0100 MISM SUBMIT I COPY TO

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

PIT REMEDIATION AND CLOSURE REPORT

	DIET. 3
	Telephone: (505) 326-9200
Operator: AMOCO PRODUCTION COMPANY	Telephone:
Operator: Alloco : No	4 87401
Address: 200 Amoco Court, Farmington, NA	3
- WALL Name: JICARIUA CONTRACT	r # 151-3
\sim	N RSW County R10 ARR184
Location: Unit or Qtr/Qtr Sec	
Pit Type: Separator Dehydrator Other	10W
Land Type: Lance	
Land Type:	25'
Pie dimensions: length 2	z', width zz', depth 25'
Pit Location: Pit dimensions: length	
(Attach diagram) Reference: wellhead X,	other
Footage from reference:18	3'
Direction from reference: 30	Degrees East North
Direction from references.	West South X
	Less than 50 feet (20 points)
Depth To Groundwater: (Vertical distance from	50 feet to 99 feet (10 points) Greater than 100 feet (0 points)
contaminants to seasonal	Gleater than 100 100.
high water elevation of groundwater)	(10 points)
	Less than 100 feet (10 points)
Distance to an Ephemeral Stream (Downgradient dry wash greater than	Greater than 100 feet (0 points)
ten feet in width)	Less than 100 feet (10 points)
Distance to Nearest Lake, Playa, or Watering Pond	Greater than 100 feet (0 points)
(Downgradient lakes, playas and livestock or wildlife watering ponds)	
u	Yes (20 points) > No (0 points)
Wellhead Protection Area: (Less than 200 feet from a private	No (0 points)
domestic water source, or: less man	
1000 feet from all other water sources)	Less than 100 feet (20 points)
Distance To SurfaceWater: (Horizontal distance to perennial	100 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)
lakes, ponds, rivers, streams, creeks,	Greater than 1000 leet (7 1)
irrigation canals and ditches)	
	RANKING SCORE (TOTAL POINTS):

	arted: Date Completed: 10/13/98.
Date Remediation Sta	
emediation Method: Check all appropriate	
sections)	Landfarmed
	Other
Remediation Location	Onsite K Offsite
(i.e. landfarmed onsite, name and location of	
offsite facility)	of Remedial Action: Excavation . BEDROCK BOTTOM. KISK ASSESSED.
General Description	of Remedial Action:
Groundwater Encoun	itered: No X Yes Depth
	Sample location see Attached Documents
Final Pit: Closure Sampling:	Sample location
(if multiple samples, attach sample results	Sample depth
and diagram of sample locations and depths)	Sample date
•	
"	Sample Results Water: Benzene (ppb)
	Soil: Benzene (ppin)
	Total BLEX (Ppin) Remon
	Field Headspace (ppm)
	TPH (ppm) $\sim D$ Total Xylenes (ppb)
Groundwater Sample	e: Yes No _X (If yes, attac!ı sample results)
I HEREBY CERTIFY KNOWLEGE AND B	Y THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY BELIEF
DATE	PRINTED NAME Buddy D. Shaw
SIGNATURE BUS	AND TITLE Environmental Coordinator
APPEN DEVIEW OF	E THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE
TO THE JICARILLA	A APACHE TRIBE PIT CLOSURE ORDINANCIA
APPROVED: YES_	X NO (REASON) R.A. Attache()
SIGNED:	-CMa-DATE: 11-18-98

30039 20597 LOCATION NO: BJ662 CLIENT: AMOCO BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 C.□.C. N□: _____ (505) 632-1199FIELD REPORT: CLOSURE VERIFICATION PAGE No: / of / DATE STARTED: 10/13/98 LOCATION: NAME: JICA. AP TRIBAL 151 WELL #: 3 PIT: BLOW DATE FINISHED: QUAD/UNIT: 8 SEC: 4 TWP: 26N RNG: 5W PM: NM CNTY: RA ST: NM ENVIRONMENTAL QTR/FOOTAGE: 1060 FALL 1650 FEL CONTRACTOR: P+5 SPECIALIST: ___ EXCAVATION APPROX. 22 FT. x 22 FT. x 25 FT. DEEP. CUBIC YARDAGE: 400 DISPOSAL FACILITY: ______ REMEDIATION METHOD: LANDFARM LEASE: Toc 15) FORMATION: OK KANGE LAND USE: FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 183 FT. 5300 FROM WELLHEAD.

