

Denny E. Fout
DEPUTY OIL & GAS INSPECTOR

AUG 13 1999

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

BT 452 OK
SUBMIT 1 COPY TO
NATURAL RESOURCE DEPT
AND OIL & GAS ADMINISTRATION

PIT REMEDIATION AND CLOSURE REPORT

Approved

Operator: AMOCO PRODUCTION COMPANY Telephone: (505) 326-9200
Address: 200 Amoco Court, Farmington, NM 87401
Facility or Well Name: JICARILLA B #5
Location: Unit or Qtr/Qtr Sec K Sec 21 T 26N R 5W County RIO ARRIBA
Pit Type: Separator Dehydrator Other RWD
Land Type: RANGE

Pit Location: Pit dimensions: length 20', width 24', depth 14'
(Attach diagram) Reference: wellhead X, other
Footage from reference: 155'
Direction from reference: 23 Degrees X East of North
 West of South X

Depth To Groundwater:

(Vertical distance from
contaminants to seasonal
high water elevation of
groundwater)

Less than 50 feet	(20 points)	
50 feet to 99 feet	(10 points)	
Greater than 100 feet	(0 points)	<u>0</u>

Distance to an Ephemeral Stream

(Downgradient dry wash greater than
ten feet in width)

Less than 100 feet	(10 points)	
Greater than 100 feet	(0 points)	<u>0</u>

Distance to Nearest Lake, Playa, or Watering Pond

(Downgradient lakes, playas and
livestock or wildlife watering ponds)

Less than 100 feet	(10 points)	
Greater than 100 feet	(0 points)	<u>0</u>

Wellhead Protection Area:

(Less than 200 feet from a private
domestic water source, or: less than
1000 feet from all other water sources)

Yes	(20 points)	
No	(0 points)	<u>0</u>

Distance To Surface Water:

(Horizontal distance to perennial
lakes, ponds, rivers, streams, creeks,
irrigation canals and ditches)

Less than 100 feet	(20 points)	
100 feet to 1000 feet	(10 points)	<u>0</u>
Greater than 1000 feet	(0 points)	

RANKING SCORE (TOTAL POINTS): 0

BLAW PIT / BJ 452

Date Remediation Started: _____ Date Completed: 10/6/96

Remediation Method: Excavation ☒ Approx. cubic yards 175
 Check all appropriate (i.e. all appropriate actions) Landfarmed ☒ Insitu Bioremediation _____
 Other _____

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

General Description of Remedial Action: Excavation

Groundwater Encountered: No ☒ Yes _____ Depth _____

Final Pit: Sample location see Attached Documents
 Closure Sampling: _____
 (if multiple samples, attach sample results and diagram of sample locations and depths)
 Sample depth 15'
 Sample date 10/6/96 Sample time 1250
 Sample Results

Soil: Benzene	(ppm) _____	Water: Benzene	(ppb) _____
Total BTEX	(ppm) _____	Toluene	(ppb) _____
Field Headspace	(ppm) <u>5.9</u>	Ethylbenzene	(ppb) _____
TPH	(ppm) <u>36</u>	Total Xylenes	(ppb) _____

Groundwater Sample: Yes _____ No ☒ (If yes, attach sample results)

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

DATE 10/6/96 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 ☒ NO _____ (REASON) _____

SIGNED: [Signature] DATE: 10/22/96

CLIENT: AMOCO

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

LOCATION NO: BT452
C.O.C. NO: _____

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: JCARINA B WELL #: 5 PIT: BLOW
QUAD/UNIT: K SEC: 21 TWP: 26N RNG: 5W PM: NM CNTY: RA ST: NM
QTR/FOOTAGE: NE 1/4 SW 1/4 CONTRACTOR: P+S

DATE STARTED: 10/6/96
DATE FINISHED: _____
ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 20 FT. x 24 FT. x 14 FT. DEEP. CUBIC YARDAGE: 175
DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARMED
LAND USE: RANGE LEASE: JICA. CONTR. #109 FORMATION: OK

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 155' FT. S23E FROM WELLHEAD.
DEPTH TO GROUNDWATER: 2100' NEAREST WATER SOURCE: 21000' NEAREST SURFACE WATER: 21000'
NMDCD RANKING SCORE: 0 NMDCD TPH CLOSURE STD: 5000 PPM

CHECK ONE:
☒ PIT ABANDONED
☐ STEEL TANK INSTALLED

SOIL AND EXCAVATION DESCRIPTION:

SOIL MOSTLY OK. YELL. BROWN SILTY SAND TO SILTY CLAY COHESIVE, SLIGHTLY MOIST, FIRM TO STIFF, NO APPARENT HC STAINING OR ODOR OROR OBSERVED WITH EXCAVATION.

CLOSED

SCALE
0 FT

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1250	5 @ 15'	TPH-1839	5	20	1:1	9	36

PIT PERIMETER

OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 10'	0.0
2 @ 9'	0.0
3 @ 9'	0.0
4 @ 9'	0.0
5 @ 15'	5.9

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

PIT PROFILE

TRAVEL NOTES: CALLOUT: 10/3/96 AFTER. ONSITE: 10/6/96 MORN.

