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

BIOS SUBMIT 1 COPY TO

NATURAL RESOURCE DEPT

AND OF GAS ADMINISTRATION

AUG 0 9 1900

## PIT REMEDIATION AND CLOSURE REPORT

	Telephone: (505) 326 / 9200
Operator: AMOCO PRODUCTION COMPANY	
Address: 200 Amoco Court, Farmington, N	NM 87401
TICARILLA APACHE	E # 102 - 25
Location: Unit or Qtr/Qtr Sec Sec 9 T Z	26N R 4W County KIO ARRIBA
The state of the s	Compress of
Land Type:	
I It Execution.	30'_, width_30'_, depth_3'
(Attach diagram)  Reference: wellhead X,	other
Footage from reference:	<u>o'</u>
Direction from reference: 3	S Degrees A East Noπh
	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)
n ·	RANKING SCORE (TOTAL POINTS):

			85674 compk.	<u>' ' '                                </u>
Date Remediation Sta	arted:	D	Date Completed:	18/98
emediation Method:	Excavation	Ap	prox. cubic yards	50
Check all appropriate	Landfarmed $\searrow$		situ Bioremediation	
sections)	Other			
		•		
Remediation Location (i.e. landfarmed onsite, name and location of offsite facility)	: Onsite Z Offsite			
	of Remedial Action: <u>Exc</u> a	vation, Ex	TIRE EXONUMINA IN 2	BEDROCK
General Description	4 ANALYSIS WAS CONDUC	-ED. RISK	ASSESSED.	
THEREFORE NO TH	tered: No 🔀	Vac I	)enth	
Groundwater Encoun	ierea:	105		
Final Pit: Closure Sampling: (if multiple samples,	Sample location see Att	ached Docu	uments	
attach sample results and diagram of sample	Sample depth 3'	PIT BUTTOM	)	
	Sample date			
	Sample Results		Water: Benzene	(ppb)
		ppm)		
		ppm)		
	Field Headspace (			
	TPH (I	opm)	_ Total Xylenes	s (ppb)
Groundwater Sample:	Yes No	X (If yes,	attach sample results)	
I HEREBY CERTIFY KNOWLEGE AND BI	THAT THE INFORMATION	N ABOVE IS T	RUE AND COMPLETE TO	THE BEST OF MY
DATE	16/18/98_, PRIN	TED NAME	Buddy D. Shaw	
SIGNATURE BLQ	2		Environmental Coor	dinator
AFTER REVIEW OF	THE PIT CLOSURE INFOR APACHE TRIBE PIT CLOS	MATION, PIT	CLOSURE IS APPROVED NCE.	IN ACCORDANCE
APPROVED: YES _	NO (REASON)			
SIGNED:	CMall i	DATE: 12	-28-98	

