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# REPORTS

DATE:

# **BLAGG ENGINEERING, INC.**

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

February 17, 1999

RECEIVED

FEB 1 9 1999

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Mr. William C. Olson -Hydrogeologist Environmental Bureau New Mexico Oil Conservation Division 2040 Pacheco State Land Building Santa Fe. New Mexico 87505

RE:

Cross Timbers Oil Co. (Amoco) Pit Closure/Groundwater Monitoring Reports

San Juan County, New Mexico

Dear Mr. Olson:

The attached reports on pit closure/groundwater monitoring at nineteen (19) previously owned Amoco well locations is being submitted for your review. These well sites have been acquired by Cross Timbers Co. as of December, 1997. The well names are listed on the following page of this correspondence. The reports for each individual well site are laid out in the following order;

- 1) Pit Closure documentation and/or a brief description of all activities which occurred during the investigation, sampling procedures, and/or interpretations, conclusions, and possible recommendations.
- A summary spreadsheet (when applicable) containing laboratory BTEX, general chemistry (if applicable), and any other pertinent information.
- 3) When applicable: site and groundwater gradient maps, boring logs, and monitor well detail schematics.
- 4) Laboratory reports for each sampling event.
- 5) Quality Assurance/Quality Control data.

A copy of this report is also being submitted to Mr. Denny Foust at the Aztec NMOCD office. If you have any questions or comments concerning this report, please contact Blagg Engineering at 632-1199.

Respectfully submitted, Blagg Engineering, Inc.

Nelson Velez.

Staff Geologist

Attachments: Pit Closure/Groundwater Monitoring Reports

xc: Denny Foust, NMOCD Aztec Office;

Nina Hutton, Cross Timbers Oil Co.

NJV/njv FEB99-PC.COV

# Cross Timbers Oil Company Pit Closure/Groundwater Monitoring Reports Well Sites being submitted, February 1999

1)	Abrams GC C # 1	Unit F, Sec. 25, T29N, R10W
,		
2)	Abrams L # 1A	Unit I, Sec. 26, T29N, R10W
3)	Anderson GC A # 1	Unit C, Sec. 28, T29N, R10W
4)	Armenta GC A # 1	Unit D, Sec. 27, T29N, R10W
5)	Baca GC A # 1	Unit H, Sec. 26, T29N, R10W
6)	Baca GC A # 1A	Unit F, Sec. 26, T29N, R10W
7)	Chavez GC C # 1R	Unit J, Sec. 23, T29N, R10W
8)	Federal GC 3-1	Unit N, Sec. 23, T29N, R10W
9)	Garcia GC B # 1E	Unit M, Sec. 21, T29N, R10W
10)	Haney GC B # 1E	Unit M, Sec. 20, T29N, R10W
11)	Hare GC C # 1	Unit M, Sec. 25, T29N, R10W
12)	Hare GC C # 1E	Unit F, Sec. 25, T29N, R10W
13)	Hare GC F # 1	Unit G, Sec. 23, T29N, R11W
14)	Lefkovitz GC B # 1	Unit A, Sec. 25, T29N, R10W
15)	Masden GC # 1	Unit A, Sec. 28, T29N, R11W
16)	Romero GC A # 1	Unit K, Sec. 27, T29N, R10W
17)	Stedje GC # 1	Unit F, Sec. 27, T30N, R12W
18)	Stedje GC # 1E	Unit A, Sec. 27, T30N, R12W
19)	Trujillo GC A # 1	Unit C, Sec. 28, T29N, R10W

CYZZT

District I
P.O. Box 1980, Hobbs, NM
District II
Drawer DD, Artesia, NM 88211
trict III
1000 Rio Brazos Rd, Aztec, NM 87410

## State of New Mexico Energy, Minerals and Natural Resources Department

SUBMIT 1 COPY TO APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTA FE OFFICE

# OIL CONSERVATION DIVISION P.O. Box 2088 Santa Fe, New Mexico 87504-2088

APPROVED

FEB 1 9 1999

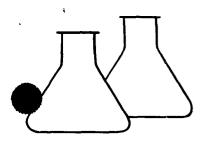
# PIT REMEDIATION AND CLOSURE REPORT

ENVIRONMENTAL BURE	AU				
Operator:	Amoco Production Company	Telephone: (505) - 326-9200			
Address:	200 Amoco Court, Farmingt	on, New Mexico 87401			
Facility Or:	GARCIA 6C	8 #/E			
Well Name					
		Sec 21 TZ9N R/QU County SAN JUAN			
Pit Type: Separ	cator Dehydrator	Other Brow			
Land Type: BLM	1, State, Fee 🔎	∠, Other			
it Location: (ttach diagram)	Reference: wellhead	th 40', width 80', depth 4'  X, other  e:			
Depth To Ground (Vertical distance contaminants to se high water elevati ground water)	e from Basonal	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 Points) Zo			
(Less than 200 fee domestic water sou	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 Sur orizontal distantakes, ponds, rive irrigation canals	nce to perennial ers, streams, creeks,	Less than 200 feet (20 points) 200 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)			
		RANKING SCORE (TOTAL POINTS): 40			