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
Sample ID: 5 @ 15'
Project Location: Jicarilla B # 5
Laboratory Number: TPH-1839

Project #:
Date Analyzed: 10-06-96
Date Reported: 10-06-96
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	36	20

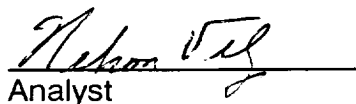
ND = Not Detectable at stated detection limits.

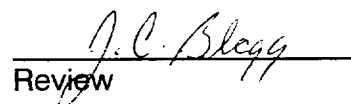
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	4640	4400	5.31

*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 - BJ452


Analyst


Review

BT45Z

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NATURAL RESOURCE DEF...

AND OIL & GAS ADMINISTRATION

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)	<u>0</u>
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)	<u>0</u>
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)	<u>0</u>
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)	<u>0</u>
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)	<u>0</u>
RANKING SCORE (TOTAL POINTS):			<u>0</u>

SEP. PIT / BJ 452

Date Remediation Started: _____ Date Completed: 10/6/96Remediation Method: Excavation ☒ Approx. cubic yards 600

(Check all appropriate sections)

Landfarmed ☒ Insitu Bioremediation _____

Other _____

Remediation Location: Onsite ☒ Offsite _____(i.e. landfarmed onsite,
name and location of
offsite facility)General Description of Remedial Action: Excavation. BEDROCK BOTTOM.Groundwater Encountered: No ☒ Yes _____ Depth _____Final Pit: Sample location see Attached Documents

Closure Sampling:

(if multiple samples,
attach sample results
and diagram of sample
locations and depths)Sample depth 15'Sample date 10/6/96 Sample time 1145

Sample Results

Soil: Benzene	(ppm)	_____	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	_____	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>0.0</u>	Ethylbenzene	(ppb)	_____
TPH	(ppm)	<u>28</u>	Total Xylenes	(ppb)	_____

Groundwater Sample: Yes _____ No ☒ (If yes, attach sample results)

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

DATE 10/6/96 PRINTED NAME Buddy D. ShawSIGNATURE 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 ☒ NO _____ (REASON) _____SIGNED: Robert J. [Signature] DATE: 10/22/96

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
Sample ID: 4 @ 15'
Project Location: Jicarilla B # 5
Laboratory Number: TPH-1838

Project #:
Date Analyzed: 10-06-96
Date Reported: 10-06-96
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
-----	-----	-----
Total Recoverable Petroleum Hydrocarbons	28	20

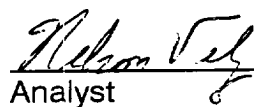
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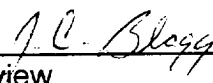
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	-----	-----	-----
	4640	4400	5.31

* 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 - BJ452


Analyst


Review

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

85452

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

ON-SITE SOIL REMEDIATION REPORT

Operator: <u>AMOCO PRODUCTION COMPANY</u>		Telephone: <u>(505) 326-9200</u>
Address: <u>200 Amoco Court, Farmington, NM 87401</u>		
Facility or Well Name: <u>JICARILLA B #5</u>		
Location: Unit or Qtr/Qtr Sec <u>K</u> Sec <u>21</u> T26N R5W County <u>RIO ARriba</u>		
Land Type: <u>RANGE</u>		
Date Remediation Started: <u>10/6/96</u>		Date Completed: <u>5/1/98</u>
Remediation Method: Landfarmed <input checked="" type="checkbox"/>		Approx. cubic yards <u>775</u>
Composted <input type="checkbox"/>		
Other <input type="checkbox"/>		
Depth To Groundwater: (pts.) <u>0</u>	Final Closure Sampling: <u>0810</u>	
Distance to an Ephemeral Stream (pts.) <u>0</u>	Sampling Date: <u>4/29/98</u> Time: <u>0905</u>	
Distance to Nearest Lake, Playa, or Watering Pond (pts.) <u>0</u>	Sample Results:	
Wellhead Protection Area: (pts.) <u>0</u>	Field Headspace (ppm) <u>0.0</u>	
Distance To Surface Water: (pts.) <u>0</u>	TPH (ppm) <u>98.9</u> Method <u>8015</u>	
RANKING SCORE (TOTAL POINTS): <u>0</u>	Other <u>2ND SAMPLE</u> <u>0.0</u> ppm	
TPH <u>33.6</u> ppm		
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEGE AND BELIEF		
DATE <u>5/1/98</u>		PRINTED NAME <u>Buddy D. Shaw</u>
SIGNATURE <u>Buddy D. Shaw</u>		AND TITLE <u>Environmental Coordinator</u>
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.		
APPROVED: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> (REASON) <u>use as Backfill</u>		
SIGNED: <u>Kate C Mammill</u>		DATE: <u>5-7-98</u>

CLIENT: AMOCOBLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199LOCATION NO: 8J 452C.O.C. NO: 5756

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: JICARILLA B WELL #: 5 PITS: BLOW, SEP.DATE STARTED: 4/29/98DATE FINISHED: 5/1/98QUAD/UNIT: K SEC: 21 TWP: 26N RNG: 5W PM: Nm CNTY: RA ST: NmENVIRONMENTAL
SPECIALIST: NVQTR/FOOTAGE: NE 1/4 SW 1/4 CONTRACTOR: P & S

SOIL REMEDIATION:

REMEDICATION SYSTEM: LANDFARMAPPROX. CUBIC YARDAGE: 775LAND USE: RANGELIFT DEPTH (ft): 1'-3'

FIELD NOTES & REMARKS:

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

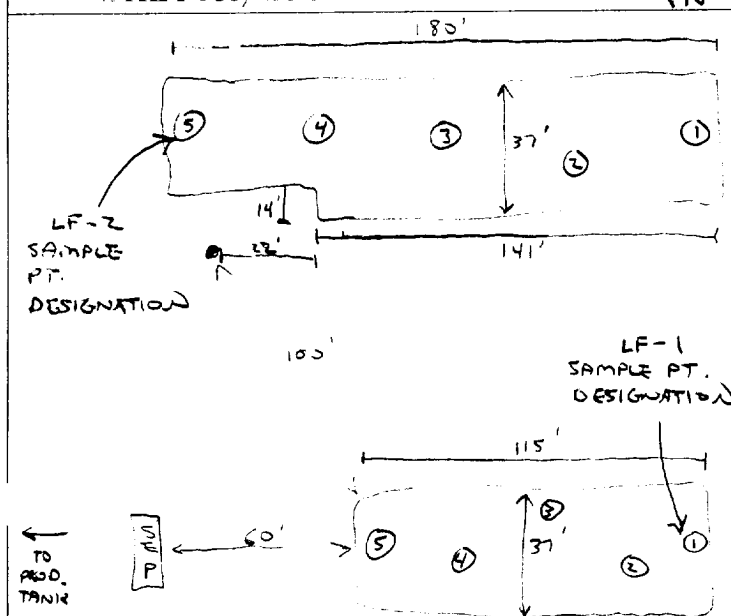
OK. YELL. ORANGE TO PALE YELL. BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT HC ODOOR OBSERVED IN ANY OF THE SAMPLE PTS. NO STAINING APPARENT ON EITHER LANDFARM'S. SAMPLING DEPTHS RANGE FROM 6" TO 3', COLLECTED 5 PT. COMPOSITE SAMPLE FOR LAB ANALYSIS.

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

LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	0.0	LF-1	TPH (8015)	0810	98.9
LF-2	0.0	LF-2	TPH (8015)	0905	33.6

SCALE

0 60 FT

TRAVEL NOTES:

CALLOUT: NAONSITE: 4/29/98

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

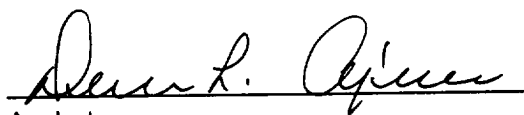
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 1	Date Reported:	05-01-98
Laboratory Number:	D198	Date Sampled:	04-29-98
Chain of Custody No:	5756	Date Received:	04-29-98
Sample Matrix:	Soil	Date Extracted:	04-30-98
Preservative:	Cool	Date Analyzed:	05-01-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

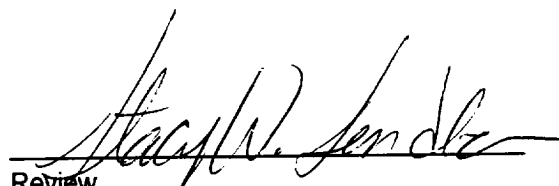
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	43.3	0.2
Diesel Range (C10 - C28)	55.6	0.1
Total Petroleum Hydrocarbons	98.9	0.2

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 B #5 Landfarm 5 Pt. Composite.


Analyst


Review

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

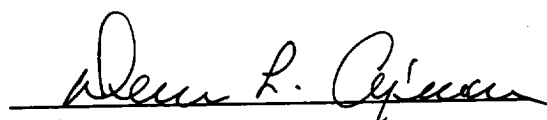
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 2	Date Reported:	05-01-98
Laboratory Number:	D199	Date Sampled:	04-29-98
Chain of Custody No:	5756	Date Received:	04-29-98
Sample Matrix:	Soil	Date Extracted:	04-30-98
Preservative:	Cool	Date Analyzed:	05-01-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

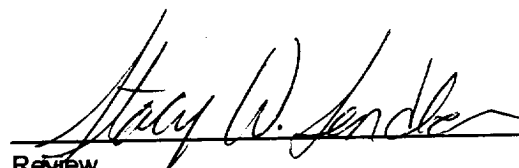
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	19.7	0.2
Diesel Range (C10 - C28)	13.9	0.1
Total Petroleum Hydrocarbons	33.6	0.2

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 B #5 Landfarm 5 Pt. Composite.


Analyst


Review