RK
BJ594

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NATURAL RESOURCE DEPT
AND OIL & GAS ADMINISTRATION

Denny E. Foust
DEPUTY OIL & GAS INSPECTOR

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

AUG 13 1999

Approved

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 C #2

Location: Unit or Qtr/Qtr Sec N Sec 14 T 26N R 5W County RIO ARRIBA

Pit Type: Separator ____ Dehydrator ____ Other BLOW

Land Type: RANGE

Pit Location: (Attach diagram)

Pit dimensions: length 24', width 23', depth 14'

Reference: wellhead X, other ____

Footage from reference: 111'

Direction from reference: 74 Degrees X East of ____ West North X 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): 6

BJ594 Blow PIT

Date Remediation Started: _____ **Date Completed:** 7/31/98

Remediation Method: (Check all appropriate sections)
Excavation X — Approx. cubic yards 175
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 8' (West Sidewall).

Sample date 7/28/98 Sample time 1015

Sample Results

Soil: Benzene	(ppm)	0.218	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	53.820	Toluene	(ppb)	_____
Field Headspace	(ppm)	1,296	Ethylbenzene	(ppb)	_____
TPH	(ppm)	1,470	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 7/31/98 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: _____ DATE: 9-9-98

300390814 5

CLIENT: AMOCO	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: BJ594 C.O.C. NO: 6111

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: JICARILLA C WELL #: 2 PIT: BLOW

QUAD/UNIT: N SEC: 14 TWP: 26N RNG: 5W PM: NM CNTY: RA ST: NM

QTR/FOOTAGE: 835' FSL / 2140' FWL CONTRACTOR: P & S

DATE STARTED: 7/28/98

DATE FINISHED:

ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 24 FT. x 23 FT. x 14 FT. DEEP. CUBIC YARDAGE: 175

DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARM

LAND USE: RANGE LEASE: C FORMATION: DK

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 111 FT. N74E 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:

SIDEWALLS: MOSTLY OR. YELL. BROWN SAND TO SILTY SAND NON COHESIVE, SLIGHTLY MOIST, FIRM, STRONG HC ODOR IN WEST SIDEWALL OVM SAMPLE ONLY, NO APPARENT STAINING OR HC ODOR OBSERVED W/IN EXCAVATION.

BOTTOM - BEDROCK (SHALE/CLAYSTONE), HARD, OLIVE GRAY IN COLOR NO APPARENT HC ODOR IN OVM SAMPLE, VERY MOIST TO SATURATED @ PIT BOTTOM DUE TO RECENT PRECIPITATION.

BEDROCK Bottom

RISK ASSESSED

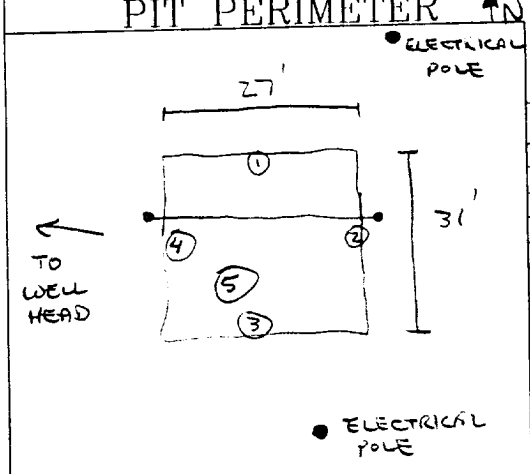
FIELD 418.1 CALCULATIONS

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 @ 7'	0.0
2 @ 7'	0.0
3 @ 8'	37.9
4 @ 8'	1,296
5 @ 14'	1.7

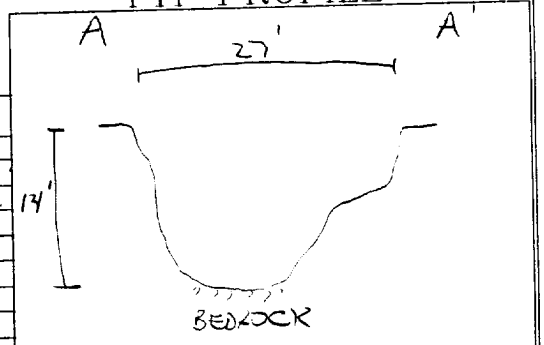
LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
(4) @ 8'	TPH / BTEX	1015

TPH - PASSED

TOT. BTEX - FAILED

PIT PROFILE



TRAVEL NOTES: CALLOUT: 7/23/98 - AFTER. ONSITE: 7/28/98 - MORN.

