Denny S. Four JICARILLA APACHE TRIBE
DEPUTY OIL & GAS INSPECTORNVIRONMENTAL PROTECTION OFFICE
PO BOX 507 P.O. BOX 507

NATURAL RESOURCE DEPT

AND OIL & GAS ADMINISTRATION

AUG 1 3 1999

PIT REMEDIATION AND CLOSURE REPORT

DULCE, NEW MEXICO 87528

FTRIVI OUTE	
Operator: AMOCO PRODUCTION COMPANY	Telephone : (505)326-9200
Address: 200 Amoco Court, Farmington,	NM 87401
Facility or Well Name: JI CAPILLA C	* 3
Location: Unit or Qtr/Qtr Sec_ T Sec_ 23 Te	
Pit Type: Separator Dehydrator Other	Bloc
Land Type:RNP6E	
1 10 200001020	, width, depth
(Attach diagram) Reference: wellhead X,	other
Footage from reference:	120
	30 Degrees X East North
	West South K
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)
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)
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) O 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)
ì	RANKING SCORE (TOTAL POINTS): 10

	8, 29-86
Date Remediation Sta	arted: Date Completed: 8.29-26
mediation Method:	Excavation Approx. cubic yards N /A
(Check all appropriate sections)	Landfarmed Insitu Bioremediation
	Other FOLE
Remediation Location (i.e. landfarmed onsite, name and location of offsite facility) General Description	of Remedial Action: Excavation - TEST HOLE - NO COMMUNICAL
Groundwater Encoun	itered: No X Yes Depth
Final Pit: Closure Sampling: (if multiple samples,	Sample location see Attached Documents
attach sample results and diagram of sample	Sample depth12'
locations and depths)	Sample date
·′	Sample Results
	Soil: Benzene (ppm) Water: Benzene (ppb)
	Total BTEX (ppm) Toluene (ppb)
	Field Headspace (ppm) Ethylbenzene (ppb)
	TPH (ppm) 24 Total Xylenes (ppb)
11	e: Yes No X (If yes, attach sample results)
I HEREBY CERTIF KNOWLEGE AND	
DATE	8. 29. 96 PRINTED NAME Buddy D. Shaw
SIGNATURE BY	Que D. Shaw AND TITLE Environmental Coordinator
AFTER REVIEW O	OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE A APACHE TRIBE PIT CLOSURE ORDINANCE.
APPROVED: YES	NO (REASON)
SIGNED: Jun	C. Maul DATE: 8-29-96

CLIENT: AMO	P.O. BO	LAGG ENGIN X 87, BLOO (505) 60	MFIELD, NI	NC. M 87413	C.D.C. ND:
	FIELD REPOR	T: PIT CL	OSURE VE	RIFICATIO	ON
LOCATION: JI	CARILLA C EC: 23 TWP: 26 N NE/SE	RNG: 5 ω BM:	PIT TYPE: !	A ST: NM	DATE STARTED: 8-29-96 DATE FINISHED: ENVIRONMENTAL RFS SPECIALIST:
EXCAVATION AF DISPOSAL FACI	PPROX FT. LITY:N RKY6E	× FT. × /A LEASE:	FT. DEE REMEDIA # 108	EP. CUBI TION METHOI FORMA	C YARDS: _ N /A
FIELD NOTES &	REMARKS: PIT L	DCATED APPROXI	MATELY 120	FEET SUBSACE	3°E FROM WELLHEAD. E WATER: >(υυυ)
				TAKEST SUNTHE	L WHILK
NMOCD RANKING SCOR	RE: 10 NMOCD	TPH CLOSURE SIDE	DOO PPM	MHMOUED	
SOIL AND EXCAV	ATION DESCRIPTIO	N: PIT DISPOS	SITION:	APPAR FLY	
	SUG IN PIT B			THE STATE OF THE	
SOIL CONSIFTS	of moist, Brow	1, EILTE 31000	•		
			2IADITA III		(C ro 260)
	SAMPLE I.D. LAB No	FIELD 418.1 C weight (g) mL	FREON DILUTION	READING CAL	C. ppm
	THI @ 12' 180'		20.0		24
SCALE					
0 10 20FT		0,			
PIT F	PERIMETER	RESU		PIT	PROFILE
To 1		SAMPLE	FIELD HEADSPACE PID (ppm)		
wer \	ı	1 THI 012'	2		
,	35	3			
		5		.1	j.
 					10'
1	FA-1 35				
		LAB	SAMPLES		
TRAVEL NOTES:	0.1.1.0.17	8-29-96	ONSITE:	8.29.96	1000
1101112	CALLOUT:	9 2 1 10	_ 0,,0,,1_,		FORM REVISED 7/95

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:

Sample ID:

Project Location: Laboratory Number: Amoco

TH-1 @ 12' Jicarilla C #3

TPH #1809

Project #:

Date Analyzed: Date Reported:

Sample Matrix:

8-29-96

8-30-96 Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg 	
Total Recoverable Petroleum Hydrocarbons	24	10	

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg

1.420 *Administrative Acceptance limits set at 30%. Duplicate

TPH mg/kg

%

*Diff.

