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

SUBMIT I COPY TO NATURAL RESOURCE DEPT AND OIL & GAS ADMINISTRATION

PIT REMEDIATION AND CLOSURE REPORT

WILL GOOD PULL

	OUL COMO DUVO
Operator: AMOCO PRODUCTION COMPANY	Telephone: (505) 326-9200
Address: 200 Amoco Court, Farmington,	NM 87401
Facility or Well Name: JICARILLA COM	RNCT #155-9
	ZEN R 5W County RID ARRIBA
Location: Unit or Qtr/Qtr Sec_ Sec_ 12	Riczu
Pit Type: Separator Dehydrator Other	1
Land Type:	
1	3 Z', widthZZ', depth6'
	other
Reference: wellnead,	50'
Footage from reference:/	Degrees East North
Direction from reference:	Degrees East North Of West South
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, irrigation canals and ditches)	Less than 100 feet (20 points) 100 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)
11	RANKING SCORE (TOTAL POINTS):

		8118	4 BLOW
D. 4. Domediation Sta	nrted:	Date Complet	ed: 7 4 48
			yards
Remediation Method: (Check all appropriate	Excavation		iation
sections)	Landfarmed ×		
Remediation Location (i.e. landfarmed onsite, name and location of offsite facility)			
General Description	of Remedial Action: Exca	vation, Keprock	вотот.
Groundwater Encoun	tered: No X	Yes Depth	
Final Pit: Closure Sampling: (if multiple samples,	Sample location <u>see Att</u>		
attach sample results and diagram of sample	Sample depth3'	SOUTH SIDEWALL)	
locations and depths)	Sample date /z / 3 /	98 Sample	time
	Sample Results		
	•	ppm) Water	Benzene (ppb)
		rr,	Toluene (ppb)
		ppm)	Ethylbenzene (ppb)
	Field Headspace (Total Xylenes (ppb)
	ТРН (1	ppm) <u>ND</u>	Total Aylenes (FPS)
Groundwater Sample	: Yes No	(If yes, attach samp	ole results)
I HEREBY CERTIFY KNOWLEGE AND B	THAT THE INFORMATION	N ABOVE IS TRUE AND C	COMPLETE TO THE BEST OF MY
DATE	2/4 (98 PRIN	TED NAME Buddy D.	Shaw
SIGNATURE Sud	ly D. Ohan M	ND TITLE Environm	nental Coordinator
AFTER REVIEW OF TO THE JICARILLA	THE PIT CLOSURE INFOR APACHE TRIBE PIT CLOS	MATION, PIT CLOSURE SURE ORDINANCE.	IS APPROVED IN ACCORDANCE
APPROVED: YES	NO (REASON)		· · ·
SIGNED:	-CMall	DATE: <u>12-28</u>	-98

CLIENT: AMOCO	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199 LOCATION NO. 83704 C.D.C. NO. 6421	1
LOCATION: NAME: JUST. C	CT: CLOSURE VERIFICATION PAGE NO: of! PAGE NO: of! PAGE NO: of! DATE STARTED: Z 3 98 DATE FINISHED: ENVIRONMENTAL NV SPECIALIST: NV	
EXCAVATION APPROX. DISPOSAL FACILITY: LAND USE: FIELD NOTES & REMA DEPTH TO GROUNDWATER: 2	REMEDIATION METHOD: LANDERSM LEASE: TIC 155 FORMATION: PC RKS: PIT LOCATED APPROXIMATELY 150 FT. DUE E FROM WELLHEAD' NEAREST WATER SOURCE: >/000' NEAREST SURFACE WATER: >/000' CHECK ONE: NMOCD TPH CLOSURE STD: 5000 PPM PIT ABANDONED	
BEDROCK CLOSE BOTTOM SCALE	ORANGE TO GROWN SAND NON COHESIVE SLIGHTLY MOIST, FIRM, MARKENT STAINING OBSERVED, NO APPARENT HE WINN EXCAVATION AND OF THE OWN SAMPLES. (SANDSTONE), IT. GRAY IN COLOR, VERY HARD, NO APPARENT HE DETECTED WINN EXCAVATION. FIELD 418.1 CALCULATIONS TIME SAMPLE I.D. LAB NO: WEIGHT (g) ML. FREON DILUTION READING CALC. PPI 1315	,
O FT PIT PERIM 32 A D WELL HEAD A A A A A A A A A A A A	PIT PROFILE OVM RESULTS SAMPLE FIELD HEADSPACE PLD (ppm) 1 @ 3'	



EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: Sample ID: Laboratory Number: Chain of Custody No: Sample Matrix: Preservative: Condition:	Blagg / AMOCO 3 @ 3' E262 6421 Soil Cool Cool and Intact	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Needed:	04034-10 12-04-98 12-03-98 12-04-98 12-04-98 12-04-98 TPH-418.1
--	--	--	---

		Det.
	oncentration	Limit
Parameter	(mg/kg)	(mg/kg)

Total Petroleum Hydrocarbons

ND

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water

and Waste, USEPA Storet No. 4551, 1978.

Comments:

Jicarilla Contract #155 - 9 Blow Pit.

