JICARILLA APACHE TRIBE ENVIRONMENTAL PROTECTION OFFICE P.O. BOX 507

DULCE, NEW MEXICO 87528

AND OIL & GAS ADMI

1310W -11

PIT REMEDIATION AND CLOSURE REPORT

	OIL COM, DIN
Operator: AMOCO PRODUCTION COMPANY	Telephone: (505)326-9200
Address: 200 Amoco Court, Farmington	n, NM 87401
Facility or Well Name: TICARILLA	
	T 25N R SW County RIO ARRISA
	r Blow
Land Type:	
(Attach diagram) Reference: wellhead X	nZ4 widthZ7\', depth18\'
Footage from reference:	
Direction from reference:	56 Degrees \times East North
	West South <u>></u>
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 Pon (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):

		616	522 BI	TIA WG	
		T	Completed:	,	
Date Remediation Star	ted:				~
Remediation Method:	Excavation	Approx.		3	
Check all appropriate sections)	Landfarmed	Insitu Bi	ioremediation	1	,
goottine,	Other				
Remediation Location:	Onsite X Offsite				
(i.e. landfarmed onsite, name and location of					
General Description of	Remedial Action: Exc	avation,			
Groundwater Encounter	ered: No 🔀	Yes Depth _			
Closure Sampling:	Sample location <u>see</u> At				
(if multiple samples, attach sample results	Sample depth	(PIT BOTTOM)			
and diagram of sample locations and depths)	Sample date $\frac{9/2/9}{}$	8	Sample time	و٢٢٥	
	Sample Results				
	•	(ppm)	Water: B	enzene	(ppb)
İ	Total BTEX	(ppm)	T	oluene	(ppb)
	Field Headspace	(ppm) _0.0	E	thylhenzene	(ppb)
		(ppm) <u>ND</u>	To	otal Xylenes	(ppb)
Groundwater Sample:	Yes No	X (If yes, attac	ch sample i	results)	
	THAT THE INFORMATION	ON ABOVE IS TRUE	AND COM	PLETE TO	THE BEST OF M
DATE	9/4/98 PR	INTED NAME Bud	ddy D. Sl	haw	
SIGNATURE BUD	ly D. Show	AND TITLE Env	vironmen	tal Coord	
A PORTO DELL'IENI OE	THE PIT CLOSURE INFO APACHE TRIBE PIT CLO	ORMATION, PIT CLO OSURE ORDINANCE.	SURE IS A	APPROVED I	N ACCORDANC
APPROVED: YES 之	NO REASON)			<u> </u>
REICHED.	CMall	DATE: 9-9-9	98		

30039 20568

PLENT AMOCO BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199 CDCATION: NAME TICA CASTE HG WELL # 13 PTT 3494 COLUMNIA D SEC 9 THE 153 RING TO PHEND ONLY BASED STATEMENT OF THE FRIENDS OF THE CONTROLOR. PASS CONTROLOR: PASS RESERVED AS FOLLOWS FOR ATTOM ONLY BASED STATEMENT ON THE CONTROLOR. PASS CONTROLOR: PASS REMEDIATION METHOD. CARDINARY. SISPOSAL FACILITY: 2N-5 TE REMEDIATION METHOD. CARDINARY. 2N-5 TE REMEDIATION METHOD. CARDINARY. AND USE GENERAL PRIVATE CONTROLOR. PASS CONTROLOR. PASS COLUMN METHOD. CARDINARY. 2N-5 TE REMEDIATION METHOD. CARDINARY. 2N-5 TE NECE THE DOCK. 2N-5 TE NECE THE DOCK. 2N-5 TE NECE THE DOCK. 2N-6 THE PASS TARK METHALIS. SIGNAL PROPERTY. 2N-6 THE DOCK. 2N-7 THE DOCK						
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SPOSAL FACILITY: ON-SITE REMBDIATION METHOD: AND USE: LEASE: JIC MG FORMATION: MOD FILD NOTES & REMARKS: PIT LUCATED APPROXIMATELY 376 FIT, SSGE FROM WELLHER 376 FIT, SSGE FROM WELLHER 376 FIT, SSGE FROM WELLHER 71900 NEAREST SUPPACE WATER PIT ABANDRED STEEL TANK INSTALLED STEEL	QTR/FOOTAGE: 870 FAL	790 FWL CONTRACTO)R: 103			
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AND USE: LEASE LIASE: ELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 336 FT. 556E FROM WELLHER FIETH TO GROUNDWATER 3133' NEAREST VATER SOURCE: 7/000' NEAREST SURFACE VATER 1000' MICCO PANKING SCORE: 0 NOCCO THY CLOSURE STD 5000 PPM SOIL AND EXCAVATION DESCRIPTION: ELTIME EXCAVATION DESCRIPTION: ELTIME EXCAVATION DESCRIPTION: ELTIME EXCAVATION NO APPRICAT STOWNING OR HE OWN SOURCES. TIME SAMPLE ID LAB NO: WEIGHT (9) ML FREON DILUTION READING CALC. PP BY ON THE DUM SOUPLES. THE SAMPLE ID LAB NO: WEIGHT (9) ML FREON DILUTION READING CALC. PP PIT PERIMETER N. OVER 10 12 13 000 FIELD 4181 CALCULATIONS OVER 10 12 13 13 000 FIELD 4181 CALCULATIONS FIELD 4181 CALCULATIONS OVER 10 12 13 13 000 FIELD 4181 CALCULATIONS FIELD 4181 CALCULATIO			REMEDIATION	MEINU	D	
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P.O. Box 87, Bloomfield, New Mexico 87413 Fax: (505)632-3903 Phone: (505)632-1199

