

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

OK - 1310 W
BT650
OK - Sep
SUBMIT 1 COPY TO
NATURAL RESOURCE DEPT
AND OIL & GAS ADMINISTRATION

RECEIVED
AUG 09 1999

**OIL CONTAMINATION DIV.
PIT REMEDIATION AND CLOSURE REPORT**

Operator: AMOCO PRODUCTION COMPANY Telephone: (505) 326-9200
Address: 200 Amoco Court, Farmington, NM 87401
Facility or Well Name: JICARILLA APACHE # 102 - 29A
Location: Unit or Qtr/Qtr Sec C Sec 9 T 26N R 4W County RIO ARriba
Pit Type: Separator Dehydrator Other BLOW
Land Type: RANGE

Pit Location: (Attach diagram) Pit dimensions: length 38', width 34', depth 5'
Reference: wellhead X, other
Footage from reference: 138'
Direction from reference: 73 Degrees East of North X
X West South

| | | | |
|---|------------------------|-------------|----------|
| Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater) | Less than 50 feet | (20 points) | <u>0</u> |
| | 50 feet to 99 feet | (10 points) | |
| | Greater than 100 feet | (0 points) | |
| Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width) | Less than 100 feet | (10 points) | <u>0</u> |
| | Greater than 100 feet | (0 points) | |
| Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds) | Less than 100 feet | (10 points) | <u>0</u> |
| | Greater than 100 feet | (0 points) | |
| 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>0</u> |
| | No | (0 points) | |
| Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches) | Less than 100 feet | (20 points) | <u>0</u> |
| | 100 feet to 1000 feet | (10 points) | |
| | Greater than 1000 feet | (0 points) | |

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: _____ Date Completed: 10/5/98
 Remediation Method: Excavation ☒ Approx. cubic yards 200
 Check all appropriate sections) Landfarmed ☒ Insitu Bioremediation _____
 Other _____

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

General Description of Remedial Action: Excavation, BEDROCK BOTTOM.

Groundwater Encountered: No ☒ Yes _____ Depth _____

Final Pit: Sample location see Attached Documents
 Closure Sampling: _____
 (if multiple samples, attach sample results and diagram of sample locations and depths)
 Sample depth 3' (WEST SIDEWALL)
 Sample date 10/5/98 Sample time 0930

Sample Results

| | | | | | |
|-----------------|-------|------------|----------------|-------|-------|
| Soil: Benzene | (ppm) | _____ | Water: Benzene | (ppb) | _____ |
| Total BTEX | (ppm) | _____ | Toluene | (ppb) | _____ |
| Field Headspace | (ppm) | <u>0.0</u> | Ethylbenzene | (ppb) | _____ |
| TPH | (ppm) | <u>ND</u> | Total Xylenes | (ppb) | _____ |

Groundwater Sample: Yes _____ No ☒ (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 10/5/98 PRINTED NAME Buddy D. Shaw
 SIGNATURE Buddy D. Shaw AND TITLE Environmental Coordinator

