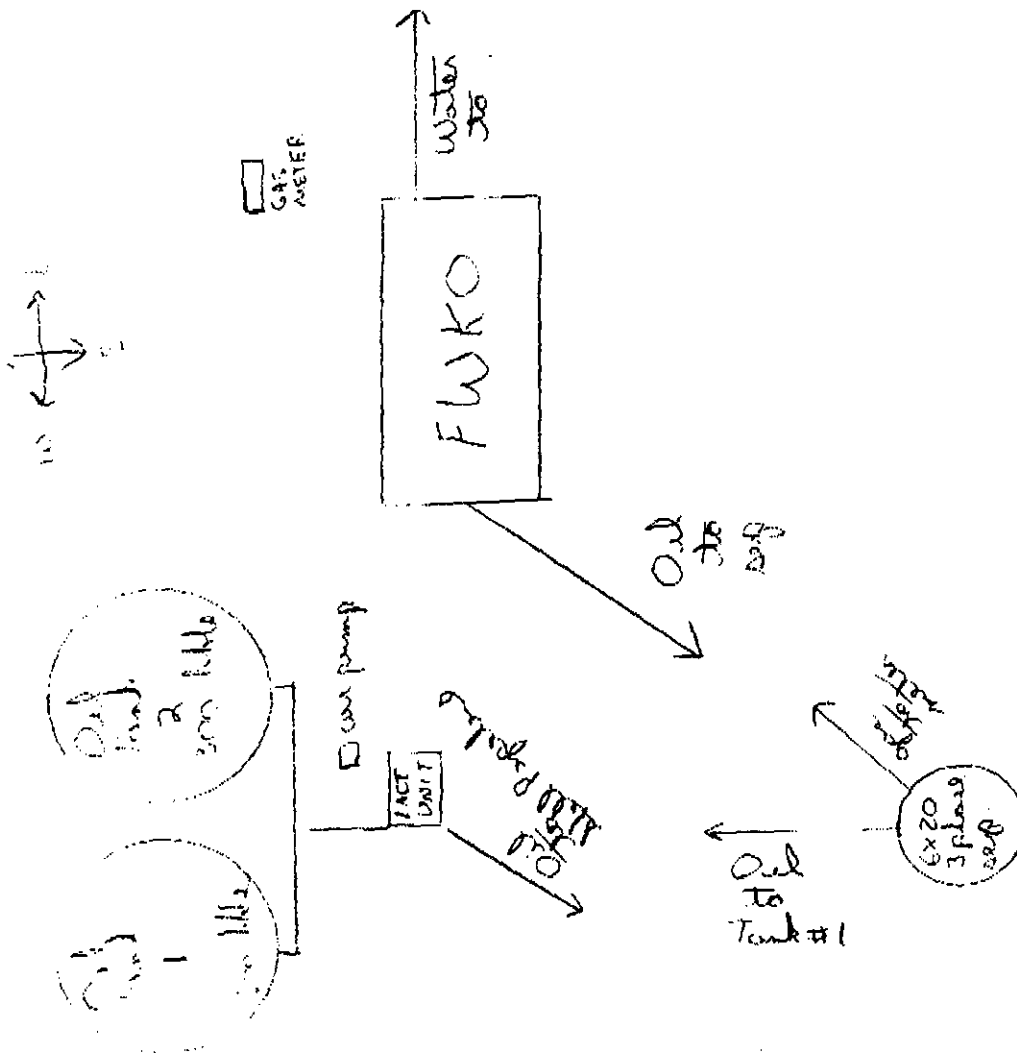
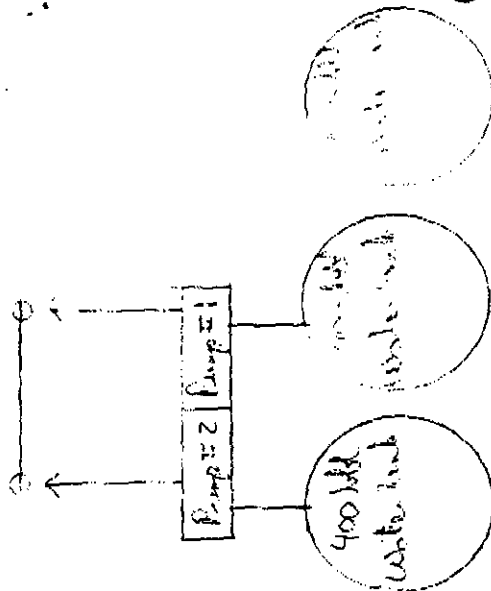
Tele: (505) 397-3884
Fax: (505) 392-6274

