

District III
1000 R
Aztec, NM 87410

Denny E. Frost
DEPUTY OIL & GAS INSPECTOR

JAN 27 1999

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

RECEIVED
AUG 24 1998

OIL CON. DIV.

DIST. 3

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 396 #5</u> | |
| Location: Unit or Qtr/Qtr Sec | | <u>NE/SW Sec 8 T 23 N R 3W</u> County <u>Rio Arriba</u> | |
| Pit Type: Separator: _____ | | Dehydrator _____ Other <u>Blow Pit</u> | |
| Land Type: _____ | | <u>Jicarilla Tribal</u> | |
| | | | |
| Beginning Pit Dimensions: | | Length <u>15'</u> Width <u>15'</u> Depth <u>4'</u> | |
| Ending Pit Dimensions: | | Length <u>25'</u> Width <u>25'</u> Depth <u>14'</u> | |
| Reference: | | Wellhead _____ Other <u>Separator</u> | |
| Footage from reference: | | <u>30'</u> | |
| Direction from reference: | | <u>200</u> Degrees _____ East _____ North _____ _____ X _____ West _____ South _____ XX | |
| | | | |
| 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>5/15/97</u> | | Date Completed: | | <u>5/22/97</u> | |
| Remediation Method: (Check all appropriate sections) | | Excavation <u>XXX</u> | | Approx. cubic yards | | <u>325</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' below pit bottom, 10' off pit sides.</u> | | | | | |
| | | <u>Lay soil out on location in three dirt farm cells.</u> | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Groundwater Encountered: | | No <u>XX</u> | | Yes _____ | | Depth _____ | |
| Final Pit: | | <u>4 point composite sample taken 8 to 10" into pit sidewalls,</u> | | | | | |
| Closure Sampling: (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 | | <u>8 to 10" into pit sidewalls 10" into pit bottom</u> | | | |
| | | Sample depth <u>14'</u> | | | | | |
| | | Sample Date | | <u>5/22/97</u> | | Sample Time <u>11:40 AM</u> | |
| | | Sample results | | | | | |
| | | Benzene | | (ppm) | | <u>ND</u> | |
| | | Total BTEX | | (ppm) | | <u>ND</u> | |
| | | Field Headspace | | (ppm) | | <u>7.38</u> | |
| | | TPH | | | | <u>ND\Sides</u> <u>290\BTM</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>August 10, 1998</u> | | PRINTED NAME | | <u>Jeff Cross</u> | |
| SIGNATURE | | <u>Jeff Cross</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>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 396# 5</u> | | | |
| Location: | Unit or Qtr/Qtr Sec <u>NE\SW SEC 8</u> | T <u>23N</u> | R <u>3W</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> | | | |

| | | | | |
|-----------------------------------|---------------------------|----------------------------|------------------------|------------------|
| Pit Location: (Attach diagram) | Pit Dimensions: | Length <u>25'</u> | Width <u>25'</u> | Depth <u>14'</u> |
| | Reference: | Wellhead <u> </u> | Other <u>SEPERATOR</u> | |
| | Footage from reference: | <u>30'</u> | | |
| | Direction from reference: | <u>200</u> Degrees | <u> </u> East | North |
| | | <u>X</u> West | of | South <u>XX</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: | | <u>5/15/97</u> | | Date Completed: | | <u>5/22/97</u> | |
| Remediation Method: (Check all appropriate sections) | | Excavation <u>XXX</u> | | Approx. cubic yards | | <u>325</u> | |
| | | Landfarmed <u>XXX</u> | | Insitu Bioremediation | | | |
| | | Other _____ | | | | | |
| Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility) | | Onsite <u>XXX</u> | | Offsite _____ | | | |
| General Description of Remedial Action: <u>Excavate pit to 10' below pit bottom, 10' off pit sides.</u> | | | | | | | |
| <u>Lay soil out on location in three dirt farm cells.</u> | | | | | | | |
| Groundwater Encountered: | | No <u>XXX</u> | | Yes _____ | | Depth _____ | |
| Final Pit: | | Sample location <u>4 POINT COMPOSITE SAMPLE TAKEN 10" INTO PIT SIDEWALL</u> | | | | | |
| Closure Sampling: (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>14'</u> | | <u>8" to 10" into pit side walls, 10" into pit bottom.</u> | | | |
| | | Sample Date <u>5/22/97</u> | | Sample Time | | <u>11:40AM</u> | |
| 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>7.38</u> | | Ethylbenzene | (ppb) | <u>NA</u> |
| | TPH | (ppm) | <u>ND-SIDES</u> | | Total Xylenes | (ppb) | <u>NA</u> |
| | | | <u>290-BTM</u> | | | | |
| Groundwater Sample: | | Yes _____ | | No <u>XXX</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>7/11/97</u> | | PRINTED NAME | | <u>JEFF CROSS</u> | |
| SIGNATURE | | <u>Jeff Cross</u> | | AND TITLE | | <u>PROJECT MANAGER</u> | |
| AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE. | | | | | | | |
| APPROVED: | | YES <u>X</u> | | NO _____ | | (REASON) _____ | |
| SIGNED: | | <u>Kate C. Mammell</u> | | DATE: | | <u>7-30-97</u> | |