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

APPROVED: YES ☒ NO _____ (REASON) _____

SIGNED: Ken C Mando DATE: 12-28-98

3003922931

| CLIENT: <u>AMOCO</u> | BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199 | LOCATION NO: <u>BT650</u> C.D.C. NO: _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|------------|---------------------------|----------|------------|-----------|----------|---------|-----------|--------|--------|----------|-----|----|-----|---|----|--|--|--|--|-----------|----------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| FIELD REPORT: CLOSURE VERIFICATION | | PAGE No: <u>1</u> of <u>1</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LOCATION: NAME: <u>JICA AP. 102</u> WELL #: <u>Z9A</u> PIT: <u>BLow</u> QUAD/UNIT: <u>C SEC: 9</u> TWP: <u>26N</u> RNG: <u>4W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u> QTR/FOOTAGE: <u>910' ENL / 1740' FWL</u> CONTRACTOR: <u>P+S</u> | | DATE STARTED: <u>10/5/98</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NV</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EXCAVATION APPROX. <u>38</u> FT. x <u>34</u> FT. x <u>5</u> FT. DEEP. CUBIC YARDAGE: <u>200</u> DISPOSAL FACILITY: <u>ON-SITE</u> REMEDIATION METHOD: <u>LANDFARM</u> LAND USE: <u>RANGE</u> LEASE: <u>JIC 102</u> FORMATION: <u>MV</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>138</u> FT. <u>N73W</u> FROM WELLHEAD. DEPTH TO GROUNDWATER: <u>>100'</u> NEAREST WATER SOURCE: <u>>1000'</u> NEAREST SURFACE WATER: <u>>1000'</u> NMOCB RANKING SCORE: <u>0</u> NMOCB TPH CLOSURE STD: <u>5000</u> PPM SOIL AND EXCAVATION DESCRIPTION: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SIDEWALLS - VERY PALE TO DK. YELL. ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST FIRM, NO APPARENT STAINING OBSERVED, NO APPARENT HC ODOR DETECTED WHP EXCAVATION OR IN ANY OF THE OVM SAMPLES. BOTTOM - BEDROCK (SANDSTONE), OLIVE GRAY IN COLOR, VERY HARD, NO APPARENT HC ODOR IN OVM SAMPLE. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><u>BEDROCK BOTTOM</u></p> <p>SCALE</p> <p>0 FT</p> </div> <div style="width: 30%;"> <p>FIELD 418.1 CALCULATIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>TIME</th> <th>SAMPLE I.D.</th> <th>LAB No:</th> <th>WEIGHT (g)</th> <th>mL. FREON</th> <th>DILUTION</th> <th>READING</th> <th>CALC. ppm</th> </tr> </thead> <tbody> <tr> <td>0930</td> <td>④ @ 3'</td> <td>TPH-2046</td> <td>5</td> <td>20</td> <td>1:1</td> <td>3</td> <td>ND</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> </div> <div style="width: 35%;"> <p><u>CLOSED</u></p> <p>PIT PERIMETER</p> </div> </div> | | | TIME | SAMPLE I.D. | LAB No: | WEIGHT (g) | mL. FREON | DILUTION | READING | CALC. ppm | 0930 | ④ @ 3' | TPH-2046 | 5 | 20 | 1:1 | 3 | ND | | | | | | | | | | | | | | | | | | | | | | |
| TIME | SAMPLE I.D. | LAB No: | WEIGHT (g) | mL. FREON | DILUTION | READING | CALC. ppm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0930 | ④ @ 3' | TPH-2046 | 5 | 20 | 1:1 | 3 | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>OVM RESULTS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>SAMPLE ID</th> <th>FIELD HEADSPACE PID (ppm)</th> </tr> </thead> <tbody> <tr><td>1 @ 2'</td><td>0.0</td></tr> <tr><td>2 @ 2'</td><td>0.0</td></tr> <tr><td>3 @ 2'</td><td>0.0</td></tr> <tr><td>4 @ 3'</td><td>0.0</td></tr> <tr><td>5 @ 5'</td><td>0.0</td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table> </div> <div style="width: 35%;"> <p>LAB SAMPLES</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>SAMPLE ID</th> <th>ANALYSIS</th> <th>TIME</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> </div> <div style="width: 30%;"> <p>PIT PROFILE</p> </div> </div> | | | SAMPLE ID | FIELD HEADSPACE PID (ppm) | 1 @ 2' | 0.0 | 2 @ 2' | 0.0 | 3 @ 2' | 0.0 | 4 @ 3' | 0.0 | 5 @ 5' | 0.0 | | | | | | | | | SAMPLE ID | ANALYSIS | TIME | | | | | | | | | | | | | | | |
| SAMPLE ID | FIELD HEADSPACE PID (ppm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 @ 2' | 0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 @ 2' | 0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 @ 2' | 0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 @ 3' | 0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 @ 5' | 0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| SAMPLE ID | ANALYSIS | TIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TRAVEL NOTES: CALLOUT: <u>9/29/98</u> ONSITE: <u>10/5/98 - morn.</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