DEPTH TO GROUNDWATER: >100 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: >1000 CHECK ONE: NMOCD RANKING SCORE: ____ NMOCD TPH CLOSURE STD: 5000 PPM PIT ABANDONED ___ STEEL TANK INSTALLED SOIL AND EXCAVATION DESCRIPTION: __ FIBERGLASS TANK INSTALLED SIDENALLS - VERY PALE GRANGE TO MOD. YELL. OLARGE SAND (TOP 3/3'S OF EXERCATION) NON COHESIVE, SUGHTLY MOIST FIRM, NO APPRICATI STANING OFFERVED NO APPARENT HE ODOR DETECTED WIND EXCRAPTION OR IN ANY OF THE DVM SAMPLES, BOTTOM V3 CONSISTED OF BEARCH VARYING IN COLOR FROM VERY PRE ORANGE TO OULE BOTTOM - BEDROCK (SANDSTONE) LT. OLIVE GLOY IN COLOR, WERY HORD, STRONG HE DOOR IN OUM SIMPLE. BEORDCK RISK ASSESSED FIELD 418.1 CALCULATIONS Rossom LAB No: WEIGHT (g) ML. FREON DILUTION READING CALC. ppm SAMPLE I.D. TIME 20 (1) @16' TPH -2053 SCALE 1015 FT 0 PROFILE PIT PERIMETER OVM RESULTS FIELD HEADSPACE PID (ppm) 0.0 0.0 17 HEAD LAB SAMPLES TIME ANALYSIS TRAVEL NOTES: CALLOUT: 10/12/98 - MDR. ONSITE: 10/13/98 - MDRN.

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizonal Distance to Surface Water:

Vicinity Groundwater Depth:

Jicarilla Apache Tribal 151 #3

Unit B, Sec. 4, T26N, R5W

Blow Pit

Basin Dakota

Non Vulnerable

> 1000 ft.

> 100 ft.

RISK ASSESSMENT (non-vulnerable area)

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 25 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 25 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 <u>non-vulnerable area</u> and is approximately 0.74 miles southeast of the nearest vulnerable area boundary (Cereza Canyon wash).

(Refer to <u>Vigas Canyon Quadrangle</u>, New <u>Mexico</u> - Rio Arriba County, 7.5 <u>Minute Series</u> (<u>Topographic</u>), photorevised 1982, (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 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:

1 @ 16'

Date Analyzed:

10-13-98

Project Location:

Jicarilla Apache Tribal # 151 - 3

Date Reported:

10-13-98

Laboratory Number:

TPH-2053

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:

Duplicate TPH mg/kg

220

% *Diff.

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 - BJ662

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:

1 @ 16'

Date Analyzed:

10-13-98

Project Location:

Jicarilla Apache Tribal # 151 - 3

Date Reported:

10-13-98

Soil

Laboratory Number:

TPH-2053

Sample Matrix:

Sample Weight:

5.00 grams 20.00 mL

Volume Freon: Dilution Factor:

1 (unitless)

TPH Reading:

4 mg/kg

TPH Result:

16.0 mg/kg

Reported TPH Result: Actual Detection Limit:

16 mg/kg 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:

Comments:

Blow Pit - BJ662

81665

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

PIT REMEDIATION AND CLOSURE REPORT

Operator: AMOCO PRODUCTION COMPANY	Telephone:	(505)326-93	200
Address: 200 Amoco Court, Farmington,	NM 87401		
JICARNA AI	PRCHE TRIBAL #151-3	0-0-40	
Location: Unit or Qtr/Qtr Sec 8 Sec 4 T2	KN R 4W County X10	ARKIEF)	
Pit Type: Separator Z_ Dehydrator Other			
Land Type: Land E			
	21' , width 34'		
Reference: wellhead X,	other		·
Footage from reference: 16	SS Degrees X East of	North	
Direction from felcience.	of West	South X	
Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of	Less than 50 feet 50 feet to 99 feet Greater than 100 feet	(20 points) (10 points) (0 points)	0
groundwater) 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> </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)	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 (TOTA	L POINTS):	<u> </u>

BJ66Z SEP. PTT

	rted: Date Completed: 10/14/98
Date Remediation Sta	rted: Date Completed: 37.5
emediation Method:	Excavation Approx. cubic yards 37.5
Check all appropriate sections)	Landfarmed Insitu Bioremediation
	Other
Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility)	Onsite X Offsite
General Description of	of Remedial Action: Excavation. CONSTRUME COSURE - JICARUM EPO,
RIN ASSESS	Ed - Nucop :
Groundwater Encount	cred: No 🔀 Yes Depth
Final Pit: Closure Sampling: (if multiple samples,	Sample location see Attached Documents
attach sample results	Sample depth 26' (PIT BOTTOM) Sample date
H	Sample Results
11	Soil: Benzene (ppm) 20.840 Water: Benzene (ppb)
	Total BTEX (ppm) 96.450 Toluene (ppb)
	Field Headspace (ppm) 774 Ethylbenzene (ppb)
	TPH (ppm) 4,660 Total Xylenes (ppb)
Groundwater Sample	Yes No X (If yes, attach sample results)
I HEREBY CERTIFY KNOWLEGE AND B	
DATE /	PRINTED NAME Buddy D. Shaw
SIGNATURE Sud	Ly S. Shaw AND TITLE Environmental Coordinator
TO THE JICARILLA	THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE APACHE TRIBE PIT CLOSURE ORDINANCE.
APPROVED: YES	X NO_ (REASON) Conditional/R-A. Attached
SIGNED:	CMall DATE: 11-18-98

CLIENT: AMOCO	BLAGG ENGINEERIN	NG, INC.	LOCATION NO BIGGZ
CLIENT: ANIOCO	.O. BOX 87, BLOOMFIEL (505) 632-11	D, NM 87413	C.O.C. NO: <u>6295</u>
	: CLOSURE VER		PAGE No: of
LOCATION: NAME: TICA AP. T	RIBAL IST WELL #: 3 PI	T: SEP.	DATE STARTED: 15/13/98 .
OUAD/UNIT: \$ SEC: 4	TWP: ZGN RNG: 4W PM: NM	CN11.707 51.70	ENVIRONMENTAL SPECIALIST:
DUCAVATION ADDDOV 21	FT x 34 FT x 25	FT. DEEP. CUBIC	YARDAGE: 375
	ついっていた DEMI	EDIATION METHO	D:
LAND USE: KANGE	LEASE:	757 FUI	VMATION:
FIELD NOTES & REMARK	S: PIT LOCATED APPROXIMATE	ELY 160 FT. 5	F WATER: >/000
DEPTH TO GROUNDWATER: >100	NEAREST WATER SOURCE: 3/00	PPM /	CHECK DNE : PIT ABANDONED
NMOCD RANKING SCORE:	NMOCD THE CLUSORE STD:		_ STEEL TANK INSTALLED
			_ FIBERGLASS TANK INSTALLED
OK. YELL BROWN	TO DK. GRAY SILTY SAND I	NUN COHESIVE TO SE STAINING EUI	DENT THROUGHOUT
ENTIRE EXCOURT)	TO DK. GRAT SIETY SAND I T FIRM TO SLIGHTLY DENS SN EXCEPT NORTH SIDE E HE ODOR IN WEST SIDE TO BE RELATIVELY N TO AN SITE.	ENALL HE OPOR	BOTTOM REDROCK
EXCOUNTION, STRONG	E HE DOR NO DELY N	EAR PIT BOTTOM	BASED UPIN ENCOUNT -
(SANDSTONE) PRESUM	160 / B NE		
(SANDSTERE) PRESUM ELINE C BLOW P.	T ON-SITE.		
ecine e gibis pri			
ecine e gibis pri	AE - JEARILLA EPO - NUMCO	AIRI CALCULATIONS	
CONSTRUCTION SLESSE	AE - JEARILLA EPO - NUMCO	AIRI CALCULATIONS	ILUTION READING CALC. ppm
CONSTRUCTION SLESSE	AE - JEARILLA EPO - NUMCO	AIRI CALCULATIONS	
CONDITIONAL CLUSING LISK ASSESSED SCALE O FT	TIME SAMPLE I.D. LAB NO: WE	418.1 CALCULATIONS IGHT (g) mL. FREON C	OILUTION READING CALC. ppm
CONDITIONAL CLUSING LISK ASSESSED	TIME SAMPLE I.D. LAB NO: WE	418.1 CALCULATIONS IGHT (g) ml. FREON D	PROFILE
SCALE O FT PIT PERIME	TIME SAMPLE I.D. LAB NO: WE STER N OVM RESULTS	418.1 CALCULATIONS IGHT (g) ml. FREON C PIT	PROFILE
CONDITIONAL CLUSING LISK ASSESSED SCALE O FT	TIME SAMPLE I.D. LAB NO: WE TIME SAMPLE I.D. LAB NO: WE CTER N OVM RESULTS SAMPLE FIELD HEADSP	418.1 CALCULATIONS IGHT (g) mL. FREON D PIT	PROFILE
SCALE O FT PIT PERIME	TIME SAMPLE I.D. LAB NO: WEI TIME SAMPLE I.D. LAB NO: WEI CTER OVM RESULTS SAMPLE FIELD HEADS PID (Spr 1 @ 20' 32.7 2 @ 20' 93.2 3 @ 20' 89.7	418.1 CALCULATIONS IGHT (g) mL. FREON D PIT	PROFILE
SCALE O FT PIT PERIME TO WELL HEAD	TIME SAMPLE I.D. LAB NO: WE TIME SAMPLE I.D. LAB NO: WE OVM RESULTS SAMPLE FIELD HEADSR PRID (Spring) 1 @ 20' 32.7 2 @ 20' 93.Z	418.1 CALCULATIONS IGHT (g) mL. FREON D PIT	PROFILE
SCALE O FT PIT PERIME TO WELL HEAD	TIME SAMPLE I.D. LAB NO: WE TIME SAMPLE I.D. LAB NO: WE CTER OVM RESULTS SAMPLE FIELD HEADS PID (ppm 1 @ 20' 32.7 2 @ 20' 93.2 3 @ 20' 89.7 4 @ 20' 468	418.1 CALCULATIONS IGHT (g) mL. FREON D PIT	PROFILE A
SCALE O FT PIT PERIME OFF PIT PERIME OFF OFF OFF OFF OFF OFF OFF O	TIME SAMPLE I.D. LAB NO: WE TIME SAMPLE I.D. LAB NO: WE OVM RESULTS SAMPLE FIELD MEADS PID (ppm 1 @ 20' 32.7 2 @ 20' 93.Z 3 @ 20' 89.7 4 @ 20' 468 5 @ 26' 774	418.1 CALCULATIONS IGHT (g) mL. FREON D PIT	PROFILE A
SCALE O FT PIT PERIME TO WELL HEAD	TIME SAMPLE I.D. LAB NO: WE TIME SAMPLE I.D. LAB NO: WE OVM RESULTS SAMPLE FIELD MEADSP PID (oppn 1 @ 20' 32.7 2 @ 20' 93.2 3 @ 20' 468 5 @ 26' 77.4 A 34' A	418.1 CALCULATIONS IGHT (g) mL. FREON C PIT A PACE	PROFILE A
SCALE O FT PIT PERIME TOUL HEAD 3	TIME SAMPLE I.D. LAB NO: WE TIME SAMPLE I.D. LAB NO: WE OVM RESULTS SAMPLE FIELD HEADSP 10 20' 32.7 2 2 20' 97.2 3 2 20' 89.7 4 2 20' 468 5 2 26' 774 LAB SAMPLES SAMPLE ANALYSIS	A18.1 CALCULATIONS IGHT (g) mL. FREON C PIT A PACE TIME	PROFILE A
SCALE O FT PIT PERIME OFF PIT PERIME OFF OFF OFF OFF OFF OFF OFF O	TIME SAMPLE I.D. LAB NO: WE TIME SAMPLE I.D. LAB NO: WE RESULTS SAMPLE FIELD HEADS PID (Sppm) 1 @ 20' 32.7 2 @ 20' 93.Z 3 @ 20' 89.Z 4 @ 20' 468 5 @ 26' 774 LAB SAMPLES SAMPLE ANALYSIS SAMPLE FIELD HEADS \$ 10	PACE	PROFILE A
SCALE O FT PIT PERIME TOUL HEAD 3	TIME SAMPLE I.D. LAB NO: WE TIME SAMPLE I.D. LAB NO: WE CTER OVM RESULTS SAMPLE FIELD HEADST PID (Spm 1 @ 20' 32.7 2 @ 20' 93.Z 3 @ 20' 89.7 4 @ 20' 468 5 @ 26' 77.4 A 34' LAB SAMPLES SAMPLE ANALYSIS SO EZE (S) @ 26' TOPH - POSSE! BENJ - FOILED TOT BIEL TO	PIT PACE TIME 09/5	PROFILE 21 25

Well Name: Well Site location: Pit Type:

Producing Formation:

Pit Category:

Horizonal Distance to Surface Water:

Vicinity Groundwater Depth:

Jicarilla Apache Tribal 151 #3
Unit B, Sec. 4, T26N, R5W
Separator Pit
Basin Dakota
Non Vulnerable
> 1000 ft.

> 100 ft.

RISK ASSESSMENT (non-vulnerable area)

Pit remediation activities were terminated when trackhoe reached practical extent (25 ft. below grade) and for safety concerns (underground piping and surface equipment).

No past or future threat to surface water or groundwater is likely based on the following considerations:

- Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below presumed shallow sandstone bedrock (based on sandstone exposure at blow pit).
- 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.
- Well site located within the <u>non-vulnerable area</u> and is approximately 0.74 miles southeast of the nearest vulnerable area boundary (Cereza Canyon wash).

(Refer to Vigas Canyon Quadrangle, New Mexico - Rio Arriba County, 7.5 Minute Series (Topographic), photorevised 1982, (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 vertical impact to groundwater is very unlikely. AMOCO requests pit closure approval on this location.



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 5 @ 26' E065 6295 Soil Cool Cool and Intact	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Requested:	04034-10 10-14-98 10-13-98 10-14-98 10-14-98 10-14-98 8015 TPH
--	---	---	--

		Det.
Parameter	Concentration (mg/Kg)	Limit (mg/Kg)
Gasoline Range (C5 - C10)	3,030	0.2
Diesel Range (C10 - C28)	1,630	0.1
Total Petroleum Hydrocarbons	4,660	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 Tribal #151 - 3 Separator Pit.

Analyst L. Oyunen

Stacy W Sendler



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
-	5 @ 26'	Date Reported:	10-14-98
Sample ID:	E065	Date Sampled:	10-13-98
Laboratory Number:		Date Received:	10-14-98
Chain of Custody:	6295	Date Analyzed:	10-14-98
Sample Matrix:	Soil	Date Extracted:	10-14-98
Preservative:	Cool		BTEX
Condition:	Cool & Intact	Analysis Requested:	DIEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene	20,840 30,340 3,510 27,910 13,850	8.8 8.4 7.6 10.8 5.2
Total BTEX	96,450	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene Bromofluorobenzene	97 % 97 %

References: Metho

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846,

USEPA, December 1996.

