BJ653

SUBMIT 1 COPY TO NATURAL RESOURCE DEPT

OIL AND 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 # 146-32

Location: Unit or Qtr/Qtr Sec A 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 49', width 42', depth 9'

Reference: wellhead X, other ____

Footage from reference: 200'

Direction from reference: 63 Degrees X East North ____ of ____ 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

BJ653 BLOW PIT

Date Remediation Started: _____ **Date Completed:** 10/19/98

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 500

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 5' (EAST SIDEWALL)

Sample date 10/19/98 Sample time 0945

Sample Results

Soil: Benzene	(ppm)		Water: Benzene	(ppb)	
Total BTEX	(ppm)		PIT BOTTOM Toluene	(ppb)	
Field Headspace	(ppm)	0.0 / 536	Ethylbenzene	(ppb)	
TPH	(ppm)	ND	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 10/19/98 **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:** 11-18-98

CLIENT: AMOCO

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

LOCATION NO: BJ653
C.O.C. NO: _____

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: TICA. CONTR. 146 WELL #: 32 PIT: BLOW
QUAD/UNIT: A SEC: 10 TWP: 25N RNG: 5W PM: NM CNTY: RA ST: NM
QTR/FOOTAGE: 1110' FNL 810' FEL CONTRACTOR: PDS

DATE STARTED: 10/19/98
DATE FINISHED: _____
ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 49 FT. x 42 FT. x 9 FT. DEEP. CUBIC YARDAGE: 500
DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARM
LAND USE: RANGE LEASE: JIC 146 FORMATION: MV

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 200 FT. S63E 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 - DK. YELL. BROWN SILTY SAND TO SILTY CLAY COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT STAINING OBSERVED, NO APPARENT HC ODOR DETECTED W/IN EXCAVATION OR IN ANY OF THE OVM SAMPLES.

BOTTOM - BEDROCK (SANDSTONE) OLIVE TO LT. GRAY IN COLOR, VERY HARD, STRONG HC ODOR IN OVM SAMPLE, VERY MUDDY DUE TO RECENT PRECIPITATION ENTERED INTO EXCAVATION.

BEDROCK BOTTOM

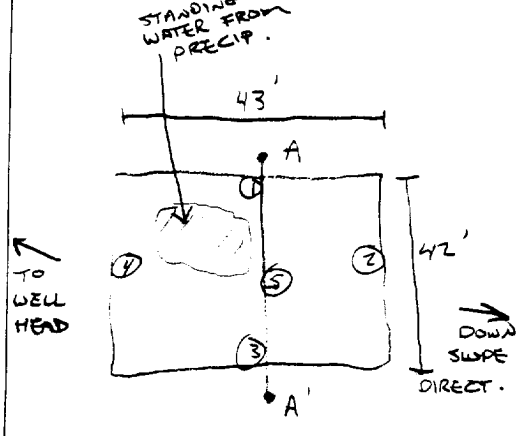
RISK ASSESSED

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CA_C. ppm
0945	② @ 5'	TPH-2058	5	20	1:1	3	ND

SCALE
0 FT

PIT PERIMETER



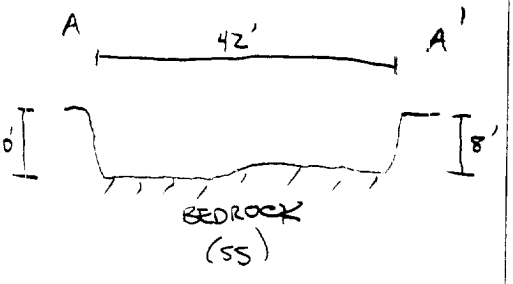
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 5'	0.0
2 @ 5'	0.0
3 @ 6'	0.0
4 @ 6'	0.0
5 @ 9'	536

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

PIT PROFILE



TRAVEL NOTES: CALLOUT: _____ ONSITE: 10/6/98 10/19/98

Well Name:	**Jicarilla Contract 146 #32**
Well Site location:	Unit A, Sec. 10, T25N, R5W
Pit Type:	Blow Pit
Producing Formation:	Mesa Verde
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 1.09 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:	2 @ 5'	Date Analyzed:	10-19-98
Project Location:	Jicarilla Contract # 146 - 32	Date Reported:	10-19-98
Laboratory Number:	TPH-2058	Sample Matrix:	Soil

