Denny S. Fourt
DEPUTY OIL & GAS INSPECTOR

JAN 2 9 1999

Cochoration

Well Name:

Well Site Location:

Pit Type:

Producing Formation:

Pit Category:

Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

JAT A 118 #14 Pit #1 Unit C, Sec 36, T26N, R3W Blow Pit

Blow Pit

Lindrith Gallup/Dakota West

Non-Vulnerable

Greater than - 1000 Ft.

Greater than - 100 Ft.

RISK ASSESSMENT

Pit remediation activities were terminated when Backhoe encountered sandstone bedrock at 8 feet below grade.

No past or future threat to surface water or groundwater is likely based on the following considerations:

- 1. Past production fluids were contained locally by a relatively shallow sandstone bedrock located 8 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below sandstone bedrock.
- 2. Daily discharge into the earthen pit has been terminated. Prior discharge into the pit is believed to be under one barrel per day.
- 3. Test results of pit sides showed total BTEX to be Non Detected and TPH to be 2,300 PPM.
- 4. Pit bottom test results showed total BTEX to be Non Detected with a TPH of 6,800 PPM.

Based upon the information given, we conclude that the surface lateral impact from the earthen pit is very limited and that the sandstone bottom creates enough of a permeable barrier as to subdue impact into groundwater below it. Apache Corporation requests pit closure approval on this location.

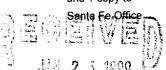
District III 1000 Rio Brazos Rd Aztec, NM 87410

State of New Mexico Energy, Minerals and Natural Resources Department

Submit 1 copy to
Appropriate District
and 1 copy to

OIL CONSERVATION DIVISION

2040 S. PACHECO Santa Fe, New Mexico 87505



| | | | | | | | \$3.7 | delic O | |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------|-------|----------------------------------|--------|---------|-----------|-------------------------------------------|-------------------|
| Operator: Apache Corporation \ MW Petro | roleum | | | Telephone | e: | | 505-325-0 | | |
| Address: 2855 Southside River Road, Su | uite A, Farm | ingto | n, NN | 87401 | | | | | · |
| Facility or Well Name: | Jic Apache Tribal A118 #14 Pit #1 | | | | | | | | <u> </u> |
| Location: Unit or Qtr/Qtr Sec | C Sec 36 | | | T 26 N | R | 3W | County | Rio Arriba | |
| Pit Type: Separator: | _Dehydrator | r | | Other | Blo | ow Pit | | | |
| Land Type: Jicarilla Tribal | | | | **** | | | | | · ···· |
| Beginning Pit Dimensions: | Length | | 14' | ' Widt | th | 18 | <u> </u> | h 4' | |
| Pit Location: Ending Pit Dimensions: | Length | · | 21 | . Widt | th | 18 | Dept | th8' | |
| (Attach diagram) Reference: | Wellhead | | XX_ | _Other | | | | | |
| Footage from reference: | | | 80 | | | | | | |
| Direction from reference: | | 2 | 220 | _Degrees | | | _East | North | |
| | | | | | | Х | _West | of South | XX _ |
| Depth To Groundwater: (vertical distance from | | | | Less tha 50 feet to | o 99 | feet | | (20 points) (10 points) | |
| contaminants to seasonal high water elevation of groundwater) | | | | Greater | than | 100 fee | t | (0 points) | 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 No | (20 points) (0 points) | |
| Distance To Surface Water: (Horizontal distance to perennial | | | | Less that 200 feet Greater | t to 1 | 000 fee | | (20 points) (10 points) (0 points) | |
| lakes, ponds, rivers, streams, creeks, irrigation canals and ditches) | | | | | | | (TOTAL PO | | 0 |

| Date Remediation Start | ed: | 8/13/97 | | Date Complet | ted: | | 8/14/97 |
|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------|---------------------------|--------------------------------------------------|--------------|---------------------|-------------|
| Remediation Method: | | Excavation | xxx | Approx. cubic | yards _ | | 50 |
| Check all appropriate sections) | Landfarmed | | XX | Insitu Biorem | ediation _ | | |
| | | Other | | | | | |
| Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility) | | Onsite _. | XX | Offsite | | | |
| General Description of | Remedial Action: | | | pit to 8' , tool | | | |
| location for | remediation. 100k | son sampi | es. nit be | urock, spray | 7 WILL 40-0 | y-o tottingot | • |
| | | | | | | | |
| | | | | <u> </u> | | | |
| Groundwater Encount | ered: | No | XX | Yes_ | | Depth | |
| Final Pit: | Sample location | | 4 point com | posite sample t | aken from p | it sidewalls. (| Grab sample |
| Closure Sampling: | oumpio location | takan from I | pit bottom ce | | | | |
| (in multiple samples, attach sample results | | taken nom | | | valle 10" in | nto pit botto | |
| and diagram of sample | 0 | 0' | 0 to 40" ii | | | | m |
| locations and depths) | Sample depth | 8' | | | | | |
| = | Sample depth Sample Date Sample results | 8' | 8 to 10" ii | | Sample Ti | | 9:00 AM |
| = | Sample Date | 8' | | | | | |
| = | Sample Date Sample results | 8' | 8/14/9 | 7 | | | |
| = | Sample Date Sample results Benzene | 8' | 8/14/9° | 7 ND | | | |
| = | Sample Date Sample results Benzene Total BTEX | 8' | 8/14/9* (ppm) (ppm) | ND ND 32.84 side/2300 | | | |
| locations and depths) Groundwater Sample | Sample Date Sample results Benzene Total BTEX Field Headspace TPH | Ye | 8/14/9* (ppm) (ppm) (ppm) | ND ND 32.84 side/2300 Btm/6800 | Sample Ti | me _(If yes atta | 9:00 AM |
| locations and depths) | Sample Date Sample results Benzene Total BTEX Field Headspace TPH | Ye | 8/14/9* (ppm) (ppm) (ppm) | ND ND 32.84 side/2300 Btm/6800 | Sample Ti | me _(If yes atta | 9:00 AM |
| Groundwater Sample | Sample Date Sample results Benzene Total BTEX Field Headspace TPH | Ye ATION ABO | 8/14/9* (ppm) (ppm) (ppm) | ND ND 32.84 side/2300 Btm/6800 No | Sample Ti | me _(If yes atta | 9:00 AM |

District III 1000 Rio Brazos Rd Aztec, NM 87410

State of New Mexico Energy, Minerals and Natural Resources Department

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

OIL CONSERVATION DIVISION

2040 S. PACHECO Santa Fe, New Mexico 87505

| Operator: | Apache Co | rporation \ MW Petr | oleum | | Telephone: | : | 505-325 | 5-0318 | |
|-----------------------------|-----------------|----------------------------------------------------------------------|------------|-------------|-------------------------|-------------------------|--------------------|-------------------------------------------|---|
| • | | ıside River Road, Sı | | ington, NM | 87401 | | | | |
| Facility or \ | Well Name: | | Jic Apach | e Tribal A1 | 18 #14 Pi | t #2 | | | |
| _ocation: | Unit or Qtr/ | Qtr Sec | C | Sec 36 | T 26 N | R 3W | County | Rio Arriba | |
| Pit Type: | Separator: | XX | _Dehydrato | r | Other | | | | |
| Land Type | e: | Jicarilla Tribal | | | | | _ | | |
| | Beginr | ning Pit Dimensions: | Length | 15 | Width | ۱ | 15' De | epth | |
| Pit Location: | | ling Pit Dimensions: | Length | 18 | · Width | າ | <u>18'</u> D∈ | epth 5' | |
| (Attach dia | agram) Refer | ence: | Wellhead | XX | _Other | | | | |
| | Foota | age from reference: | | 100 | , | _ | | | |
| | Direc | tion from reference: | | 250 | Degrees | | East | North of | |
| | | | | | | XX | West | South | X |
| Depth To | Groundwa | nter: | | <u> </u> | Less thar | | | (20 points) | |
| (vertical dis contaminar | | | | | 50 feet to Greater t | | eet | (10 points) | 0 |
| groundwate | | | | | | | | | |
| (Less that | water sour | n Area: from a private ce, or; less than ner water sources) | | | | | Yes No | (20 points) (0 points) | 0 |
| (Horizor | | to perennial | | | 200 feet | an 200 fee to 1000 f | feet | (20 points) (10 points) (0 points) | |
| lakes, p | | streams, creeks, | | | | than 100 | o feet E (TOTAL | | 0 |

| Date Remediation Star | ted: | 8/14/97 | .= | Date Complete | d: | 8/14/97 |
|------------------------------------------------------------------------------------------------|--------------------|------------|---------------|--------------------|------------------------|----------------------|
| Remediation Method: | | Excavation | xxx | Approx. cubic y | yards | 60 |
| (Check all appropriate sections) | Landfarmed | | XX | Insitu Bioremed | diation | |
| | | Other | | | | |
| Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility) | : | Onsite | XX | Offsite | | |
| General Description o | f Remedial Action: | | Excavate | pit to 5' , took | PID readings. Spi | read soil on |
| location for | remediation. Took | soil samp | les. Hit B | edrock, spray v | with 46-0-0 fertilize | er. |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Groundwater Encoun | tered: | No | X | <u>(</u> Yes | Depth | 1 |
| Final Pit: | Sample location | | 4 point con | nposite sample tak | en from pit sidewalls. | Grab sample |
| Closure Sampling: (in multiple samples, | | taken from | pit bottom ce | enter. | | |
| attach sample results and diagram of sample | Sample depth | 5' | 8 to 10" i | nto pit sidewal | lls 10" into pit bot | tom |
| locations and depths) | Sample Date | | 8/14/9 | | ample Time | 2:00 PM |
| | Sample results | | 0.11910 | | ' | |
| | Benzene | | (ppm) | ND | | |
| | Total BTEX | | (ppm) | ND | | |
| | Field Headspace | | (ppm) | 50.12 | | |
| | TPH | | | side/ND | | |
| Groundwater Sample | | Υe | | Btm/ND No | | tach sample results) |
| I HEREBY CERTIFY I | | ATION ABO | OVE IS TRU | JE AND COMPI | LETE TO THE BES | ST OF MY |
| DATE | January 8, 199 | 9 | PRINTE | D NAME J | eff Cross | |
| SIGNATURE | 1 | | AND TIT | | Project Manager | |

