

District II

1000 Rio Grande Blvd

Aztec, NM 87410

State of New Mexico

Energy, Minerals and Natural Resources Department

DEPUTY OIL &amp; GAS INSPECTOR

OIL CONSERVATION DIVISION

2040 S. PACHECO

Santa Fe, New Mexico 87505

JAN 27 1998

Submit 1 copy to

Appropriate District

and 1 copy to

Santa Fe Office

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OIL CON. DIV.

DIST. 3

## PIT REMEDIATION AND CLOSURE REPORT

Operator: Apache Corporation \ MW Petroleum

Telephone:

505-325-0318Address: 2855 Southside River Road, Suite A, Farmington, NM 87401

Facility or Well Name:

Jic Apache Tribal 363 #1 Pit #1

Location: Unit or Qtr/Qtr Sec

ANE1NE Sec 15 T 24 N R 4W County Rio Arriba

Pit Type: Separator:

Dehydrator

Other

Blow PitLand Type: Jicarilla Tribal

Beginning Pit Dimensions:

Length

45'

Width

45'

Depth

6'

Pit Location:

Ending Pit Dimensions:

Length

50'

Width

55'

Depth

18'

(Attach diagram)

Reference:

Wellhead

Other

Separator

Footage from reference:

75'

Direction from reference:

130

Degrees

XX

East

North

West

of

South

X

## 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)

0

## 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)

0

## 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)

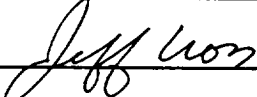
Greater than 1000 feet

(0 points)

0

RANKING SCORE (TOTAL POINTS)

0

<b>Date Remediation Started:</b>		<u>5/19/97</u>		<b>Date Completed:</b>		<u>5/23/97</u>	
<b>Remediation Method:</b> (Check all appropriate sections)		Excavation	<u>XXX</u>	Approx. cubic yards	<u>1800</u>		
		Landfarmed	<u>XX</u>	Insitu Bioremediation			
		Other					
<b>Remediation Location:</b> (i.e. landfarmed onsite, name and location of offsite facility)		Onsite	<u>XX</u>	Offsite			
<b>General Description of Remedial Action:</b>		<u>Excavate pit to 12' below pit bottom, 5' off pit sides.</u>					
		<u>Lay soil out on location in two dirt farm cells.</u>					
<b>Groundwater Encountered:</b>		No	<u>XX</u>	Yes			Depth <u>          </u>
<b>Final Pit:</b>		<u>4 point composite sample taken 8 to 10 " into pit sidewalls,</u>					
<b>Closure Sampling:</b> (in multiple samples, attach sample results and diagram of sample locations and depths)		<u>grab sample taken 10" into pit bottom center.</u>					
	Sample location						
	Sample depth	<u>18'</u>	<u>8 to 10" into pit sidewalls 10" into pit bottom</u>				
	Sample Date	<u>5/23/97</u>		Sample Time	<u>10:50 AM</u>		
	Sample results						
	Benzene	(ppm)	<u>ND</u>				
	Total BTEX	(ppm)	<u>ND</u>				
	Field Headspace	(ppm)	<u>9.02</u>				
	TPH	<u>610\Sides</u> <u>420\BTM</u>					
<b>Groundwater Sample:</b>		Yes			No	<u>XX</u> (If yes attach sample results)	
<b>I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.</b>							
<b>DATE</b>		<u>August 10, 1998</u>		<b>PRINTED NAME</b>		<u>Jeff Cross</u>	
<b>SIGNATURE</b>				<b>AND TITLE</b>		<u>Project Manager</u>	

District III  
1000 Rio Brazos Rd  
Aztec, NM 87410

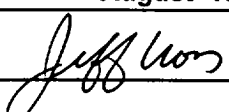
State of New Mexico  
Energy, Minerals and Natural Resources Department

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

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

## PIT REMEDIATION AND CLOSURE REPORT

Operator:	<u>Apache Corporation \ MW Petroleum</u>			Telephone:	<u>505-325-0318</u>		
Address:	<u>2855 Southside River Road, Suite A, Farmington, NM 87401</u>						
Facility or Well Name:	<u>Jic Apache Tribal 363 #1 Pit #2</u>						
Location:	Unit or Qtr/Qtr	Sec	<u>NE1NE</u>	<u>Sec 15</u>	<u>T 24 N</u>	<u>R 4W</u>	County <u>Rio Arriba</u>
Pit Type:	Separator:	<u>XXX</u>	Dehydrator		Other		
Land Type:	<u>Jicarilla Tribal</u>						
Beginning Pit Dimensions:		Length	<u>15'</u>	Width	<u>12'</u>	Depth	<u>2'</u>
Pit Location:	Ending Pit Dimensions:	Length	<u>25'</u>	Width	<u>20'</u>	Depth	<u>9'</u>
(Attach diagram)		Reference:	Wellhead		Other	Separator	
Footage from reference:		<u>15'</u>					
Direction from reference:		<u>100</u>	Degrees	<u>XX</u>	East	North	
					West	South	<u>X</u>
<b>Depth To Groundwater:</b>		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)		<u>0</u>	
high water elevation of							
groundwater)							
<b>Wellhead Protection Area:</b>		Yes		(20 points)			
(Less than 200 feet from a private		No		(0 points)		<u>0</u>	
domestic water source, or; less than							
1000 feet from all other water sources)							
<b>Distance To Surface Water:</b>		Less than 200 feet		(20 points)			
(Horizontal distance to perennial		200 feet to 1000 feet		(10 points)			
lakes, ponds, rivers, streams, creeks,		Greater than 1000 feet		(0 points)		<u>0</u>	
irrigation canals and ditches)							
		RANKING SCORE (TOTAL POINTS)				<u>0</u>	