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

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
236	220	7.02

*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 - BJ653

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:	2 @ 5'	Date Analyzed:	10-19-98
Project Location:	Jicarilla Contract # 146 - 32	Date Reported:	10-19-98
Laboratory Number:	TPH-2058	Sample Matrix:	Soil

Sample Weight:	5.00	grams
Volume Freon:	20.00	mL
Dilution Factor:	1	(unitless)
TPH Reading:	3	mg/kg

TPH Result:	12.0	mg/kg
Reported TPH Result:	12	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.
236	220	7.02

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

Comments: Blow Pit - BJ653

BT653

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 CONTRACT #146-32

Location: Unit or Qtr/Qtr Sec A 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 29', width 22', depth 8'

Reference: wellhead X, other ____

Footage from reference: 175'

Direction from reference: 15 Degrees X East ____ North of ____ 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

BT653 SEP. PIT

Date Remediation Started: _____ **Date Completed:** 10/6/98

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. EXCAVATION MOSTLY BEDROCK, THEREFORE NO TPH ANALYSIS WAS CONDUCTED.

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' (PIT BOTTOM)

Sample date 10/6/98 Sample time 1045

Sample Results

Soil: Benzene	(ppm)		Water: Benzene	(ppb)	
Total BTEX	(ppm)		Toluene	(ppb)	
Field Headspace	(ppm)	0.0	Ethylbenzene	(ppb)	
TPH	(ppm)	NA	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 10/6/98 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 Mancell DATE: 11-18-98

3003922485

CLIENT: AMOCO	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: BJG53 C.O.C. NO:

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: JICA. CONTR. 146 WELL #: 32 PIT: SEP

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

QTR/FOOTAGE: 1110' FNL | 810' FEL CONTRACTOR: P&S

DATE STARTED: 10/6/98

DATE FINISHED:

ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 29 FT. x 22 FT. x 8 FT. DEEP. CUBIC YARDAGE: 150

DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARM

LAND USE: RANGE LEASE: JIC 146 FORMATION: MV

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 175 FT. S15E 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:

EXCAVATION CONSISTED OF MOSTLY BEDROCK (SHALE) DUSKY RED/LT. GRAY SOFT NEAR SURFACE TO VERY HARD @ PIT BOTTOM, NO APPARENT STAINING, NO APPARENT HC ODOR DETECTED W/IN EXCAVATION OR IN ANY OF THE OVM SAMPLES, ALL SAMPLES COLLECTED FROM BEDROCK, THEREFORE NO TPH ANALYSIS WAS CONDUCTED.

EXCAVATION MOSTLY BEDROCK

CLOSED

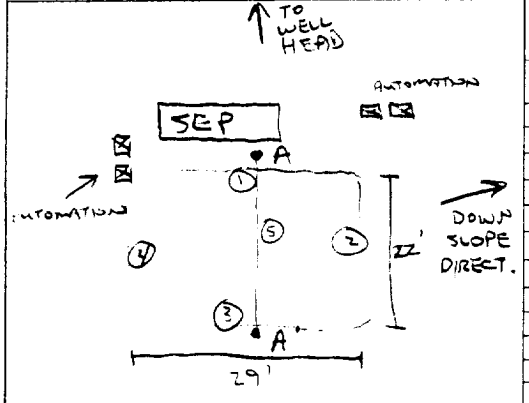
FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1045							

SCALE

0 FT

PIT PERIMETER



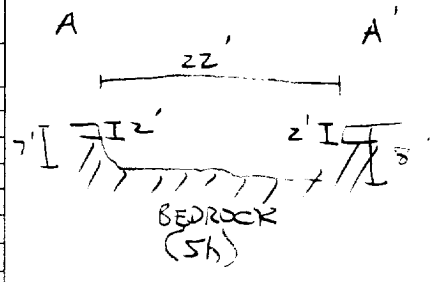
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 4'	0.0
2 @ 5'	0.0
3 @ 5'	0.0
4 @ 4'	6.0
5 @ 8'	0.0

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

PIT PROFILE



TRAVEL NOTES: CALLOUT: ONSITE: 10/6/98

85625

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 CONTRACT 146-32

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

Land Type: RANGE

Date Remediation Started: 10-6-98 Date Completed: 4/21/99

Remediation Method: Landfarmed ✓ Approx. cubic yards 650

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: 4.19.99 Time: 1100

Sample Results:

Field Headspace (ppm) 46.6

TPH (ppm) 4530 Method TPH (8015)

Other ____

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

DATE 4/21/99 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: BJ653
C.O.C. NO: 6894

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME JICARILLA CONTRACT 146 WELL #: 32 PITS: SEP., BLOW
QUAD/UNIT: A SEC: 10 TWP: 25N RNG: 5W PM: NM CNTY: RA ST: NM
FTG/FOOTAGE: NE/4 NE/4 CONTRACTOR: P+S

DATE STARTED: 4.19.99
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: REP

SOIL REMEDIATION:

REMEDIATION SYSTEM: LANDFARM
APPROX. CUBIC YARDAGE: 650
LAND USE: RANGE
LIFT DEPTH (ft): 1-1.5

FIELD NOTES & REMARKS:

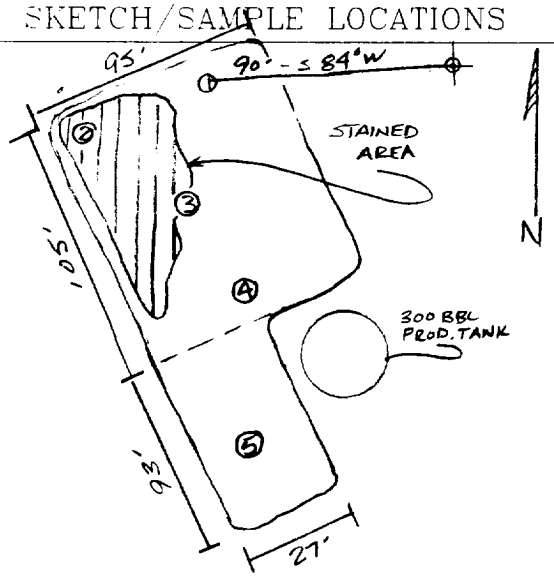
DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM

DK. YELLOWISH BROWN SAND, NON COHESIVE, MOIST, FIRM
L.G. AREA OF STAINING OBSERVED (SEE SKETCH BELOW) H.C. ODOR
DETECTED IN SAMPLING PTS. ②, ③ + ④ SAMPLING DEPTHS RANGE
FROM 6"-18". COLLECTED A 6PT 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	46.6

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	TPH (8015)	1100	4,530

SCALE
0 FT

TRAVEL NOTES: CALLOUT: N/A ONSITE: 4.19.99

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:	04-21-99
Laboratory Number:	F060	Date Sampled:	04-19-99
Chain of Custody No:	6894	Date Received:	04-20-99
Sample Matrix:	Soil	Date Extracted:	04-21-99
Preservative:	Cool	Date Analyzed:	04-21-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**140**	**0.2**
Diesel Range (C10 - C28)	**4,390**	**0.1**
Total Petroleum Hydrocarbons	**4,530**	**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 - 32 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

6894

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG/AMOCO	LANDFARM JICARILLA CONTRACT 146-32	
Sampler:	Client No. 403410	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (8015)						Remarks
LF-1	4/19/99	1100	F060	SOIL	1	✓						SPT. COMPOSITE
												SAMPLE PRESERVE-
												COOL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
E R Hoover			Glenna L. Spencer	4.20.99	715
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	✓		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	04-21-TPH QA/QC	Date Reported:	04-21-99
Laboratory Number:	F058	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-21-99
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	03-15-99	7.6679E-002	7.6541E-002	**0.18%**	**0 - 15%**
Diesel Range C10 - C28	03-15-99	7.2197E-002	7.2081E-002	**0.16%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**34.9**	**34.8**	**0.3%**	**0 - 30%**
Diesel Range C10 - C28	**112**	**112**	**0.0%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**34.9**	**250**	**284**	**100%**	**75 - 125%**
Diesel Range C10 - C28	**112**	**250**	**361**	**100%**	**75 - 125%**

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: **QA/QC for samples F058 - F067.**

Analyst

Review

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