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

NATURAL RESOURCE DEPT

AND OIL & GAS ADMINISTRATION

PIT REMEDIATION AND CLOSURE REPORT

| | OIL COM. DIV. |
|---|--|
| Operator: AMOCO PRODUCTION COMPANY | DIST。3 Telephone: (505)326-9200 |
| Address: 200 Amoco Court, Farmington, | NM 87401 |
| Facility or Well Name: TICALILLA CONTR | Rei # 155 -19 |
| Location: Unit or Qtr/Qtr Sec A Sec 29 | |
| Pit Type: Separator Dehydrator Other_ | BLOW |
| Land Type: RANGE | |
| (Attach diagram) Reference: wellhead X Footage from reference: 3 | 46' , width 50' , depth 17' , other |
| Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater) | Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 points) |
| Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width) | Less than 100 feet (10 points) Greater than 100 feet (0 points) |
| Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds) | Less than 100 feet (10 points) 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) No (0 points) |
| Distance To SurfaceWater: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches) | Less than 100 feet (20 points) 100 feet to 1000 feet (10 points) Greater than 1000 feet (0 points) |
| | RANKING SCORE (TOTAL POINTS): Z |

BJ464/ BWW PIT

| Date Remediation Started: | Date Completed: 10/23/96 |
|--|---|
| mediation Method: Excavation | Approx. cubic yards /200 |
| eck all appropriate Landfarmed | Insitu Bioremediation |
| Other | |
| (i.e. landfarmed onsite, | |
| General Description of Remedial Action: Excavation | |
| Groundwater Encountered: No X Yes | Depth |
| Final Pit: Sample location see Attached E Closure Sampling: (if multiple samples, | ocuments |
| 1 | |
| locations and depths) Sample date | |
| Sample Results | 1 |
| Soil: Benzene (ppm) | Water: Benzene (ppb) |
| Total BTEX (ppm) | Toluene (ppb) |
| | Ethylbenzene (ppb) |
| TPH (ppm) | |
| Groundwater Sample: Yes No (If | yes, attach sample results) |
| I HEREBY CERTIFY THAT THE INFORMATION ABOVE KNOWLEGE AND BELIEF | IS TRUE AND COMPLETE TO THE BEST OF MY |
| DATE /0/23/96 PRINTED NAM | IE Buddy D. Shaw |
| SIGNATURE Sully D. Show AND TITLE | Environmental Coordinator |
| AFTER REVIEW OF THE PIT CLOSURE INFORMATION, TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORD | PIT CLOSURE IS APPROVED IN ACCORDANCE INANCE. |
| APPROVED: YES X NO (REASON) | |
| SIGNED: Lew C. Mand DATE: | 11-5-96 |

| CLIENT: AMOCO P.O. BOX | AGG ENGINEERING, IN 87, BLOOMFIELD, NN (505) 632-1199 | NC. M 87413 | C.O.C. NO: |
|---|---|----------------|---|
| FIELD REPORT: CL | OSURE VERIFIC | ATION | PAGE No: of |
| LOCATION: NAME: JICARILLA CONTRACT QUAD/UNIT: A SEC: Z9 TWP: Zらん | RNG: 5W PM: NM CNTY: | PA ST: NM | DATE STARTED: |
| QTR/FOOTAGE: NE/4 NE/4 | CONTRACTOR: P+5 | | |
| EXCAVATION APPROX. 46 FT. x 5 DISPOSAL FACILITY: 0N 5 LAND USE: 240G-E | REMEDIATIO | ON METHO | D: LANDFARMED |
| FIELD NOTES & REMARKS: PIT L DEPTH TO GROUNDWATER: <50' NEAREST NMOCD RANKING SCORE: ZO NMOCD TPI SDIL AND EXCAVATION DESCRIF DK. YEU. ORDAGE DENSE, NO APPR HO APPRICAT HE | WATER SOURCE:NE H CLOSURE STD:/60 PPM | EAREST SURFAC | E WATER: |
| SCALE O FT PIT PERIMETER 44' SAI A A A A A A A A A A A A | SAMPLE FIELD HEADSPACE D PID (ppm) 1 & 1z' | mL. FREON C | PROFILE 46 A This is a second of the control of |
| TRAVEL NOTES: CALLOUT: /0/22/ | LAB SAMPLES SAMPLE ANALYSIS TIME ANALYSIS TIME ONSITE: 100 | 7/23/96 | AFTER. |