<b>Date Remediation Started:</b>		<u>5/21/98</u>		<b>Date Completed:</b>		<u>5/23/97</u>	
<b>Remediation Method:</b> (Check all appropriate sections)		Excavation	<u>XXX</u>	Approx. cubic yards	<u>170</u>		
		Landfarmed	<u>XX</u>	Insitu Bioremediation			
		Other					
<b>Remediation Location:</b> (i.e. landfarmed onsite, name and location of offsite facility)		Onsite	<u>XX</u>	Offsite			
<b>General Description of Remedial Action:</b>		<u>Excavate pit to 7' below pit bottom, 10' off pit sides.</u>					
		<u>Lay soil out on location in two dirt farm cells.</u>					
<b>Groundwater Encountered:</b>		No	<u>XX</u>	Yes			Depth <u>          </u>
<b>Final Pit:</b>	<u>Sample location 4 point composite sample taken 8 to 10 " into pit sidewalls,</u>						
<b>Closure Sampling:</b> (in multiple samples, attach sample results and diagram of sample locations and depths)	<u>grab sample taken 10" into pit bottom center.</u>						
	Sample depth	<u>9'</u>	<u>8 to 10" into pit sidewalls 10" into pit bottom</u>				
	Sample Date	<u>5/23/97</u>	Sample Time	<u>11:30 AM</u>			
	Sample results						
	Benzene	(ppm)	<u>ND</u>				
	Total BTEX	(ppm)	<u>ND</u>				
	Field Headspace	(ppm)	<u>3.52</u>				
	TPH		<u>ND\Sides</u>				
			<u>630\BTM</u>				
<b>Groundwater Sample:</b>	Yes			No	<u>XX</u>	(If yes attach sample results)	
<b>I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.</b>							
<b>DATE</b>	<u>August 10,1998</u>		<b>PRINTED NAME</b>	<u>Jeff Cross</u>			
<b>SIGNATURE</b>			<b>AND TITLE</b>	<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>M W PETROLEUM</u>		Telephone <u>505-325-0318</u>																															
Address: <u>304 N. BEHREND, FARMINGTON, N.M. 84701</u>																																	
Facility or Well Name: <u>JIC. TRIBAL 363 # 1 PIT # 1</u>																																	
Location:	Unit or Qtr/Qtr Sec	<u>NEWE SEC 15 T 24N R 4W</u>	County <u>RIO ARRIBA</u>																														
Pit Type:	Separator: <u>          </u>	Dehydrator <u>          </u>	Other <u>BLOW PIT</u>																														
Land Type: <u>JIC. TRIBAL</u>																																	
<table style="width: 100%;"> <tr> <td>Pit Location: (Attach diagram)</td> <td>Pit Dimensions:</td> <td>Length <u>50'</u></td> <td>Width <u>55'</u></td> <td>Depth <u>18'</u></td> </tr> <tr> <td></td> <td>Reference:</td> <td>Wellhead <u>          </u></td> <td>Other <u>SEPERATOR</u></td> <td></td> </tr> <tr> <td></td> <td>Footage from reference:</td> <td colspan="3"><u>75'</u></td> </tr> <tr> <td></td> <td>Direction from reference:</td> <td><u>130</u> Degrees</td> <td><u>XX</u> East</td> <td>North</td> </tr> <tr> <td></td> <td></td> <td></td> <td>West</td> <td>South</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;"><u>X</u></td> </tr> </table>				Pit Location: (Attach diagram)	Pit Dimensions:	Length <u>50'</u>	Width <u>55'</u>	Depth <u>18'</u>		Reference:	Wellhead <u>          </u>	Other <u>SEPERATOR</u>			Footage from reference:	<u>75'</u>				Direction from reference:	<u>130</u> Degrees	<u>XX</u> East	North				West	South					<u>X</u>
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			West	South																													
				<u>X</u>																													
<b>Depth To Groundwater:</b> (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>																														
<b>Distance to an Ephemeral Stream:</b> (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>																														
<b>Distance to Nearest Lake, Playa, or Watering Pond:</b> (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>																														
<b>Wellhead Protection Area:</b> (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>																														
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<b>Distance To Surface Water:</b> (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)		Less than 100 feet	(20 points) <u>          </u>																														
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		Greater than 1000 feet	( 0 points) <u>0</u>																														
		<b>RANKING SCORE (TOTAL POINTS)</b>	<u>0</u>																														

Date Remediation Started: 5/19/97 Date Completed: 5/23/97

Remediation Method: Excavation XXX Approx. cubic yards 1800  
 (Check all appropriate sections) Landfarmed XXX Insitu Bioremediation \_\_\_\_\_  
 Other \_\_\_\_\_

Remediation Location: Onsite XXX Offsite \_\_\_\_\_  
 (i.e. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: Excavate pit to 12' below pit bottom, 5' off pit sides.  
Lay soil out on location in two dirt farm cells.

Groundwater Encountered: No XXX Yes \_\_\_\_\_ Depth \_\_\_\_\_

Final Pit: Sample location 4 POINT COMPOSITE SAMPLE TAKEN 10" INTO PIT SIDEWALL  
 Closure Sampling: GRAB SAMPLE TAKEN 10" INTO PIT BOTTOM CENTER.  
 (in multiple samples, attach sample results and diagram of sample locations and depths) Sample depth 18' 8" to 10" into pit side walls, 10" into pit bottom.

Sample Date 5/23/97 Sample Time 10:50AM  
 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>9.02</u>		Ethylbenzene	(ppb)	<u>NA</u>
	TPH	(ppm)	<u>610\SIDE</u>		Total Xylenes	(ppb)	<u>NA</u>
			<u>420\BTM</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 7/15/97 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: *Kate C Mamm* DATE: 7-30-97

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>M W PETROLEUM</u>		Telephone <u>505-325-0318</u>	
Address: <u>304 N. BEHREND, FARMINGTON, N.M. 84701</u>			
Facility or Well Name: <u>JIC. TRIBAL 363 # 1 PIT # 2</u>			
Location:	Unit or Qtr/Qtr Sec	<u>NEWE SEC 15 T 24N R 4W</u>	County <u>RIO ARRIBA</u>
Pit Type:	Separator: <u>XXX</u>	Dehydrator <u>          </u>	Other <u>          </u>
Land Type: <u>JIC. TRIBAL</u>			
<div style="display: flex; justify-content: space-between;"> <div>Pit Location: (Attach diagram)</div> <div>Pit Dimensions: Length <u>25'</u> Width <u>20'</u> Depth <u>9'</u></div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div>Reference:</div> <div>Wellhead <u>          </u> Other <u>SEPERATOR</u></div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div>Footage from reference:</div> <div><u>15'</u></div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div>Direction from reference:</div> <div> <u>100</u> Degrees <u>XX</u> East  <u>          </u> West </div> <div> North of South </div> <div><u>X</u></div> </div>			
<b>Depth To Groundwater:</b> (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>
<b>Distance to an Ephemeral Stream:</b> (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>
<b>Distance to Nearest Lake, Playa, or Watering Pond:</b> (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>
<b>Wellhead Protection Area:</b> (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>
<b>Distance To Surface Water:</b> (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:** 5/21/97 **Date Completed:** 5/23/97

**Remediation Method:** Excavation XXX Approx. cubic yards 170  
 (Check all appropriate sections) Landfarmed XXX Insitu Bioremediation \_\_\_\_\_  
 Other \_\_\_\_\_

**Remediation Location:** Onsite XXX Offsite \_\_\_\_\_  
 (i.e. landfarmed onsite, name and location of offsite facility)

**General Description of Remedial Action:** Excavate pit to 7' below pit bottom, 10' off pit sides.  
Lay soil out on location in two dirt farm cells.

**Groundwater Encountered:** No XXX Yes \_\_\_\_\_ Depth \_\_\_\_\_

**Final Pit:** Sample location 4 POINT COMPOSITE SAMPLE TAKEN 10" INTO PIT SIDEWALL  
**Closure Sampling:** GRAB SAMPLE TAKEN 10" INTO PIT BOTTOM CENTER.  
 (in multiple samples, attach sample results and diagram of sample locations and depths) Sample depth 9' 8" to 10" into pit side walls, 10" into pit bottom.

Sample Date 5/23/97 Sample Time 11:30AM

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>3.52</u>		Ethylbenzene	(ppb)	<u>NA</u>
	TPH	(ppm)	<u>ND\SIDES</u>		Total Xylenes	(ppb)	<u>NA</u>
			<u>630\BTM</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 7/15/97 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: Kerr C. Mammall DATE: 7-30-97



# M W PETROLEUM/FARMINGTON DISTRICT PIT EXCAVATION AND CLOSURE REPORT

LOCATION JAT 363 # 1

PIT COUNT 2

Jicarilla Apache Tribal EPO/OCD/BLM
Review and Approval
OCD-BLM
EPO Representative
Date of Review

Excavation								
DIMENSIONS			START: PIT #1 5/19/97 PIT #2 5/21/97			FINISH: PIT #1 AND #2 5/23/97		
	W	L	D		W	L	D	CU YDS
Pit 1	45'	45'	6'	Pit 1	55'	50'	18'	1800
Pit 2	12'	15'	2'	Pit 2	20'	25'	9'	170
Pit 3				Pit 3				
		Pit 1 @ 10'	Pit 2 @ 6'	Pit 3 @		Pit 1 @ 18'	Pit 2 @ 9'	Pit 3 @
P I D	Center	338	480		P I D	Center	30	95
	NW Corner	800	450			NW Corner	10	86
	NE Corner	250	390			NE Corner	9.3	76
	SW Corner	350	420			SW Corner	6.8	51
	SE Corner	225	350			SE Corner	7.8	20

NOTES:

5/19/97 START EXCAVATION ON PIT #1 , EXCAVATE DOWN TO 10' HEAVY STAINING AND ODOR .