FIELD REPORT: CLOSURE VERIFICATION  PAGE NO:	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	
QUAD/UNIT O SEC. 9 TWP. 26N RNG: 4W PM. MM CNTY RA ST. MM OTP/TOUTAGE SW/4 SE/4 CONTRACTOR: PAUL  EXCAVATION APPROX. 30' FT. x 30 FT. x 3 FT. DEEP CUBIC YARDAGE: 50  DISPOSAL FACILITY: ON SITE REMEDIATION METHOD: AND FARM LAND USE: RANGE LEASE FED LSE 102 FORMATION:  FIELD NOTES & REMARKS: PIT LUCATED APPROXIMATELY 110' FT. S33E FROM WELLH DEPTH TO GROUNDWATER: >100 NEAREST VATER SOURCE >1000 NEAREST SUBFACE VATER: >1000  NODCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD 5000 PPH SOIL AND EXCAVATION DESCRIPTION:  BUIL GRAIN SANDLOWNE ON PIT BOTTOM - SIDES, HARD, CLASS TANK INSTA  HC ODOR, SAMPLE ZOTION (JATE SANDSTONE FLI OWM).  FIELD 418.1 CALCULATIONS  N BEDRUCK  TIME SAMPLE ID LAB NO: WEIGHT (9) ML FREON DILUTION READING CALC F  O PT  PIT PERIMETER  OVM  RESULTS  SOCILE  O PT  PIT PERIMETER  OVM  RESULTS  SOURCE PROPERATE  OVM  RESULTS  THE SAMPLES IN THE  OVM  REPORTED TO THE  THE OWN TO THE STORY OF THE  THE OWN TO THE STORY OF THE  THE OWN TO THE  THE OWN T		
EXCAVATION APPROX. 30' FT. x 30 FT. x 3 FT. DEEP. CUBIC YARDAGE. 50  DISPOSAL FACILITY: ON SITE REMEDIATION METHOD: (AMDFARM)  LAND USE: Reads Lease Fed 256 102 FORMATION:  FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 110' FT. S33E FROM WELLH  DEPTH TO GROUNDWATER. >100 NEAREST WATER SOURCE: >1000 NEAREST SUFFACE VATER. >100 U  CHECK DNE: X PIT ABANDONED  SIDIL AND EXCAVATION DESCRIPTION:  BUIL GRUN SAMBER ON PIT BOTTOM SIDES, HARD, CYGE POEF.  HC ODOR. SAMPLE ZOTTOM (AMOF SAMBSTANE FOR OWM).  SCALE  O FT  PIT PERIMETER  OVM  RESULTS  SAMPLE 1D LAB NO: WEIGHT (9) ML FREON DILUTION READING CALC. FOR DEEP 1000 NEW PROPERTY OF THE PROPERTY OF TH	QUAD/UNIT: O SEC: 9 TWP: 26N RNG: 4W PM: NM CNTY: RA ST: NM	10-21-5
FIELD 418.1 CALCULATIONS  IN BEDROCK  TIME SAMPLE I.D. LAB NO: WEIGHT (g) ML. FREON DILUTION READING CALC. P  SCALE  O FT  PIT PERIMETER  OVM  RESULTS  SAMPLE I.D. FELD HEADSPACE PID (nom)  1 @ 3 351  2 @ 3 @ 4 @ 5 @ 4 @ 5 @ 4 @ 5 @ 4 @ 5 @ 4 @ 5 @ 4 @ 5 @ 4 @ 5 @ 4 @ 6 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	EXCAVATION APPROX. 30' FT. x 30 FT. x 3 FT. DEEP. CUBIC YARDAGE:  DISPOSAL FACILITY: ON SITE REMEDIATION METHOD: LANDFOLD LAND USE: RANGE LEASE: FED LSE 102 FORMATION:  FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 110' FT. S33E FROM  DEPTH TO GROUNDWATER: >100 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: >1  NMOCD RANKING SCORE: D NMOCD TPH CLOSURE STD: 5000 PPM  X PIT ABANDONED  STEEL TANK IN  FIBERGLASS TAI  BLUE GREEN SANDSTONE ON PIT BOTTOM - SIDES, HARD, COMP. SVIE.	WELLHI OU U E:
	FIELD 418.1 CALCULATIONS  TIME SAMPLE I.D. LAB NO: WEIGHT (9) ML. FREON DILUTION READING  SCALE  O FT  PIT PERIMETER  OVM  RESULTS  SAMPLE   FIELD HEADSPACE   PID (ppm)    1 @ 3 351   2 @ 3 4 @ 4 @ 5 @ 4 @ 5 @ 4 @ 6   5 @ A 30    BEDWAK  LAB SAMPLES  SAMPLE   ANALYSIS   TIME	

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizonal Distance to Surface Water:

Vicinity Groundwater Depth:

Jicarilla Apache 102 #25 Unit O, Sec. 9, T26N, R4W Compressor 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 3 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 3 1. 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.
- Topographic information does not indicate off site lateral fluid migration near the earthen pit. 2.
- Daily discharge into the earthen pit has been terminated (pit abandoned). Prior discharge into the 3. pit is believed to be under 5 barrels per day.
- Well site located within the non-vulnerable area and is approximately 0.88 miles north of the 4. nearest vulnerable area boundary (Tapacito Creek).