Aleu L. afecco

Stacy W Sendler

BJ704

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:_(5	505)326-9200
Address: 200 Amoco Court, Farmington, N	M 87401	
Facility or Well Name: TICARILLA CONTRA	CT #155-4	
Location: Unit or Qtr/Qtr Sec 6 Sec 30 TZ	SN RSW County RIO FIRE	R) 15 A
Pit Type: Separator X Dehydrator Other		
Land Type:		
Pit Location: Pit dimensions: length	9', widthZ(',	
(Attach diagram) Reference: wellhead X,	other	
Footage from reference: 63		
Direction from reference:	Degrees X East of West	South <u> </u>
Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater)	50 feet to 99 feet	20 points) 10 points) 0 points)
Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Greater than 100 feet	(10 points) > (0 points)
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)
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)
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)
** ** ** ** ** ** ** ** ** ** ** ** **	RANKING SCORE (TOTAL)	POINTS):

		BJ 704 SEP. PIT
Data Remadiation Sta	rted:	Date Completed:
	Excavation	Approx. cubic yards
Remediation Method: (Check all appropriate	Landfarmed ×	Insitu Bioremediation
sections)	Other	
m was Warehim		
Remediation Location (i.e. landfarmed onsite, name and location of offsite facility)		
General Description	of Remedial Action: Excavation	on BEDROCK BOTTOM.
Groundwater Encoun	tered: No 🔀 Yes	Depth
Final Pit: Closure Sampling: (if multiple samples,	Sample locationsee Attached	1 Documents
attach sample results	Sample depth 5 5	TH SIDEWALL)
and diagram of sample locations and depths)	Sample date/2 / 3 / 9 8	Sample time /400
	Sample Results	
ı	•	O.OZOT Water: Benzene (ppb)
		7.150 Toluene (ppb)
	Field Headspace (ppm)	
		186 Total Xylenes (ppb)
Groundwater Sample	:: Yes No _X	(If yes, attach sample results)
I HEREBY CERTIFY KNOWLEGE AND B	THAT THE INFORMATION ABOUTELIEF	VE IS TRUE AND COMPLETE TO THE BEST OF MY
DATE	12 16 98 PRINTED N	NAME Buddy D. Shaw
		LE Environmental Coordinator
AFTER REVIEW OF TO THE JICARILLA	THE PIT CLOSURE INFORMATION APACHE TRIBE PIT CLOSURE OF	ON, PIT CLOSURE IS APPROVED IN ACCORDANCE ORDINANCE.
APPROVED: YES	NO (REASON)	
SIGNED:	-CMand DATE:	12-28-98