PID READINGS HIGH @ 10'

5/20/97 CONTINUE EXCAVATING PIT #1 TO 14' STILL HEAVY STAINING

5/21/97 EXCAVATE PIT #1 TO 18' PIT BOTTOM CLEANED UP . PID RAEDINGS GOOD.

5/23/97 CHASE STAINS ON PIT SIDE WALLS. TAKE PID READINGS ,AND SOIL SAMPLES ,SEND TO ASSAIGAI LABS.

5/21/97 START EXCAVATION ON PIT #2 EXCAVATE DOWN TO 6'. LIGHT STAINING AND ODOR,PID READING HIGH.

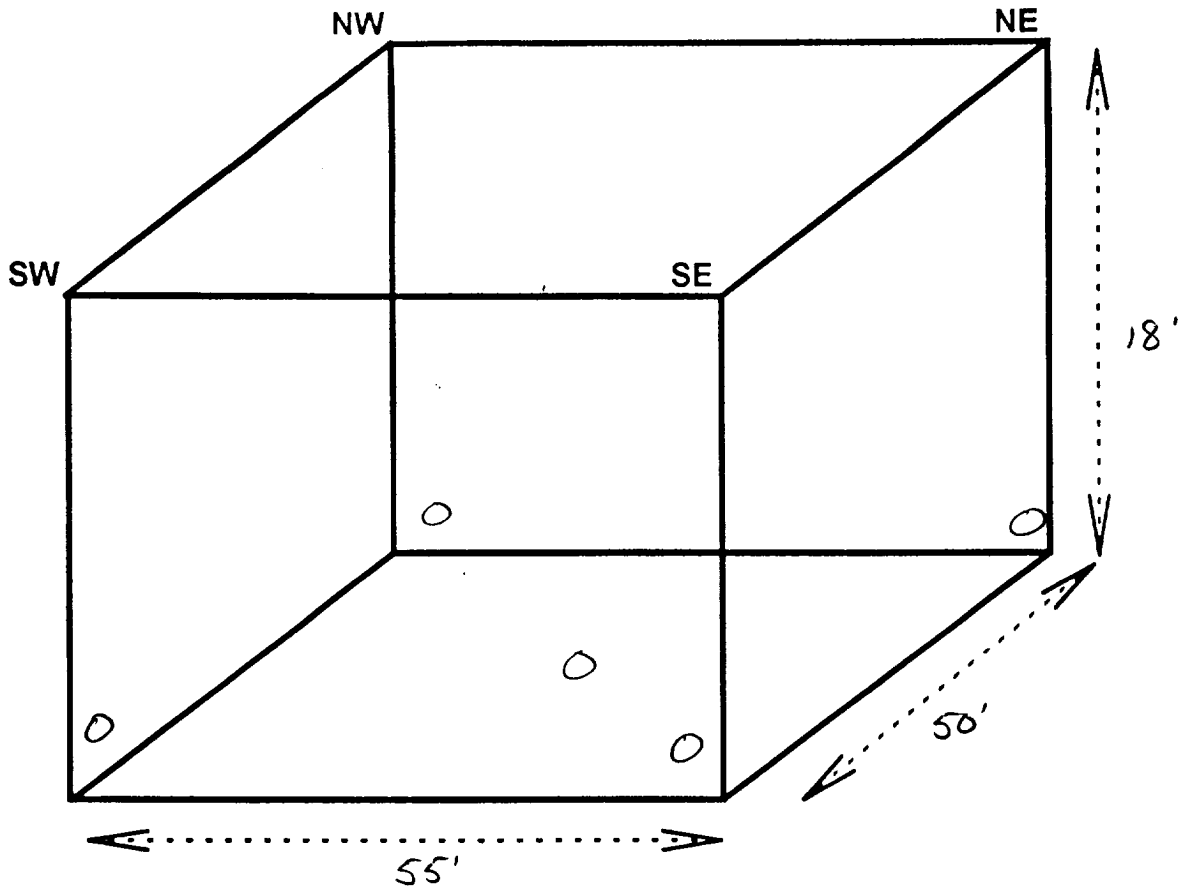
5/22/97 CONTINUE EXCAVATION ON PIT #2 , EXCAVATE DOWN TO 9',PID READINGS GOOD.

5/23/97 EXCAVATE SIDE WALLS ON PIT #2 NO STAINING OR ODOR . TAKE SOIL SAMPLE AND SEND TO ASSAIGAI LABS.

SOIL SAMPLING									
DATE: 5/23/97		Pit 1 @ 18'	Pit 2 @ 9'	Pit 3 @	ANALYSIS RESULTS			PER LAB:	ASSAIGAI
P I D	Center	27	17.4		PIT	TPH	BETEX	WITNESS	DATE
	NW Corner	8.5	0.2		NO	SIDE\BTM	SIDE\BTM		
	NE Corner	1.3	0		1	610\420	ND\ND	JEFF C.	5/28/97
	SW Corner	0	0		2	ND\630	ND\ND	JEFF C.	5/28/97
	SE Corner	8.3	0		3				

RE-SAMPLE OR CELL(S) SAMPLE									
DATE:		Pit 1 @	Pit 2 @	Pit 3 @	ANALYSIS RESULTS			PER LAB	
P I D	Center				PIT	TPH	BETEX	WITNESS	DATE
	NW Corner				NO				
	NE Corner				1				
	SW Corner				2				
	SE Corner				3				

RE-SAMPLE OR CELL(S) SAMPLE									
DATE:		Pit 1 @	Pit 2 @	Pit 3 @	ANALYSIS RESULTS			PER LAB	
P I D	Center				PIT	TPH	BETEX	WITNESS	DATE
	NW Corner				NO				
	NE Corner				1				
	SW Corner				2				
	SE Corner				3				