APACHE CORPORATION/FARMINGTON DISTRICT PIT EXCAVATION AND CLOSURE REPORT

LOCATION JAT 396 # 5

PIT COUNT 1

Jicarilla Apache Tribal EPO/OCD/BLM

Review and Approval

OCD-BLM

EPO Representative

Date of Review

| Excavation | | | | | | | | |
|-------------|-----------|----------------|-------------|-------------|-----------------|-------------|---------|---------|
| DIMENSIONS | | START: 5/15/97 | | | FINISH: 5/22/97 | | | |
| | W | L | D | | W | L | D | CU YDS |
| Pit 1 | 15' | 15' | 4' | Pit 1 | 25' | 25' | 14' | 325 |
| Pit 2 | | | | Pit 2 | | | | |
| Pit 3 | | | | Pit 3 | | | | |
| | | Pit 1 @ 8' | Pit 1 @ 11' | Pit 1 @ 13' | | Pit 1 @ 14' | Pit 2 @ | Pit 3 @ |
| P I D | Center | 1580 | 453 | 158 | P I D | Center | 98 | |
| | NW Corner | 1400 | 385 | 175 | | NW Corner | 81 | |
| | NE Corner | 1590 | 427 | 122 | | NE Corner | 76 | |
| | SW Corner | 1520 | 398 | 167 | | SW Corner | 77 | |
| | SE Corner | 1460 | 350 | 102 | | SE Corner | 60 | |

| | | | | | | | | |
|---|--|--|--|--|--|--|--|--|
| NOTES: | | | | | | | | |
| 5/15/97 START EXCAVATION ON PIT ,HEAVY STAINING AND STRONG ODOR DOWN TO 6' | | | | | | | | |
| EXCAVATE TO 8' TOOK PID READINGS - (HIGH) CONTINUE EXCAVATING. | | | | | | | | |
| 5/17/97 EXCAVTE PIT DOWN TO 11' PID READINGS HIGH. LIGHT ODOR , LIGHT STAINING ON PIT BOTTOM. | | | | | | | | |
| HEAVY STAINING ON SIDE WALLS. | | | | | | | | |
| 5/19/97 EXCAVATE PIT DOWN TO 13' PID READINGS STILL A LITTLE HIGH. EXCAVATE DOWN TO 14' PID GOOD. | | | | | | | | |
| 5/21/97 & 5/22/97 EXCAVATE 5' OF SOIL OFF OF PIT SIDES. | | | | | | | | |
| 5/22/97 TAKE SOIL SAMPLES OF PIT SEND TO ASSAIGAI LABS FOR TESTING. | | | | | | | | |

SOIL SAMPLING

| DATE: 5/22/97 | | Pit 1 @ 14' | Pit 2 @ | Pit 3 @ | ANALYSIS RESULTS | | | PER LAB | ASSAIGAI |
|---------------|-----------|-------------|---------|---------|------------------|----------|----------|---------|----------|
| P I D | Center | 15 | | | PIT | TPH | BETEX | WITNESS | DATE |
| | NW Corner | 2.5 | | | NO | SIDE\BTM | SIDE\BTM | | |
| | NE Corner | 6.7 | | | 1 | ND\290 | ND\ND | JEFF C. | 5/28/97 |
| | SW Corner | 4.1 | | | 2 | | | | |
| | SE Corner | 8.6 | | | 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 | | | | |



IAT 396 # 5

5-22-97

4 POINT COMPOSITE SAMPLE TAKEN 8" TO 10" INTO PIT

1 POINT GRAB SAMPLE TAKEN 10" TO 12" INTO BOTTOM CENTER



**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 13:46

**CERTIFICATE OF ANALYSIS
RESULTS BY SAMPLE**

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

WORKORDER # : 9705222
WORK ID : JICARILLA PIT CLOSURES
CLIENT CODE : APA01
DATE RECEIVED : 05/27/97

ATTN: JEFF CROSS

Page: 1

Lab ID: 9705222-01A
Sample ID: JAT 396 #5 PIT 1 SIDES

Collected: 05/27/97 11:40:00
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: 9705222-01B
Sample ID: JAT 396 #5 PIT 1 SIDES

Collected: 05/27/97 11:40:00
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: 9705222-02A
Sample ID: JAT 396 #5 PIT 1 BOTTOM

Collected: 05/22/97 11:55:00
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 |



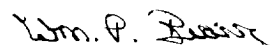
L D: 9705222-02B

Sample ID: JAT 396 #5 PIT 1 BOTTOM

Collected: 05/22/97 11:55:00

Matrix: SOIL

| TEST / METHOD | RESULT | UNITS | LIMIT | D_F | DATE ANAL | BATCH_ID |
|---|--------|-------|-------|-----|--------------|----------|
| Diesel Range OG Soil/M8015 Diesel Range OG in Soil | 290 | mg/Kg | 50 | 1.0 | 05/27/97 | SDRO028 |



William P. Biava
President



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

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

Page 1 of 1

Contract / Purchase Order / Quote _____

[illegible]

| | | | |
|---|--|--|---|
| Relinquished by: Signature <u>John M. Davis</u> Printed <u>John M. Davis</u> Company <u>Apache Corp.</u> Reason _____ | Date <u>5/23/97</u> Time <u>3:15 pm</u> | Received by: Signature <u>Edwin J. Chouk</u> Printed <u>Edwin J. Chouk</u> Company <u>NEI</u> Reason _____ | Relinquished by: Signature <u>Edwin J. Chouk</u> Printed <u>Edwin J. Chouk</u> Company _____ Reason _____ |
| Method of Shipment: _____ Shipment No. _____ Special Instructions: _____ | Comments: _____ _____ _____ _____ | | |

[illegible]

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.