P.O. BOX 87, BLOOMFIELD, NM 87413 C.O.C. ND: 6421 FIELD REPORT: CLOSURE VERIFICATION OCATION: NAME: TICA. CONTR. 15S WELL #: 9 PIT: SEP. QUAD/UNIT: SEC: 30 TWP: 26N RNG: SW PM:NM CNTYPA ST: NM OTR/FODTAGE: K50 FML/1650 FEL CONTRACTOR: PS EXCAVATION APPROX. 19 FT. x 21 FT. x 9 FT. DEEP. CUBIC YARDAGE: 100 DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARM LAND USE: SEMARKS: PIT LOCATED APPROXIMATELY 63 FT. 553E FROM WELLHEAD. TELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 63 FT. 553E FROM WELLHEAD. DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000' DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000' DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000' DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000' CHECK ONE:		
OCATION: NAME TIKE CENTR. ISS WELL #: 9 PIT SEP. QUAD/UNITE SEC: 30 TWT Z SN RNG SW PM.NM CNTYRA ST. NM OTR/FUDIAGE 850 MW 1850 FEL CONTRACTOR. P& 5 EXCAVATION APPROX. I 9 PT. x ZI FT. x 9 FT. DEEP. CUBIC YARDAGE: 100 BEXCAVATION APPROX. I 9 PT. x ZI FT. x 9 FT. DEEP. CUBIC YARDAGE: 100 BISPOSAL FACILITY. CN-STIE EXCAVATION APPROX. I 9 PT. x ZI FT. x 9 FT. DEEP. CUBIC YARDAGE: 100 BISPOSAL FACILITY. CN-STIE EXCAVATION APPROX. I 9 PT. x ZI FT. x 9 FT. DEEP. CUBIC YARDAGE: 100 BISPOSAL FACILITY. CN-STIE EXCAVATION DESCRIPTION: BICLD NOTES & REMARKS. PIT LOCATED APPROXIMATELY 63 FT. \$53E FROM WELLHEAD. BEPTH TO GROUNDATER. 210P. NAMED THE CLOSURE STD 5000 FPH NOCID RANNIN SCIDE: 0 NAMED THE CLOSURE STD 5000 FPH SOIL AND EXCAVATION DESCRIPTION: SIDEMANLS - DK. YELL OKAMES TO BROWN SAND, NON COMESTIC, SUCHTLY MOST, FIRM, NO APPARENT STRING DESCRIPTION: STREAMS STANK INSTALLED FIRM, NO APPARENT STRING DESCRIPTION OF PAPARENT HC DOOR WIN EXCAUSTICAL, HC OBOR DETERTED WIN NORTH + SONTH SIDEMAL OUT SAMPLES. BOTTOM - BEDDEK (SANDSTONE) DUF TO UT. GRAY IN COLOR, VERY HARD, NO APPARENT HC DOOR IN SUM SAMPLE. BEDDEK (SANDSTONE) DUF TO UT. GRAY IN COLOR, VERY HARD, NO APPARENT HC DOOR IN SUM SAMPLE. O FT PIT PERIMETER OVM RESULTS SAMPLE SAMPLES DUEST ON AND SAMPLE. SAMPLE SAMPLES DESCRIPTION OF SAMPLES DUEST ON AND SAMPLE. SAMPLE SAMPLES DUEST ON AND SAMPLE. SAMPLES DESCRIPTION OF SAMPLES SAMPLES DUEST ON AND SAMPLES S	P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	
QUAD/UNITE SPC. 30 TWP 25N RNG SW PM NM CNIGHT SITEM OTR/FORIAGE KSO MULKSO FEL CONTRACTOR PLS EXCAVATION APPROX. 19 FT x ZI FT. x 9 FT. DEEP CUBIC YARDAGE: 100 DISPOSAL FACILITY. CN-SITE EXAMPLES IN CONTRACTOR PLS EXAMPLES IN CONTRACTOR PLS EXAMPLES IN CONTRACTOR PLS EXCAVATION APPROX. 19 FT x ZI FT. x 9 FT. DEEP CUBIC YARDAGE: 100 DISPOSAL FACILITY. CN-SITE REMEDIATION METHOD: CA-BARA ELASE: J'E ISS FORMATION: PC LEND NOTES & REMARKS: PIT LOCATED APPROXIMATELY 63 FT. 538E FROM WELLHEAD. IELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 63 FT. 538E FROM WELLHEAD. IELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 63 FT. 538E FROM WELLHEAD. NODED RANKING SCORE 0 NODED THE LOCATED APPROXIMATELY 1000' NEAREST SURFACE VATER 1000' NODED RANKING SCORE 0 NODED THE LOCATED APPROXIMATELY 1000' NEAREST SURFACE VATER 1000' STILL AND EXCAVATION DESCRIPTION: STORWARD SCORE 0 NODED THE LOCATED APPROXIMATION OF PRABET HE DOOR WIND FIRM NO REPARENT THE DOOR WIND STRUCK OF PRABET HE DOOR WIND THAT SAMPLES IN THE SAMPLE ID. LAS NO. WEIGHT (3) MIL FRECH DUTTON READING CALC. PDM RESULTS SECULTS TO DOT THE SAMPLE ID. LAS NO. WEIGHT (3) MIL FRECH DUTTON READING CALC. PDM RESULTS SECULTS A A A A A A A A A A A A A A A A A A A	OCATION: NAME: JISA CONTR. 155 WELL #: 9 PIT: SEP.	DATE STARTED: 12/3/98
EXCAVATION APPROX. 19 FT x Z1 FT x 9 FT. DEEP. CUBIC YARDAGE: 100 DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARM LAND USE: SOME LEASE: JIC 155 FORMATION: PC LELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 63 FT. 558E FROM WELLHEAD. JECH NOTES & REMARKS: PIT LOCATED APPROXIMATELY 63 FT. 558E FROM WELLHEAD. JOOO' MEAREST SURFACE VALUE. DEPTH TO GREUNDVATER >100' NEAREST WATER SOURCE >1000' MEAREST SURFACE VALUE. JOOO' MEAREST SURFACE VALU	OHAD/HITE SEC: 30 TWP: ZEN RNG: SW PM:NM CNTYPH ST: 1000	ENVIRONMENTAL SPECIALIST:
DEPTH TO GROUNDWATER. SIDO' NEAREST VATER SOURCE STOO' NEAREST SURFACE WATER. SOOO' NEAREST SURFACE WATER. SURFACE WATER. SOOO PPM SOIL AND EXCAVATION DESCRIPTION: SIDEMANLY - DK. YELL. OKANGE TO BROWN SAND, NON COMESULE, SUGHTLY MOIST, FIRM, NO APPARENT HE ODOR WIND ENCAUNTING, HE ODOR DETECTED WIN NORTH & SONTH SIDEMANL OWN. SAMPLES. BOTTOM - BED'IDEK (SAMSTONE) OUNF TO LT. GRAY IN COURT, VERY HORD, NO APPARENT HE DOOR IN SUM SAMPLE. BED'IDEK IN SAMPLE ID. LAB NO: WEIGHT (g) INL. FREON DILUTION READING CALC. POM PIT PERIMETER OF FT PIT PERIMETER OVM RESULTS SAMPLE ID. LAB NAMPLES TO USE TO SAMPLE ID. SAMPLES SAMPLE ID. LAB SAMPLES TO USE TO USE TO USE THE SAMPLES SAMPLE ID. LAB SAMPLES SOUTH MANDER THE SAMPLES TO USE TO USE TO USE THE SAMPLES TO USE TO USE TO USE THE SAMPLES TO USE TO USE THE SAMPLES THE TAKE INSTALLED THE SAMPLES	EXCAVATION APPROX. 19 FT. x 21 FT. x 9 FT. DEEP. CUBIC DISPOSAL FACILITY: ON-SITE REMEDIATION METHOL LAND USE: LEASE: JIC 155 FOR	EMATION: PC
EXCAUATION, HC ODDR DETECTED WIN NORTH & SORTH SIDEWALL OWN SAMPLES. BOTTOM - BEDIDER (SANDSTONE) DULLE TO LT. GRAY IN COLOR, VERY HARD, NO APPARENT HC DOOR IN OWN SAMPLE. BEDIDER (CLOSED) TIME SAMPLE ID. LAB NO: WEIGHT (g) IML. FREON DILUTION READING CALC. PDM SCALE 1400 FIT PIT PERIMETER OVM RESULTS SAMPLE REGISTERSAGE 18 7 92.8 28 5' 0.0 3 8 5' 138.7 4 8 5' 0.0 3 8 5' 138.7 5 108.8	FIELD NOTES & REMAŘKS: PIT LOCATED APPROXIMATELY 63 FT. 5 DEPTH TO GROUNDWATER: >100 Nearest water source: >1000 Nearest surface NMOCD RANKING SCORE: NMOCD TPH CLOSURE STD: 5000 PPM SOIL AND EXCAVATION DESCRIPTION:	FROM WELLHEAD. WATER: >1000 CHECK ONE: PIT ABANDONED STEEL TANK INSTALLED FIBERGLASS TANK INSTALLED
SCALE OFT PIT PERIMETER OVM RESULTS SAMPLE FIELD HAUSPACE PIO (sprm) 1 @ y'	BOTTOM - BENTOCK (SANDSTONE) DULLE TO LT. GRAY IN COLOR, U APPARENT HC DOOR IN OVER SAMPLE. SECONDOCK (CLOSED)	ERY HARD, NO
O FT PIT PERIMETER OVM RESULTS SAMPLE PIC HEADSPACE PIO (pre) 19' 19' 19' 19' 19' 19' 19' 19' 19' 19		ILUTION READING CALC. ppm
PPT PERIMETER OVM RESULTS SAMPLE FIELD HEADSPACE PID (ppm) 1 @ 9'		DDOELE
TRAVEL NOTES: ONSITE:	PTT PERIMETER OVM RESULTS SAMPLE FIELD HEADSPACE PID (ppm) 1 @ y' \$2.8 2 @ 5' 0.0 3 @ 5' 138.7 4 @ 5' 0.0 5 @ 9' 6.0 LAB SAMPLES SAMPLE ANALYSIS TIME 3 @ 5' TPHL BTEX 1400 (BOTH PASSED)	ZI) A ZII BEDROCK