C4227 BLOW PIT

Date Remediation St	arted:	Date : Completed: 9/9/93				
Remediation Method:	Excavation $\angle$	Approx. cubic yards				
(Check all appropriate sections)	Landfarmed 🔀	Insitu Bioremediation				
	Other					
N Control of the Cont						
_	Of Remedial Action:					
Excavation	on, GROWNWATER	ENCOUNTERED.				
``						
	· · · · · · · · · · · · · · · · · · ·					
Ground Water Encoun	tered: No	Yes X Depth 4'				
Final Pit: Closure Sampling: (if multiple samples,	Sample location	see Attached Documents				
attach sample results and diagram of sample	Sample depth 4	,,				
locations and depths)	Sample date $\frac{9/7}{}$	93 Sample time /330				
	Sample Results	•				
	Benzene(ppm)					
	Total BTEX(ppm	1)				
	Field headspace					
	трн	e(ppm)				
	IPA	•				
Ground Water Sample	: Yes X No	(If yes, attach sample results)				
MY KNOWLEDGE AND		ABOVE IS TRUE AND COMPLETE TO THE BEST				
DATE 9/9/93 SIGNATURE BASI	PRINTED N AND TITLE	IAME Buddy D. Shaw Environmental Coordinator				

LAB RESULTS REPORTED TO PAUL VELASQUEZ 9.13-93, NO CLOSURE LUCCOMMENDATED	ods-Romy
ENVIROTECH Inc	7
	(COC 2981)
5796 US HWY 64, FARMINGTON, NM 87401 (505) 632-0615	C4222
FIFT DEPORT OF CHARLES VEDICATION	JOB No <u>92140</u>
FIELD REPORT: CLOSURE VERIFICATION	PAGE No/_ of _/_
COUNTRY DESCRIPTION OF THE PROPERTY OF THE PRO	TE STARTED <u>9-7-93</u> ATE FINISHED <u>9-7-93</u>
SEC. 21 THE 2NV RIEG. 757 BIR. 1557/194 CIVIL. SS CT. 1007. THE	
EQUIPMENT USED: TRACK - HOE	IVIRONMENTAL RMY
SOIL REMEDIATION: QUANTITY: 40'x 80' x >4' deep	
DISPOSAL FACILITY: ON'SITE	
LAND USE: RANGE-PREVATE WEASE	
SURFACE CONDITIONS: GROUNDWATER IN PIT. NO VISIBLE CONTAM.	*
FIELD NOTES & REMARKS: PITALOCATED APPROXIMATELY 55 YARDS 57	O'E FERM VELLUENT
DEPTH TO GROUNDWATER: 4'	
NEAREST WATER SOURCE: NK FROCS AKUNDAND IN WATER IN P	7 <del>4 4</del>
NEAREST SURFACE WATER: 200 MARSH NO VISIBLE FREE PRODUCT OF HE OF	
LAS SAMPLY PIT WATER TAKEN FO	
THE PROPERTY OF THE PROPERTY O	/ G10 2/0
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FIELD 418.1 CALCULATIONS	
SAMPLE I.D. LAB No: WEIGHT (g) ML. FPEON DILUTION READING CAL	C ppm
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SCALE SUPERIC	
PIT PERIMETER OVM RESULTS PIT F	PROFILE
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10 AID (ppm)	
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whose of	<del></del>
Son Pedro Sm/Acc - Moc	PERCONSH BEOWN
SILTY	SAND PLUS HTGH -
(1) (1) (1)	LE CONTENT. FIRM
LINK WET.	NO Visible HC Stational.
PRODE TANK	·
- Robe	_
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<u> </u>	
TRAVEL MOTES CALCUIT.	
TRAVEL NOTES CALLOUT: ONSITE	