(Refer to Lapis Point Quadrangle, New Mexico - Rio Arriba County, 7.5 Minute Series (Topographic), 1963, (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 lateral impact from the earthen pit is very limited and 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.

BJ674

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) 326-9200
Address: 200 Amoco Court, Farmington, N	M 87401
Facility or Well Name: TCARILLA APRONE	# 102 - 25
Location: Unit or Qtr/Qtr Sec O Sec 9 T Z	R = R = R = R = R = R = R = R = R = R =
	SLOW
Island - J I'	
Pit Location: Pit dimensions: length	40', width ヱフ', depth / Ӌ '
(Attach diagram)  Reference: wellhead X,	other
Footage from reference: 120	S' North X
Direction from reference:	East North   North
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)
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)
<b>!</b>   ·	RANKING SCORE (TOTAL POINTS):

	BIGTY SEP/BION PIT
Date Remediation Started:	Date Completed:
Remediation Method: Excavation	Approx. cubic yards630
Check all appropriate   sections) Landfarmed	Insitu Bioremediation
Other	/
	te X JICA. AP. 102-12E (0-9-26-4)
(i.e. landfarmed onsite, name and location of offsite facility)	(APPROX. 180.C.Y.)
General Description of Remedial Action: <u>Ex</u>	cavation. BEDROCK BOTTOM.
Groundwater Encountered: No X	Yes Depth
Final Pit: Sample locationsee A Closure Sampling: (if multiple samples,	
attach sample results	(WEST SIDEWALL)
locations and depths)  Sample date	798 915 Sample time /4/5
Sample Results	
Soil: Benzene	(ppm) 2.510 Water: Benzene (ppb)
Total BTEX	(ppm) <u>43.130</u> Toluene (ppb)
Field Headspace	e (ppm) <u>473</u> Ethylbenzene (ppb)
1	(ppm) Z,140 Total Xylenes (ppb)
Groundwater Sample: Yes No	(If yes, attach sample results)
I HEREBY CERTIFY THAT THE INFORMATI KNOWLEGE AND BELIEF	ION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY
DATE 10/22/98 PR	AND TITLE Environmental Coordinator
SIGNATURE Bully D. Shaw	AND TITLE Environmental Coordinator
	ORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE
APPROVED: YES NO (REASON	N)
SIGNED: La CMall	DATE: 3-31-99

