

0124-01  
87643  
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**

AUG 16 1999

OIL CON. DIV.

**Operator:** AMOCO PRODUCTION COMPANY **Telephone:** (505) 336-9200

**Address:** 200 Amoco Court, Farmington, NM 87401

**Facility or Well Name:** JICARILLA CONTRACT #146-29

**Location:** Unit or Qtr/Qtr Sec A Sec 9 T 25N R 5W County RIO ARriba

**Pit Type:** Separator      Dehydrator      Other BLOW

**Land Type:** RANGE

**Pit Location:** (Attach diagram) Pit dimensions: length 23', width 25', depth 14'

Reference: wellhead X, other     

Footage from reference: 31'

Direction from reference: 38 Degrees      East of North X

X West South     

<b>Depth To Groundwater:</b> (Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet	(20 points)	
	50 feet to 99 feet	(10 points)	
	Greater than 100 feet	(0 points)	<u>0</u>
<b>Distance to an Ephemeral Stream</b> (Downgradient dry wash greater than 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> (Downgradient lakes, playas and 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> (Less than 200 feet from a private domestic water source, or: less than 1000 feet from all other water sources)	Yes	(20 points)	
	No	(0 points)	<u>0</u>
<b>Distance To Surface Water:</b> (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)	<u>0</u>

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

BT643

BLW PIT

Date Remediation Started: \_\_\_\_\_

Date Completed: 9/21/98

Remediation Method:

Excavation ☒

(check all appropriate sections)

Landfarmed ☒

Other \_\_\_\_\_

Approx. cubic yards 200

Insitu Bioremediation \_\_\_\_\_

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:

Closure Sampling:

(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location see Attached DocumentsSample depth 9' (SOUTH SIDEWALL)Sample date 9/21/98Sample time 1300

Sample Results

Soil: Benzene

(ppm) \_\_\_\_\_

Total BTEX

(ppm) \_\_\_\_\_

Field Headspace (ppm) 0.0

TPH

(ppm) ND

Water: Benzene

(ppb) \_\_\_\_\_

Toluene

(ppb) \_\_\_\_\_

Ethylbenzene

(ppb) \_\_\_\_\_

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

9/21/98

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. M...

DATE:

10-1-98

3003922480

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>8J643</u> C.O.C. NO: _____																																								
FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>																																								
LOCATION: NAME: <u>JICA. CONTR. 146</u> WELL #: <u>29</u> PIT: <u>BLOW</u> QUAD/UNIT: <u>A</u> SEC: <u>9</u> TWP: <u>25N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u> QTR/FOOTAGE: <u>870' FNL / 840' FEL</u> CONTRACTOR: <u>P&amp;S</u>		DATE STARTED: <u>9/21/98</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NV</u>																																								
EXCAVATION APPROX. <u>23</u> FT. x <u>25</u> FT. x <u>14</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 146</u> FORMATION: <u>PC</u>																																										
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>31</u> FT. <u>N38W</u> FROM WELLHEAD. DEPTH TO GROUNDWATER: <u>&gt;100'</u> NEAREST WATER SOURCE: <u>&gt;1000'</u> NEAREST SURFACE WATER: <u>&gt;1000'</u> NMOC RANKING SCORE: <u>0</u> NMOC TPH CLOSURE STD: <u>5000</u> PPM SOIL AND EXCAVATION DESCRIPTION:																																										
SIDEWALLS - DK. YELL. ORANGE TO BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT STAINING OR HC ODOR OBSERVED / DETECTED w/in EXCAVATION, NO APPARENT HC ODOR IN ANY OF THE OVM SAMPLES.  BOTTOM - BEDROCK (SANDSTONE), LT. GRAY, VERY HARD, NO APPARENT HC ODOR IN OVM SAMPLE.																																										
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><u>BEDROCK</u> <u>Bottom</u></p> <p><u>CLOSED</u></p> <p>SCALE 0 FT</p> </div> <div style="width: 40%;"> <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>1300</td> <td><u>(3) 29'</u></td> <td><u>TPH-2041</u></td> <td><u>5</u></td> <td><u>20</u></td> <td><u>1:1</u></td> <td><u>4</u></td> <td><u>ND</u></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> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> </div> <div style="width: 30%;"> <p><u>✓</u> PIT ABANDONED  <u> </u> STEEL TANK INSTALLED  <u> </u> FIBERGLASS TANK INSTALLED</p> </div> </div>			TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm	1300	<u>(3) 29'</u>	<u>TPH-2041</u>	<u>5</u>	<u>20</u>	<u>1:1</u>	<u>4</u>	<u>ND</u>																								
TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm																																			
1300	<u>(3) 29'</u>	<u>TPH-2041</u>	<u>5</u>	<u>20</u>	<u>1:1</u>	<u>4</u>	<u>ND</u>																																			
<p>PIT PERIMETER</p>	<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 @ 9'</td><td>0.0</td></tr> <tr><td>2 @ 9'</td><td>0.0</td></tr> <tr><td>3 @ 9'</td><td>0.0</td></tr> <tr><td>4 @ 9'</td><td>0.0</td></tr> <tr><td>5 @ 14'</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> <tr><td> </td><td> </td></tr> </tbody> </table> <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>	SAMPLE ID	FIELD HEADSPACE PID (ppm)	1 @ 9'	0.0	2 @ 9'	0.0	3 @ 9'	0.0	4 @ 9'	0.0	5 @ 14'	0.0											SAMPLE ID	ANALYSIS	TIME																<p>PIT PROFILE</p>
SAMPLE ID	FIELD HEADSPACE PID (ppm)																																									
1 @ 9'	0.0																																									
2 @ 9'	0.0																																									
3 @ 9'	0.0																																									
4 @ 9'	0.0																																									
5 @ 14'	0.0																																									
SAMPLE ID	ANALYSIS	TIME																																								
TRAVEL NOTES: CALLOUT: <u>9/17/98 - AFTER.</u> ONSITE: <u>9/21/98 - AFTER.</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:	3 @ 9'	Date Analyzed:	09-21-98
Project Location:	Jicarilla Contract # 146 - 29	Date Reported:	09-21-98
Laboratory Number:	TPH-2041	Sample Matrix:	Soil