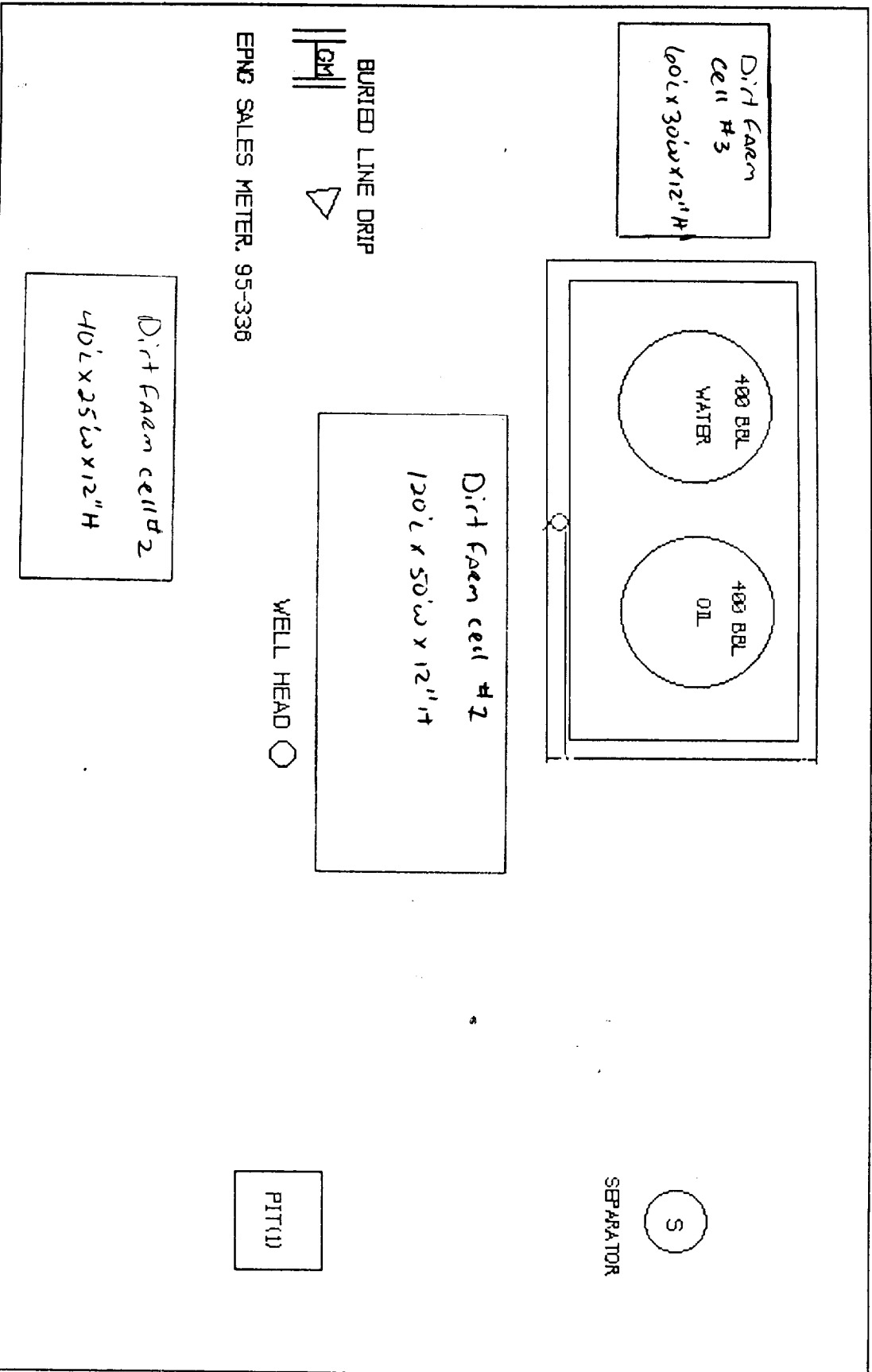
Please Note: Multiply the "Limit" value (AAL's Detection Limit) by Dilution Factor (D_F) to obtain the sample specific Detection Limit.