District III 1000 Rio Brazos Rd Aztec, NM 87410

State of New Mexico Energy, Minerals and Natural Resources Department

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and 1 copy to
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2040 S. PACHECO Santa Fe, New Mexico 87505

| Operator: | Apache Co | rporation \ MW Peti | roleum | | _Te | elephone | : | | 505-325- | 0318 | |
|--------------------------------|----------------------------------------------|------------------------------------|--------------|------------|------------------|-------------|-------|---------|----------|--------------|---|
| Address: | 2855 South | side River Road, S | uite A, Farn | nington, N | M 8 | 7401 | | | | | |
| Facility or \ | Well Name: | | Jic Apach | e Tribal A | 118 | #14 Pi | it #3 | | <u>.</u> | | |
| Location: | Unit or Qtr/0 | Qtr Sec | C | Sec 36 | Т | 26 N | R | 3W | County | Rio Arriba | |
| Pit Type: | Separator: | | _Dehydrato | r | _ O ¹ | ther | Tan | k Drai | n | | |
| Land Type | <u>. </u> | Jicarilla Tribal | | | | | | | | | |
| | Beginni | ng Pit Dimensions: | Length | 12 | <u>2'</u> | Width | | 12' | Dept | th 4' | |
| Pit Location: (Attach dia | | ng Pit Dimensions: | Length | 1. | <u>5'</u> | Width | | 15' | Dep | th | |
| (Attaon dia | Refere | nce: | Wellhead | XX | _0 | ther | | | | | |
| | Footag | e from reference: | | 100 |)' | | - | | | | |
| | Direction | on from reference: | | 285 | _ D | egrees | | | East | North | X |
| | | | | | | | | XX | _West | of South | |
| Depth To | Groundwate | er: | | | 1 6 | ess than | 50 fe | et | | (20 points) | |
| (vertical dista | | | | | |) feet to 9 | | | | (10 points) | |
| contaminants | to seasonal | | | | G | reater tha | an 10 | 00 feet | | (0 points) | 0 |
| high water ele groundwater) | | | | | | | | | | | |
| | Protection A | | | | • | | | | Yes | (20 points) | |
| | 200 feet fro | • | | | | | | | No | (0 points) | 0 |
| 1 | | , or; less than rwater sources) | | | | | | | | | |
| Distance ' | To Surface \ | Nater: | | | l a | ess than | 200 | feet | | (20 points) | |
| i i | I distance to | | | | | 00 feet to | | | | (10 points) | |
| 1 ' | | reams, creeks, | | | | reater th | | | et | (0 points) | 0 |
| irrigation c | anals and di | tches) | | | R | ANKING | SCC | ORE (T | OTAL PO | INTS) | 0 |

| Date Remediation Star | ted: | 8/15/97 | | _Date Comple | eted: | 8/19/97 |
|-----------------------------------------------------------------------------------------------|----------------------------|--------------|---------------|-------------------|----------------------|---------------------------|
| Remediation Method: (Check all appropriate | | Excavation | XXX | _Approx. cubi | c yards | 50 |
| sections) | Landfarmed | - | XX | _Insitu Bioren | nediation | |
| | | Other | | | | |
| Remediation Location (i.e. landfarmed onsite, name and location of offsite facility) | : | Onsite | XX | Offsite _ | | |
| General Description o | f Remedial Action: | | Excavate | pit to 7', too | k PID readings. | Spread soil on |
| location for | remediation. Took | soil sampl | es. Hit B | edrock, spra | y with 46-0-0 fe | rtilizer. |
| | | | | | | |
| | | | | | | |
| <u> </u> | | | | | | *** |
| Groundwater Encoun | tered: | No | X | X Yes_ | [| Depth |
| Final Pit: | Sample location | · · | 4 point con | nposite sample | taken from pit sidev | walls. Grab sample |
| Closure Sampling: (in multiple samples, | | taken from p | it bottom ce | enter. | | |
| attach sample results and diagram of sample | Sample depth | 7' | 8 to 10" i | nto pit sidew | alls 10" into pit | bottom |
| locations and depths) | • | • | | | | 11:00 AM |
| | Sample Date Sample results | | 8/19/9 | | Sample Time | 11.00 AN |
| | Benzene | | (ppm) | ND | | |
| | Total BTEX | | (ppm) | ND | | |
| | Field Headspace | | (ppm) | 48.44 | | |
| | TPH | | | side/ND Btm/ND | | |
| Groundwater Sample | : | Yes | · | No | XX (If ye | es attach sample results) |
| I HEREBY CERTIFY T KNOWLEDGE AND B | | TION ABO | VE IS TRU | JE AND COM | PLETE TO THE | BEST OF MY |
| DATE | January 8, 199 | 9 | PRINTE | O NAME | Jeff Cross | |
| SIGNATURE | eff Cron | | _ _AND TIT | LE | Project Manage | er |

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

| Operator: | MWI | PETROLEUM | | | Telephone |) | 505-32 | 25-0318 | | | |
|-------------------------------------|----------|-------------------|-------------|------------|--------------------------|-------|--------|------------|-----|----------------------------|-------------|
| Address: | 2855 | SOUTHSIDE R | VER ROAD | / SUITE A | / FARMING | зтоі | N N.M. | 87401-7 | 947 | , <u>.</u> | |
| Facility or We | ell Nam | ne: | JAT A118 | # 14 PIT # | 1 | | | | | | |
| Location: | Unit o | r Qtr/Qtr Sec | C | SEC 36 | T 26 N | R 3 | W | County | - | RIO ARRIBA | \ |
| Pit Type: | Separ | ator: | _Dehydrato | r | Other | BLC | OW PIT | <u> </u> | | | |
| Land Type: | | JIC. TRIB | AL | | | - | | | | | |
| Pit Location: | F | Pit Dimensions: | Length | 21' | Width | | 18' | Dej | oth | 8' | |
| (Attach diagra | - | Reference: | Wellhead | XXX | - Other | | ** | - | • | | |
| | F | Footage from re | | 80' | • | | | | | | |
| | | Direction from re | | 220 | Degrees | - | | East | | North | |
| | | | | | - | | х | - _West | of | South _ | XX |
| Depth To Gro | oundu | votori | | | Loop then | EO fo | - A | | | (20 points) | |
| (vertical distance f | | valer. | | | Less than a 50 feet to 9 | | | | | (20 points) (10 points) | |
| contaminants to se | | | | | Greater that | | | | | (10 points)_ | |
| high water elevatio groundwater) | | | | | | | | | | (o po) <u> </u> | |
| Distance to a | an Eph | nemeral Stream | 1: | | Less than | 100 1 | feet | | | (10 points) | |
| (Downgradien | it dry v | vash greater tha | | | Greater tha | | | | | (0 points) _ | 0 |
| ten feet in wid | ith | | | | | | | | | | |
| Distance to N | Jeares | st Lake, Playa, | or Waterine | n Dond: | Less than | 100 4 | faat | | | (10 nointe) | |
| (Downgradien | | | or watering | | Greater that | | | | | (10 points) (0 points) | 0 |
| , , | | watering ponds) | | | | ω., | | | | (• po | |
| Wellhead Pro | otectic | on Area: | | | | | Yes | | | (20 points) | |
| (Less than 200 | | | | | | | No | | | (0 points) | 0 |
| domestic wate | er sour | rce, or less than | | | | | | | | ` ' _ | |
| 1000 feet from | n all of | ther water sourc | es) | | | | | | | | |
| Distance To S | Surfa | ce Water | | | Less than | 100 4 | feet | | | (20 points) | |
| (Horizontal dis | | | | | 100 feet to | | | | | (20 points) (10 points) | |
| I ' | | , streams, creek | s, | | Greater tha | | | ŧ | | (0 points) _ | 0 |
| irrigation cana | als and | ditches) | | | RANKING | scc | ORE (T | OTAL PO | NIC | TS) _ | 0 |
| | | | | | | | | | | | W. Anna and |

| Date Remedia | tion Start | ed: | 8/13/97 | | _Date Comp | leted: | | 8/14/97 | |
|-------------------------------------------------------------------------|------------------------|--------------|-------------|------------|------------------|-------------|---------------|-------------|------------|
| Remediation M | | | Excavation | XXX | _Approx. cul | oic yards | | 50 | |
| sections) | орнас | La | ndfarmed | XX | _Insitu Biore | mediation | | | |
| | | | Other | | | | | | |
| Remediation I (i.e. landfarmed name and loca offsite facility) | d onsite, | | Onsite | хх | _Offsite | | | | į |
| General Desci | ription of | Remedial A | Action: Exc | avate pit | to 8 ',took i | PID readin | gs. spread | soil on | |
| 1 | ocation fo | or remidiati | on. Took s | oil sampl | es. | HIT BEDF | OCK,SPRA | Y WITH 46 | -0-0 FERT. |
| Groundwater | Encounte | ered: | No | xxx | _ Yes | | _ Depth | | |
| Final Pit: | | Sample loc | ation | 4 point co | mposite take | en from pit | sidewalls, G | Grab sample | from pit |
| Closure Samp (in multiple sai | - | • | bottom cer | | | | walls ,10" in | | Ž |
| attach sample | results | Comple de | | 8' | | | | | |
| and diagram o locations and o | depths) | · | pui | | - | Cample T | ima | 9:00AM | |
| • | Sample Da Sample re | | | 8/14/97 | <u>/</u> | Sample T | n <u>ne</u> | 9.00/101 | |
| | Soil: | Benzene | | (ppm) | ND | Water: | Benzene | (ppb) | NA |
| | | Total BTE | X | (ppm) | ND | | Toluene | (ppb) | NA |
| | | Field Head | Ispace | (ppm) | 32.84 | _ Et | hylbenzene | (ppb) | <u>NA</u> |
| | | TPH | | | SIDE\2300 | - | tal Xylenes | (ppb) | NA |
| Groundwater | Sample: | | | OCK | BTM\6800 | | _(If yes atta | ach sample | results) |
| I HEREBY CE KNOWLEDGE | | | FORMATIO | ON ABOVE | E IS TRUE A | ND COME | PLETE TO 1 | THE BEST | OF MY |
| DATE | // | 25-98 | - | PRINTED | NAME | | JEFF CR | oss | |
| DATE SIGNATURE | J | eff lo | رد | _AND TIT | LE | | PROJECT | Γ MANAGE | R |
| AFTER REVII THE JICARIL | LA APAC | HE TRIBE I | PIT CLOSU | IRE ORDII | NANCE. | | | | 1 |
| APPROVED: | YES | | _ NC | | _(REASON |) RA | Att. | ache | دل_ |
| SIGNED: | Kē | ~ (°) | 7) e_ | | DATE: | 12- | 28-9 | 8 | |

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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

| Operator: <u>M</u> | W PETROLEUM | | | _Telephone | 505-32 | 25-0318 | | |
|-----------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------|-------------|-------------------|-------------|-------------|--------------|-----|
| Address: 28 | 55 SOUTHSIDE R | VER ROAD | / SUITE A | / FARMING | TON N.M. | . 87401-794 | 7 | *** |
| Facility or Well I | Name: | JAT A118# | # 14 PIT # | 2 | | | <u> </u> | |
| Location: Ur | nit or Qtr/Qtr Sec | C | SEC 36 | T 26 N | R3W | _County | RIO ARRIBA | |
| Pit Type: Se | eparator: XX | _Dehydrator | | _Other | | | | |
| Land Type: | JIC. TRIB | AL | | | | | | |
| Pit Location: (Attach diagram | Pit Dimensions:) Reference: | Length Wellhead | 18' | _ Width _Other | 18' | _ Depth | 5' | |
| | Footage from re | • | 100' 250 | Degrees | <u>-</u> | _East | North | |
| | | | | | XX | of _West | South | x |
| Depth To Grou | indwater: | , , , , , , , , , , , , , , , , , , , | | Less than | 50 feet | | (20 points) | |
| (vertical distance from | | | | 50 feet to | (10 points) | | | |
| contaminants to seas high water elevation of groundwater) | | | | Greater th | an 100 fee | t | (0 points) | 0 |
| Distance to an | Ephemeral Stream | 1: | | Less than | 100 feet | | (10 points) | |
| | dry wash greater tha | | | | an 100 fee | t | (0 points) | 0 |
| Distance to Ne | arest Lake, Playa, | or Watering | Pond: | Less than | 100 feet | | (10 points) | |
| (Downgradient I | lalian mlavian and | _ | | | an 100 fee | rt. | (0 points) | 0 |
| Wellhead Prote | ection Area: | | | | Ye | S | (20 points) | |
| (Less than 200 domestic water | feet from a private source, or less than all other water source | | | | No | | (0 points) | 0 |
| Distance To Su | urface Water: | | | Less than | 100 feet | | (20 points)_ | |
| | ance to perennial | | | | 1000 feet | <u> </u> | (10 points) | |
| lakes, ponds, riv | vers, streams, creel | ks, | | Greater th | an 1000 fe | et | (0 points) | 0 |
| irrigation canals | s and ditches) | | | RANKING | SCORE (| TOTAL POII | NTS) | 0 |

| Date Remedia | ation Start | ed: <u>8/1</u> 4 | 1/97 | _Date Comp | leted: | | 8/14/97 | |
|-----------------------------------------------------------------|------------------------|-----------------------------------|-----------------|---------------|-------------------|-------------|------------|-----------|
| Remediation | | Excavation | on XXX | _Approx. cut | oic yards | | 60 | |
| (Check all app sections) | oropriate | Landfarn | ned XX | _Insitu Biore | mediation | | | |
| | | Other | | | | | | |
| Remediation (i.e. landfarmoname and loc offsite facility) | ed onsite, ation of | Or | nsite XX | _Offsite | | | | |
| General Desc | cription of | Remedial Action: | Excavate pit | to 5',took F | PID readings. | spread s | oil on | |
| | location f | or remidiation. To | ok soil sampl | es. | HIT BEDROC | K,SPRAY | / WITH 46- | 0-0 FERT. |
| Groundwate | r Encounte | ered: | No xxx | _ Yes | | Depth _ | | |
| Final Pit: Closure Sam | pling: | Sample location | 4 point co | | n from pit side | | | |
| (in multiple sa attach sample | amples, | botton | n center. | 8" to 10" in | to pit side walls | s ,10" into | pit bottom | 1. |
| | of sample | Sample depth | 5' | _ | | | | ' |
| iocations and | Sample Dample re | | 8/14/97 | 7 | Sample Time | | 2:00PM | |
| | Soil: | Benzene | (ppm) | ND | Water: Be | nzene (| (ppb) | NA |
| | | Total BTEX | (ppm) | ND | То | luene (| (ppb) | NA |
| ŧ | | Field Headspace | (ppm) | 50.12 | Ethylbe | enzene (| (ppb) . | NA |
| | | TPH HIT B | (ppm) EDROCK | | Total X | (ylenes (| (ppb) | NA |
| Groundwate | r Sample: | | Yes | | XXX (If | yes attac | h sample r | esults) |
| I HEREBY CI KNOWLEDG | | IAT THE INFORM LIEF. | ATION ABOVE | E IS TRUE A | ND COMPLET | TE TO TH | IE BEST C | F MY |
| DATE | | 1-25-98 | PRINTED | NAME | JE | FF CRO | ss | |
| SIGNATURE | : <i></i> | fflion | AND TITE | L E | PF | ROJECT | MANAGER | |
| | | IE PIT CLOSURE HE TRIBE PIT CL | | | SURE IS APPR | ROVED IN | ACCORD | ANCE TO |
| APPROVED: | : YES | <u> </u> | NO | _(REASON) | | | | |
| SIGNED: | Ki | - CMa | \mathcal{Q} | DATE: | 12-28 | 8 - 98 | | |

