

*Denny G. Frost*  
DEPUTY OIL & GAS INSPECTOR

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

BJ542

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

OCT 08 1999

PIT REMEDIATION AND CLOSURE REPORT

*Blow-Risk-bedrock*  
*Tank Drain-OK*  
*Sep-OK*

Operator: AMOCO PRODUCTION COMPANY Telephone: (505) 326-9200  
Address: 200 Amoco Court, Farmington, NM 87401  
Facility or Well Name: JICARILLA CONTRACT 148-37  
Location: Unit or Qtr/Qtr Sec C Sec 13 T 25N R 5W County RIO ARRIJA  
Pit Type: Separator      Dehydrator      Other BLOW  
Land Type: RANGE

Pit Location: Pit dimensions: length 45', width 45', depth 23'  
(Attach diagram) Reference: wellhead X, other       
Footage from reference: 126'  
Direction from reference: 38 Degrees      East of North X  
X West of South     

**Depth To Groundwater:**

(Vertical distance from  
contaminants to seasonal  
high water elevation of  
groundwater)

**RECEIVED**  
AUG 24 1999

Less than 50 feet (20 points)  
50 feet to 99 feet (10 points)  
Greater than 100 feet (0 points) 0

**Distance to an Ephemeral Stream**

(Downgradient dry wash greater than  
ten feet in width)

**OIL CON. DIV.**  
**DIST. 3**

Less than 100 feet (10 points)  
Greater than 100 feet (0 points) 0

**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) 0

**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) 0

**Distance To Surface Water:**

(Horizontal distance to perennial  
lakes, ponds, rivers, streams, creeks,  
irrigation canals and ditches)

Less than 100 feet (20 points)  
100 feet to 1000 feet (10 points)  
Greater than 1000 feet (0 points) 0

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

Date Remediation Started: \_\_\_\_\_ Date Completed: 4/14/98

Remediation Method: Excavation ☒ Approx. cubic yards 1,725  
(Check all appropriate sections) Landfarmed ☒ Insitu Bioremediation \_\_\_\_\_  
Other \_\_\_\_\_

Remediation Location: Onsite ☒ Offsite ☒ JICARILLA CONTRACT 148-4 (F-13-25-5)  
(i.e. landfarmed onsite, name and location of offsite facility) JICARILLA CONTRACT 148-33 (H-15-25-5)

General Description of Remedial Action: Excavation. BOTTOM HALF MOSTLY BEDROCK,  
THEREFORE NO TPH ANALYSIS WAS CONDUCTED.

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 23' (PIT BOTTOM)

Sample date 4/14/98 Sample time 1115

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>NA</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 4/14/98 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: 4-28-98

C.D.C. NO: \_\_\_\_\_

PAGE No: 1 of 1

ENVIRONMENTAL  
SPECIALIST: NU

SOIL AND EXCAVATION DESCRIPTION:

☒ PIT ABANDONED  
☐ STEEL TANK INSTALLED  
☐ FIBERGLASS TANK INSTALLED

SOILS ARE DR. YELL. BROWN SAND PHASING INTO DUSKY RED CLAY THEN SHALE,  
NO DISCOLORATION OBSERVED IN SAND INTERVAL (SEE THICKNESS w/in PT PROFILE),  
CLAY IS SLIGHTLY PLASTIC TO HIGHLY PLASTIC, SLIGHTLY MOIST, FIRM TO VERY  
HARD, NO APPARENT HC ODDOR OBSERVED IN ANY OF OUR SAMPLES COLLECTED  
FROM SHALE. SHALE DUSKY RED IN COLOR, VERY HARD.

