

OK

District III

State of New Mexico

1000 Rio Brazos Rd
Santa Fe, NM 87410

Energy, Minerals and Natural Resources Department

Submit 4 copy to
Appropriate District
and 1 copy to
Santa Fe Office

DEPUTY OIL & GAS INSPECTOR

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

RECEIVED
JUL 6 1998

DEC 17 1998

PIT REMEDIATION AND CLOSURE REPORT

Operator: Apache Corporation Telephone: 505-325-0318

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

Facility or Well Name: Apache # 101

Location: Unit or Qtr/Qtr Sec A Sec 2 T 24 N R 4W County Rio Arriba

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

Land Type: Jicarilla Tribal

Pit Location: (Attach diagram)

Beginning Pit Dimensions:	Length	<u>22'</u>	Width	<u>18'</u>	Depth	<u>4'</u>
Ending Pit Dimensions:	Length	<u>24'</u>	Width	<u>20'</u>	Depth	<u>8'</u>
Reference:	Wellhead	<u>XXX</u>	Other	_____		
Footage from reference:	<u>66'</u>					
Direction from reference:	<u>324</u>	Degrees	_____	East	North	<u>XX</u>
			<u>X</u>	West	South	_____

Depth To Groundwater:

(vertical distance from	Less than 50 feet	(20 points)	_____
contaminants to seasonal	50 feet to 99 feet	(10 points)	_____
high water elevation of	Greater than 100 feet	(0 points)	<u>0</u>
groundwater)			

Wellhead Protection Area:

(Less than 200 feet from a private	Yes	(20 points)	_____
domestic water source, or; less than	No	(0 points)	<u>0</u>
1000 feet from all other water sources)			

Distance To Surface Water:

(Horizontal distance to perennial	Less than 200 feet	(20 points)	_____
lakes, ponds, rivers, streams, creeks,	200 feet to 1000 feet	(10 points)	_____
irrigation canals and ditches)	Greater than 1000 feet	(0 points)	<u>0</u>

RANKING SCORE (TOTAL POINTS) 0

Date Remediation Started:		<u>11/15/95</u>		Date Completed:		<u>11/15/95</u>	
Remediation Method: (Check all appropriate sections)		Excavation <u>XXX</u>		Approx. cubic yards		<u>143</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 8', took PID readings.</u>					
		<u>Spread soil on location for remediation. Took soil samples. Pit back filled w/ fill dirt</u>					
Groundwater Encountered:		No <u>XX</u>		Yes _____		Depth _____	
Final Pit:		Sample location <u>5 point composite taken from pit sidewalls and pit bottom center</u>					
Closure Sampling: (in multiple samples, attach sample results and diagram of sample locations and depths)		Sample depth <u>10'</u>		<u>8 to 10" into pit sidewalls 10" into pit bottom</u>			
Sample Date		<u>11/15/95</u>		Sample Time		<u>9:55 A.M.</u>	
Sample results							
Benzene		(ppm)		<u>ND</u>			
Total BTEX		(ppm)		<u>ND</u>			
Field Headspace		(ppm)		<u>33.54</u>			
TPH				<u>73</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>June 8, 1998</u>		PRINTED NAME		<u>Jeff Cross</u>	
SIGNATURE		<u>Jeff Cross</u>		AND TITLE		<u>Project Manager</u>	

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

Operator: APACHE CORPORATION Telephone 505-325-0318

Address: 2855 SOUTHSIDE RIVER ROAD / SUITE A / FARMINGTON N.M. 87401-7947

Facility or Well Name: APACHE # 101

Location: Unit or Qtr/Qtr Sec A SEC 2 T 24N R 4W County RIO ARRIBA

Pit Type: Separator: Dehydrator Other TANK DRAIN/ BLOW PIT

Land Type: JIC. TRIBAL

Pit Location: Pit Dimensions: Length 24' Width 20' Depth 8'
(Attach diagram)

Reference: Wellhead XXX Other _____

Footage from reference: 66'

Direction from reference: 324 Degrees _____ East North XX
of
X West South

Depth To Groundwater:	Less than 50 feet	(20 points)	
(vertical distance from	50 feet to 99 feet	(10 points)	
contaminants to seasonal	Greater than 100 feet	(0 points)	0
high water elevation of			
groundwater)			