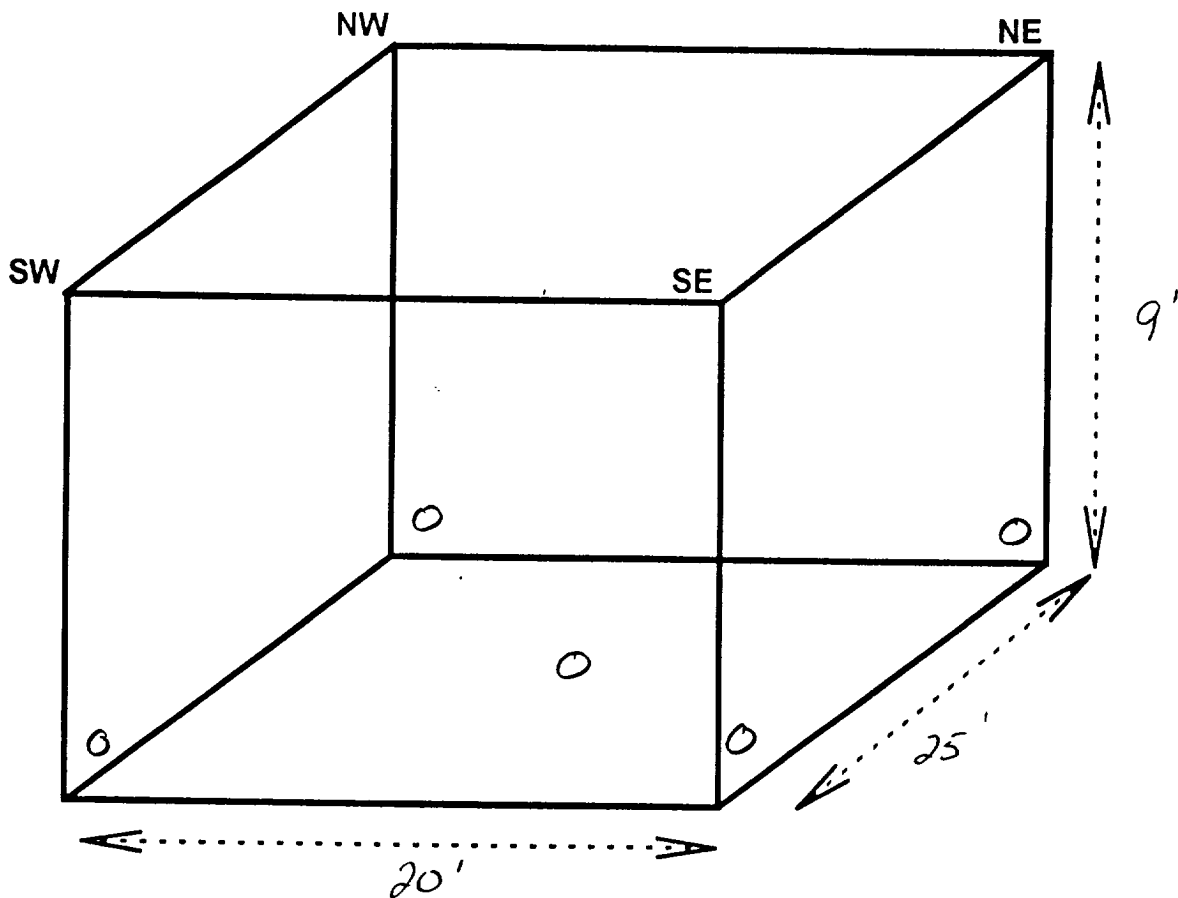


○ = SAMPLE AREA

WELL NAME JAT 363 #1 pit #1

SAMPLE DATE 5-23-97

NOTES 4 POINT COMPOSITE SAMPLE TAKEN 8" TO 10" INTO PIT  
SIDEWALL  
1 POINT GRAB SAMPLE TAKEN 10" TO 12" INTO BOTTOM CENTER  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

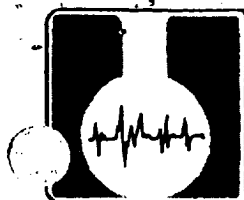


○ = SAMPLE AREA

WELL NAME JAT 363 #1 pit #2

SAMPLE DATE 5-23-97

NOTES 4 POINT COMPOSITE SAMPLE TAKEN 8" TO 10" INTO PIT  
SIDEWALL  
1 POINT GRAB SAMPLE TAKEN 10" TO 12" INTO BOTTOM CENTER  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
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**ASSAIGAI  
ANALYTICAL  
LABORATORIES, INC.**

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:

June 2, 1997 13:56

**CERTIFICATE OF ANALYSIS  
RESULTS BY SAMPLE**

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

WORKORDER # : 9705220  
WORK ID : JICARILLA PIT CLOSURES  
CLIENT CODE : APA01  
DATE RECEIVED : 05/27/97

ATTN: JEFF CROSS

Page: 1

Lab ID: 9705220-01A

Sample ID: A 363 #1 PIT 1 SIDEWALLS

Collected: 05/23/97 10:50:00

Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	500	05/28/97	SBTXME165
Toluene	ND	mg/Kg	0.0010	500	05/28/97	SBTXME165
Ethylbenzene	ND	mg/Kg	0.0010	500	05/28/97	SBTXME165
P-&m-Xylene	ND	mg/Kg	0.0020	500	05/28/97	SBTXME165
O-Xylene	ND	mg/Kg	0.0010	500	05/28/97	SBTXME165

Lab ID: 9705220-01B

Sample ID: A 363 #1 PIT 1 SIDEWALLS

Collected: 05/23/97 10:50:00

Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
Diesel Range OG Soil/M8015						
Diesel Range OG in Soil	610	mg/Kg	50	1.0	05/28/97	SDRO028

Lab ID: 9705220-02A

Sample ID: A 363 #1 PIT 1 BOTTOM

Collected: 05/23/97 11:00:00

Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	500	05/28/97	SBTXME165
Toluene	ND	mg/Kg	0.0010	500	05/28/97	SBTXME165
Ethylbenzene	ND	mg/Kg	0.0010	500	05/28/97	SBTXME165
P-&m-Xylene	ND	mg/Kg	0.0020	500	05/28/97	SBTXME165
O-Xylene	ND	mg/Kg	0.0010	500	05/28/97	SBTXME165



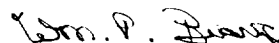
Lab ID: 9705220-02B

Sample ID: A 363 #1 PIT 1 BOTTOM

Collected: 05/23/97 11:00:00

Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
Diesel Range OG Soil/M8015 Diesel Range OG in Soil	420	mg/Kg	50	1.0	05/27/97	SDRO028



William P. Biava  
President

# Chain of Custody Record



APACHE LABORATORIES

7300 JEFFERSON, N.E.  
ALBUQUERQUE, NEW MEXICO 87109  
(505) 345-8964

Sample No. 5220 Date 5/27/97  
Page 1 of 1

3302 WEDGEWOOD  
EL PASO, TEXAS 79925  
(915) 593-6000

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

Project Manager Contact Jeff Deves

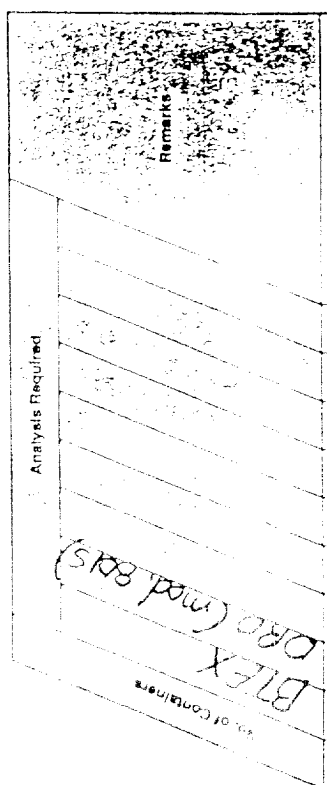
Telephone No. (505) 771-6643

Fax No. (505) 774-6624

Project Name Number JICARILLA PIT CLOSURES

Contract Purchase Order Quote

MELQUIADES ALANIS  
6011 LOCAL UNO  
CIUDAD JUAREZ, CHIHUAHUA MEXICO 32320



AAL FRACON NUMBER	Field Sample Number/Location	Date	Time	Sample Type	Type / Size of Container	Preservation Temp	Chemical
01A	A 363 #1 pit 1 side wall S-23-97	5-23-97	10:50	Soil	4 oz glass		ICE
01B	"	"	10:50	"	"		"
02A	A 363 #1 pit #1 Bottom	"	11:00	"	"		"
02B	"	"	11:00	"	"		"
03	"	"	"	"	"		"
04	"	"	"	"	"		"
05	"	"	"	"	"		"
06	"	"	"	"	"		"

Relinquished by: Signature: <u>John Mullica</u> Printed: <u>John Mullica</u> Company: <u>Apache Corp.</u> Reason:	Date: <u>5/27/97</u> Time: <u>9:30 AM</u> Received by: Signature: <u>Elleen Lypman</u> Printed: <u>Elleen Lypman</u> Company: <u>AAE</u> Reason:
After analysis, samples are to be: <input type="checkbox"/> Disposed of (additional fee) <input type="checkbox"/> Stored (30 days max) <input type="checkbox"/> Stored over 30 days (additional fee)	

## **WORKORDER COMMENTS**

DATE : 06/02/97  
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.