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

Sample ID: Project Location:

5 @ 17' Jicarilla Contract # 155 - 19

Laboratory Number:

TPH-1851

Project #:

Date Analyzed:

10-23-96

Date Reported: 10-23-96

Soil Sample Matrix:

| Parameter | Result, mg/kg | Detection Limit, mg/kg |
|--|---------------|---------------------------|
| Total Recoverable Petroleum Hydrocarbons | 36 | 20 |

ND = Not Detectable at stated detection limits.

QA/QC:

| QA/QC Sample | Duplicate | % |
|--------------|-----------|--------|
| TPH mg/kg | TPH mg/kg | *Diff. |
| | | |
| 4640 | 4400 | 5.31 |

^{*}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 - BJ464

Mehon Vely Inalyst

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:

AMOCO

Project #:

Sample ID:

5 @ 17'

Dete Amelia

Project Location:

Jicarilla Contract # 155 - 19

Date Analyzed: Date Reported: 10-23-96 10-23-96

Laboratory Number:

TPH-1851

Sample Matrix:

Soil

Sample Weight:

5.00 grams

Volume Freon:

20.00 mL

Dilution Factor:

1 (unitless)

TPH Reading:

9 mg/kg

TPH Result:

36.0 mg/kg

Reported TPH Result:
Actual Detection Limit:

36 mg/kg

Reported Detection Limit:

20.0 mg/kg 20 mg/kg

QA/QC:

Original TPH mg/kg Duplicate TPH mg/kg % Diff.

4640

4400

5.31

Comments:

Comments:

Blow Pit - BJ464

BT4624

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

SUBMIT 1 COPY TO

NATURAL RESOURCE DEPT

AND OIL & GAS ADMINISTRATION

PIT REMEDIATION AND CLOSURE REPORT

| Operator: AMOCO PRODUCTION COMPANY | Telephone: (505)326-9200 |
|---|--|
| Address: 200 Amoco Court, Farmington, | NM 87401 |
| Facility or Well Name: JICANIUA CON | TRACT # 155-19 |
| _ | ZEN RSW County RTO ARRIBA |
| Pit Type: Separator Other | |
| Land Type: Rnからモ | |
| (Attach diagram) Reference: wellhead X Footage from reference: | 30', width 50', depth 17' , other 62' 60 Degrees East North Of West South |
| Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater) | Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 points) Zo |
| Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width) | Less than 100 feet (10 points) Greater than 100 feet (0 points) |
| Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds) | Less than 100 feet (10 points) 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) O No (0 points) |
| Distance To SurfaceWater: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches) | Less than 100 feet (20 points) 100 feet to 1000 feet (10 points) Greater than 1000 feet (0 points) |
| | RANKING SCORE (T L POINTS): ZO |

Approx. cubic yards ______900 Excavation _ X nomediation Method: eck all appropriate Landfarmed > Insitu Bioremediation _____ ions) Other Onsite X Offsite _____ Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility) General Description of Remedial Action: Excavation No Yes Depth Groundwater Encountered: Sample location __see Attached Documents Final Pit: Closure Sampling: (if multiple samples, attach sample results Sample depth _____/4 / and diagram of sample locations and depths) Sample Results (ppb) _____ (ppm) _____ Water: Benzene Soil: Benzene (ppb) _____ Toluene (ppm) Total BTEX Field Headspace (ppm) 54 (ppb) _____ Ethylbenzene (ppm) /23 Total Xylenes (ppb) _____ TPH No (If yes, attach sample results) Groundwater Sample: I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEGE AND BELIEF PRINTED NAME Buddy D. Shaw DATE Environmental Coordinator AND TITLE AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE. APPROVED: YES ____ NO X (REASON) Conditional Closure Failed TPH DATE: 11-5-96