REPORT COMMENTS

NORTH

GENERAL DRAINAGE

MW PETROLEUM
JICARILLA TRIBAL 396 NUMBER 5
NE/4 SW/4 Lease #JA1396
SECTION 8, TOWNSHIP 23N, RANGE 3W
RIO ARriba COUNTY, NM
Revised 6/2/97 MC



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 396 # 5 CELL # 1</u> | |
| Location: Unit or Qtr/Qtr Sec <u>NE\SW</u> Sec <u>8</u> T <u>23</u> N <u>R 3</u> W County <u>RIO ARRIBA</u> | |
| Land Type <u>JIC. TRIBAL</u> | |
| Date Remediation Started: <u>5/15/97</u> Date Completed: <u>6/10/98</u> | |
| Remediation Method: Landfarmed <u>XXX</u> Approx. cubic yards <u>222</u> | |
| Composted _____ | |
| Other <u>Soil To Be spread on Location.</u> | |
| Depth to Groundwater: (pts) <u>0</u> | Final Closure Sampling |
| Distance to an Ephemeral Stream: (pts) <u>0</u> | Sampling Date: <u>6/10/98</u> Time: <u>10:45AM</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>820</u> Method <u>M8015</u> |
| RANKING SCORE (TOTAL POINTS) <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>Keith M...</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 396 # 5 CELL # 2</u> | |
| Location: Unit or Qtr/Qtr Sec <u>NE\SW</u> Sec <u>8</u> T <u>23</u> N <u>R 3</u> W County <u>RIO ARRIBA</u> | |
| Land Type <u>JIC. TRIBAL</u> | |
| Date Remediation Started: <u>5/15/97</u> Date Completed: <u>7/8/97</u> | |
| Remediation Method: Landfarmed <u>XXX</u> Approx. cubic yards <u>37</u> | |
| Composted _____ | |
| Other <u>Soil to be spread on location.</u> | |
| Depth to Groundwater: (pts) <u>0</u> | Final Closure Sampling |
| Distance to an Ephemeral Stream: (pts) <u>0</u> | Sampling Date: <u>7/8/97</u> Time: <u>11:30AM</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>1700</u> Method <u>M8015</u> |
| RANKING SCORE (TOTAL POINTS) <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>Kerr C M...</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 396 # 5 CELL # 3</u> | |
| Location: Unit or Qtr/Qtr Sec <u>NE\SW</u> Sec <u>8</u> T <u>23</u> N <u>R 3</u> W County <u>RIO ARRIBA</u> | |
| Land Type <u>JIC. TRIBAL</u> | |
| Date Remediation Started: <u>5/15/97</u> Date Completed: <u>7/8/97</u> | |
| Remediation Method: Landfarmed <u>XXX</u> Approx. cubic yards <u>66</u> | |
| Composted _____ | |
| Other <u>Soil TO Be spread on Location.</u> | |
| Depth to Groundwater: (pts) <u>0</u> | Final Closure Sampling Sampling Date: <u>7/8/97</u> Time: <u>11:45AM</u> Sample Results: Field Headspace (ppm) <u>0</u> TPH (ppm) <u>1900</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>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>Kevin C. M...</u> | DATE: <u>7-29-98</u> |

M W PETROLEUM/FARMINGTON DISTRICT SOIL REMEDIATIONS STATUS REPORT

REMEDIATION SITE JAT 396 # 5

* AMOUNT OF SOIL UNDERGOING REMEDIATION 325 Yds.


| | | | |
|---|----------------------------|--------------------|-------------------|
| CELL No. <u>1</u> | SampDATE 6/10/98 | TPH 820 | BTEX ND |
| DIMENSIONS(LxWxH) <u>120' X 50' X 12"</u> | | | |
| CELL LOCATION (dir. from well head) <u>NORTH</u> | | | |
| * DATE BEGAN: <u>5/15/97</u> | | | |
| DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>6/10/98</u> | | | |
| CELL No. <u>2</u> | SampDATE 7/8/97 | TPH 1700 | BTEX ND |
| DIMENSIONS(LxWxH) <u>40' X25' X 12"</u> | | | |
| CELL LOCATION (dir. from well head) <u>NORTHWEST</u> | | | |
| * DATE BEGAN: <u>5/15/97</u> | | | |
| DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>7/8/97</u> | | | |
| CELL No. <u>3</u> | SampDATE 7/8/97 | TPH 1900 | BTEX ND |
| DIMENSIONS(LxWxH) <u>60' X 30' X 12"</u> | | | |
| CELL LOCATION (dir. from well head) <u>SOUTHWEST</u> | | | |
| * DATE BEGAN: <u>5/15/97</u> | | | |
| DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>7/8/97</u> | | | |
| REMEDICATION RECORD: (Date, Treatment, Tilling) | | | |
| 5/20/97 TREAT ALL CELLS WITH 46-0-0 FERTILIZER,WATER,PLOW AND TILL SOIL. | | | |
| 5/30/97 TILL SOIL ON ALL CELLS. | | | |
| 6/9/97 PLOW AND TILL ALL CELLS. | | | |
| 6/21/97 TILL ALL CELLS. | | | |
| 7/7/97 WATER,PLOW AND TILL ALL CELLS. | | | |
| 4/28/98 PLOW CELL # 1 | | | |
| 4/29/98 TILL CELL # 1 | | | |
| 6/2/98,6/3/98 WATER,PLW AND TILL CELL # 1. | | | |

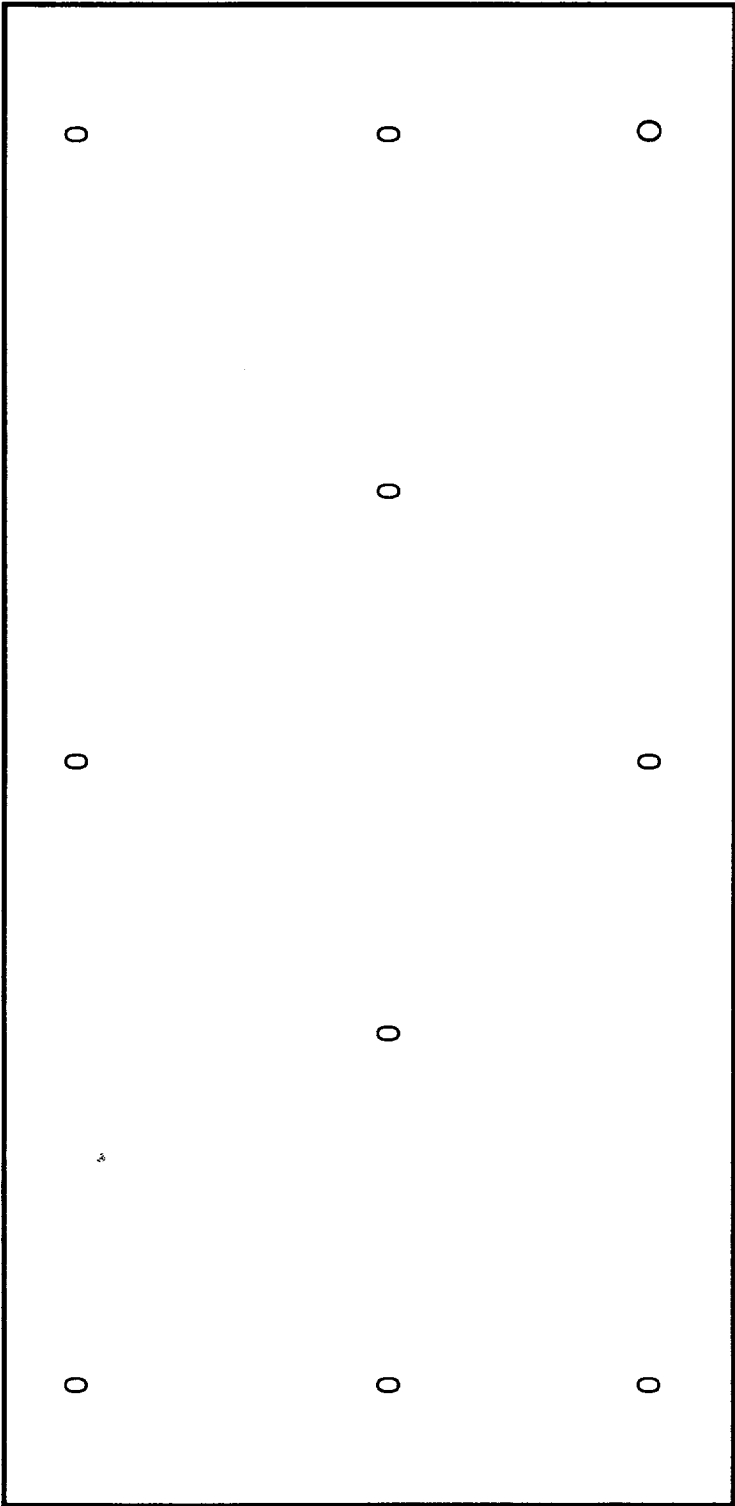
From excavation reports.

WELL NAME: JAT 396 # 5 CELL # 1

SAMPLE DATE: 6/10/98

DIMENSIONS: 120' X 50' X 12"

 = SAMPLE AREA

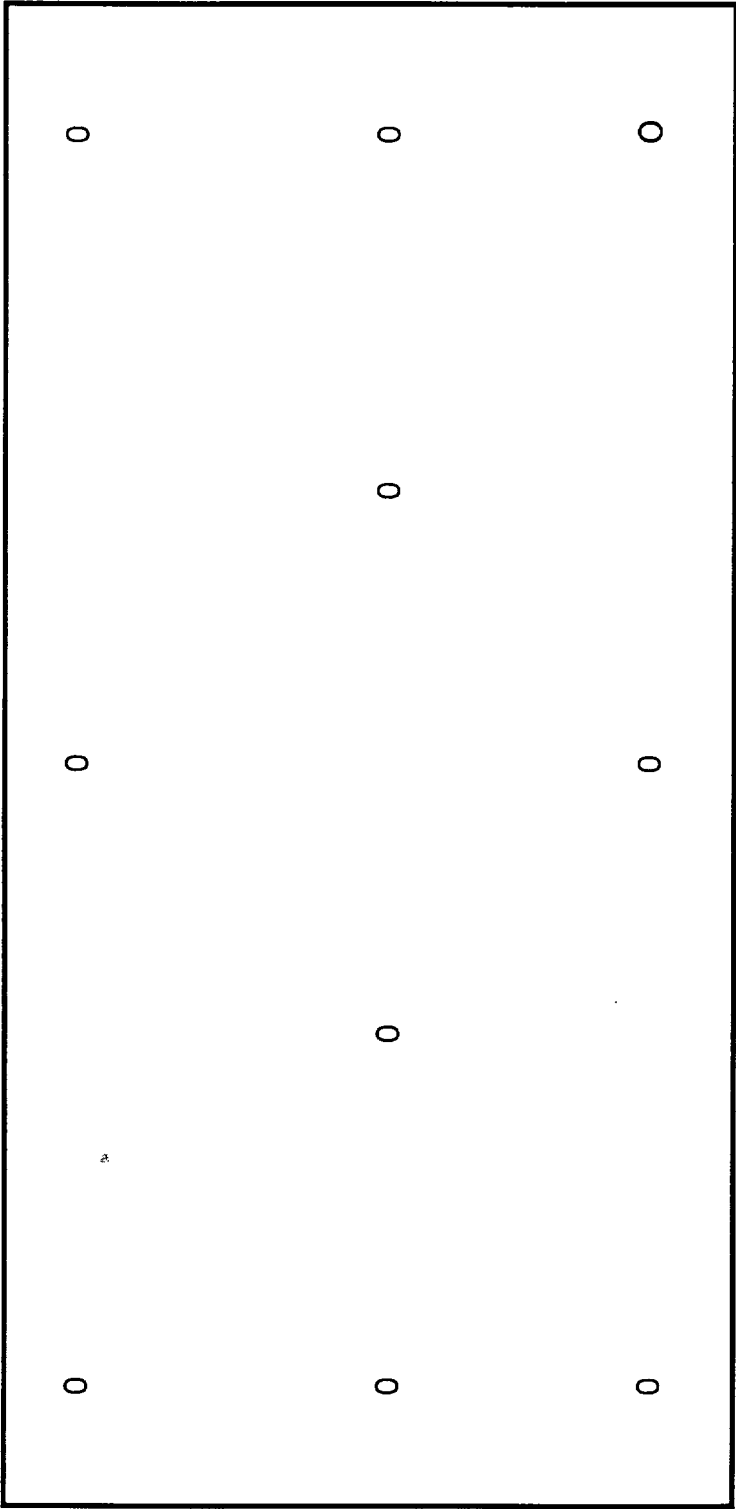


NOTES: ALL SAMPLES TAKEN 10" TO 12" INTO CELL.

10 POINT COMPOSITE SAMPLE

WELL NAME: JAT 396 # 5 CELL # 2
SAMPLE DATE: 7/8/97
DIMENSIONS: 40' X 25' X 12"

○ = SAMPLE AREA



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

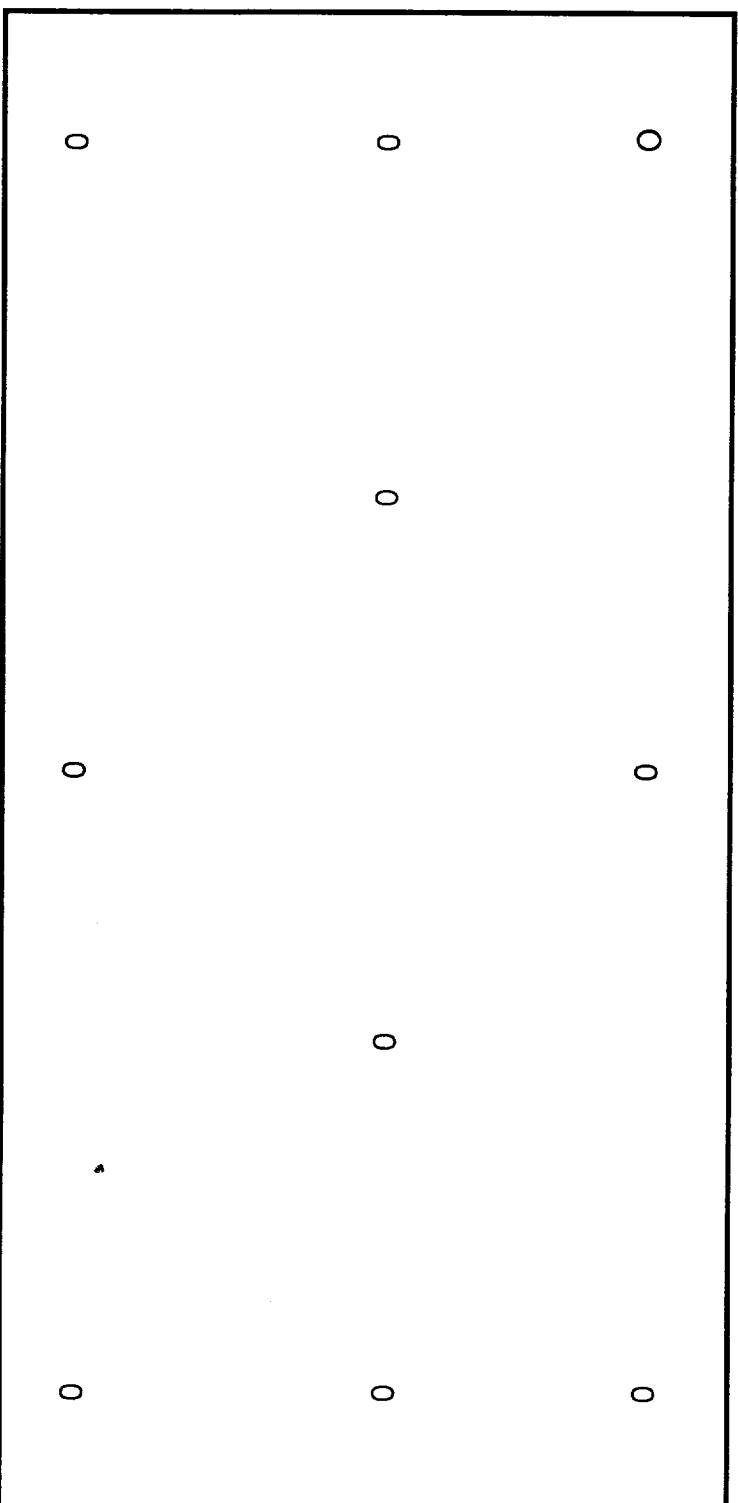
10 POINT COMPOSITE SAMPLE

JAT 396 #5 CELL #3

7/18/97

60' X 30' X 12"

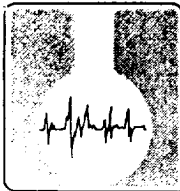
○ = SAMPLE AREA



ALL SAMPLES TAKEN 10" TO 12" INTO CELL.

10 POINT COMPOSITE SAMPLE

[illegible]



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

JUN 25

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: 9806178 JICARILLA

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

Client Sample ID: JAT 396 #5 CELL #1 Sample Matrix: SOIL Sample Collected: 06/10/98 10:45:00

| Fraction | QC Group | CAS # | Result | Units | Dilution Factor | Detection Limit | * | Sequence | Run Date |
|----------------------------------|----------|----------|-----------------------|-------|-----------------|-----------------|-------|----------------|----------|
| SW846-8010/8020 Volatiles | | | | | | | | | |
| 9806178-01A | X98326 | 71-43-2 | Benzene | ND | mg / Kg | 50 | 0.005 | XG.1998.535-10 | 06/15/98 |
| | X98326 | 100-41-4 | Ethylbenzene | ND | mg / Kg | 50 | 0.005 | XG.1998.535-10 | |
| | X98326 | 95-47-6 | o-Xylene | ND | mg / Kg | 50 | 0.005 | XG.1998.535-10 | |
| | X98326 | | P/M-Xylenes | ND | mg / Kg | 50 | 0.01 | XG.1998.535-10 | |
| | X98326 | 108-88-3 | Toluene | ND | mg / Kg | 50 | 0.005 | XG.1998.535-10 | |
| SW846-8015 Modified TPH | | | | | | | | | |
| 9806178-01B | X98328 | | Diesel Range Organics | 820 | mg / Kg | 25 | 25 | XG.1998.556-11 | 06/20/98 |

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





Chain of Custody Record

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

Lab no.: 87-10 Date: 6/2/99

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

Page 7 of 7

| | | | |
|--------|--------------------|---------------------------|------------|
| Client | Apache Corporation | Project Manager / Contact | Jeff Cross |
|--------|--------------------|---------------------------|------------|

Address 2855 Southside River RD, Ste. A Telephone No. (505) 774-6643

City/State/Zip Farmington, NM 87401-7947 Fax No. (505) 774-6624

Project Name / Number _____

Samplers: (Signature) 

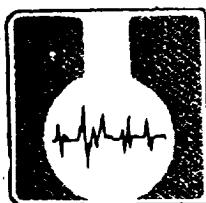
Contract / Purchase Order / Quote

| AAL FRACTION NUMBER | Field Sample Number / Location | Date | Time | Sample Type | Type / Size of Container | Preservation | | No. of Containers | Remarks |
|-----------------------------------|-----------------------------------|---------|-------|----------------|--------------------------|--------------|----------|-------------------|---------|
| | | | | | | Temp. | Chemical | | |
| IA | JAT 396 ^{#5} Cell #1 | 6-10-98 | 10:45 | SOIL | 4 oz glass | | Ice | 1 X | |
| IB | 1 | 1 | 1 | 1 | 4 oz glass | | 1 | 1 X | |
| <p><i>[Signature]</i> 6/12/98</p> | | | | | | | | | |

| | |
|--|---|
| Address <u>2855 Southside River RD, Ste A Telephone No. (505) 774-6643</u> | |
| City / State / Zip Farmington, NM 87401-7947 Fax No. (505) 774-6624 | |
| Project Name / Number _____ | Samplers: (Signature) <u><i>[Signature]</i></u> |
| Contract / Purchase Order / Quote _____ | |

| Relinquished by: | | Received by: | |
|-----------------------------|------------------|---|----------------|
| Signature | Date | Signature | Date |
| <u><i>[Signature]</i></u> | <u>6/12/98</u> | <u><i>[Signature]</i></u> | <u>6/12/98</u> |
| Printed <u>Jeff Worn</u> | Time <u>8:25</u> | Printed <u>Ethan V. Carter</u> | Time _____ |
| Company <u>Apache Corp.</u> | Reason _____ | Company <u>AARL</u> | Reason _____ |
| Method of Shipment: _____ | | After analysis, samples are to be: | |
| Shipment No. _____ | | <input type="checkbox"/> Disposed of (additional) | |
| Special Instructions: _____ | | <input type="checkbox"/> Stored (30 days max) | |
| | | <input type="checkbox"/> Stored over 30 days (at fee) | |
| | | <input type="checkbox"/> Returned to customer | |