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 3 @ 5' E263 6421 Soil Cool Cool and Intact	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Requested:	04034-10 12-04-98 12-03-98 12-04-98 12-04-98 12-04-98 8015 TPH
--	--	---	--

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	108	0.2
Diesel Range (C10 - C28)	78.5	0.1
Total Petroleum Hydrocarbons	186	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 #155 - 9 Separator Pit.

Analyst

Stacy W Sendler



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client: Sample ID: Laboratory Number: Chain of Custody: Sample Matrix: Preservative: Condition:	Blagg / AMOCO 3 @ 5' E263 6421 Soil Cool Cool & Intact	Project #: Date Reported: Date Sampled: Date Received: Date Analyzed: Date Extracted: Analysis Requested:	04034-10 12-16-98 12-03-98 12-04-98 12-16-98 12-16-98 BTEX
---	--	---	--

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	20.7	8.8
Toluene	68.3	8.4
Ethylbenzene	143	7.6
	1,110	10.8
p,m-Xylene o-Xylene	812	5.2
Total BTEX	2,150	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene Bromofluorobenzene	99 % 99 %

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 Contract #155 - 9 Separator Pit.

Alexa L. Copuser

Stacy W Sendler
Review

CHAIN OF CUSTODY RECORD

F	lue loe	Cool - Ice/Blue Ice				15	(505) 632-0615	(505)				
	ntact 6	Received Intact			401	/ay 64 xico 87	3. Highw	5796 U.S. Highway 64	_			<u>, , , , , , , , , , , , , , , , , , , </u>
z	\ \				Ş	7 - 1		LIVINO		1	- e	1 de 1
pt	Sample Receipt	Sa			3		7 7			CF1 L111	1 11 1	3000
					nature)	Received by: (Signature)	Received				ture)	Relinquished by: (Signature)
				1	nature)	Received by: (Signature)	Réceivec				ture)	Relinquished by: (Signature)
12,4.9 \$ 0232	12,4.5		iens,	Qi.	nature)	by: (Sign	Received by: (Signat	Date Time			(enn)	Relinquished by Signature
Time	Data											
COOL	1500/ -	B										
SAMAES	1	вотн										
PI	SEPAICATOR	SEPA			1			2012	E213	1400	12/3/48	305
											-	
	Tid	Ecou						2016	E212	1315	12/3/48	② e 3 '
				(8)	(80 T.			Sample Matrix	Lab Number	Sample Time	Sample Date	Sample No./
			30/2/16/98	PH 8.1) TEX 1021)	15) PH 8.1)	rtainers PH (15)	lo. of	4-10	Client No.			Sampler: NJV
al	Remarks				_	_	1	CONTEACT #155-9	TICARULA CO		000	BLAGG /AMOCO
		METERS	ANALYSIS / PARAMETERS	ANA					Project Location			Client / Project Name

CHAIN OF CUSTODY RECORD

Client / Project Name	Project Location		ANALYSIS /	ANALYSIS / PARAMETERS
BLAGG /Amoco	TICARILLA C	CONTENCT #155-9		Remarks
Sampler:	Client No.		ers)	
2JV	0403	04034-10	ilo. of main PH	
Sample S	Lab Number	Sample		
Qentification Date		2011		Sou PIT
(3) @ 3 12 3 98 1315	5123			
(3) e < / 12/3/2/1400	E263	2012	~ ~	SCHWICK THE
12/0/10			Bort acted	
			12-11-98-724	
				SAMOS HOS
				PESEN -cool
			-	
				Time
Relinquished by: (Signature) /			Received by: (Signature)	12,4,8,032
Relinquished by: (Signature)		12 1 70 0 73 Re	Received by: (Signature)	
Relinquished by: (Signature)		Re	Received by: (Signature)	
		1000		Sample Receipt
Rt COC 6417-6421	7	TI IVIKO I TOTI =		۲ 2
		5796 U.S. Highway 64	Highway 64	Received Intact
		Farmington, New Mexico 67401 (505) ^32-0615	ton, New Mexico 8/401 (505) ~32-0615	Cool - Ice/Blue Ice