| CLIENT: AMOCO BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199 | C.O.C. NO: <u>4923</u> |
|---|--|
| TIELD RELOTE. OBOOCIE - Date | PAGE No: of |
| LOCATION: NAME: 31CARILLA CONTROCT WELL #:155-19 PIT: SEP | DATE STARTED: 10/23/96 DATE FINISHED: |
| QUAD/UNIT: A SEC: 29 TWP: 26N RNG: 5W PM: NM CNTY: RA ST: OM OTR/FOOTAGE: NEIH CONTRACTOR: P45 | ENVIRONMENTAL SPECIALIST: |
| EXCAVATION APPROX. 30 FT. x 50 FT. x 17 FT. DEEP. CUBIC DISPOSAL FACILITY: 00-51TE REMEDIATION METHO | YARDAGE: <u>900</u> D: LANDFARMED |
| LAND USE: LEASE: FED. WE # 155 FOI | RMATION: DR |
| FIGURE NOTES & REMARKS! DIT LOCATED APPROXIMATELY 16Z FT | NGOE FROM WELLHEAD. |
| DEPTH TO GROUNDWATER: <50' NEAREST WATER SOURCE: >100 NEAREST SURFACE | |
| NMOCD RANKING SCOPE: NMOCD TPH CLOSURE STD: PPM | _ PIT ABANDONED _ STEEL TANK INSTALLED _ FIBERGLASS TANK INSTALLED |
| SIDEWALLS MOSTLY DK. YELL. BROWN STETY SAND TO SIET | Y CLAY COMESIVE, |
| SUEHTLY MOIST, FIRM TO STIFF SLIGHT HE ODOR IS OUT SAMPLE, POSSIBLE HE STAINING ON UPPER WE | ST SIDEMALL. |
| TPH = 123 ppm. | |
| CONDITIONAL RISESSED FIELD 418.1 CALCULATIONS | |
| TIME SAMPLE I.D. LAB No: WEIGHT (g) mL. FREON D | |
| | DILUTION READING CALC. ppm |
| SCALE | ILUTION READING CALC. ppm |
| 0 FT OVM PIT | |
| O FT PIT PERIMETER N OVM RESULTS SAMPLE FIELD HEADSPACE A | PROFILE A |
| O FT PIT PERIMETER N RESULTS SAMPLE FIELD HEADSPACE PIR (ppm.) PIPE LEADINGS 1 C 14' 0.0 TO PROD. TANK 2 E/2' 0.0 | PROFILE 30' A' |
| O FT PIT PERIMETER N RESULTS WOERGROUND PIPE LEADING TO PROD. THINK 20/20/20/000 30/20/000 10/40/40/10/54.0 50/20/000 10/40/10/54.0 | PROFILE A |
| O FT PIT PERIMETER N RESULTS SAMPLE FIELD HEADSPACE PIC (ppm.) PIPE LEADINGS TO PROD. THINK 200.0 30:2' 0.0 40:14' 54.0 50:20' 0.0 | PROFILE 30' A' |
| O FT PIT PERIMETER N RESULTS SAMPLE FIELD HEADSPACE PID (PPRI) PIPE LEADING TO PROD. THINK 2012' 0.0 30:2' 0.0 40:14' 54.0 50:20' 0.0 | PROFILE 30' A' |
| O FT PIT PERIMETER N RESULTS SAMPLE FIELD HEADSPACE PIC (Appro) 1 C 14' O. O 2 C 12' O. O 3 C 12' O. O 4 C 14' 5 4. O 5 C 20' O. O LAB SAMPLE SAMPLE SAMPLE ANALYSIS TIME | PROFILE 30' A' |
| O FT PIT PERIMETER N RESULTS SAMPLE FIELD HEADSPACE PIPE LEADINGS TO FROD. TANK 20/2/ 0.0 30/2/ 0.0 30/2/ 0.0 40/14' 54.0 50/20' 0.0 LAB SAMPLES SAMPLE AHALYSIS TIME DEILY' 744(80/5) 1500 | PROFILE 30' A' |
| O FT PIT PERIMETER N RESULTS SAMPLE FIELD HEADSPACE PIC (spin) 1 C 14' O.O 2 C 12' O.O 3 C 12' O.O 4 C 14' 5 4. O 5 C 20' O.O LAB SAMPLES SAMPLE ANALYSIS TIME LAB SAMPLES SAMPLE ANALYSIS TIME | PROFILE 30' A' |