BLAGG ENGINEERING, INC.
P.O. Box 87, Bloomfield, New Mexico 87413
Phone: (505)632-1199 Fax: (505)632-3903

**FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS**

| | | | |
|--------------------|-------------------------------|----------------|----------|
| Client: | Amoco | Project #: | |
| Sample ID: | 4 @ 3' | Date Analyzed: | 10-05-98 |
| Project Location: | Jicarilla Apache # 102 - 29 A | Date Reported: | 10-05-98 |
| Laboratory Number: | TPH-2046 | Sample Matrix: | Soil |

| Parameter | Result, mg/kg | Detection Limit, mg/kg |
|---|---------------|---------------------------|
| Total Recoverable Petroleum Hydrocarbons | ND | 20 |

ND = Not Detectable at stated detection limits.


| QA/QC: | QA/QC Sample TPH mg/kg | Duplicate TPH mg/kg | % *Diff. |
|--------|---------------------------|------------------------|-------------|
| | 236 | 220 | 7.02 |

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Blow Pit - BJ650


Analyst


Review

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

Field TPH-Worksheet

Max Characters:

Client:

Sample ID:

Project Location:

Laboratory Number:

Amoco

4 @ 3'

Jicarilla Apache # 102 - 29 A

TPH-2046

Project #:

Date Analyzed:

Date Reported:

Sample Matrix:

10-05-98

10-05-98

Soil

Sample Weight:

5.00 grams

Volume Freon:

20.00 mL

Dilution Factor:

1 (unitless)

TPH Reading:

3 mg/kg

TPH Result:

12.0 mg/kg

Reported TPH Result:

12 mg/kg

Actual Detection Limit:

20.0 mg/kg

Reported Detection Limit:

20 mg/kg

QA/QC:

Original
TPH mg/kg

Duplicate
TPH mg/kg

%
Diff.

236

220

7.02

Comments:

*****Max Characters*****

Comments:

Blow Pit - BJ650

BJ650

SUBMIT 1 COPY TO
NATURAL RESOURCE DEPT
AND OIL & GAS ADMINISTRATION

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

PIT REMEDIATION AND CLOSURE REPORT

Operator: AMOCO PRODUCTION COMPANY Telephone: (505) 326-9200
Address: 200 Amoco Court, Farmington, NM 87401
Facility or Well Name: JICARILLA APACHE #102 - 29A
Location: Unit or Qtr/Qtr Sec C Sec 9 T 26N R 4W County Rio ARRIJA
Pit Type: Separator X Dehydrator Other
Land Type: RANGE

Pit Location: Pit dimensions: length 19', width 24', depth 5'
(Attach diagram) Reference: wellhead X, other
Footage from reference: 110'
Direction from reference: 75 Degrees X East of North
 West of South X

| | | | |
|--|---|--|----------|
| Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater) | Less than 50 feet 50 feet to 99 feet Greater than 100 feet | (20 points) (10 points) (0 points) | <u>0</u> |
| Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width) | Less than 100 feet Greater than 100 feet | (10 points) (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 Greater than 100 feet | (10 points) (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 No | (20 points) (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 100 feet to 1000 feet Greater than 1000 feet | (20 points) (10 points) (0 points) | <u>0</u> |

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: _____ Date Completed: 10/7/98
Remediation Method: Excavation ☒ Approx. cubic yards 50
Check all appropriate sections) Landfarmed ☒ Insitu Bioremediation _____
Other _____
Remediation Location: Onsite ☒ Offsite _____
(i.e. landfarmed onsite, name and location of offsite facility)
General Description of Remedial Action: Excavation - BEDROCK BOTTOM.
Groundwater Encountered: No ☒ Yes _____ Depth _____

