

District III
1000 Rio Brazos Rd
Aztec, NM 87410

Energy, Minerals and Natural Resources Department

State of New Mexico

Submit 1 copy to
Appropriate District
and 1 copy to
Santa Fe Office

Henry S. Foust
DEPUTY OIL & GAS INSPECTOR

OIL CONSERVATION DIVISION
2040 S. PACHECO
Santa Fe, New Mexico 87505

FEB 08 1999

PIT REMEDIATION AND CLOSURE REPORT

RECEIVED
DEC - 3 1998
OIL CON. DIV.
DIST. 3

Operator: Apache Corporation Telephone: 505-325-0318

Address: 2855 Southside River Road, Suite A, Farmington, NM 87401

Facility or Well Name: APACHE 105

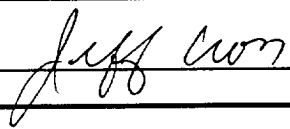
Location: Unit or Qtr/Qtr Sec NE/NE Sec 24 T 24 N R 4W County Rio Arriba

Pit Type: Separator: _____ Dehydrator: _____ Other: Tank Drain

Land Type: Jicarilla Tribal

Beginning Pit Dimensions:	Length	<u>30'</u>	Width	<u>33'</u>	Depth	<u>5.5'</u>
Pit Location: Ending Pit Dimensions:	Length	<u>36'</u>	Width	<u>33'</u>	Depth	<u>10'</u>
(Attach diagram)	Reference:	Wellhead	<u>XXX</u>	Other	_____	
	Footage from reference:	<u>100'</u>				
	Direction from reference:	<u>246</u>	Degrees	_____	East	North
				<u>XX</u>	West	South
						<u>X</u>

Depth To Groundwater: (vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet	(20 points)	_____
	50 feet to 99 feet	(10 points)	_____
	Greater than 100 feet	(0 points)	<u>0</u>
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)	_____
	No	(0 points)	<u>0</u>
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	(20 points)	_____
	200 feet to 1000 feet	(10 points)	_____
	Greater than 1000 feet	(0 points)	<u>0</u>
	RANKING SCORE (TOTAL POINTS)		<u>0</u>

Date Remediation Started:		<u>10/11/95</u>		Date Completed:		<u>11/29/95</u>	
Remediation Method: (Check all appropriate sections)		Excavation <u>XXX</u>		Approx. cubic yards		<u>198</u>	
		Landfarmed <u>XX</u>		Insitu Bioremediation			
		Other _____					
Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility)		Onsite <u>XX</u>		Offsite _____			
General Description of Remedial Action:		<u>Excavate pit to 10', took PID readings. Backfill pit with clean soil. Remediated soil to be spread on location. Spread soil on location for remediation.</u>					
		<u>Took soil samples</u>					
Groundwater Encountered:		No <u>XX</u>		Yes _____		Depth _____	
Final Pit:		<u>5 point composite sample taken from pit sidewalls and pit</u>					
Closure Sampling: (in multiple samples, attach sample results and diagram of sample locations and depths)		<u>bottom center.</u>					
		Sample location					
		Sample depth <u>10'</u>		<u>8 to 10" into pit sidewalls 10" into pit bottom</u>			
		Sample Date		<u>11/29/95</u>		Sample Time <u>1:13 PM</u>	
		Sample results					
		Benzene		(ppm)		<u>ND</u>	
		Total BTEX		(ppm)		<u>3.33</u>	
		Field Headspace		(ppm)		<u>21.18</u>	
		TPH				<u>4600</u>	
Groundwater Sample:		Yes _____		No <u>XX</u>		(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		<u>December 1, 1998</u>		PRINTED NAME		<u>Jeff Cross</u>	
SIGNATURE		<u></u>		AND TITLE		<u>Project Manager</u>	