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:

Amoco

5 @ 20'

Project #:

Sample ID:

Jicarilla Contract # 146 - 23

Date Analyzed:

09 - 04 - 98

Project Location:

Date Reported:

09-04-98

Laboratory Number:

TPH-2026

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

236

Duplicate TPH mg/kg

220

 $% \frac{\partial f}{\partial x} = \frac{\partial f}{\partial x}$ *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 - BJ622

Mulan Vil Analyst

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

Field TPH-Worksheet

Client: Amoco Project #:

Sample ID: 5 @ 20' Date Analyzed: 09-04-98
Project Location: Jicarilla Contract # 146 - 23 Date Reported: 09-04-98

Laboratory Number: TPH-2026 Sample Matrix: Soil

Sample Weight: 5.00 grams Volume Freon: 20.00 mL

Dilution Factor: 1 (unitless)
TPH Reading: 3 mg/kg

TPH Result: 12.0 mg/kg
Reported TPH Result: 12 mg/kg
Actual Detection Limit: 20.0 mg/kg
Reported Detection Limit: 20 mg/kg

QA/QC: Original Duplicate %

TPH mg/kg TPH mg/kg Diff.

----236 220 7.02

Comments: Blow Pit - BJ622

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

BUBMIT 1 COPY TO

NATURAL RESOURCE DEPT

AND OIL & GAS ADMINISTRATION

PIT REMEDIATION AND CLOSURE REPORT

	Telephone: (505) 326-9200
Operator: AMOCO PRODUCTION COMPANY	
Address: 200 Amoco Court, Farmington, M	NM 87401
JICARUA CONTR	DCT #146-23
Location: Unit or Qtr/Qtr Sec_D Sec_9 T2	SO R SW County 140 ARRISH
Pit Type: Separator Dehydrator Other_P	ROOLETION TANK
Land Type: RANGE	
I IL LIGORETORIO	38'_, width_ 29'_, depth_ 20'
(Attach diagram) Reference: wellhead X,	other
Footage from reference: 13	<u>'7' </u>
Direction from reference:	Degrees X East North of
	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) 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, 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):

		87622	PROD. TRUK PIT
		Glate	ed:9/4/98
note Remediation Sta	rted:		~~ _
	Excavation	Approx. cubic y	ards
Remediation Method: Theck all appropriate	Landfarmed ×	Insitu Bioremedi	ation
ections)			
	Other		
Remediation Location i.e. landfarmed onsite, name and location of offsite facility)			
General Description o	of Remedial Action: <u>Ex</u>	cavation, BEDROCK &	
Groundwater Encoun	tered: No 🔀	Yes Depth	
Final Pit: Closure Sampling: (if multiple samples,	Sample location see A		
attach sample results	Sample depth 15	(WEST SIDEWALL)	
and diagram of sample locations and depths)	Sample date 9/4/	98 Sample	time
	Sample Results		
	Soil: Benzene	(ppm) Water	Benzene (ppb)
	Total BTEX	(ppm)	Toluene (ppb)
		(ppm) <u>47.4</u>	Ethylbenzene (ppb)
		(ppm) <u>2,720</u>	Total Xylenes (ppb)
Groundwater Sample	e: Yes No	(If yes, attach samp	ple results)
KNOWLEGE AND I	SICILI ISP		COMPLETE TO THE BEST OF I
DATE	9/4/98 P	RINTED NAME Buddy D. AND TITLE Environm	Shaw Coordinator
SIGNATURE Sub	ly D. Show	AND TITLE Environm	Mental Cooldinator
AFTER REVIEW OF	F THE PIT CLOSURE INF A APACHE TRIBE PIT CI	ORMATION, PIT CLOSURE OSURE ORDINANCE.	IS APPROVED IN ACCORDAN
		N)	
SIGNED:	c mall		