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, Farmingt	on, NM 87401
Facility or Well Name: JICAPILLA CONTRACT	155-9
Location: Unit or Qtr/Qtr Sec 67 Sec 30	TEGN REW County RIO ARRIBA
Land Type: RANGE	
Date Remediation Started: 12 3 99 Remediation Method: Landfarmed	Date Completed: 6/9/99 Approx. cubic yards 200
Composted	rippion. Guore yauto
Other	
epth To Groundwater: (pts.)	Final Closure Sampling:
Distance to an Ephemeral Stream (pts.)	Sampling Date: <u>6899</u> Time: <u>1210</u>
Distance to Nearest Lake, Playa, or Watering Pond (pts.)	Sample Results:
Wellhead Protection Area: (pts.)	Field Headspace (ppm)
Distance To SurfaceWater: (pts.)	TPH (ppm) 4.1 Method (8015) Other
RANKING SCORE (TOTAL POINTS):	
I HEREBY CERTIFY THAT THE INFORMATION A KNOWLEGE AND BELIEF	ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY
DATE <u>6/9/99</u> , PRIN	TED NAME Buddy D. Shaw
SIGNATURE Bully S. Shaw	AND TITLE Environmental Coordinator
AFTER REVIEW OF THE SOIL REMEDIATION IN ACCORDANCE TO THE JICARILLA APACHE TRI	FORMATION, ON-SITE REMEDIATION IS APPROVED IN IBE PIT CLOSURE ORDINANCE.
APPROVED: YES NO (REASON)	
SIGNED:	DATE:

ELIENTI AMOCO BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199 FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION LOCATION: NAME CONTRACT SS WELL #: 9 PITS: SEP, BLOW QUAD/UNIT: 9, SEC: 30 TWP: 26N RNG: SW PM.NIM CNTY: PA. ST. NIM 210/FIGUTAGE: SW/4 NE/4 CONTRACTOR: P3.5 SOIL REMEDIATION: REMEDIATION: REMEDIATION: REMEDIATION SYSTEM: LAND USE: FELD NOTES & REMARKS: SPETIAL 10 GRUMBUATER >100 NAME: FAILURE SURVEY AVER SURVEY SURVE		
FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION DOCATION: NAME SCAPELLY 155 WELL #: 9 PITS: 5EP, BLOW OUT STANKED & 899. DATE STANKED & 899. DATE FINISHED. QUAD/UNIT: 9 SEC 50 TWP. 2LN RNG: 5W PM. NM ONTY: PA ST. NM DITE/FOOTAGE: 5M/4 NE/4 CONTRACTOR: P45 SOIL REMEDIATION: REMEDIATION SYSTEM: LANDFARM APPROX. CUBIC YARDAGE: 200 LAND USE: RANGE LIFT DEPTH (ft): 1' FIELD NOTES & REMARKS: IEPTH 10 GROUNDWATER > 100' NEAREST VATER SOURCE > 1000' NEAREST SURFACE VATER: > 1000' NMOCD TANKING SCORE ONMOCD THE CLOSURE STD 5000 PPM DX 4ELIOUNS! BERWA SAND, NON COMESIVE, 2LIGHTLY MOIST, FIRM NO APPARENT STAINING, NO NE COMESIVE, 2LIGHTLY MOIST, FIRM NO APPARENT STAINING, NO NE COMESIVE, 2LIGHTLY MOIST, FIRM NO APPARENT STAINING, NO NE COMESIVE, 2LIGHTLY MOIST, FIRM NO APPARENT STAINING, NO NE COMESIVE, 2LIGHTLY MOIST, FIRM NO APPARENT STAINING, NO NE COMESIVE, 2LIGHTLY MOIST, FIRM NO APPARENT STAINING, NO NE COMESIVE, 2LIGHTLY MOIST, FIRM NO APPARENT STAINING, NO NE COMESIVE, 2LIGHTLY MOIST, FIRM NO APPARENT STAINING, NO NE COMESIVE, 2LIGHTLY MOIST, FIRM NOTE: SOIN WAS INVESTIGATED STANKED TO THE 155-ILE NOTE: SOIN WAS INVESTIGATED STANKED		
FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION LOCATION: NAME: CONTRACT 155 WELL #: 9 PITS: SEP, BLOW DATE STARTED & 899	P.O. BOX 87, BLOO (505) 6	MFIELD, NM 87413 32-1199 C.O.C. ND: 7011
DATE STARTED & 899 QUAD/UNIT: 9 SEC: 30 TWP: ZUN RNG: 5W PM: NM CNTY: PA ST: NM QUAD/UNIT: 9 SEC: 30 TWP: ZUN RNG: 5W PM: NM CNTY: PA ST: NM QUAD/UNIT: 9 SEC: 30 TWP: ZUN RNG: 5W PM: NM CNTY: PA ST: NM QUAD/UNIT: 9 SEC: 30 TWP: ZUN RNG: 5W PM: NM CNTY: PA ST: NM QUAD/UNIT: 9 SEC: 30 TWP: ZUN RNG: 5W PM: NM CNTY: PA ST: NM QUAD/UNIT: 9 SEC: 30 TWP: ZUN RNG: 5W PM: NM CNTY: PA ST: NM QUAD/UNIT: 9 SEC: 30 TWP: ZUN RNG: 5W PM: NM CNTY: PA ST: NM QUAD/UNIT: 9 SEC: 30 TWP: ZUN RNG: 5W PM: NM CNTY: PA ST: NM QUAD/UNIT: 9 SEC: 30 TWP: ZUN RNG: 5W PM: NM CNTY: PA ST: NM QUAD/UNIT: 9 SEC: 30 TWP: ZUN RNG: 5W PM: NM CNTY: PA ST: NM QUAD/UNIT: 9 SEC: 30 TWP: ZUN RNG: 5W PM: NM CNTY: PA ST: NM QUAD/UNIT: 9 SEC: 30 TWP: ZUN RNG: 5W PM: NM CNTY: PA ST: NM QUAD/UNIT: 9 SEC: 30 TWP: ZUN RNG: 5W PM: NM CNTY: PA ST: NM QUAD/UNIT: 9 SEC: 30 TWP: ZUN RNG: 5W PM: NM CNTY: PA ST: NM APPROX: CUBIC YARDAGE: 200 APPROX: CU		
QUAD/UNIT: 9 SEC: 30 TWP: 2LN RNG: SW PM:NM CNTY: PA ST:NM DIP/FOOTAGE: SW/4 NE/4 CONTRACTOR: P+S SOIL REMEDIATION: REMEDIATION SYSTEM: LANDFARM APPROX. CUBIC YARDAGE: 200 LAND USE: RANGE LIFT DEPTH (ft):		1 6 00
SOIL REMEDIATION: REMEDIATION SYSTEM: LANDFARM APPROX. CUBIC YARDAGE: 200 LAND USE: RANGE LIFT DEPTH (ft): 1' FELD NOTES & REMARKS: DEFTH TO GROUNDWATER: 7000' NEAREST VATER SDURCE: 2000' NEAREST SURFACE VATER: > 1000' NMOCO RANKING SCORE ON NEAREST VATER SDURCE: 2000 PPM DE VECLOUISH EROWN SAND, NON COMESNE, SLIGHTLY MOIST, FIRM NO APPABENT STRINING, NO NO COMESNE, SLIGHTLY MOIST, FIRM 100 APPABENT STRINING, NO NO COMESNE, SLIGHTLY MOIST, FIRM 101 AND LANDFRADHED DISTANCE SEARNS 101 AND LANDFRADHED DISTANCE SEARNS 102 AND LANDFRADHED DISTANCE SEARNS 103 AND LANDFRADHED DISTANCE SEARNS 104 AND LANDFRADHED DISTANCE SEARNS 105 AND	OHAD / HNIT & SEC: 30 TWP: 26N RNG: SW J	DMINIM CNTY: PA ST: NM
REMEDIATION: REMEDIATION SYSTEM: LAND USE: RANGE LIFT DEPTH (ft): FIELD NOTES & REMARKS: DEPTH TO GROUNDWATER: O NEAREST VATER SOURCE: NMOCD PANKING SCORE O NMOCD THA CLOSURE STD. NA APPROX. CUBIC YARDAGE: NAME LIFT DEPTH (ft): I' NAME DEPTH TO GROUNDWATER: O NAME STORE STD. NAME SAND, NEAREST VATER SOURCE: NAME STORE STD. NAME OF HELIOUSH STD. NAME OF APPROX. NAME OF APPROX. CLOSED SAMPLE FORM LAB APPROX. CLOSED SAMPLE ID. LAB NO: WEIGHT (g) ML. FREON DILUTION READING CALC. ppm SKETCH/SAMPLE LOCATIONS OVM RESULTS LAB SAMPLES SUPER REQUISED NAME OF THE SECURISE OVM RESULTS LAB SAMPLES SAMPLE REQUISED OVM RESULTS LAB SAMPLES SAMPLE REQUISED NAME OF THE PROGRAM SAMPLES SAMPLE REQUISED OVM RESULTS LAB SAMPLES SAMPLE REQUISED OVM RESULTS LAB SAMPLES SAMPLE REQUISED OVM RESULTS LAB SAMPLES OVM RESULTS LAB SAMPLES		
REMEDIATION SYSTEM: LANDFARM LAND USE: RANGE LIFT DEPTH (ft): SEPTH TO GROUNDWATER: 2/00' NEAREST VATER SOURCE: 2/000' NEAREST SURFACE VATER: 2/000' NMBCD RANKING SCORE:		
EAND USE: RANGE FIELD NOTES & REMARKS: DEPTH TO GROUNDWATER: > 100' NEAREST VATER SOURCE: > 1000' NOOCD RANKING SCORE NONDCOT THE CLOSURE STD. 5000 PPM DX YELOWISH BROWN SAND, NON COMESIVE, SLIGHTLY MOIST, FIRM NO APPARENT STAINING, NO HE ODOR DETECTED. SAMPLING: DEPTHS RANGE FROM 6"-10" COLLECTED A SPT. COMPOSITE SAMPLE FOR LAB ANALYS'S NOTE: SOIL WAS MOVED TO THE 155-1GE AND CAMPARED DISTANCE SERVING THE SAMPLE ISS TO WELL HEAD. FIELD 418.1 CALCULATIONS SKETCH/SAMPLE LOCATIONS OVM RESULTS LAB SAMPLES SWIPLE PROGRAM OVM RESULTS LAB SAMPLES SWIPLE PROGRAM OVM RESULTS LAB SAMPLES SWIPLE PROGRAM OFFICE PROGRAM LF-1 O.O LF-1 (\$0.55) 1210 4.1		APPROX. CUBIC YARDAGE: 200