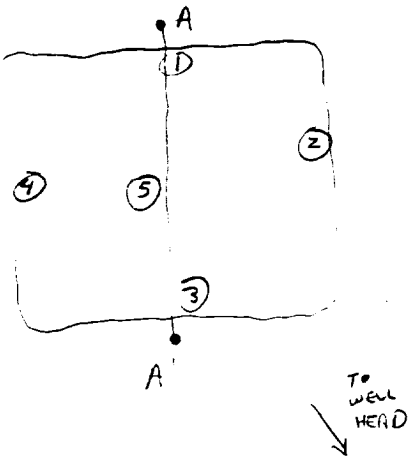
FIELD 418.1 CALCULATIONS

0 FT

FIELD 418.1 CALCULATIONS						
TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	CALC. ppm
1115						

BIT PROFILE

PIT PERIMETER 



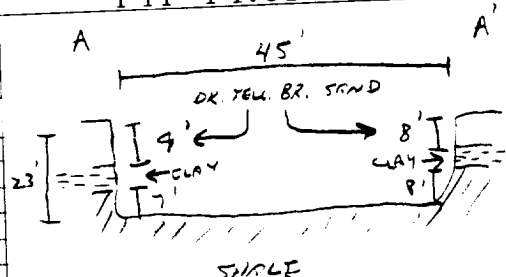
## OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 E 18'	0.0
2 E 17'	0.0
3 E 17'	0.0
4 E 17'	0.0
5 E 23'	0.0

LAB SAMPLES	
1	10/10/10
2	10/10/10
3	10/10/10
4	10/10/10
5	10/10/10
6	10/10/10
7	10/10/10
8	10/10/10
9	10/10/10
10	10/10/10
11	10/10/10
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97	10/10/10
98	10/10/10
99	10/10/10
100	10/10/10

[illegible]

## PIT PROFILE



TRAVEL NOTES:

CALLOUT: 4/8/98 - AFTER

ONSITE: 4/14/98 - morn.

BJ542

## PIT REMEDIATION AND CLOSURE REPORT

<b>Operator:</b> AMOCO PRODUCTION COMPANY		<b>Telephone:</b> (505) 326-9200
<b>Address:</b> 200 Amoco Court, Farmington, NM 87401		
<b>Facility or Well Name:</b> JICARILLA CONTRACT 148-37		
<b>Location:</b> Unit or Qtr/Qtr Sec C Sec 13 T25N R5W County RIO ARriba		
<b>Pit Type:</b> Separator Dhydrator Other PRODUCTION TANK		
<b>Land Type:</b> RANGE		

<b>Pit Location:</b> (Attach diagram)	Pit dimensions: length 30', width 22', depth 14'	
	Reference: wellhead X, other _____	
	Footage from reference: 168'	
	Direction from reference: 19 Degrees X East North 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)	
<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)	0
<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)	0
<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)	0
<b>Distance To SurfaceWater:</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)	0
			<b>RANKING SCORE (TOTAL POINTS):</b> 0

BJS42

PROD. TANK PIT

Date Remediation Started: \_\_\_\_\_ Date Completed: 4/17/98

Remediation Method: Excavation ☒ Approx. cubic yards 340  
(Check all appropriate Insitu Bioremediation \_\_\_\_\_  
options) Landfarmed ☒  
Other \_\_\_\_\_

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

General Description of Remedial Action: Excavation. BEDROCK BOTTOM. SPRAYED NORTH  
& WEST SIDEWALLS w/ FERTILIZER.

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 9' (NORTH SIDEWALL)

Sample date 4/14/98 Sample time 1025

Sample Results

Soil: Benzene	(ppm) <u>0.0095</u>	Water: Benzene	(ppb) _____
Total BTEX	(ppm) <u>5.280</u>	Toluene	(ppb) _____
Field Headspace	(ppm) <u>292</u>	Ethylbenzene	(ppb) _____
TPH	(ppm) <u>70.1</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 4/17/98 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: Kear C. Mamm DATE: 4-29-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BJS42</u> C.D.C. NO: <u>5742</u>
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FIELD REPORT: CLOSURE VERIFICATION	PAGE No: <u>1</u> of <u>1</u>
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LOCATION: NAME: <u>JICA CONTR. 148</u> WELL #: <u>37</u> PIT: <u>PROD.</u>	DATE STARTED: <u>4/14/98</u> DATE FINISHED: _____
QUAD/UNIT: <u>C</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>	ENVIRONMENTAL SPECIALIST: <u>NV</u>
STR/FOOTAGE: <u>NE/4 NW/4</u> CONTRACTOR: <u>P+S</u>	

EXCAVATION APPROX. <u>30</u> FT. x <u>22</u> FT. x <u>14</u> FT. DEEP. CUBIC YARDAGE: <u>340</u>
DISPOSAL FACILITY: <u>ON-SITE</u> REMEDIATION 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>168</u> FT. <u>N19E</u> FROM WELLHEAD.
DEPTH TO GROUNDWATER: <u>&gt;100'</u> NEAREST WATER SOURCE: <u>&gt;1000'</u> NEAREST SURFACE WATER: <u>&gt;1000'</u>	CHECK ONE: <input checked="" type="checkbox"/> PIT ABANDONED <input type="checkbox"/> STEEL TANK INSTALLED <input type="checkbox"/> FIBERGLASS TANK INSTALLED
NMOCD RANKING SCOPE: <u>0</u> NMOCD TPH CLOSURE STD: <u>5000</u> PPM	
SOIL AND EXCAVATION DESCRIPTION:	

SOILS RANGE FROM DK. YELL. BROWN SAND (APPROX. 0'-7') TO DUSKY RED CLAY (7'-12'), CLAY SLIGHTLY PLASTIC NEAR 7' TO HIGHLY PLASTIC, SLIGHTLY MOIST, FIRM TO VERY HARD, MINOR AMOUNT OF STAINING (SMALL PATCH) OBSERVED IN NE CORNER OF EXCAVATION, STRONG HC ODOR IN NORTH & WEST SIDEWALL DUM SAMPLES.

BOTTOM - DUSKY RED SHALE, VERY HARD, NO APPARENT HC ODOR IN DUM SAMPLE.

BEDROCK  
BOTTOM

CLOSED

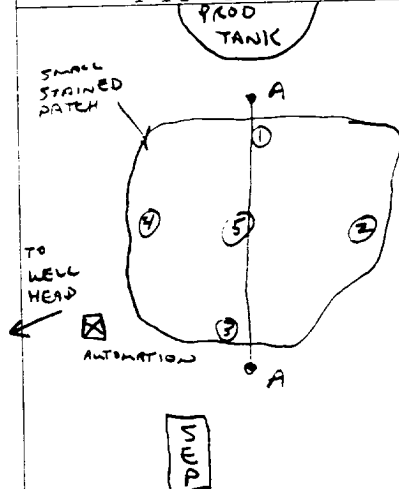
FIELD 418.1 CALCULATIONS

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

SCALE



PIT PERIMETER



OVM RESULTS

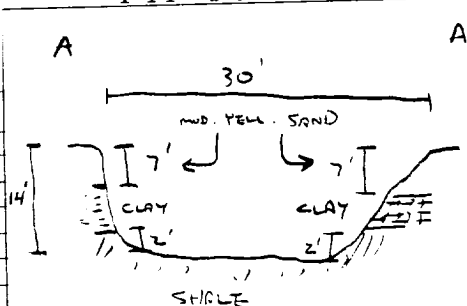
SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 9'	292
2 @ 8'	0.0
3 @ 8'	0.0
4 @ 8'	244.1
5 @ 14'	0.0

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
0 @ 9'	TPH/BTEX	1025
	(3015/8021)	

BOTH PASSED

PIT PROFILE



TRAVEL NOTES:

CALLOUT: 4/8/98 - AFTER.

ONSITE: 4/14/98 MORN.

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

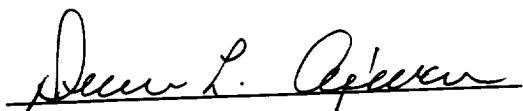
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	1 @ 9'	Date Reported:	04-18-98
Laboratory Number:	D104	Date Sampled:	04-14-98
Chain of Custody No:	5742	Date Received:	04-15-98
Sample Matrix:	Soil	Date Extracted:	04-15-98
Preservative:	Cool	Date Analyzed:	04-17-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

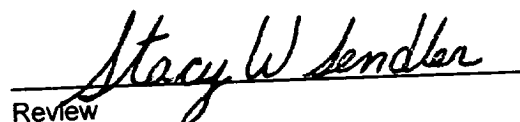
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	6.3	0.2
Diesel Range (C10 - C28)	63.8	0.1
Total Petroleum Hydrocarbons	70.1	0.2

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 148-37. Prod. Tank 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 @ 9'	Date Reported:	04-17-98
Laboratory Number:	D104	Date Sampled:	04-14-98
Chain of Custody:	5742	Date Received:	04-15-98
Sample Matrix:	Soil	Date Analyzed:	04-17-98
Preservative:	Cool	Date Extracted:	04-15-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	9.5	8.8
Toluene	101	8.4
Ethylbenzene	684	7.6
p,m-Xylene	3,690	10.8
o-Xylene	795	5.2
Total BTEX	5,280	

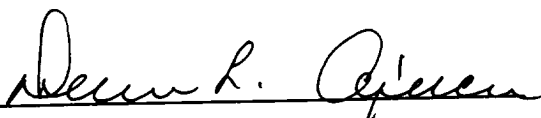
ND - Parameter not detected at the stated detection limit.

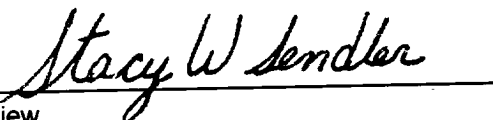
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	101 %
	Bromofluorobenzene	101 %

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 148-37. Prod. Tank Pit.

  
Analyst

  
Review



[illegible]

172  
SUBMIT 1 COPY TO  
NATURAL RESOURCE DEPT  
AND OIL & GAS ADMINISTRATION

**RANKING SCORE (TOTAL POINTS):**

8JS42

SEP. PIT

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

Remediation Method: Excavation ☒ Approx. cubic yards 75  
Check all appropriate sections) Landfarmed ☒ Insitu Bioremediation \_\_\_\_\_  
Other \_\_\_\_\_

Remediation Location: Onsite ☒ Offsite ☒ JICARILLA CONTRACT 148-4 (F-13-ZS-5)  
(i.e. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: Excavation, BEDROCK BOTTOM.

Groundwater Encountered: No ☒ Yes \_\_\_\_\_ Depth \_\_\_\_\_

Final Pit: Sample location see Attached Documents

Closure Sampling: \_\_\_\_\_  
(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample depth 6' (NORTH SIDEWALL)

Sample date 4/14/98 Sample time 1045

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>192</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: Kee C. Mamm DATE: 4-29-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>8JS42</u> C.O.C. NO: _____
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<b>FIELD REPORT: CLOSURE VERIFICATION</b>	PAGE No: <u>1</u> of <u>1</u>
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LOCATION: NAME: <u>JICA. CONTR. 148</u> WELL #: <u>37</u> PIT: <u>SEP</u> QUAD/UNIT: <u>C SEC. 13 TWP. 25N RNG. 5W PM. NM CNTY. RA ST. NM</u> QTR/FOOTAGE: <u>NE 1/4 NW 1/4</u> CONTRACTOR: <u>P. &amp; S</u>	DATE STARTED: <u>4/14/98</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NU</u>
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EXCAVATION APPROX. <u>14</u> FT. x <u>15</u> FT. x <u>11</u> FT. DEEP. CUBIC YARDAGE: <u>75</u> DISPOSAL FACILITY: <u>ON-SITE + JICA. CONTR. 148-4 REMEDIATION</u> METHOD: <u>LANDFARMED</u> LAND USE: <u>RANGE</u> LEASE: <u>JICA. 148</u> FORMATION: <u>OK</u>
--

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>145</u> FT. <u>N46E</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 SCOPE: <u>0</u> NMOC TPH CLOSURE STD: <u>5000</u> PPM
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CHECK ONE:  
☒ PIT ABANDONED  
☐ STEEL TANK INSTALLED  
☐ FIBERGLASS TANK INSTALLED

**SOIL AND EXCAVATION DESCRIPTION:**

MOSTLY PLE ORANGE CLAY PHASING INTO SHALE @ APPROX. 6' TO 7' BELOW GRADE, CLAY - SLIGHTLY TO HIGHLY PLASTIC, SLIGHTLY MOIST, FIRM TO VERY HARD, NO APPARENT STAINING OR HC ODOR OBSERVED W/IN EXCAVATION, NO APPARENT HC ODOR IN ANY OF THE SIDEWALL DUM SAMPLES, UNCERTAIN OF STANDING WATER ORIGIN.  
 BOTTOM - DUSKY RED SHALE, VERY HARD, UNABLE TO COLLECT SAMPLE DUE TO STANDING WATER OBSERVED W/IN EXCAVATION.

**BEDROCK BOTTOM**

SCALE  0 FT

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1045	DE 6'	TAH-1954	5	20	1:1	48	192

**PIT PERIMETER**

**OVM RESULTS**

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 DE 6'	0.0
2 DE 6'	0.0
3 DE 6'	0.0
4 DE 6'	0.0
5	

**LAB SAMPLES**

SAMPLE ID	ANALYSIS	TIME

**PIT PROFILE**

# 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: 1 @ 6'  
Project Location: Jicarilla Contract 148 - 37  
Laboratory Number: TPH-1954

Project #:   
Date Analyzed: 04-19-98  
Date Reported: 04-19-98  
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	190	20

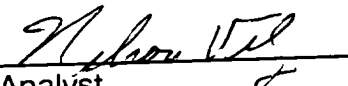
ND = Not Detectable at stated detection limits.

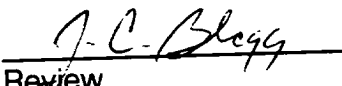
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	608	568	6.80

\*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 - BJ542

  
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:

1 @ 6'

Date Analyzed:

04-19-98

Project Location:

Jicarilla Contract 148 - 37

Date Reported:

04-19-98

Laboratory Number:

TPH-1954

Sample Matrix:

Soil

Sample Weight:

5.00 grams

Volume Freon:

20.00 mL

Dilution Factor:

1 (unitless)

TPH Reading:

48 mg/kg

TPH Result:

192.0 mg/kg

Reported TPH Result:

190 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.

-----  
608

-----  
568

-----  
6.80

Comments:

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

Comments:

Separator Pit - BJ542

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

35542  
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: SICARILLA CONTRACT 148-37  
Location: Unit or Qtr/Qtr Sec C Sec 13 T 25N R 5W County RO ARIZONA  
Land Type: RANGE

Date Remediation Started: 4-14-98 Date Completed: 1/18/99  
Remediation Method: Landfanned ☒ 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: 1-14-99 Time: 1000  
Sample Results: (LF-2)  
Field Headspace (ppm) 20.7  
(LF-2)  
TPH (ppm) 1775 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 1/18/99 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: Ken C. M... DATE: 3-31-99

CLIENT: AMOCOBLAGG ENGINEERING, INC.  
P.O. BOX 87, BLOOMFIELD, NM 87413  
(505) 632-1199LOCATION NO: B5542C.O.C. NO: 6548

## FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: JICARILLA CONTRACT 148 WELL #: 37 PITS: SEP, BLOW, PRODDATE STARTED: 1.14.99QUAD/UNIT: C SEC: 13 TWP: 25N RNG: 5W PM: NM CNTY: RA ST: NMDATE FINISHED: 1.18.99GTP/FOOTAGE: NE/4 NW/4CONTRACTOR: P+SENVIRONMENTAL  
SPECIALIST: REP

## SOIL REMEDIATION:

REMEDICATION 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'NMDCD RANKING SCORE: 0 NMDCD TPH CLOSURE STD: 5000 PPM

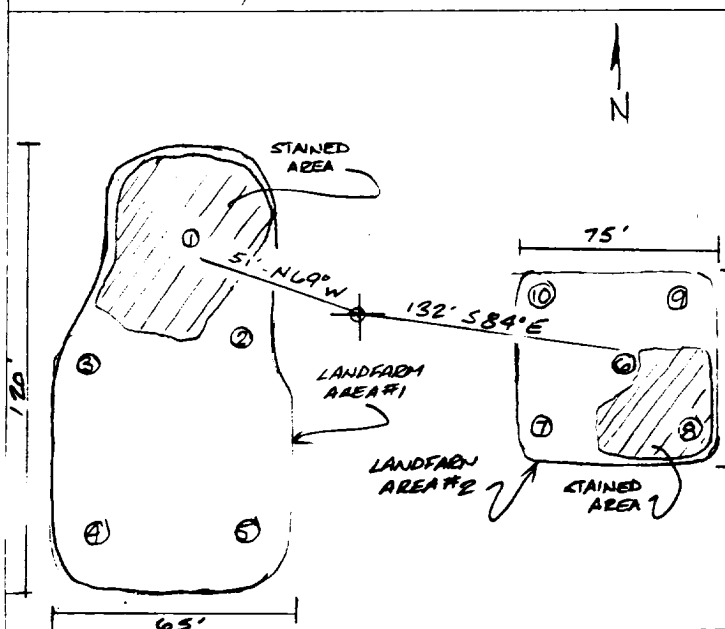
MODERATE YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM  
LARGE AREAS OF STAINING OBSERVED IN BOTH LANDFARM AREAS (SEE SKETCH BELOW)  
HC ODOR WAS DETECTED AT SAMPLING POINTS ① + ⑧. SAMPLING DEPTHS RANGE FROM  
6"-18". TOOK A 5 PT. COMPOSITE SAMPLE FROM EACH LANDFARM AREA FOR LAB ANALYSIS

CLOSEDAPPROX. 530 C.Y. DEPOSED  
TO 148-33APPROX. 590 C.Y. DEPOSED  
TO 148-4.

## 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	7.7	LF-1	TPH (BOLIS)	1000	1570
LF-2	20.7	LF-2	" "	1030	1775

SCALE

0 FT

TRAVEL NOTES:

CALLOUT: N/AONSITE: 1.14.99



EPA METHOD 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons

Client: Blagg / AMOCO  
Sample ID: LF - 1  
Laboratory Number: E525  
Chain of Custody No: 6548  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Cool and Intact

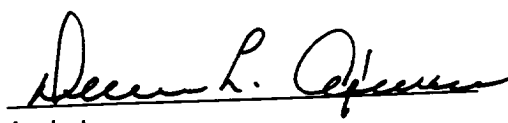
Project #: 04034-10  
Date Reported: 01-18-99  
Date Sampled: 01-14-99  
Date Received: 01-15-99  
Date Extracted: 01-15-99  
Date Analyzed: 01-18-99  
Analysis Requested: 8015 TPH

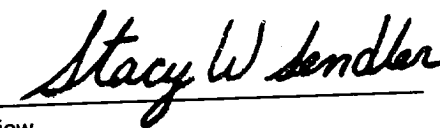
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	21.0	0.2
Diesel Range (C10 - C28)	1,550	0.1
Total Petroleum Hydrocarbons	1,570	0.2

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 - 37 Landfarm. 5 Pt. Composite.

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

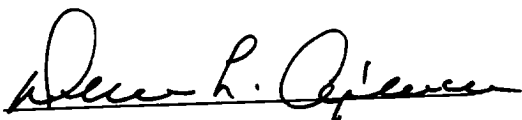
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 2	Date Reported:	01-18-99
Laboratory Number:	E526	Date Sampled:	01-14-99
Chain of Custody No:	6548	Date Received:	01-15-99
Sample Matrix:	Soil	Date Extracted:	01-15-99
Preservative:	Cool	Date Analyzed:	01-18-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

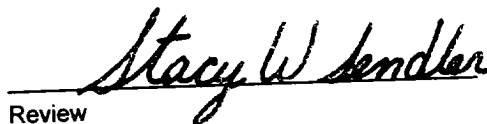
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	75.3	0.2
Diesel Range (C10 - C28)	1,700	0.1
Total Petroleum Hydrocarbons	1,775	0.2

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 - 37 Landfarm. 5 Pt. Composite.

  
Analyst

  
Review

6548

[illegible]