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

BJ678 SUBMIT I COPY TO

PIT REMEDIATION AND CLOSURE REPORT COM. DOW.

	Talanhaya (505) 326-9200	
Operator: AMOCO PRODUCTION COMPANY	Telephone: (505) 326-9200	_
Address: 200 Amoco Court, Farmington,	NM 87401	-
Facility or Well Name: TICARILLA API	bette #105-2	-
Location: Unit or Qtr/Qtr Sec 6 Sec 4 T	ZEN R 4W County KIO ARRIGA	-
Pit Type: Separator Dehydrator Other	BWW	_
Pit Type: Separator Denytrator		_
Land Type: LANGE		
1 - 10	30', width_ 40', depth//	
	other	
Footage from reference: 2	3	,
Direction from reference:	_S Degrees East North	
	West South	,
Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 points)	-
groundwater) Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Less than 100 feet (10 points) Creater than 100 feet (0 points)	_
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)	_
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, irrigation 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):	

		BIGES BLOW FIT
		Date Completed: 9/16/98
Date Remediation Sta	rted:	pprox. cubic yards600
Remediation Method:	Excavation X	
Theck all appropriate sections)	Landfarmed ×	nsitu Bioremediation
	Other	
Remediation Location (i.e. landfarmed onsite, name and location of official		On a strange
General Description	of Remedial Action: <u>Excavation</u> . §	EXCAUATION MOSTLY BEDREXX THEREFORE
NO TOW AND	VEIS WITH CONDUCTED. KISK 4155E	SSED.
Frequen	tered: No X Yes	Depth
Groundwater Encoun	lereu.	
Final Pit: Closure Sampling: (if multiple samples,	Sample location see Attached Doc	
attach sample results and diagram of sample	Sample depth 7 (WEST SIDEWALL-	- HIGHEST OUM READING - BEDROCK)
locations and depths)	Sample date	Sample time
	Sample Results	
	Soil: Benzene (ppm)	Water: Benzene (ppb)
	Total BTEX (ppm)	Toluene (ppb)
	Field Headspace (ppm) 1,099	(mmh)
	TPH (ppm)	
Groundwater Sample		
I HEREBY CERTIFY KNOWLEGE AND I	Y THAT THE INFORMATION ABOVE IS BELIEF	S TRUE AND COMPLETE TO THE BEST OF M
DATE	9/16/98 PRINTED NAME	Buddy D. Shaw
CYCNATURE BUS	Ole A. Small AND TITLE	Environmental Coordinator
	F THE PIT CLOSURE INFORMATION, P A APACHE TRIBE PIT CLOSURE ORDIN	OIT CLOSURE IS APPROVED IN ACCORDAN
i e	\times NO (REASON) R.A.	^
 SIGNED: Let	CMall DATE:_	10-1-98

3003906718 LOCATION NO BJ628 BLAGG ENGINEERING, INC. CLIENT: AMOCO P.O. BOX 87, BLOOMFIELD, NM 87413 C.O.C. NO: _____ (505) 632-1199CLOSURE VERIFICATION PAGE No: _ 1 of _ 1 FIELD REPORT: DATE STARTED: PIT: BLOW LOCATION: NAME: TICA. AP. 102 WELL #: 5 DATE FINISHED: QUAD/UNIT: & SEC: 4 TWP: 26N RNG: 4W PM: NM CNTY: RA ST: NM ENVIRONMENTAL QTR/FOOTAGE: 1450 FNL 1450 FEL CONTRACTOR: SPECIALIST: CUBIC YARDAGE: 600 EXCAVATION APPROX. 30 FT. x 40 FT. x 11 FT. DEEP. DISPOSAL FACILITY: 02-517E REMEDIATION METHOD: LANDFARM LEASE: _______ FORMATION: __MV LAND USE: RANGE FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 213 FT. NZSE FROM WELLHEAD. DEPTH TO GROUNDWATER: 3100' NEAREST WATER SOURCE: 3/000' NEAREST SURFACE WATER: 3/000' NMOCD RANKING SCORE: O NMOCD TPH CLOSURE STD: 5000 PPM <u> ✓</u> PIT ABANDONED ____ STEEL TANK INSTALLED SOIL AND EXCAVATION DESCRIPTION: __ FIBERGLASS TANK INSTALLED EXERCITION CONSIST OF MOSTLY BEDROCIZ (SHALE) DUSKY RED/LT. GRAY SOFT TOWARD GROWN SURFACE TO VERY HARD & PIT BOTTOM, NO APPARENT OR OBVIOUS STAINING OBSERVED SUGHT HE ODOR DEFECTED WIND EXCOVATION STRONG HE OOOK IN ALL OUM SAMPLES, OUM SAMPLES COLLECTED FROM BEDROCK THEREFORE NO TOH ANALYSIS WAS CONDUCTED. DISTANCE & BERRING NOTED ABOUT FOR PIT WEATION TAKEN FROM # 102 - 19 PISK ASSESSED EXCAUATION well head FIELD 418.1 CALCULATIONS LAB No: WEIGHT (g) ML. FREON DILUTION READING CALC. ppm BEDROCK SAMPLE I.D. TIME 1035 SCALE FT PROFILE PIT PERIMETER IN OVM RESULTS 40' FIELD HEADSPACE PID (ppm) SAMPLE 149.3 464 1,095 BEDROCK SUNPE (ZY) DIRECTON LAB SAMPLES TIME ANALYSIS ONSITE: 9/16/98 - MORN. TRAVEL NOTES: CALLOUT: __

Well Name:
Well Site location:
Pit Type:
Producing Formation:
Pit Category:
Horizonal Distance to Surface Water:
Vicinity Groundwater Depth:

Jicarilla Apache 102 #5
Unit G, Sec. 4, T26N, R4W
Blow Pit
Mesa Verde
Non Vulnerable
> 1000 ft.
> 100 ft.

RISK ASSESSMENT (non-vulnerable area)

Pit remediation activities were terminated when trackhoe encountered shale bedrock at 11 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 shale bedrock located 11 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below shale 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.
- 4. Well site located within the <u>non-vulnerable area</u> and is approximately 0.78 miles southeast of the nearest vulnerable area boundary (Jaramillo Canyon wash).

(Refer to <u>Vigas Canyon Quadrangle</u>, New Mexico - Rio Arriba County, 7.5 Minute Series (<u>Topographic</u>), photorevised 1982, (vulnerable area boundary developed by Mr. William C. <u>Olson</u>, 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 shale 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.

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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 Telep	ohone: (505) 326-9200
Address: 200 Amoco Court, Farmington, NM 87401	
Facility or Well Name: JICARILLA APACHE 102 - 5	
Location: Unit or Qtr/Qtr Sec 6 Sec 4 T ZW R AW County R1	ARRIBA
Land Type: EANGE	
Date Remediation Started: 9.1698 Date Completed: Remediation Method: Landfarmed	
pm 10 010mm more	osure Sampling:
Distance to an Ephemeral Stream (pts.) _ o Sampling Date: 4 8 '	79 Time: ///0
Distance to Nearest Lake, Playa, or Watering Pond (pts.) Sample Results:	
Wellhead Protection Area: (pts.)o Field Headspace (ppm	0.4 Method 8015
Distance To SurfaceWater: (nts.)	
RANKING SCORE (TOTAL POINTS):	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLE KNOWLEGE AND BELIEF	TTE TO THE BEST OF MY
DATE V//z/99 PRINTED NAME Buddy D. S	Shaw
SIGNATURE Bully S. Shaw AND TITLE Env	ironmental Coordinator
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REME ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE	C.
APPROVED: YES NO (REASON)	
SIGNED:	

BLAGG ENGINEERING, INC. LOCATION NO B5628 CLIENT: AMOCO P.O. BOX 87, BLOOMFIELD, NM 87413 C.O.C. NO: 6883 (505) 632-1199 FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION DATE STARTED: 4.899 LOCATION: NAME: SICARIUA APACHE 102 WELL #: 5 PITS: BLOW DATE FINISHED: . QUAD/UNIT: G SEC: 4 TWP: 26N RNG: 4W PM:NM CNTY: PA ST: NM ENVIRONMENTAL REP CONTRACTOR: P+S OTR/FOOTAGE: SW/4 NE/4 SOIL REMEDIATION: APPROX. CUBIC YARDAGE: 600 REMEDIATION SYSTEM: LANDFARM LIFT DEPTH (ft): 1-1.5 RANGE LAND USE: DEPTH TO GROUNDWATER: 7 100' NEAREST WATER SOURCE: 71000' NEAREST SURFACE WATER: 7 1000' FIELD NOTES & REMARKS: NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM DK. VELLOWISH EROWAL SAND, NON CONESIVE, SLIGHTLY MOIST, FIRM NO APPARENT STAINING OBSERVED, NO HE OBOR DETECTED SAMPLING DEPTHS RINGE FROM 6"- 18" TOOK A 5 PT COMPOSITE SAMPLE FOR LAB ANALUSIS. CLOSED FIELD 418.1 CALCULATIONS SAMP. TIME SAMPLE I.D. LAB No: WEIGHT (g) ML. FREON DILUTION READING CALC. ppm SKETCH/SAMPLE LOGATIONS LAB SAMPLES OVM RESULTS RESULTS ANALYSIS FIELD HEADSPACE PID (ppm) SAMPLE SAMPLE TPH (8015) 0.4 6 LF-1 1110 0.0 SCALE

TRAVEL NOTES:

CALLOUT: N/A

ONSITE: 4 899



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 E997 6883 Soil Cool	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Requested:	403410 04-12-99 04-08-99 04-09-99 04-09-99 04-12-99 8015 TPH
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Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	0.4	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	0.4	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 Apache 102 - 5 Landfarm. 5 Pt. Composite.

Analyst

Stacy W Sendler

CHAIN OF CUSTODY RECORD

_	Cool - ice/Blue ice	LOR17	Famingion, New Mexico 0/ +0				
1	Received Intact	ghway 64	5796 U.S. Highway 64				
Z Z							
eipt	Sample Receipt	CH DC	ECVIDOTECH IO				
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		Received by: (Signature)	Reci			iture)	
-	4.9.99	Received by: (Signature)	Date Time Rec	A		iture)	Relinquished by (Signature)
Time	Date						
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JESENE-	SAMPLE PRESERVE						
COMBETTE	SPI. Conte	7	5016	E997	1110	4.8.99 1110	F-1
		Cor	Sample Matrix	Lab Number	Sample Time	Sample Date	Sample No./ Identification
8	Teller	lo. of intainers	4-10	Client No. 6 4 0 3 4 - 10			Sampler:
5		ANALYSIS / PARAMETERS	TICARILLA AFRICHE 102-5	TICARILLA ARCHE 102		300	Client / Project Name BLACH / AMOCO