BJ485
Blow-risk bedrock
Sep-risk bedrock

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

RECEIVED
AUG 16 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)326-9200

Address: 200 Amoco Court, Farmington, NM 87401

Facility or Well Name: JICARILLA CONTRACT 146 - 4

Location: **Unit or Qtr/Qtr Sec** J **Sec** 10 **T** 25N **R** 5W **County** RIO ARRIBA

Pit Type: **Separator**____ **Dehydrator**____ **Other** BLOW

Land Type: RANGE

Pit Location: (Attach diagram)

Pit dimensions: length 33', width 23', depth 16'

Reference: wellhead X, other_____

Footage from reference: 155'

Direction from reference: 27 Degrees ____ East X North 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

BJ485 / BLOW PIT

Date Remediation Started: _____ **Date Completed:** 1/9/97

Remediation Method: (Check all appropriate actions) Excavation X Approx. cubic yards 450

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 - BOTTOM SPRAYED W/ FERTILIZER.

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 10'

Sample date 1/9/97 Sample time 1445

Sample Results

Soil:	Benzene	(ppm)		Water: Benzene	(ppb)
	Total BTEX	(ppm)		Toluene	(ppb)
	Field Headspace	(ppm)	0.0	Ethylbenzene	(ppb)
	TPH	(ppm)	88	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 1/9/97 **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: Ken C. Mansell **DATE:** 1-23-~~98~~ 97 KCM

CLIENT: AMOCO

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

LOCATION NO: BJ485
C.O.C. NO: _____

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: JICARILLA CONTRACT WELL #: 146-4 PIT: BLOW
QUAD/UNIT: J SEC: 10 TWP: 25N RNG: 5W PM: NM CNTY: RA ST: NM
QTR/FOOTAGE: NW/4 SE/4 CONTRACTOR: P&S

DATE STARTED: 1/9/97
DATE FINISHED: _____
ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX: 33 FT. x 23 FT. x 16 FT. DEEP. CUBIC YARDAGE: 450
DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARMED
LAND USE: RANGE LEASE: JICA. CONTR. #146 FORMATION: PC

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 155 FT. N27E 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 OK. YELL. ORANGE TO BROWN SAND NON-COHESIVE, SLIGHTLY MOIST FIRM NO APPARENT HC STAINING OR ODOR OBSERVED W/IN SOIL PORTION OF SIDEWALLS, EXPOSED BEDROCK (SEE PIT PROFILE) MOST LIKELY STAINED (LT. TO DK. GRAY DISCOLORATION) FROM HC. WILL SPRAY PIT BOTTOM W/ FERTILIZER.

BOTTOM - MED. GRAY BEDROCK, SANDSTONE, HARD, STRONG HC ODOR IN OVM SAMPLE.

BEDROCK

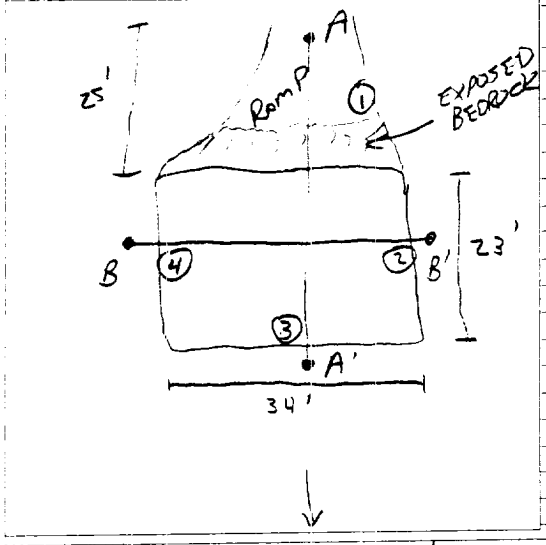
RISK ASSESSED

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. ppm
1445	④ @ 10'	TPH-1872	5	20	1:1	22	88