LABORATORY



**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:
July 18, 1997 13:15

**CERTIFICATE OF ANALYSIS
RESULTS BY SAMPLE**

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

WORKORDER # : 9707104
WORK ID : JICARILLA PIT CLOSURES
CLIENT CODE : APA01
DATE RECEIVED : 07/11/97

ATTN: JEFF CROSS

Page: 1

Lab ID: 9707104-01A
Sample ID: JAT 396 #5 CELL #2

Collected: 07/08/97 11:30:00
Matrix: SOIL

| TEST / METHOD | RESULT | UNITS | LIMIT | D_F | DATE ANAL | BATCH_ID |
|------------------|--------|-------|--------|-----|--------------|-----------|
| BTEX/SW846 8020A | | | | | | |
| Benzene | ND | mg/kg | 0.0050 | 100 | 07/16/97 | SBTXME177 |
| Toluene | ND | mg/kg | 0.0050 | 100 | 07/16/97 | SBTXME177 |
| Ethylbenzene | ND | mg/kg | 0.0050 | 100 | 07/16/97 | SBTXME177 |
| P-&m-Xylene | ND | mg/kg | 0.010 | 100 | 07/16/97 | SBTXME177 |
| O-Xylene | ND | mg/kg | 0.0050 | 100 | 07/16/97 | SBTXME177 |

Lab ID: 9707104-01B
Sample ID: JAT 396 #5 CELL #2

Collected: 07/08/97 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 | 1700 | mg/Kg | 25 | 25 | 07/16/97 | SDRO41 |

Lab ID: 9707104-02A
Sample ID: JAT 396 #5 CELL #3

Collected: 07/08/97 11:45:00
Matrix: SOIL

| TEST / METHOD | RESULT | UNITS | LIMIT | D_F | DATE ANAL | BATCH_ID |
|------------------|--------|-------|--------|-----|--------------|-----------|
| BTEX/SW846 8020A | | | | | | |
| Benzene | ND | mg/kg | 0.0050 | 100 | 07/16/97 | SBTXME177 |
| Toluene | ND | mg/kg | 0.0050 | 100 | 07/16/97 | SBTXME177 |
| Ethylbenzene | ND | mg/kg | 0.0050 | 100 | 07/16/97 | SBTXME177 |
| P-&m-Xylene | ND | mg/kg | 0.010 | 100 | 07/16/97 | SBTXME177 |
| O-Xylene | ND | mg/kg | 0.0050 | 100 | 07/16/97 | SBTXME177 |



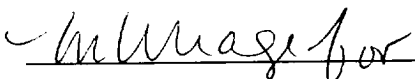
Lab ID: 9707104-02B

Sample ID: JAT 396 #5 CELL #3

Collected: 07/08/97 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 | 1900 | mg/Kg | 25 | 25 | 07/16/97 | SDRO41 |


William P. Biava
President

WORKORDER COMMENTS

DATE : 07/18/97
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



Chain of Custody Record

Lab job no: 7104 Date: 2/11/97

Page 1 of 1

ALBUQUERQUE, NEW MEXICO 87109
(505) 345-8964

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

MELQUIADES ALANIS
6411 LOCAL UNO
CIUDAD JUAREZ, CHIHUAHUA MEXICO 32320

Client: Apache Corporation

Address: 304 N. Behrend

City / State / Zip: Farmington, NM 87401

Project Name / Number: JICARILLA PIT CLOSURES

Contract / Purchase Order / Quote

Analysts Required

Remarks

| Field Sample Number / Location | Date | Time | Sample Type | Type / Size of Container | Preservation | | No. of Containers | Remarks |
|--------------------------------|--------|-------|-------------|--------------------------|--------------|----------|-------------------|---------|
| | | | | | Temp. | Chemical | | |
| 1A JAT 396 #5 Cell #2 | 2-8-97 | 11:30 | soil | 402 Glass | 4°C | ICE | 1 | |
| 1B JAT 396 #5 Cell #3 | 2-8-97 | 11:45 | | | | | 1 | |
| 2A JAT 396 #5 Cell #3 | 2-8-97 | 11:45 | | | | | 1 | |
| 2B JAT 396 #5 Cell #3 | 2-8-97 | 11:45 | | | | | 1 | |

| Relinquished by: | | Received by: | |
|-----------------------|---------------|--------------------------|---------------|
| Signature | Date | Signature | Date |
| <i>[Signature]</i> | 7-11-97 | <i>[Signature]</i> | 7/13/97 |
| Printed: JEFF CROSS | Time: 5:20 PM | Printed: ELVIN V. CHAVEZ | Time: 5:05 AM |
| Company: Apache Corp. | Reason: | Company: AAL | Reason: |

| Relinquished by: | | Received by: | |
|--------------------------|---------|----------------------|------|
| Signature | Date | Signature | Date |
| <i>[Signature]</i> | 7/13/97 | <i>[Signature]</i> | |
| Printed: ELVIN V. CHAVEZ | Time: | Printed: SCOTT PRATT | |
| Company: AAL | Reason: | Company: AAL | |

Method of Shipment: _____

Shipment No: _____

Special Instructions: _____

Comments: _____

After analysis, samples are to be:

- ☐ Disposed of (additional fee)
- ☐ Stored (30 days max)
- ☐ Stored over 30 days (additional fee)
- ☐ Returned to customer