Final Pit: Sample location see Attached Documents
Closure Sampling: _____
(if multiple samples, attach sample results and diagram of sample locations and depths)
Sample depth 3' (NORTH SIDEWALL)
Sample date 10/5/98 Sample time 1100
Sample Results

| | | | | | |
|-----------------|-------|--------------|----------------|-------|-------|
| Soil: Benzene | (ppm) | <u>0.285</u> | Water: Benzene | (ppb) | _____ |
| Total BTEX | (ppm) | <u>9.060</u> | Toluene | (ppb) | _____ |
| Field Headspace | (ppm) | <u>371</u> | Ethylbenzene | (ppb) | _____ |
| TPH | (ppm) | <u>235</u> | Total Xylenes | (ppb) | _____ |

Groundwater Sample: Yes _____ No ☒ (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 10/7/98 PRINTED NAME Buddy D. Shaw
SIGNATURE Buddy D. Shaw AND TITLE Environmental Coordinator

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

APPROVED: YES ☒ NO _____ (REASON) _____

SIGNED: Ken C Mamm DATE: 12-28-98

| | | |
|----------------------|--|---|
| CLIENT: <u>AMOCO</u> | BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199 | LOCATION NO: <u>8J650</u> C.D.C. NO: <u>6284</u> |
|----------------------|--|---|

| | | |
|--|--|--|
| FIELD REPORT: CLOSURE VERIFICATION | | PAGE No: <u>1</u> of <u>1</u> |
| LOCATION: NAME: <u>JICA. AP. 102</u> WELL #: <u>29A</u> PIT: <u>SEP</u> | | DATE STARTED: <u>10/5/98</u> DATE FINISHED: _____ |
| QUAD/UNIT: <u>C</u> SEC: <u>9</u> TWP: <u>26N</u> RNG: <u>4W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u> | | ENVIRONMENTAL SPECIALIST: <u>NV</u> |
| QTR/FOOTAGE: <u>910' FWL (1740' FWL)</u> CONTRACTOR: <u>P+S</u> | | |

| | |
|---|--|
| EXCAVATION APPROX. <u>19</u> FT. x <u>24</u> FT. x <u>5</u> FT. DEEP. | CUBIC YARDAGE: <u>50</u> |
| DISPOSAL FACILITY: <u>ON-SITE</u> | REMEDIATION METHOD: <u>LANDFARM</u> |
| LAND USE: <u>RANGE</u> | LEASE: <u>JIC 102</u> FORMATION: <u>MV</u> |

| | |
|------------------------------------|--|
| FIELD NOTES & REMARKS: | PIT LOCATED APPROXIMATELY <u>110</u> FT. <u>57SE</u> FROM WELLHEAD. |
| DEPTH TO GROUNDWATER: <u>2100'</u> | NEAREST WATER SOURCE: <u>21000'</u> NEAREST SURFACE WATER: <u>21000'</u> |
| NMOCB RANKING SCORE: <u>0</u> | NMOCB TPH CLOSURE STD: <u>5000</u> PPM |
| SOIL AND EXCAVATION DESCRIPTION: | |

| |
|--|
| CHECK ONE: |
| <input checked="" type="checkbox"/> PIT ABANDONED |
| <input type="checkbox"/> STEEL TANK INSTALLED |
| <input type="checkbox"/> FIBERGLASS TANK INSTALLED |

SIDEWALLS - MOSTLY VERY PALE TO DR. YEL. ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO NOTICEABLE STAINING OBSERVED IN SOIL PORTION, BOTTOM 2' CONSISTED OF BEDROCK WHICH CONTAINED LT. GRAY DISCOLORATION W/ SLIGHT HC ODOR DETECTED NEAR SIDEWALLS, SLIGHT HC ODOR DETECTED W/IN EXCAVATION, STRONG HC ODOR IN ALL OVM SAMPLES EXCEPT SOUTH SIDEWALL.

BOTTOM - BEDROCK (SANDSTONE), MED. TO DR. GRAY IN COLOR, VERY HARD, HC ODOR DETECTED IN OVM SAMPLE.

