

*Demetrius Faust*  
DEPUTY OIL & GAS INSPECTOR

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

007 0 8 1999

Blow - OK  
Sep - OK

## PIT REMEDIATION AND CLOSURE 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 CONTRACT 148 - 40</u>                                              |  |                                  |
| Location: Unit or Qtr/Qtr Sec <u>A</u> Sec <u>13</u> T <u>25N</u> R <u>5W</u> County <u>RIO ARriba</u> |  |                                  |
| Pit Type: Separator <input type="checkbox"/> Dehydrator <input type="checkbox"/> Other <u>BLOW</u>     |  |                                  |
| Land Type: <u>RANGE</u>                                                                                |  |                                  |

|                                          |                                                                                                                                                                           |  |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Pit Location:</b><br>(Attach diagram) | Pit dimensions: length <u>41'</u> , width <u>50'</u> , depth <u>19'</u>                                                                                                   |  |
|                                          | Reference: wellhead <u>X</u> , other _____                                                                                                                                |  |
|                                          | Footage from reference: <u>102'</u>                                                                                                                                       |  |
|                                          | Direction from reference: <u>61</u> Degrees <u>X</u> East of North <u>X</u><br><div style="text-align: center;">             _____ West      South _____           </div> |  |

|                                                                                                                                                           |                                                                       |                                          |          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------|----------|
| <b>Depth To Groundwater:</b><br>(Vertical distance from<br>contaminants to seasonal<br>high water elevation of<br>groundwater)                            | Less than 50 feet<br>50 feet to 99 feet<br>Greater than 100 feet      | (20 points)<br>(10 points)<br>(0 points) | <u>0</u> |
| <b>Distance to an Ephemeral Stream</b><br>(Downgradient dry wash greater than<br>ten feet in width)                                                       | Less than 100 feet<br>Greater than 100 feet                           | (10 points)<br>(0 points)                | <u>0</u> |
| <b>Distance to Nearest Lake, Playa, or Watering Pond</b><br>(Downgradient lakes, playas and<br>livestock or wildlife watering ponds)                      | Less than 100 feet<br>Greater than 100 feet                           | (10 points)<br>(0 points)                | <u>0</u> |
| <b>Wellhead Protection Area:</b><br>(Less than 200 feet from a private<br>domestic water source, or: less than<br>1000 feet from all other water sources) | Yes<br>No                                                             | (20 points)<br>(0 points)                | <u>0</u> |
| <b>Distance To Surface Water:</b><br>(Horizontal distance to perennial<br>lakes, ponds, rivers, streams, creeks,<br>irrigation canals and ditches)        | Less than 100 feet<br>100 feet to 1000 feet<br>Greater than 1000 feet | (20 points)<br>(10 points)<br>(0 points) | <u>0</u> |
| <b>RANKING SCORE (TOTAL POINTS):</b>                                                                                                                      |                                                                       |                                          | <u>0</u> |

8J539

BLOW PIT

Date Remediation Started: \_\_\_\_\_ Date Completed: 4/15/98Remediation Method: Excavation ☒  
(check all appropriate sections)  
Landfarmed ☒  
Other \_\_\_\_\_Approx. cubic yards 1,500  
Insitu Bioremediation \_\_\_\_\_Remediation Location:  
(i.e. landfarmed onsite,  
name and location of  
offsite facility)Onsite ☒ Offsite ☒ JICARILLA CONTRACT 148-11 (H-13-25-5)General Description of Remedial Action: Excavation. BEDROCK BOTTOM.

Groundwater Encountered:

No ☒ Yes \_\_\_\_\_ Depth \_\_\_\_\_Final Pit:  
Closure Sampling:  
(if multiple samples,  
attach sample results  
and diagram of sample  
locations and depths)Sample location see Attached DocumentsSample depth 14' (WEST SIDEWALL)Sample date 4/13/98Sample time 1015

Sample Results

|                 |       |               |                |       |       |
|-----------------|-------|---------------|----------------|-------|-------|
| Soil: Benzene   | (ppm) | <u>0.0282</u> | Water: Benzene | (ppb) | _____ |
| Total BTEX      | (ppm) | <u>12.920</u> | Toluene        | (ppb) | _____ |
| Field Headspace | (ppm) | <u>175.5</u>  | Ethylbenzene   | (ppb) | _____ |
| TPH             | (ppm) | <u>122</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

4/15/98

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:

Kate C. Mamm

DATE:

4-29-98

|                      |                                                                                |                                                     |
|----------------------|--------------------------------------------------------------------------------|-----------------------------------------------------|
| CLIENT: <u>AMOCO</u> | BLAGG ENGINEERING, INC.<br>P.O. BOX 87, BLOOMFIELD, NM 87413<br>(505) 632-1199 | LOCATION NO: <u>8J539</u><br>C.O.C. NO: <u>5741</u> |
|----------------------|--------------------------------------------------------------------------------|-----------------------------------------------------|

|                                    |                               |
|------------------------------------|-------------------------------|
| FIELD REPORT: CLOSURE VERIFICATION | PAGE No: <u>1</u> of <u>1</u> |
|------------------------------------|-------------------------------|

|                                                                                                                                                                                                                                                       |                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| LOCATION: NAME <u>JICA. CONTR. 148</u> WELL #: <u>40</u> PIT: <u>BLOW</u><br>QUAD/UNIT <u>A</u> SEC: <u>13</u> TWP: <u>25N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u><br>DTR/FOOTAGE: <u>NE/4 NE/4</u> CONTRACTOR: <u>P&amp;S</u> | DATE STARTED: <u>4/13/98</u><br>DATE FINISHED: _____<br>ENVIRONMENTAL SPECIALIST: <u>NV</u> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|

|                                                                      |                                              |
|----------------------------------------------------------------------|----------------------------------------------|
| EXCAVATION APPROX. <u>41</u> FT x <u>50</u> FT x <u>19</u> FT. DEEP. | CUBIC YARDAGE: <u>1,500</u>                  |
| DISPOSAL FACILITY: <u>ON-SITE @ JICA. CONTR 148-11</u>               | REMEDIAL METHOD: <u>LANDFARMED</u>           |
| LAND USE: <u>RANGE</u>                                               | LEASE: <u>JICA. 148</u> FORMATION: <u>DK</u> |

|                        |                                                                                                                                                                                                                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FIELD NOTES & REMARKS: | PIT LOCATED APPROXIMATELY <u>102</u> FT. <u>N61E</u> FROM WELLHEAD.<br>DEPTH TO GROUNDWATER: <u>&gt;100'</u> NEAREST WATER SOURCE: <u>&gt;1000'</u> NEAREST SURFACE WATER: <u>&gt;1000'</u><br>NMOCB PANKING SCOPE: <u>0</u> NMOCB TPH CLOSURE STD: <u>5000</u> PPM<br>COIL AND EXCAVATION DESCRIPTION: |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

CHECK ONE:  
☒ PIT ABANDONED  
☐ STEEL TANK INSTALLED  
☐ FIBERGLASS TANK INSTALLED

MOSTLY DK. YELL. BROWN SAND FROM GRADE TO A MAX. OF 10'  
 NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT STAINING OBSERVED  
 EXCEPT IN SOUTHEAST CORNER OF EXCAVATION RESEMBLING DRIVING  
 MUD (DK. GRAY PLASTIC CLAY), FROM 10' TO APPROX. 17' BELOW GRADE -  
 DUSKY RED CLAY, SLIGHTLY PLASTIC @ 10' TO HIGHLY PLASTIC @ 17' SLIGHTLY  
 MOIST FIRM TO VERY HARD (NEAR PIT BOTTOM), STRONG HC ODOR OBSERVED  
 IN WEST SIDEWALL OVM SAMPLE.  
 PIT BOTTOM - DUSKY RED SHALE, VERY HARD, NO APPARENT HC ODOR OBSERVED  
 IN OVM SAMPLE.

**BEDROCK BOTTOM**

SCALE

0 FT

| TIME | SAMPLE I.D. | LAB No: | WEIGHT (g) | mL. FREON | DILUTION | READING | CALC. ppm |
|------|-------------|---------|------------|-----------|----------|---------|-----------|
| 1015 |             |         |            |           |          |         |           |
|      |             |         |            |           |          |         |           |
|      |             |         |            |           |          |         |           |

**PIT PERIMETER**

**OVM RESULTS**

| SAMPLE ID | FIELD HEADSPACE PID (ppm) |
|-----------|---------------------------|
| 1 @ 15'   | 10.4                      |
| 2 @ 9'    | 0.0                       |
| 3 @ 14'   | 0.0                       |
| 4 @ 14'   | 175.5                     |
| 5 @ 19'   | 0.0                       |

**LAB SAMPLES**

| SAMPLE ID        | ANALYSIS | TIME |
|------------------|----------|------|
| ④ @ 14' TPH/BTEX |          | 1015 |

BOTH PASSED

**PIT PROFILE**

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

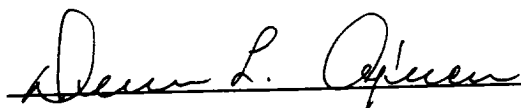
|                      |                 |                     |          |
|----------------------|-----------------|---------------------|----------|
| Client:              | Blagg / AMOCO   | Project #:          | 04034-10 |
| Sample ID:           | 4 @ 14'         | Date Reported:      | 04-14-98 |
| Laboratory Number:   | D099            | Date Sampled:       | 04-13-98 |
| Chain of Custody No: | 5741            | Date Received:      | 04-13-98 |
| Sample Matrix:       | Soil            | Date Extracted:     | 04-14-98 |
| Preservative:        | Cool            | Date Analyzed:      | 04-14-98 |
| Condition:           | Cool and Intact | Analysis Requested: | 8015 TPH |

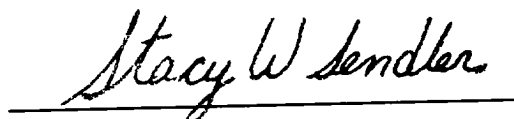
| Parameter                    | Concentration<br>(mg/Kg) | Det.<br>Limit<br>(mg/Kg) |
|------------------------------|--------------------------|--------------------------|
| Gasoline Range (C5 - C10)    | 118                      | 0.2                      |
| Diesel Range (C10 - C28)     | 3.6                      | 0.1                      |
| Total Petroleum Hydrocarbons | 122                      | 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 contract 148-40. Blow 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:         | 4 @ 14'       | Date Reported:      | 04-14-98 |
| Laboratory Number: | D099          | Date Sampled:       | 04-13-98 |
| Chain of Custody:  | 5741          | Date Received:      | 04-13-98 |
| Sample Matrix:     | Soil          | Date Analyzed:      | 04-14-98 |
| Preservative:      | Cool          | Date Extracted:     | 04-14-98 |
| Condition:         | Cool & Intact | Analysis Requested: | BTEX     |

| Parameter    | Concentration<br>(ug/Kg) | Det.<br>Limit<br>(ug/Kg) |
|--------------|--------------------------|--------------------------|
| Benzene      | 28.2                     | 17.5                     |
| Toluene      | 1,680                    | 16.7                     |
| Ethylbenzene | 1,090                    | 15.2                     |
| p,m-Xylene   | 8,010                    | 21.6                     |
| o-Xylene     | 2,110                    | 10.4                     |
| Total BTEX   | 12,920                   |                          |

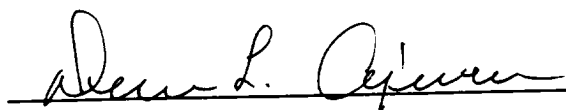
ND - Parameter not detected at the stated detection limit.

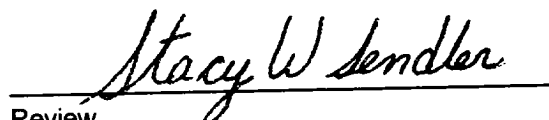
| Surrogate Recoveries: | Parameter          | Percent Recovery |
|-----------------------|--------------------|------------------|
|                       | Trifluorotoluene   | 100 %            |
|                       | Bromofluorobenzene | 100 %            |

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 Contract 148-40. Blow Pit.

  
Analyst

  
Review

8JS39

**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:** JICARILLA CONTRACT 148 - 40

**Location:** Unit or Qtr/Qtr Sec A Sec 13 T25N R 5W County RIO ARRIBA

**Pit Type:** Separator ☒ Dehydrator ☐ Other ☐

**Land Type:** RANGE

**Pit Location:** (Attach diagram) Pit dimensions: length 21', width 22', depth 9'  
Reference: wellhead ☒, other ☐  
Footage from reference: 123'  
Direction from reference: 37 Degrees ☐ East of North ☒  
☒ West of South ☐

|                                                                                                                                |                       |             |          |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------|----------|
| <b>Depth To Groundwater:</b><br>(Vertical distance from<br>contaminants to seasonal<br>high water elevation of<br>groundwater) | Less than 50 feet     | (20 points) |          |
|                                                                                                                                | 50 feet to 99 feet    | (10 points) |          |
|                                                                                                                                | Greater than 100 feet | (0 points)  | <u>0</u> |

|                                                                                                     |                       |             |          |
|-----------------------------------------------------------------------------------------------------|-----------------------|-------------|----------|
| <b>Distance to an Ephemeral Stream</b><br>(Downgradient dry wash greater than<br>ten feet in width) | Less than 100 feet    | (10 points) |          |
|                                                                                                     | Greater than 100 feet | (0 points)  | <u>0</u> |

|                                                                                                                                      |                       |             |          |
|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------|----------|
| <b>Distance to Nearest Lake, Playa, or Watering Pond</b><br>(Downgradient lakes, playas and<br>livestock or wildlife watering ponds) | Less than 100 feet    | (10 points) |          |
|                                                                                                                                      | Greater than 100 feet | (0 points)  | <u>0</u> |

|                                                                                                                                                           |     |             |          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------------|----------|
| <b>Wellhead Protection Area:</b><br>(Less than 200 feet from a private<br>domestic water source, or: less than<br>1000 feet from all other water sources) | Yes | (20 points) |          |
|                                                                                                                                                           | No  | (0 points)  | <u>0</u> |

|                                                                                                                                                   |                        |             |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------|----------|
| <b>Distance To SurfaceWater:</b><br>(Horizontal distance to perennial<br>lakes, ponds, rivers, streams, creeks,<br>irrigation canals and ditches) | Less than 100 feet     | (20 points) |          |
|                                                                                                                                                   | 100 feet to 1000 feet  | (10 points) | <u>0</u> |
|                                                                                                                                                   | Greater than 1000 feet | (0 points)  | <u>0</u> |

**RANKING SCORE (TOTAL POINTS):** 0

Date Remediation Started: \_\_\_\_\_ Date Completed: 4/15/98

Remediation Method: Excavation ☒ Approx. cubic yards 150  
 (check all appropriate sections) Landfarmed ☒ Insitu Bioremediation \_\_\_\_\_  
 Other \_\_\_\_\_

Remediation Location: Onsite ☒ Offsite ☒ JICARILLA CONTRACT 148-11  
 (i.e. landfarmed onsite, name and location of offsite facility) (H-13-25-5)

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 6' (NORTH SIDEWALK)

Sample date 4/13/98 Sample time 1050

Sample Results

|                 |       |              |                |       |       |
|-----------------|-------|--------------|----------------|-------|-------|
| Soil: Benzene   | (ppm) | <u>0.464</u> | Water: Benzene | (ppb) | _____ |
| Total BTEX      | (ppm) | <u>2.760</u> | Toluene        | (ppb) | _____ |
| Field Headspace | (ppm) | <u>110.7</u> | Ethylbenzene   | (ppb) | _____ |
| TPH             | (ppm) | <u>47.7</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 4/15/98 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: Kate C Mamm DATE: 4-29-98

|                      |                                                                                |                                                     |
|----------------------|--------------------------------------------------------------------------------|-----------------------------------------------------|
| CLIENT: <u>AMOCO</u> | BLAGG ENGINEERING, INC.<br>P.O. BOX 87, BLOOMFIELD, NM 87413<br>(505) 632-1199 | LOCATION NO: <u>BJ539</u><br>C.D.C. NO: <u>5741</u> |
|----------------------|--------------------------------------------------------------------------------|-----------------------------------------------------|

|                                                                                                               |  |                                     |
|---------------------------------------------------------------------------------------------------------------|--|-------------------------------------|
| FIELD REPORT: CLOSURE VERIFICATION                                                                            |  | PAGE No: <u>1</u> of <u>1</u>       |
| LOCATION: NAME: <u>TICA CONTR. 148</u> WELL #: <u>40</u> PIT: <u>SEP/PROD.</u>                                |  | DATE STARTED: <u>4/13/98</u>        |
| QUAD/UNIT: <u>A</u> SEC: <u>13</u> TWP: <u>25N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u> |  | DATE FINISHED: _____                |
| QTR/FOOTAGE: <u>NE1/4 NE1/4</u> CONTRACTOR: <u>P &amp; S</u>                                                  |  | ENVIRONMENTAL SPECIALIST: <u>NV</u> |

|                                                                       |                                              |
|-----------------------------------------------------------------------|----------------------------------------------|
| EXCAVATION APPROX. <u>21</u> FT. x <u>22</u> FT. x <u>9</u> FT. DEEP. | CUBIC YARDAGE: <u>150</u>                    |
| DISPOSAL FACILITY: <u>ON-SITE</u>                                     | REMEDIATION METHOD: <u>LANDFARMED</u>        |
| LAND USE: <u>RANGE</u>                                                | LEASE: <u>TICA. 148</u> FORMATION: <u>DK</u> |

|                                    |                                                                          |
|------------------------------------|--------------------------------------------------------------------------|
| FIELD NOTES & REMARKS:             | PIT LOCATED APPROXIMATELY <u>123</u> FT. <u>N37W</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 |

MOSTLY DUSKY RED CLAY PHASING INTO SHALE, SLIGHTLY PLASTIC TO HIGHLY PLASTIC (NEAR PIT BOTTOM), FIRM NEAR SURFACE TO VERY HARD NEAR PIT BOTTOM, HC ODOOR DETECTED IN NORTH & WEST SIDEWALL OUM SAMPLES, NO OBVIOUS STAINING OBSERVED W/IN EXCAVATION.

PIT BOTTOM - DUSKY RED SHALE, VERY HARD, HC ODOOR DETECTED IN OUM SAMPLE (BELOW 100 PPM).

BEARXK  
BOTTOM

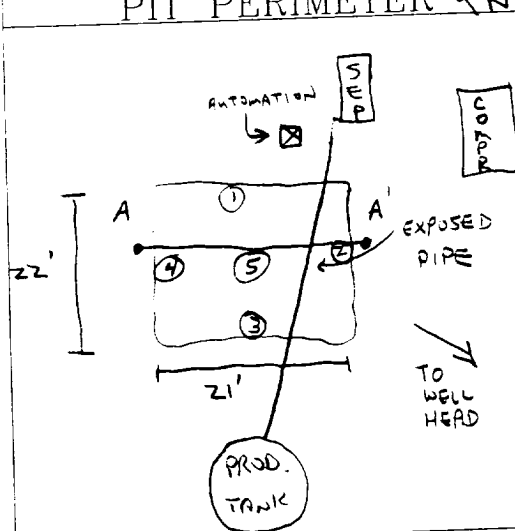
CLOSED

FIELD 418.1 CALCULATIONS

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

SCALE  
0 FT

PIT PERIMETER



OVM  
RESULTS

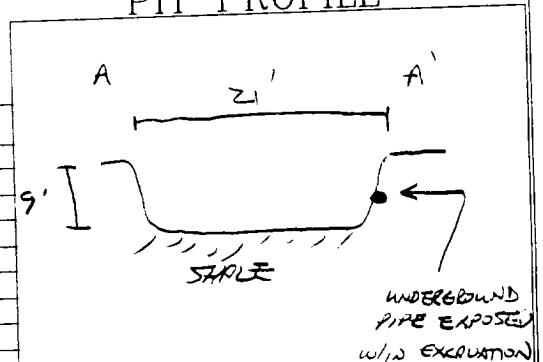
| SAMPLE ID | FIELD HEADSPACE PID (ppm) |
|-----------|---------------------------|
| 1 @ 6'    | 110.7                     |
| 2 @ 6'    | 9.4                       |
| 3 @ 6'    | 19.8                      |
| 4 @ 6'    | 99.4                      |
| 5 @ 9'    | 76.2                      |

LAB SAMPLES

| SAMPLE ID | ANALYSIS | TIME |
|-----------|----------|------|
| DEC 6'    | TPH/BTEX | 1050 |

BOTH PASSED

PIT PROFILE



|               |                                 |                              |
|---------------|---------------------------------|------------------------------|
| TRAVEL NOTES: | CALLOUT: <u>4/8/98 - AFTER.</u> | ONSITE: <u>4/13/98 MORN.</u> |
|---------------|---------------------------------|------------------------------|

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

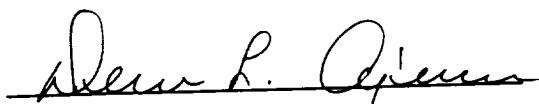
|                      |                 |                     |          |
|----------------------|-----------------|---------------------|----------|
| Client:              | Blagg / AMOCO   | Project #:          | 04034-10 |
| Sample ID:           | 1 @ 6'          | Date Reported:      | 04-14-98 |
| Laboratory Number:   | D100            | Date Sampled:       | 04-13-98 |
| Chain of Custody No: | 5741            | Date Received:      | 04-13-98 |
| Sample Matrix:       | Soil            | Date Extracted:     | 04-14-98 |
| Preservative:        | Cool            | Date Analyzed:      | 04-14-98 |
| Condition:           | Cool and Intact | Analysis Requested: | 8015 TPH |

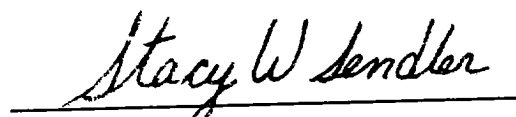
| Parameter                    | Concentration<br>(mg/Kg) | Det.<br>Limit<br>(mg/Kg) |
|------------------------------|--------------------------|--------------------------|
| Gasoline Range (C5 - C10)    | 2.9                      | 0.2                      |
| Diesel Range (C10 - C28)     | 44.8                     | 0.1                      |
| Total Petroleum Hydrocarbons | 47.7                     | 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 contract 148-40. 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 @ 6'        | Date Reported:      | 04-14-98 |
| Laboratory Number: | D100          | Date Sampled:       | 04-13-98 |
| Chain of Custody:  | 5741          | Date Received:      | 04-13-98 |
| Sample Matrix:     | Soil          | Date Analyzed:      | 04-14-98 |
| Preservative:      | Cool          | Date Extracted:     | 04-14-98 |
| Condition:         | Cool & Intact | Analysis Requested: | BTEX     |

| Parameter    | Concentration<br>(ug/Kg) | Det.<br>Limit<br>(ug/Kg) |
|--------------|--------------------------|--------------------------|
| Benzene      | 464                      | 17.5                     |
| Toluene      | 237                      | 16.7                     |
| Ethylbenzene | 404                      | 15.2                     |
| p,m-Xylene   | 1,220                    | 21.6                     |
| o-Xylene     | 435                      | 10.4                     |
| Total BTEX   | 2,760                    |                          |

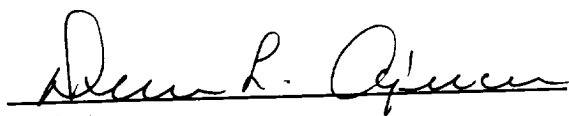
ND - Parameter not detected at the stated detection limit.

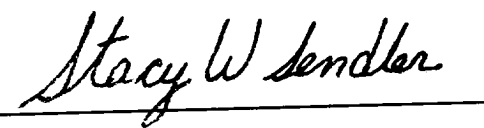
| Surrogate Recoveries: | Parameter          | Percent Recovery |
|-----------------------|--------------------|------------------|
|                       | Trifluorotoluene   | 97 %             |
|                       | Bromofluorobenzene | 97 %             |

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 Contract 148-40. Separator Pit.

  
Analyst

  
Review

## CHAIN OF CUSTODY RECORD

| Client/Project Name             |             |             | Project Location          |               |   | ANALYSIS/PARAMETERS |   |         |                          |  |  |         |  |                                                       |      |  |
|---------------------------------|-------------|-------------|---------------------------|---------------|---|---------------------|---|---------|--------------------------|--|--|---------|--|-------------------------------------------------------|------|--|
| Sampler: (Signature)            |             |             | Chain of Custody Tape No. |               |   | No. of Containers   |   | Remarks |                          |  |  |         |  |                                                       |      |  |
| Sample No./ Identification      | Sample Date | Sample Time | Lab Number                | Sample Matrix |   |                     |   |         |                          |  |  |         |  |                                                       |      |  |
| ④ @ 14'                         | 4/13/98     | 1015        | D099                      | SOIL          | 1 | ✓                   | ✓ |         |                          |  |  |         |  | BOTH SAMPLES<br>PRESERV. - COOL                       |      |  |
| ① @ 6'                          | 4/13/98     | 1050        | D100                      | SOIL          | 1 | ✓                   | ✓ |         |                          |  |  |         |  | SEPARATOR PIT<br>IF TPH < 5000 ppm,<br>THEN RUN BTEX. |      |  |
| Samples received 2045 in bucket |             |             |                           |               |   |                     |   |         |                          |  |  |         |  |                                                       |      |  |
| Relinquished by: (Signature)    |             |             | Date                      |               |   | Time                |   |         | Received by: (Signature) |  |  | Date    |  |                                                       | Time |  |
| [Signature]                     |             |             | 4/13/98                   |               |   | 1420                |   |         | [Signature]              |  |  | 4/13.98 |  |                                                       | 1420 |  |
| Relinquished by: (Signature)    |             |             | Date                      |               |   | Time                |   |         | Received by: (Signature) |  |  | Date    |  |                                                       | Time |  |
| [Signature]                     |             |             |                           |               |   |                     |   |         | [Signature]              |  |  |         |  |                                                       |      |  |
| Relinquished by: (Signature)    |             |             | Date                      |               |   | Time                |   |         | Received by: (Signature) |  |  | Date    |  |                                                       | Time |  |
| [Signature]                     |             |             |                           |               |   |                     |   |         | [Signature]              |  |  |         |  |                                                       |      |  |

ENVIROTECH INC.

5796 U.S. Highway 64-3014

Farmington, New Mexico 87401

(505) 632-0615

85539

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: JICARILLA CONTRACT 148-40  
Location: Unit or Qtr/Qtr Sec A Sec 13 T 25N R 5W County RIO ARRIBA  
Land Type: \_\_\_\_\_

Date Remediation Started: 4-13-98 Date Completed: 1-19-99  
Remediation Method: Landfilled ☒ Approx. cubic yards 1000  
Composted \_\_\_\_\_  
Other \_\_\_\_\_

Distance To Groundwater: (pts.) 0  
Distance to an Ephemeral Stream (pts.) 0  
Distance to Nearest Lake, Playa, or Watering Pond (pts.) 0  
Wellhead Protection Area: (pts.) 0  
Distance To Surface Water: (pts.) 0

RANKING SCORE (TOTAL POINTS): 0

**Final Closure Sampling:**

Sampling Date: 1-13-99 Time: 1050  
Sample Results: (LF-1 & LF-2)  
Field Headspace (ppm) 0.0  
TPH (ppm) (LF-2) 215 Method 8015  
Other MULTIPLE SAMPLES - SEE ATTACHED FORM

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 1/19/99 PRINTED NAME Buddy D. Shaw  
SIGNATURE Buddy D. 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.

APPROVED: YES ☒ NO \_\_\_\_\_ (REASON) \_\_\_\_\_

SIGNED: Kate C. M... DATE: 3-31-99

CLIENT: AMOCOBLAGG ENGINEERING, INC.  
P.O. BOX 87, BLOOMFIELD, NM 87413  
(505) 632-1199LOCATION NO: B3539C.O.C. NO: 6545

## FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: JACARILLA CONTRACT 148 WELL #: 90 PITS: SEP, BLOW  
QUAD/UNIT: A SEC: 13 TWP: 25N RNG: 5W PM: NM CNTY: RA ST: NM  
QTP/FOOTAGE: NE/4 NE/4 CONTRACTOR: \_\_\_\_\_DATE STARTED: 1-13-99DATE FINISHED: 1-19-99ENVIRONMENTAL  
SPECIALIST: REP

## SOIL REMEDIATION:

REMEDIATION SYSTEM: LANDFARMAPPROX. CUBIC YARDAGE: 1000LAND USE: RANGELIFT DEPTH (ft): 1-2

## FIELD NOTES &amp; REMARKS:

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

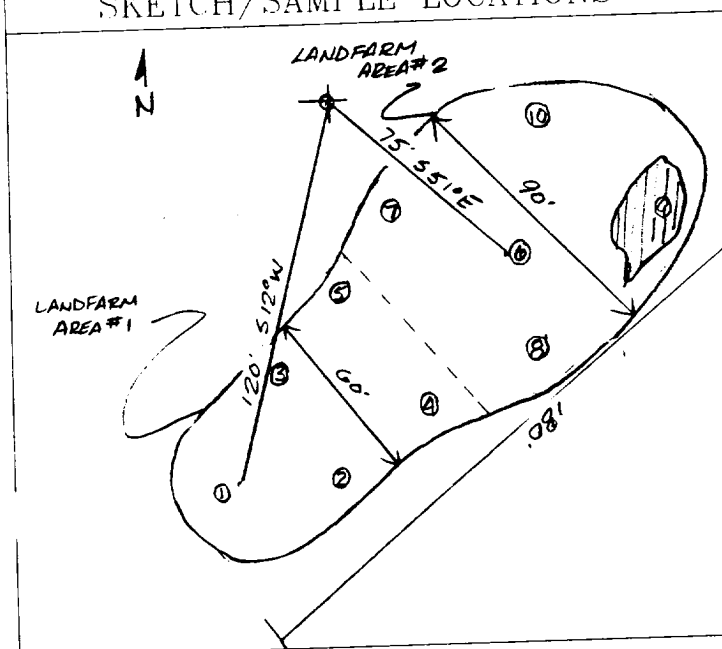
DK. YELLOW ORANGE TO DK. BROWN CLAYEY SAND. COHESIVE, SLIGHTLY MOIST FIRM  
SMALL AREA OF STAINING OBSERVED IN LANDFARM #2 AREA (SEE SKETCH BELOW) NO HC ODOOR DETECTED.  
SAMPLING DEPTHS RANGE FROM 6" - 18". TOOK A SPT. COMPOSITE SAMPLE FROM EACH LANDFARM  
AREA FOR LAB ANALYSIS.

APPROX. 650 C.Y. DEPOSED  
TO 148-11.CLOSED

## FIELD 418.1 CALCULATIONS

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

## SKETCH/SAMPLE LOCATIONS



## OVM RESULTS

| SAMPLE ID | FIELD HEADSPACE PID (ppm) |
|-----------|---------------------------|
| LF-1      | 0.0                       |
| LF-2      | 0.0                       |
|           |                           |
|           |                           |
|           |                           |
|           |                           |

## LAB SAMPLES

| SAMPLE ID | ANALYSIS   | TIME | RESULTS |
|-----------|------------|------|---------|
| LF-1      | TPH (B015) | 1050 | 151     |
| LF-2      | " "        | 1110 | 215     |
|           |            |      |         |
|           |            |      |         |
|           |            |      |         |
|           |            |      |         |

SCALE

0 FT

TRAVEL NOTES:

CALLOUT: N/AONSITE: 1-13-99

EPA METHOD 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons

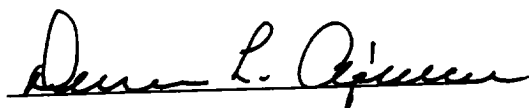
|                      |                 |                     |          |
|----------------------|-----------------|---------------------|----------|
| Client:              | Blagg / AMOCO   | Project #:          | 04034-10 |
| Sample ID:           | LF - 1          | Date Reported:      | 01-19-99 |
| Laboratory Number:   | E520            | Date Sampled:       | 01-13-99 |
| Chain of Custody No: | 6545            | Date Received:      | 01-15-99 |
| Sample Matrix:       | Soil            | Date Extracted:     | 01-15-99 |
| Preservative:        | Cool            | Date Analyzed:      | 01-19-99 |
| Condition:           | Cool and Intact | Analysis Requested: | 8015 TPH |

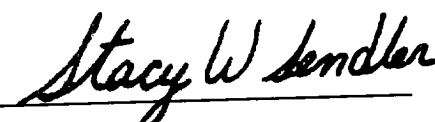
| Parameter                    | Concentration<br>(mg/Kg) | Det.<br>Limit<br>(mg/Kg) |
|------------------------------|--------------------------|--------------------------|
| Gasoline Range (C5 - C10)    | 6.1                      | 0.2                      |
| Diesel Range (C10 - C28)     | 145                      | 0.1                      |
| Total Petroleum Hydrocarbons | 151                      | 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 Contract 148 - 40 Landfarm. 5 Pt. Composite.

  
Analyst

  
Review

# 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:           | LF - 2          | Date Reported:      | 01-19-99 |
| Laboratory Number:   | E521            | Date Sampled:       | 01-13-99 |
| Chain of Custody No: | 6545            | Date Received:      | 01-15-99 |
| Sample Matrix:       | Soil            | Date Extracted:     | 01-15-99 |
| Preservative:        | Cool            | Date Analyzed:      | 01-19-99 |
| Condition:           | Cool and Intact | Analysis Requested: | 8015 TPH |

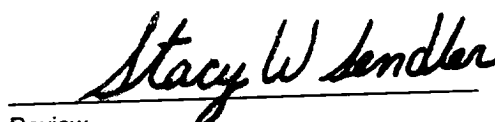
| Parameter                    | Concentration<br>(mg/Kg) | Det.<br>Limit<br>(mg/Kg) |
|------------------------------|--------------------------|--------------------------|
| Gasoline Range (C5 - C10)    | 5.8                      | 0.2                      |
| Diesel Range (C10 - C28)     | 209                      | 0.1                      |
| Total Petroleum Hydrocarbons | 215                      | 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 Contract 148 - 40 Landfarm. 5 Pt. Composite.

  
Analyst

  
Review

6545

29 Dec 65-45-6551