Distance to an Ephemeral Stream: (Downgradient dry wash greater than ten feet in width)	Less than 100 feet	(10 points)	
	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)	_____
	100 feet to 1000 feet	(10 points)	_____
	Greater than 1000 feet	(0 points)	<u> 0 </u>

RANKING SCORE (TOTAL POINTS) 0

Date Remediation Started: 11/15/95 Date Completed: 11/15/95

Remediation Method: Excavation XXX Approx. cubic yards 143
(Check all appropriate sections) Landfarmed XX Insitu Bioremediation _____
Other _____

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

General Description of Remedial Action: Excavate pit to 8', took PID readings. spread soil on

location for remediation. Took soil samples. Pit was Backfilled w/ Fill Dirt

Groundwater Encountered: No XXX 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 8" to 10" into pit side walls, 10" into pit bottom.

Sample Date 11/15/95 Sample Time 9:55 AM
Sample results

Soil:	Benzene	(ppm)	<u>ND</u>	Water:	Benzene	(ppb)	<u>NA</u>
	Total BTEX	(ppm)	<u>ND</u>		Toluene	(ppb)	<u>NA</u>
	Field Headspace	(ppm)	<u>33.54</u>		Ethylbenzene	(ppb)	<u>NA</u>
	TPH	(ppm)	<u>73</u>		Total Xylenes	(ppb)	<u>NA</u>

Groundwater Sample: Yes _____ No XXX (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 4/29/98 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: Kevin Mammell DATE: 5-7-98

[illegible]

APACHE CORPORATION FARMINGTON DISTRICT
PIT EXCAVATION AND CLOSURE REPORT

LOCATION: APACHE 101

PIT COUNT: 1

JICARILLA APACHE TRIBAL EPO
REVIEW AND APPROVAL

EPO REPRESENTATIVE KCM
DATE OF REVIEW: 12-27-95

EXCAVATION								
DIMENSIONS		START		FINISH				
	W	L	D		W	L	D	CU.YDS.
PIT 1	18'	22'	4'	PIT 1	20'	24'	8'	143
PIT 2				PIT 2				
PIT 3				PIT 3				
DATE:11/15/95		PIT1@08'	PIT2@_ '	PIT3@_ '	DATE:11/30/95	PIT1@08'	PIT2@_ '	PIT3@_ '
P. I. D.	CENTER	45.5			P. I. D.	CENTER	8.0	
	NW CORNER	0.0				NW CORNER	2.8	
	NE CORNER	9.1				NE CORNER	0.6	
	SW CORNER	12.1				SW CORNER	4.3	
	SE CORNER	101.0				SE CORNER	2.7	
NOTES:								

NOTES:

11/15/95 - Dark staining to 6', clearing @8' Hit rock shelf.

SOIL SAMPLING

DATE:11/15/95		PIT1@08'	PIT2@	PIT3@	ANALYSIS RESULTS			PER LAB:	ASSAIGAI
P.	CENTER	45.5			PIT	TPH	BETEX	WITNESS	DATE
I.	NW CORNER	0.0			NO.				
D.	NE CORNER	9.1			1	73.0	ND	IF&S	11/15/95
	SW CORNER	12.1			2				
	SE CORNER	101.0			3				

RE-SAMPLE OR CELL(S) SAMPLE

DATE:11/30/95		PIT1@08'	PIT2@	PIT3@	ANALYSIS RESULTS			PER LAB:	ASSAIGAI
P.	CENTER	8.0			PIT	TPH	BETEX	WITNESS	DATE
I.	NW CORNER	2.8			NO.				
D.	NE CORNER	0.6			1	270.0	ND	JDT	11/30/95
	SW CORNER	4.3			2				
	SE CORNER	2.7			3				

RE-SAMPLE OR CELL(S) SAMPLE

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



ASSAIGAI 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:
December 6, 1995 13:17