5

1,344

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

USEPA Storet No.4551, 1978

Comments:

Blow Pit - BJ425

R. E O Nall Analyst

Alson Vel 11/96 Review

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

SUBMIT 1 COPY TO

NATURAL RESOURCE DEP1

AND OIL & GAS ADMINISTRATION

PIT REMEDIATION AND CLOSURE REPORT

	Telephone: (505)326-9200
Operator: AMOCO PRODUCTION COMPANY	
Address: 200 Amoco Court, Farmington,	NM 87401
Facility or Well Name: TICRRILLA C	#3
Location: Unit or Qtr/Qtr Sec Sec T	26N R 5W County RIO ARRIBA
Pit Type: Separator Other Other	
	20', width 15', depth 13'
(Attach diagram) Reference: wellhead X	, other
Footage from reference: \(\)	<u>30'</u>
Direction from reference:	50 Degrees X East North X
	West South
	Less than 50 feet (20 points)
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)
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)
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, :igation canals and ditches)	Less than 100 feet (20 points) 100 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)
li .	RANKING SCORE (TOTAL POINTS): 10

			BJ425	SEP. PIT
Date Remediation Sta	rted:	Date Complete	ed: <u>9/3</u>	3/96
mediation Method: Check all appropriate ections)	Excavation 🔀	Approx. cubic y		50
Remediation Location: i.e. landfarmed onsite, name and location of offsite facility) General Description	Other Offsite Onsite X Offsite of Remedial Action: Excavat			
Groundwater Encoun	tered: No X Yes	Depth		
Final Pit: Closure Sampling:	Sample location see Attac			
(if multiple samples, attach sample results and diagram of sample locations and depths)	Sample depth $\frac{14}{8/29/96}$	Sample	time	3
	Total BTEX (ppm Field Headspace (ppm TPH (ppm	n) <u>5/3</u> n) <u>5/1</u>	Toluene Ethylbenzene Total Xylenes	(ppb) (ppb) (ppb)
Groundwater Sampl				MILE DEST OF M
I HEREBY CERTIF KNOWLEGE AND				THE BEST OF M
DATE SIGNATURE BU	Op. A. Shull AND	ED NAME Buddy D TITLE Environ ATTION DIT CLOSUPE	mental Coor	rdinator
TO THE JICARILL	F THE PIT CLOSURE INFORM A APACHE TRIBE PIT CLOSUI		, 15 AII KU ED	
APPROVED: YES	NO (REASON)		,	
SIGNED: Lew	C. Manul DA	ATE: <u>9 · 3 - 96</u>		

CLIENT: Amo Co BLAGG ENGINEERING, INC.	LOCATION NO BJ425
P.O. BOX 87, BLOOMFIELD, NM 07413	C.O.C. NO: 4818
(505) 632-1199	
FIELD REPORT: PIT CLOSURE VERIFICAT	ON
QUAD/UNIT: I SEC: 23 TWP: 26 N RNG: 5 W BM: NM CNTY: RA ST: NM	DATE STARTED: 8.29.96
QUAD/UNIT: I SEC: 23 TWP: 26 / RNG: 5 W BM: NM CNTY: RA ST: NM	ENVIRONMENTAL AS
QTR/FOOTAGE: NE/SE CONTRACTOR:	SPECIALIST:
EXCAVATION APPROX. 20 FT. x 15 FT. x 13 FT. DEEP. CUE	BIC YARDS: _/50
SITE REMEDIATION METHO	ID: CAMOTAPA
LAND USE: LEASE: COMMAN # 103 FORM	A I IUN:
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY FEET .	NSO°E FROM WELLHEAD.
DEPTH TO GROUNDWATER: >50' NEAREST WATER SOURCE: >1000 NEAREST SURFA	CE WATER:
NMOCD RANKING SCORE: NMOCD TPH CLOSURE STD: PPM	
SOIL AND EXCAVATION DESCRIPTION: PIT DISPOSITION: ASTROPOS	
SOIL CONSISTS OF MOIST, BROWN, SILTY SAMO - SLIGHT OBOK IN	
	(Clu Sess)
SAMPLE I.D. LAB No: WEIGHT (g) mL. FREON DILUTION READING CA	
SAMPLE I.D. LAB NO. WEIGHT (g)	
SCALE	
O 5 10FT OVM PIT PERIMETER RESULTS	r Profile
SAMPLE FIELD HEADSPACE	
NT 1 NS - 9' 2	
3 (s· 8' 2 4 ws· 8' 6	
5 06 - 14' 513	
[3] (5) (2)	
S & S	B
3 LAB SAMPLES	
CR@ 14 8015 / BTEX	
10 85VZ .116 707 4800	
War TPH 51	
0.74. 06	1040
TRAVEL NOTES: CALLOUT: 8-21-96 ONSITE: 8-29-96	FORM REVISED 7/95