CLIENT: AMOCO	BLAGG ENG P.O. BOX 87, BLC (505)	INEERING, INC DOMFIELD, NM 632-1199	C. 87413	C.O.C. NO:	
FIELD REPOR	T: CLOSURE	E VERIFICA	TION	PAGE No: 1 of _	
OCATION: NAME: JICA.				DATE STARTED: 9/4/98 DATE FINISHED:	<u></u>
QUAD/UNIT: 0 SEC: 9	TWP: 25A RNG: 56	FM: PM CNTTA		ENVIRONMENTAL NV	
? {	29 FT 3	、 てO FT. DEEP	. CUBIC	YARDAGE: 550	
		REMEDIATION	MEI HO)[)	
DISPOSAL FACILITY: LAND USE:	LEASE:	JIC 146	FOI	RMATION:N	
TELD NOTES & REMAR		DDBVIMATELY 14	7 FT N	N88E_ FROM WELLH	HEAI
IELD NOTES & REMAR DEPTH TO GROUNDWATER: 219	KS: PIT LOCATED AF	PRUXIMATELI	REST SURFAC	CE WATER - >1000'	
DEPTH TO GROUNDWATER: 210	o' NEAREST WATER SHORE	SDDD DOM		CHECK UNL	
NMDCD RANKING SCORE: 0	NMOCD TPH CLOSURE S	1D: FFM	\ __	PIT ABANDONED STEEL TANK INSTALLED	
SOIL AND EXCAVATION				_ FIBERGLASS TANK INST	ALLE
TIDEMACES -	SAND, NON COHES NO OR HC DOOR	INF SLIGHTLY MO	IST FIRM	, TO DENSE NO	
DR. FECT. DIGINGE	he or he odor	OBSERVED DETEC	eted whi	EXCOUNTIONS SUG	-17-
H= 0008 10	WEST SIDEWALL OU	m somple only	•		
				- 20.0= -	.)
		N O UE	RY HARD	no Abbureal	HC
Bottom - BEDROCK	(SANDSTONE) LT. GICK	OY IN COUR, UE	RY HARD	المعاملاهم وم	HC
Bottom - Bedrock ODOR in	(SANDETONG), LT. GICK	OY IN COUR, UE	aneh pa	THENRAGA OU,	HC
		oy in court of	CNAH PA) So private	HC
BEDKOCK CLOS	ED	P. 4404 CAL	CHI ATIMS		
	TIME SAMPLE I.D. L	FIELD 418.1 CAL	CULATIONS mL. FREON	DILUTION READING CALC.	ppn
BEDROCK CLOS	TIME SAMPLE I.D. L	P. 4404 CAL	CULATIONS mL. FREON		ppn
BEDROCK CLOS BOTTOM SCALE	TIME SAMPLE I.D. I	FIELD 418.1 CAL	CULATIONS mL. FREON	DILUTION READING CALC.	ppn
BEDROCK CLOS BOTTOM SCALE TT	TIME SAMPLE I.D. I	FIELD 418.1 CAL	CULATIONS mL. FREON	DILUTION READING CALC.	ppn
BEDROCK CLOS BOTTOM SCALE TT	TIME SAMPLE I.D. L	FIELD 418.1 CAL LAB NO: WEIGHT (g) PH-2027 5	CULATIONS ml. FREON 20	DILUTION READING CALC.	₽Pn
BEDROCK CLOS BOTTOM SCALE TT	TIME SAMPLE I.D. II 0830 Deis' T	FIELD 418.1 CAL	CULATIONS mL. FREON	DILUTION READING CALC. 10:1 48 2,7	₽Pn
BEDROCK CLOS BOTTOM SCALE TT	TIME SAMPLE I.D. II 0830 Deis' T	FIELD 418.1 CAL LAB No: WEIGHT (g) PH-2027 5	CULATIONS ml. FREON 20	DILUTION READING CALC.	ppn
BEDROCK CLOS BOTTOM SCALE TT	TIME SAMPLE I.D. II 0830 De15' TI ETER IN SUPPE 10 1 @ 14	FIELD 418.1 CAL LAB NO: WEIGHT (9) PH-2027 5 OVM ESULTS FIELD HEADSPACE PID (ppm) 7 0.0	CULATIONS ml. FREON 20	DILUTION READING CALC. 10:1 48 2,7	₽Pn
SCALE O FT PIT PERIM	TIME SAMPLE I.D. II 0830 De15' TI ETER IN STOPE D. 45C FLOW 10	FIELD 418.1 CAL LAB NO: WEIGHT (g) PH-2027 5 OVM ESULTS FIELD HEADSPACE PIO (ppm) 7 0.0 7 0.0 7 0.0	CULATIONS ml. FREON PIT A	DILUTION READING CALC. 10:1 48 2,7	₽PD