Date: 12-8-95	Job No.: 95025	Client: Apache Corp			
Job: FERRAS		Proj Contact: FRED Holmes			
Laboratory: ASAP! LABORATORIES		Bill To: P.O. Box 1306 Abbeville, Ala. 36271			
		Report To: 3703 Oakridge Midland TX 79707			
Contact:		Date Results are Needed:			
Sampling Team: TERRY DAVIS		Date of Sampling Event: 12-8-95			
Sample Number	Type	Time Taken	Container/Size	Analysis Requested	
EX-NE	GRAB	0930	802	TPH by Method 8015 (Modified) using a direct Standard	
EX-SUD	"	"	"	"	
EX-CEW	"	"	"	"	
EX-SSE	"	"	"	"	
EX-NU	"	"	"	"	
Relinquished By: (Signature)	Date	Time	Received By: (Signature)	Date	Time
<i>[Signature]</i>	12-8-95	1600	<i>Charles N. Campbell</i>	12/11/95	10:00

Additional Information or Remarks:

JUN 11 1996
J. C. HUBBS
OFFICE

Passes 1
Passes 1



JUN 11 1996
JCD HUBBS
OFFICE



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
APACHE CORP.
ATTN: DON BAUCHAM
P.O. BOX 848
WINK, TX 79789
FAX TO: 915-527-3321

Receiving Date: 08/29/97
Reporting Date: 09/02/97
Project Number: NOT GIVEN
Project Name: APACHE PIT CLOSURES
Project Location: SPAU SEC. 4-T23S-R37E, LEA CO., NM

Sampling Date: 08/29/97
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	TPH (mg/Kg)	CI (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
------------	-----------	----------------	---------------	--------------------	--------------------	-----------------------------	-----------------------------

ANALYSIS DATE:	08/29/97	09/02/97	08/29/97	08/29/97	08/29/97	08/29/97
H3166-1 SPAU, 11" DEEP	27046	2207	1.06	0.452	0.306	1.53
Quality Control	194	484	0.096	0.095	0.089	0.261
True Value QC	200	500	0.090	0.090	0.087	0.260
% Accuracy	96.8	96.8	106	106	102	100
Relative Percent Difference	0.6	0	3.0	2.3	1.3	1.1

METHODS: TRPHC-EPA 600/749-020, 418.1; BTEX-EPA SW-846-8020; CI-EPA 600/4-79-020 352.3

Burgess J. A. Cooke, Ph. D.

Date

HOBBS
OFFICE
SEP 08 1997
RECEIVED



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ANALYSIS REQUEST

[illegible]

NEW MEXICO ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

NMOCD INTER-OFFICE CORRESPONDENCE

TO: File of Apache Corporation.
From: Wayne Price-Environmental Engineer
Date: June 26, 1996
Reference: Pit Closures
Subject: Field Report
Comments:

Wayne Price
RECEIVED

JUL 1 8 1996

Environmental Bureau
Oil Conservation Division

TO: Bill Olson-NMOCD Hydrogeologist-Environmental Bureau

Please find enclosed the findings of my recent field report for the Apache Pit closures. Mike Warren of Apache and I visited the sites.

Skelly Penrose A unit:
sec 3-Ts23s-R37e

Took bottom hole sample PID (BTEX) approx. 175 ppm, wet soil due to recent rain, discharge pipe still leaking into pit area. Apache discovered that this pit had liner on sides only, pit bottom had no liner. Soil has mild hydrocarbon odor. NM St. Engr. office indicated ground water at 60-70 feet. Windmills in area to south and east.

Took pictures:

- #1. Standing in pit looking east. Shows discharge from pipe.
- #2. Pit area looking northwest.
- #3-#6. Looking south- shows remediation areas for contaminated soils.

NM BZ STATE:
sec 16-Ts23s-R37e

Took bottom sample PID (BTEX) approx. 84 ppm, wet soil due to recent rain. Discharge pipe still in place. Apache will remove. Apache discovered that this pit had liner on sides only, pit bottom had no liner. Soil has mild hydrocarbon odor. NM St. Engr. office indicated ground water at 65-75 feet. Windmills nearby area located to southeast approx. 400 yards.

Took pictures:

#7. Looking east.