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

Jicarilla Contract 155 #19

Unit A. Sec. 29, T26N, R5W

Separator Pit

Basin Dakota Non Vulnerable

> 1000 ft.

< 50 ft.

RISK ASSESSMENT

Pit remediation activities were terminated when trackhoe reached practical extent for abandoned pit at 20 ft. below grade and for safety concerns (underground piping and surface equipment).

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

- 1. Topographic information does not indicate off site lateral fluid migration near the earthen pit.
- 2. Daily discharge into the earthen pit has been terminated (pit abandoned). Prior discharge into the pit is believed to be under 5 barrels per day.
- 3. Well site located on the fringe of the Tapacito Creek <u>vulnerable area boundary</u>.
- 4. Vertical extent at the pit area was cleaned up to below the NMOCD standards (disclosed within their surface impoundment guidelines).

(Refer to Gonzales Mesa Quadrangle, New Mexico - Rio Arriba County, 7.5 Minute Series (Topographic), 1963, (vulnerable area boundary developed by Mr. William C. Olson, Hydrogeologist, Environmental Bureau, New Mexico Oil Conservation Division).

Based upon the information given, we conclude that the subsurface lateral contamination is very limited and impact to groundwater is very unlikely. AMOCO requests pit closure approval on this location.



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

| Client: | Blagg / Amoco | Project #: | 04034 |
|----------------------|-----------------|---------------------|----------|
| Sample ID: | 4 @ 14' | Date Reported: | 10-24-96 |
| Laboratory Number: | A710 | Date Sampled: | 10-23-96 |
| Chain of Custody No: | 4923 | Date Received: | 10-24-96 |
| Sample Matrix: | Soil | Date Extracted: | 10-24-96 |
| Preservative: | Cool | Date Analyzed: | 10-24-96 |
| Condition: | Cool and Intact | Analysis Requested: | 8015 TPH |

| Parameter | Concentration (mg/Kg) | Det. Limit (mg/Kg) |
|------------------------------|--------------------------|--------------------------|
| Gasoline Range (C5 - C10) | 4.8 | 0.2 |
| Diesel Range (C10 - C28) | 118 | 0.1 |
| Total Petroleum Hydrocarbons | 123 | 0.2 |

ND - Parameter not detected at the stated detection limit.

References:

Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, July 1992.

Comments:

Jicarilla Contract #155-19 Separator Pit.

Deur L. Greven

Stacy W Sendler
Review

CHAIN OF CUSTODY RECORD

| | | 01 | H INC. y 64-3014 exico 874 | ENVIROTECH INC. 5796 U.S. Highway 64-3014 Farmington, New Mexico 87401 (505) 632-0615 | | | | |
|---------------------|---|------------|----------------------------------|---|--------------------------------|----------------|----------------|-------------------------------|
| | | gnature) | Received by: (Signature) | Reco | | | ire) | Relinquished by: (Signature) |
| | , | gnature) | Received by: (Signature) | Rec | | | Q ræ) | Relinquished by: (Signature) |
| Date Time (で)とも | F. Cole | ignature) | Received/by: (Signature) | Date Time Reci | /2 | | n USE | Relinquished by: (Signature) |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | • | |
| PRESERVCOOL | | < | ~ | 2012 | A710 | 1500 | 10/23/96 | @e14' |
| | | TH (80 | | Sample Matrix | Lab Number | Sample Time | Sample Date | Sample No./ Identification |
| | | 271 V5] | o. of tainers | | 04034 | -,100-4 | to | Il than " |
| Remarks | | | | | Chain of Custody Tape No. | | | Sampler: (Signature) |
| | | | VI) | CONTRACT # 155-1 | TICARILLA CO. | | Amoco | BLAGG / |
| ANALYSIS/DADAMETEDS | 0/3/3/V V V V V V V V V V | | | PRATOR DIT | Project Location SEPREMICE DIT | | | Client/Project Name |
| | | | | | | | | |