CLIENT: AMOCO			
	BLAGG ENGINEERING, P.O. BOX 87, BLOOMFIELD, (505) 632-1199	INC. NM 87413	C.O.C. NO: <b>6363</b>
FIELD REPOR	RT: CLOSURE VERIFI	CATION	PAGE No: of
OCATION: NAME: JEAC:	TWP: 26N RNG: 4W PM: NM CNT SE/4 CONTRACTOR: PAUL	P/BLOW TY: RA ST: NM	DATE STARTED: 10/18/19 DATE FINISHED: 10/2 / 5
OTR/FOOTAGE: SW	10_ FT. x <u>27</u> FT. x <u>14</u> FT. I	DEED CUBIC	
DICDOCAL FACILITY DA	SITE JUA AP. 102-12E REMEDIA	TION METHO	D: LANDARI I
LAND USE: RANGE	LEASE: <u>FED LSE TO</u>	) <u>Z</u> FO	RMATION.
FIELD NOTES & REMA	RKS: PIT LOCATED APPROXIMATELY	FT	N55W FROM WELLHEAD
DEPTH TO GROUNDWATER: >	100 NEAREST WATER SOURCE:	- NEAREST SURTHU	CHECK ONE
NMOCD RANKING SCORE:	NMOCD TPH CLOSURE STD: 5000 PPM	'   X	PIT ABANDONED
SOIL AND EXCAVATE	DN DESCRIPTIUN:		STEEL TANK INSTALLEDFIBERGLASS TANK INSTALLE
SANDSTANE BENCE	VELLOW ERSON, HARD, ON EAST S	IDE	
		, , ,	FERRE, UN CONSOLIDA
WEST SIDE OF TH	AKSTONE BEDGER EECOW SANDSTE VELLOW DRANGE CLAY, DRY 70 ON ALL SANDERS, REST & 20.	No HC S	TAIN.
Mindr HC obor	on Act Shirters, Bath C.		
BEORDEX CLOS	€D)		
		CALCULATIONS	
1 850017	FIELD 418.1		
BOTTOM	TIME SAMPLE I.D. LAB NO: WEIGHT	(g) mL. FREON	DILUTION READING CALC. ppm
	TIME SAMPLE I.D. LAB No: WEIGHT	(g) mL. FREON [	DILUTION READING CALC. ppm
SCALE	TIME SAMPLE I.D. LAB No: WEIGHT	(g) mL. FREON [	DILUTION READING CALC. ppm
SCALE	TIME SAMPLE I.D. LAB NO: WEIGHT	(g) mL. FREON [	
SCALE 0 FT	TIME SAMPLE I.D. LAB No: WEIGHT	(g) ml. freon [	PROFILE
SCALE 0 FT	TIME SAMPLE I.D. LAB NO: WEIGHT	(g) ml. freon [	
SCALE 0 FT	TIME SAMPLE I.D. LAB No: WEIGHT	(g) ml. freon [	
SCALE 0 FT	TIME SAMPLE I.D. LAB NO: WEIGHT  METER  OVM  RESULTS  SAMPLE FIELD MEADSPACE  FIELD MEADSPACE  FIELD MEADSPACE	PIT	PROFILE
SCALE 0 FT	TIME SAMPLE I.D. LAB NO: WEIGHT  METER  OVM  RESULTS  SAMPLE   FIELD HEADSPACE   PID (ppm)   1 @ 8 305	PIT	
SCALE 0 FT	TIME SAMPLE I.D. LAB NO: WEIGHT  METER  OVM  RESULTS  SAMPLE 10 FIELD HEADSPACE PID (ppm)  1 @ 8' 3.05 2 @ 5' 5.5	PIT	PROFILE
SCALE  O FT  PIT PERIM	TIME SAMPLE I.D. LAB NO: WEIGHT  AFTER  OVM  RESULTS  SAMPLE   FIELD HEADSPACE PID (ppm)  1 @ 8' 3.05  2 @ 5' 5.5  3 @ 9' 210  4 @ 8' 473	PIT 22	PROFILE