Well Name:	**Jicarilla C #2**
Well Site location:	Unit N, Sec. 14, T26N, R5W
Pit Type:	Blow 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 shale/claystone bedrock at 14 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 shale/claystone bedrock located 14 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below shale/claystone 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 0.62 miles north of the nearest vulnerable area boundary (Tapacito Creek).

   (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 shale/claystone 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:	4 @ 8'	Date Reported:	07-31-98
Laboratory Number:	D766	Date Sampled:	07-28-98
Chain of Custody No:	6111	Date Received:	07-30-98
Sample Matrix:	Soil	Date Extracted:	07-31-98
Preservative:	Cool	Date Analyzed:	07-31-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**592**	**0.2**
Diesel Range (C10 - C28)	**880**	**0.1**
Total Petroleum Hydrocarbons	**1,470**	**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 C #2 Blow Pit.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	4 @ 8'	Date Reported:	07-31-98
Laboratory Number:	D766	Date Sampled:	07-28-98
Chain of Custody:	6111	Date Received:	07-30-98
Sample Matrix:	Soil	Date Analyzed:	07-31-98
Preservative:	Cool	Date Extracted:	07-31-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**218**	**8.8**
Toluene	**8,680**	**8.4**
Ethylbenzene	**1,030**	**7.6**
p,m-Xylene	**33,470**	**10.8**
o-Xylene	**10,420**	**5.2**
Total BTEX	**53,820**	

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-84 USEPA, December 1996.

Comments: **Jicarilla C #2 Blow Pit.**

Analyst

Review Stacy W Sendler

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BJ594

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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 C #2

Location: Unit or Qtr/Qtr Sec N Sec 14 T26N R 5W County RIO ARRIBA

Pit Type: Separator X Dehydrator ____ Other ____

Land Type: RANGE

Pit Location: (Attach diagram)

Pit dimensions: length 27', width 31', depth 11'

Reference: wellhead X, other ____

Footage from reference: 95'

Direction from reference: 21 Degrees X East North X of ____ 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

BJ594 SEP. PIT

Date Remediation Started: _____ **Date Completed:** 7/31/98

Remediation Method: (check all appropriate sections) Excavation X Approx. cubic yards 300

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 6' (SOUTH SIDEWALL)

Sample date 7/28/98' Sample time 0915

Sample Results

Soil:	Benzene	(ppm) 3.840	Water:	Benzene	(ppb) _____
	Total BTEX	(ppm) 254.190		Toluene	(ppb) _____
	Field Headspace	(ppm) 1,068		Ethylbenzene	(ppb) _____
	TPH	(ppm) 5,420		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 7/31/98 **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: _____ **DATE:** 9-9-98

CLIENT: AMOCO

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

LOCATION NO: BJ594
C.O.C. NO: 6111

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: JICARILLA C WELL #: 2 PIT: SEP
QUAD/UNIT: N SEC: 14 TWP: 26N RNG: 5W PM: NM CNTY: RA ST: NM
QTR/FOOTAGE: 835' FSL | 2140' FWL CONTRACTOR: P & S

DATE STARTED: 7/28/98
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 27 FT. x 31 FT. x 11 FT. DEEP. CUBIC YARDAGE: 300
DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARM
LAND USE: RANGE LEASE: C FORMATION: DK

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 95 FT. N21E 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:

SIDEWALLS: BOTTOM HALF (BELOW 5½' FROM GRADE) CONSISTED OF MED. GRAY TO BLACK SILTY SAND TO CLAY NON COHESIVE TO PLASTIC SLIGHTLY MOIST FIRM TO STIFF STAINING EVIDENT ALONG W/ HC ODOR FROM BOTTOM HALF, STRONG HC ODOR IN ALL OVM SAMPLES.

