007 0866

JICARILLA APACHE TRIBE ENVIRONMENTAL PROTECTION OFFICE P.O. BOX 507 THE OF NEW MEXICO 87528

Blow-Misk-bodiesk BJ562

SUBMIT 1 COPY TO

NATURAL RESOURCE DEPT

AND OIL & GAS ADMINISTRATION

Sep-04

PIT REMEDIATION AND CLOSURE REPORT

Operator: AMOCO PRODUCTION COMPANY	Telephone: (505) 326-9200
Address: 200 Amoco Court, Farmington, NM	87401
Facility or Well Name: TICARILLA CONTRE	act 148 - 6
Landian: Unit or Otr/Otr Sec F Sec 15 T 25.	2 R SW County /C/O ARREITS 17
Pit Type: Separator Dehydrator Other_ &L	-oW
Land Type: 역NG도	
	3', width35', depth 10'
(Attach diagram) Reference: wellhead X, ot	her
Footage from reference: 75	Degrees X East North X
Direction from reference: 12	Degrees Cast of West South
RIVE	
Depth To Groundwater: Oversiged distance from DEGETON 2 4 1999	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Constant than 100 feet (0 points)
Distance to an Ephemeral Stream (Downgradient dry wash greater than	Less than 100 feet (10 points) Greater than 100 feet (0 points)
ten feet in width) Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and	Less than 100 feet (10 points) Greater than 100 feet (0 points)
livestock or wildlife watering ponds) 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)
Distance To SurfaceWater: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, rigation canals and ditches)	Less than 100 feet (20 points) 100 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)
	RANKING SCORE (TOTAL POINTS):

	87562 <u>8ww Pr</u>	<u> </u>
Date Remediation Sta	Date Completed: 6/3/9	8
mediation Method:	Anntox Cubic valus	_
eck all appropriate	Landfarmed X Insitu Bioremediation	
	Other	
Remediation Location i.e. landfarmed onsite name and location of offsite facility)		x =0 .
General Description	of Remedial Action: Excavation SEDROCK BOTTOM. RISK ASSES	
Groundwater Encoun	ntered: No 🔀 Yes Depth	
Final Pit: Closure Sampling:	Sample location _ see Attached Documents	
(if multiple samples, attach sample results and diagram of sample locations and depths)	Sample depth 5' (EAST SIDEWALL) Sample date 6/3/98 Sample time 1115	
	Soil: Benzene (ppm) Total BTEX (ppm) Toluene (ppb)	
Groundwater Sampl		
I HEREBY CERTIF KNOWLEGE AND	FY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE E BELIEF	BEST OF M
DATE SIGNATURE BU	PRINTED NAME Buddy D. Shaw Oly D. Shaw Environmental Coordinat	or
AFTER REVIEW OF TO THE JICARILL	OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACLA APACHE TRIBE PIT CLOSURE ORDINANCE.	CCORDANG
APPROVED: YES	NO (REASON)	
SIGNED: LES	DATE: 6-15-98	

		RTCL>
BLAGG ENGINEERING, IN P.O. BOX 87, BLOOMFIELD, NA (505) 632-1199	NC. M 87413 C.D.C. ND:	
FIELD REPORT: CLOSURE VERIFIC	ATION PAGE No:	
OCATION: NAME: TICA, COUTE, 148 WELL #: 6 PIT: BLE	DATE STARTED: 6	13170
QUAD/UNIT: F SEC: 15 TWP: 25N RNG: 5W PM: NIN CNTY: OTR/FOOTAGE: SWLY NWLY CONTRACTOR: P + 5	ENVIRONMENTAL SPECIALIST:	
EXCAVATION APPROX. 23 FT. x 35 FT. x /O FT. DEE DISPOSAL FACILITY: ON-SITE REMEDIATION LAND USE: RANGE LEASE: JIC 148	N METHOD	
THE PROPERTY OF THE PROPERTY O	S FT NIZE FROM '	WELLHEAD
NEAREST WATER SOURCE:	AREST SURFACE WATER:	300
NMDCD RANKING SCORE: D NMDCD TPH CLOSURE STD: 5000 PPM		
SOIL AND EXCAVATION DESCRIPTION	STEEL TANK INS	(INSTALLED
BEDLOCK RISK ASSESSED	LE.	
TIME SAMPLE I.D. LAB No: WEIGHT (g)	mL. FREON DILUTION READING	CALC. ppm
SCALE 115 Des' TPH-1985 5	20 1:1 5	<u> </u>
O FT PERIMETER N	PIT PROFILE	
OVM RESULTS	A 23'	A
SAMPLE FIELD HEADSPACE PID (ppm)		
1 <u>es</u> 0.0	o'\	
10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	T >	
A 50 10' 1840	BEOLOCK	
	BENLOCK	
A 50 10' 1,840	BENLOCK	
A SE 10' 1845 DOWN THE OWNERDON LAB SAMPLES	BENLOCK	
A SE 10' 1840 DOWN DATE OINECTION LAB SAMPLES	BEDROCK	
DOWN SE 10' 1840 1. SE 10' 1840 LAB SAMPLES SAMPLE ANALYSIS TIME	BENROCK	
DOWN SE 10' 1840 1. SE 10' 1840 LAB SAMPLES SAMPLE ANALYSIS TIME		