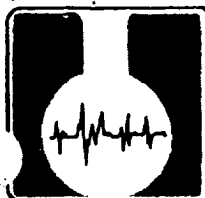
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### **REPORT COMMENTS**

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**ASSAIGAI  
ANALYTICAL  
LABORATORIES, INC.**

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:  
June 2, 1997 13:50

**CERTIFICATE OF ANALYSIS  
RESULTS BY SAMPLE**

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

WORKORDER # : 9705221  
WORK ID : JICARILLA PIT CLOSURES  
CLIENT CODE : APA01  
DATE RECEIVED : 05/27/97

ATTN: JEFF CROSS

Page: 1

Lab ID: 9705221-01A  
Sample ID: A 363 #1 PIT 2/SIDES

Collected: 05/23/97 11:30:00  
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	500	05/28/97	SBTXME165
Toluene	ND	mg/Kg	0.0010	500	05/28/97	SBTXME165
Ethylbenzene	ND	mg/Kg	0.0010	500	05/28/97	SBTXME165
P-&m-Xylene	ND	mg/Kg	0.0020	500	05/28/97	SBTXME165
O-Xylene	ND	mg/Kg	0.0010	500	05/28/97	SBTXME165

Lab ID: 9705221-01B  
Sample ID: A 363 #1 PIT 2/SIDES

Collected: 05/23/97 11:30:00  
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
Diesel Range OG Soil/M8015						
Diesel Range OG in Soil	ND	mg/Kg	50	1.0	05/27/97	SDRO028

Lab ID: 9705221-02A  
Sample ID: A 363 #1 PIT 2 BOTTOM

Collected: 05/27/97 11:45:00  
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	500	05/28/97	SBTXME165
Toluene	ND	mg/Kg	0.0010	500	05/28/97	SBTXME165
Ethylbenzene	ND	mg/Kg	0.0010	500	05/28/97	SBTXME165
P-&m-Xylene	ND	mg/Kg	0.0020	500	05/28/97	SBTXME165
O-Xylene	ND	mg/Kg	0.0010	500	05/28/97	SBTXME165






Lab ID: 9705221-02B

Sample ID: A 363 #1 PIT 2 BOTTOM

Collected: 05/27/97 11:45:00

Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
Diesel Range OG Soil/M8015 Diesel Range OG in Soil	630	mg/Kg	50	1.0	05/27/97	SDRO028



William P. Biava  
President



# Chain of Custody Record

ALBUQUERQUE, NEW MEXICO 87109

(505) 345-8964

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

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

Page 1 of 1

Client Apache Corporation Project Manager / Contact Jeff Gross  
Address 304 N. Behrend Telephone No. (505) 774-6643  
City / State / Zip Farmington, NM 87401 Fax No. (505) 774-6624  
Project Name / Number JICARILLA PIT CLOSURES Samplers: (Signature) John Mulvick  
Contract / Purchase Order / Quote \_\_\_\_\_

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED	Field Sample Number / Location	Date	Time	Sample Type	Type / Size of Container	Preservation Temp.	Chemical
01A	A363 <sup>rd</sup> Pit #2 Sides	5-23-97	11:30	Soil	4oz. glass	ICE	
01B			11:30				
02A	A363 <sup>rd</sup> Pit #2 Bottom		11:45				
02B			11:45				
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Relinquished by: John Mulvick Signature John Mulvick Date 5/23/97  
Printed John Mulvick Signature John Mulvick Relinquished by: John Mulvick Signature John Mulvick  
Company Apache Corp. Printed John Mulvick Signature John Mulvick  
Reason \_\_\_\_\_ Company Apache Corp. Printed John Mulvick Signature John Mulvick  
Reason \_\_\_\_\_ Company Apache Corp. Printed John Mulvick Signature John Mulvick

Received by: John Mulvick Signature John Mulvick Date 5/23/97  
Printed John Mulvick Signature John Mulvick Relinquished by: John Mulvick Signature John Mulvick  
Company Apache Corp. Printed John Mulvick Signature John Mulvick  
Reason \_\_\_\_\_ Company Apache Corp. Printed John Mulvick Signature John Mulvick  
Reason \_\_\_\_\_ Company Apache Corp. Printed John Mulvick Signature John Mulvick

After analysis, samples are to be:  
☐ Disposed of (additional fee)  
☐ Stored (30 days max)  
☐ Stored over 30 days (additional fee)  
☐ Returned to customer

LABORATORY

## **WORKORDER COMMENTS**

DATE : 06/02/97  
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.

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### **REPORT COMMENTS**

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NORTH  
 GENERAL DRAINAGE

MW PETROLEUM  
 JICARILLA TRIBAL 363 NUMBER 1  
 NE/4 NE/4  
 SECTION 15, TOWNSHIP 24N RANGE 4W  
 RIO ARriba COUNTY, NM

125'x20'x18"  
 Dirt Farm  
 Cell #2  
 139 y rods

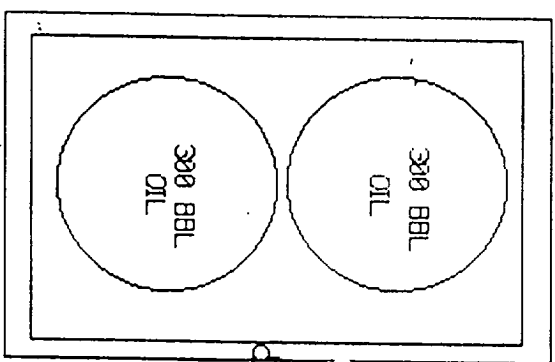
104 EPNG SALES METER, #33-533-01

← EPNG Buried Line O.P.

50'

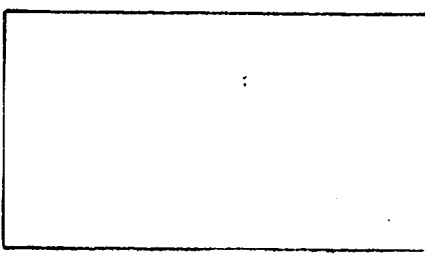
Dirt Farm Cell #1  
 Approx. 1100 y rods

FLUPEING UNIT ○ WELL HEAD



○ S  
 SEPARATOR

PTT 2



LAND Farm Cell #3  
 114'x82'x12"

LAND Farm Cell #4  
 108'x96'x12"

PTTD

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>M W PETROLUEM</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>JAT 363 # 1 CELL # 1</u>	
Location: Unit or Qtr/Qtr Sec <u>NEWE</u> Sec <u>15</u> T <u>24</u> N R <u>4</u> W County <u>RIO ARRIBA</u>	
Land Type <u>JIC. TRIBAL</u>	
Date Remediation Started: <u>5/19/97</u> Date Completed: <u>6/13/98</u>	
Remediation Method: Landfarmed <u>XXX</u> Approx. cubic yards <u>1100</u>	
Composted _____	
Other <u>SOIL TO BE SPREAD ON LOCATION.</u>	
Depth to Groundwater: (pts) <u>0</u>	<b>Final Closure Sampling</b> Sampling Date: <u>6/13/98</u> Time: <u>10:40AM</u> Sample Results: Field Headspace (ppm) <u>0</u> TPH (ppm) <u>1700</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>	
<b>RANKING SCORE (TOTAL POINTS)</b> <u>0</u>	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
DATE: <u>7/16/98</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 _____ (REASON) _____	
SIGNED: <u>Kear C Mammell</u> DATE: <u>7-29-98</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