SEPTH TO GROUNDWATER: > 100' NEAREST VATER SQURCE: > 1000' NEAREST SURFACE VATER: \$ 7000' NMOCD RANKING SCORE: O NMOCD TPH CLOSURE STD: \$000 PPM DE YELLOWISH BEOWN SAND, NON COMESINE, SLIGHTLY MOIST, FIRM NO APPARENT STAINING, NO NC ODOR DETECTED, SAMPLING DEPTHS RANGE FROM 6"-10" COLLECTED A SPT. COMPOSITE SAMPLE FOR LAB ANALYSIS NOTE: SOIL WAS MOVED TO THE ISS-ILLE AND CANDERGRADD DISTANCE SEARCH FOR SAMPLE ISS Q WELL HEAD. FIELD 418.1 CALCULATIONS SAMP. TIME SAMPLE I.D. LAB NO: WEIGHT (g) ML. FREON DILUTION READING CALC. PPM SKETCH/SAMPLE LOCATIONS OVM RESULTS SAMPLE RED READSMEL PRO (sem) 10 TPD: SAMPLE ANALYSIS TIME RESULTS SAMPLE RED READSMEL SAMPLES SAMPLE RED READSMEL SAMPLES SAMPLE RED READSMEL SAMPLES SAMPLE RED READSMEL NALYSIS TIME RESULTS LAB SAMPLES LAB SAMPLES LAB CALCULATIONS	LAND USE: RANGE	LIFT DEPTH (ft):
NMOCD THE CLOSURE STD. SOOD PPN DE YELLOWISH BEOWN SAND, NEW COMESIVE, SLIGHTLY MD IST, FIRM NO APPARENT STAINING, NO HE ODOR DETECTED. SAMPLING DEPTINS PANGE FROM 6"-10" COLLECTED A SPT. COMPOSITE SAMPLE FOR LAB ANALYSIS. NOTE: SOIL WAS MOVED TO THE ISS-ILLE AND LANDFARMED DISTANCE BEARING TREED 418.1 CALCULATIONS SAMP. TIME SAMPLE I.D. LAB NO: WEIGHT (g) ML. FREON DILUTION READING CALC. PPM SKETCH/SAMPLE LOCATIONS OVM RESULTS LAB SAMPLES SAMPLE PRO PROSPRET DE PRO (PM) SWELL FLOW FOOD OVM RESULTS LAB SAMPLES SAMPLE NOW PROSPRET OVM RESULTS OVM RESULTS SAMPLE NOW PROSPRET OVM RESULTS	FIELD NOTES & REMARKS:	
NMOCD THE CLOSURE STD. SOLO PPM DE YELLOWISH BEOWN SAND, NON COMESIVE, SLIGHTLY MOIST, FIRM NO APPARENT STAINING, NO NC ODOR DETECTED, SAMPUNIC DEPTINS PANGE FROM 6"-10" COLLECTED A SPT. COMPOSITE SAMPLE FOR LAB ANALYSIS. NOTE: SOIL WAS MOVED TO THE ISS-ILLE AND CANDERGEMED DISTANCE BEARING TREED FLOW THE ISS & WELL HEAD. FIELD 418.1 CALCULATIONS SAMP. TIME SAMPLE I.D. LAB NO: WEIGHT (g) ML. FREON DILUTION READING CALC. PPM SKETCH/SAMPLE LOCATIONS OVM RESULTS LAB SAMPLES SAMPLE PROPRIED MALYSIS TIME RESULTS 10 PO (900) LF-1 (2015) 12/0 4.1		
NO APPARENT STAINING, NO NE OBOR DEFECTED. SAMPLE FOR PANGE FROM 6"-10" COLLECTED A SPT. COMPOSITE SAMPLE FOR LAB ANALYSIS. NOTE: SOIL WAS MOVED TO THE 155-16E AND LANDFARMED DISTANCE - BEARING TREEN FROM THE 155 9 WELL HEAD. FIELD 418.1 CALCULATIONS SAMP. TIME SAMPLE I.D. LAB NO: WEIGHT (g) ML. FREON DILUTION READING CALC. ppm SKETCH/SAMPLE LOCATIONS OVM RESULTS SAMPLE PRED HEADSACE SAMPLE NO (ppm) LAB SAMPLES SAMPLE PRED HEADSACE SAMPLE NO (ppm) LE-1 0.0 LF-1 (F0-15) 1210 4.1	NMOCD RANKING SCORE: O NMOCD TPH CLOSURE STD:	5000 PPM
PANGE FROM 6"-10" COLLECTED A SPT. COMPOSITE SUMAS MOVED TO THE 155-16E NOTE: SOIL WAS MOVED TO THE 155-16E AND LANDFARMED DISTANCE + BEARDN'S TREEN FROM THE 155-9 WELL HEAD. FIELD 418.1 CALCULATIONS SAMP. TIME SAMPLE I.D. LAB NO: WEIGHT (g) ML. FREON DILUTION READING CALC. ppm SKETCH/SAMPLE LOCATIONS OVM RESULTS LAB SAMPLES SAMPLE PRO (ppm) LE-1 0.0 LF-1 (150.5) 1210 4.1	THE THE STATE OF THE STATE STATE STATE	BUTLY MOIST, FIRM
SAMP. TIME SAMPLE I.D. LAB NO: WEIGHT (g) ML. FREON DILUTION READING CALC. ppm SKETCH/SAMPLE LOCATIONS OVM RESULTS SAMPLE RELIGIONS OVM RESULTS SAMPLE ANALYSIS TIME RESULTS SAMPLE PRO (Spm) SAMPLE ANALYSIS TIME RESULTS SAMPLE PRO (Spm) OVM RESULTS LAB SAMPLES SAMPLE ANALYSIS TIME RESULTS LET.1 O.O LET.1 (Points) 1/210 4.1	AMARIT CTANNALL NO HE ODOR DETECTE	ED. SAMPLINES SEE !
SAMP. TIME SAMPLE I.D. LAB NO: WEIGHT (g) ML. FREON DILUTION READING CALC. ppm SKETCH/SAMPLE LOCATIONS OVM RESULTS LAB SAMPLES SAMPLE REDU MEADSPACE SAMPLE ANALYSIS TIME RESULTS ID LET 0.0 LET 1.7 Pm 5 1/2/0 4.1	LAB ANALYSIS	1-0 145 - 16E
FIELD 418.1 CALCULATIONS SAMP. TIME SAMPLE I.D. LAB No: WEIGHT (g) ML. FREON DILUTION READING CALC. ppm SKETCH/SAMPLE LOCATIONS OVM RESULTS LAB SAMPLES SAMPLE PELD HEADSPACE PD (ppm) LF. 1 0.0 LF. 1 (2015) 1210 4.1		AND LANDFARMED DISTANCE + BEARINGS TAKEN FROM THE 155 9 WELL HEAD.
SKETCH/SAMPLE LOCATIONS OVM RESULTS LAB SAMPLES SAMPLE PRO (spm) SAMPLE ANALYSIS TIME RESULTS 10 TPM 1	FIELD 418.	1 CALCULATIONS
OVM RESULTS LAB SAMPLES SAMPLE FIELD HEADSPACE PID (ppm) LF-1 0,0 LF-1 (18015) 1210 4.1	SAMP. TIME SAMPLE I.D. LAB No: WEIGHT	(g) ML. FREON DILUTION READING CALC. PART
OVM RESULTS LAB SAMPLES SAMPLE FIELD HEADSPACE PID (ppm) LF-1 0,0 LF-1 (18015) 1210 4.1		
OVM RESULTS LAB SAMPLES SAMPLE FIELD HEADSPACE PID (ppm) LF-1 0.0 LF-1 (10.05) 1210 4.1		
OVM RESULTS LAB SAMPLES SAMPLE FIELD HEADSPACE PID (ppm) LF-1 0.0 LF-1 (10.05) 1210 4.1		
OVM RESULTS LAB SAMPLES SAMPLE FIELD HEADSPACE PID (ppm) LF-1 0.0 LF-1 (10.05) 1210 4.1		
SAMPLE FIELD HEADSPACE PID (ppm) LF-1 0,0 LF-1 (105) 1210 4.1	SKETCH/SAMPLE LOCATIONS	
SAMPLE FIELD HEADSPACE PID (ppm) LF-1 0,0 LF-1 (105) 1210 4.1	•	
SAMPLE FIELD HEADSPACE PID (ppm) LF-1 0,0 LF-1 (105) 1210 4.1	-	OVM RESULTS LAB SAMPLES
1		SAMPLE FIELD HEADSPACE SAMPLE ANALYSIS TIME RESULTS
	/	7PH 2 (0) 4/
	7	
	,"/	
	&/	
(a) (b)	∫ ∅ / ∅) /	
S SCALE	30 10	SCALE
	90:	O FT
O FT		
l O FT	, OV.	