Comments:

Jicarilla Apache Tribal #151 - 3 Separator Pit.

Deren R. Ogeren

Stacy W Sendler
Review

CHAIN OF CUSTODY RECORD

	1	Cool - Ice/Blue Ice	315	Farmington, New Mexico 874 (505) 632-0615				
	1	Received Intact	way 64	5796 U.S. Highway 64				
Z	~					٠ ١		143 cxs
	ceipt	Sample Receipt	Ť DC	ECVIDOTECH IO		1,62,1,96)
			Received by: (Signature)	Received			ature)	Relinquished by: (Signature)
			Received by: (Signature)				ature)	Relinquished by: (Signature)
Time 92/0	Date 10.14.98	10.14	Received by: (Signature)	Date Time Received			ature)	Relinquished by: (Signature)
75	cool	TRESERV.	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	2011	6065	2160	10/13/98	(5) @ 26'
		S	Con 7 (80 6) (80 6)	Sample Matrix	Lab Number	Sample Time	Sample Date	Sample No./
			ntainer PH O 15) PEX	lo of	04034-10			NTN
	র্মন্ত	Remarks)		Client No.			Sampler:
		WETERS	ANALYSIS / PARAMETERS	Trade Location SEPARATOR PIT	Project Location		\$CO	Client / Project Name 80866 / Amoco

B5662

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: JICARIUA APACHE TRIBAL 151-3										
Location: Unit or Qtr/Qtr Sec & Sec 4 T ZGN R SW County RIO ARLIBA										
Land Type:										
Date Remediation Started: 10 13	98	Date Completed: 5/17/99								
Remediation Method: Landfarmed		Approx. cubic yards								
Composted										
Other										
epth To Groundwater:	(pts.)	Final Closure Sampling:								
Distance to an Ephemeral Stream	(pts.) <u>O</u>	Sampling Date: <u>5.14.99</u> Time: <u>1035</u>								
Distance to Nearest Lake, Playa, or Watering Pond	(pts.) <u>0</u>	Sample Results:								
Wellhead Protection Area:	(pts.)	Field Headspace (ppm) 428.6								
Distance To SurfaceWater:	(pts.) <u>O</u>	TPH (ppm) 128 Method Brewsoz)								
	rma A	Other <u>BENZENE</u> 0.145 ppm TOT. BTEX 9.690 ppm								
RANKING SCORE (TOTAL POIN		E IS TRUE AND COMPLETE TO THE BEST OF MY								
I HEREBY CERTIFY THAT THE INFO KNOWLEGE AND BELIEF	KMATION ABOVI	E IS TRUE AND COM LETE TO THE DEST OF THE								
DATE 5/17/99	PRINTED N	NAME Buddy D. Shaw								
SIGNATURE Bully J. Show 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)									
II										
SIGNED:	DATE);								

