CA614

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

AUG 2 4 1999

PIT REMEDIATION AND CLOSURE REPORT

H. M. COCH	D CLOSURE REPORT		
Operator: CONOCO, INC.	Telephone	<u>:(505)324-58</u>	384
Address: 3315 Bloomfield Hwy., Farmingto	on, NM 87401		
Facility or Well Name: APPICHE #5			
Location: Unit or Qtr/Qtr Sec_ E_ Sec_ T_ T_26	N3W County RIO	ARRIBA	
Pit Type: Separator Dehydrator Other	ompressor		
Land Type: RANGE			
Pit Location: Pit dimensions: length	s', width 20'	_, depth	
(Attach diagram) Reference: wellhead X,			
Footage from reference: 3°	7		
Direction from reference: 30		-	
	West	South	
Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet 50 feet to 99 feet Greater than 100 feet	(20 points) (10 points) (0 points)	٥
Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Less than 100 feet Greater than 100 feet	(10 points) (0 points)	<u> </u>
Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds)	Less than 100 feet Greater than 100 feet	(10 points) (0 points)	0
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or: less than 1000 feet from all other water sources)	Yes No	(20 points) (0 points)	0
Distance To SurfaceWater: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 100 feet 100 feet to 1000 feet Greater than 1000 feet	(20 points) (10 points) (0 points)	<u> </u>
	RANKING SCORE (TOTA	L POINTS):	0

	CAGIY COMPR. PIT
Date Remediation Started:	Date Completed: 9/z/98
Remediation Method: Excavation X	Approx. cubic yards60
sections) Landfarmed	Insitu Bioremediation
Other	
(i.e. landfarmed onsite, name and location of offsite facility)	
General Description of Remedial Action: Excava	tion. BEDROCK BOTTOM, RISK ASSESSED.
Groundwater Encountered: No X Yes	Depth
Final Pit: Sample location see Attach Closure Sampling: (if multiple samples,	
attach sample results and diagram of sample Sample depth	SOUTH SIDEWALL)
locations and depths) Sample date 8 27 98	
Sample Results	
Soil: Benzene (ppm)	O.884 Water: Benzene (ppb)
Total BTEX (ppm)	17.970 Toluene (ppb)
Field Headspace (ppm)	708 Ethylbenzene (ppb)
TPH (ppm)	1,810 Total Xylenes (ppb)
Groundwater Sample: Yes No _X	_ (If yes, attach sample results)
I HEREBY CERTIFY THAT THE INFORMATION AB KNOWLEGE AND BELIEF	BOVE IS TRUE AND COMPLETE TO THE BEST OF MY
· · · · · · · · · · · · · · · · · · ·	NAME Jeffrey C. Blagg, P.E.# 11607
SIGNATURE Jeffy C. Slogg AND T	
AFTER REVIEW OF THE PIT CLOSURE INFORMAT TO THE JICARILLA APACHE TRIBE PIT CLOSURE	FION, PIT CLOSURE IS APPROVED IN ACCORDANCE ORDINANCE.
APPROVED: YES X NO (REASON)	
SIGNED: Lear Man DAT	E: 10-1-98

3003920266 CLIENT: CONOCO LOCATION NO GAGIY BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 C.O.C. NO: 6/92 (505) 632-1199FIELD REPORT: CLOSURE VERIFICATION PAGE No: / of LOCATION: NAME: APACHE WELL #: 5 PIT: COMPR. DATE STARTED: DATE FINISHED: QUAD/UNIT: E SEC: 17 TWP: 26H RNG: 3W PM: NOW CNTY: RO ST: NOW ENVIRONMENTAL NV OTR/FOOTAGE: 1520 FNL (800 FWL CONTRACTOR: TUC SPECIALIST: _ EXCAVATION APPROX. 15 FT. x 20 FT. x 10 FT. DEEP. CUBIC YARDAGE: 60 DISPOSAL FACILITY: DN-SITE REMEDIATION METHOD LANDFORM LEASE: CONTRACT #98 LAND USE: _ RANGE FORMATION: DK FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 39 FT. N30E FROM WELLHEAD. DEPTH TO GROUNDWATER: 7/00 NEAREST WATER SOURCE: >/000 NEAREST SURFACE WATER: >/000 NMOCD PANKING SCORE: ____ NMOCD TPH CLOSURE STD: 5000 PPM ✓ PIT ABANDONED SOIL AND EXCAVATION DESCRIPTION: ____ STEEL TANK INSTALLED __ FIBERGLASS TANK INSTALLED SIDEWALE - TOP HOLF CHOISTED OF MOD, YELL ORANGE SAND NOW ENHESIVE SLIGHTLY MURT, FROM BOTTON HILE - MED. TO DR. GRAY CLAY PLASTIC, JUICHTLY MOITT STIPE TO UEITY STIFF. NO APPRIENT HE ODOR OFFEETED WILD EXCAURTION STRONG HE ODOR IN EAST of SOUTH SIDEWILL OUR SAMPLES. BOTTOM- LT GRAY BEDROCK (STITLE) VERY HARD, STRONG HE ODOR IN OUM SAMPLE. RISK ASSESSED BEVILOCK Bottom FIELD 418.1 CALCULATIONS LAB NO: WEIGHT (g) ML. FREON DILUTION READING CALC. ppm SAMPLE I.D. SCALE TIME 1200 FΤ OVM PIT PERIMETER 3 PIT PROFILE RESULTS FIELD HEADSPACE PID (ppm) SAMPLE 0,0 544 708 17.7 (56) MED TO DX. GROY LAB SAMPLES ANALYSIS SZ, LAH BLEX 1500 PRSSED CALLOUT: 8/25/98-morn. ONSITE: 8/27/98 - MORN. TRAVEL NOTES:

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizonal Distance to Surface Water:

Vicinity Groundwater Depth:

Apache #5

Unit E, Sec. 17, T26N, R3W

Compressor Pit Basin Dakota

Non Vulnerable

> 1000 ft.

> 100 ft.

RISK ASSESSMENT (non-vulnerable area)

Pit remediation activities were terminated when trackhoe encountered shale bedrock at 10 feet below grade.

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

- 1. Past production fluids were contained locally by a relatively shallow shale bedrock located 10 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below shale bedrock.
- 2. Topographic information does not indicate off site lateral fluid migration near the earthen pit.
- 3. Daily discharge into the earthen pit has been terminated (pit abandoned). Prior discharge into the pit is believed to be under 5 barrels per day.
- 4. Well site located within the <u>non-vulnerable area</u> and is approximately 0.54 miles northeast of the nearest vulnerable area boundary (Bull Well Canyon wash).
 - (R r to Schmitz Ranch 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 shale 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). CONOCO requests pit closure approval on this location.



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Blagg / CONOCO	Project #:	04034-10
Sample ID:	3 @ 5'	Date Reported:	09-02-98
Laboratory Number:	D879	Date Sampled:	08-27-98
Chain of Custody No:	6192	Date Received:	08-31-98
Sample Matrix:	Soil	Date Extracted:	08-31-98
Preservative:	Cool	Date Analyzed:	09-01-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	oncentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	750	0.2
Diesel Range (C10 - C28)	1,060	0.1
Total Petroleum Hydrocarbons	1,810	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:

Apache # 5 Compressor Pit.

Menseyst Ofenen

Stacy W Sendler
Review



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / CONOCO	Project #:	04034-10
Sample ID:	3 @ 5'	Date Reported:	09-01-98
Laboratory Number:	D879	Date Sampled:	08-27-98
Chain of Custody:	6192	Date Received:	08-31-98
Sample Matrix:	Soil	Date Analyzed:	09-01-98
Preservative:	Cool	Date Extracted:	08-31-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	884	8.8
Toluene	5,900	8.4
Ethylbenzene	3,170	7.6
p,m-Xylene	5,960	10.8
o-Xylene	2,060	5.2
Total BTEX	17,970	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene Bromofluorobenzene	96 % 96 %

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:

Apache # 5 Compressor Pit..

Andrew L. Capellar

Stacy W Sendler
Review

CHAIN OF CUSTODY RECORD

6192

BLAGG CONG CO	Project Location 6	Ó	ANALYSIS	ANALYSIS / PARAMETERS	
	Client No.	* 0			
アレグ	04034-10	10	iners	Hemarks	
Sample No./ Sample Sample Identification Date Time	Lab Number	Sample	No. Conta		
Ø	7879	2012	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		۲
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Relinquished by: (Signature)		Rece	Received by: (Signature)		
150 coc's 6191 → 1193		ENVIROTECH	CH INC.	Sample Receipt	
		5796 II S Hig	hway 64	۲ 2	3
		Farmington, New Mexico 87401	nway 64 //exico 87401	Received Intact	
		(505) 632-0615	0615	Cool - Ice/Blue Ice	i



EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client: Sample ID: Laboratory Number: Sample Matrix: Preservative: Condition:	QA/QC 09-01-TPH QA/ D875 Methylene Chlori N/A N/A		Project #: Date Reported: Date Sampled: Date Received: Date Analyzed: Analysis Reques	ted:	N/A 09-02-98 N/A N/A 09-01-98 TPH
	LCal Date:	A Cal RE	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	04-28-98	3.5389E-002	3.5353E-002	0.10%	0 - 15%
Diesel Range C10 - C28	04-28-98	5.6888E-002	5.6860E-002	0.05%	0 - 15%
Blank Conc. (mg/L - mg/Kg) Gasoline Range C5 - C10 Diesel Range C10 - C28 Total Petroleum Hydrocarbons		Concentration ND ND ND		0.2 0.1 0.2	
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept, Range	
Gasoline Range C5 - C10	605	600	0.8%	0 - 30%	
Diesel Range C10 - C28	738	732	0.8%	0 - 30%	
Spike Conc. (mg/Kg) Gasoline Range C5 - C10	Sample	Spike Added	Spike Result	% Recovery	Accept. Range 75 - 125%
Diesel Range C10 - C28	738	250	986	100%	75 - 125%

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:

QA/QC for samples D875 - D880.

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Stacy W Sendler



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	09-01-BTEX QA/QC	Date Reported:	09-01-98
Laboratory Number:	D875	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-01-98
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	JCalR F _{il}	C-Cal RF: Accept Rang	1.00	Blank Conc	Detect. Limit
Benzene	4.5253E-003	4.5344E-003	0.2%	ND	0.2
Toluene	3.7550E-003	3.7663E-003	0.3%	ND	0.2
Ethylbenzene	2.0718E-003	2.0839E-003	0.6%	ND	0.2
p,m-Xylene	2.0890E-003	2.1037E-003	0.7%	ND	0.2
o-Xylene	1.6391E-003	1.6457E-003	0.4%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	uplicate. :	%Diff.	Accept Range	Detect. Limit
Benzene	81.4	82.4	1.2%	0 - 30%	8.8
Toluene	873	879	0.7%	0 - 30%	8.4
Ethylbenzene	359	362	0.8%	0 - 30%	7.6
p,m-Xylene	4.850	4,890	1.6%	0 - 30%	10.8
o-Xylene	655	665	1.4%	0 - 30%	5.2

Spike Conc. (ug/Kg)	Sample Am	ount Spiked Spi	ked Sample	% Recovery	Accept Range
Benzene	81.4	50.0	131	100%	39 - 150
Toluene	873	50.0	922	100%	46 - 148
Ethylbenzene	359	50.0	409	100%	32 - 160
p,m-Xylene	4,850	100	4,850	100%	46 - 148
o-Xylene	655	50.0	705	100%	46 - 148

ND - Parameter not detected at the stated detection limit.

References:

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

December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using

Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for samples D875 - D880.

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Review

tacy W Sendler

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: Conoco, Inc. Telephone: (505) 324-5884								
Address: 3315 Bloomfield Hwy., Farmington, NM 87401								
Facility or Well Name: APACHE # 5								
Location: Unit or Qtr/Qtr Sec E Sec 17 T Z60 R 3w County R10 ARCIE A								
Land Type: RANGE								
Date Remediation Started:								
epth To Groundwater: (pts.) _ o Final Closure Sampling:								
Distance to an Ephemeral Stream (pts.) o Sampling Date: $4/13/99$ Time: 1025								
Distance to Nearest Lake, Playa, or Watering Pond Wellhead Protection Area: (pts.) (pts.) (pts.) The results: Field Headspace (ppm) (ppm)								
HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY								
NOWLEGE AND BELIEF DATE 4/15/99 PRINTED NAME Jeffrey C. Blagg, P.E. #11607 SIGNATURE AND TITLE President								
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) DOCK JULY DATE: 6-3-99								