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Sample ID: Laboratory Number: Chain of Custody No: Sample Matrix:	Blagg / AMOCO LF - 1 F473 7071 Soil	Project #: Date Reported: Date Sampled: Date Received: Date Extracted:	403410 06-09-99 06-08-99 06-09-99
Preservative: Condition:	Cool Cool and Intact	Date Analyzed: Analysis Requested:	06-09-99 8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	4.1	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	4.1	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 155 - 9 Landfarm. 5 Pt. Composite.

Skur L. Geren

Stacy W Sendler

CHAIN OF CUSTODY RECORD

Client / Project Name	Project Location LANDFARM	ANDFARM	ANALYSIS / P	ANALYSIS / PARAMETERS
BLAGG/AMOCO	JICABILLA CO	JICARILLA CONTRACT 155-9		
Sampler:	Client No.		ers	Hemans
REP	403410	O	lo. of the interior of the int	
Sample No./ Sample Sample Identification Date Time	Lab Number	Sample Matrix		
6:8:A];	F473	2011	- 7	SPT. COMPOSITES
				SAMPLE PRESERVE
				2001
				Date
Relinquished by: (Signature)		Date Time Rec / 1:05 /	Received by: (Signature)	69.99 705
Relinquished by: (Signature)		Hec	served by: (Signature)	
Relinquished by: (Signature)		Re	Received by: (Signature)	
		ECVIDOTECH IO	CHIOC	Sample Receipt
			- - - - -	Y N N
		5796 U.S. Highway 64	ighway 64	Received Intact
		(505) 632-0615	2-0615	Cool - Ice/Blue Ice