SCALE
0 FT

PIT PERIMETER



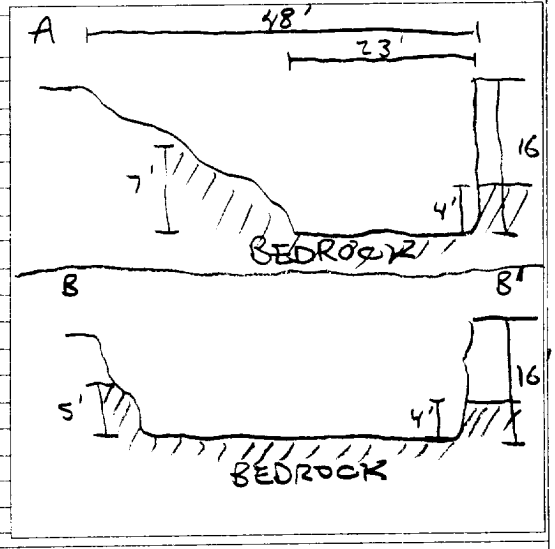
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 7'	0.0
2 @ 11'	0.0
3 @ 11'	0.0
4 @ 10'	0.0
5 @ 16'	839

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

PIT PROFILE



TRAVEL NOTES: CALLOUT: 1/8/97 MORN. ONSITE: 1/9/97 AFTER.

Well Name:	**Jicarilla Contract 146 #4**
Well Site location:	Unit J, Sec. 10, T25N, R5W
Pit Type:	Blow Pit
Producing Formation:	Pictured Cliffs
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 16 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 16 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 0.66 miles northeast of the nearest vulnerable area boundary (Gonzales Canyon wash).

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

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

BLAGG ENGINEERING, INC.
P.O. Box 87, Bloomfield, New Mexico 87413
Phone: (505)632-1199 Fax: (505)632-3903

FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	AMOCO	Project #:	
Sample ID:	4 @ 10'	Date Analyzed:	01-09-97
Project Location:	Jicarilla Contract 146 - 4	Date Reported:	01-09-97
Laboratory Number:	TPH-1872	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	**88**	**20**

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	80	84	4.88

*Administrative Acceptance limits set at 30%.

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

Comments: Blow Pit - BJ485

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:	4 @ 10'	Date Analyzed:	01-09-97
Project Location:	Jicarilla Contract 146 - 4	Date Reported:	01-09-97
Laboratory Number:	TPH-1872	Sample Matrix:	Soil

Sample Weight:	5.00	grams
Volume Freon:	20.00	mL
Dilution Factor:	1	(unitless)
TPH Reading:	22	mg/kg

TPH Result:	88.0	mg/kg
Reported TPH Result:	88	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.
80	84	4.88

Comments: **********Max Characters**********

Comments: Blow Pit - BJ485

BJ485

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

Operator: AMOCO PRODUCTION COMPANY **Telephone:** (505)326-9200

Address: 200 Amoco Court, Farmington, NM 87401

Facility or Well Name: JICARILLA CONTRACT 146 - 4

Location: **Unit or Qtr/Qtr Sec** J **Sec** 10 **T** 25N **R** 5W **County** RIO ARRIBA

Pit Type: **Separator** X **Dehydrator** ____ **Other** ____

Land Type: RANGE

Pit Location: (Attach diagram)

Pit dimensions: length 20', width 20', depth 9'

Reference: wellhead X, other ____

Footage from reference: 147'

Direction from reference: 55 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

BJ485 ~~BJ485~~ / SEP. PIT

Date Remediation Started: _____ **Date Completed:** 1/9/97

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 100

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. SPRAYED PIT BOTTOM W/ FERTILIZER.

Groundwater Encountered: No ____ Yes ____ Depth _____

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

Sample location see Attached Documents

Sample depth 4'

Sample date 1/9/97 Sample time 1400

Sample Results

Soil:	Benzene	(ppm)		Water: Benzene	(ppb)
	Total BTEX	(ppm)		Toluene	(ppb)
	Field Headspace	(ppm)	0.0	Ethylbenzene	(ppb)
	TPH	(ppm)	40	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 1/9/97 **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: Kevin C Mansell **DATE:** 1-23-97

CLIENT: AMOCO

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

LOCATION NO: BJ485
C.B.C. NO: ____

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: JICARILLA CONTRACT WELL #: 146-4 PIT: SEP

QUAD/UNIT: J SEC: 10 TWP: 25N RNG: 5W PM: NM CNTY: RA ST: NM

QTR/FOOTAGE: NW/4 SE/4 CONTRACTOR: P&S

DATE STARTED: 1/9/97
DATE FINISHED: ____

ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 20 FT. x 20 FT. x 9 FT. DEEP. CUBIC YARDAGE: 100

DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARMED

LAND USE: RANGE LEASE: JICA. CONTR. #146 FORMATION: PC

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 147 FT. 555W 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 - OR. YELL. ORANGE TO BROWN SAND, NON-COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT HC STAINING OR ODOR OBSERVED ON ANY OF THE SIDEWALLS. WILL SPRAY PIT BOTTOM W/ FERTILIZER.

BOTTOM - LT. GRAY BEDROCK, SANDSTONE, HARD, STRONG HC ODOR IN OUR SAMPLE.

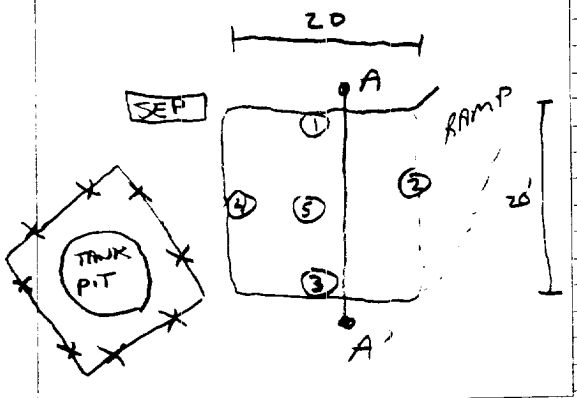
BEDROCK

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1400	① @ 4'	TPH-1871	5	20	1:1	10	40

SCALE
0 FT

PIT PERIMETER



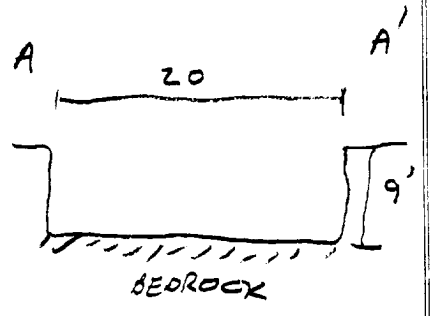
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 4'	0.0
2 @ 5'	0.0
3 @ 4'	0.0
4 @ 5'	0.0
5 @ 9'	714

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

PIT PROFILE



TRAVEL NOTES: CALLOUT: 1/8/97 MORN. ONSITE: 1/9/97 AFTER.

Well Name:	**Jicarilla Contract 146 #4**
Well Site location:	Unit J, Sec. 10, T25N, R5W
Pit Type:	Separator Pit
Producing Formation:	Pictured Cliffs
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 9 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 9 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 0.66 miles northeast of the nearest vulnerable area boundary (Gonzales Canyon wash).

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

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

BLAGG ENGINEERING, INC.
P.O. Box 87, Bloomfield, New Mexico 87413
Phone: (505)632-1199 Fax: (505)632-3903

FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	AMOCO	Project #:	
Sample ID:	1 @ 3'	Date Analyzed:	01-09-97
Project Location:	Jicarilla Contract 146 - 4	Date Reported:	01-09-97
Laboratory Number:	TPH-1871	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	40	20

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	80	84	4.88

*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 - BJ485

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 @ 3'	Date Analyzed:	01-09-97
Project Location:	Jicarilla Contract 146 - 4	Date Reported:	01-09-97
Laboratory Number:	TPH-1871	Sample Matrix:	Soil

Sample Weight:	5.00	grams
Volume Freon:	20.00	mL
Dilution Factor:	1	(unitless)
TPH Reading:	10	mg/kg

TPH Result:	40.0	mg/kg
Reported TPH Result:	40	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.
	80	84	4.88

Comments: **********Max Characters**********

Comments: Separator Pit - BJ485

BT485

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

ON-SITE SOIL REMEDIATION REPORT

Operator: AMOCO PRODUCTION COMPANY **Telephone:** (505) 326-9200

Address: 200 Amoco Court, Farmington, NM 87401

Facility or Well Name: JICARILLA CONTRACT #146-4

Location: Unit or Qtr/Qtr Sec J Sec 10 T 25N R 5W County RIO ARRIBA

Land Type: RANGE

Date Remediation Started: 1/9/97 **Date Completed:** 7/23/98

Remediation Method: Landfarmed X Approx. cubic yards 550

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: 7/21/98 Time: 1100

Sample Results:

Field Headspace (ppm) 0.0

TPH (ppm) 0.7 Method 8015

Other ____

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

DATE 7/23/98 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) use as Backfill

SIGNED: Ken C Mansell DATE: 9-9-98

CLIENT: AMOCO

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

LOCATION NO: BJ485
C.O.C. NO: 6106

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: JICA. CONTR. 146 WELL #: 4 PITS: SEP, BLOW
QUAD/UNIT: J SEC: 10 TWP: 25N RNG: 5W PM: NM CNTY: RA ST: NM
QTR/FOOTAGE: NW/4 SE/4 CONTRACTOR: P&S

DATE STARTED: 7/21/98
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: MV

SOIL REMEDIATION:
REMEDIATION SYSTEM: LANDFARM
LAND USE: RANGE
APPROX. CUBIC YARDAGE: 550
LIFT DEPTH (ft): 1'-2'

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 1/9/97

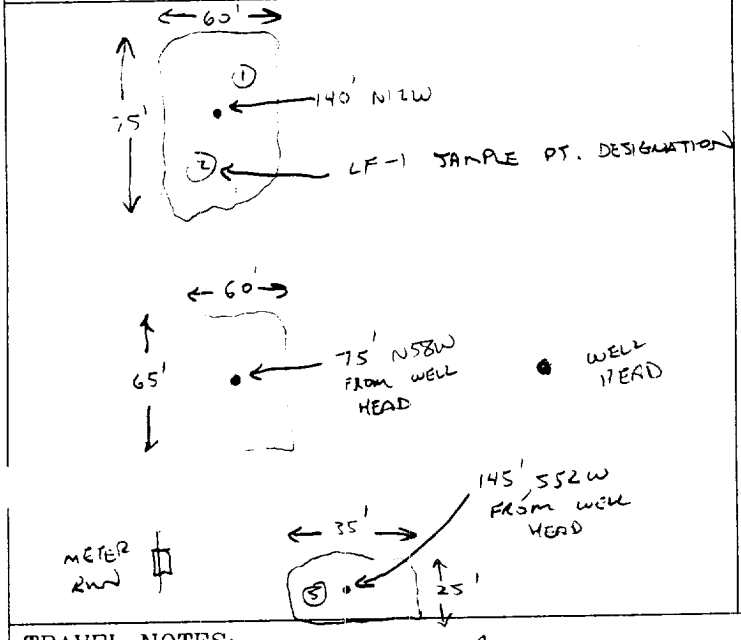
SOIL MOSTLY MOD. YELL. BROWN SAND W/ BEDROCK FRAGMENTS, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT STAINING OR HC ODOR OBSERVED OR DETECTED ON LANDFARM SURFACES OR @ ANY OF THE SAMPLE PTS., SAMPLING DEPTHS RANGE FROM 1'-2', COLLECTED 5 PT. COMPOSITE SAMPLE FOR LAB ANALYSIS.

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	0.0

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	TPH (8015)	1100	0.7

SCALE
0 FT

TRAVEL NOTES: CALLOUT: NA ONSITE: 7/21/98

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 - 1	Date Reported:	07-23-98
Laboratory Number:	D675	Date Sampled:	07-21-98
Chain of Custody No:	6106	Date Received:	07-21-98
Sample Matrix:	Soil	Date Extracted:	07-22-98
Preservative:	Cool	Date Analyzed:	07-22-98
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)	**0.7**	**0.1**
Total Petroleum Hydrocarbons	**0.7**	**0.2**

ND - Parameter not detected at the stated detection limit.

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

Comments: **Jicarilla Contract #146 - 4 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

6106

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG / AMOCO	LANDFARM JICARILLA CONTRACT #146-4	
Sampler: NJV	Client No. 04034-10	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (8015)						Remarks
LF-1	7/21/98	1100	D675	SOIL	1	✓						5 PT. COMPOSITE
												PRESERV. - COOL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Velez	7/21/98	1453	Dennis L. Ogden	7.21.98	1453
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

Rel COC's 6105 → 6107

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	✓		