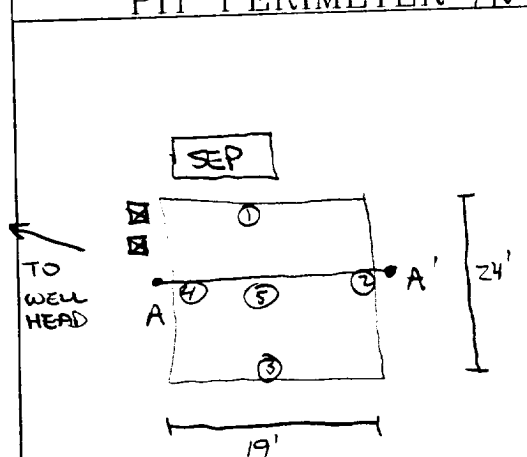
BEDROCK
BOTTOM

SCALE
0 FT

FIELD 418.1 CALCULATIONS

| TIME | SAMPLE I.D. | LAB No: | WEIGHT (g) | mL. FREON | DILUTION | READING | CALC. ppm |
|------|-------------|---------|------------|-----------|----------|---------|-----------|
| | | | | | | | |
| | | | | | | | |
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PIT PERIMETER

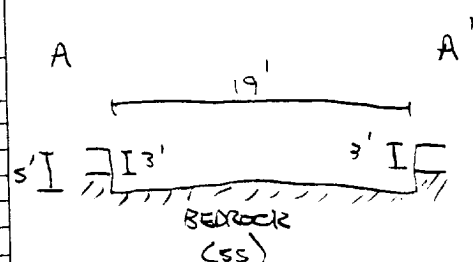


OVM RESULTS

| SAMPLE ID | FIELD HEADSPACE PID (ppm) |
|-----------|---------------------------|
| 1 @ 3' | 371 |
| 2 @ 3' | 133.7 |
| 3 @ 3' | 0.0 |
| 4 @ 3' | 258 |
| 5 @ 5' | 115.9 |

| SAMPLE ID | ANALYSIS | TIME |
|---------------|----------|------|
| ① @ 3' | TPH/STX | 1100 |
| BOTH - PASSED | | |

PIT PROFILE



TRAVEL NOTES: CALLOUT: 9/29/98 ONSITE: 10/5/98-MORN.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

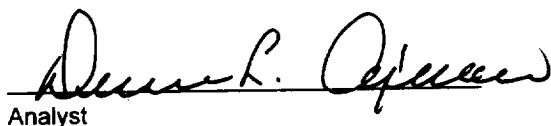
| | | | |
|----------------------|-----------------|---------------------|----------|
| Client: | Blagg / AMOCO | Project #: | 04034-10 |
| Sample ID: | 1 @ 3' | Date Reported: | 10-07-98 |
| Laboratory Number: | E031 | Date Sampled: | 10-05-98 |
| Chain of Custody No: | 6284 | Date Received: | 10-07-98 |
| Sample Matrix: | Soil | Date Extracted: | 10-07-98 |
| Preservative: | Cool | Date Analyzed: | 10-07-98 |
| Condition: | Cool and Intact | Analysis Requested: | 8015 TPH |

| Parameter | Concentration (mg/Kg) | Det. Limit (mg/Kg) |
|------------------------------|--------------------------|--------------------------|
| Gasoline Range (C5 - C10) | 115 | 0.2 |
| Diesel Range (C10 - C28) | 120 | 0.1 |
| Total Petroleum Hydrocarbons | 235 | 0.2 |