SCALE O FT PIT PERIM	TIME SAMPLE I.D. I 0830 (185) T. 1000 P SAMPLE 1	FIELD 418.1 CAL LAB NO: WEIGHT (g) PH-2027 5 OVM ESULTS FIELD 418.1 CAL OVM OVM OVM OVM OVM OVM OVM OV	CULATIONS ml. FREON PIT A	DILUTION READING CALC. 10:1 48 2,7	o √
SCALE O FT PIT PERIM	TIME SAMPLE I.D. II 0830 (De15') ETER 10 Supple 10 1 @ 14 2 @ 14 3 @ 14	FIELD 418.1 CAL LAB NO: WEIGHT (g) PH-2027 5 OVM ESULTS FIELD 418.1 CAL OVM OVM OVM OVM OVM OVM OVM OV	CULATIONS ml. FREON PIT A	DILUTION READING CALC. 10:1 68 2,7	₽PD
SCALE O FT PIT PERIM	TIME SAMPLE I.D. I 0830 (185) T. 1000 P SAMPLE 1	FIELD 418.1 CAL LAB NO: WEIGHT (g) PH-2027 5 OVM ESULTS FIELD 418.1 CAL OVM OVM OVM OVM OVM OVM OVM OV	CULATIONS ml. FREON PIT A	DILUTION READING CALC. 10: (48 2,7) F PROFILE	₽PD
SCALE O FT PIT PERIM	TIME SAMPLE I.D. I 0830 (185) T. 1000 P SAMPLE 1	FIELD 418.1 CAL LAB NO: WEIGHT (g) PH-2027 5 OVM ESULTS FIELD 418.1 CAL OVM OVM OVM OVM OVM OVM OVM OV	CULATIONS ml. FREON PIT A	DILUTION READING CALC. 10:1 68 2,7	₽Pn
SCALE O FT PIT PERIM	TIME SAMPLE I.D. II 0830 (185' T) ETER TO SAMPLE 10 10 10 10 10 10 10 10 10 1	FIELD 418.1 CAL LAB NO: WEIGHT (g) PH-2027 5 OVM ESULTS FIELD HEADSPACE PID (ppm) 7 0.0 7 0.0 1 0.0 1 0.0 2 17.4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	CULATIONS ml. FREON PIT A	DILUTION READING CALC. 10:1 68 2,7	₽Pn
SCALE O FT PIT PERIM	TIME SAMPLE I.D. II 0830 De15' T. Down Stope 1 @ 14 2 @ 14 3 @ 14 4 @ 15 5 @ 26 LA SAMPLE	FIELD 418.1 CAL LAB NO: WEIGHT (9) PH-2027 5 OVM ESULTS FIELD HEADSPACE PID (ppm) 7 0.0 1 0.0 1 0.0 1 0.0 2 1 2.4	CULATIONS ml. FREON PIT A	DILUTION READING CALC. 10:1 68 2,7	₽Pn
SCALE O FT PIT PERIM	TIME SAMPLE I.D. 1 0830 (19 C 15' T) PETER 10 10 10 10 10 10 10 10 10 10	FIELD 418.1 CAL LAB NO: WEIGHT (9) PH-2027 5 OVM FISULTS FIELD HADSPACE PID (ppm) 7 0.0 1 0.0	CULATIONS ml. FREON PIT A	DILUTION READING CALC. 10:1 68 2,7	₽Pn
SCALE O FT PIT PERIM	TIME SAMPLE I.D. II 0830 De15' T. Down Stope 1 @ 14 2 @ 14 3 @ 14 4 @ 15 5 @ 26 LA SAMPLE	FIELD 418.1 CAL LAB NO: WEIGHT (9) PH-2027 5 OVM FISULTS FIELD HADSPACE PID (ppm) 7 0.0 1 0.0	CULATIONS ml. FREON PIT A	DILUTION READING CALC. 10:1 68 2,7	₽PD
SCALE O FT PIT PERIM TO LOS	TIME SAMPLE I.D. II 0830 De15' T. Down Stope 1 @ 14 2 @ 14 3 @ 14 4 @ 15 5 @ 26 LA SAMPLE	FIELD 418.1 CAL LAB NO: WEIGHT (9) PH-2027 5 OVM FISULTS FIELD HADSPACE PID (ppm) 7 0.0 1 0.0	CULATIONS ml. FREON PIT A	DILUTION READING CALC. 10:1 68 2,7	₽Pn
SCALE O FT PIT PERIM TO LOS	TIME SAMPLE I.D. II 0830 De15' T. Down Stope 1 @ 14 2 @ 14 3 @ 14 4 @ 15 5 @ 26 LA SAMPLE	FIELD 418.1 CAL LAB NO: WEIGHT (9) PH-2027 5 OVM F.SULTS FIELD HEADSPACE PID (ppm) 7 0.0 1 0.0 1 0.0 1 17.4 2.5 B SAMPLES ANALYSIS TIME	PIT A	DILUTION READING CALC. 10:1 68 2,7	₽Pn

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:

4 @ 15'

Date Analyzed:

09-04-98

Project Location:

Jicarilla Contract # 146 - 23

Date Reported:

09-04-98

Laboratory Number:

TPH-2027

Sample Matrix:

Soil

		Detection
Parameter	Result, mg/kg	Limit, mg/kg
Total Recoverable	2 700	200

2,700 Petroleum Hydrocarbons

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
236	220	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:

Production Tank Pit - BJ622

Myst My

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

Field TPH-Worksheet

Client: Amoco Project #:

Sample ID: 4 @ 15' Date Analyzed: 09-04-98 Project Location: Jicarilla Contract # 146 - 23 Date Reported: 09-04-98

Laboratory Number: TPH-2027 Sample Matrix: Soil

Sample Weight: 5.00 grams
Volume Freon: 20.00 mL

Dilution Factor: 10 (unitless) TPH Reading: 68 mg/kg

TPH Result: 2720.0 mg/kg
Reported TPH Result: 2700 mg/kg
Actual Detection Limit: 200.0 mg/kg
Reported Detection Limit: 200 mg/kg

QA/QC: Original Duplicate %

TPH mg/kg TPH mg/kg Diff.

----236 220 7.02

Comments: Production Tank Pit - BJ622

BJ622

.. SUBMIT 1 COPY TO

NATURAL RESOURCE DEPT

AND OIL & GAS ADMINISTRATION

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

PIT REMEDIATION AND CLOSURE REPORT

	Telephone: (50	5)326-9200
Operator: AMOCO PRODUCTION COMPANY		·
Address: 200 Amoco Court, Farmington,	NM 87401	
Facility or Well Name: JICARILLA CONTR	ner # 146-28	
Location: Unit or Qtr/Qtr Sec_D Sec_9 T_3	250 RSW County X/O HOLLS	
Pit Type: Separator X Dehydrator Other		
Land Type: RANGE		
longth	zo' , width 26' , dep	oth15 '
THE EXPONENTIAL	other	
Footage from reference:		
Direction from reference:	35 Degrees X East No	nth
	West So	uth <u>×</u>
		points)
Depth To Groundwater: (Vertical distance from	50 feet to 99 feet (10	points)
contaminants to seasonal high water elevation of groundwater)		
Distance to an Ephemeral Stream	Less than 100 feet (10 Greater than 100 feet (10	points) points)
(Downgradient dry wash greater than ten feet in width)	Greater than 100 rest	•
Distance to Nearest Lake, Playa, or Watering Pond	Less than 100 feet (10 Greater than 100 feet (10) points)
(Downgradient lakes, playas and livestock or wildlife watering ponds)) nointe)
Wellhead Protection Area: (Less than 200 feet from a private	Yes (20 No (0) points) D
domestic water source, or: less than 1000 feet from all other water sources)		
Distance To SurfaceWater:	100 feet to 1000 feet (1) points) 0 points)
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)		points)
Barriora anno anno anno anno anno anno anno a	RANKING SCORE (TOTAL PO	INTS):

71 .1 C4-	rted:	Date Completed: 9/4/98
	_	Approx. cubic yards/50
Remediation Method: Theck all appropriate sections)	Excavation × Landfarmed ×	Insitu Bioremediation
	Other	
Remediation Location (i.e. landfarmed onsite,	Onsite X Offsite	
name and location of		
offsite facility) General Description	of Remedial Action: Excavation	n
Groundwater Encoun	tered: No X Yes	Depth
Final Pit: Closure Sampling: (if multiple samples,	Sample location see Attached	
attach sample results and diagram of sample locations and depths)	Sample depth $\frac{16'}{9/4/98}$	Sample time 0930
	Sample Results	
	•	Water: Benzene (pph)
		Toluene (ppb)
	Field Headspace (ppm) _ TPH (ppm) _	
Groundwater Sample	e: Yes No X	(If yes, attach sample results)
I HEREBY CERTIFY KNOWLEGE AND I	HELLIST	VE IS TRUE AND COMPLETE TO THE BEST OF M
DATE	9/4/98 PRINTED N	NAME Buddy D. Shaw
CICNATURE BUS	Oly D. Show AND TIT	LE Environmental Coordinator
	THE PIT CLOSURE INFORMATION APACHE TRIBE PIT CLOSURE OF	ON, PIT CLOSURE IS APPROVED IN ACCORDANC ORDINANCE.
APPROVED: YES	NO (REASON)	
	-C)\ambara DATE:	9-9-98

CLIENT AMOCO BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (506) 632-1199 CDC. ND CDC. ND FIELD REPORT: CLOSURE VERIFICATION PAGE NO: 1 of 1 OCATION: NAME TICK CONTR. 146 WELL & 23 PTF. SEP GUAD/UNIT.D SEC 9 TWP. 250 RNG. Sw. PM. NM. CRITYRE ST. NO. DIFF. CHORTOTAGE: \$70 feel 1795 Feel CONTRACTOR PCS ENCAVATION APPROX. CO. FT. x. 2G. FT. x. 15. PT. DEEP. CUBIC VARDAGE. 150 DISPOSAL FACILITY: OPS SITE LAND USE: REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. 28.2S. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. NO. FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170. FT. NO. FIELD NOTES & REMARKS: PIT			
OCATION: NAME TICK CONTR. 146 WELL # 23 PT: SEP QUAD/INSTID SEC 5 TWP 25N RNG SW PM NMA CNTY/RA ST. NM QUAD/INSTID SEC 5 TWP 25N RNG SW PM NMA CNTY/RA ST. NM QUAD/INSTID SEC 5 TWP 25N RNG SW PM NMA CNTY/RA ST. NM QUAD/INSTID SEC 5 TWP 25N RNG SW PM NMA CNTY/RA ST. NM QUAD/INSTID SEC 5 TWP 25N RNG SW PM NMA CNTY/RA ST. NM QUAD/INSTID SEC 5 TWP 25N RNG SW PM NMA CNTY/RA ST. NM QUAD/INSTID SEC 5 TWP 25N RNG SW PM NMA CNTY/RA ST. NM QUAD/INSTID SEC 5 TWP 25N RNG SW PM NMA CNTY/RA ST. NM QUAD/INSTID SEC 5 TWP 25N RNG SW PM NMA CNTY/RA ST. NM QUAD/INSTID SEC 5 TWP 25N RNG SW PM NMA CNTY/RA ST. NM QUAD/INSTID SEC 5 TWP 25N RNG SW PM NMA CNTY/RA ST. NM QUAD/INSTID SEC 5 TWP 25N RNG SW PM NMA CNTY/RA ST. NMA SW PM NMA C	CLIENT: AMOCO P	O ROX 87 BLOOMFIELD, NM 0741	
COCATION: NAME TICA, CONTR. 146 WELL & SP PM NAT CNTY RA ST. ON DITERORMENTAL BELL SEC. 9 TWP 15N RNG. 5N PM NAT CNTY RA ST. ON DITERORMENTAL SECURITY. OTHER PRINCE ST. SULT 99 ELL CONTRACTOR. P45 SECURITY AND APPROX. 20 FT. x 20 FT. x 15 FT. DEEP. CUBIC YARDAGE: 150 EXCAVATION APPROX. 20 FT. x 20 FT. x 15 FT. DEEP. CUBIC YARDAGE: 150 LEASE: JIC 146 FORMATION: AU SISTELD NOTES & REMEDIATION METHOD: AND EXCAVATION: AU SISTELD NOTES & REMEDIATION METHOD: AND EXCAVATION DESCRIPTION: SUBJECT SOUND PRINCE STORES FROM WELLHEAD PRINCE SCIENCE: NAMEDOD PAINTING SCIENCE: NAMEDOD PRINCING SCI	FIELD REPORT	C: CLOSURE VERIFICATION	
DISPOSAL FACILITY: ON - SITE REMEDIATION METHOD: DISPOSAL FACILITY: LAND USE: REAGE LEASE: JIC 146 FORMATION: AU FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170 FT. SSSE FROM WELLHEA DEPTH TO GROUNDWATER 2130 NEAREST VATER SOURCE: NEAREST SURFACE VATER: NEAREST SURFACE VATER: OF PIT ABANDRUB STEEL TANK INSTALLED FIELD 418.1 CALCULATIONS FIELD 418.1 CALCULA	OCATION: NAME: TICA. CO QUAD/UNIT: D SEC: 9 OTR/FULIAGE: 870 FOL	NTR. 146 WELL #: 23 PIT: SEP TWP: 25N RNG: SW PM: NM CNTY: RA ST: N 1790 FWL CONTRACTOR: P45	DATE STARTED:
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY DEPTH TO GROUNDWATER. 2150' NEAREST WATER SQURCE: 21000' NEAREST SURFACE WATER. 21000' NEAREST WATER SQURCE: 21000' NEAREST WATER SQURCE: 21000' NEAREST SURFACE WATER. 21000' NEAREST STEEL TANK INSTALLED STEEL TANK INSTALLED SURFACE WATER. 21000' NEAREST SURFACE WATER. 21000' NEAREST WATER SAME WATER. 21000' NEAREST STEEL TANK INSTALLED STEEL TANK INSTALLED SURFACE WATER. 21000' NEAREST WATER WATER. 21000' NEAREST STEEL TANK INSTALLED STEEL TANK INSTALLED SURFACE WATER. 21000' NEAREST WATER WATER. 21000' NEAREST WATER WATER. 21000' NEAREST WATER WATER. 21000' NEAREST WATER WATER. 21000' NEAREST WA	DISPOSAL FACILITY: LAND USE: RALGE	DR - SITE REMEDIATION MET	FORMATION: AU
TIME SAMPLE I.D. LAB NO: WEIGHT (g) mL. FREON DILUTION READING CALC. PPI SCALE 0930 Sel6 TPH-228 5 20 1:1 3 NO PIT PERIMETER OVM RESULTS SAMPLE FIELD HEADSPACE PID (ppm) 1 @ 10 000 2 @ 8' 0.0 3 @ 11' 0.0 3 @ 11' 0.0 15' ALAB SAMPLES SAMPLE ANALYSIS TIME	NMOCD PANKING SCORE SOIL AND EXCAVATION	DESCRIPTION:	STEEL TANK INSTALLED FIBERGLASS TANK INSTALL
PIT PERMETER TO OVM TOWER TANK RESULTS SAMPLE FIELD HEADSPACE PID (ppm) 1 @ 10' 0-0 2 @ 8' 0.0 3 @ N' 0.0 3 @ N' 0.0 4 @ 10' 0.0 5 @ 16' 0.0 LAB SAMPLES SAMPLE ANALYSIS TIME	SCALE	TIME SAMPLE I.D. LAB No: WEIGHT (g) ml. FREC	DN DILUTION READING CALC. ppr
	TO TO THE SEP A DEST OF A	OVM PICOD. TANK PIT AREA SAMPLE 10 10 10 10 10 10 10 10 10 1	Α'

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:

5 @ 16'

Date Analyzed:

09-04-98

Project Location:

Jicarilla Contract # 146 - 23

Date Reported:

09 - 04 - 98

Laboratory Number:

TPH-2028

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	Duplicate	%
TPH mg/kg	TPH mg/kg	*Diff.
236	220	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:

Separator Pit - BJ622

Mekon Vif Analyst

Review

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

Field TPH-Worksheet

Client: Amoco Project #:

Sample ID: 5 @ 16' Date Analyzed: 09-04-98 Project Location: Jicarilla Contract # 146 - 23 Date Reported: 09-04-98

Laboratory Number: TPH-2028 Sample Matrix: Soil

Sample Weight: 5.00 grams
Volume Freon: 20.00 mL

Dilution Factor: 1 (unitless)
TPH Reading: 3 mg/kg

TPH Result: 12.0 mg/kg
Reported TPH Result: 12 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
 TPH mg/kg
 Diff.