**ON-SITE SOIL REMEDIATION REPORT**

Operator: <u>M W PETROLUEM</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>JAT 363 # 1 CELL # 2</u>	
Location: Unit or Qtr/Qtr Sec <u>NEWE</u> Sec <u>15</u> T <u>24</u> N <u>R 4 W</u> County <u>RIO ARRIBA</u>	
Land Type <u>JIC. TRIBAL</u>	
Date Remediation Started: <u>5/19/97</u> Date Completed: <u>6/13/98</u>	
Remediation Method: Landfarmed <u>XXX</u> Approx. cubic yards <u>139</u>	
Composted _____	
Other <u>SOIL TO BE SPREAD ON LOCATION.</u>	
Depth to Groundwater: (pts) <u>0</u>	<b>Final Closure Sampling</b> Sampling Date: <u>6/13/98</u> Time: <u>10:50AM</u> Sample Results: Field Headspace (ppm) <u>0</u> TPH (ppm) <u>840</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>	
<b>RANKING SCORE (TOTAL POINTS)</b> <u>0</u>	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
DATE: <u>7/16/98</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 _____ (REASON) _____	
SIGNED: <u>Keith Marshall</u> DATE: <u>7-29-98</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

**ON-SITE SOIL REMEDIATION REPORT**

Operator: <u>M W PETROLUEM</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>JAT 363 # 1 CELL # 3</u>	
Location: Unit or Qtr/Qtr Sec <u>NE/NE Sec 15 T 24 N R 4 W</u> County <u>RIO ARRIBA</u>	
Land Type <u>JIC. TRIBAL</u>	
Date Remediation Started: <u>5/19/97</u> Date Completed: <u>6/13/98</u>	
Remediation Method: Landfarmed <u>XXX</u> Approx. cubic yards <u>346</u>	
Composted _____	
Other <u>SOIL TO BE SPREAD ON LOCATION.</u>	
Depth to Groundwater: (pts) <u>0</u>	<b>Final Closure Sampling</b>
Distance to an Ephemeral Stream: (pts) <u>0</u>	Sampling Date: <u>6/13/98</u> Time: <u>11:00AM</u>
Distance to Nearest Lake, Playa, or Watering Pond: (pts) <u>0</u>	Sample Results:
Wellhead Protection Area: (pts) <u>0</u>	Field Headspace (ppm) <u>0</u>
Distance To Surface Water: (pts) <u>0</u>	TPH (ppm) <u>920</u> Method <u>M8015</u>
<b>RANKING SCORE (TOTAL POINTS)</b> <u>0</u>	Other <u>BTEX \ SW846 , 8020A (ND)</u>
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
DATE: <u>7/16/98</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 _____ (REASON) _____	
SIGNED: <u>Kear C Marshall</u> DATE: <u>7-29-98</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

**ON-SITE SOIL REMEDIATION REPORT**

Operator: <u>M W PETROLUEM</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>JAT 363 # 1 CELL # 4</u>	
Location: Unit or Qtr/Qtr Sec <u>NEWE</u> Sec <u>15</u> T <u>24</u> N <u>R 4</u> W County <u>RIO ARRIBA</u>	
Land Type <u>JIC. TRIBAL</u>	
Date Remediation Started: <u>5/19/97</u> Date Completed: <u>6/13/98</u>	
Remediation Method: Landfarmed <u>XXX</u> Approx. cubic yards <u>384</u>	
Composted _____	
Other <u>SOIL TO BE SPREAD ON LOCATION.</u>	
Depth to Groundwater: (pts) <u>0</u>	<b>Final Closure Sampling</b> Sampling Date: <u>6/13/98</u> Time: <u>11:10</u> Sample Results: Field Headspace (ppm) <u>0</u> TPH (ppm) <u>3200</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>	
<b>RANKING SCORE (TOTAL POINTS)</b> <u>0</u>	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
DATE: <u>7/16/98</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 _____ (REASON) _____	
SIGNED: <u>Kent M...</u> DATE: <u>7-29-98</u>	

384  
346  
730  
139  
869  
1100  
1969



# M W PETROLEUM/FARMINGTON DISTRICT SOIL REMEDIATIONS STATUS REPORT

REMEDIATION SITE JAT 363 # 1

\* AMOUNT OF SOIL UNDERGOING REMEDIATION 1970 Yds.

CELL No. <u>1</u>	SampDATE <b>6/13/98</b>	TPH <b>1700</b>	BTEX <b>ND</b>
DIMENSIONS(LxWxH) <u>APPOX. 1100 YRDS.</u>			
CELL LOCATION (dir. from well head) <u>NORTH AND EAST</u>			
* DATE BEGAN: <u>5/19/97</u>			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>6/13/98</u>			
CELL No. <u>2</u>	SampDATE <b>6/13/98</b>	TPH <b>840</b>	BTEX <b>ND</b>
DIMENSIONS(LxWxH) <u>125' X 20' X 18"</u>			
CELL LOCATION (dir. from well head) <u>NORTHWEST</u>			
* DATE BEGAN: <u>5/19/97</u>			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>6/13/98</u>			
CELL No. <u>3</u>	SampDATE <b>6/13/98</b>	TPH <b>920</b>	BTEX <b>ND</b>
DIMENSIONS(LxWxH) <u>114' X 82' X 12"</u>			
CELL LOCATION (dir. from well head) <u>SOUTHWEST</u>			
* DATE BEGAN: <u>5/19/97</u>			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>6/13/98</u>			
REMEDICATION RECORD: (Date, Treatment, Tilling)			
5/27/97 TREAT ALL CELLS WITH 46-0-0 FERTILIZER, WATER. PLOW AND TILL SOIL.			
5/30/97 PLOW AND TILL ALL CELLS.			
6/9/97 PLOW AND TILL ALL CELLS.			
6/21/97 TILL ALL CELLS			
7/8/97 WATER, PLOW AND TILL ALL CELLS.			
7/25/97 TILL ALL CELLS.			
8/13/97 PLOW AND TILL ALL CELLS.			
4/28/98, 4/29/98 PLOWED AND TILLED ALL CELLS. 6/2/98, 6/3/98 PLOWED AND TILLED ALL CELLS.			

From excavation reports.

# M W PETROLEUM/FARMINGTON DISTRICT SOIL REMEDIATIONS STATUS REPORT

REMEDIATION SITE JAT 363 # 1

\* AMOUNT OF SOIL UNDERGOING REMEDIATION 1970 Yds.

CELL No. <u>4</u>	SampDATE <b>6/13/98</b>	TPH <b>3200</b>	BTEX <b>ND</b>
DIMENSIONS(LxWxH) <u>108' X 96' X 12"</u>			
CELL LOCATION (dir. from well head) <u>SOUTHEAST</u>			
* DATE BEGAN: <u>5/19/97</u>			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>6/13/98</u>			
CELL No. <u>5</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>6</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) _____			
REMEDIATION RECORD: (Date, Treatment, Tilling)			

From excavation reports.

JAT 363 #1 CELL #1

6/13/98

APPOX. 1100 YRDS. OF SOIL.