CERTIFICATE OF ANALYSIS RESULTS BY SAMPLE

SENT APACHE CORPORATION
TO: 304 N. BEHREND
FARMINGTON, NM 87401

WORKORDER # : 9511228
WORK ID : PIT REMEDIATION 95017
CLIENT CODE : APA01
DATE RECEIVED : 11/24/95

ATTN: JOHN TAYLOR

Page: 1

Lab ID: 9511228-01A
Sample ID: AP#101

Collected: 11/15/95 09:55:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	50	11/28/95	SBTXME090
Toluene	ND	mg/Kg	0.0010	50	11/28/95	SBTXME090
Ethylbenzene	ND	mg/Kg	0.0010	50	11/28/95	SBTXME090
P-&m-Xylene	ND	mg/Kg	0.0010	50	11/28/95	SBTXME090
O-Xylene	ND	mg/Kg	0.0010	50	11/28/95	SBTXME090

Lab ID: 9511228-01B
Sample ID: AP#101

Collected: 11/15/95 09:55:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
HCs DIESEL/CAL DHS 8015M						
Diesel	73	mg/Kg	5.0	5.0	11/30/95	SLFTD052
HCs DSL XT/CAL DHS 8015M	11/28/95	N/A				

Lab ID: 9511228-02A
Sample ID: AP#143-H

Collected: 11/15/95 13:20:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	5000	11/29/95	SBTXME090
Toluene	ND	mg/Kg	0.0010	5000	11/29/95	SBTXME090
Ethylbenzene	ND	mg/Kg	0.0010	5000	11/29/95	SBTXME090
P-&m-Xylene	13	mg/Kg	0.0010	5000	11/29/95	SBTXME090
O-Xylene	ND	mg/Kg	0.0010	5000	11/29/95	SBTXME090



ANALYTICAL
LABORATORIES

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

MELQUIADES ALANIS
6411 LOCAL UNO
CIUDAD JUAREZ, CHIHUAHUA MEXICO 32320

Address 304 N. Bedford Telephone No. (505) 325-0318

City/State/Zip FARMINGTON, NM 87401 Fax No. (505) 325-0325

Project Name / Number	Samplers: (Signature)
P.4 Kennedy, L.N. 9507	

Contract / Purchase Order / Quote _____

AAL FRACTION NUMBER	Field Sample Number / Location	Date	Time	Sample Type	Type / Size of Container	Preservation	
						Temp.	Chemical
101A	AP [#] 101-A	11/15	9:55	SCIL	4 oz. Glass	-	JCE
101B	AP [#] 101-B	11/15	9:55				
102A	AP [#] 102-A	11/15	1:20				
102B	AP [#] 102-B	11/15	1:20				
103A	AP [#] 103-A	11/15	2:55				
103B	AP [#] 103-B	11/15	2:55				
104A	AP [#] 104-A	11/16	10:30				
104B	AP [#] 104-B	11/16	10:30				
105A	AP [#] 105-A	11/17	12:45				
105B	AP [#] 105-B	11/17	12:45				
106A	AP [#] 106-A	11/20	2:16				
106B	AP [#] 106-B	11/20	2:16				

Date	Time	Relinquished by: Signature _____ Printed _____ Company _____ Reason _____	Received by: Signature _____ Printed _____ Company _____ Reason _____
Relinquished by: Signature <u>Scott D. Laffin</u> Printed <u>Scott D. Laffin</u> Company <u>Scott D. Laffin</u> Reason <u>Testing</u>	Relinquished by: Signature _____ Printed _____ Company _____ Reason _____	Relinquished by: Signature _____ Printed _____ Company _____ Reason _____	Relinquished by: Signature _____ Printed _____ Company _____ Reason _____

Received by: _____ Signature _____ Printed _____ Company _____	Relinquished by: _____ Signature _____ Printed _____ Company _____
---	---

Date	24 NOV 9	Received by: <u>Walter M. Lee</u>
Time	1330	Signature <u>Walter M. Lee</u>
		Printed <u>Walter M. Lee</u>
		Company <u>AAL</u>

Method of Shipment: <u>7/11</u>	Comments: _____ _____ _____ _____
Shipment No. _____	
Special Instructions: _____	

After analysis, samples are to be:

☐ Disposed of (additional fee)

☐ Stored (30 days max)

☐ Stored over 30 days (additional fee)

☐ Returned to owner

COURIER

GENERAL DRAINAGE

NORTH

APACHE

APACHE NUMBER 101 Lease #JAT 126

NE/4 NE/4 (A)

SECTION 2, TOWNSHIP 24N, RANGE 4W

RIO ARriba COUNTY, NM

REVISED 00-01-97 MD

SEPARATOR



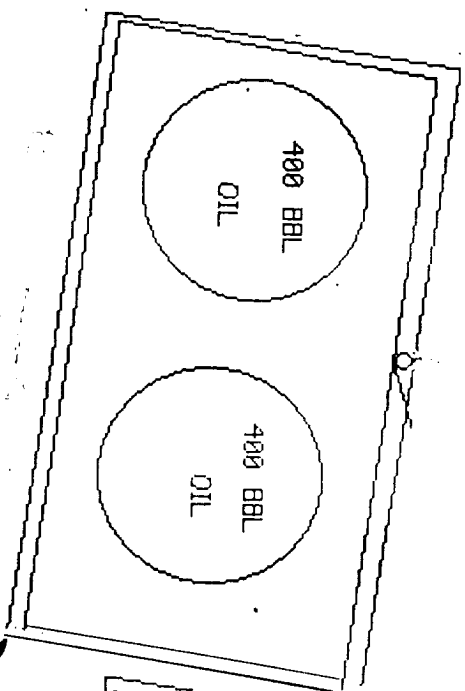
WELL HEAD



EPNG LINE DRIP



4' X 40' EPNG METER RUN



Pit
32' x 32' x 12'
60' x 60' x 12'

Land Area
Cell
60' x 62' x 12'

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 # 101</u>			
Location: Unit or Qtr/Qtr Sec <u>A</u> Sec <u>2</u> T <u>24N</u> R <u>4W</u> County <u>RIO ARRIBA</u>			
Land Type <u>JIC. TRIBAL</u>			
Date Remediation Started: <u>11/15/95</u> Date Completed: <u>9/9/97</u>			
Remediation Method: Landfarmed <u>XXX</u> Approx. cubic yards <u>143</u>			
Composted <u> </u>			
Other <u> </u>			
Depth to Groundwater: (pts) <u>0</u>		Final Closure Sampling Sampling Date: <u>9/9/97</u> Time: <u>10:30</u> Sample Results: Field Headspace (ppm) <u>ND</u> TPH (ppm) <u>5000</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>4/29/98</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. Marshall</u>		DATE: <u>5-7-98</u>	

APACHE CORPORATION/FARMINGTON DISTRICT SOIL REMEDIATIONS STATUS REPORT

REMEDIATION SITE APACHE # 101

* AMOUNT OF SOIL UNDERGOING REMEDIATION 143 Yds.

CELL No. <u>1</u>	SampDATE 9/9/97	TPH 5000	BTEX ND
DIMENSIONS(LxWxH) <u>60' X 62' X 12"</u>			
CELL LOCATION (dir. from well head) <u>WEST</u>			
* DATE BEGAN: <u>11/15/95</u>			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>9/9/97</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)			
11/18/95 TREAT SOIL WITH 28-4-4 FERTILIZER, PLOW AND TILL SOIL.			
5/2/97 TREAT SOIL WITH 46-0-0 FERTILIZER, WATER, PLOW AND TILL SOIL.			
6/6/97 WATER , PLOW AND TILL SOIL.			
7/16/97 TILL SOIL.			
8/20/97 TILL SOIL.			
9/5/97 WATER AND TILL SOIL.			