 --- 236
 220
 7.02

Comments: Separator Pit - BJ622

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

SUBMIT 1 COPY TO

NATURAL RESOURCE DEPI

ON-SITE SOIL REMEDIATION REPORT

Operator: AMOCO PRODUCTION COMPA	NY Telephone: (505) 326-9200									
Address: 200 Amoco Court, Farmington, NM 87401										
Facility or Well Name: SICARILLA CONTRACT 146 - 23										
Location: Unit or Qtr/Qtr Sec Sec	Location: Unit or Qtr/Qtr Sec D Sec 9 T25N R5N County E10 ARRIBA									
Land Type: RANGE										
Date Remediation Started: 9.4.98	Date Completed: 5/7/99									
Remediation Method: Landfarmed	Approx. cubic yards									
Composted										
Other										
epth To Groundwater: (pts.)	Final Closure Sampling:									
Distance to an Ephemeral Stream (pts.)	O Sampling Date: 5.699 Time: 1230									
Distance to Nearest Lake, Playa, or Watering Pond (pts.)	Sample Results:									
Wellhead Protection Area: (pts.)	Field Headspace (ppm) 4.2									
Distance To SurfaceWater: (pts.)	o TPH (ppm) 16.5 Method (801≤)									
	Other									
RANKING SCORE (TOTAL POINTS):										
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEGE AND BELIEF										
DATE 5/7/99 , PRINTED NAME Buddy D. Shaw										
SIGNATURE Sully A. Shaw AND TITLE Environmental Coordinator										
SIGNATURE STATE AND ITTEL										
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:									

BLAGG ENGINEERING, INC. OLIENT AMOCO LOCATION NO: BJ622 P.O. BOX 87, BLOOMFIELD, NM 87413 C.O.S. NO: <u>6911</u> (505) 632-1199 FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION DATE STARTED: 5-6-99 NAME JEARLUA CONTRACT 146 WELL # 23 PITS SEP, BLOW TROD. DATE FINISHED: QUAD/UNIT D SEC: 9 TWP: 25N RNG: 5W PM:NM CNTY: PA ST:NM ENVIRONMENTAL REP TERETAGE NW/4 NW/4 CONTRACTOR: P+5 [] L PEMEDIATION: REMEDIATION SYSTEM: LANDFARM APPROX. CUBIC YARDAGE: 1000 LAND USE: PANGE LIFT DEPTH (ft): 2 FELD NOTES & REMARKS DEPTH TO GROUNDWATER: >100 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: >1000 NYDID PANEING SCORE: _____ NMOCD TPH CLOSURE STD: 5000 PPM MCDELATE YELLOWISH BROWN SAND, NON COMESIVE, SLIGHTLY MOIST, FIRM. NO APPARENT STAINING, NO HE ODDR DETECTED SAMPLING DEPTHS RANGE FROM 4" - 18" COLLECTED A SPT. 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 SAMPLE LOCATIONS SKETCI LAB SAMPLES OVM RESULTS RESULTS SAMPLE ANALYSIS TIME 6 4.2 LF-1 1230 1F-1 (8015) SCALE FT ONSITE: 5-6.99 TRAVEL NOTES



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 F168 6911 Soil Cool	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Requested:	403410 05-07-99 05-06-99 05-07-99 05-07-99 8015 TPH
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Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)			
Gasoline Range (C5 - C10)	5.8	0.2			
Diesel Range (C10 - C28)	10.7	0.1			
Total Petroleum Hydrocarbons	16.5	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 146 - 23 Landfarm. 5 Pt. Composite.

Analyst

Review Stary W Sendler

CHAIN OF CUSTODY RECORD

				Relinquished by: (Signature)	Relinquished by: (Signature)	Relinquished by (Signature)						LF-1 5699 1230	Sample No./ Sample Sample Identification Date Time	Rep	Sampler:	BLACES/AMOCO	Client / Project Name
												7168	Lab Number		Client No.	JICARILLACA	Project Location LANDFACM
Farmington, New Mexico 87401 (505) 632-0615	5796 U.S. Highway 64		EOVIDOTECH I	Re	Re	Date Time Re 5.7.99 7:15						5016	Sample Matrix			SICARILLA CONTRACT 146.23	CAMPACM
2-0615	lighway 64			Received by: (Signature)	Received by: (Signature)	Received by: (Signature)									ers		ANALYSIS / PARAMETERS
Cool - Ice/Blue Ice	Received Intact	Y N NA	Sample Receipt			- 2	Data			0000	SMAREHESSEN	SM. COMPOSITE			Hemans		AMETERS