BJ691 OK
2 Pits
Bedrock
Risked

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

RECEIVED
JUL 13 1999
OIL CON. DIV.
DIST. 3

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) 326-9700

Address: 200 Amoco Court, Farmington, NM 87401

Facility or Well Name: JICARILLA A # 4E

Location: Unit or Qtr/Qtr Sec D Sec 19 T 26N R 5W County RIO ARRIBA

Pit Type: Separator ____ Dehydrator ____ Other PRODUCTION TANK Half Buried

Land Type: RANGE

DEPUTY OIL & GAS INSPECTOR
AUG 13 1999

Pit Location: (Attach diagram)

Pit dimensions: length 12', width 13', depth 5'

Reference: wellhead X, other ____

Footage from reference: 117'

Direction from reference: 25 Degrees ____ East ____ North of X West South X

Depth To Groundwater: (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)	0
Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Less than 100 feet Greater than 100 feet	(10 points) (0 points)	0
Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds)	Less than 100 feet Greater than 100 feet	(10 points) (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 No	(20 points) (0 points)	0
Distance To SurfaceWater: (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)	0

RANKING SCORE (TOTAL POINTS): 0

PROD. TANK PIT BJ691

Date Remediation Started: _____ **Date Completed:** 11/30/98

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 20

Landfarmed X Insitu Bioremediation _____

Other _____

Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility) Onsite X Offsite _____

General Description of Remedial Action: Excavation. BEDROCK BOTTOM. RISK ASSESSED.

Groundwater Encountered: No X 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 3' (WEST SIDEWALL)

Sample date 11/28/98 Sample time 1000

Sample Results

Soil:	Benzene	(ppm)		Water: Benzene	(ppb)
	Total BTEX	(ppm)		Toluene	(ppb)
	Field Headspace	(ppm)	0.0	Ethylbenzene	(ppb)
	TPH	(ppm)	18.9	Total Xylenes	(ppb)

Groundwater Sample: Yes ____ No X (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 11/30/98 **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 X NO ____ (REASON) _____

SIGNED: Kurt C Mancuso **DATE:** 12-28-98

22292

CLIENT: AMOCO

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

LOCATION NO: B569'
C.O.C. NO: 6297

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: JICARILLA A WELL #: 4E PIT: PROD
QUAD/UNIT: D SEC: 19 TWP: 26N RNG: 5W PM: NM CNTY: RA ST: NM
QTR/FOOTAGE: 950 FNL/1075 FWL CONTRACTOR: P&S

DATE STARTED: 11-28-98
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 12 FT. x 13 FT. x 5 FT. DEEP. CUBIC YARDAGE: 20
DISPOSAL FACILITY: ON SITE REMEDIATION METHOD: LANDFARM
LAND USE: RANGE LEASE: JIC. A FORMATION: DK

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 117 FT. S 25°W FROM WELLHEAD.
DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM

CHECK ONE:
- ✓ PIT ABANDONED
- ___ STEEL TANK INSTALLED
- ___ FIBERGLASS TANK INSTALLED

SOIL AND EXCAVATION DESCRIPTION:

SIDEWALL - DK. YELL. ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST. FIRM NO APPARENT STAINING OR HC ODOR OBSERVED/DETECTED W/IN EXCAVATION OR IN ANY OVM SAMPLES.

BOTTOM - BEDROCK (SANDSTONE) OLIVE GRAY IN COLOR, VERY HARD HC ODOR DETECTED IN OVM SAMPLE

BEDROCK BOTTOM

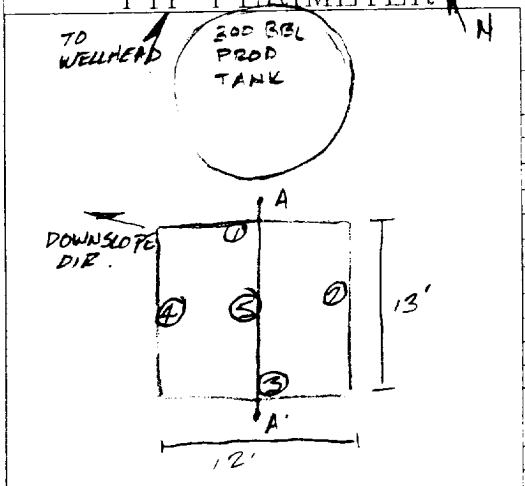
(TSK ASSESS)

FIELD 418.1 CALCULATIONS

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

SCALE
0 FT

PIT PERIMETER



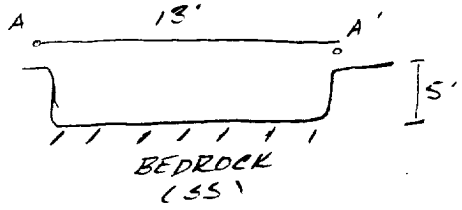
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm.)
1 @ 3'	0.0
2 @ 3'	0.0
3 @ 2'	0.0
4 @ 3'	0.0
5 @ 5'	141.5