BOTTOM - BEDROCK (SHALE/CLAYSTONE) HARD, LT. OLIVE GRAY IN COLOR, HC ODOR DETECTED W/IN OVM SAMPLE PIT BOTTOM VERY MOIST TO SATURATED DUE TO RECENT PRECIPITATION.

BEDROCK BOTTOM

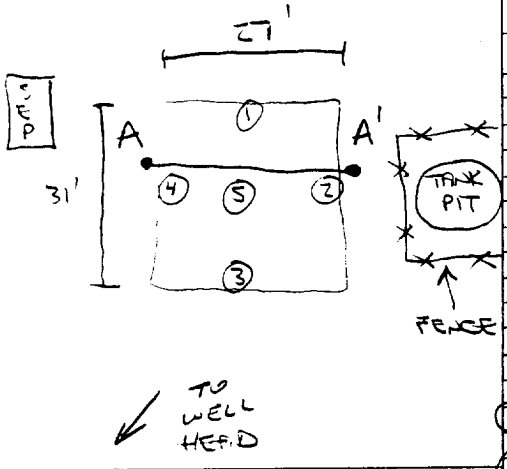
RISK ASSESSED

FIELD 418.1 CALCULATIONS

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

SCALE
0 FT

PIT PERIMETER



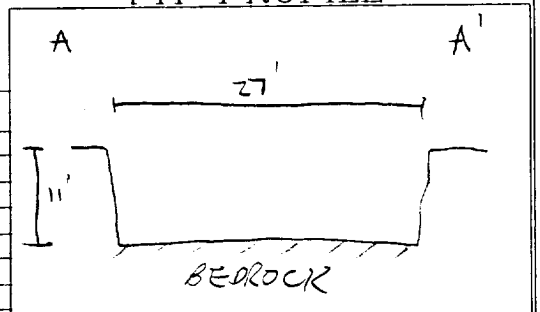
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 6'	715
2 @ 7'	1016
3 @ 6'	1068
4 @ 6'	696
5 @ 11'	114.7

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
3 @ 6'	TPH/BTEX	0915
TPH - FAILED		
TOT. BTEX - FAILED		

PIT PROFILE



TRAVEL NOTES: CALLOUT: 7/23/98 - AFTER ONSITE: 7/28/98 - MORN.

Well Name:	**Jicarilla C #2**
Well Site location:	Unit N, Sec. 14, 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 shale/claystone bedrock at 11 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 shale/claystone bedrock located 11 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below shale/claystone 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 0.62 miles north of the nearest vulnerable area boundary (Tapacito Creek).

   (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 shale/claystone 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 @ 6'	Date Reported:	07-31-98
Laboratory Number:	D765	Date Sampled:	07-28-98
Chain of Custody No:	6111	Date Received:	07-30-98
Sample Matrix:	Soil	Date Extracted:	07-31-98
Preservative:	Cool	Date Analyzed:	07-31-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**3,830**	**0.2**
Diesel Range (C10 - C28)	**1,590**	**0.1**
Total Petroleum Hydrocarbons	**5,420**	**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 C #2 Separator Pit.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	3 @ 6'	Date Reported:	07-31-98
Laboratory Number:	D765	Date Sampled:	07-28-98
Chain of Custody:	6111	Date Received:	07-30-98
Sample Matrix:	Soil	Date Analyzed:	07-31-98
Preservative:	Cool	Date Extracted:	07-31-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**3,840**	**8.8**
Toluene	**32,020**	**8.4**
Ethylbenzene	**4,300**	**7.6**
p,m-Xylene	**131,770**	**10.8**
o-Xylene	**82,260**	**5.2**
Total BTEX	**254,190**	

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-84 USEPA, December 1996.

Comments: **Jicarilla C #2 Separator Pit.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

6111

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG/ AMOCO	JICARILLA C #2	
Sampler: NJV	Client No. 04034-10	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (8015)	BTEX (8021)					Remarks
③ @ 6'	7/28/98	0915	D765	SOIL	1	✓	✓					SEPARATOR PIT
④ @ 8'	7/28/98	1015	D766	SOIL	1	✓	✓					BLOW PIT
												BOTH SAMPLES
												PRESERV. - COOL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Velez	7/30/98	1535	[signature]	7.30.98	1525
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