JICARILLA APACHE TRIBE
ENVIRONMENTAL PROTECTION OFFICE
P. O. BOX 507
DULCE, NEW MEXICO 87528

Submit 1 copy to
Natural Resource Dept.
and Oil & Gas Administration

PIT REMEDIATION AND CLOSURE REPORT

Operator: <u>APACHE CORPORATION</u>		Telephone <u>505-325-0318</u>	
Address: <u>2855 Southside River Road, Suite A, Farmington, NM 87401</u>			
Facility or Well Name: <u>APACHE # 105</u>			
Location:	Unit or Qtr/Qtr Sec	<u>NE\NE</u>	<u>SEC 24</u>
		<u>T 24 N</u>	<u>R 4 W</u>
		County	<u>Rio Arriba</u>
Pit Type:	Separator: <u> </u>	Dehydrator <u> </u>	Other <u>TANK DRAIN</u>
Land Type: <u>Jicarilla Tribal</u>			
Pit Location: (Attach diagram)	Pit Dimensions:	Length <u>36'</u>	Width <u>33'</u>
		Depth <u>10'</u>	
	Reference:	Wellhead <u>XX</u>	Other <u> </u>
	Footage from reference:	<u>100'</u>	
	Direction from reference:	<u>246</u> Degrees	<u> </u> East
		<u>XX</u> West	North of South <u>X</u>
Depth To Groundwater: (vertical distance from contaminants to seasonal high water elevation of groundwater)		Less than 50 feet	(20 points) <u> </u>
		50 feet to 99 feet	(10 points) <u> </u>
		Greater than 100 feet	(0 points) <u>0</u>
Distance to an Ephemeral Stream: (Downgradient dry wash greater than ten feet in width)		Less than 100 feet	(10 points) <u> </u>
		Greater than 100 feet	(0 points) <u>0</u>
Distance to Nearest Lake, Playa, or Watering Pond: (Downgradient lakes, playas and livestock or wildlife watering ponds)		Less than 100 feet	(10 points) <u> </u>
		Greater than 100 feet	(0 points) <u>0</u>
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) <u> </u>
		No	(0 points) <u>0</u>
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)		Less than 100 feet	(20 points) <u> </u>
		100 feet to 1000 feet	(10 points) <u> </u>
		Greater than 1000 feet	(0 points) <u>0</u>
		RANKING SCORE (TOTAL POINTS) <u>0</u>	

Date Remediation Started: 10/11/95 **Date Completed:** 11/29/95

Remediation Method: (Check all appropriate sections)
 Excavation XXX Approx. cubic yards 198
 Landfarmed XX Insitu Bioremediation _____
 Other _____

Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility)
 Onsite XX Offsite _____

General Description of Remedial Action: EXCAVATE PIT TO 10', TOOK PID READINGS. BACK FILL PIT WITH CLEAN SOIL. REMEDIATED SOIL TO BE SPREAD ON LOCATION. SPREAD SOIL ON LOCATION FOR REMEDIATION. TOOK SOIL SAMPLES.

Groundwater Encountered: No X Yes _____ Depth _____

Final Pit: Sample location 5 point composite taken from pit sidewalls , and pit bottom center.

Closure Sampling: (in multiple samples, attach sample results and diagram of sample locations and depths) Sample depth _____

Sample Date 11/29/95 Sample Time 1:13PM

Sample results

Soil:	Benzene	(ppm)	<u>ND</u>	Water:	Benzene	(ppb)	<u>NA</u>
	Total BTEX	(ppm)	<u>3.33</u>		Toluene	(ppb)	<u>NA</u>
	Field Headspace	(ppm)	<u>21.18</u>		Ethylbenzene	(ppb)	<u>NA</u>
	TPH	(ppm)	<u>4600</u>		Total Xylenes	(ppb)	<u>NA</u>

Groundwater Sample: Yes _____ No X (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 9/30/98 PRINTED NAME JEFF CROSS
 SIGNATURE Jeff Cross AND TITLE Project Manager

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO _____ (REASON) _____

SIGNED: Ken C Marshall DATE: 11-13-98

APACHE CORPORATION FARMINGTON DISTRICT PIT EXCAVATION AND CLOSURE REPORT

JICARILLA APACHE TRIBAL EPO
REVIEW AND APPROVAL

LOCATION: APACHE 105
PIT COUNT: 1

EPO REPRESENTATIVE K.C.
DATE OF REVIEW: 11/29/95

		EXCAVATION						
DIMENSIONS		START		FINISH				
	W'	L'	D'		W'	L'	D'	CU.YDS.
PIT 1	30'	33'	5.5'	PIT 1	33'	36'	10'	198.0
PIT 2				PIT 2				
PIT 3				PIT 3				
DATE: 10/11/95		PIT 1@ 09'	PIT 2@	PIT 3@	DATE: 11/29/95	PIT 1@ 10'	PIT 2@	PIT 3@
P. I. D.	CENTER	159.0			P. I. D.	CENTER	36.8	
	NW CORNER	584.0				NW CORNER	11.4	
	NE CORNER	978.0				NE CORNER	19.4	
	SW CORNER	886.0				SW CORNER	6.9	
	SE CORNER	440.0				SE CORNER	31.4	

NOTES:

10/11/95 Excavate to 10', staining and odor to 9'.