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
4@3'	TPH (418.1)	1000
	PASSED	

PIT PROFILE



TRAVEL NOTES: CALLOUT: ONSITE:

Well Name:	**Jicarilla A #4E**
Well Site location:	Unit D, Sec. 19, T26N, R5W
Pit Type:	Production Tank Pit
Producing Formation:	Basin Dakota
Pit Category:	Non Vulnerable
Horizonal Distance to Surface Water:	> 1000 ft.
Vicinity Groundwater Depth:	> 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 0.06 miles east of the nearest vulnerable area boundary (Albert Canyon wash).

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

Based upon the information given, we conclude that the subsurface lateral 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 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	4 @ 3'	Date Reported:	11-30-98
Laboratory Number:	E227	Date Sampled:	11-28-98
Chain of Custody No:	6297	Date Received:	11-30-98
Sample Matrix:	Soil	Date Extracted:	11-30-98
Preservative:	Cool	Date Analyzed:	11-30-98
Condition:	Cool and Intact	Analysis Needed:	TPH-418.1

Parameter	oncentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**18.9**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Jicarilla A #4E Production Tank Pit.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

BJ691

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 A #4E

Location: Unit or Qtr/Qtr Sec D Sec 19 T 26N R 5W County RIO ARRIBA

Pit Type: Separator X Dehydrator ____ Other ____

Land Type: RANGE

Pit Location: (Attach diagram)

Pit dimensions: length 25', width 36', depth 4'

Reference: wellhead X, other ____

Footage from reference: 75'

Direction from reference: 77 Degrees ____ East X North of X West South ____

Depth To Groundwater: (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)	0
Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Less than 100 feet Greater than 100 feet	(10 points) (0 points)	0
Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds)	Less than 100 feet Greater than 100 feet	(10 points) (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 No	(20 points) (0 points)	0
Distance To SurfaceWater: (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)	0

RANKING SCORE (TOTAL POINTS): 0

BT691 SEP. PIT

Date Remediation Started: _____ **Date Completed:** 11/30/98

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 150

Landfarmed X Insitu Bioremediation _____

Other _____

Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility) Onsite X Offsite _____

General Description of Remedial Action: Excavation, Bedrock Bottom.

Groundwater Encountered: No X 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 3' (South Sidewall)

Sample date 11/28/98 Sample time 1015

Sample Results

Soil: Benzene	(ppm)	4.530	Water: Benzene	(ppb)	
Total BTEX	(ppm)	53.620	Toluene	(ppb)	
Field Headspace	(ppm)	131.1	Ethylbenzene	(ppb)	
TPH	(ppm)	3,630	Total Xylenes	(ppb)	

Groundwater Sample: Yes ____ No X (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 11/30/98 **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 X NO ____ (REASON) R.A. Attached

SIGNED: Kurt C Mann **DATE:** 12-28-98

CLIENT: AMOCO

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

LOCATION NO: BJ691
C.O.C. NO: 6297

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: JICARILLA A WELL #: 4E PIT: SEP.
QUAD/UNIT: D SEC: 19 TWP: 26N RNG: 5W PM: NM CNTY: RA ST: NM
QTR/FOOTAGE: 950 FNL / 1075 FWL CONTRACTOR: P&S

DATE STARTED: 11-28-98
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 25 FT. x 36 FT. x 6 FT. DEEP. CUBIC YARDAGE: 150
DISPOSAL FACILITY: ON SITE REMEDIATION METHOD: LANDFARM
LAND USE: RANGE LEASE: JIC. A FORMATION: DK

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 75 FT. N 77°W FROM WELLHEAD.
DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM

CHECK ONE:
✓ PIT ABANDONED
___ STEEL TANK INSTALLED
___ FIBERGLASS TANK INSTALLED

SOIL AND EXCAVATION DESCRIPTION:

SIDEWALL - DK. YELL. ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM. NO APPARENT STAINING OBSERVED, H C ODOR DETECTED IN EAST AND SOUTH SIDEWALLS OVM SAMPLES.

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

BEDROCK BOTTOM

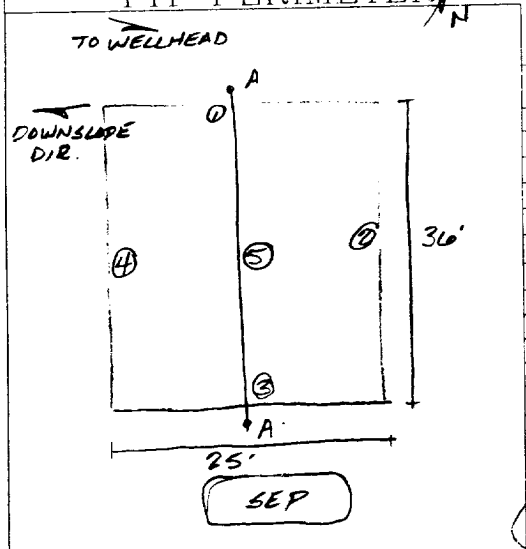
RISK ASSESSED

FIELD 418.1 CALCULATIONS

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

SCALE
0 FT

PIT PERIMETER



OVM RESULTS

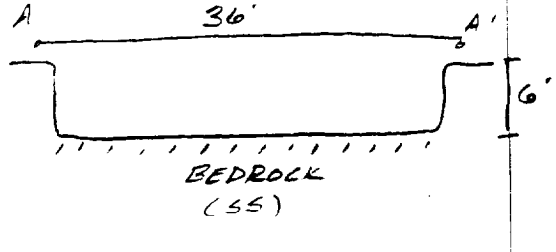
SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 3'	6.0
2 @ 3'	119.5
3 @ 3'	131.1
4 @ 3'	67.3
5 @ 6'	135.4

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
3@3	TPH/BTEX	1015

TPH - PASSED
TOT. BTEX - FAILED

PIT PROFILE



TRAVEL NOTES: CALLOUT: ONSITE:

Well Name:	**Jicarilla A #4E**
Well Site location:	Unit D, Sec. 19, T26N, R5W
Pit Type:	Separator Pit
Producing Formation:	Basin Dakota
Pit Category:	Non Vulnerable
Horizonal Distance to Surface Water:	> 1000 ft.
Vicinity Groundwater Depth:	> 100 ft.

RISK ASSESSMENT (non-vulnerable area)

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 6 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 6 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 0.06 miles east of the nearest vulnerable area boundary (Albert Canyon wash).

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

Based upon the information given, we conclude that the subsurface lateral 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	Project #:	04034-10
Sample ID:	3 @ 3'	Date Reported:	11-30-98
Laboratory Number:	E228	Date Sampled:	11-28-98
Chain of Custody No:	6297	Date Received:	11-30-98
Sample Matrix:	Soil	Date Extracted:	11-30-98
Preservative:	Cool	Date Analyzed:	11-30-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**2,810**	**0.2**
Diesel Range (C10 - C28)	**816**	**0.1**
Total Petroleum Hydrocarbons	**3,630**	**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 A #4E Separator Pit.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

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:	11-30-98
Laboratory Number:	E228	Date Sampled:	11-28-98
Chain of Custody:	6297	Date Received:	11-30-98
Sample Matrix:	Soil	Date Analyzed:	11-30-98
Preservative:	Cool	Date Extracted:	11-30-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**4,530**	**8.8**
Toluene	**5,040**	**8.4**
Ethylbenzene	**3,920**	**7.6**
p,m-Xylene	**26,080**	**10.8**
o-Xylene	**14,050**	**5.2**
Total BTEX	**53,620**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**96 %**
	Bromofluorobenzene	**96 %**

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 A #4E Separator Pit.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

CHAIN OF CUSTODY RECORD

6297

Client / Project Name	Project Location
BLAGG / AMOCO	JICARILLA A #4E
Sampler: NJV	Client No. 04034-10

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (8015)	BTEX (8021)	TPH (418.1)				Remarks
(4) @ 3'	11/28/98	1000	E227	SOIL	1			✓				PRODUCTION TANK PIT
(3) @ 3'	11/28/98	1015	E228	SOIL	1	✓	✓					SEPARATOR PIT
												BOTH SAMPLES
												PRESERV. - COOL

ANALYSIS / PARAMETERS

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Velez	11/30/98	07:32	Glenn L. Ojeman	11.30.98	0732
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

Ref COC's 6316, 6317, 6222, 6297

ENVIROTECH INC.

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

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

BJ671

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 A 4E

Location: Unit or Qtr/Qtr Sec D Sec 19 T 26N R 5W County RIO ARRIBA

Land Type: RANGE

Date Remediation Started: 11.28.98 **Date Completed:** 6/4/99

Remediation Method: Landfarmed ✓ Approx. cubic yards 170

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 SurfaceWater:	(pts.)	0
RANKING SCORE (TOTAL POINTS):		0

Final Closure Sampling:

Sampling Date: 6.2.99 Time: 0910

Sample Results:

Field Headspace (ppm) 427

TPH (ppm) 325 Method 8015 / 8021

Other BENZENE 0.0582 ppm

TOT. BTEX 4.200 ppm

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

DATE 6/4/99 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 X NO ____ (REASON) ____