san juan rapro Form 578-81

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: AMOCO PRODUCTION COMPANY Telephone: (505) 326-920 | 00 |
|---|-------------|
| Address: 200 Amoco Court, Farmington, NM 87401 | |
| Facility or Well Name: JICARILLA CONTRACT 15-19 | |
| Location: Unit or Qtr/Qtr Sec A Sec 29 T26N R5W County R10 ARRISA | |
| Land Type: RANGE | |
| Date Remediation Started: 10/23/96 Date Completed: 8/15/97 | |
| Remediation Method: Landfarmed Approx. cubic yards 400 | |
| Composted | |
| Other | |
| 41. To Groundwater: (pts) / O Final Closure Sampling: | |
| ptn 10 Groundwater. (pts.) | 2 |
| Distance to an Epinemeral Street | |
| Distance to Nearest Lake, Playa, or Watering Pond (pts.) — Field Headspace (ppm) — . • | |
| Wellhead Protection Area: (pts.) TPH (ppm)NOMethodSo | 12 |
| Distance To SurfaceWater: (pts.) Other | |
| RANKING SCORE (TOTAL POINTS): / O | |
| I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEGE AND BELIEF | 7 |
| DATE 8/15/97 , PRINTED NAME Buddy D. Shaw | |
| SIGNATURE Bully D. Show AND TITLE Environmental Coordin | |
| AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE. | IN |
| APPROVED: YES X NO (REASON) | |
| SIGNED: 4 DATE: 9-2-97 | |

| CLIENT: AMOCO BLAGG ENGI | NEERING, INC. | LOCATION NO: | 37464 |
|---|--|------------------------------|-----------------|
| P.O. BOX 87, BLO | OMFIELD, NM 87413 | C.O.C. NO: | |
| (505) (| 832-1199 | C.U.C. ND | |
| FIELD REPORT: LANDFARM/COMF | OST PILE CLOSURE | | |
| LOCATION: NAMETICALINA CONTR. 155 WELL #: 19 | PITS: SEP BLOW | DATE STARTED: | |
| QUAD/UNIT: A SEC: 29 TWP: 26N RNG: 5W | PM: NM CNTY: RA ST: NM | | |
| OTE/FOOTAGE: NELV NELY CONTRACTOR: | b 42 | ENVIRONMENTAL SPECIALIST: | <u> </u> |
| SOIL REMEDIATION: | | | |
| REMEDIATION SYSTEM: LANDFARMED | APPROX. CUBIC Y | 'ARDAGE: <u>40</u> | 0 |
| LAND USE: RANGE | LIFT DEPTH (ft): | 1.5 | |
| THE AUSTEC OF PENALTHER. | | | |
| FIELD NOTES & REMARKS: DEPTH TO GROUNDWATER: NEAREST WATER SOURCE: | NEAREST SURFAC | E WATER: >/3 | oo' |
| NMOCD PANKING SCORE: NMOCD TPH CLOSURE STD | / <i>100</i> PPM | | : |
| NMUCIF PANKING SCURE: NMUCIF FAIR SEBSONE 0.2 | | LIFELUE SUGH | ル ソ |
| MOSTLY DK. YELL. ORDINGE TO MOIST, FIRM, NO APPARENT DI B ANY OF THE 5 ERMPL WIN OUM TAMPLE, 5 PT. COM | EROUN SMOO, NOW WE | POR OBSERV | عث |
| MOIST FIRM NO HATTHEN | E PTS, NO APPARENT | HC ODOR D | <i>ರಾಕರಾಕ</i> 7 |
| while own sample 5 pt. com | LADS ITE COLLECTED F | UR LAB ANAL | Y513. |
| CWSED FIELD 419. | 1 CALCULATIONS | | |
| SAMP. TIME SAMPLE LD. LAB No: WEIGHT | (g) mL. FREON DILUTION READIN | NG CALC. ppm | |
| | | | |
| | | | |
| | | | |
| | | | |
| SKETCH/SAMPLE LOCATIONS 4N | | | |
| | | | |
| ACESS KOAD | | | |
| | OVM RESULTS | LAB SAMPLE | |
| 1 3 | SAMPLE FIELD HEADSPACE SAMPLE PID (ppm) ID | | RESULTS |
| ZZS 1 D WELL | LF-1 0.0 LF-1 | TPH(8015) 1110 | 00 |
| (D) 3 70' HEAD | | | |
| 3 | | | |
| | | | |
| | | | |
| | | | |
| | SCALE | | |
| | O FT | | |
| TRAVEL NOTES: CALLOUT. NA | ONSITE: 8/12/97 | | |
| TRAVEL NOTES: CALLOUT: | UNSHE | | |



