BJ611 Sep - bedrock

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

RECEIVED
AUG 27 1999
OIL CON. DIV.
DIST. 3

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 #155 - 22E

Location: Unit or Qtr/Qtr Sec K Sec 31 T 26N R 5W County RIO ARRIBA

Pit Type: Separator ____ Dehydrator ____ Other BLOW

Land Type: RANGE

Pit Location: (Attach diagram)

Pit dimensions: length 40', width 35', depth 2'

Reference: wellhead X, other ____

Footage from reference: 162'

Direction from reference: 43 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

BJ611 BLOW PIT

Date Remediation Started: _____ **Date Completed:** 8/20/98

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 75

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 ALL 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 2'

Sample date 8/20/98 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) 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 8/20/98 **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 X NO ____ (REASON) _____

SIGNED: Kenneth Marcus **DATE:** 9-9-98

30039 22088

CLIENT: AMOCO	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: BJ611 C.O.C. NO:

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: JICA. CONTR. 155 WELL #: 22E PIT: BLOW

QUAD/UNIT: K SEC: 31 TWP: 26N RNG: 5W PM: NM CNTY: RA ST: NM

QTR/FOOTAGE: 1670' FSL | 1645' FWL CONTRACTOR: PJS

DATE STARTED: 8/20/98

DATE FINISHED:

ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 40 FT. x 35 FT. x 2 FT. DEEP. CUBIC YARDAGE: 75

DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARM

LAND USE: RANGE LEASE: JIC 155 FORMATION: DK

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 162 FT. 543W 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:

ORIGINAL PIT AREA EXCAVATED INTO BEDROCK (SANDSTONE), DK. OLIVE GRAY IN COLOR, VERY HARD, ISOLATED PATCHES OF STAINING OBSERVED W/IN EXCAVATION (PARAFFIN LIKE), NO APPARENT HC ODOR DETECTED W/IN OVM SAMPLE COLLECTED FROM PIT CENTER. OVM SAMPLE COLLECTED FROM BEDROCK, THEREFORE NO TPH ANALYSIS WAS CONDUCTED.

EXCAVATION ALL BEDROCK

CLOSED

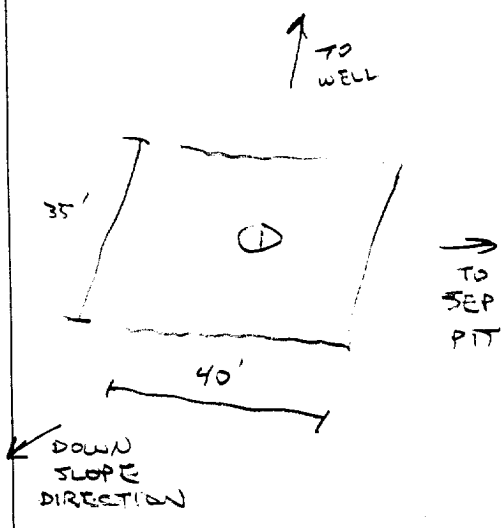
FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1000							

SCALE

0 FT

PIT PERIMETER



OVM RESULTS

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

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

PIT PROFILE

NOT APPLICABLE

TRAVEL NOTES: CALLOUT: ONSITE: 8/20/98 - MORN.

BJ611

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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 #155 - 22E

Location: Unit or Qtr/Qtr Sec K Sec 31 T 26N R 5W County RIO ARRIBA

Pit Type: Separator X Dehydrator ____ Other ____

Land Type: RANGE

Pit Location: (Attach diagram)

Pit dimensions: length 16', width 18', depth 10'

Reference: wellhead X, other ____

Footage from reference: 175'

Direction from reference: 20 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

BTGII SEP. PIT

Date Remediation Started: _____ **Date Completed:** 8/20/98

Remediation Method: (check all appropriate sections) Excavation X Approx. cubic yards 75

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 ALL BEDROCK, THEREFORE NO TPH ANALYSIS WAS CONDUCTED. 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 10' (PIT BOTTOM - BEDROCK)