10/13/95 Additional excavation to remove staining.

*High TPH and BTEX levels from 10/11 sampling @ 09'.

SOIL SAMPLING

DATE: 10/11/95		PIT 1@ 09'	PIT 2@	PIT 3@	ANALYSIS RESULTS		PER LAB: ASSAIGAI	
					TPH	BTEX	WITNESS	DATE
P.	CENTER	159.0			PIT NO.			
I.	NW CORNER	584.0			1	*6700	* 87.2	IF&S
D.	NE CORNER	978.0						10/11/95
	SW CORNER	886.0						
	SE CORNER	440.0						

RE-SAMPLE OR CELL(S) SAMPLE

DATE: 11/29/95		PIT 1@ 10'	PIT 2@	PIT 3@	ANALYSIS RESULTS		PER LAB: ASSAIGAI	
					TPH	BTEX	WITNESS	DATE
P.	CENTER	36.8			PIT NO.			
I.	NW CORNER	11.4			1	4600.0	3.33	JDT
D.	NE CORNER	19.4						11/29/95
	SW CORNER	6.9						
	SE CORNER	31.4						

RE-SAMPLE OR CELL(S) SAMPLE

DATE:		PIT 1@	PIT 2@	PIT 3@	ANALYSIS RESULTS		PER LAB:	
					TPH	BTEX	WITNESS	DATE
P.	CENTER				PIT NO.			
I.	NW CORNER							
D.	NE CORNER							
	SW CORNER							
	SE CORNER							

[illegible]

[illegible]

Lab ID: 9512029-09A
Sample ID: AP #112-H

Collected: 11/29/95 12:50:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A O-Xylene	0.74	mg/Kg	0.0010	500	12/05/95	SBTXME092

Lab ID: 9512029-09B
Sample ID: AP #112-H

Collected: 11/29/95 12:50:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
HCs DIESEL/CAL DHS 8015M Diesel	4400	mg/Kg	5.0	250	12/07/95	SLFTD053
HCs DSL XT/CAL DHS 8015M	12/05/95	N/A				

Lab ID: 9512029-10A
Sample ID: AP #105

Collected: 11/29/95 13:13:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	500	12/05/95	SBTXME092
Toluene	ND	mg/Kg	0.0010	500	12/05/95	SBTXME092
Ethylbenzene	0.63	mg/Kg	0.0010	500	12/05/95	SBTXME092
P-&m-Xylene	1.3	mg/Kg	0.0010	500	12/05/95	SBTXME092
O-Xylene	1.4	mg/Kg	0.0010	500	12/05/95	SBTXME092

Lab ID: 9512029-10B
Sample ID: AP #105

Collected: 11/29/95 13:13:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
HCs DIESEL/CAL DHS 8015M Diesel	4600	mg/Kg	5.0	250	12/07/95	SLFTD053
HCs DSL XT/CAL DHS 8015M	12/05/95	N/A				

Lab ID: 9512029-11A
Sample ID: AP #146-C

Collected: 11/29/95 13:32:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	500	12/05/95	SBTXME092
Toluene	ND	mg/Kg	0.0010	500	12/05/95	SBTXME092
Ethylbenzene	ND	mg/Kg	0.0010	500	12/05/95	SBTXME092
P-&m-Xylene	ND	mg/Kg	0.0010	500	12/05/95	SBTXME092
O-Xylene	ND	mg/Kg	0.0010	500	12/05/95	SBTXME092

GENERAL DRAINAGE

NORTH

APACHE

APACHE NUMBER 105

NE/4 NE/4 (A)

SECTION 24, TOWNSHIP 24N, RANGE 4W

RIO ARriba COUNTY, NM

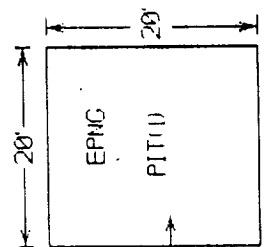
TANK FIRE WALL IS 3' WIDE AT THE BASE. 1' WIDE AT THE TOP. AND 2' HIGH

WELL HEAD

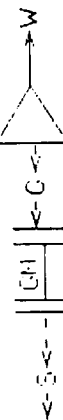
63'