	DIAGG ENGI	MICHTINIA MICHTINIA	C INC				
CLIENT: AMOCO	BLAGG ENGI P.O. BOX 87, BLO (505)		, NM 87		C.D.C		6931 6931
FIELD REPORT:	LANDFARM/COM			SURE	VERIF	ICAT	'ION
DOCATION: NAME: APACHE	LA TEBAL 151 WELL #: 3	PITS:	SEP., BLOW		DATE START	ED: <u></u>	14.99
QUAD/UNIT: 8 SEC: 4	TWP26N RNG:5W NE/4 CONTRACTOR:	PM:NM CI	nty: RA S'	I:NM	ENVIRONMEN SPECIALIST:	ITAL PE	P
SOIL REMEDIATION:							<u>-</u>
REMEDIATION SYS	STEM: LANDFARM		PPROX. CU				<u> </u>
LAND USE:	RANGE	_ LI	FT DEPTH	(ft):			
FIELD NOTES & REMA	RKS:					- 100	, -
	00' NEAREST WATER SOURCE			SURFACE	WATER: <u></u>	7500	
NMEGI RANKING SCORE:	NMOCD TPH CLOSURE ST	D: 5000 PPI	4				
PALE YELLOWISH 820	WN SAND, NON COHESIVE	e, slightly	MOIST, F.	PTS. E	Q+B)	
NO APPARENT STA	ANNING FROM 6"-12". RANCE FROM 6"-12".	". COLECTE!	DA SPT. 6	ONFUS	176		
SAMPLE FOR LAB	ANALYSIS.						
	COSED						
EAND TIME S	FIELD 41 SAMPLE I.D. LAB No: WEIGH	8.1 CALCULA T (a) mL. FR	EON DILUTION	N READING	G CALC. p	pm į	
SAMP. : IIVIL S	SANT CE 1.0. B.B. TVO.	(3)					
:							
SKETCH /SAMP	LE LOCATIONS						
SKEICHYBANA	LE BOCKTONE						
~ (0		OVM F	RESULTS		LAB SA		
		SAMPLE	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
	@	1 LF-1	428.6	LF-1	(8015)	1035	145 ppb
0 30'N84		>		"	TOT . STEX	ν	9690 APB
\searrow	6. ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				-		
1	w.			l		i	<u> </u>
H	24	0047	ਜ				
	~1\~~	1 C1/1A	P.				
}		SCAL					
N	(g)	O SCAL	FT				_



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 F261 6931 Soil Cool Cool and Intact	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Requested:	403410 05-17-99 05-14-99 05-17-99 05-17-99 8015 TPH
--	--	---	--

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)		
Gasoline Range (C5 - C10)	59.2	0.2		
Diesel Range (C10 - C28)	69.0	0.1		
Total Petroleum Hydrocarbons	128	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 Tribal 151 - 3 Landfarm. 5 Pt. Composite.

Aleur P. Gener

Review J. Sende-



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410			
Sample ID:	LF - 1	Date Reported:	05-17-99			
Laboratory Number:	F261	Date Sampled:	05-14-99			
Chain of Custody:	6931	Date Received:	05-17-9			
Sample Matrix:	Soil	Date Analyzed:	05-17-9			
Preservative:	Cool	Date Extracted:	05-17-9			
Condition:	Cool & Intact	Analysis Requested:	BTEX			
			Det.			
	C	concentration	Limit			
Parameter		(ug/Kg)	(ug/Kg)			
_		145	8.8			
Benzene -		989	8.4			
Toluene		206	7.6			
Ethylbenzene		6,180	10.8			
p,m-Xylene o-Xylene		2,170	5.2			
Total BTEX		9,690				
ND - Parameter not	detected at the stated detection limit	t.				
Surrogate Recov	reries: Parameter	Pe	rcent Recovery			
	Trifluorotolu	ene	100 %			
	Bromofluoro	benzene	100 %			
References:	Method 5030B, Purge-and-Trap, T December 1996.	est Methods for Evaluating Solid Wast	e, SW-846, USEPA,			

Den L. Quence

Comments:

USEPA, December 1996.

Review Jende

Jicarilla Apache Tribal 151 - 3 Landfarm. 5 Pt. Composite.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846,

CHAIN OF CUSTODY RECORD

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				Relinquished by: (Signature)	Relinquished by: (Signature)	Relinquished by (Signature)	•						CF-1 5.	Sample No./ S.	REP	Sampler:	Client / Project Name **ELAGG AMOCO
													5.44 1035	Sample Date			5
													1035	Sample Time			
													1206	Lab Number	403410	Client No.	Project Location CANDFARM SICARILLA APACHE TRIBAL 151
(505) 632-0615	5796 U.S. Highway 64		FOVIROTECH IO	7	7	Date Time F 5-17-99 7:45							7:08	Sample Matrix	10		roject Location LANDFALM SICARIUA APACHE TRIBAU 151-3
(505) 632-0615	Highway		T C	Received by: (Signature)	<u>Š</u> .	Received by: (Signature)							_		o. of	re	
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