SCALE  O FT  PIT PERIM  H  40'-	TIME SAMPLE I.D. LAB NO: WEIGHT   VETER   OVM  RESULTS  SAMPLE   FIELD HEADSPACE PID (ppm)  1 @ 8' 3.05  2 @ 5' 5.5  3 @ 9' 210  4 @ 8' 473  5 @ 14' 105	PIT	PROFILE
SCALE  O FT  PIT PERIM	TIME SAMPLE I.D. LAB NO: WEIGHT  AFTER  OVM  RESULTS  SAMPLE   FIELD HEADSPACE PID (ppm)  1 @ 8' 3.05  2 @ 5' 5.5  3 @ 9' 210  4 @ 8' 473	PIT 22	PROFILE
SCALE  O FT  PIT PERIM  H  40'-	TIME SAMPLE I.D. LAB NO: WEIGHT   VETER   OVM  RESULTS  SAMPLE   FIELD HEADSPACE PID (ppm)  1 @ 8' 3.05  2 @ 5' 5.5  3 @ 9' 210  4 @ 8' 473  5 @ 14' 105	PIT 222	PROFILE  A  SA
SCALE  O FT  PIT PERIM  N  O  O	TIME SAMPLE I.D. LAB NO: WEIGHT   VETER   OVM  RESULTS  SAMPLE   FIELD HEADSPACE PID (ppm)  1 @ 8' 3.05  2 @ 5' 5.5  3 @ 9' 210  4 @ 8' 473  5 @ 14' 105	PIT 222	PROFILE
SCALE  O FT  PIT PERIM  N  O  O	TIME SAMPLE I.D. LAB NO: WEIGHT   OVM  RESULTS  SAMPLE   FIELD HEADSPACE PID (ppm)  1 @ 8' 3.05  2 @ 5' 5.5  3 @ 9' 210  4 @ 8' 473  5 @ 14' 105	PIT 222	PROFILE  A  SA
SCALE  O FT  PIT PERIM  A 27'   A 27'	TIME SAMPLE I.D. LAB NO: WEIGHT  OVM RESULTS  SAMPLE FIELD HEADSPACE PID (ppm)  1 @ 8' 3.05  2 @ 5' 5.5  3 @ 9' 210  4 @ 8' 473  5 @ 14' 1/05  LAB SAMPLES  SAMPLE ANALYSIS TIME	PIT · · · · · · · · · · · · · · · · · · ·	PROFILE
SCALE  O FT  PIT PERIM  A 27'   A 27'	TIME SAMPLE I.D. LAB NO: WEIGHT  AETER  OVM RESULTS  SAMPLE FIELD HEADSPACE PID (ppm)  1 @ 8' 3.05 2 @ 5' 5.5 3 @ 8' 210 4 @ 8' 473 5 @ 14' 105  LAB SAMPLES  SAMPLE ANALYSIS TIME	PIT 222	PROFILE
SCALE  O FT  PIT PERIM  A 27' 9 3	TIME SAMPLE I.D. LAB NO: WEIGHT  OVM  RESULTS  SAMPLE FIELD HEADSPACE PID (ppm)  1 @ 8' 3.05  2 @ 5' 5.5  3 @ 9' 210  4 @ 8' 473  5 @ 14' 1/05  LAB SAMPLES  SAMPLE ANALYSIS TIME ID W & 8' BTEX 1PH 1415	PIT 222	PROFILE
SCALE  O FT  PIT PERIM  A 27'   A 27'	TIME SAMPLE I.D. LAB NO: WEIGHT  AETER  OVM RESULTS  SAMPLE FIELD HEADSPACE PID (ppm)  1 @ 8' 3.05 2 @ 5' 5.5 3 @ 8' 210 4 @ 8' 473 5 @ 14' 105  LAB SAMPLES  SAMPLE ANALYSIS TIME	PIT 222	PROFILE
SCALE  O FT  PIT PERIM  A 27' (40'-	TIME SAMPLE I.D. LAB NO: WEIGHT  OVM  RESULTS  SAMPLE FIELD HEADSPACE PID (ppm)  1 @ 8' 3.05  2 @ 5' 5.5  3 @ 9' 210  4 @ 8' 473  5 @ 14' 1/05  LAB SAMPLES  SAMPLE ANALYSIS TIME ID W & 8' BTEX 1PH 1415	PIT 222	PROFILE



## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Sample ID: Laboratory Number: Chain of Custody No: Sample Matrix:	Blagg / AMOCO Sep / Blow W @ 8' E094 6363 Soil Cool	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed:	04034-10 10-22-98 10-21-98 10-22-98 10-22-98
Preservative: Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	878	0.2
Diesel Range (C10 - C28)	1,260	0.1
Total Petroleum Hydrocarbons	2,140	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:

Jica. Apa. 102 - 25.

Analyst P. Objecce

Stacy W Sendler
Review



### **EPA METHOD 8021** AROMATIC VOLATILE ORGANICS

Client: Sample ID: Laboratory Number: Chain of Custody: Sample Matrix: Preservative: Condition:	Blagg / Amoco Sep / Blow W @ 8' E094 6363 Soil Cool Cool & Intact	Project #: Date Reported: Date Sampled: Date Received: Date Analyzed: Date Extracted: Analysis Requested:	04034-10 10-22-98 10-21-98 10-22-98 10-22-98 10-22-98 BTEX
---	---	---	--

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene	2,510 12,010 3,750 18,110 6,750	8.8 8.4 7.6 10.8 5.2
Total BTEX	43,130	

ND - Parameter not detected at the stated detection limit.

Surrogate Recove	veries:	Parameter	Percent Recovery
		Trifluorotoluene	98 %
		Bromofluorobenzene	98 %

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

USEPA, December 1996.

Jica. Apa. 102 - 25. Comments:

December 1996.

# CHAIN OF CUSTODY RECORD

		The contract of the second	7 2 2 2 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2	Relinquished by: (Signature)	Religioushed by: (Signature)	Relinquished by: (Signature)					WEB WASHIELD	Sample Time	Sec Sec	BLAGG/AMOCO IC	Client / Project Name Project
Farmington, New Mexico 87401 (505) 632-0615	5796 U.S. Highway 64		EOVIDOTECH IO	Receive	Receive	196348 0752 A	•				5011	Lab Number Sample Z	No. 04034-10	Tica. APA. 102-25	Project Location
exico 87401 315	way 64		Ť IDC	Received by: (Signature)	Received by: (Signature)	Hocewed by: (Signature)					X	Con 71 80	tainers		ANALYSIS / PARAMETERS
Cool - Ice/Blue Ice	Received Intact	Y N N/A	Sample Receipt			35	Date Time						T COLUMN TO THE	Remarks	METERS

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

SUBMIT 1 COPY TO

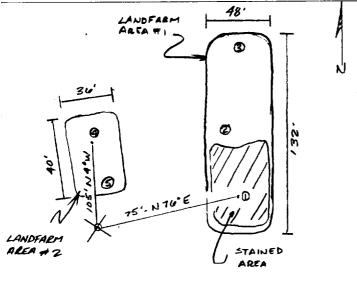
NATURAL RESOURCE DEPT

AND OIL & GAS ADMINISTRATION

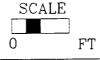
## **ON-SITE SOIL REMEDIATION REPORT**

Operator: AMOCO PRODUCTION COMPANY	<b>Telephone:</b> (505) 326-9200
Address: 200 Amoco Court, Farmington,	NM 87401
Facility or Well Name: JICAPILLA APACHE 102-	25
Location: Unit or Qtr/Qtr Sec O Sec 9 T2	RAW County BIOARRIBA
Land Type:	
Date Remediation Started: 98  Remediation Method: Landfarmed Composted Other	Date Completed: 5/17/99  Approx. cubic yards 500
epth To Groundwater: (pts.)	Final Closure Sampling:
Distance to an Ephemeral Stream (pts.)	Sampling Date: <u>5 13 99</u> Time: <u>1220</u>
Distance to Nearest Lake, Playa, or Watering Pond (pts.)O  Wellhead Protection Area: (pts.)O	Sample Results:  Field Headspace (ppm) 172.4 TPH(8015)  TPH (ppm) 1,670 Method BTE (8021)
Distance To SurfaceWater: (pts.)	Other BENZENE 0.309 ppm
RANKING SCORE (TOTAL POINTS):O	TOT. BTEX 8.800 ppm
I HEREBY CERTIFY THAT THE INFORMATION ABOVE KNOWLEGE AND BELIEF	E IS TRUE AND COMPLETE TO THE BEST OF MY
	NAME Buddy D. Shaw  AND TITLE Environmental Coordinator
AFTER REVIEW OF THE SOIL REMEDIATION INFORM ACCORDANCE TO THE JICARILLA APACHE TRIBE PI	I CLOSURE ORDINANCE.
APPROVED: YES X NO (REASON)	
signed: LEE Manuel DATE	: 6-18-99