#8. looking north- show remediation area.

South Jal Langlie Unit:

sec 7-Ts 25s-R37e

The legal description on the pit closure is wrong location, actual is above. Took bottom sample PID (BTEX) approx. 12 ppm, wet soil due to recent rain. Discharge pipe still in place. Soil has no hydrocarbon odor. NM St. Engr. office indicated ground water at 55-65 feet. Windmills and Jal country club fresh water well nearby area located to east and south approx. 400 yards.

Took pictures:

#9. Looking Southeast.

#10 Looking south.

NM ST. IT:

unit f sec 16-Ts26s-R33e

Took bottom sample of pit PID (BTEX) approx. 140-160 ppm, wet soil due to recent rain. Roadway where condensate and water was being discharged by Amoco PID (BTEX) 45 ppm. Pit has mild to moderate condensate smell. NM St. Engr. office indicated ground water at 107-124 feet.

Took pictures:

#11. Looking East. Shows pit and to right where tank water had been discharged into road.

#12. Looking North show remediation area.

cc: Jerry Sexton-NMOCD District I Supervisor
Mike Warren-Apache Corp.

attachments-1 pictures



2 #



1 #



#3

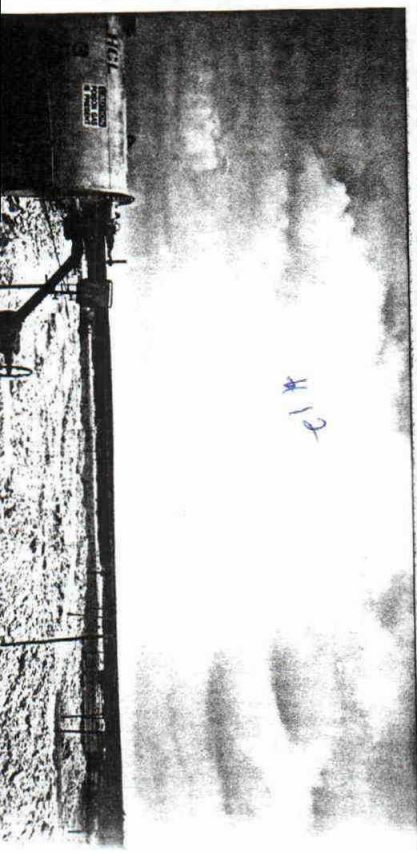
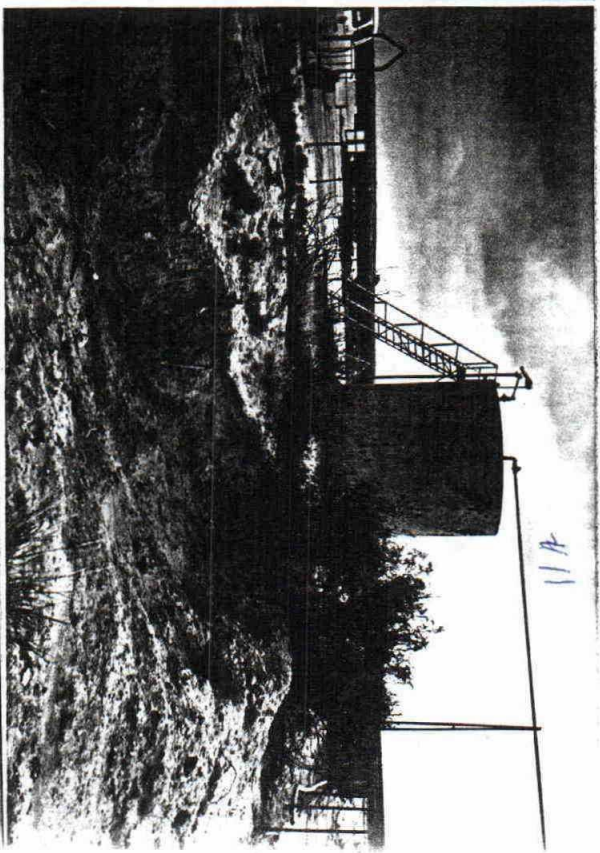
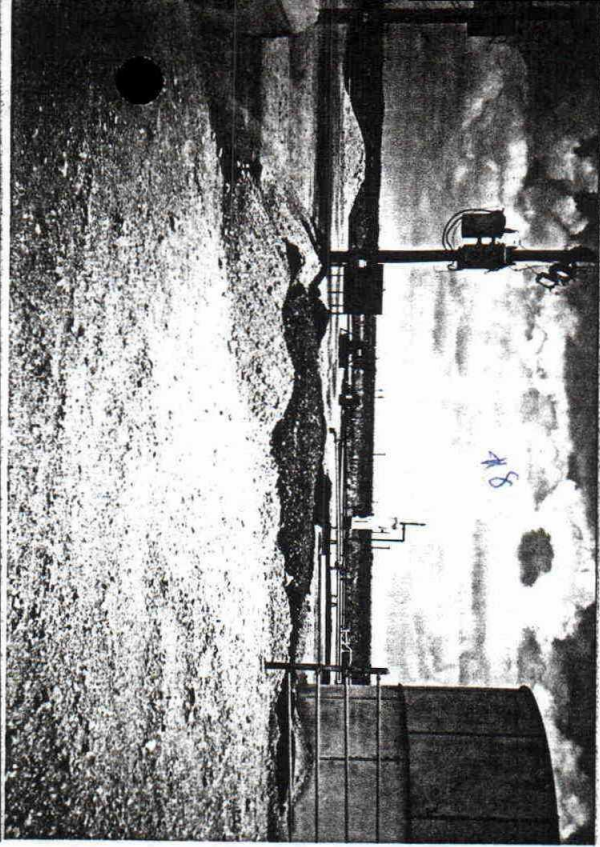
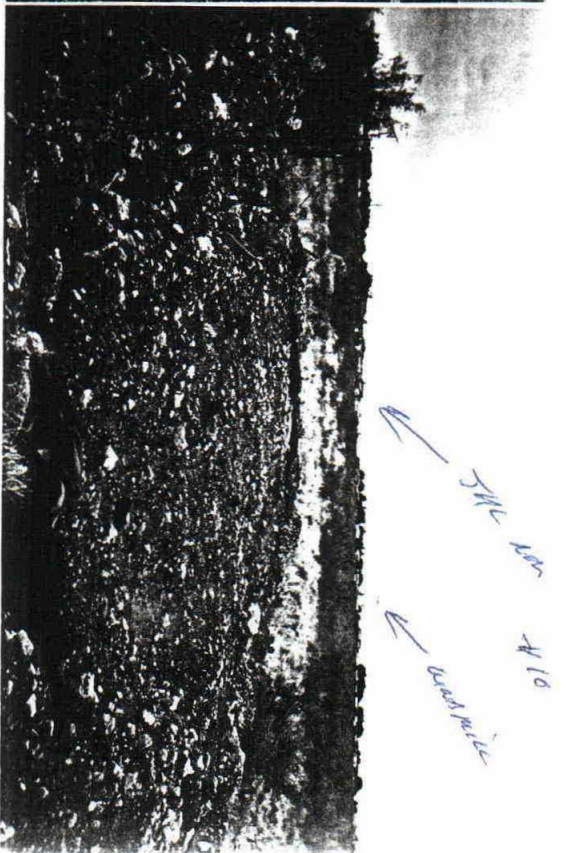
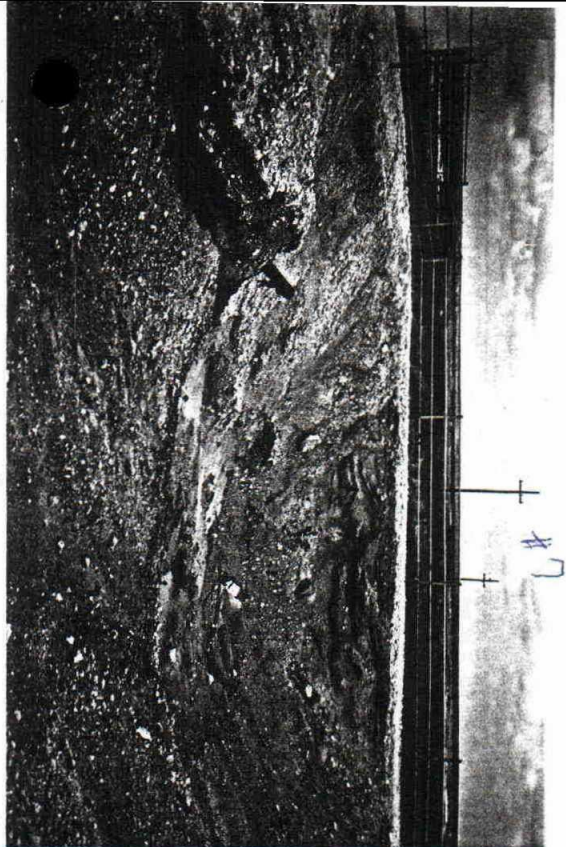
#5



#4



#6



Submit 3 Copies
to Appropriate
District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
310 Old Santa Fe Trail, Room 206
Santa Fe, New Mexico 87503

WELL API NO.