**= SAMPLE AREA**

**TOTAL OF APPROX. 1100 YRDS OF SOIL.**

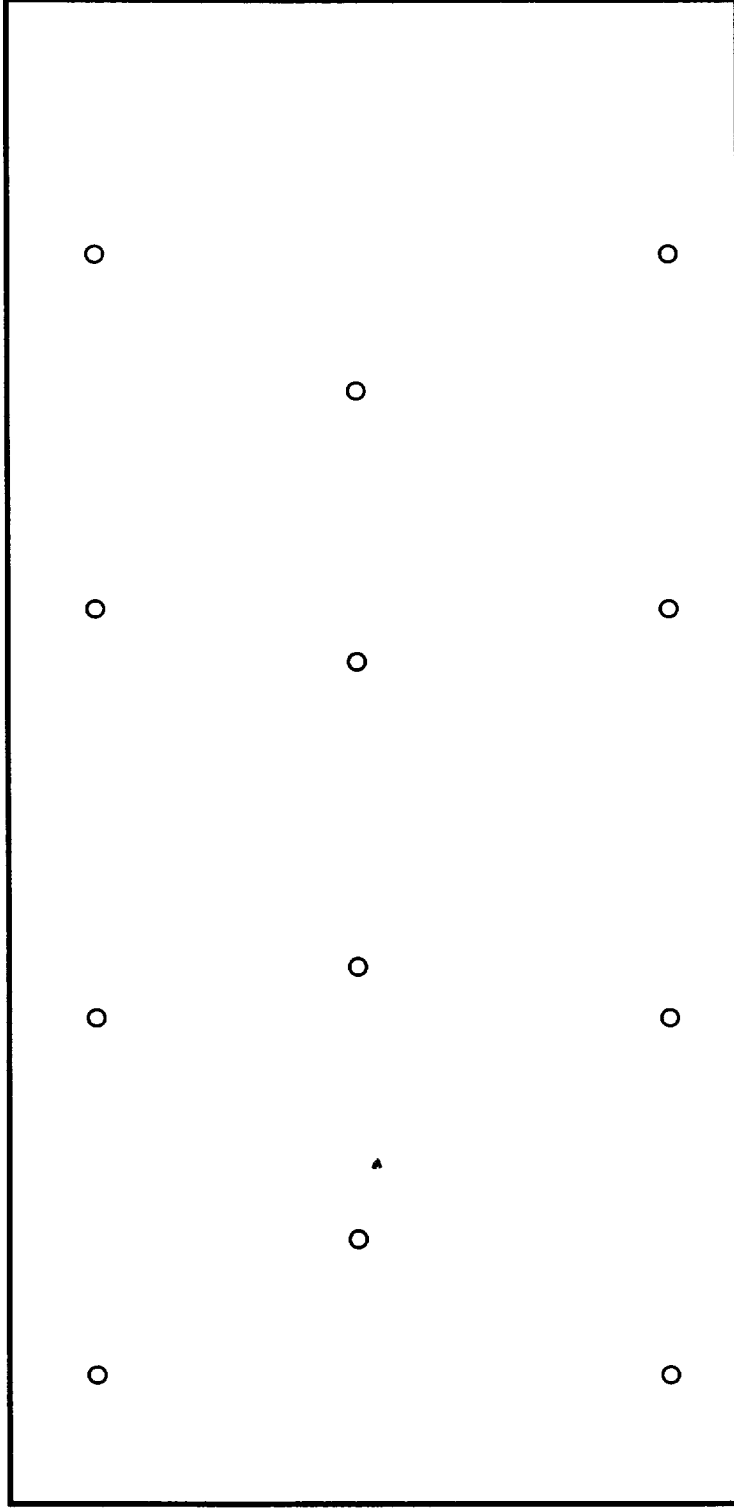
**ALL SAMPLES TAKEN 10" TO 12" INTO CELL.**

## 21 POINT COMPOSITE SAMPLE

[illegible]

WELL NAME: JAT 363 #1 CELL #2  
SAMPLE DATE: 6/13/98  
DIMENSIONS: 125' X 20' X 18"

○ = SAMPLE AREA



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

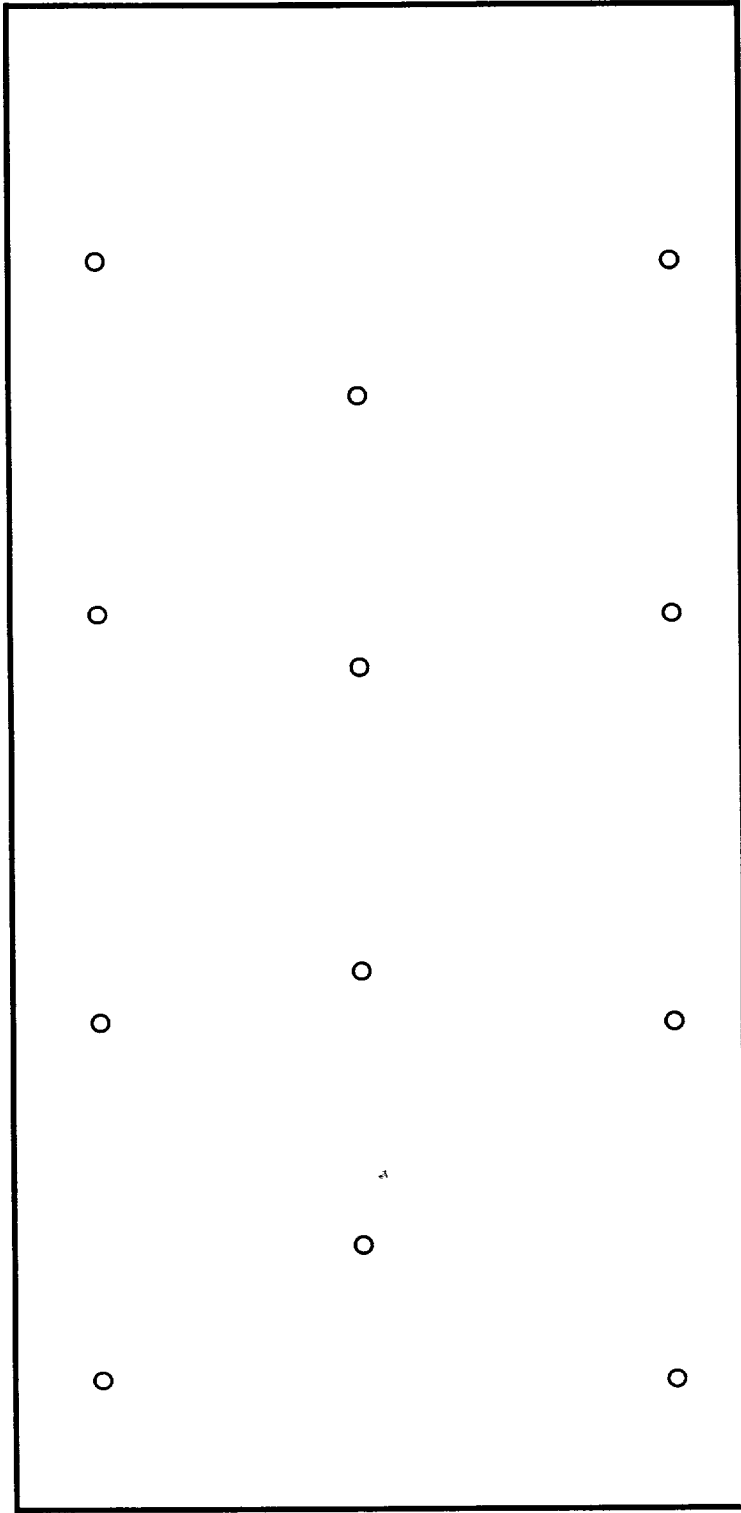
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WELL NAME: JAT 363 #1 CELL #3

SAMPLE DATE: 6/13/98

DIMENSIONS: 114' X 82' X 12"