BLAGG ENGINEERING, INC. CLIENT: \_AMOCO LOCATION NO: 83674 P.O. BOX 87, BLOOMFIELD, NM 87413 C.O.C. NO: (928\_ (505) 632-1199LANDFARM/COMPOST PILE CLOSURE VERIFICATION FIELD REPORT: DATE STARTED: 5.13.99 LOCATION: NAME: SICARILLA APACHE 102 WELL #: 25 PITS: SEP, BLOW, COMP DATE FINISHED: QUAD/UNIT: O SEC: 9 TWP: 26N RNG: 4W PM: NM CNTY: PA ST: NM **ENVIRONMENTAL** REP SPECIALIST: DIR/FOOTAGE: SW/4 SE/4 CONTRACTOR: P+S SOIL REMEDIATION: APPROX. CUBIC YARDAGE: 500 REMEDIATION SYSTEM: LANDFARM LIFT DEPTH (ft): 1.5° RANGE LAND USE: FIELD NOTES & REMARKS: DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000' NMOCD RANKING SCORE: \_ D NMOCD TPH CLOSURE STD: 5000 PPM DK YELLOWISH BEOWN SAND, NON CONESIVE, SLIGHTLY MOIST. MOIST, FIRM LARGE HREA OF STAINING OBSERVED IN LANDFARM AREA # 1 ( SEE SKETCH BELOW) HC ODOR DETECTED IN SAMPLING PTS. O. O. + S. SAMPLING DEPTHS RANGE FROM 6"-12" POLLECTED A SPT COMPOSITE SAMPLE FUR LAB ANALYSIS. APPROX. 180 C.Y. DEPOSED TO TICH. AP. 102-12E CWSED FIELD 418.1 CALCULATIONS WEIGHT (a) ml. FREON DILUTION READING CALC. ppm LAB No: SAMP TIME SAMPLE LD. SKETCH/SAMPLE LOCATIONS LANDFARM AREA #1 LAB SAMPLES OVM RESULTS 30



SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
251	172.4	25.1	TPH (8015)	1220	1,670
		11	BENSENE	n	d99 POE
		"	TOT BTEX	n	8800 ppb



TRAVEL NOTES: NA CALLOUT:

ONSITE: 5 . 13 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 F251 6928 Soil Cool Cool and Intact	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Requested:	403410 05-17-99 05-13-99 05-14-99 05-17-99 05-17-99 8015 TPH
--	--	---	--

		Det.
Parameter	Concentration (mg/Kg)	Limit (mg/Kg)
Gasoline Range (C5 - C10)	1,100	0.2
Diesel Range (C10 - C28)	568	0.1
Total Petroleum Hydrocarbons	1,670	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 - 25 Landfarm. 5 Pt. Composite.

Aleunh. Oferen

Review



# EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client: Sample ID: Laboratory Number: Chain of Custody: Sample Matrix: Preservative:	Blagg / AMOCO LF - 1 F251 6928 Soil Cool	Project #: Date Reported: Date Sampled: Date Received: Date Analyzed: Date Extracted: Analysis Requested:	403410 05-17-99 05-13-99 05-14-99 05-17-99 05-17-99 BTEX
Condition:	Cool & Intact	Analysis Requested:	RIEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene	309 2,210 1,100 3,550 1,630	8.8 8.4 7.6 10.8 5.2
Total BTEX	8,800	

ND - Parameter not detected at the stated detection limit.

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

References:

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 102 - 25 Landfarm. 5 Pt. Composite.

Analyst

Review Review

# CHAIN OF CUSTODY RECORD

Cool - Ice/Blue Ice	-0615	(505) 632-0615				
Received Intact	phway 64	5796 U.S. Highway 64				
YNA						
Sample Receipt	CHINC	FOVIDOTECH IO				
	Received by: (Signature)	Rec			ture)	Relinquished by: (Signature)
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SAMPLE PRESENCE						
		Voca	7 8 0	1720	5.1377 1720	CF-1
SPT. COMPOSITÉ	7	6011	ゴントー		9	`\
		Sample Matrix	Lab Number	Sample Time	Sample Date	Sample No./
	o. of tainer	403410				REP
Remarks			Client No.			Sampler:
		APACHE 102-25	JICARILLA APACHE		0	BLABB/AMOCO
IETERS	ANALYSIS / PARAMETERS	CANDEMAN	Project Location LANDFARM			Client / Project Name