Sample date 8/20/98 Sample time 0900

Sample Results

Soil:	Benzene	(ppm)		Water: Benzene	(ppb)
	Total BTEX	(ppm)		Toluene	(ppb)
	Field Headspace	(ppm)	221.5	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 8/20/98 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 X NO ____ (REASON) R-A. Attached

SIGNED: Kurt C Mann DATE: 9-9-98

CLIENT: AMOCO

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

LOCATION NO: BT611
C.O.C. NO: _____

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: JIC A. CONTR. 155 WELL #: 22E PIT: SEP.
QUAD/UNIT: K SEC: 31 TWP: 26N RNG: 5W PM: NM CNTY: RA STATE: NM
QTR/FOOTAGE: 1670' FSL / 1645' FWL CONTRACTOR: P&S

DATE STARTED: 8/20/98
DATE FINISHED: _____
ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 16 FT. x 18 FT. x 10 FT. DEEP. CUBIC YARDAGE: 75
DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARM
LAND USE: RANGE LEASE: JIC 155 FORMATION: DK

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 175 FT. S20W 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 CONSIST OF ALL BEDROCK (SANDSTONE) COLOR VARYING FROM VERY PALE ORANGE TO MED. GRAY/BLACK (PARAFFIN STAINING), SOFT NEAR GROUND GLOUND TO VERY HARD @ TEST HOLE (SEE PIT PROFILE) NO APPARENT HC ODOR DETECTED W/IN EXCAVATION, HOWEVER VERY NOTICEABLE IN OVM SAMPLE, DUE TO ENTIRE EXCAVATION BEING BEDROCK, NO TPH ANALYSIS WERE CONDUCTED.

EXCAVATION ALL BEDROCK

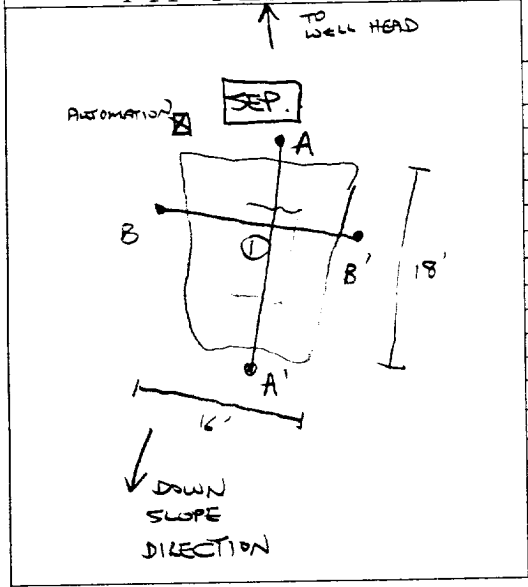
RISK ASSESSED

SCALE
0 FT

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
0900							

PIT PERIMETER



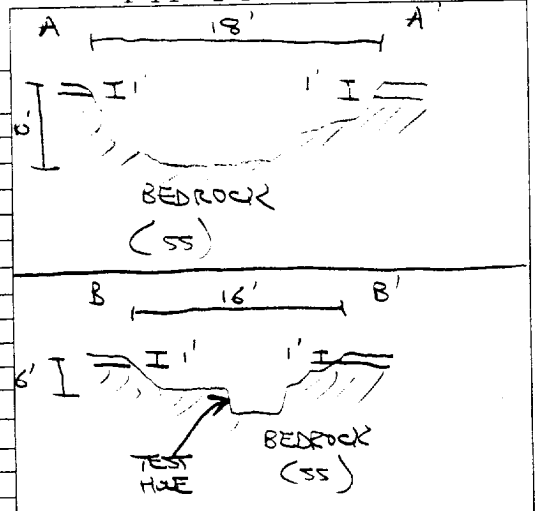
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 10'	221.5
2 @	
3 @	
4 @	
5 @	

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

PIT PROFILE



TRAVEL NOTES: CALLOUT: _____ ONSITE: 8/20/98 - MORN.