SIGNED: [signature] DATE: 6-18-99

CLIENT: AMOCO

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

LOCATION NO: BJ691
C.O.C. NO: 7058

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: JICARILLA A WELL #: 4E PITS: SEP, PROD
QUAD/UNIT: D SEC: 19 TWP: 26N RNG: 5W PM: NM CNTY: RA ST: NM
QTR/FOOTAGE: NW/4 NW/4 CONTRACTOR: P+S

DATE STARTED: 6 2 99
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: BEP

SOIL REMEDIATION:

REMEDIATION SYSTEM: LANDFARM
APPROX. CUBIC YARDAGE: 170
LAND USE: RANGE
LIFT DEPTH (ft): 1'

FIELD NOTES & REMARKS:

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

NMOCD RANKING SCORE 0 NMOCD TPH CLOSURE STD: 5000 PPM

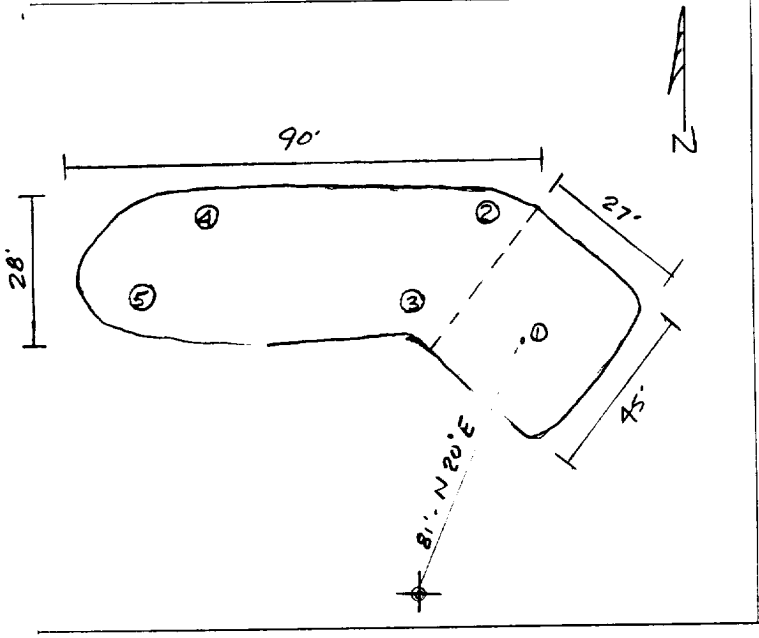
LT. YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM
NO APPARENT STAINING, HC ODOR DETECTED IN SAMPLING PT ②
SAMPLING DEPTHS RANGE FROM 6" - 10". COLLECTED A 5PT. COMPOSITE
SAMPLE FOR LAB ANALYSIS.

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

SAMPLE ID	FIELD HEADSPACE PID (ppm)
LF-1	427

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	TPH (8015)	0910	325
"	BENZENE	"	58.2 ppb
"	TOT. BTEX	"	4200 ppb

SCALE
0 FT

TRAVEL NOTES: CALLOUT: N/A ONSITE: 6.2.99

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:	06-04-99
Laboratory Number:	F448	Date Sampled:	06-02-99
Chain of Custody No:	7058	Date Received:	06-03-99
Sample Matrix:	Soil	Date Extracted:	06-03-99
Preservative:	Cool	Date Analyzed:	06-04-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**203**	**0.2**
Diesel Range (C10 - C28)	**122**	**0.1**
Total Petroleum Hydrocarbons	**325**	**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 A - 4E Landfarm. 5 Pt. Composite.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	LF - 1	Date Reported:	06-04-99
Laboratory Number:	F448	Date Sampled:	06-02-99
Chain of Custody:	7058	Date Received:	06-03-99
Sample Matrix:	Soil	Date Analyzed:	06-04-99
Preservative:	Cool	Date Extracted:	06-03-99
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**58.2**	**8.8**
Toluene	**763**	**8.4**
Ethylbenzene	**492**	**7.6**
p,m-Xylene	**2,300**	**10.8**
o-Xylene	**591**	**5.2**
Total BTEX	**4,200**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**99 %**
	Bromofluorobenzene	**99 %**

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 A - 4E Landfarm. 5 Pt. Composite**

Analyst

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CHAIN OF CUSTODY RECORD

7058

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG/AMOCO	LANDFARM JICARILLA A. 4E	

Sampler:	Client No.
REP	403410

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (8015)	BTEX (8021)					Remarks
LF-1	6.2.99	0910	F448	SOIL	1	✓	✓					SPT. COMPOSITE
												SAMPLE PRESERVE-
												COOL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6.3.99	8:30	[signature]	6.3.99	8:30
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

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