5. Indicate Type of Lease

STATE ☐

FEE ☐

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

Skelly Penrose "A"

8. Well No.

BATT #1

9. Pool name or Wildcat

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

OIL
WELL ☐

GAS
WELL ☐

OTHER

Pit

2. Name of Operator

Apache Corp.

3. Address of Operator

3300 N. A STE. 8220 Midland, TX. 79705

4. Well Location

Unit Letter _____ : _____ Feet From The _____ Line and _____ Feet From The _____ Line

Section 3-T235-R37E Township 14N Range NMPM 14E County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11.

Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☒

PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐

CHANGE PLANS ☐

PULL OR ALTER CASING ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐

ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐

PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

See attached workorders !!!

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Mike Warren

TITLE

PROD. Foreman

DATE

10-17-95

TYPE OR PRINT NAME

Mike WARREN

TELEPHONE NO.

915-5273311

(This space for State Use)

APPROVED BY

Will C. Don

TITLE

Geologist IV

DATE

12/1/95

CONDITIONS OF APPROVAL, IF ANY:

see attached approval conditions

OCD APPROVAL CONDITIONS
FOR
RCRA EXEMPT
UNLINED PIT CLOSURES
(August 16, 1995)

1. The following closure actions will be performed in accordance with OCD's February 1993 "SURFACE IMPOUNDMENT CLOSURE GUIDELINES":
 - a. Vertical and horizontal extent of contamination will be determined either prior to, during or upon completion of remedial actions.
 - b. Contaminated soils will be remediated to the OCD's recommended levels or a risk assessment will be provided which shows that an alternate cleanup level is protective of surface water, ground water, human health and the environment.
 - c. Final soil contaminant concentrations in excavated and landfarmed areas will be determined upon completion of remedial actions.
 - d. Soil samples for verification of completion of remedial actions will be sampled and analyzed for benzene, toluene, ethylbenzene, xylene and total petroleum hydrocarbons.
2. All wastes removed from a site will be disposed of at an OCD approved facility.
3. The OCD Santa Fe Office's Environmental Bureau Chief and the OCD Hobbs District Office will be notified within 24 hours of the discovery of ground water contamination related to a pit closure.
4. Upon completion of all closure activities, a completed OCD "Pit Remediation and Closure Report" form containing the results of all pit closure and soil remediation activities will be submitted to the OCD for approval. The report will include the concentrations and application rates of any materials or additives used to enhance bioremediation of the contaminants and the final concentrations of any soils landfarmed onsite or the final disposition of soils removed from the site. To simplify the approval process, the OCD requests that the final pit closure reports be submitted only upon completion of all closure activities including onsite remediation or landfarming of contaminated soils.
5. All original documents will be submitted to the OCD Santa Fe Office for approval with copies provided to the OCD Hobbs Office.
6. OCD approval does not relieve you of liability should closure activities determine that contamination exists which is beyond the scope of the work plan or if the closure activities fail to adequately remediate contamination related to your activities. In addition, OCD approval does not relieve you of responsibility for compliance with other federal, state or local laws and regulations.

**Indian Fire & Safety, Inc.****TELEFAX****COVER SHEET**

To: Warren, Mike		From : FRED HOLMES
Fax Number : 1-915-527-3521		Company : IFS
Date : 10/3/95	Time : 9:37:28	For Information Call: 520-2968
Subject : WordPerfect - [c:\wpwin60\props\95025.wpd - unmodified]		Fax Number : 520-3172

Notice: The contents of this document are considered confidential and intended to be seen only by the individual or individuals addressed. If you have received this document in error, please contact us at 1-800-530-8693 and arrangements will be made for this document to be returned at our expense.

Mike:

Please find attached the cost estimate for the pit delineation. If you have any questions, please feel free to call me or Michael.

Thanks:

Fred Holmes



INDIAN Fire & Safety, Inc.