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

| Address: 2855 SOUTHSIDE RIVER ROAD / SUITE A / FARMINGTON N.M. 87401-7947 Facility or Well Name: | Operator: | MW | PETROLEUM | | | _Telephone | 505-32 | 25-0318 | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------|---------------------|-------------|-----------|------------|-------------|-----------|---------------------------------------|----------|
| Location: Unit or Qtr/Qtr Sec | Address: | 2855 | SOUTHSIDE RIV | VER ROAD | / SUITE A | / FARMING | STON N.M. | 87401-794 | 7 | |
| Pit Type: Separator: | Facility or We | ell Naı | me: | JAT A118# | 14 PIT # | 3 | <u>,</u> | | | |
| Land Type: JIC. TRIBAL Pit Location: Pit Dimensions: Length 15' Width 15' Depth 7' Reference: Wellhead XXX Other Footage from reference: 100' Direction from reference: 285 Degrees East North X of XX West South Depth To Groundwater: Less than 50 feet (20 points) (vertical distance from 50 feet to 99 feet (10 points) (10 poin | Location: | Unit | or Qtr/Qtr Sec | C | SEC 36 | T 26 N | R3W | _County | RIO ARRIBA | <u> </u> |
| Pit Location: (Attach diagram) Reference: Wellhead XXX Other Footage from reference: 100' Direction from reference: 285 Degrees East North X of XXX West South Depth To Groundwater: (vertical distance from 50 feet to 99 feet (10 points) contaminants to seasonal high water elevation of groundwater) Distance to an Ephemeral Stream: Less than 100 feet (0 points) 0 minus feet in width Distance to Nearest Lake, Playa, or Watering Pond: (Cowngradient lakes, playas and livestock or wildlife watering ponds) Wellhead Protection Area: Yes (20 points) 0 minus 100 feet from a private domestic water source, or less than 1000 feet (10 points) 0 minus 1000 feet from all other water sources) Distance To Surface Water: Less than 100 feet (20 points) 0 minus 1000 feet (10 points) 0 minus 1000 feet (10 points) 0 minus 1000 feet (10 points) 0 minus 1000 feet from all other water sources) Distance To Surface Water: Less than 100 feet (20 points) 1000 feet (10 points) | Pit Type: | Sepa | arator: | Dehydrator | | Other | TANK DR | AIN | | |
| Reference: Wellhead XXX Other Footage from reference: 100' Direction from reference: 285 Degrees East North X of XX West South Depth To Groundwater: Less than 50 feet (20 points) (vertical distance from 50 feet to 99 feet (10 points) Inligh water elevation of groundwater) Distance to an Ephemeral Stream: Less than 100 feet (0 points) (Downgradient dry wash greater than Greater than 100 feet (0 points) (Downgradient lakes, playas and livestock or wildlife watering ponds) Wellhead Protection Area: Yes (20 points) (Less than 200 feet from a private domestic water source, or less than 1000 feet (10 points) Distance To Surface Water: Less than 100 feet (20 points) Distance To Surface Water: Less than 100 feet (20 points) Less than 100 feet (20 points) Wellhead Protection Area: Yes (20 points) (Less than 200 feet from a private (20 points) Distance To Surface Water: Less than 100 feet (20 points) Less than 100 feet (20 points) Less than 100 feet (20 points) Output Distance To Surface Water: Less than 100 feet (10 points) Less than 100 feet (10 points) Distance To Surface Water: Less than 100 feet (10 points) Less than 100 feet (10 points) Less than 100 feet (10 points) Output Distance To Surface Water: Less than 100 feet (10 points) Less than 100 feet (10 points) Output Distance To Surface Water: Less than 100 feet (10 points) Less than 100 feet (10 points) Output Distance To Surface Water: Less than 100 feet (10 points) Less than 100 feet (10 points) Output Distance To Surface Water: Less than 100 feet (10 points) Distance To Surface Water: Less than 100 feet (10 points) Distance To Surface Water: Less than 100 feet (10 points) Distance To Surface Water: Less than 100 feet (10 points) Distance To Surface Water: Less than 100 feet (10 points) Distance To Surface Water: Less than 100 feet (10 points) | Land Type: | | JIC. TRIBA | AL. | | | | | | |
| Reference: Wellhead XXX Other Footage from reference: 100' Direction from reference: 285 Degrees East North X XX West South Depth To Groundwater: (20 points) (vertical distance from 50 feet to 99 feet (10 points) (10 | | | Pit Dimensions: | Length | 15' | _ Width | 15' | Depth | 7' | |
| Depth To Groundwater: (vertical distance from 50 feet to 99 feet (10 points) contaminants to seasonal high water elevation of groundwater) Distance to an Ephemeral Stream: (Downgradient lay wash greater than Distance to Nearest Lake, Playa, or Watering Pond: (Downgradient lakes, playas and livestock or wildlife watering ponds) Wellhead Protection Area: (Less than 100 feet (10 points) (Downgradient lakes, playas and livestock or wildlife watering ponds) Wellhead Protection Area: (Less than 100 feet (20 points) (0 points) (0 points) (10 points) (11 points) (12 points) (13 points) (14 points) (15 points) (16 points) (17 points) (18 points) (19 points) (19 points) (19 points) (10 points) | (Attach diagr | am) | Reference: | Wellhead | XXX | _Other | | | | |
| Depth To Groundwater: (vertical distance from 50 feet to 99 feet (10 points) contaminants to seasonal Greater than 100 feet (0 points) high water elevation of groundwater) Distance to an Ephemeral Stream: (Downgradient dry wash greater than Greater than 100 feet (0 points) ten feet in width Distance to Nearest Lake, Playa, or Watering Pond: (Downgradient lakes, playas and livestock or wildlife watering ponds) Wellhead Protection Area: (Less than 100 feet (10 points) (Downgradient lakes, playas and livestock or wildlife watering ponds) Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources) Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, Greater than 1000 feet (0 points) Intercept of the first points of the feet (10 points) Intercept of the first points of the feet (20 points) Intercept of the first points of the first points of the feet (10 points) Intercept of the first points of the feet (10 points) Intercept of the first points of the first points of the first points of the first points of the feet (10 points) Intercept of the first points of the fi | | | Footage from ret | ference: | 100' | | _ | | | |
| Depth To Groundwater: Less than 50 feet (20 points) (vertical distance from 50 feet to 99 feet (10 points) (10 poi | | | Direction from re | ference: | 285 | _Degrees | | _ | - | x |
| (vertical distance from contaminants to seasonal high water elevation of groundwater) Distance to an Ephemeral Stream: (Downgradient dry wash greater than Greater than 100 feet (0 points) 0 Distance to Nearest Lake, Playa, or Watering Pond: (Downgradient lakes, playas and livestock or wildlife watering ponds) Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or less than 100 feet (10 points) 0 Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches) | | | | | | | xx | - | • | |
| (vertical distance from contaminants to seasonal high water elevation of groundwater) Distance to an Ephemeral Stream: (Downgradient dry wash greater than Greater than 100 feet (0 points) 0 Distance to Nearest Lake, Playa, or Watering Pond: (Downgradient lakes, playas and livestock or wildlife watering ponds) Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or less than 100 feet (10 points) 0 Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches) | Depth To G | round | lwater: | | | Less than | 50 feet | | | |
| Distance to an Ephemeral Stream: (Downgradient dry wash greater than Distance to Nearest Lake, Playa, or Watering Pond: (Downgradient lakes, playas and livestock or wildlife watering ponds) Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources) Distance To Surface Water: (Horizontal distance to perennial lakes, playas, or Watering Pond: Less than 100 feet (10 points) Greater than 100 feet (10 points) O (11 points) O (12 points) O (13 points) O (14 points) O (15 points) O (16 points) O (17 points) O (18 points) O (19 points) | | | | | | 50 feet to | 99 feet | | (10 points) | |
| Distance to an Ephemeral Stream: (Downgradient dry wash greater than Greater than 100 feet (0 points) | high water elevat | | nal | | | Greater th | an 100 fee | t | (U points) _ | - 0 |
| (Downgradient dry wash greater than ten feet in width Distance to Nearest Lake, Playa, or Watering Pond: Less than 100 feet (10 points) (Downgradient lakes, playas and livestock or wildlife watering ponds) Wellhead Protection Area: Yes (20 points) (10 poin | | a • | abomeral Com- | 1. | | l gee the- | 100 foot | | (10 nointe) | |
| Distance to Nearest Lake, Playa, or Watering Pond: (Downgradient lakes, playas and livestock or wildlife watering ponds) Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources) Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches) Less than 100 feet (10 points) (0 points) (0 points) (10 | (Downgradie | ent dry | · | | | | | | | |
| (Downgradient lakes, playas and livestock or wildlife watering ponds) Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources) Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches) Greater than 100 feet (0 points) (0 points) (1 points) (0 points) | ten feet in w | idth | | | | | | | | |
| (Downgradient lakes, playas and livestock or wildlife watering ponds) Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources) Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches) Greater than 100 feet (0 points) | Distance to | Near | est Lake, Playa, | or Watering | Pond: | Less than | 100 feet | | · · | |
| Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources) Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches) Yes (20 points) (0 points) Less than 100 feet 100 feet to 1000 feet (10 points) Greater than 1000 feet (0 points) | (Downgradie | ent lak | ces, playas and | | | Greater th | nan 100 fee | nt . | (0 points) _ | 0 |
| (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources) Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches) No (0 points) Co points) 100 feet to 1000 feet (10 points) Greater than 1000 feet (0 points) | | | | | | | V۵ | s | (20 points) | |
| domestic water source, or less than 1000 feet from all other water sources) 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) Oreater than 1000 feet (0 points) | 1 | | | | | | | | · · · · · - | 0 |
| (Horizontal distance to perennial 100 feet to 1000 feet (10 points) lakes, ponds, rivers, streams, creeks, irrigation canals and ditches) Greater than 1000 feet (0 points) 0 | domestic wa | ater so | ource, or less than | | | | - • | | , , , , , , , , , , , , , , , , , , , | |
| (Horizontal distance to perennial 100 feet to 1000 feet (10 points) lakes, ponds, rivers, streams, creeks, irrigation canals and ditches) Greater than 1000 feet (0 points) 0 | Distance To |) Surf | face Water: | | | Less than | 100 feet | | (20 points) | |
| lakes, ponds, rivers, streams, creeks, Greater than 1000 feet (0 points)0 irrigation canals and ditches) | | | | | | | | | · · · · - | |
| | lakes, ponds | s, rive | rs, streams, creek | (S, | | Greater th | nan 1000 fe | eet | (0 points) _ | 0 |
| MAINING SCORE (TOTAL TOTAL TOTAL) | Irrigation cal | nais a | ma aitcnes) | | | RANKING | SCORE (| TOTAL POI | NTS) _ | 0 |

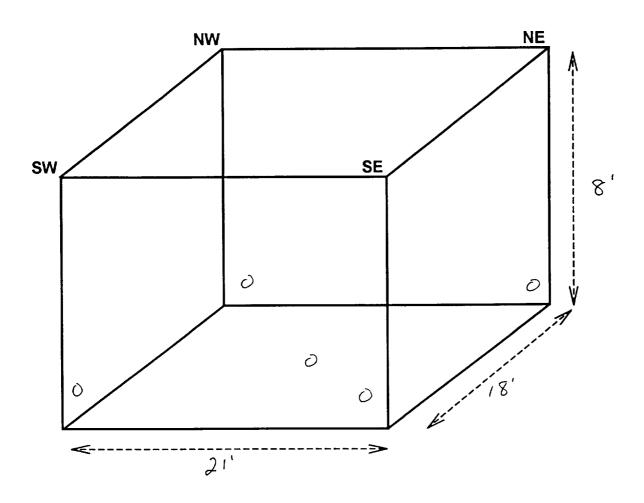
| Date Remedia | ation Start | ed: | 8/15/97 | | _Date Comp | eleted: | | 8/19/97 | |
|----------------------------------------------------------------------|------------------------|------------|------------|------------|---------------|------------------|---------------|--------------|-------------|
| Remediation | Method: | | Excavation | XXX | _Approx. cul | bic yards | | 50 | |
| (Check all app sections) | ropriate | L | andfarmed | XX | Insitu Biore | mediation | | | |
| , | | | Other | | _ | | | | |
| | | | | | | | | · · · | |
| Remediation (i.e. landfarme name and loca offsite facility) | ed onsite, ation of | | Onsite | · XX | _Offsite | | | | |
| General Desc | ription of | Remedial | Action: Ex | cavate pit | to 7',took | PID readir | igs. spread | soil on | |
| | location fo | or remidia | tion. Took | soil samp | les. | HIT BEDF | ROCK,SPRA | Y WITH 40 | 3-0-0 FERT. |
| • | | | | | | | Depth | | |
| Groundwater | Encounte | erea: | INC | XXX | | | _ Deptil | | _ |
| Final Pit: | | Sample lo | cation | 4 point co | omposite take | en from pit | sidewalls, G | Grab sample | e from pit |
| Closure Sam (in multiple sa | | | bottom ce | nter. | 8" to 10" in | to pit side | walls ,10" in | to pit botto | m. |
| attach sample | results | 0 1 1 | | | | | • | | |
| and diagram of locations and | | Sample d | eptn | 7' | _ | | | | |
| 1 | Sample Da | | | 8/19/9 |)7 | Sample T | ime | 11:00AM | |
| | · | | | | | 144.4 | D | (nnh) | NA |
| | Soil: | Benzene | | (ppm) | ND | _Water: | Benzene | (ppb) | NA NA |
| | | Total BTE | EX | (ppm) | ND_ | - | Toluene | (ppb) | NA |
| | | Field Hea | dspace | (ppm) | 48.44 | _ Et | hylbenzene | (ppb) | NA |
| | | TPH | | | SIDE\ND | _ To | otal Xylenes | (ppb) | NA |
| Groundwate | r Sample: | | - | ROCK s | BTM/ND No | XXX | _(If yes atta | ach sample | results) |
| I HEREBY CI | ERTIEY TH | IAT THE I | NEORMATI | ON ABOV | F IS TRUE A | ND COM | PLETE TO 1 | THE BEST | OF MY |
| KNOWLEDG | | | | | | | | | |
| DATE | | 1-25-9 | 8 | PRINTE | D NAME | | JEFF CR | oss | |
| SIGNATURE | | 00 | | | D NAME | | | | |
| AFTER REVI | | | | | | SURE IS A | APPROVED | IN ACCOR | DANCE TO |
| APPROVED: | YES | | N | o | (REASON |) | | | |
| | i | | | | | | | | |
| SIGNED: | Xw | | Me | | DATE: | 12 | -28- | 78 | |

٠.

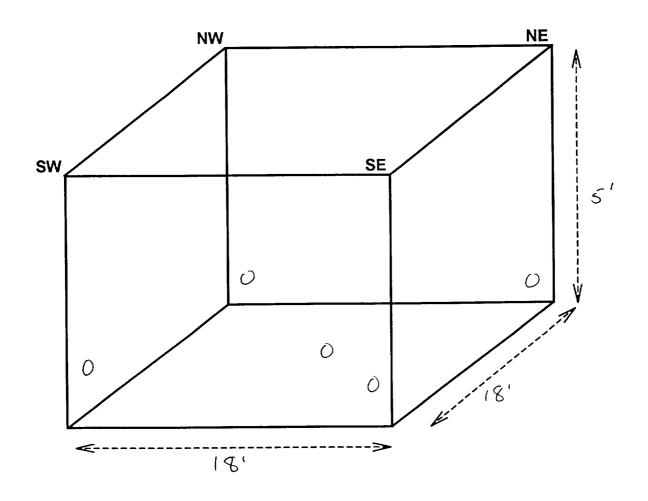
M W PETROLEUM/FARMINGTON DISTRICT PIT EXCAVATION AND CLOSURE REPORT

| LOCATION JAT A118 # 14 Review and Approval | | | | pproval | | | | | |
|--------------------------------------------|---------------|--------------|--------------|---------------|-------------|---------------|-------------------|----------------------------------------------|--------------|
| D . - - | O. I. I. I | _ | | | | OCD-BLM | | | |
| PIT C | JUNT | 3 | - | | | EPO Represe | | | |
| | | | | | | Date of Revie | <u> </u> | | |
| | CTADT: | PIT#1 8/13/9 | DIT#2 0/45/0 | 7 | EINICU: | PIT#1 8/14/97 | 7 | 1 | |
| DIMEN | START: | PIT#1 8/13/9 | P11#3 6/15/9 | 1 | FINION. | | PIT#3 8/19/97 | <u> </u> | r |
| DIVILIA | W | L L | D | | L | W | L | D | CU YDS |
| Pit 1 | 18' | 14' | 4' | Pit 1 | | 21' | 18' | 8' | 50 |
| Pit 2 | 15' | 15' | 3' | Pit 2 | | 18' | 18' | 5' | 60 |
| Pit 3 | 12' | 12' | 4' | Pit 3 | | 15' | 15' | 7' | 50 |
| 1113 | 12 | Pit 1 @ 8' | Pit 2 @ 5' | Pit 3 @ 7' | | 1 10 | Pit 1 @ 8' | Pit 2 @ 5' | Pit 3 @ 7' |
| | Center | 30.6 | 75.3 | 50.8 | | Center | 30.6 | 75.3 | 50.8 |
| P | } | 45.1 | 31.2 | 48.1 | P | NW Corner | 45.1 | 31.2 | 48.1 |
| | NW Corner | | | + | 1 | | | | |
| 1 | NE Corner | 28.2 | 42.1 | 55.4 | | NE Corner | 28.2 | 42.1 | 55.4 |
| D | SW Corner | 29.1 | 55.6 | 42.1 | D | SW Corner | 29.1 | 55.6 | 42.1 |
| | SE Corner | 31.2 | 46.4 | 45.8 | | SE Corner | 31.2 | 46.4 | 45.8 |
| NOTES | | | | | | | | | |
| | | | | 1 , LIGHT STA | | | | | |
| | | | | XCAVATE TO | | | TH 46-0-0 LIQ | UID FERTILIZ | ER. |
| | | | | NO STAINING | | | | · | |
| | | | | P,EXCAVATE T | | | | | |
| | | | | LIQUID FERTI | | | R ODOR. | | |
| L | | | | B,EXCAVATE T | | | | | |
| | 8/19/97 FINIS | SH EXCAVATI | G PIT#3,SPR/ | AY PIT WITH 4 | 6-0-0 LIQ | UID FERTILIZ | ER. NO STAIN | NING OR ODO | R |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | SAMP DATE | 8/14/97 | 8/14/97 | 8/19/97 | | | | | |
| | | Pit 1 @ 8' | Pit 2 @ 5' | Pit 3 @ 7' | ANALYS | IS RESULTS | | PER LAB | Assaigai |
| | Center | 30.6 | 75.3 | 50.8 | PIT | TPH | BETEX | WITNESS | DATE |
| ₽ | NW Corner | 45.1 | 31.2 | 48.1 | NO | SIDE\BTM | SIDE\BTM | | |
| | NE Corner | 28.2 | 42.1 | 55.4 | 1 | 2300\6800 | ND/ND | J.C. | 8/20/97 |
| 0 | SW Corner | 29.1 | 55.6 | 42.1 | 2 | ND\ND | ND/ND | J.C. | 8/20/97 |
| | SE Corner | 31.2 | 46.4 | 45.8 | 3 | ND\ND | ND\ND | J.C. | 9/2/97 |
| | g 52 00 mor | 1 01.2 | 1 10.4 | RE-SAMPLE | 1 | 1 | | | |
| DATE: | | Pit 1 @ | Pit 2 @ | Pit 3 @ | ΔΝΔΙ ۷9 | IS RESULTS | | PER LAB | |
| DATE. | Contac | 1 | 11120 | 11136 | | | DETEV | WITNESS | DATE |
| | Center | - | | + | PIT | TPH | BETEX SIDE\BTM | AALLINEOO | I DAIE |
| P | NW Corner | | - | | NO | SIDE\BTM | SINERIM | | |
| 1 | NE Corner | - | | | 1 | | | | |
| D | SW Corner | ↓ | ļ | | 2 | | ļ | | |
| | SE Corner | <u></u> | | 1 | 3 | <u> </u> | | <u> </u> | <u> </u> |
| <u></u> | | | · | RE-SAMPLE | Т | | | | |
| DATE: | | Pit 1 @ | Pit 2 @ | Pit 3 @ | | IS RESULTS | · | PER LAB | |
| | Center | | <u> </u> | | PIT | TPH | BETEX | WITNESS | DATE |
| P | NW Corner | | | | NO | SIDE\BTM | SIDE\BTM | | |
| 1 | NE Corner | | | | 1 | | | | |
| D | SW Corner | | | | 2 | | <u> </u> | | <u> </u> |
| | SE Corner | | | | 3 | | | | |

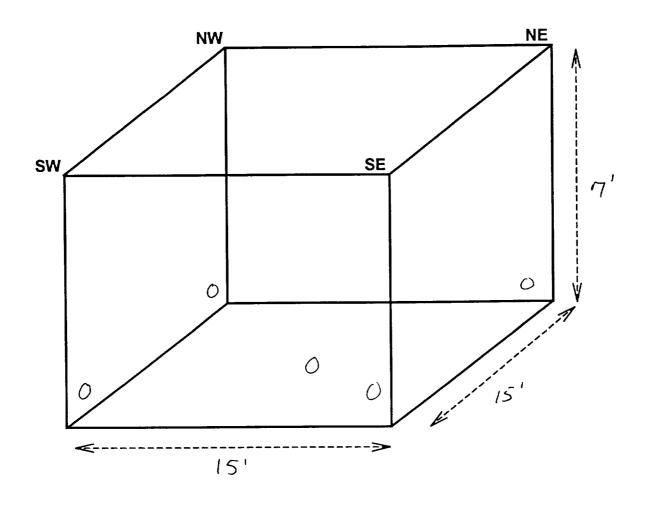
Jicarilla Apache Tribal EPO/OCD/BLM



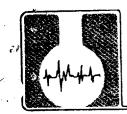
| | | | = SAMPLE AREA |
|----------------------------|----------|---------------------------------|-----------------------|
| WELL NAN | ΛE | JAT A118 # 14 PIT #1 | |
| SAMPLE D | ATE | 8/14/97 | |
| | | | |
| WELL NAMI SAMPLE DA NOTES | 4 PO | NT COMPOSITE SAMPLE TAKEN 8" | TO 10" INTO PIT |
| | SIDE | WALL | |
| | 1 PO | INT GRAB SAMPLE TAKEN 10" TO 12 | 2" INTO BOTTOM CENTER |
| | | | |
| • | | | |
| • | | | |
| | | | |
| | <u> </u> | · | |
| | | | |
| | | | |



| | | | | = | SAMPLE AREA |
|-------------|-------|---------------------------------------------------------------------------------------------------|---------|---|-------------|
| WELL NAM | ΛE | JAT A118 # 14 PI | Γ#2 | | |
| SAMPLE DATE | | 8/14/97 | | | |
| | SIDEW | /ALL | | | CENTER |
| | | | 1.41.47 | | |
| | | JAT A118 # 14 PIT # 2 8/14/97 PINT COMPOSITE SAMPLE TAKEN EWALL DINT GRAB SAMPLE TAKEN 10" TO | | | |
| | | | | | |



| | | | = SAMPLE AREA |
|-------------|-------|-----------------------------------------------------------------------------|---------------|
| WELL NAI | ΛE | JAT A118 # 14 PIT # 3 | |
| SAMPLE DATE | | 8/19/97 | |
| NOTES | SIDEV | IT COMPOSITE SAMPLE TAKEN 8" TO 10 VALL NT GRAB SAMPLE TAKEN 10" TO 12" INT | |
| | | | |



ASSAIGAI ANALYTICAL LABORATORIES, INC.

7300 Jefferson, N.E. • Albuquerque, New Mexico 87109 • (505)

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

Report Generated:

August 22, 1997 14:50

CERTIFICATE OF ANALYSIS
RESULTS BY SAMPLE

SENT APACHE CORPORATION

TO: 304 N. BEHREND

FARMINGTON, NM 87401

WORKORDER #

: 9708169

WORK ID

: JICARILLA PIT CLOSURES

CLIENT CODE

: APA01

DATE RECEIVED: 08/15/97

ATTN: JEFF CROSS

Page: 1

Lab ID: 9708169-01A

Sample ID: A118 #14 PIT #1 SIDES

Collected: 08/14/97 09:00:00

Matrix: SOIL

| TEST / METHOD | RESULT | UNITS | LIMIT | D_F | DATE ANAL | BATCH_ID |
|--------------------------------------------------------------------|--------|-------|--------|-----|--------------|-----------|
| BTEX/SW846 8020A Benzene Toluene Ethylbenzene P-&m-Xylene O-Xylene | ND | mg/kg | 0.0050 | 100 | 08/20/97 | SBTXME185 |
| | ND | mg/kg | 0.0050 | 100 | 08/20/97 | SBTXME185 |
| | ND | mg/kg | 0.0050 | 100 | 08/20/97 | SBTXME185 |
| | ND | mg/kg | 0.010 | 100 | 08/20/97 | SBTXME185 |
| | ND | mg/kg | 0.0050 | 100 | 08/20/97 | SBTXME185 |

Lab ID: 9708169-01B

Sample ID: A118 #14 PIT #1 SIDES

Collected: 08/14/97 09:00:00

Matrix: SOIL

| TEST / METHOD | RESULT | UNITS | LIMIT | D_F | DATE | BATCH_ID |
|-------------------------------------------------------|--------|-------|-------|-----|----------|----------|
| Diesel Range OG Soil/M8015 Diesel Range OG in Soil | 2300 | mg/Kg | 25 | 25 | 08/20/97 | SDRO047 |

Lab ID: 9708169-02A

Sample ID: A118 #14 PIT #1 BOTTOM

Collected: 08/14/97 09:30:00

Matrix: SOIL

| Dampie ID:11110 111 111 | - 11 | | | | | |
|--------------------------------------------------------------------|----------------------------|-------------------------------------------|-----------------------------------------------|---------------------------------|----------------------------------------------------------|---------------------------------------------------------------|
| TEST / METHOD | RESULT | UNITS | LIMIT | D_F | DATE ANAL | BATCH_ID |
| BTEX/SW846 8020A Benzene Toluene Ethylbenzene P-&m-Xylene O-Xylene | ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg | 0.0050 0.0050 0.0050 0.010 0.0050 | 100 100 100 100 100 | 08/20/97 08/20/97 08/20/97 08/20/97 08/20/97 | SBTXME185 SBTXME185 SBTXME185 SBTXME185 SBTXME185 |



(); **ID:** 9708169-02B

Collected: 08/14/97 09:30:00

| Sample ID: A118 #14 PIT # | Matrix: SOIL | | | | | |
|--------------------------------------------------------------------|----------------------------|-------------------------------------------|-----------------------------------------------|---------------------------------|----------------------------------------------------------|---------------------------------------------------------------|
| rest / method | RESULT | UNITS | LIMIT | D_F | DATE ANAL | BATCH_ID |
| Diesel Range OG Soil/M8015 Diesel Range OG in Soil | 6800 | mg/Kg | 25 | 25 | 08/20/97 | SDRO047 |
| Lab ID: 9708169-03A Sample ID: A118 #14 PIT # | 2 SIDES | Collected: Matrix: SO | | 7 14 | :00:00 | |
| TEST / METHOD | RESULT | UNITS | LIMIT | D_F | DATE ANAL | BATCH_ID |
| BTEX/SW846 8020A Benzene Toluene Ethylbenzene P-&m-Xylene O-Xylene | ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg | 0.0050 0.0050 0.0050 0.010 0.0050 | 100 100 100 100 100 | 08/20/97 08/20/97 08/20/97 08/20/97 08/20/97 | SBTXME185 SBTXME185 SBTXME185 SBTXME185 SBTXME185 |
| Lab ID: 9708169-03B Sample ID: A118 #14 PIT # | 2 SIDES | Collected: Matrix: So | | 97 14 | :00:00 | |
| 3T / METHOD | RESULT | UNITS | LIMIT | D_F | DATE ANAL | BATCH_ID |
| Diesel Range OG Soil/M8015 Diesel Range OG in Soil | ND | mg/Kg | 25 | 25 | 08/20/97 | SDRO047 |
| Lab ID: 9708169-04A Sample ID: A118 #14 PIT # | ‡2 BOTTOM | Collected: Matrix: So | | 97 14 | :30:00 | |
| TEST / METHOD | RESULT | UNITS | LIMIT | D_F | DATE ANAL | BATCH_ID |
| BTEX/SW846 8020A Benzene Toluene Ethylbenzene P-&m-Xylene O-Xylene | ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg | 0.0050 0.0050 0.0050 0.010 0.0050 | 100 100 100 100 100 | 08/20/97 08/20/97 08/20/97 08/20/97 08/20/97 | SBTXME185 SBTXME185 SBTXME185 SBTXME185 SBTXME185 |
| Lab ID: 9708169-04B Sample ID: A118 #14 PIT : | #2 BOTTOM | Collected: Matrix: S | 08/14/ OIL | 97 14 | 1:30:00 | |
| TEST / METHOD | RESULT | UNITS | LIMIT | D_F | DATE ANAL | BATCH_ID |
| Diesel Range OG Soil/M8015 sel Range OG in Soil | ND | mg/Kg | 25 | 25 | 08/20/97 | SDRO047 |

WORKORDER COMMENTS

DATE : 08/22/97

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"

 $\overline{N}T$ = 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

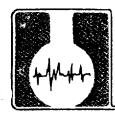
Detection Limit.

REPORT COMMENTS

1910 N. BIG SF ...NG MIDLAND, TEXAS 79705 (915) 570-1116 MELQUIADES ALANIS 6411 LOCAL UNO CIUDAD JUAREZ, CHIHUAHUA MEDGCO 32320 Stored over 30 days (additional fee) Disposed of (additional fee) Returned to customer Stored (30 days max) After analysis, samples are to be: Analysis Required Received by: Signature 3332 WEDGEWOOD EL PASO, TEXAS 79928 (915) 593-6000 Company 125-81-8 8 A.M -1 Chamical Project Manager / Contact __Jeff__Cross-Preservation Telephone No. (505) 774-6643 Retinquished by: Temp. Signature Company LABORATORY Printed_ Fax No. (505) 774-6624 Reason Type / Size of Container 40261055 Samplers: (Signature) Sample Type 1,00 00:6 Project Name / Number JICARILLA PIT CLOSURES 2% 3:5 E E Received by: Comments: Signature Reason 4118 ty P. 1th Sides 8-14-97 Date City/State/ZipEarmington, NM 87401 7,20g Alloty Pitta Bestem Client Apache Corporation Address 304 N. Behrend A119#14P, 1#1 Contract / Purchase Order / Quote 2A A 4 38 28 FRACTION

(505) 245-8964

クロダニ りこ くにくじいく しんくりょ



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) 593-7826-7219

Report Generated:

September 3, 1997 13:33

CERTIFICATE OF ANALYSIS RESULTS BY SAMPLE

SENT APACHE CORPORATION

TO: 304 N. BEHREND

FARMINGTON, NM 87401

ATTN: JEFF CROSS

WORKORDER # : 9708257

WORK ID : JICA

: JICARILLA PIT CLOSURES

CLIENT CODE : APA01 DATE RECEIVED : 08/27/97

Page: 1

Lab ID: 9708257-01A

Sample ID

Collected: 03/19/1/ 11:00:00

Matrix: SOIL

| TEST / METHOD | RESULT | UNITS | LIMIT D_F | DATE ANAL | BATCH_ID |
|--------------------------------------------------------------------|--------|-------------------------------------------|--------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------|
| BTEX/SW846 8020A Benzene Toluene Ethylbenzene P-&m-Xylene O-Xylene | | mg/kg mg/kg mg/kg mg/kg mg/kg | 0.0050 50 0.0050 50 0.0050 50 0.010 50 0.0050 50 | 09/02/97 09/02/97 09/02/97 09/02/97 09/02/97 | X97235 X97235 X97235 X97235 X97235 |