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

Jicarilla Contract 148 #6

Unit F, Sec. 15, T25N, R5W

Blow Pit Pictured Cliffs

Non Vulnerable

> 1000 ft. > 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:

- 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.
- 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.
- Well site located within the <u>non-vulnerable area</u> and is approximately 0.45 miles east of the nearest vulnerable area boundary (Lapis Valley wash).

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

Based upon the information given, we conclude 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.

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:

06-03-98

Project Location:

Jicarilla Contract 148 - 6

Date Reported:

06-03-98

Laboratory Number:

TPH-1985

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.

1684

1712

1.65

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

USEPA Storet No. 4551, 1978

Comments:

Blow Pit - BJ562

Review

Million VIL Analyst

^{*}Administrative Acceptance limits set at 30%.

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

Field TPH-Worksheet

******* Max Characters:

Project #: **AMOCO** Client:

06-03-98 Date Analyzed: 2 @ 5' 06-03-98 Date Reported: Sample ID: Jicarilla Contract 148 - 6 Soil

Project Location: Sample Matrix: TPH-1985 Laboratory Number:

> 5.00 grams Sample Weight: 20.00 mL Volume Freon:

1 (unitless) Dilution Factor: 5 mg/kg TPH Reading:

20.0 mg/kg TPH Result: Reported TPH Result: 20 mg/kg 20.0 mg/kg Actual Detection Limit: 20 mg/kg Reported Detection Limit:

% Duplicate Original QA/QC: Diff. TPH mg/kg TPH mg/kg _ _ _ 1.65 1712 1684

Comments:

Blow Pit - BJ562 Comments:

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

SJS6 Z 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: TICARILLA CONTRACT	148 - 6
Facility or Well Name:	210 ARRIBA
Location: Unit or Qtr/Qtr Sec_ F Sec_ 15 TZSN	R R County X/
Pit Type: Separator X Dehydrator Other	
Land Type:RAN&€	
Land Type	g', widthヱフ', depth ゲー
Pit Location: Pit dimensions: length 고궁	, width 27 , deput
(Attach diagram) Reference: wellhead X , ot	her
Footage from reference: 125	
Direction from reference: \(\)	Degrees East North
4	West South
	Lass than 50 feet (20 points)
Depth To Groundwater:	50 feet to 99 feet (10 points)
(Vertical distance from contaminants to seasonal	Greater than 100 feet (0 points)
high water elevation of groundwater)	
Distance to an Ephemeral Stream	Less than 100 feet (10 points) Greater than 100 feet (0 points)
(Downgradient dry wash greater than	Greater than 100 leet
ten feet in width) Distance to Nearest Lake, Playa, or Watering Pond	Less than 100 feet (10 points) Greater than 100 feet (0 points)
Il (Downgradient lakes, playas and	Greater than 100 feet (0 points)
livestock or wildlife watering ponds)	Yes (20 points)
Wellhead Protection Area: (Less than 200 feet from a private	No (0 points)
domestic water source, or: less than 1000 feet from all other water sources)	
Distance To SurfaceWater:	Less than 100 feet (20 points) 100 feet to 1000 feet (10 points)
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks,	Greater than 1000 feet (0 points)
lakes, ponds, rivers, streams, creats, rigation canals and ditches)	
, TR	RANKING SCORE (TOTAL POINTS):

CLIENT: AMOCO BLAGG ENGINEERING, IN P.O. BOX 87, BLOOMFIELD, NM (505) 632-1199	C. LOCATION NO: 8562 C.D.C. NO:
FIELD REPORT: CLOSURE VERIFICA	ATION PAGE No: _/ of _/
OCATION: NAME: JICA. CONTR. 148 WELL #: 6 PIT: 5E	DATE STARTED: 6/3/98 DATE FINISHED:
QUAD/UNIT: F SEC: 15 TWP: 25N RNG: 5W PM:NM CNTY: R OTR/FOOTAGE: SWIY NWIY CONTRACTOR: P+5	SPECIALIST:
EXCAVATION APPROX. 23 FT. x 27 FT. x 4 FT. DEEP DISPOSAL FACILITY: 02-517E REMEDIATIO	P. CUBIC YARDAGE: 30 N METHOD: LANDFARM
LAND LISE RANGE LEASE:	
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 10 DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >100' NE	5 FT. 515W FROM WELLHEAD
DEPTH TO GROUNDWATER: 7/83 NEAREST WATER SHORES.	PIT ABANDONED
NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM	STEEL TANK INSTALLED
SOIL AND EXCAVATION DESCRIPTION: SOIL MOSTLY GENERAL SAND NON COHESIVE NO APPARENT STAINING OR HE DOOK ORSERVE NO APPARENT STAINING OR HE DOOK ORSERVE	FIBERGLASS TANK INSTALLE
BORDER - REDRECK (STANDSTONE) COLUR FAME AS A BORDER BEDROCK BOTTOM FIELD 418.1 CAL	CHI ATIONS
TIME SAMPLE I.D. LAB NO: WEIGHT (9)	mL. FREON DILUTION READING CALC. PPI
SCALE 1015 Dez' 194-1984 5	20 1:1 4 ND
0 FT	PIT PROFILE
PIT PERIMETER OVM	A . 1 #
RESULTS SAMPLE FIELD HEADSPACE PID (ppm) PID (ppm)	2.3
1 e z' 0.0	
3e z' 0.0	HI THE THE THE THE
9 5 5 5 0.0	BEDIXX
2 /23'	
3	
A' A awa	
DIRECTION SAMPLES DIRECTION SAMPLE ANALYSIS TIME	
	13/98 - morn.

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 @ 2'

Date Analyzed:

06-03-98

Project Location:

Jicarilla Contract 148 - 6

Date Reported:

06-03-98

Laboratory Number:

TPH-1984

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.
1684	1712	1.65

^{*}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 - BJ562

Melan U B Re

Review

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 @ 2'

Date Analyzed:

06-03-98 06-03-98

Project Location:

Jicarilla Contract 148 - 6

Date Reported:

Laboratory Number:

TPH-1984

Sample Matrix:

Soil

Sample Weight:

5.00 grams

Volume Freon:

20.00 mL

Dilution Factor: TPH Reading:

1 (unitless)

4 mg/kg

TPH Result:

16.0 mg/kg

Reported TPH Result:

16 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.

1684

1712

1.65

Comments:

Comments:

Separator Pit - BJ562

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 O	COMPANY	Telephone: (505) 326-9200	
Address: 200 Amoco Court,	Farmington,	NM 87401	
Facility or Well Name: <u>SICARILLA</u>	CONTRACT 148	6	
Location: Unit or Qtr/Qtr Sec_F_	Sec <u>/5</u> T_2	25N R SW County RIO ARRIBA	
Land Type: RANGE			
Date Remediation Started: @ 3.9	8	Date Completed://18/99	
Remediation Method: Landfarmed		Approx. cubic yards 230	
Composted			
Other			
th To Groundwater:	(pts.)	Final Closure Sampling:	
Distance to an Ephemeral Stream	(pts.) <u>0</u>	Sampling Date: 1 14 99 Time: 1340	
Distance to Nearest Lake, Playa, or Watering Pond	(pts.)	Sample Results: Field Headspace (ppm)	
Wellhead Protection Area: Distance To SurfaceWater:	(pts.) <u>O</u> (pts.) <u>O</u>	TPH (ppm) 3.8 Method 8015 Other	
RANKING SCORE (TOTAL POINTS):O			
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEGE AND BELIEF			
DATE 1/18/99 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	: <u>3-31-79</u>	

	AGG ENGII BOX 87, BLOG (505) 6			LOCATION NO	B3562
FIELD REPORT: LANI	PARM/COMF	POST PILE	CLOSURE	E VERIFICA	TION
LOCATION: NAME: JUDGILLA CONTRACT	148 WELL #: 4	PITS: 5 8	EP., BLOW	DATE STARTED: L. DATE FINISHED: L.	14.99
QUAD/UNIT: F SEC: 15 TWP:2	CONTRACTOR:		RA ST:NM	ENVIRONMENTAL SPECIALIST:	'EP
SOIL REMEDIATION: REMEDIATION SYSTEM: 4 LAND USE: 4			OX. CUBIC DEPTH (ft):	YARDAGE: 23 0)
F ELD NOTES & REMARKS: DEPTH TO GROUNDWATER: >/00: NEA					oʻ
NMOTH RATHING SCORE: _O NMOTO OK. YELLOWISH ORANGE TO BROWN NO STAINING OBSERVED OR HO FROM G". 18". TOOK A SPT CO	L SAND. NON COHESI CODOR DETECTED. OMPOSITE SAMPLE P	NE, SLIGHTY MO SAMPLING DEP OR LAB ANALYS	The RANGE VS.		
SAMP. TIME SAMPLE I.D.	FIELD 418	1 CALCULATION (g) mL. FREON	DILUTION READI	NG CALC. ppm	
JAMI. TIME SAME COMMON					
SKETCH/SAMPLE LOC	ATIONS	1			
LANDFARA AREA	2	ID P	HEADSPACE SAMP ID LF-1	LAB SAMP	RESULTS

SCALE O FT

TRAVEL NOTES CALLOUT: N/A ONSITE: 1.14 99



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Sample ID: Laboratory Number: Chain of Custody No: Sample Matrix: Preservative: Condition:	Blagg / AMOCO LF - 1 E530 6551 Soil Cool Cool and Intact	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Requested:	04034-10 01-18-99 01-14-99 01-15-99 01-15-99 01-18-99 8015 TPH
--	--	---	--

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)		
Gasoline Range (C5 - C10)	3.4	0.2		
Diesel Range (C10 - C28)	0.4	0.1		
Total Petroleum Hydrocarbons	3.8	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 148 - 6 Landfarm. 5 Pt. Composite.

Alexan R. Oferen

Stacy W Sendler

CHAIN OF CUSTODY RECORD

							 		 	 		 	,		_	
		<u> </u>	Af Coc's	Relinquished by: (Signature)	Relinquished by: (Signature)	Relinquished by: (Signature)						CF-1	Sample No./ Identification	Sampler: REF	BLACTO/AMOCO	Client / Project Name
			6545-	ле)	ire)	(e)						1.1499	Sample Date		00	
			57									1340	Sample Time			
												£530	Lab Number	Client No.	SICARILLA CONTRACT	Project Location LANDFARM
(505)	5796 U.S. Highway 64 Farmington, New Mexico 87401		FOVIROTECH INC			Date Time 1 15.99 0815						7105	Sample Matrix	0	INTRACT 148-6	ANDFARM
(505) 632-0615	5796 U.S. Highway 64		IECH ECH	Received by: (Signature)	Received by: (Signature)	Received by: (Signature)						_	Con	o. of tainers	6	
	¥ 87401		50	Signature)	Signature)	Signature						7	TP1 (80)	+ (5)		
					1	2-										ANA
																ANALYSIS / PARAMETERS
Cool - Ice/Blue Ice	Received Intact		8								50	2				METERS
T ange	Intact	~	Sample Receipt			Date /. /』-99				cool	SAMPLE PRESERVE	PT. COMP		Remarks		
+	 \	z	ot	:		P/N	,	-			3355	COMPOSITE		8		ļ