S

21X, 94X, 98

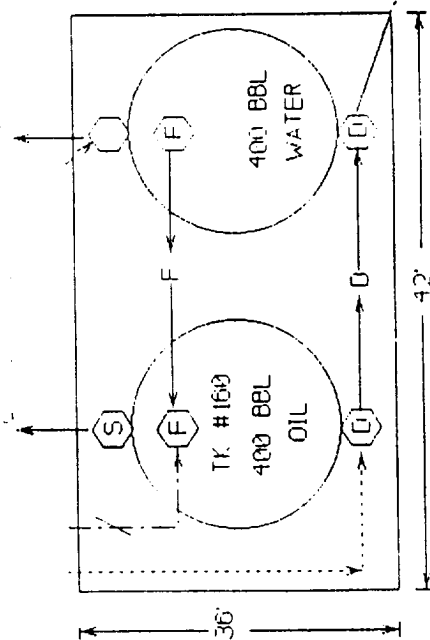


EPNC DRIP LINE



4" X 40' EPNC METER RUN
METER #90162

105, 941
PIT (10)
98, 94, 21



JICARILLA APACHE TRIBE
ENVIRONMENTAL PROTECTION OFFICE
P. O. BOX 507
DULCE, NEW MEXICO 87528

Submit 1 copy to
Natural Resource Dept.
and Oil & Gas Administration

ON-SITE SOIL REMEDIATION REPORT

Operator: <u>APACHE CORPORATION</u> Telephone <u>505-325-0318</u>	
Address: <u>2855 SOUTHSIDE RIVER ROAD/SUITE A/ FARMINGTON N.M. 87401-7947</u>	
Facility or Well Name: <u>APACHE # 105</u>	
Location: Unit or Qtr/Qtr Sec <u>NEWE SEC 24 T 24 N R 4 W</u> County <u>RIO ARRIBA</u>	
Land Type <u>JIC. TRIBAL</u>	
Date Remediation Started: <u>10/11/95</u> Date Completed: <u>8/17/98</u>	
Remediation Method: Landfarmed <u>XXX</u> Approx. cubic yards <u>198</u>	
Composted <u> </u>	
Other <u>REMEDIATED SOIL TO BE SPREAD ON LOCATION.</u>	
Depth to Groundwater: (pts) <u>0</u>	Final Closure Sampling Sampling Date: <u>8/17/98</u> Time: <u>9:20AM</u> Sample Results: Field Headspace (ppm) <u>0</u> TPH (ppm) <u>4200</u> Method <u>M8015</u> Other <u>BTEX \ SW846 , 8020A (ND)</u>
Distance to an Ephemeral Stream: (pts) <u>0</u>	
Distance to Nearest Lake, Playa, or Watering Pond: (pts) <u>0</u>	
Wellhead Protection Area: (pts) <u>0</u>	
Distance To Surface Water: (pts) <u>0</u>	
RANKING SCORE (TOTAL POINTS) <u>0</u>	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
DATE: <u>9/30/98</u>	PRINTED NAME <u>JEFF CROSS</u>
SIGNATURE <u>Jeff Cross</u>	TITLE <u>PROJECT MANAGER</u>
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION. ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.	
APPROVED: YES <u>X</u> NO <u> </u> (REASON) <u> </u>	
SIGNED: <u>Ken C. M...ll</u> DATE: <u>11-13-98</u>	