○ = SAMPLE AREA

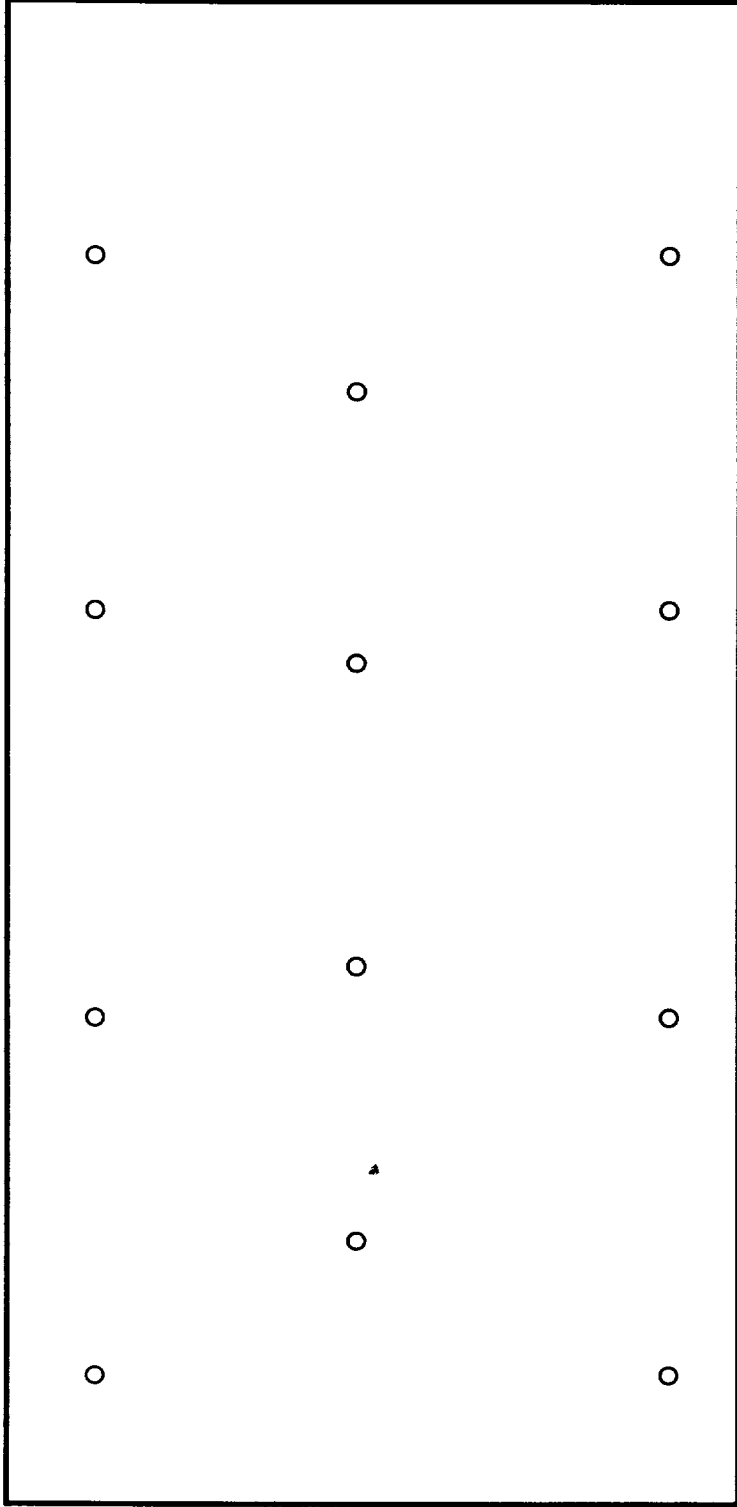


NOTES: ALL SAMPLES TAKEN 10" TO 12" INTO CELL.

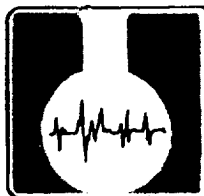
12 POINT COMPOSITE SAMPLE

WELL NAME: JAT 363 #1 CELL #4  
SAMPLE DATE: 6/13/98  
DIMENSIONS: 108' X 96' X 12"

○ = SAMPLE AREA



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



# ASSAIGAI ANALYTICAL LABORATORIES, INC.

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

JUN 25 1998

**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: **9806202 JICARILLA**

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

Client Sample ID **JAT 363 #1 CELL #1** Sample Matrix **SOIL** Sample Collected **06/13/98 10:40:00**

Fraction	QC Group	CAS #	Result	Units	Dilution Factor	Detection Limit	*	Sequence	Run Date
<b>SW846-8020 Volatiles</b>									
9806202-01A	X98330	71-43-2	Benzene	ND	mg / Kg	50	0.005	XG.1998.551-10	06/17/98
	X98330	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005	XG.1998.551-10	
	X98330	95-47-6	o-Xylene	ND	mg / Kg	50	0.005	XG.1998.551-10	
	X98330		p/m Xylenes	ND	mg / Kg	50	0.01	XG.1998.551-10	
	X98330	108-88-3	Toluene	ND	mg / Kg	50	0.005	XG.1998.551-10	
<b>SW846-8015 Modified TPH</b>									
9806202-01B	X98328		Diesel Range Organics	1700	mg / Kg	25	25	XG.1998.556-23	06/22/98

Client Sample ID **JAT 363 #1 CELL #2** Sample Matrix **SOIL** Sample Collected **06/13/98 10:50:00**

Fraction	QC Group	CAS #	Result	Units	Dilution Factor	Detection Limit	*	Sequence	Run Date
<b>SW846-8020 Volatiles</b>									
9806202-02A	X98330	71-43-2	Benzene	ND	mg / Kg	50	0.005	XG.1998.551-11	06/17/98
	X98330	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005	XG.1998.551-11	
	X98330	95-47-6	o-Xylene	ND	mg / Kg	50	0.005	XG.1998.551-11	
	X98330		p/m Xylenes	ND	mg / Kg	50	0.01	XG.1998.551-11	
	X98330	108-88-3	Toluene	ND	mg / Kg	50	0.005	XG.1998.551-11	
<b>SW846-8015 Modified TPH</b>									
9806202-02B	X98328		Diesel Range Organics	840	mg / Kg	25	25	XG.1998.556-24	06/22/98



Assaigai Analytical Laboratories, Inc.  
**Certificate of Analysis**

Client: **APACHE CORPORATION**  
Project: **9806202 JICARILLA**

Client Sample ID <b>JAT 363 #1 CELL #3</b>	Sample Matrix <b>SOIL</b>	Sample Collected <b>06/13/98 11:00:00</b>
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Fraction	QC Group	CAS #	Result	Units	Dilution Factor	Detection Limit *	Sequence	Run Date
<b>SW846-8020 Volatiles</b>								
9806202-03A	X98330	71-43-2	Benzene	ND	mg / Kg	50	0.005	XG.1998.551-12 06/17/98
	X98330	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005	XG.1998.551-12
	X98330	95-47-6	o-Xylene	ND	mg / Kg	50	0.005	XG.1998.551-12
	X98330		p/m Xylenes	ND	mg / Kg	50	0.01	XG.1998.551-12
	X98330	108-88-3	Toluene	ND	mg / Kg	50	0.005	XG.1998.551-12
<b>SW846-8015 Modified TPH</b>								
9806202-03B	X98331		Diesel Range Organics	920	mg / Kg	25	25	XG.1998.557-4 06/21/98

Client Sample ID <b>JAT 363 #1 CELL #4</b>	Sample Matrix <b>SOIL</b>	Sample Collected <b>06/13/98 11:10:00</b>
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Fraction	QC Group	CAS #	Result	Units	Dilution Factor	Detection Limit *	Sequence	Run Date
<b>SW846-8020 Volatiles</b>								
9806202-04A	X98330	71-43-2	Benzene	ND	mg / Kg	50	0.005	XG.1998.551-13 06/17/98
	X98330	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005	XG.1998.551-13
	X98330	95-47-6	o-Xylene	ND	mg / Kg	50	0.005	XG.1998.551-13
	X98330		p/m Xylenes	ND	mg / Kg	50	0.01	XG.1998.551-13
	X98330	108-88-3	Toluene	ND	mg / Kg	50	0.005	XG.1998.551-13
<b>SW846-8015 Modified TPH</b>								
9806202-04B	X98331		Diesel Range Organics	3200	mg / Kg	25	25	XG.1998.557-6 06/21/98

\*\*\* Sample specific analytical Detection Limit is determined by multiplying the sample Dilution Factor by the listed method Detection Limit. \*\*\*