CONOCO BLAGG ENGINEERING, INC. LOCATION NO: CAGIU P.O. BOX 87, BLOOMFIELD, NM 87413 C.O.C. NO: 6639 (505) 632-1199FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION LOCATION: NAME: APACHE DATE STARTED: 4/13/99 WELL #: 5 PITS: COMPR. DATE FINISHED QUAD/UNIT: E SEC: 17 TWP: 260 RNG: 3W PM: NM CNTY: RA ST: NM ENVIRONMENTAL STR/FESTAGE: 3W/4 NW/4 CONTRACTOR: SPECIALIST: SOIL REMEDIATION: REMEDIATION SYSTEM: LANDFORM APPROX. CUBIC YARDAGE: ___60 LAND USE: RANGE LIFT DEPTH (ft): FELD MOTES & REMARKS: MMBIL PANKING SCORE: O NMBCD TPH CLOSURE STD: 5000 PPM 8127198 SOIL MOSTLY DK. YELL. BROWN SILTY SAND TO CLAY, NON COHESIVE TO SLIGHTLY PLASTIC, SUGHTLY MUIST TO MOIST, FIRM, MED. GRAY TO BLOCK OISCOLORATION OBSERVED & ALL SAMPLING PTS. SAMPLING DEPTH'S RANGE FROM 6-18 INCHES, PARDETIN DOOR APPARATLY ASSUCIATED W/ DISCOLORED PORTION, COLLECTED 5 PT. COMPOSITE SAMPLE FOR LAB ANALYSIS. FIELD 418.1 CALCULATIONS SAMP. TIME SAMPLE LD. LAB No: WEIGHT (g) ml. FREON DILUTION READING CALC. ppm SKETCH/SAMPLE LOCATIONS OVM RESULTS LAB SAMPLES PERIMETER FIELD HEADSPACE PID (ppm) SAMPLE ANALYSIS RESULTS 115 OUE S LE-1 65.3 2F-1 4 420 LF-1 **3** SAMPLE PT. DESIGNATION SCALE

TRAVEL NOTES: CALLOUT: NA ONSITE: 4/13 /99



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Blagg / CONOCO	Project #:	403410
Sample ID:	LF - 1	Date Reported:	04-15-99
Laboratory Number:	F018	Date Sampled:	04-13-99
Chain of Custody No:	6639	Date Received:	04-13-99
Sample Matrix:	Soil	Date Extracted:	04-14-99
Preservative:	Cool	Date Analyzed:	04-15-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

	Concentration	Det. Limit			
Parameter	Concentration (mg/Kg)	(mg/Kg)			
Gasoline Range (C5 - C10)	264	0.2			
Diesel Range (C10 - C28)	4,150	0.1			
Total Petroleum Hydrocarbons	4,420	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:

Apache #5 Landfarm. 5 Pt. Composite.

Aleur R. aleur

Stacy W Sendler

CHAIN OF CUSTODY RECORD

6639

•				Relinquished by: (Signature)	Helinquished by: (Signature)	Refinquished by: (Signature)						CF-1	dentification	Sample No./	UTW	Sampler:	BURGG/ CONO CO	Client / Project Name,
				re)	ire) $\mathcal T$	ITO)						4/13/99	Date	Sample			ono co	
												1025	Time	Sample	_			
												FOI8		Lab Number	403	Client No.	APACHE	Project Location
(505) 6	5796 U.S. Highway 64 Farmington, New Mexico 87401		ENVIROTECH I			Date Time 1	-					5012	Matrix	Sample	403410		# 5	THE BOTH OF
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EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC		Project #:		N/A	
Sample ID:	04-15-TPH QA	/QC	Date Reported:	04-15-99		
Laboratory Number:	F017		Date Sampled:		N/A	
Sample Matrix:	Methylene Chlori	ide	Date Received:	N/A		
Preservative:	N/A		Date Analyzed:	04-15-99		
Condition:	N/A		Analysis Reques	ted:	TPH	
					Accept Range	
Gasoline Range C5 - C10	03-15-99	7.6679E-002	7.6541E-002	0.18%	0 - 15%	
Diesel Range C10 - C28	03-15-99	7.2197E-002	7.2081E-002	0.16%	0 - 15%	
Blank@oneding[48]actics				Detection/Lin		
Gasoline Range C5 - C10	A TRANSPORTER	ND		0.2	#	
Diesel Range C10 - C28		ND		0.1		
_						
Total Petroleum Hydrocarbons		ND		0.2		
Duplicate Conc. (mg/kg)	en garanta		∟‰Difference	Accept Rang		
Gasoline Range C5 - C10	0.7	0.7	0.0%	0 - 30%	F%63.	
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%		
•						
Splké Conc.(mg/kg)/2006			Spike Result	& Recovery	Accept Range	
Gasoline Range C5 - C10	0.7	250	250	100%	75 - 125%	
Diesel Range C10 - C28						
	ND	250	250	100%	75 - 125%	

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:

QA/QC for samples F017 - F022.

Analyst

Review

Stacy W Sendler