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


ND = Not Detectable at stated detection limits.

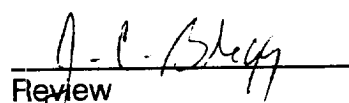
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	236	220	7.02

\*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 - BJ643

  
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:

Amoco

Project #:

Sample ID:

3 @ 9'

Date Analyzed:

09-21-98

Project Location:

Jicarilla Contract # 146 - 29

Date Reported:

09-21-98

Laboratory Number:

TPH-2041

Sample Matrix:

Soil

Sample Weight:

5.00 grams

Volume Freon:

20.00 mL

Dilution Factor:

1 (unitless)

TPH Reading:

4 mg/kg

TPH Result:

16.0 mg/kg

Reported TPH Result:

16 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 - BJ643

13J643

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 CONTRACT # 146-29  
**Location:** Unit or Qtr/Qtr Sec 7 Sec 9 T 25N R 5W County RIO ARIZONA  
**Pit Type:** Separator ☒ Dehydrator ☐ Other ☐  
**Land Type:** RANGE

**Pit Location:** Pit dimensions: length 30', width 35', depth 4'  
(Attach diagram) Reference: wellhead ☒, other ☐  
Footage from reference: 190'  
Direction from reference: 75 Degrees ☐ East of North ☐  
☒ West of South ☒

<b>Depth To Groundwater:</b> (Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 points)	<u>0</u>
<b>Distance to an Ephemeral Stream</b> (Downgradient dry wash greater than 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> (Downgradient lakes, playas and 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> (Less than 200 feet from a private domestic water source, or: less than 1000 feet from all other water sources)	Yes (20 points) No (0 points)	<u>0</u>
<b>Distance To Surface Water:</b> (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)	<u>0</u>

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

Date Remediation Started: \_\_\_\_\_ Date Completed: 9/21/98

Remediation Method: Excavation ☒ Approx. cubic yards 75

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. RISK ASSESSED.

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 Documents

Sample depth 2' (SOUTH SIDEWALL)

Sample date 9/21/98 Sample time 1445

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 9/21/98 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) RA Attached

SIGNED: Ken C. Mamm DATE: 10-1-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BT643</u> C.D.C. NO: _____
----------------------	--	---

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

LOCATION: NAME: <u>JCA. CONTR. 146</u> WELL #: <u>29</u> PIT: <u>SEP.</u>	DATE STARTED: <u>9/21/98</u> DATE FINISHED: _____
QUAD/UNIT: <u>A</u> SEC: <u>9</u> TWP: <u>25N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>	ENVIRONMENTAL SPECIALIST: <u>NV</u>
QTR/FOOTAGE: <u>870' FNL</u> <u>840' FEL</u> CONTRACTOR: <u>P+S</u>	

EXCAVATION APPROX. <u>30</u> FT. x <u>35</u> FT. x <u>4</u> FT. DEEP. CUBIC YARDAGE: <u>75</u>
DISPOSAL FACILITY: <u>ON-SITE</u> REMEDIATION METHOD: <u>LANDFARM</u>
LAND USE: <u>RANGE</u> LEASE: <u>JIC 146</u> FORMATION: <u>PC</u>

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>190</u> FT. <u>575W</u> FROM WELLHEAD.
DEPTH TO GROUNDWATER: <u>&gt;100'</u> NEAREST WATER SOURCE: <u>&gt;1000'</u> NEAREST SURFACE WATER: <u>&gt;1000'</u>
NMDDP RANKING SCORE: <u>0</u> NMDDP 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 - OK. YELL. ORANGE TO BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT STAINING OBSERVED, NO APPARENT HC ODOR IN ANY OF THE OVM SAMPLES.

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

BEDROCK  
BOTTOM

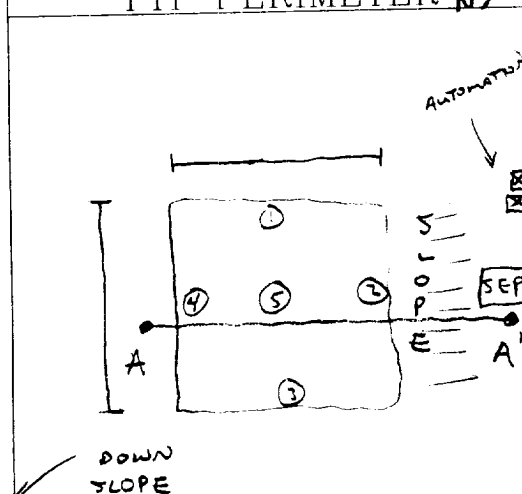
RISK ASSESSED

SCALE  
0 FT

#### FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1445	③ 22'	TPH-2042	5	20	1:1	3	ND

#### PIT PERIMETER



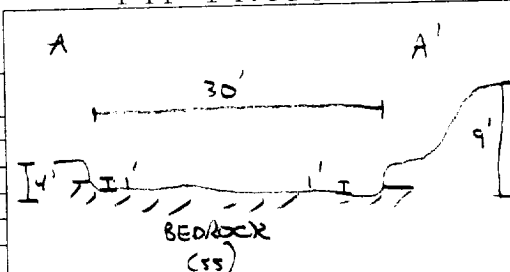
#### OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PIO (ppm)
1 @ 2'	0.0
2 @ 2'	0.0
3 @ 2'	0.0
4 @ 2'	0.0
5 @ 4'	180.5

#### LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

#### PIT PROFILE



TRAVEL NOTES: CALLOUT: <u>9/17/98 - AFTER.</u> ONSITE: <u>9/21/98 - AFTER.</u>
--



<b>Well Name:</b>	<b>Jicarilla Contract 146 #29</b>
<b>Well Site location:</b>	<b>Unit A, Sec. 9, T25N, R5W</b>
<b>Pit Type:</b>	<b>Separator Pit</b>
<b>Producing Formation:</b>	<b>Basin Dakota/Mesa Verde</b>
<b>Pit Category:</b>	<b>Non Vulnerable</b>
<b>Horizontal Distance to Surface Water:</b>	<b>&gt; 1000 ft.</b>
<b>Vicinity Groundwater Depth:</b>	<b>&gt; 100 ft.</b>

## **RISK ASSESSMENT (non-vulnerable area)**

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 4 feet below grade.

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

1. Past production fluids were contained locally by a relatively shallow sandstone bedrock located 4 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below sandstone bedrock.
2. Topographic information does not indicate off site lateral fluid migration near the earthen pit.
3. 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.
4. Well site located within the **non-vulnerable area** and is approximately 0.46 miles north northeast of the nearest vulnerable area boundary (Gonzales Canyon wash).

**(Refer to Lapis Point 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 impact from the earthen pit is very limited and that the sandstone bottom creates enough of an impermeable barrier as to subdue impact to groundwater below it (please refer to AMOCO's report "Post Excavation Pit Closure Investigation Summary, July, 1995", with cover letter dated November 30, 1995). AMOCO requests pit closure approval on this location.

**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:	3 @ 2'	Date Analyzed:	09-21-98
Project Location:	Jicarilla Contract # 146 - 29	Date Reported:	09-21-98
Laboratory Number:	TPH-2042	Sample Matrix:	Soil

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

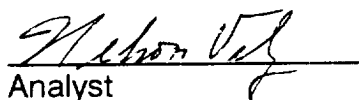
ND = Not Detectable at stated detection limits.

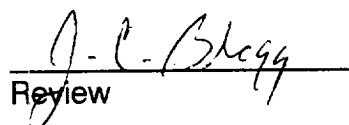
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	236	220	7.02

\*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: Separator Pit - BJ643

  
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

3 @ 2'

Jicarilla Contract # 146 - 29

TPH-2042

Project #:

Date Analyzed:

Date Reported:

Sample Matrix:

09-21-98

09-21-98

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

-----

236

Duplicate  
TPH mg/kg

-----

220

%  
Diff.

----

7.02

Comments:

\*\*\*\*\*Max Characters\*\*\*\*\*

Comments:

Separator Pit - BJ643

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 146-29  
Location: Unit or Qtr/Qtr Sec A Sec 9 T25N R5W County RIO ARIZONA  
Land Type: RANGE

Date Remediation Started: 9-21-98 Date Completed: 4/22/99  
Remediation Method: Landfarmed ☒ Approx. cubic yards 275  
Composted ☐  
Other ☐

Depth 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: 4-20-99 Time: 1145  
Sample Results:  
Field Headspace (ppm) 15.4  
TPH (ppm) 1010 Method TPH (8015)  
Other ☐

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

DATE 4/22/99 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: \_\_\_\_\_ DATE: \_\_\_\_\_

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>B5643</u> C.O.C. NO: <u>6901</u>
----------------------	--	---

# FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: <u>JCARILLA CONTRACT 146 WELL # 29</u>	PITS: <u>SEP, BLOW</u>	DATE STARTED: <u>4-20-99</u>
QUAD/UNIT: <u>A</u> SEC: <u>9</u> TWP: <u>25N</u> RNG: <u>SW</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>		DATE FINISHED: _____
STRAFFORDS: <u>NE/4 NE/4</u>	CONTRACTOR: <u>P+S</u>	ENVIRONMENTAL SPECIALIST: <u>REP</u>

## LAND REMEDIATION:

REMEDICATION SYSTEM: LANDFARM

APPROX. CUBIC YARDAGE: 275

LAND USE: RANGE

LIFT DEPTH (ft): 1-1.5

## FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'

NMOC RANKING SCORE: 0 NMOC TPH CLOSURE STD: 5000 PPM

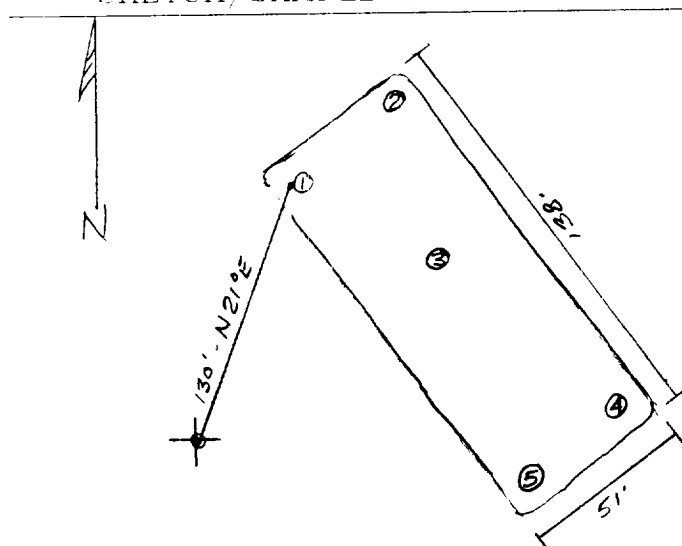
DK OLIVE GRAY SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM  
NO APPARENT STAINING, NO HC ODOR DETECTED  
SAMPLING DEPTHS RANGE FROM 6" - 12". COLLECTED A 5FT  
COMPOSITE SAMPLE FOR LAB ANALYSIS

CLOSED

## FIELD 418.1 CALCULATIONS

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

## SKETCH/SAMPLE LOCATIONS



## OVM RESULTS

## LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	15.4	LF-1	TPH (PDIS)	1145	1010

## SCALE

0 1 FT

## TRAVEL NOTES:

CALCUT: N/A

ONSITE: 4-20-99

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

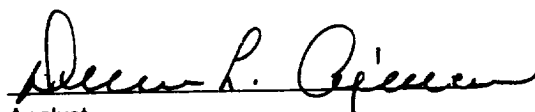
Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	LF - 1	Date Reported:	04-22-99
Laboratory Number:	F070	Date Sampled:	04-20-99
Chain of Custody No:	6901	Date Received:	04-21-99
Sample Matrix:	Soil	Date Extracted:	04-21-99
Preservative:	Cool	Date Analyzed:	04-22-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

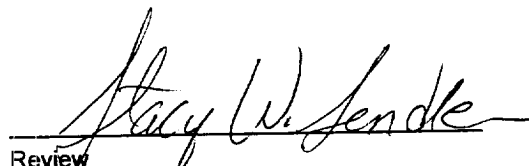
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	40.5	0.2
Diesel Range (C10 - C28)	974	0.1
Total Petroleum Hydrocarbons	1,010	0.2

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 146 - 29 Landfarm. 5 Pt. Composite.

  
Analyst

  
Review

6901

[illegible]