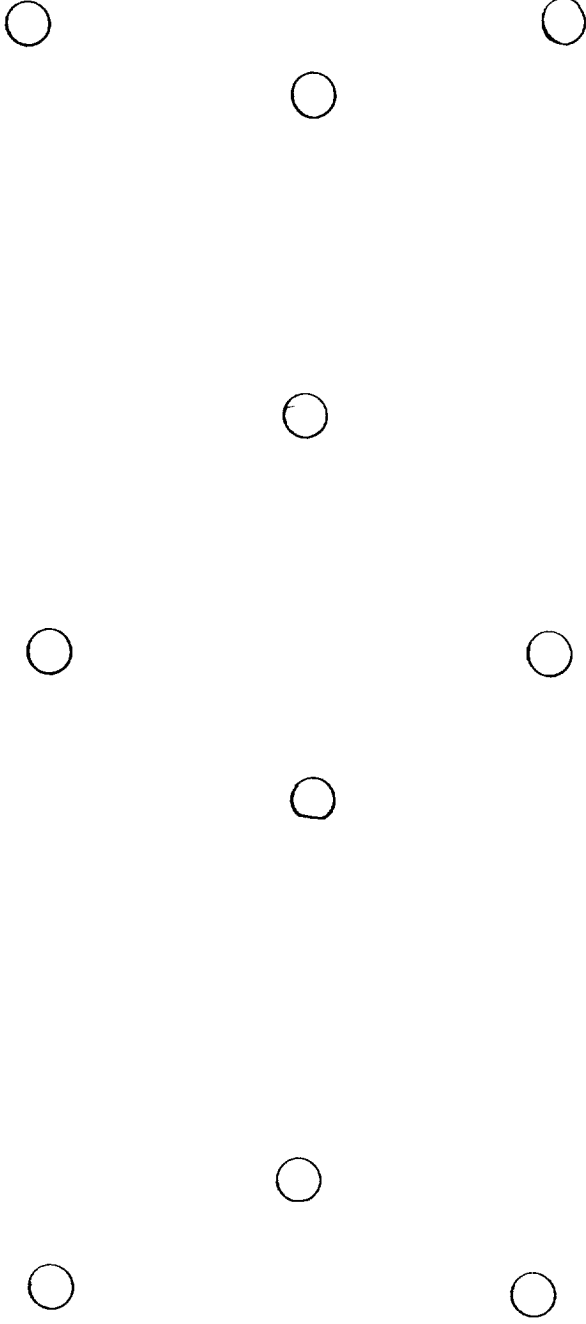
From excavation reports.

APACHE # 101

9/9/97

60' X 62' X 12"

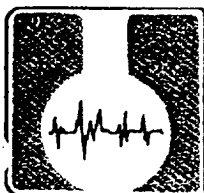
= SAMPLE AREA



ALL SAMPLES TAKEN 10" TO 12" INTO CELL.

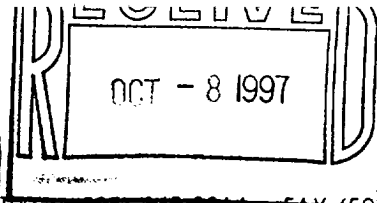
10 POINT COMPOSITE SAMPLE.

[illegible]



**ASSAIGAI
ANALYTICAL
LABORATORIES, INC.**

7300 Jefferson, N.E. • Albuquerque, New Mexico 87109 • (505) 345-8984 • FAX (505) 345-7259
3332 Wedgewood, E-5 • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820



Report Generated:

September 23, 1997 10:40

**CERTIFICATE OF ANALYSIS
RESULTS BY SAMPLE**

SENT APACHE CORPORATION

WORKORDER # : 9709113

TO: 2855 SOUTHSIDE RIVER RD STE
FARMINGTON, NM 87401-7947

AWORK ID : JICARILLA PIT CLOSURES

CLIENT CODE : APA01

DATE RECEIVED : 09/12/97

ATTN: JEFF CROSS

Page: 1

Lab ID: 9709113-01A

Collected: 09/09/97 10:30:00

Sample ID: APACHE 101 CELL

Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/kg	0.0050	100	09/14/97	X97262
Toluene	ND	mg/kg	0.0050	100	09/14/97	X97262
Ethylbenzene	ND	mg/kg	0.0050	100	09/14/97	X97262
P-&m-Xylene	ND	mg/kg	0.010	100	09/14/97	X97262
O-Xylene	ND	mg/kg	0.0050	100	09/14/97	X97262

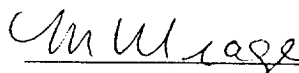
Lab ID: 9709113-01B

Collected: 09/09/97 10:30:00

Sample ID: APACHE 101 CELL

Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
Diesel Range OG Soil/M8015						
Diesel Range OG in Soil	5000	mg/Kg	25	25	09/18/97	SDRO53


William P. Biava
President



WORKORDER COMMENTS

DATE : 09/23/97
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

ANALYTICAL
LABORATORIES

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

Contract / Purchase Order / Quote

Contract / Purchase Order / Quote

Method of Shipment: _____	Comments: _____ _____ _____
Shipment No. _____	
Special Instructions: _____	

Special instructions:

☐ Disposed of (additional fee)

☐ Stored (30 days max)

☐ Stored over 30 days (additional fee)

☐ Returned to customer

LABORATORY