5796 US Highway 64-3014 • Farmington, New Mexico 87401 PHONE: (505) 632-0615 • FAX: (505) 632-1865

### EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	Pit Water	Date Reported:	09-09-93
Laboratory Number:	6039	Date Sampled:	09-07-93
Sample Matrix:	Water	Date Received:	09-07-93
Preservative:	HgCl and Cool	Date Analyzed:	09-09-93
Condition:	Cool and Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Limit (ug/L)
Benzene	ND	0.2
Toluene	0.9	0.4
Ethylbenzene	ND	0.2
p,m-Xylene	2.5	0.3
o-Xylene	0.6	0.3

SURROGATE RECOVERIES: Parameter Percent Recovery Trifluorotoluene 91 % Bromofluorobenzene 102 %

Method: Method 5030A, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992

> Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Garcia GC "B" 1E Blow Pit Comments: C4222

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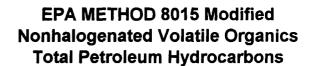
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Cy 22 C. ANALISISTANAMELENS  2 Soine F. S.  Cheed by: (Signature)  C	Client/Project Name			Project Location	,	Bear	. 1	1		40000	ETEDO		
Sample Sample Lab Number Sample A 26 M Marity  97-42 /370 6039		0		GARETH GC	te	BF	64	7221	`	LTSIS/FAHAN	ובו בתס		
Sample Sample Lab Number Sample 29 B	mpler: (Signature)			Chain of Custody Tape	No.			-				Remarks	
Sample Sample Lab Number Sample 2 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	der Im You	Æ.		-	•.		to eneni	12					
47-52 1370 6039 NATER 2 \( \text{L} \) \( \text{L}	Sample No./ Identification	Sample Date	Sample Time	Lab Number	Samp	pie rix	No. Conta	1.ST		,			
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Date   Time   Received by: (Signature)   P. 7.													
Date Time Received by: (Signature)  Party W. C. Cholod.  Received by: (Signature)  Received by: (Signature)  Received by: (Signature)  Received by: (Signature)  Farmington, New Mexico 87401  (505) 632-0615													
Date Time Received by: (Signature)  Part													
Date   Time   Received by: (Signature)   P-7-   Received by: (Signature)   P-7-   Received by: (Signature)   Received by: (Signature)   P-7-   S796 U.S. Highway 64-3014   Farmington, New Mexico 87401   (505) 632-0615								<u> </u>					
## Company of the Control of the Con	nquished by: (Signature)				_		ved by: (Si	gnature)	•			Date	Time
Heceived by: (Signature)  Received by: (Sign	De 4m Spec	TY TY		<b>B</b> .		188	Ch	Lake	7			9-7-931	1445
ENVIROTECH INC. 5796 U.S. Highway 64-3014 Farmington, New Mexico 87401 (505) 632-0615	nquished by: (Signature)					Recei	ved by: (Si	gnature)	<b>b</b> ~				
	nquished by: (Signature)					Teces	ved by: (Si	gnature)	9 -				
					ENVI 5796 U Farmingto (	ROTECH S. Highway on, New Me) (505) 632-061	I INC. 64-3014 kico 8740 15	<b>#</b>	•	~ .		day went was	ean juan repro Form 576-61

P.O. BOX 87, BLO	INEERING, INC. DOMFIELD, NM 87413 632-1199	C.O.C. NO: <u>564/</u>
FIELD REPORT: LANDFARM/COM	POST PILE CLOSURE	VERIFICATION
LOCATION: NAME: GARCIA GC B WELL #:		DATE STARTED: 12.4.97 DATE FINISHED:
QUAD/UNIT(M) SEC: ZI TWP: 29 N RNG: 10 W QTR/FOOTAGE: SW/4 SW/4 CONTRACTOR:		ENVIRONMENTAL SPECIALIST: NV /EP.
SOIL REMEDIATION:		
REMEDIATION SYSTEM: LANDFARM		
LAND USE: PANGE	_ LIFT DEPTH (ft):	<u>6"-1Z"</u>
FIELD NOTES & REMARKS:  DEPTH TO GROUNDWATER: <a href="#">SOURCE</a> NEAREST WATER SOURCE	. >1000' NEAREST SURFACE	E WATER: < 2001
NMOCD RANKING SCORE: 40 NMOCD TPH CLOSURE ST	D: 100 PPM	
SOIL IS DRY DARKYELDW W/ LIGHT BROWN S		•
TOOK STOT COMPOSITE FOR LAB ANGL	48 1 <b>3</b> .	
FIELD 418	3.1 CALCULATIONS	
SAMP. TIME SAMPLE I.D. LAB No: WEIGHT	(g) mL. FREON DILUTION READING	CALC. ppm
· · · · · · · · · · · · · · · · · · ·		
SKETCH/SAMPLE LOCATIONS		
met A		
MARY MARK	OVM RESULTS I	LAB SAMPLES
	SAMPLE FIELD HEADSPACE SAMPLE PID (ppm) ID	ANALYSIS TIME RESULTS
	LF-1 0.0 LF-1	8015 0820 ND
SEP DWELL S		
PEDD PROD TANK		
PIT		
	SCALE	
	0 FT	
TRAVEL NOTES: CALLOUT: ~//A	ONSITE: 12.4.97	820





Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 1	Date Reported:	12-09-97
Laboratory Number:	C645	Date Sampled:	12-04-97
Chain of Custody No:	5641	Date Received:	12-05-97
Sample Matrix:	Soil	Date Extracted:	12-08-97
Preservative:	Cool	Date Analyzed:	12-08-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

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

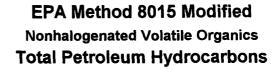
Comments:

Garcia GC B #1E Landfarm. 5 Pt. Composite.

Alexen L. Geren

Review Stacy W Sendler





# **Quality Assurance Report**

Client:	QA/QC	Project #:	N/A
Sample ID:	12-08-TPH QA/QC	Date Reported:	12-09-97
Laboratory Number:	C640	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	12-08-97
Condition:	N/A	Analysis Requested:	TPH

Calibration	I-Cal Date	I-Cal RF:	C-Cal RF: 9	4 Difference	Accept. Range
Gasolinè Range C5 - C10	10-28-97	2.9715E-04	3.0698E-04	3.31%	0 - 15%
Diesel Range C10 - C28	10-28-97	2.9167E-04	3.0288E-04	3.84%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	1,384	1,315	5.0%	0 - 30%
Diesel Range C10 - C28	388	369	5.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	1,384	250	1,629	100%	75 - 125%
Diesel Range C10 - C28	388	250	637	100%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Wast

SW-846, USEPA, December 1996.

Comments:

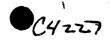
QA/QC for samples C640 and C642 - C648.

Alexa L. Grecen

Stacy W Sendler

# CHAIN OF CHATODY RECORD

		' 		Ω	CHAIN OF CUSTODY RECORD	TODY R	ECORI	0					
	Client/Project Name			Project Location	CANDERRY					,			
	BLAGG/ Amoco	000		GARCIA GC	い ア#不	,			ANALTO	ANAL ( SIS/PANAME I ENS	יה ו האט זה ו האט		
	Sampler: (Signature)			7	l				_			Remarks	-
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	Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. Conta	TP1 (80	ż				Pesan.	cost
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. •	उ कि क्य	2495-8895	7		ENVIROTECH INC. 5796 U.S. Highway 64-3014 Farmington, New Mexico 87401 (505) 632-0615	CH IO way 64-301 Mexico 87 2-0615	ĝ <b>*</b> Ω		1				



(June 1990)

FORM APPROVED **UNITED STATES** Form 3160-5 Budget Bureau No. 1004-0135 DEPARTMENT OF THE INTERIOR Expires: March 31, 1993 5. Lease Designation and Serial No. BUREAU OF LAND MANAGEMENT SUNDRY NOTICES AND REPORTS ON WELLS 6. If Indian, Allottee or Tribe Name Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT-" for such proposals 7. If Unit or CA, Agreement Designation SUBMIT IN TRIPLICATE 1. Type of Well 8. Well Name and No. Oil Gas Well GARCIA GC B #1E 2. Name of Operator 9. API Well No. Amoco Production Company 3004524649 3. Address and Telephone No. 10. Field and Pool, or Exploratory Area
BRSIN DARSTA 200 Amoco Court, Farmington, N.M. 87401 Tel: (505) 326-9200 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) W/4 5W/4 SEC. Z], T 29 N, R 10W, N.M.P.M.
790'FSL'/590 FWL 11. County or Parish, State SAN JUAN, N.M. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION Notice of Intent Change of Plans Abandonment Recompletion **New Construction** Subsequent Report Non-Routine Fracturing Plugging Back Casing Repair Water Shut-Off Final Abandonment Notice Altering Casing Conversion to Injection Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.) 13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\* Pit closure verification - see attached documentation.

O BLOW PIT - ABANDONED BROWNDWITTER ENCOUNTELED CLOSED UNDER AMOCO'S GW PLAN (SEC. 1.2).

14. I hereby cortify that the folegoing is true and correct Signed	TINE LIVIRO. COORDINATER	7/25/98
(This space for Federal or State office use)	Internal Control of Co	Date
Approved by Conditions of approval, if any:	Titlé	Date
	·	

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction