

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

AUG 18 1999

OIL CON. DIV.

Operator: AMOCO PRODUCTION COMPANY

Telephone: 505-326-9200

Address: 200 Amoco Court, Farmington, NM 87401

Facility or Well Name: JICARILLA CONTRACT # 147 - 1E

Location: Unit or Qtr/Qtr Sec J Sec 8 T 25N R 5W County RIO ARriba

Pit Type: Separator      Dehydrator      Other BLOW

Land Type: RANGE

Pit Location:  
(Attach diagram)

Pit dimensions: length 50', width 60', depth 25'

Reference: wellhead X, other     

Footage from reference: 162'

Direction from reference: 38 Degrees      East      North       
X West      South X

**Depth To Groundwater:**

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

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

**Distance to an Ephemeral Stream**

(Downgradient dry wash greater than  
ten feet in width)

Less than 100 feet (10 points)  
Greater than 100 feet (0 points) 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) 0  
No (0 points)     

**Distance To Surface Water:**

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

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

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

RT587

BLOW PIT

Date Remediation Started: \_\_\_\_\_ Date Completed: 7/20/98

mediation Method: Excavation ☒ Approx. cubic yards 2,225  
eck all appropriate sections) Landfarmed ☒ Insitu Bioremediation \_\_\_\_\_  
Other \_\_\_\_\_

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

General Description of Remedial Action: Excavation . BEDROCK BOTTOM.Groundwater Encountered: No ☒ Yes \_\_\_\_\_ Depth \_\_\_\_\_

Final Pit: Sample location see Attached Documents  
Closure Sampling:  
(if multiple samples,  
attach sample results  
and diagram of sample  
locations and depths)

Sample depth 19' (SOUTH SIDEWALL)Sample date 7/16/98 Sample time 0845

## Sample Results

Soil: Benzene	(ppm)	<u>0.368</u>	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	<u>32.690</u>	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>663</u>	Ethylbenzene	(ppb)	_____
TPH	(ppm)	<u>464</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 KNOWLEGE AND BELIEF

DATE 7/20/98 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: Kurt C. M... DATE: 7-27-98

3003922342

CLIENT: <u>AMOCO</u>	<b>BLAGG ENGINEERING, INC.</b> P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BT587</u> C.D.C. NO: <u>6100</u>
<b>FIELD REPORT: CLOSURE VERIFICATION</b>		PAGE No: <u>1</u> of <u>1</u>
LOCATION: NAME: <u>JICA CONTR. 147</u> WELL #: <u>1E</u> PIT: <u>BLOW</u> QUAD/UNIT: <u>J SEC: 8</u> TWP: <u>25N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u> QTR/FOOTAGE: <u>1560' FSL</u> <u>1710' FEL</u> CONTRACTOR: <u>P+S</u>		DATE STARTED: <u>7/16/98</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NV</u>
EXCAVATION APPROX. <u>50</u> FT. x <u>60</u> FT. x <u>25</u> FT. DEEP. CUBIC YARDAGE: <u>2,225</u> DISPOSAL FACILITY: <u>ON-SITE</u> REMEDIATION METHOD: <u>LANDFARM</u> LAND USE: <u>RANGE</u> LEASE: <u>JICA 147</u> FORMATION: <u>OK</u>		
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>162</u> FT. <u>538W</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 D RANKING SCORE: <u>0</u> NMOC D TPH CLOSURE STD: <u>5000</u> PPM <b>SOIL AND EXCAVATION DESCRIPTION:</b>		
<p>SOIL CONSIST OF DK. YELL. ORANGE TO GREENISH GRAY TO DK. GRAY SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM TO DENSE NORTH &amp; SOUTH SIDEWALLS CONTAINED DARKER 'COLORS NOTED' &amp; W/ STRONG HC ODOR, STAINING NOT EVIDENT DURING SAMPLING.</p> <p>BOTTOM - BEDROCK (SANDSTONE), MED. LT. GRAY IN COLOR, SOFT, STRONG HC ODOR IN OVM SAMPLE.</p>		
<div style="border: 1px solid black; padding: 5px; display: inline-block;">BEDROCK BOTTOM</div>  <div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;">CLOSED</div>  SCALE  0 FT		

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

Client: Blagg / AMOCO  
Sample ID: 3 @ 19'  
Laboratory Number: D645  
Chain of Custody No: 6100  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Cool and Intact

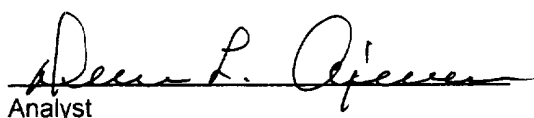
Project #: 04034-10  
Date Reported: 07-17-98  
Date Sampled: 07-16-98  
Date Received: 07-16-98  
Date Extracted: 07-17-98  
Date Analyzed: 07-17-98  
Analysis Requested: 8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	377	0.2
Diesel Range (C10 - C28)	86.7	0.1
Total Petroleum Hydrocarbons	464	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 #147 - 1E 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:	3 @ 19'	Date Reported:	07-17-98
Laboratory Number:	D645	Date Sampled:	07-16-98
Chain of Custody:	6100	Date Received:	07-16-98
Sample Matrix:	Soil	Date Analyzed:	07-17-98
Preservative:	Cool	Date Extracted:	07-17-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	368	8.8
Toluene	4,970	8.4
Ethylbenzene	818	7.6
p,m-Xylene	20,160	10.8
o-Xylene	6,370	5.2
Total BTEX	32,690	

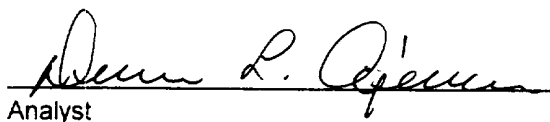
ND - Parameter not detected at the stated detection limit.

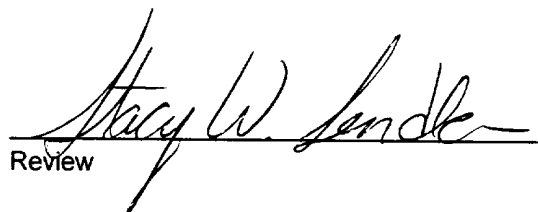
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	98 %
	Bromofluorobenzene	98 %

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 #147 - 1E Blow Pit.

  
Analyst

  
Review

87587

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

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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 #147-1E

**Location:** Unit or Qtr/Qtr Sec J Sec 8 T 25N R 5W County RIO ARRIBA

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

**Land Type:** RANGE

**Pit Location:** Pit dimensions: length 30', width 35', depth 5'  
(Attach diagram)

Reference: wellhead ☒ other ☐

Footage from reference: 150'

Direction from reference: 9 Degrees ☐ East of North ☒  
☒ West South ☐

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

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

85587

SEP. PIT

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

Date Completed: 7/20/98Remediation Method: Excavation ☒  
Check all appropriate sections) Landfarmed ☒Approx. cubic yards 125

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 DocumentsSample depth 3' (SOUTH SIDEWALL)Sample date 7/16/98 Sample time 0735

Sample Results

Soil: Benzene	(ppm)	<u>3.430</u>	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	<u>114.090</u>	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>861</u>	Ethylbenzene	(ppb)	_____
TPH	(ppm)	<u>8,810</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 7/20/98 PRINTED NAME Buddy D. ShawSIGNATURE 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... R.A. DATE: 7-27-98

CLIENT: AMOCOBLAGG ENGINEERING, INC.  
P.O. BOX 87, BLOOMFIELD, NM 87413  
(505) 632-1199LOCATION NO: 8J587C.D.C. NO: 6100

## FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1LOCATION: NAME: TICA CONTR. 147 WELL #: 1E PIT: SEPDATE STARTED: 7/16/98QUAD/UNIT: T SEC 8 TWP: 25N RNG: 5W PM: NM CNTY: RA ST: NM

DATE FINISHED: \_\_\_\_\_

QTR/FOOTAGE: 1560' FSL 1710' FEL CONTRACTOR: P&SENVIRONMENTAL  
SPECIALIST: NVEXCAVATION APPROX. 30 FT. x 35 FT. x 5 FT. DEEP. CUBIC YARDAGE: 125DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARMLAND USE: RANGE LEASE: TIC 147 FORMATION: DK

## FIELD NOTES &amp; REMARKS:

PIT LOCATED APPROXIMATELY 150 FT. N9W FROM WELLHEAD.DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'NMDCD RANKING SCORE: 0 NMDCD TPH CLOSURE STD: 5000 PPM

## SOIL AND EXCAVATION DESCRIPTION:

CHECK ONE:

- ☒ PIT ABANDONED  
☐ STEEL TANK INSTALLED  
☐ FIBERGLASS TANK INSTALLED

SOIL CONSIST OF MOD. TO DR. YELL. BROWN SAND, NON COHESIVE  
SLIGHTLY MOIST, FIRM, DARKER BROWN ON WEST SIDEWALL ONLY,  
NO DISTINCT STAINING OBSERVED WITH SIDEWALLS, STRONG HC ODOR IN ALL  
DUM SAMPLES EXCEPT NORTH SIDEWALL.

BOTTOM - BEDROCK (SANDSTONE) GRAYISH OLIVE IN COLOR, VERY HARD, STRONG  
HC ODOR DETECTED IN DUM SAMPLE.

BEDROCK  
BOTTOM

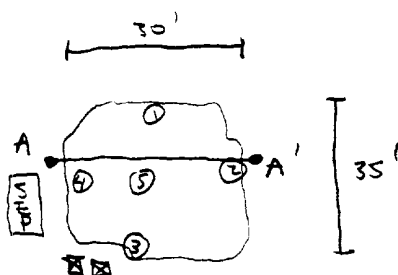
RISK ASSESSED

## FIELD 418.1 CALCULATIONS

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

SCALE

0 FT

PIT PERIMETER ANOVM  
RESULTS

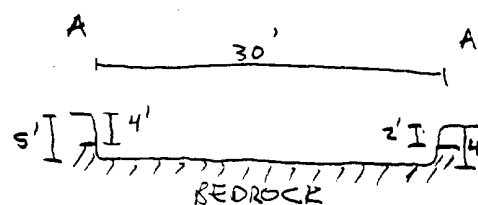
SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 2'	2.8
2 @ 2'	415
3 @ 3'	861
4 @ 3'	771
5 @ 5'	909

## LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
③ @ 3'	TPH/BTEX	0735

TPH - FAILED  
TOT. BTEX - FAILED

## PIT PROFILE



## TRAVEL NOTES:

CALLOUT: 7/15/98 - MORN. ONSITE: 7/16/98 - MORN.

**Well Name:**

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

**Jicarilla Contract 147 #1E**

Unit J, Sec. 8, T25N, R5W

Separator Pit

Basin Dakota

Non Vulnerable

&gt; 1000 ft.

&gt; 100 ft.

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

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 5 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 5 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 0.08 miles north 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.

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified

### Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Blagg / AMOCO  
Sample ID: 3 @ 3'  
Laboratory Number: D646  
Chain of Custody No: 6100  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Cool and Intact

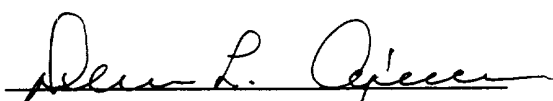
Project #: 04034-10  
Date Reported: 07-17-98  
Date Sampled: 07-16-98  
Date Received: 07-16-98  
Date Extracted: 07-17-98  
Date Analyzed: 07-17-98  
Analysis Requested: 8015 TPH

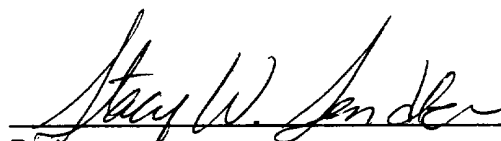
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	7,750	0.2
Diesel Range (C10 - C28)	1,060	0.1
Total Petroleum Hydrocarbons	8,810	0.2

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 #147 - 1E 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:	3 @ 3'	Date Reported:	07-17-98
Laboratory Number:	D646	Date Sampled:	07-16-98
Chain of Custody:	6100	Date Received:	07-16-98
Sample Matrix:	Soil	Date Analyzed:	07-17-98
Preservative:	Cool	Date Extracted:	07-17-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	3,430	8.8
Toluene	18,430	8.4
Ethylbenzene	1,670	7.6
p,m-Xylene	61,990	10.8
o-Xylene	28,570	5.2
<b>Total BTEX</b>	<b>114,090</b>	

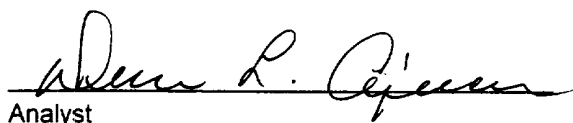
ND - Parameter not detected at the stated detection limit.

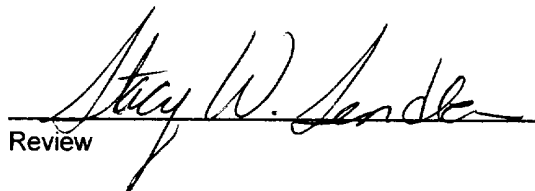
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	101 %
	Bromofluorobenzene	101 %

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 #147 - 1E Separator Pit.

  
Analyst

  
Review

# CHAIN OF CUSTODY RECORD

6100

Client / Project Name			Project Location			ANALYSIS / PARAMETERS					
B2AGG / Anoco			JICARIVA CONTRACT #147-1E								
Sampler: NTV			Client No. 04034-10								
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	PH (8015)	BTEX (8021)	Remarks			
(3) 2X19' NTV	7/16/98	0845	0645	Soil	1	✓	✓	BOTH SAMPLES PRESERV. - COOL			
(3) 2X13' NTV	7/16/98	0735	0646	Soil	1	✓	✓	SEPARATED PIT			
Relinquished by: (Signature)			Date	Time	Received by: (Signature)						
[Signature]			7/16/98	1447	[Signature]						
Relinquished by: (Signature)											
[Signature]											
Relinquished by: (Signature)											
[Signature]											
Relinquished by: (Signature)											
[Signature]											
Ref C0C's 6100, 6101, 6170											
ENVIROTECH INC.											
5796 U.S. Highway 64 Farmington, New Mexico 87401 (505) 632-0615											
Sample Receipt											
Received Intact			Y	N	N/A						
Cool - Ice/Blue Ice			✓								

## JICARILLA APACHE TRIBE

SUBMIT 1 COPY TO:

## ENVIRONMENTAL PROTECTION OFFICE

NATURAL RESOURCE DEPT

P.O. BOX 507

AND OIL &amp; GAS ADMINISTRATION

DULCE, NEW MEXICO 87528

ON-SITE SOIL REMEDIATION REPORTOperator: AMOCO PRODUCTION COMPANY Telephone: (505) 326-9200Address: 200 Amoco Court, Farmington, NM 87401Facility or Well Name: JICARILLA CONTRACT 147-1ELocation: Unit or Qtr/Qtr Sec 5 Sec 8 T 25N R 5W County RIO ARribaLand Type: RANGEDate Remediation Started: 6-25-99 Date Completed: 4/1/99Remediation Method: Landfarmed ☒ Approx. cubic yards 2,350  
Composted ☐  
Other ☐Depth To Groundwater: (pts.) 0Distance to an Ephemeral Stream (pts.) 0Distance to Nearest Lake, Playa, or Watering Pond (pts.) 0Wellhead Protection Area: (pts.) 0Distance To Surface Water: (pts.) 0RANKING SCORE (TOTAL POINTS): 0

## Final Closure Sampling:

Sampling Date: 3-30-99 Time: 0945  
1015Sample Results: (LF-2)Field Headspace (ppm) 9.4TPH (ppm) (LF-1 & LF-2) ND Method 8015Other 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 4/1/99 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: AMOCO

BLAGG ENGINEERING, INC.  
P.O. BOX 87, BLOOMFIELD, NM 87413  
(505) 632-1199

LOCATION NO: BJS87  
C.O.C. NO: 4581

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: SKARILLA CONTRACT 147 WELL #: 1E PITS: SEP, BLOW  
QUAD/UNIT: 5 SEC: 8 TWP: 25N RNG: SW PM: NM CNTY: RA ST: NM  
QTR/FOOTAGE: NW/4 SE/4 CONTRACTOR: P+S

DATE STARTED: 3.30.99  
DATE FINISHED: \_\_\_\_\_  
ENVIRONMENTAL SPECIALIST: REP

SOIL REMEDIATION:

REMEDICATION SYSTEM: LANDFARM

APPROX. CUBIC YARDAGE: 2350

LAND USE: RANGE

LIFT DEPTH (ft): 1-2

FIELD NOTES & REMARKS:

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

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

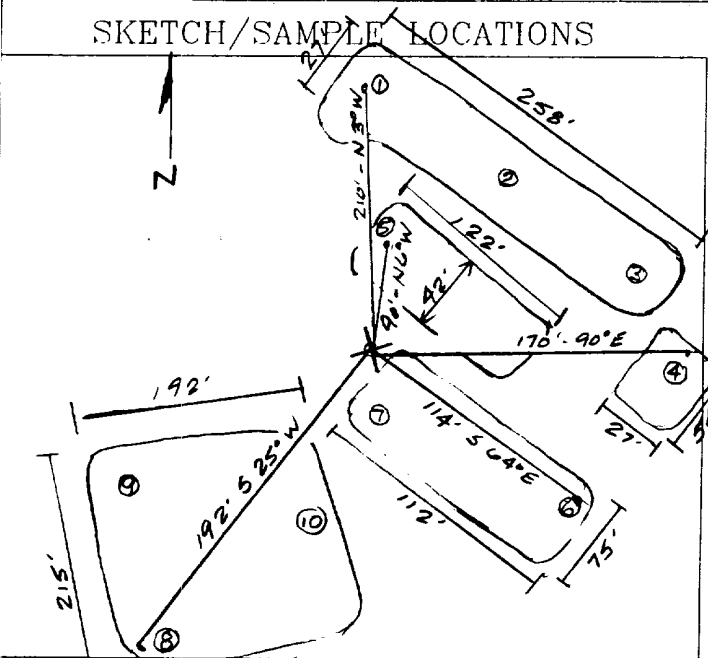
DK. YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM.  
NO APPARENT STAINING OBSERVED, NO HC ODOB DETECTED. SAMPLING DEPTHS  
RANGE FROM 6" - 18". TOOK 2 SPT. COMPOSITE SAMPLES FOR LAB ANALYSIS.

CLOSED

FIELD 418.1 CALCULATIONS

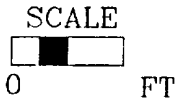
SAMP. TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

SKETCH/SAMPLE LOCATIONS



OVM RESULTS LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	3.9	LF-1	TPH (6015)	0945	ND
LF-2	9.4	LF-2	TPH (6015)	1015	ND



TRAVEL NOTES: CALLOUT: N/A ONSITE: 3.30.99

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

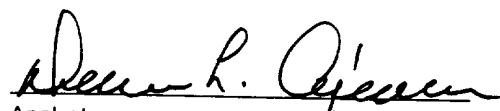
Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	LF - 1	Date Reported:	04-01-99
Laboratory Number:	E917	Date Sampled:	03-30-99
Chain of Custody No:	6581	Date Received:	03-31-99
Sample Matrix:	Soil	Date Extracted:	03-31-99
Preservative:	Cool	Date Analyzed:	04-01-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH


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

ND - Parameter not detected at the stated detection limit.

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

Comments: Jicarilla Contract 147 - 1 E Landfarm. 5 Pt. Composite.

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

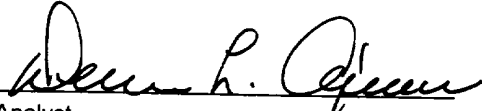
Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	LF - 2	Date Reported:	04-01-99
Laboratory Number:	E918	Date Sampled:	03-30-99
Chain of Custody No:	6581	Date Received:	03-31-99
Sample Matrix:	Soil	Date Extracted:	03-31-99
Preservative:	Cool	Date Analyzed:	04-01-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH


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

ND - Parameter not detected at the stated detection limit.

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

Comments: Jicarilla Contract 147 - 1 E Landfarm. 5 Pt. Composite.

  
Analyst

  
Review

# CHAIN OF CUSTODY RECORD

6581

Client / Project Name <b>Black/Alvoco</b>			Project Location <b>LANDFARM</b>			ANALYSIS / PARAMETERS					
Sampler: <b>REP</b>			Client No. <b>04034-10</b>			TICARILLA CONTRACT 147-1E					
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	Remarks					
LE-1	3/30/99	0945	E917	SOIL	1	TPH (B015)					5 PT. COMPOSITE
LE-2	3/30/99	1015	E918	SOIL	1	✓					5 PT. COMPOSITE
											SAMPLES PRESENT
											COOL
Relinquished by: (Signature) <i>Ed Potter</i>			Date	Time	Received by: (Signature) <i>William Vel</i>						
Relinquished by: (Signature) <i>William Vel</i>			3/31/99	0715	Received by: (Signature) <i>William Vel</i>	3/31/99	0715				
Relinquished by: (Signature)			3/31/99	0756	Received by: (Signature) <i>William Vel</i>	3/31/99	0756				

**ENVIROTECH INC.**

5796 U.S. Highway 64  
Farmington, New Mexico 87401  
(505) 632-0615

Sample Receipt

Received Intact	Y	N	N/A
Cool - Ice/Blue Ice	✓		