P.O. Box 1306
Hobbs, New Mexico 88241
Tele: (505) 397-3884
Fax: (505) 392-6274

October 2, 1995

Mr. Michael Bernard
EH&S Group
APACHE CORPORATION
2000 Post Oak Blvd.
Houston, Texas 77056

Re: Estimated Cost for Pit Closures (Jal, New Mexico Area)
Proposal Number: 95025

Dear Mr. Bernard:

Pursuant to your request on September 29, 1995, and following site visits, we have prepared the following cost estimate for investigation and closure of four sites in the Jal, New Mexico region.

Site: STATE IT

Scope:

- Task 1: Perform a rough delineation of any contamination that may be present.
- Task 2: Take confirmation samples from the bottom and sides of the delineation trench.
- Task 3: Remove salt contaminated soil from southern edge of pad site, move soil to treatment area adjacent to main pad, take samples for clean-up confirmation.

ESTIMATED COST

Environmental Scientist * 12 hrs. @ \$70.00/hr.	840.00
Backhoe W/Operator & Dump Truck ** 8 hrs @ \$39.00/hr.	312.00
Analysis ** (TPH & BTEX) 5 @ \$160.00/ea.	900.00
Analysis ** (Cations, Anions, EC, SAR & ESP) 5 @ \$125.00 ea.	625.00
PID Rental	125.00
Mileage	90.00
Misc. (plastic, sample shipping, photos etc.)	300.00
Total Estimated Cost	\$3192.00

Proposal 95025
Continued

Site: STATE BZ

Scope: **Task 1:** Remove Liner and take confirmation samples from below pit liner.

Estimated Cost

Environmental Scientist * 12 hrs. @ \$70.00/hr.	700.00
Technician II 2 @ 8 hrs./man x \$35.00/man-hr.	490.00
Backhoe W/Operator & Dump Truck ** 6 hrs @ \$39.00/hr.	234.00
Analysis ** (TPH & BTEX) 5 @ \$160.00/ea.	900.00
PID Rental	125.00
Mileage	80.00
Misc. (plastic, sample shipping, photos etc.)	175.00
Total Estimated Cost	\$2704.00

Site: PENROSE

Scope: **Task 1:** Remove liquids and sludge from the pit.
 Task 2: Remove pit liner and perform rough delineation.

ESTIMATED COST

Environmental Scientist * 16 hrs. @ \$70.00/hr.	1120.00
Technician II 2 @ 10 hrs./man x \$35.00/man-hr.	700.00
Backhoe W/Operator & Dump Truck ** 6 hrs @ \$39.00/hr.	390.00
Analysis ** (TPH & BTEX) 5 @ \$160.00/Sample	900.00
PID Rental	250.00
Mileage	200.00
Misc. (plastic, sample shipping, photos etc.)	300.00
Total Estimated Cost	\$3860.00

Proposal 95025
Continued**Site: SOUTH LANGLIE JAL UNIT**

Scope: **Task 1:** Take down fencing, perform, rough delineation with backhoe.
 Task 2: Take confirmation samples for BTEX & TPH.

ESTIMATED COST

Environmental Scientist * 8 hrs. @ \$70.00/hr.	560.00
Backhoe W.Operator & Dump Truck ** 5 hrs @ \$39.00/hr.	195.00
Analysis ** (TPH & BTEX) 5 @ \$160.00/Sample	900.00
PID Rental	125.00
Mileage	90.00
Misc. (plastic, sample shipping, photos etc.)	125.00
Total Estimated Cost	\$1995.00

Notes

- * This time includes projected travel time and report preparation time. Travel time has been based upon the closest Indian portal which is Hobbs, New Mexico.
- ** Denotes charges that will be direct billed from third parties to APACHE.
- 1. Because of the size of the sites and limited scope, delineation will be performed using a backhoe.
- 2. Removal of debris and solid waste will be placed upon plastic to await proper disposal.
- 3. Removal of contaminated soils from delineation trenches will be placed back into the trenches pending further analysis.
- 4. Treatment costs for salt contaminated soils at the STATE IT Lease have been omitted pending receipt of the analyses. Cost range for treatment of this area could range from \$2800.00 - \$4200.00 depending upon the salt levels and quantity of soil removed.

Proposal 95025
Continued

5. The cost for analysis has been left elevated intentionally to allow some room for additional analysis if so desired. If this is not utilized, costs should reduce.

Thank you for contacting Indian to submit this proposal to you. Should you have any questions or need any additional information, please contact me at 1-800-530-8693.

Respectfully:



Fred Holmes