APACHE CORPORATION/FARMINGTON DISTRICT SOIL REMEDIATIONS STATUS REPORT

REMEDIATION SITE APACHE # 105

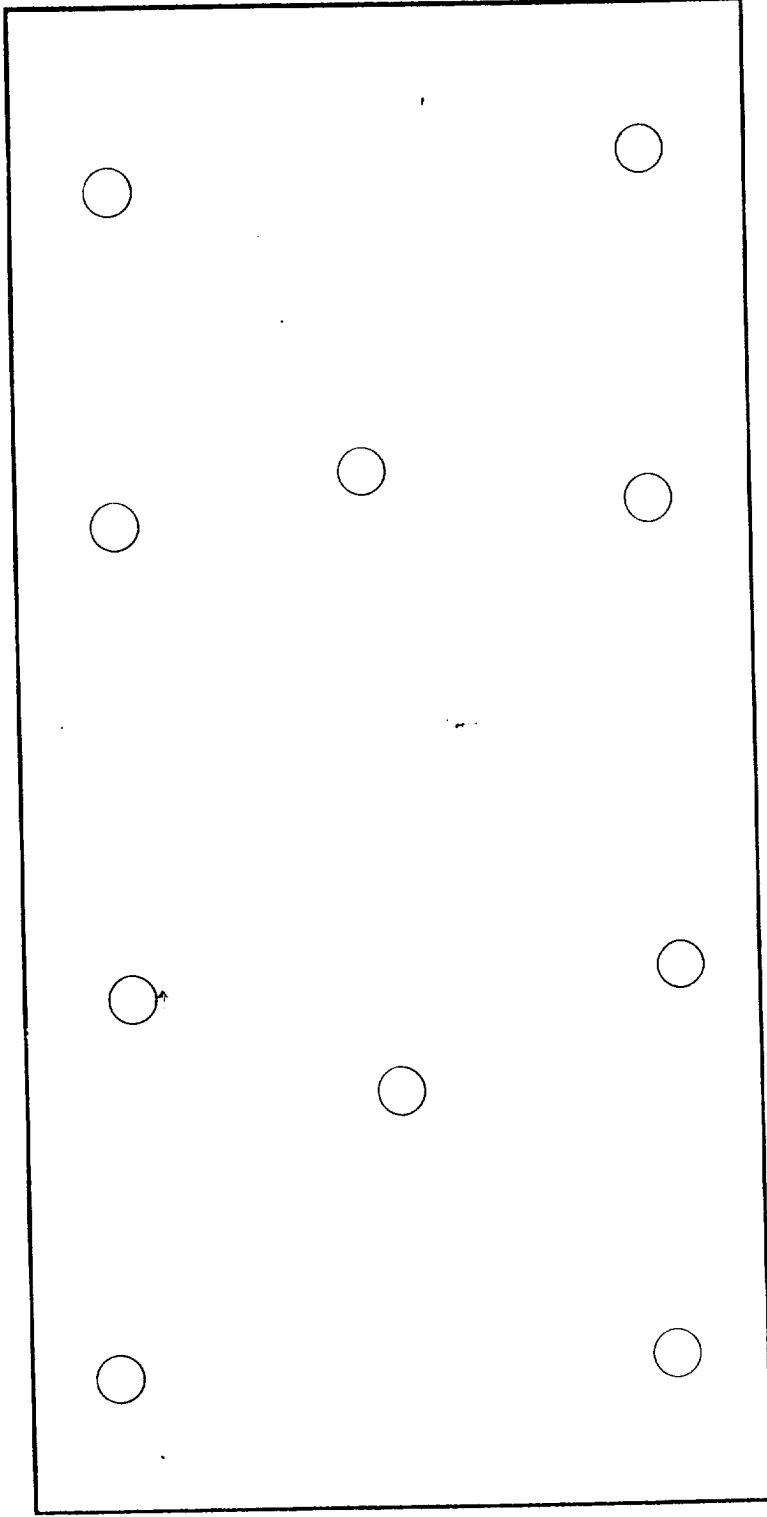
* AMOUNT OF SOIL UNDERGOING REMEDIATION 198 Yds.

CELL No. <u>1</u>	SampDATE 8/17/98	TPH 4200	BTEX ND
DIMENSIONS(LxWxH) <u>80' X 40' X 12"</u>			
CELL LOCATION (dir. from well head) <u>SOUTH</u>			
* DATE BEGAN: <u>10/11/95</u>			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>8/17/98</u>			
CELL No. <u>2</u>	SampDATE	TPH	BTEX
DIMENSIONS(LxWxH) _____			
CELL LOCATION (dir. from well head) _____			
* DATE BEGAN: _____			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) _____			
CELL No. <u>3</u>	SampDATE	TPH	BTEX
DIMENSIONS(LxWxH) _____			
CELL LOCATION (dir. from well head) _____			
* DATE BEGAN: _____			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) _____			
REMEDICATION RECORD: (Date, Treatment, Tilling)			
11/30/95 TREAT SOIL WIYH 28-4-4 FERTILIZER.		5/5/98 PLOW AND TILL SOIL. 8/14/98 PLOW SOIL	
6/10/97 WATER,PLOW AND TILL SOIL.		5/11/98 PLOW SOIL.	
6/26/97 TILL SOIL.		5/30/98 PLOW AND TILL SOIL.	
7/9/97 PLOW AND TILL SOIL.		6/9/98 WATER,PLOW AND TILL SOIL.	
7/24/97 PLOW AND TILL SOIL		6/26/98 PLOW SOIL.	
8/4/97 TREAT SOIL WITH 35LBS PHOSPHORUS, 88LBS 46-0-0 FERTILIZER,WATER,PLOW AND TILL SOIL.			
8/22/97 PLOW AND TILL SOIL.		7/6/98 PLOW AND TILL SOIL	
9/17/97 PLOW AND TILL SOIL.		7/21/98 TILL SOIL.	

From excavation reports.

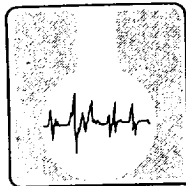
WELL NAME: Apache #105
SAMPLE DATE: 8-17-98
DIMENSIONS: 80' x 40' x 12"

○ = SAMPLE AREA



NOTES: ALL SAMPLES TAKEN 10" TO 12" INTO CELL.

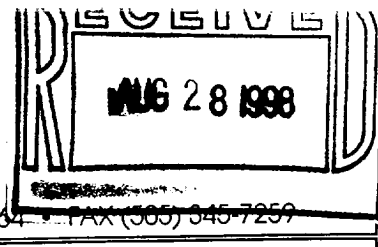
10 point composite sample



ASSAIGAI ANALYTICAL LABORATORIES, INC.

7300 Jefferson, NE • 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
127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-2558



APACHE CORPORATION
attn: **JEFF CROSS**
2855 SOUTHSIDE RIVER RD STE A
FARMINGTON, NM 87401-7947

* explanation of codes

B	analyte detected in Method Blank
E	result is estimated
H	analyzed out of hold time
N	tentatively identified compound
S	subcontracted
1-9	see footnote

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **APACHE CORPORATION**
Project: **9808185 JICARILLA PIT CLOSURES**

William P. Biava
William P. Biava: President of Assaigai Analytical Laboratories, Inc.

Client Sample ID: **APACHE #105 CELL** Sample Matrix: **SOIL** Sample Collected: **08/17/98 09:20:00**

Fraction	QC Group	CAS #	Result	Units	Dilution Factor	Detection Limit	* Sequence	Run Date
Test: SW846 8010B/8020A Purgeable VOCs by GC/PID-ELCD								
9808185-01A	X98393	71-43-2	Benzene	ND	mg / Kg	50	0.005	XG.1998.703-1 08/21/98
	X98393	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005	XG.1998.703-1
	X98393	95-47-6	o-Xylene	ND	mg / Kg	50	0.005	XG.1998.703-1
	X98393		p-M-Xylenes	ND	mg / Kg	50	0.01	XG.1998.703-1
	X98393		Toluene	ND	mg / Kg	50	0.005	XG.1998.703-1
	X98393	108-88-3						
Test: SW846 8015A Diesel Range Organics by GC/FID								
9808185-01B	X98389		Diesel Range Organics	4200	mg / Kg	25	25	XG.1998.699-9 08/21/98

*** Sample specific analytical Detection Limit is determined by multiplying the sample Dilution Factor by the listed method Detection Limit. ***
*** Results relate only to the items tested. ***





ALBUQUERQUE, NEW MEXICO 87109
(505) 345-8964

Lab job no.: 8105 Date: _____

5019

Date: _____

3332 WEDGEWOOD
EL PASO, TEXAS 79925
(915) 593-6000

1910 N. BIG SPRING
MIDLAND, TEXAS 79705
(915) 570-1116

MELQUIADES ALANIS
ELIOT LOCALINO

6311 LOCAL UNO •
CIUDAD JUAREZ, CHIHUAHUA MEXICO 32320

Project Manager / Contact ~~Jeff Cress~~

Telephone No. (505) 774-6643

Fax No. (505) 774-6624

Jeff Cross

Samplers: (Signature)

Contract / Purchase Order / Quote

[illegible]

Analysis Required

Remarks

BTX
No. of Containers
000 (mod. 8015)

Issued by:	8/15/78	Retinquired by:	8/24/92	Received by:	ALN cladem
Signature	Signature	Signature	Signature	Signature	Signature
Printed	Printed	Printed	Printed	Printed	Printed
Company	Company	Company	Company	Company	Company
Reason	Reason	Reason	Reason	Reason	Reason
Date	8/15/78	Date	8/24/92	Date	8/24/92
Time	1015	Time	1745	Time	1745

After analysis, samples are to be:

☐ Disposed of (additional fee)

☐ Stored (30 days max)

☐ Stored over 30 days (additional fee)

☐ Returned to customer

Comments:

॥

॥

Instructions:

LABORATORY