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Amoco / Blagg	Project #: Date Reported: Date Sampled:	04034
Sample ID:	C.B. @ 14'		08-30-96
Laboratory Number:	A514		08-29-96
Chain of Custody No: Sample Matrix: Preservative: Condition:	4898 Soil Cool Cool and Intact	Date Received: Date Extracted: Date Analyzed: Analysis Requested:	08-30-96 08-30-96 08-30-96 8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	5.1	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	5.1	0.2

ND - Parameter not detected at the stated detection limit.

References:

Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, July 1992.

Comments:

Jicarilla C #3 Sep. Pit.

Deur S. Cejeun Analyst Stacy W Sendler
Review



EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client: Sample ID: Laboratory Number: Chain of Custody: Sample Matrix: Preservative: Condition:	Amoco / Blagg C.B. @ 14' A514 4898 Soil Cool Cool & Intact	Project #: Date Reported: Date Sampled: Date Received: Date Analyzed: Date Extracted: Analysis Requested:	04034 08-30-96 08-29-96 08-30-96 08-30-96 08-30-96 BTEX
---	--	---	---

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	116	17.5
Toluene	130	16.7
Ethylbenzene	183	15.2
p,m-Xylene	3,390	21.6
o-Xylene	985	10.4
Total BTEX	4,800	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	98 %
	Bromofluorobenzene	100 %

References:

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

July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846,

USEPA, Sept. 1994.

Comments:

Jicarilla C #3

Sep. Pit.

Deur L. Cejeur

Stacy W Sendler
Review

Y RECORD	ANALYSIS/PARAMETERS
CHAIN OF CUSTODY RECORD	Project Location JI CAR I LUA C # 3
	/ 6 A6 G

		Hemarks			See. PIT					Date Time	P.3080 818					ean juan repro Form 578-81
ANALYSIS/PARAMETERS			10	P							J. Caleun	1				
	-)	1	8	7					Commentation (Signature)		Received by: (Signature)	Received by: (Signature)	Ş	87401	
.	-	<u>-</u>	o. of	N Spin	_	 	 			- Godina		Received by	Received b		ECH III Jhway 64-3 w Mexico	(505) 632-0615
C # 3				Sample Matrix	Soll						9				ENVIROTECH INC. 5796 U.S. Highway 64:3014 Farmington, New Mexico 87401	9 (505)
Project Location	ין נייניין פייני	Chain of Custody Tape No.	Q4024	Lab Number	ASI\$						<u>∞</u>					
				Sample Time	8501											
/ 4,465	ma)	D. i. O	3	Sample Date	8-29						Raff					
Client/Project Name	HWE CO	ł	ر ب ر	Sample No./ Identification	C.B. @ 14'						Relinquished by: (Signature)	_ ≦	Relinquished by: (Signature)			