Lab ID: 9708257-01B

Sample ID STAR HILL ATT #3 SIDES

Collected: Collected:

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 | f or | mg/Kg | 25 25 | 08/28/97 | SDRO050 |

Lab ID: 9708257-02A

Sample ID ALL 8 #14 PIT #3 BOTTOM /

Collected: 08/19/97/11:30:00

Matrix: SOIL

| TEST / METHOD | RESULT | UNITS | LIMIT | D_F | DATE ANAL | BATCH_ID |
|--------------------------------------------------------------------|----------------------------------|-------------------------------------------|-----------------------------------------------|----------------------------|----------------------------------------------------------|------------------------------------------------|
| BTEX/SW846 8020A Benzene Toluene Ethylbenzene P-&m-Xylene O-Xylene | ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg | 0.0050 0.0050 0.0050 0.010 0.0050 | 50 50 50 50 50 | 09/02/97 09/02/97 09/02/97 09/02/97 09/02/97 | X97235 X97235 X97235 X97235 X97235 |



Page: 2

ID: 9708257-02B

Sample ID: #1- # ■ OTTOM

Collected: 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 | L | mg/Kg | 25 | 25 | 08/28/97 | SDRO050 | |

President

WORKORDER COMMENTS

DATE : 09/03/97

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



Client Apache Corporation

Address 304 N. Behrend

Chain of Cust dy Record

Page

Project Manager / Contact_Jeff_Cross

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

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

ALBUQUEROUE, NEW MEXICO 8 (505) 345-8964

MELQUIADES ALANIS 6411 LOCAL UNO CIUDAD JUAREZ, CHIHUAHUA MEXICO 32320

| _ | |
|-------------------|------|
| Analysis Required | |
| | 1 SS |

| Address 304 N. | 304 N. Behrend | | | Teleph | Telephone No. (505) 774-6643 | 4-6643 | | | <u> </u> | . (| Analysis | Analysis Required | ş. | | |
|---------------------------|---------------------------------------------------------------------|---------|-------|----------------|------------------------------|------------------------------|----------|-----------------------|----------------------------------------|----------|----------|-------------------|----|---------|------|
| City / State | City/State/ZipEarmington, NM 87401 | 7401 | | . Fax No | Fax No. (505) 774-6624 | 24 | | | | 50 | | | | * | |
| Project Nan | Project Name / NumberJICARILLA PIT CLOSURES Samplers: (Signature) _ | T CLOSI | IRES | Sample | rs: (Signature) | a medi | | \$10UJO | <u> </u> | | | | | Remerts | |
| Contract / P | Contract / Purchase Order / Quote | | | | | | | Juog 10 | 43) A | _ | \ _ | | | | ~"Zf |
| | | | | | | | | ~/ !o _N | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | _ | <u></u> | <u></u> | _ | | |
| AAL FRACTION MUMBER | Fleid Sample Number / Location | Deta | Time | Sample Type | Type / Size of Container | Preservation Temp. Chemic | Chemical | E . | 7 0 | <u></u> | <u></u> | <u></u> | _ | | |
| 14 | A118414 P. 1# 35.26.5 8-19-97 11:00 | 6-19-97 | 8:3 | 2 | C100 6/455 | İ | 20 | × | | | | | | | |
| (3) | 11 | | _ | | | | _ | | X | | | | | | |
| 2A | All8 Fy P.ft3 Bettem | | 11:30 | | | | - | × | | - | | | | | |
| SMZ | | | _ | | | | | | × | | | | | | |
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| Relinquished by: | Date | Received by: | Date Received by / 17 / |
|-----------------------|-------|-----------------------------------|--------------------------------------|
| Signature (leff (Lem) | 62262 | Signature Signature | 020 120 moory (200 120) |
| C DOLLOSS | 1111 | V | a contraction |
| 10000 | ηωe | Printed JCO 1/ YALL Printed JCD W | Time |
| company IT/ACLE (OIP. | 12:45 | Company AAL Company AAL | 7 3 Company |
| Reason | | Reason Reason | Reason |
| | | Affer | After analysis, samples are to be: |
| Method of Shipment: | | Comments: | Disposed of (additional fee) |
| Shipment No. | | | Stored (30 days max) |
| Special Instructions: | | | Stored over 30 days (additional fee) |
| | | | Returned to customer |

РП #3 \$30 E81 \$3 BBL Revised 6/2/97 MS 2 PIT 2 SEPARATOR 463 EBL 468 BEL P,+#1 LANDFARM 78'x 54'x 12" PUMP JACK | DIRECTION OF CRAINAGE 是二 用的

M W PETROLEUM, JICARILLA APACHE 118 NUMBER 14
Lease # JAT A118
NE/4 NW/4 00, SECTION 36, TOWNSHIP 26N, RANGE 3W
RID ARRIBA COUNTY, NEW MEXICO

Former Land Farm and Final Disposition

Final Disposition

See Control of the Con

N Scale I Inch Equals 50 Feet

WILLIAMS FIELD SERVICES
LANDFARM LOCATION MAP
Jicarilla Apache 118 Unit 14
Unit C Sec 36 Twn 26N Rng 3W
August 20, 1997

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>MW PETR</u> | OLUEM | | | Telephone | e | 505-325-0 |)318 | |
|--------------------------|----------------|---------------|-----------|-------------|---------------------------------------|-------------|------------|---------|
| Address: | 2855 SOUTHSID |)E RIV | ÆR ROAD | /SUITE A/ | FARMING | TON N.M. 8 | 37401-7947 | |
| Facility or Well Name: | JAT A | <u> 118</u> : | #14 CE | :LL | | | | |
| | /Qtr Sec | | SEC 36 | | R3W | _County | RIO ARRII | ВА |
| Land Type | JIC. TRIBAL | | | | | | | |
| Date Demodiation Charles | id: 6/4/ | 3/07 | | Date Com | npleted: | | 11/11/98 | |
| Date Remediation Starte | | J. U I | | _ | - | | | |
| Remediation Method: | Landfarmed | • | XXX | _Approx. c | cubic yards | | 160 | |
| | Composted | - | | - | | | | |
| | Other | - | | SOIL TO | BE PUT BA | CK IN PIT | | |
| | **** | | | | · · · · · · · · · · · · · · · · · · · | | | |
| Depth to Groundwater: | | (pts) | 0 | - | Final Clo | sure Samp | oling | |
| Distance to an Ephemer | al Stream: | (pts) | 0 | Sampling | g Date: | 11/11/98 | Time: | 12:20PM |
| Distance to Nearest Lak | e, Playa, | (pts) | | Sample F | Results: | | | |
| or Watering Pond: | | , | 0 | Field Heads | space (ppm) | 0 | | |
| Wellhead Protection Are | ∌a : | (pts) | 0 | _ | | n) ND | Method | M8015 |
| Distance To Surface Wa | ater: | (pts) | 0 | | | | | |
| RANKING SCORE (TO | TAL POINTS) | | 0 | Oth | eLRIEX / 8 | >vv846 , 80 | 20A (ND | , , |
| I HEREBY CERTIFY TH | | /ATIO | N ABOVE | IS TRUE | AND COMP | LETE TO 1 | THE BEST C | OF MY |
| KNOWLEDGE AND BE | | | | | | | | |
| DATE: | 11/25/98 | | PRINTED | NAME | | JEFF CF | ROSS | |
| SIGNATURE | lefflion | | TITLE | | PROJEC | T MANAG | ER | |
| AFTER REVIEW OF TH | E HOADILLA ADA | | TOIRE DIT | T CL OCLID | | NOF | | 1 |
| APPROVED: YES | s_ <u>></u> | NO | | _(REASO | N) use | as (| Bark | |
| SIGNED: | <u>CMa</u> | Δ | | | -28 | | | _ |

M W PETROLEUM/FARMINGTON DISTRICT SOIL REMEDIATIONS STATUS REPORT

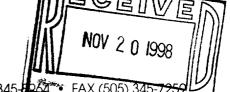
| REMEDIATION SITE | JAT A118 #14 | | _ | |
|-----------------------------------------|---------------------------------|-----------------------|--------------|-------------|
| * AMOUNT OF SOIL UNDERGO | OING REMEDIATION | 160 | Yds. | |
| | | SampDATE | TPH | BTEX |
| CELL No. 1 | | 6/10/98 | 4600 | ND |
| OLLE III | | 11/11/98 | NO | ND |
| DIMENSIONS(LxWxH) 78' | X 54' X 12" | 11/11/03 | 1 | 10.0 |
| ` , | | | | |
| CELL LOCATION (dir. from well head | NORTH | | | |
| | | | <u> </u> | ļ |
| * DATE BEGAN: <u>8/13/97</u> | | | 1 | |
| DATE TERMINATED (TPH <5,000 pp | om/BTEX< 50 ppm/Benzene < 10 pp | m) <u> - -9</u> ° | 8 | - |
| | | SampDATE | TPH | BTEX |
| CELL No. 2 | | Cumportic | | |
| | | | | |
| DIMENSIONS(LxWxH) | | | | |
| | | | | |
| CELL LOCATION (dir. from well head | | | ļ | |
| | | - | - | |
| * DATE BEGAN: | | | 1 | <u> </u> |
| DATE TERMINATED (TPH <5,000 pr | om/BTEX< 50 ppm/Benzene < 10 pp | m) | | |
| , , , , , , , , , , , , , , , , , , , , | | , | | - |
| | | SampDATE | TPH | BTEX |
| CELL No. 3 | | | | |
| | | | | |
| DIMENSIONS(LxWxH) | | | | |
| | | | | |
| CELL LOCATION (dir. from well head | <u> </u> | | ļ | |
| + DATE RECAN | | | | |
| * DATE BEGAN: | · | | 1 | 1 |
| DATE TERMINATED (TPH <5,000 p) | pm/BTEX< 50 ppm/Benzene < 10 pp | om) | | - |
| REMEDIATION RECORD: (Date, Tre | eatment, Tilling) | | | |
| 8/21/97 TREAT SOIL CELL WITH 46 | | ND TILL SOIL. | | |
| 4/23/98 PLOW AND TILL SOIL. | | | | |
| 5/17/98 PLOW AND TILL SOIL. | 9/4/98 WATER,P | PLOW AND TILL SOI | L. | |
| 6/3/98 WATER,PLOW AND TILL SO | IL. 9/24/98 PLOW A | ND TILL SOIL. | | |
| 6/8/98 PLOW AND TILL SOIL. | | | | |
| 7/13/98 WATER, PLOW AND TILL SO | OIL. | | | |
| 7/28/98 PLOW AND TILL SOIL. | | | | |
| 8/12/98 PLOW AND TILL SOIL | | | | |