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

| Client: | Blagg / Amoco | Project #: | 04034-10 |
|----------------------|-----------------|---------------------|----------|
| Sample ID: | LF - 1 | Date Reported: | 08-13-97 |
| Laboratory Number: | B819 | Date Sampled: | 08-12-97 |
| Chain of Custody No: | 5139 | Date Received: | 08-13-97 |
| Sample Matrix: | Soil | Date Extracted: | 08-13-97 |
| Preservative: | Cool | Date Analyzed: | 08-13-97 |
| Condition: | Cool and Intact | Analysis Requested: | 8015 TPH |

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

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, July 1992.

Comments: **Jicarilla Contract 155-19.**

Landfarm 5 pt. Composite.

Alem L. Guen Analyst Stacy W Sendler
Review

BJ464

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: AMOCO PRODUCTION COMPANY Telephone: (505) 326-9200 |
|--|
| Address: 200 Amoco Court, Farmington, NM 87401 |
| Facility or Well Name: |
| Location: Unit or Qtr/Qtr Sec A Sec 29 TZ6N R SW County R10 ARRIBA |
| Land Type: RANGE |
| Date Remediation Started: 10 23 96 Date Completed: 8/15/97 Remediation Method: Landfarmed Approx. cubic yards/700 Composted Other STOCKPILED (DRIGINALLY LANOFALMED) |
| oth To Groundwater: (pts.) _/O Final Closure Sampling: |
| Distance to an Ephemeral Stream (pts.) O Sampling Date: 8/12/97 Time: 1030 |
| Distance to Nearest Lake, Playa, or Watering Pond (pts.)O Wellhead Protection Area: (pts.)O Distance To SurfaceWater: (pts.)O RANKING SCORE (TOTAL POINTS):/O |
| I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEGE AND BELIEF |
| DATE SIGNATURE Bully A. Shaw AND TITLE Environmental Coordinator |
| AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE. |
| SIGNED: Low C. Mamber DATE: 9-2-97 |