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Jicarilla Apache #102 - 29A Separator Pit.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

| | | | |
|--------------------|---------------|---------------------|----------|
| Client: | Blagg / AMOCO | Project #: | 04034-10 |
| Sample ID: | 1 @ 3' | Date Reported: | 10-07-98 |
| Laboratory Number: | E031 | Date Sampled: | 10-05-98 |
| Chain of Custody: | 6284 | Date Received: | 10-07-98 |
| Sample Matrix: | Soil | Date Analyzed: | 10-07-98 |
| Preservative: | Cool | Date Extracted: | 10-07-98 |
| Condition: | Cool & Intact | Analysis Requested: | BTEX |

| Parameter | Concentration (ug/Kg) | Det. Limit (ug/Kg) |
|--------------|--------------------------|--------------------------|
| Benzene | 285 | 8.8 |
| Toluene | 757 | 8.4 |
| Ethylbenzene | 600 | 7.6 |
| p,m-Xylene | 5,030 | 10.8 |
| o-Xylene | 2,390 | 5.2 |
| Total BTEX | 9,060 | |

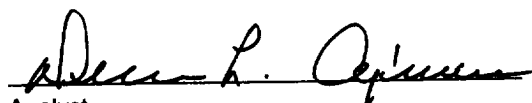
ND - Parameter not detected at the stated detection limit.


| Surrogate Recoveries: | Parameter | Percent Recovery |
|-----------------------|--------------------|------------------|
| | Trifluorotoluene | 99 % |
| | Bromofluorobenzene | 99 % |

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Jicarilla Apache #102 - 29A Separator Pit.


Analyst


Review

6284

[illegible]

123030

**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>AMOCO PRODUCTION COMPANY</u> Telephone: <u>(505) 326-9200</u> | |
| Address: <u>200 Amoco Court, Farmington, NM 87401</u> | |
| Facility or Well Name: <u>JICARILLA APACHE 102-29A</u> | |
| Location: Unit or Qtr/Qtr Sec <u>C</u> Sec <u>9</u> T <u>26N</u> R <u>4W</u> County <u>RIO ARriba</u> | |
| Land Type: <u>RANGE</u> | |
| Date Remediation Started: <u>10.5.98</u> Date Completed: <u>4/19/99</u> | |
| Remediation Method: Landfarmed <input checked="" type="checkbox"/> Approx. cubic yards <u>250</u> | |
| Composted <input type="checkbox"/> | |
| Other <input type="checkbox"/> | |
| Depth To Groundwater: (pts.) <u>0</u> | Final Closure Sampling: |
| Distance to an Ephemeral Stream (pts.) <u>0</u> | Sampling Date: <u>4.15.99</u> Time: <u>1350</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>0.0</u> |
| Distance To SurfaceWater: (pts.) <u>0</u> | TPH (ppm) <u>2.7</u> Method <u>TPH (8015)</u> |
| RANKING SCORE (TOTAL POINTS): <u>0</u> | Other <input type="checkbox"/> |
| I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEGE AND BELIEF | |
| DATE <u>4/19/99</u> PRINTED NAME <u>Buddy D. Shaw</u> | |
| SIGNATURE <u>Buddy D. Shaw</u> AND TITLE <u>Environmental Coordinator</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 <input checked="" type="checkbox"/> NO <input type="checkbox"/> (REASON) _____ | |
| SIGNED: <u>Kee C Mando</u> DATE: <u>6-18-99</u> | |

| | | |
|----------------------|--|---|
| CLIENT: <u>AMOCO</u> | BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199 | LOCATION NO: <u>RJ650</u> C.D.C. NO: <u>0887</u> |
|----------------------|--|---|

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

| | |
|---|--------------------------------------|
| LOCATION: NAME: <u>SICARILLA APACHE 102 WELL # 29A</u> PITS: <u>SEP, BLOW</u> | DATE STARTED: <u>4-15-99</u> |
| QUAD/UNIT: <u>C SEC: 9 TWP: 26N RNG: 4W PM: NM CNTY: RA ST: NM</u> | DATE FINISHED: _____ |
| CTP/FOOTAGE: <u>NE/4 NW/4</u> CONTRACTOR: <u>P+S</u> | ENVIRONMENTAL SPECIALIST: <u>REP</u> |

SOIL REMEDIATION:

REMEDICATION SYSTEM: LANDFARM APPROX. CUBIC YARDAGE: 250
 LAND USE: RANGE LIFT DEPTH (ft): 1'

FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
 NMOC BANKING SCORE: 0 NMOC TPH CLOSURE STD: 5000 PPM

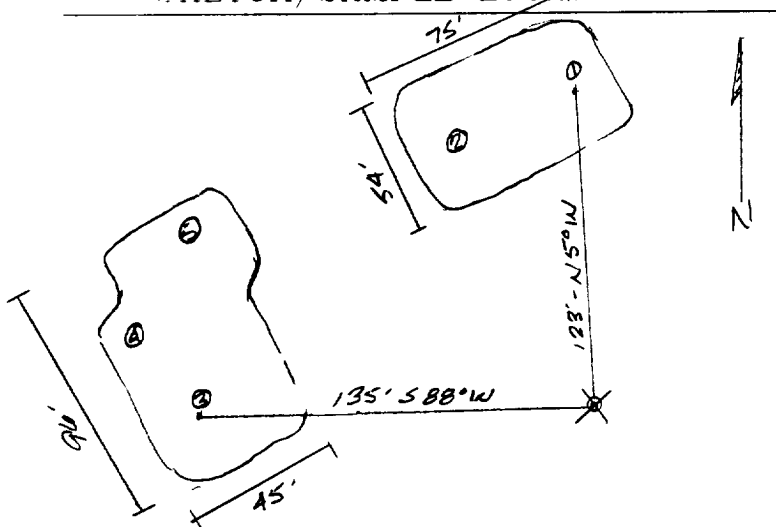
DK YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM.
 NO APPARENT STAINING, NO HC ODOR DETECTED. SAMPLING DEPTHS
 RANGE FROM 4" - 8". TOOK A SPT COMPOSITE SAMPLE FOR LAB ANALYSIS.

CLOSED

FIELD 418.1 CALCULATIONS

| SAMP. TIME | SAMPLE I.D. | LAB No: | WEIGHT (g) | mL. FREON | DILUTION | READING | CALC. ppm |
|------------|-------------|---------|------------|-----------|----------|---------|-----------|
| | | | | | | | |
| | | | | | | | |
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SKETCH/SAMPLE LOCATIONS



OVM RESULTS

LAB SAMPLES

| SAMPLE ID | FIELD HEADSPACE PID (ppm) | SAMPLE ID | ANALYSIS | TIME | RESULTS |
|-----------|---------------------------|-----------|------------|------|---------|
| LF-1 | 0.0 | LF-1 | TPH (8015) | 1350 | 2.7 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

SCALE

0 FT

TRAVEL NOTES: CALLOUT: N/A ONSITE: 4-15-99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

| | | | |
|----------------------|-----------------|---------------------|----------|
| Client: | Blagg / AMOCO | Project #: | 403410 |
| Sample ID: | LF - 1 | Date Reported: | 04-19-99 |
| Laboratory Number: | F055 | Date Sampled: | 04-15-99 |
| Chain of Custody No: | 6891 | Date Received: | 04-16-99 |
| Sample Matrix: | Soil | Date Extracted: | 04-16-99 |
| Preservative: | Cool | Date Analyzed: | 04-19-99 |
| Condition: | Cool and Intact | Analysis Requested: | 8015 TPH |

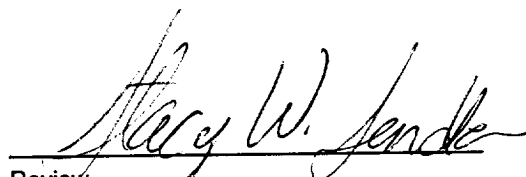
| Parameter | Concentration (mg/Kg) | Det. Limit (mg/Kg) |
|------------------------------|--------------------------|--------------------------|
| Gasoline Range (C5 - C10) | 2.2 | 0.2 |
| Diesel Range (C10 - C28) | 0.5 | 0.1 |
| Total Petroleum Hydrocarbons | 2.7 | 0.2 |

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Jicarilla Apache 102 - 29A Landfarm. 5 Pt. Composite.


Analyst


Review

6891

[illegible]