Ref COC's 6111 → 6113

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	✓		

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

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 C 2

Location: Unit or Qtr/Qtr Sec N Sec 14 T 26N R 5W County RIO ARRIBA

Land Type: RANGE

Date Remediation Started: 7-28-98 **Date Completed:** 2/10/99

Remediation Method: Landfarmed X Approx. cubic yards 475

Composted ____

Other ____

pth 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: 2-8-99 Time: 1200

Sample Results:

Field Headspace (ppm) 64.7

TPH (ppm) 1.6 Method 8015

Other ____

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

DATE 2/10/99 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: 3-31-99

CLIENT: AMOCO

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

LOCATION NO: BJ594
C.O.C. NO: 6569

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: JICARILLA C WELL #: 2 PITS: SEP., BLOW
QUAD/UNIT: N SEC: 14 TWP: 26N RNG: 5W PM: NM CNTY: RA ST: NM
QTR/FOOTAGE: SE/4 SW/4 CONTRACTOR: P+S

DATE STARTED: 2.8.99
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: REP

SOIL REMEDIATION:

REMEDIATION SYSTEM: LANDFARM
APPROX. CUBIC YARDAGE: 475
LAND USE: RANGE
LIFT DEPTH (ft): 1-1.5

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

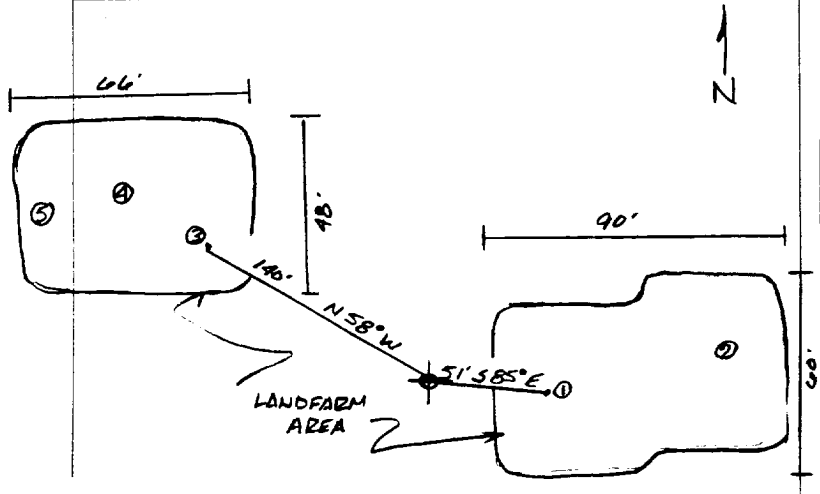
DK. YELLOWISH BROWN SAND. NON COHESIVE, SLIGHTLY MOIST. FIRM. NO VISIBLE SURFACE STAINING, SOME DISCOLORATION AND HC ODOR IN SAMPLE POINTS ③, ④, ⑤ SAMPLING DEPTHS RANGE FROM 6"-12". TOOK A SPT. COMPOSITE SAMPLE FOR LAB. ANALYSIS

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	64.7

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	TPH (8015)	1200	1.6

SCALE
0 FT

TRAVEL NOTES: CALLOUT: N/A ONSITE: 2.8.99

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:	02-10-99
Laboratory Number:	E619	Date Sampled:	02-08-99
Chain of Custody No:	6569	Date Received:	02-09-99
Sample Matrix:	Soil	Date Extracted:	02-10-99
Preservative:	Cool	Date Analyzed:	02-10-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**0.8**	**0.2**
Diesel Range (C10 - C28)	**0.8**	**0.1**
Total Petroleum Hydrocarbons	**1.6**	**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 C 2 Landfarm. 5 Pt. Composite.**

Analyst

Review

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

CHAIN OF CUSTODY RECORD

6569

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG / AMOCO	JICARILLA C 2	
Sampler: REP	Client No. 04034-10	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (8015)						Remarks
LF-1	2-8-99	1200	E619	SOIL	1	✓						5PT. COMPOSITE
												SAMPLE PRESERVE-
												COOL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	2/9/99	~~1250~~ 0710	[signature]	2/9/99	0710
Relinquished by: (Signature) [signature]	2/9/99	0715	Received by: (Signature) [signature]	2.9.99	1250
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	✓		