From excavation reports.

| NOTES: | 0 | | 0 | WELL NAME: SAMPLE DATE: DIMENSIONS: |
|-------------------------------------------------------------------|--------|---|---|----------------------------------------------|
| ALL SAMPLES TAKEN 10" TO 12" INTO CELL. 11 POINT COMPOSITE SAMPLE | 0 | 0 | 0 | JAT A118 # 14 11/11/98 78' X 54' X 12" |
| O 12" INTO CELL. | | 0 | | |
| | 0 | | 0 | |
| | : : | 0 | | O = SAMI |
| | 0 | | 0 | = SAMPLE AREA |



ASSAIGAI ANALYTICAL LABORATORIES, INC.



7300 Jefferson, NE • Albuquerque, New Mexico 87109 • (505) 345 FAX (505) 34

3332 Wedgewood, E-5 • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820 127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-2558

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

| | * explanation of codes |
|-----|----------------------------------|
| В | analyte detected in Method Blank |
| E | result is estimated |
| Н | analyzed out of hold time |
| N | tentatively identified compound |
| s | subcontracted |
| 1-9 | see footnote |

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: A

Client

APACHE CORPORATION

Project: 9811108

A440 444

JICARILLA PIT CLOSURES

William P. Biava: President of Assaigai Analytical Laboratones, flic.

| Sample ID | A118 #1 | 4 (6 | <u></u> | | atrix SUIL | | | | Collected | 12:20:00 |
|-------------|----------|----------|-------------------------------|------------------|--------------|---------------|--------------|---|----------------|-------------|
| | | | | | | Dilution | Detection | | | Run |
| Fraction | QC Group | CAS# | | Result | <u>Units</u> | <u>Factor</u> | <u>Limit</u> | * | Sequence | <u>Date</u> |
| | | | Test: SW846 8010B/8020A Purge | able VOCs by GC | /PID-ELCD | | | | _ | |
| 9811108-01A | X98513 | 71-43-2 | Benzene | ND | mg / Kg | 250 | 0.005 | | XG.1998.996-16 | 11/13/98 |
| | X98513 | 100-41-4 | Ethylbenzene | ND | mg / Kg | 250 | 0.005 | | XG.1998.996-16 | |
| | X98513 | 95-47-6 | o-Xylene | ND | mg / Kg | 250 | 0.005 | | XG.1998.996-16 | |
| | X98513 | | P/M-Xylenes | ND | mg / Kg | 250 | 0.01 | | XG.1998.996-16 | |
| | X98513 | 108-88-3 | Toluene | ND | mg/Kg | 250 | 0.005 | | XG.1998.996-16 | |
| | | | Test: SW846 8015A Diesel Rang | e Organics by GC | :/FID | | | | | |
| 9811108-01B | X98516 | | Diesel Range Organics | ND | mg / Kg | 20 | 25 | | XG.1998.1009-3 | 11/16/98 |

Sample

COIL

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

*** Results relate only to the items tested. ***





11/11/98

Sample

ANALYTICAL LABORATORIES, INC.

Client Apache Corporation

Chain of Custody Record

Project Manager/Contact Jeff Cross

7300 JEFFEHSUN, R.E.
ALBUQUERQUE, REW MEXICO 87109
(505) 345-8964

3332 WEDGEWOOD EL PASO, 1EXAS 79925 (915) 593-6000

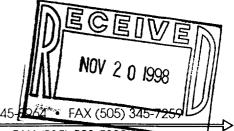
| Address 2855 Southside River RD | RD, Ste. ATelephone No. (505) 774-6643 | Analysis Required |
|------------------------------------------|---------------------------------------------------------|------------------------------------|
| City/State/Zip Farmington, NM 87401-7947 | 401-7947 Fax No. (505) 774-6624 | |
| Project Name / Number | Samplers: (Signature) Hanny Marth | |
| Confract / Purchase Order / Quote | | NOTE OF THE OWN |
| Frachion Sample Number / Location F | Date Time Sample Type / Size of Contained Temp Chemical | |
| N 4118#14 | 1/11/98 12:20 Soil 4 07 alass Ice | 2 |
| 10 4/184/14 | 150 11 4 0z a lass |) |
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| inquished by | | Date Received by: |
| ignarure Hamilton Britis 11/11/9 | Jan D. Albert | 11.2.00 Signature |
| Hoofite Cons | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Time |
| ompany | 1000 + 100 | Company Company |
| | Hear | Reason |
| ethod of Shiomens | | After analysis, samples are to be: |
| Nipment No. | Commercia | Stored (30 days may) |
| pecial instructions. | | |
| perial field of 10013. | | Stored over 30 days (ad iee) |
| | | Returned to customer |

LABORATORY

| WELL NAME: SAMPLE DATE: | JAT A118 # 14 11/11/98 | | = SAMPLE AREA |
|----------------------------|----------------------------------------------------------------------|------|---------------|
| DIMENSIONS: | 78' X 54' X 12" | _ | |
| 0 | 0 | 0 | 0 |
| | 0 | | 0 |
| 0 | 0 | Ο | Ο |
| NOTES: | ALL SAMPLES TAKEN 10" TO 12" INTO CELL. 11 POINT COMPOSITE SAMPLE | ill. | |
| | | | |
| | | | |
| | | | |



ASSAIGAI ANALYTICAL LABORATORIES, INC.



7300 Jefferson, NE • Albuquerque, New Mexico 87109 • (505) 345- FAX (505) 345

3332 Wedgewood, E-5 • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820 127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-2558

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

| | * explanation of codes |
|----|----------------------------------|
| 3 | analyte detected in Method Blank |
| E | result is estimated |
| Н | analyzed out of hold time |
| N | tentatively identified compound |
| S | subcontracted |
| -9 | see footnote |

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client:

APACHE CORPORATION

Project: 9811108

JICARILLA PIT CLOSURES

M Mas Labora

| Client Sample ID | A118 #1 | 4 CE | ட | Sar Ma | mple SOIL | | | | Sample Collected | 11/11/98 12:20:00 |
|---------------------|----------|----------|------------------------------|-------------------|--------------|---------------|-----------|----|---------------------|----------------------|
| | | | , | | | Dilution | Detection | ı. | | Run |
| <u>Fraction</u> | QC Group | CAS# | | Result | <u>Units</u> | <u>Factor</u> | Limit | * | Sequence | Date |
| | | | Test: SW846 8010B/8020A Purg | eable VOCs by GC/ | PID-ELCD | | | | | |
| 9811108-01A | X98513 | 71-43-2 | Benzene | ND | mg/Kg | 250 | 0.005 | | XG.1998.996-16 | 11/13/98 |
| | X98513 | 100-41-4 | Ethylbenzene | ND | mg / Kg | 250 | 0.005 | _ | XG.1998.996-16 | |
| | X98513 | 95-47-6 | o-Xylene | ND | mg / Kg | 250 | 0.005 | | XG.1998.996-16 | |
| | X98513 | | P/M-Xylenes | ND | mg / Kg | 250 | 0.01 | | XG.1998.996-16 | |
| | X98513 | 108-88-3 | Toluene | ND | mg / Kg | 250 | 0.005 | | XG.1998.996-16 | |
| | | | Test: SW846 8015A Diesel Ran | ge Organics by GC | /FID | | | | | |
| 9811108-01B | X98516 | | Diesel Range Organics | ND | mg / Kg | 20 | 25 | | XG.1998.1009-3 | 11/16/98 |



11/11/98

2.0

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



Chain of Custody Record

ALBUQUERQUE, NEW MEXICO 87109 (505) 345-8964

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

| Address 2855 Southside River RD. Ste Atelanham (505) 774 6643 | Client Apache Corporation Project Manager/Contact Jeff Cross | Pageofof |
|---------------------------------------------------------------|--------------------------------------------------------------|----------|
| | | |

| | i returned to customer | | |
|------------|------------------------------------|---------------------------------------------------------------------|----------------|
| • | | | |
| ice) | [] Stored over 30 days (ad | | |
| | Stored (30 days max) | Special Instructions: | Specialin |
| | | | Shipment No. |
| | After analysis, samples are to be: | Method of Shipment:Comments | Method of |
| | Reason_ | Hea Taylor Resson | |
| | Company | Company | Reason |
| | Time Printed | APPLANE CORP TIME Printed Printed | Company |
| 7 | 11.12.Co Signature Cer | DANKU BUTTON 1/1/198 Signature Dank Signature Signature | Printed |
| | Date Received by: | Received by: | Signature |
| - > | | Date | Relinguished b |
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| | | THE THE WILLIAM SOIT A DI DIES ICE | |
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