BJ425

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

	Telephone: (505) 326-9200							
Operator: AMOCO PRODUCTION COM								
Address: 200 Amoco Court, Fa	ermington, NM 87401							
Facility or Well Name: JICARTLLA C # 3								
Facility of Wen Name.	C = 3 TTZ (5) P Sty) County R10 ARRIBA							
Location: Unit or Qtr/Qtr Sec I Sec I TIGN R SW County R10 ARRISH								
. 013	Date Completed: 8/27/97							
Date Remediation Started:	Approx. cubic yards 150							
Remediation Method: Landfarmed	Approx. cuote yarde							
Composted								
Other								
	pts) / S Final Closure Sampling:							
pen 10 010	-/-/							
Distance to an Ephemeral Stream (· / ————							
Distance to Nearest Lake, Playa,	ots.) ————————————————————————————————————							
or Watering Pond	Field Headspace (PP)							
Wellingth I Total	pts.) TPH (ppm)							
Distance To SurfaceWater:	pts.) Other							
RANKING SCORE (TOTAL POINTS): _/ O								
I HEREBY CERTIFY THAT THE INFORMATION INFORMATION OF THE INFORMATION O	MATION ABOVE IS TRUE AND COMILECTE TO THE							
- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								
DATE 8/27/97	PRINTED NAME Buddy D. Shaw							
DATE SIGNATURE SIGNA								
SIGNATURE CARDON IS A PROCED IN								
I ACCORDANCE TO THE JICARILLA AT	IATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN PACHE TRIBE PIT CLOSURE ORDINANCE.							
APPROVED: YES X NO (I	REASON)							
SIGNED: Ken C. Mamil								
SIGNED:								

P.O. BOX 87. BLOG	NEERING. INC. DMFIELD, NM 87413 632-1199 00.0. NO 5400
FIELD REPORT LANDFARM/COMP	OST PILE CLOSURE VERIFICATION
QUAD UNIT I SEC: 23 TWP: 260 RNG: 5W	PITS: DATE STARTED: 8/25/97 DATE FIN SHED:
THE FRISTAGE NE (4 Se 14 CONTRACTOR: 1	FIVA 17 OLD ME 14 1 2 2 1 1 1
TO LIFEMED ATION:	
REMEDIATION SYSTEM: LANGTARMED	APPROX. CUBIC YARDAGE: 150 LIFT DEPTH (ft): 12"
LAND USE: RANGE	LIFT DEPTH (IU)
FELDER, DTEG & FEMARES. Defined beginning mater < 100 Nearest water source.	>1000' NEAREST SURFACE WATER: >1000'
	1.000
DK. YELL BLOWN JAND, NON	J COHESIVE SLIGHTLY MOIST, FIRM, NO
NO APPARENT HC OU	COHESIVE SLIGHTLY MOIST, FIRM, NO EXED C ANN OF THE SAMPLE PTS., ONR IN OVER SAMPLE 5 PT. COMPOSITE ANALYSIS.
CLOSED FOR LIB	M-V64212
FIELD 418.	: CALCULATIENS
CAME THE CAMPLE U.D. LAB No: WEIGHT	(g) ml. FRECN DILUTION READING CALC. ppm
SKETCH/SAMPLE LOCATIONS	
• WELL HER.D	OVM RESULTS LAB SAMPLES
1.79	SAMPLE FIELD HEADSPACE SAMPLE ANALYSIS TIVE RESULTS 10 TPH 7 77 5
BEION SAMPLE PT	LF-1 0.0 LF-1 (8015) 11/5 37.5
2	
51'	
(3)	
	SCALE
90'	O FT
TRAVEL NOTES:	ONSITE: 8/25/97
CASSOUT: NA	UNUTED TO THE TOTAL OF THE TOTA



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 1	Date Reported:	08-26-97
Laboratory Number:	B929	Date Sampled:	08-25-97
Chain of Custody No:	5400	Date Received:	08-25-97
Sample Matrix:	Soil	Date Extracted:	08-25-97
Preservative:	Cool	Date Analyzed:	08-26-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)		
Gasoline Range (C5 - C10)	2.3	0.2		
Diesel Range (C10 - C28)	35.2	0.1		
Total Petroleum Hydrocarbons	37.5	0.2		

ND - Parameter not detected at the stated detection limit.

References:

Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, July 1992.

Comments:

Jicarilla C #3 Landfarm. 5 Pt. Composite.

Dem L. agenen Analyst Stacy W Sandler

	Relinquished by: (Signature)	Relinquished by: (Signature) Relinquished by: (Signature)				LF-1 8/25/97/11/5	Sample No./ Sample Sample Identification Date Time	Sampler: (Signature)	BURES / AMOCO	Client/Project Name	
		8				6929	Lab Number	Chain of Custody Tape No. 6 4034-10	TICORILLA	Project Location 2	_
ENVIROTECH INC. 5796 U.S. Highway 64-3014 Farmington, New Mexico 87401 (505) 632-0615	20	Date Time R	Ser			5012	Sample Matrix	4-10	の井3	LANDTHON	CHAIN OF CUSTODY RECORD
	Received by: (Signature)	Received by: (Signature)	apple becomes cools buterly			11	TH (80	2.01 nainers		ANALYSIS/PARAMETERS	ODY RECORD
		Pu-77 /32/				· Composite	RESELV COOL	Remarks			