Well Name:	**Jicarilla Contract 155 #22E**
Well Site location:	Unit K, Sec. 31, T26N, R5W
Pit Type:	Separator Pit
Producing Formation:	Basin Dakota
Pit Category:	Non Vulnerable
Horizontal 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 10 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 10 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 0.12 miles southeast of the nearest vulnerable area boundary (Tapacito Creek).

   (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.

BJ611

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 155 - 22E

Location: Unit or Qtr/Qtr Sec K Sec 31 T 26N R 5W County RIO ARRIBA

Land Type: RANGE

Date Remediation Started: 8-20-98 **Date Completed:** 5/4/99

Remediation Method: Landfarmed ✓ Approx. cubic yards 150

Composted ____

Other ____

epth 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: 5-3-99 Time: 1255

Sample Results:

Field Headspace (ppm) 5.8

TPH (ppm) 372 Method TPH (8015)

Other ____

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

DATE 5/4/99 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 ____ NO ____ (REASON) ____

SIGNED: ____ DATE: ____

CLIENT: AMOCO

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

LOCATION NO: BJ611
C.O.C. NO: 6907

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: JICARILLA CONTRACT 155 WELL #: 22E PITS: SEP, BLOW
QUAD/UNIT: K SEC: 31 TWP: 26N RNG: 5W PM: NM CNTY: RA ST: NM
QTR/FOOTAGE: NE/4 SW/4 CONTRACTOR: P&S

DATE STARTED: 5.3.99
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: REP

SOIL REMEDIATION:

REMEDIATION SYSTEM: LANDFARM APPROX. CUBIC YARDAGE: 150
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

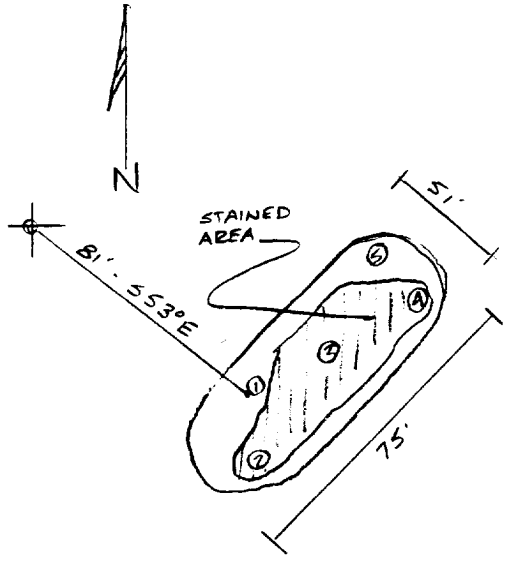
DK. YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM LARGE AREA OF STAINING OBSERVED IN LANDFARM AREA (SEE SKETCH BELOW) HC ODOR DETECTED IN SAMPLING PTS. ②-④. SAMPLING DEPTHS RANGE FROM 6"-18" COLLECTED A 5PT COMPOSITE SAMPLE FOR LAB ANALYSIS.

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	5.8

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	TPH (8015)	1255	372

SCALE
0 FT

TRAVEL NOTES: CALLOUT: NA ONSITE: 5.3.99

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:	05-04-99
Laboratory Number:	F121	Date Sampled:	05-03-99
Chain of Custody No:	6907	Date Received:	05-04-99
Sample Matrix:	Soil	Date Extracted:	05-04-99
Preservative:	Cool	Date Analyzed:	05-04-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**4.4**	**0.2**
Diesel Range (C10 - C28)	**368**	**0.1**
Total Petroleum Hydrocarbons	**372**	**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 155 - 22E 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

6907

Client / Project Name	Project Location	ANALYSIS / PARAMETERS							
BLAGG/AMOCO	LANDFARM JICARILLA CONTRACT 155-22E								
Sampler: REP	Client No. 4034 CO								Remarks
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (8015)			
LF-1	5.3.99	1255	F121	SOIL	1	✓			5PT. COMPOSITE
									SAMPLE PRESERVE-
									COOL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	5.4.99	7:20	[signature]	5.4.99	720
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	✓		