| P.O. BOX 87, BLOO | NEERING, INC. OMFIELD, NM 87413 32-1199 | LOCATION NO: <u>BJ464</u> c.o.c. no: <u>5/39</u> |
|---|---|---|
| FIELD REPORT: LANDFARM/COMP | OST PILE CLOSURE | VERIFICATION |
| LOCATION: NAME: TEARILLA COMR 155 WELL #: 19 | PITS: BOW, SEP. | DATE STARTED: 8/12/97 |
| QUAD/UNIT: A SEC: 29 TWP: 260 RNG: 5W | | ENVIRONMENTAL SPECIALIST: NV |
| SOIL REMEDIATION: | | |
| REMEDIATION SYSTEM: STOCKPILED | | |
| LAND USE: RANGE | LIFT DEPTH (ft): | NA |
| FIELD NOTES & REMARKS: DEPTH TO GROUNDWATER: <1007 NEAREST WATER SOURCE: | >/ooo/NEAREST_SURFAC | E WATER: >1000 |
| NMOCT PANIZING SCORE: 10 NMOCD THE CLOSURE STD: | /000 PPM | |
| SAMP, TIME SAMPLE J.D. LAB No: WEIGHT | (g) mL. FREON DILUTION READIN | |
| SKETCH/SAMPLE LOCATIONS / N | | |
| STOCKPPLE PERIMETER SAMPLE PT. SENIGNATION DESIGNATION | | TAR GAMPING |
| | OVM RESULTS SAMPLE FIELD HEADSPACE SAMPLE | LAB SAMPLES ANALYSIS TIME RESULTS |
| 10 (5) (7) (9) (3) /T | SP-1 0.0 SP-1 | TPH(8015)1030 28,9 |
| 3 | | |
| (300') N77€) (D) | | |
| 0 //3 | | |
| | | |
| BE DEC | SCALE | |
| 180) | O FT | |
| TRAVEL NOTES: CALLOUT: NA | ONSITE: 8/12/97 | |



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

| Client: | Blagg / Amoco | Project #: | 04034-10 |
|----------------------|-----------------|---------------------|----------|
| Sample ID: | SP - 1 | Date Reported: | 08-13-97 |
| Laboratory Number: | B818 | Date Sampled: | 08-12-97 |
| Chain of Custody No: | 5139 | Date Received: | 08-13-97 |
| Sample Matrix: | Soil | Date Extracted: | 08-13-97 |
| Preservative: | Cool | Date Analyzed: | 08-13-97 |
| Condition: | Cool and Intact | Analysis Requested: | 8015 TPH |

| Parameter | Concentration (mg/Kg) | Det. Limit (mg/Kg) |
|------------------------------|--------------------------|--------------------------|
| Gasoline Range (C5 - C10) | ND | 0.2 |
| Diesel Range (C10 - C28) | 28.9 | 0.1 |
| Total Petroleum Hydrocarbons | 28.9 | 0.2 |

ND - Parameter not detected at the stated detection limit.

References: M

Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, July 1992.

Comments:

Jicarilla Contract 155-19.

Stockpiles 5 pt. Composite.

Dew J. Gener Analyst Stacy W Sendler
Review

| | O | HAIN OF CUST | CHAIN OF CUSTODY RECORD | | |
|--|------------------|--|---|------------------------|----------------------|
| | Project Location | SAMPOLS | | ANALYSIS/PARAMETERS | |
| BLASES / HMOCO | JICARIUA C | CONTRACT 155-19 | | | |
| Sampler: (Signature) | - 5 1 | | | | Remarks |
| Whom the | 01-45040 | 0 | of ainers | | _ |
| Sample No./ Sample Sample Identification Date Time | Lab Number | Sample Matrix | No Cont TP (80) | Cool | SKIMBES I RESELV. |
| SP-1 8/2/97 1030 | ου Θ Θ | 2012 | 1 / | <- 570c | Stackolife |
| 11 [e] [e] [- 7] | 6 18 G | 5012 | <u> </u> | ← GNO | GNOFERM |
| | | | | 5 1408 | BOTH S PT. COMPOSITE |
| | | | | SAMPLES | ξ. |
| | | | | | |
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| | | | | | |
| | | | Serve plas reco | received coal of human | |
| | | | | | - |
| Relinquished by: (Signature) | ×ı | Date Time | Received by: (Signature) | | Pale Time |
| Relinquished by: (Signature) | | | Received by: (Signature) | 7 | |
| Relinquished by: (Signature) | | | Received by: (Signature) | | |
| Refl Cuc 5179, 5140, 5141 & 5143 | 4183143 | ENVIROTECH INC. 5796 U.S. Highway 64-3014 Farmington, New Mexico 87401 (505) 632-0615 | ECH INC. hway 64-3014 v Mexico 87401 12-0615 | | |