3R - 130

REPORTS

DATE:

2005

XTO ENERGY

3R0130

May 15, 2006

Mr. Glenn von Gonten
Hydrologist – Groundwater Remediation
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Annual Groundwater Remediation Reports

Dear Mr. von Gonten:

XTO Energy Inc. (XTO) is presenting a second submission of the Annual Groundwater Remediation Report in accordance with the NMOCD approved Groundwater Management Plan (GMP), which will complete this years reporting. Enclosed are summary reports with analytical data, summary tables, site maps, potentiometric surface diagrams and recommendations/proposed actions for:

- Baca Gas Com A #1A
- Frost, Jack B #2
- Haney Gas Com B #1E
- Hare Gas Com B #1E
- Masden Gas Com #1E
- McDaniel Gas Com B #1E
- Snyder Gas Com #1A
- Stedje Gas Com #1
- Sullivan Frame A #1E

Thank you for your review of the reports and allowing some flexibility with this years reporting schedule. If you have any questions please do not hesitate to contact me at (505) 566-7942.

Sincerely,

Lisa Winn
Environmental Specialist
San Juan Division

cc: Mr. Denny Foust, Environmental, NMOCD District III Office, Aztec, NM
File – San Juan Groundwater

3R0130

XTO ENERGY INC.

ANNUAL GROUNDWATER REPORT

2005

SULLIVAN FRAME A #1E
(A) SECTION 30 – T29N – R10W, NMPM
SAN JUAN COUNTY, NEW MEXICO

PREPARED FOR:
MR. GLENN VON GONTEN
NEW MEXICO OIL CONSERVATION DIVISION

APRIL 2006

TABLE OF CONTENTS

XTO Energy Inc.
Sullivan Frame A #1E
NE/4 NE/4 S30, T29N, R10W

Pit Closure Date: **6/7/94 (Documentation Included)**

Monitor Well Installations: **10/14/99**

Monitor Well Sampling: **11/3/99**

Historical Information:

- June 1994- Groundwater impacts were found during a pit closure of a site operated by Amoco Production Company (Amoco). Approximately 160 cubic yards of soil was excavated and landfarmed on site.
- January 1998- XTO Energy Inc. (XTO) acquired the Sullivan Frame A #1E from Amoco.
- October 1999- Monitor wells MW1, MW2 and MW3 were installed to evaluate groundwater quality.
- February 2000- Original request submitted for site closure.
- December 2000- Correspondence was received from New Mexico Oil Conservation Division (NMOCD) denying the request for closure pending submittal of four consecutive quarters of sample analyses.
- April 2006- XTO submits annual groundwater report recommending continued monitoring.

Groundwater Monitor Well Sampling Procedures:

Groundwater samples were collected from site monitor wells (Figure 1) following US EPA: SW-846 protocol. Samples were collected using new disposable bailers and placed in laboratory supplied containers and stored in a cooler on ice. The samples were delivered to an accredited environmental laboratory according to chain-of-custody procedures. The samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) per US EPA Method 8021B and general water chemistry per US EPA Method 600/4-79-020. Analytical results are summarized on Tables 1 & 2. Waste generated (groundwater) during monitor well sampling and development was placed in the produced water separator tank located on the well site.

Water Quality and Gradient Information:

Groundwater elevation data (Figure 2) indicates that groundwater trends towards the north.

XTO understands the initial assessment of groundwater impact came from samples collected from groundwater pooled in the bottom of the pit during pit closure activities. The initial samples demonstrated high levels of dissolved BTEX in the groundwater. In 1999 three groundwater monitoring wells were installed to delineate the extent of hydrocarbon impact to groundwater. Groundwater samples collected from the

groundwater monitoring wells exhibited no detectable levels of BTEX constituents above the detection limits of laboratory equipment (0.2 ug/L). Site sampling was terminated and request for closure was submitted.

Summary:

Analytical data from the November 1999 groundwater monitoring well sampling event indicated that groundwater quality standards were observed. Correspondence received from NMOCD in 2000 requested four consecutive quarters of testing in compliance with XTO's Groundwater Management Plan. XTO proposes to place this site on a quarterly sampling schedule.

TABLE 1

XTO ENERGY INC. GROUNDWATER MONITOR WELL LAB RESULTS

SUBMITTED BY BLAGG ENGINEERING, INC.

SULLIVAN FRAME A #1E - DEHY. PIT
UNIT A, SEC. 30, T29N, R10W

DRAFTED: DECEMBER 4, 1999

FILENAME: (1E-4Q-99.WK4) NJV

								BTEX EPA METHOD 8020 (PPB)			
SAMPLE DATE	MONITOR WELL No:	D.T.W. (ft)	T.D. (ft)	TDS mg/L	COND. umhos	pH	PRODUCT (in)	Benzene	Toluene	Ethyl Benzene	Total Xylene
03-Nov-99	MW #1	17.10	30.00	1,910	3,840	7.1		ND	ND	ND	ND
03-Nov-99	MW #2	14.04	25.00	1,220	2,445	7.0		ND	ND	ND	ND
03-Nov-99	MW #3	16.80	30.00	995	1,988	7.7		ND	ND	ND	ND

TABLE 2

GENERAL WATER QUALITY

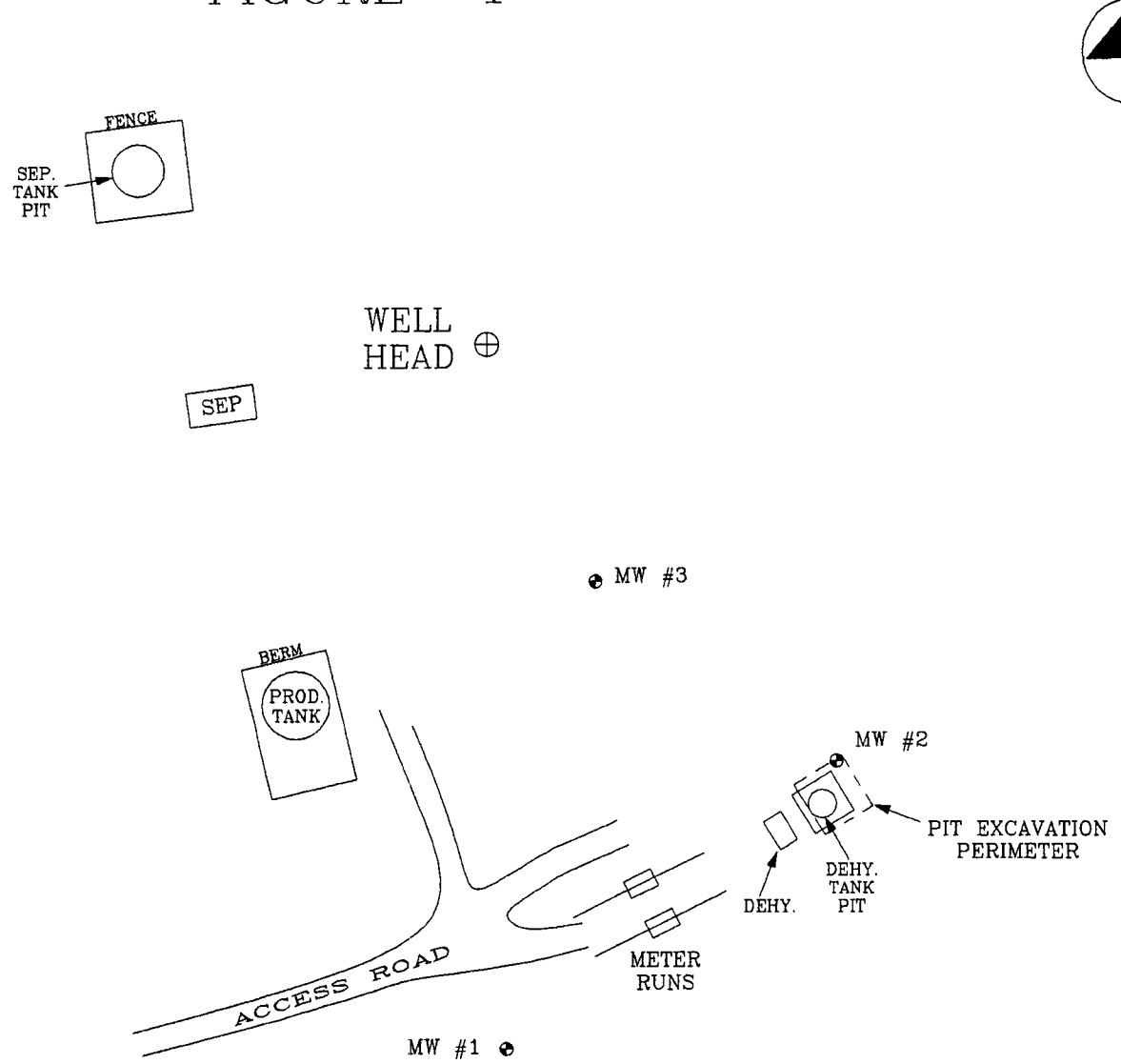
XTO ENERGY INC.

SULLIVAN FRAME A #1E

SAMPLE DATE : November 3 , 1999

PARAMETERS	MW # 1	MW # 2	MW # 3	Units
LAB pH	7.11	7.04	7.65	s. u.
LAB CONDUCTIVITY @ 25 C	3,840	2,445	1,988	umhos / cm
TOTAL DISSOLVED SOLIDS @ 180 C	1,910	1,220	995	mg / L
TOTAL DISSOLVED SOLIDS (Calc)	1,860	1,209	971	mg / L
SODIUM ABSORPTION RATIO	16.0	7.9	7.2	ratio
TOTAL ALKALINITY AS CaCO3	192	304	422	mg / L
TOTAL HARDNESS AS CaCO3	202	265	217	mg / L
BICARBONATE as HCO3	192	304	422	mg / L
CARBONATE AS CO3	< 1	< 1	< 1	mg / L
HYDROXIDE AS OH	< 1	< 1	< 1	mg / L
NITRATE NITROGEN	4.2	0.2	0.1	mg / L
NITRITE NITROGEN	0.050	0.005	0.010	mg / L
CHLORIDE	1.4	4.2	6.7	mg / L
FLUORIDE	1.91	1.03	1.70	mg / L
PHOSPHATE	0.3	0.3	1.6	mg / L
SULFATE	1,133	625	373	mg / L
IRON	< 0.001	< 0.001	< 0.001	mg / L
CALCIUM	66.6	83.2	81.4	mg / L
MAGNESIUM	8.78	14.0	3.24	mg / L
POTASSIUM	3.72	1.66	5.61	mg / L
SODIUM	524	295	242	mg / L
CATION / ANION DIFFERENCE	0.03	0.01	0.03	%

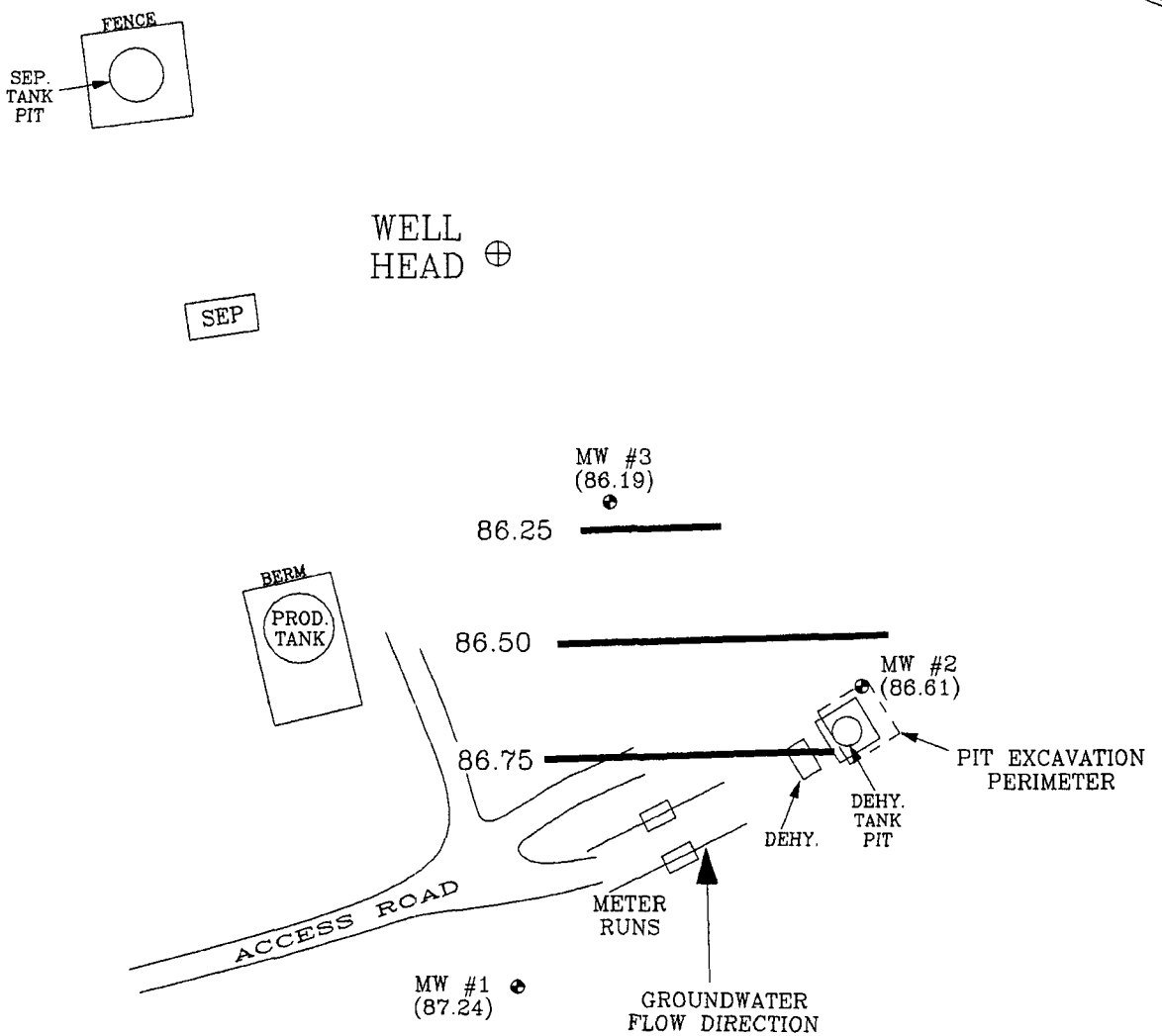
FIGURE 1



MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (BRUNTON COMPASS AND LASER RANGE FINDER). ALL OTHER STRUCTURES DISPLAYED ON THE SITE MAP ARE SOLELY FOR REFERENCE AND ARE NOT TO SCALE.

XTO ENERGY INC. SULLIVAN FRAME A #1E NE/4 NE/4 SEC. 30, T29N, R10W SAN JUAN COUNTY, NEW MEXICO	BLAGG ENGINEERING, INC. CONSULTING PETROLEUM / RECLAMATION SERVICES P.O. BOX 87 BLOOMFIELD, NEW MEXICO 87413 PHONE: (505) 632-1199	PROJECT: MW INSTALL. DRAWN BY: NJV FILENAME: SFA1E-SM.SKD	SITE MAP 10/99

FIGURE 2
(4th 1/4, 1999)



XTO ENERGY INC. SULLIVAN FRAME A #1E NE/4 NE/4 SEC. 30, T29N, R10W SAN JUAN COUNTY, NEW MEXICO	BLAGG ENGINEERING, INC. CONSULTING PETROLEUM / RECLAMATION SERVICES P.O. BOX 87 BLOOMFIELD, NEW MEXICO 87413 PHONE: (505) 632-1199	PROJECT: MW SAMPLING DRAWN BY: NJV FILENAME: SFA1E-GW.SKD	GROUNDWATER GRADIENT MAP 11/99

FIGURE 3

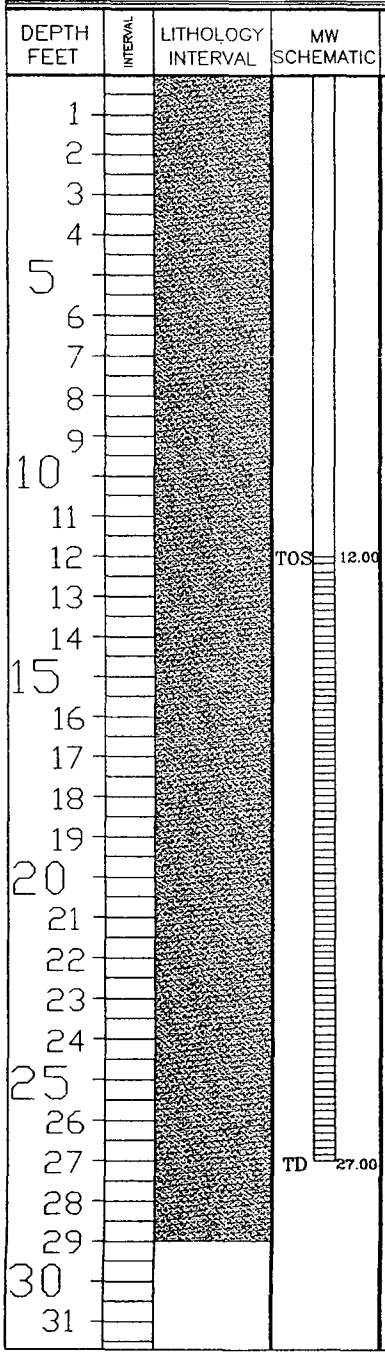
BLAGG ENGINEERING, Inc.

P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

BORE / TEST HOLE REPORT

BORING #..... BH - 1
MW #..... 1
PAGE #..... 1
DATE STARTED 10/14/99
DATE FINISHED 10/14/99
OPERATOR..... DE
PREPARED BY NJV

CLIENT: XTO ENERGY INC.
LOCATION NAME: SULLIVAN FRAME A #1E
CONTRACTOR: BLAGG ENGINEERING, INC.
EQUIPMENT USED: MOBILE DRILL RIG (ENVIROTECH CME61)
BORING LOCATION: 202 FT., S1.5E FEET FROM WELL HEAD.



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 3.00 FT. ABOVE GROUND SURFACE.

MODERATE YELLOWISH BROWN SAND CONTINUOUS THROUGHOUT ENTIRE BORING, NON COHESIVE, SLIGHTLY MOIST TO SATURATED, FIRM, NO APPARENT DISCOLORATION OBSERVED OR HYDROCARBON ODOR DETECTED PHYSICALLY (0.00 - 29.00 FT. INTERVAL).

▼ GW DEPTH ON 11/3/99 = 13.80 FT. (APPROX.) FROM GROUND SURFACE.

NOTE: ▒ - SAND.
TOS - TOP OF SCREEN FROM GROUND SURFACE.
TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW - GROUND WATER.

DRAWING: BH-1.SKD	DATE: 1/28/00	DWN BY: NJV

FIGURE 4

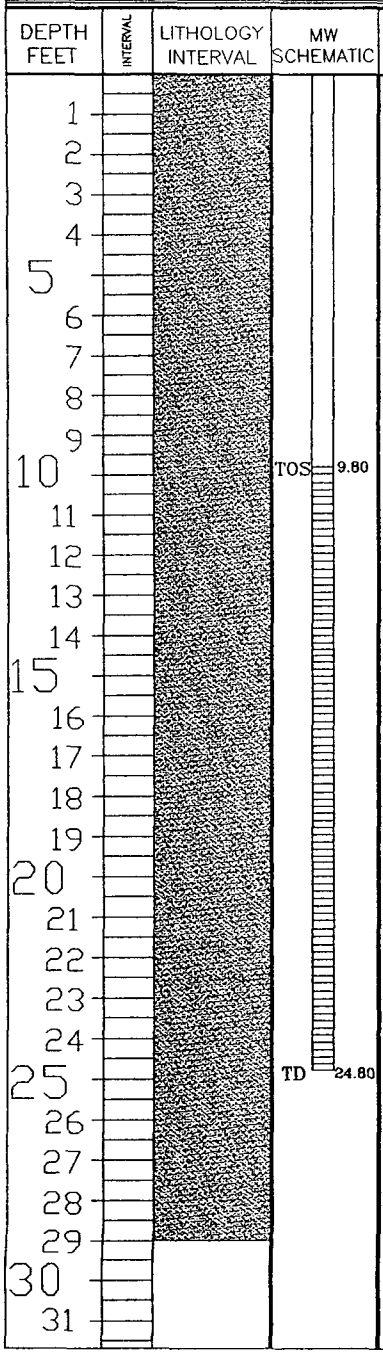
BLAGG ENGINEERING, Inc.

P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

BORE / TEST HOLE REPORT

BORING #..... BH - 2
MW #..... 2
PAGE #..... 2
DATE STARTED 10/14/99
DATE FINISHED 10/14/99
OPERATOR..... DE
PREPARED BY NJV

CLIENT: XTO ENERGY INC.
LOCATION NAME: SULLIVAN FRAME A #1E
CONTRACTOR: BLAGG ENGINEERING, INC.
EQUIPMENT USED: MOBILE DRILL RIG (ENVIROTECH CME61)
BORING LOCATION: 156 FT., S40E FEET FROM WELL HEAD.



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 0.20 FT. ABOVE GROUND SURFACE.

MODERATE YELLOWISH BROWN SAND CONTINUOUS THROUGHOUT ENTIRE BORING, NON COHESIVE, SLIGHTLY MOIST TO SATURATED, FIRM, NO APPARENT DISCOLORATION OBSERVED OR HYDROCARBON ODOR DETECTED PHYSICALLY (0.00 – 29.00 FT. INTERVAL).

▼ GW DEPTH ON 11/3/99 = 13.84 FT. (APPROX.) FROM GROUND SURFACE.

NOTE: ▨ – SAND.
TOS – TOP OF SCREEN FROM GROUND SURFACE.
TD – TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW – GROUND WATER.

DRAWING: BH-2.SKD	DATE: 1/28/00	DWN BY: NJV

FIGURE 5

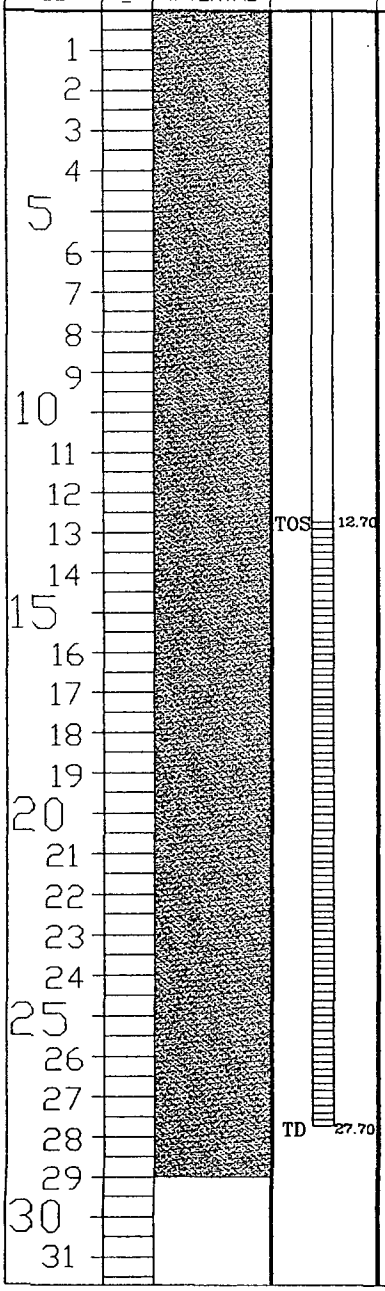
BLAGG ENGINEERING, Inc.

P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

BORE / TEST HOLE REPORT

BORING # BH - 3
MW # 3
PAGE # 3
DATE STARTED 10/14/99
DATE FINISHED 10/14/99
OPERATOR DE
PREPARED BY NJV

CLIENT: XTO ENERGY INC.
LOCATION NAME: SULLIVAN FRAME A #1E
CONTRACTOR: BLAGG ENGINEERING, INC.
EQUIPMENT USED: MOBILE DRILL RIG (ENVIROTECH CME61)
BORING LOCATION: 75 FT., S24.5E FEET FROM WELL HEAD.



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.80 FT. ABOVE GROUND SURFACE.

MODERATE YELLOWISH BROWN SAND CONTINUOUS THROUGHOUT ENTIRE BORING, NON COHESIVE, SLIGHTLY MOIST TO SATURATED, FIRM, NO APPARENT DISCOLORATION OBSERVED OR HYDROCARBON ODOR DETECTED PHYSICALLY (0.00 – 29.00 FT. INTERVAL).

▼ GW DEPTH ON 11/3/99 = 14.30 FT. (APPROX.) FROM GROUND SURFACE.

NOTE: ▨ – SAND.
TOS – TOP OF SCREEN FROM GROUND SURFACE.
TD – TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW – GROUND WATER.

DRAWING: BH-3.SKD | DATE: 1/28/00 | DWN BY: NJV

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : CROSS TIMBERS OIL CO. **CHAIN-OF-CUSTODY # :** 7307

LOCATION : SULLIVAN FRAME A # 1E **LABORATORY (S) USED :** ENVIROTECH, INC.

Date : November 3, 1999 **SAMPLER :** R E P

Filename : 11-03-99.WK4 **PROJECT MANAGER :** N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	104.34	87.24	17.10	30.00	0935	7.4	1,800	6.50	-
2	100.65	86.61	14.04	25.00	0955	7.4	1,300	5.50	-
3	102.99	86.19	16.80	30.00	1020	7.7	1,300	6.50	-

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Fair to poor recovery in all MW 's listed above . Collected BTEX and anion / cation samples for all MW 's listed above .

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW #1	Date Reported:	11-07-99
Chain of Custody:	7307	Date Sampled:	11-03-99
Laboratory Number:	G362	Date Received:	11-03-99
Sample Matrix:	Water	Date Analyzed:	11-04-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**ND**	**1**	**0.2**
Toluene	**ND**	**1**	**0.2**
Ethylbenzene	**ND**	**1**	**0.2**
p,m-Xylene	**ND**	**1**	**0.2**
o-Xylene	**ND**	**1**	**0.1**
Total Xylene	**ND**		
Total BTEX	**ND**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**100 %**
	Bromofluorobenzene	**100 %**

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: **Sullivan Frame A #1E.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW #2	Date Reported:	11-07-99
Chain of Custody:	7307	Date Sampled:	11-03-99
Laboratory Number:	G363	Date Received:	11-03-99
Sample Matrix:	Water	Date Analyzed:	11-04-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**ND**	**1**	**0.2**
Toluene	**ND**	**1**	**0.2**
Ethylbenzene	**ND**	**1**	**0.2**
p,m-Xylene	**ND**	**1**	**0.2**
o-Xylene	**ND**	**1**	**0.1**
Total Xylene	**ND**		
Total BTEX	**ND**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**101 %**
	Bromofluorobenzene	**101 %**

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: **Sullivan Frame A #1E.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW #3	Date Reported:	11-07-99
Chain of Custody:	7307	Date Sampled:	11-03-99
Laboratory Number:	G364	Date Received:	11-03-99
Sample Matrix:	Water	Date Analyzed:	11-04-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**ND**	**1**	**0.2**
Toluene	**ND**	**1**	**0.2**
Ethylbenzene	**ND**	**1**	**0.2**
p,m-Xylene	**ND**	**1**	**0.2**
o-Xylene	**ND**	**1**	**0.1**
Total Xylene	**ND**		
Total BTEX	**ND**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**97 %**
	Bromofluorobenzene	**97 %**

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: **Sullivan Frame A #1E.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW #1	Date Reported:	11-08-99
Laboratory Number:	G362	Date Sampled:	11-03-99
Chain of Custody:	7307	Date Received:	11-03-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	11-05-99
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		Units
pH	**7.11**	s.u.		
Conductivity @ 25° C	**3,840**	umhos/cm		
Total Dissolved Solids @ 180C	**1,910**	mg/L		
Total Dissolved Solids (Calc)	**1,860**	mg/L		
SAR	**16.0**	ratio		
Total Alkalinity as CaCO3	**192**	mg/L		
Total Hardness as CaCO3	**202**	mg/L		
Bicarbonate as HCO3	**192**	mg/L	3.15	meq/L
Carbonate as CO3	**<1**	mg/L	0.00	meq/L
Hydroxide as OH	**<1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**4.2**	mg/L	0.07	meq/L
Nitrite Nitrogen	**0.050**	mg/L	0.00	meq/L
Chloride	**1.4**	mg/L	0.04	meq/L
Fluoride	**1.91**	mg/L	0.10	meq/L
Phosphate	**0.3**	mg/L	0.01	meq/L
Sulfate	**1,133**	mg/L	23.58	meq/L
Iron	**<0.001**	mg/L		
Calcium	**66.6**	mg/L	3.32	meq/L
Magnesium	**8.78**	mg/L	0.72	meq/L
Potassium	**3.72**	mg/L	0.10	meq/L
Sodium	**524**	mg/L	22.79	meq/L
Cations			26.94	meq/L
Anions			26.94	meq/L
Cation/Anion Difference			**0.03%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Water And Waste Water", 18th ed., 1992.

Comments: **Sullivan Frame A #1E.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW #2	Date Reported:	11-08-99
Laboratory Number:	G363	Date Sampled:	11-03-99
Chain of Custody:	7307	Date Received:	11-03-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	11-05-99
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		Units
pH	**7.04**	s.u.		
Conductivity @ 25° C	**2,445**	umhos/cm		
Total Dissolved Solids @ 180C	**1,220**	mg/L		
Total Dissolved Solids (Calc)	**1,209**	mg/L		
SAR	**7.9**	ratio		
Total Alkalinity as CaCO3	**304**	mg/L		
Total Hardness as CaCO3	**265**	mg/L		
Bicarbonate as HCO3	**304**	mg/L	4.98	meq/L
Carbonate as CO3	**<1**	mg/L	0.00	meq/L
Hydroxide as OH	**<1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**0.2**	mg/L	0.00	meq/L
Nitrite Nitrogen	**0.005**	mg/L	0.00	meq/L
Chloride	**4.2**	mg/L	0.12	meq/L
Fluoride	**1.03**	mg/L	0.05	meq/L
Phosphate	**0.3**	mg/L	0.01	meq/L
Sulfate	**625**	mg/L	13.01	meq/L
Iron	**<0.001**	mg/L		
Calcium	**83.2**	mg/L	4.15	meq/L
Magnesium	**14.0**	mg/L	1.15	meq/L
Potassium	**1.66**	mg/L	0.04	meq/L
Sodium	**295**	mg/L	12.83	meq/L
Cations			18.18	meq/L
Anions			18.18	meq/L
Cation/Anion Difference			**0.01%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Water And Waste Water", 18th ed., 1992.

Comments: **Sullivan Frame A #1E.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW #3	Date Reported:	11-08-99
Laboratory Number:	G364	Date Sampled:	11-03-99
Chain of Custody:	7307	Date Received:	11-03-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	11-05-99
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		Units
pH	**7.65**	s.u.		
Conductivity @ 25° C	**1,988**	umhos/cm		
Total Dissolved Solids @ 180C	**995**	mg/L		
Total Dissolved Solids (Calc)	**971**	mg/L		
SAR	**7.2**	ratio		
Total Alkalinity as CaCO3	**422**	mg/L		
Total Hardness as CaCO3	**217**	mg/L		
Bicarbonate as HCO3	**422**	mg/L	6.92	meq/L
Carbonate as CO3	**<1**	mg/L	0.00	meq/L
Hydroxide as OH	**<1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**0.1**	mg/L	0.00	meq/L
Nitrite Nitrogen	**0.010**	mg/L	0.00	meq/L
Chloride	**6.7**	mg/L	0.19	meq/L
Fluoride	**1.70**	mg/L	0.09	meq/L
Phosphate	**1.6**	mg/L	0.05	meq/L
Sulfate	**373**	mg/L	7.76	meq/L
Iron	**<0.001**	mg/L		
Calcium	**81.4**	mg/L	4.06	meq/L
Magnesium	**3.24**	mg/L	0.27	meq/L
Potassium	**5.61**	mg/L	0.14	meq/L
Sodium	**242**	mg/L	10.53	meq/L
Cations			15.00	meq/L
Anions			15.00	meq/L
Cation/Anion Difference			**0.03%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Water And Waste Water", 18th ed., 1992.

Comments: **Sullivan Frame A #1E.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

CHAIN OF CUSTODY RECORD

7301

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG / CROSS TIMBERS	SULLIVAN FRAME #1E	
Sampler: REP	Client No. 403410	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX (8021)	ANION/ CATION					Remarks
MW#1	11.3.99	0935	G3162	WATER	3	✓	✓					
MW#2	11.3.99	0955	G3163	WATER	3	✓	✓					
MW#3	11.3.99	1020	G3164	WATER	3	✓	✓					
												BTEX SAMPLES
												PRESERVE - HgCl2/ COOL
												A/C SAMPLES
												PRESERVE - COOL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	11.3.99	1300	[signature]	11.3.99	1300
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

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Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	11-04-BTEX QA/QC	Date Reported:	11-07-99
Laboratory Number:	G362	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-04-99
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc.	Detect. Limit
Benzene	1.5053E-001	1.5102E-001	0.32%	ND	0.2
Toluene	3.0995E-001	3.1001E-001	0.02%	ND	0.2
Ethylbenzene	8.9920E-002	9.0028E-002	0.12%	ND	0.2
p,m-Xylene	2.7841E-001	2.7847E-001	0.02%	ND	0.2
o-Xylene	2.6467E-002	2.6546E-002	0.30%	ND	0.1

Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept Limit
Benzene	ND	ND	0.0%	0 - 30%
Toluene	ND	ND	0.0%	0 - 30%
Ethylbenzene	ND	ND	0.0%	0 - 30%
p,m-Xylene	ND	ND	0.0%	0 - 30%
o-Xylene	ND	ND	0.0%	0 - 30%

Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	ND	50.0	50.0	100%	39 - 150
Toluene	ND	50.0	50.0	100%	46 - 148
Ethylbenzene	ND	50.0	50.0	100%	32 - 160
p,m-Xylene	ND	100.0	100	100%	46 - 148
o-Xylene	ND	50.0	50.0	100%	46 - 148

ND - Parameter not detected at the stated detection limit.

* - Administrative level set at 80 - 120.

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 G362 - G367.**

Analyst

Review

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B0007

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

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

PIT REMEDIATION AND CLOSURE REPORT

Operator: AMOCO PRODUCTION COMPANY **Telephone:** 326-9200

Address: 200 AMOCO COURT, FARMINGTON, NM 87401

Facility Or: Well Name: SULLIVAN FRAME GU A1E

Location: Unit or Qtr/Qtr Sec A Sec 30 T 29N R 10W County SAN JUAN

Pit Type: Separator ___ Dehydrator ✓ Other ___

Land Type: BLM ___, State ___, Fee ✓, Other ___

Pit Location: (Attach diagram)
Pit dimensions: length 16', width 17', depth 16'
Reference: wellhead ✓, other ___
Footage from reference: 160'
Direction from reference: 42 Degrees ___ East ___ North of ___ West ✓ South

Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water)	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 Points)	20
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)	0
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet (20 points) 200 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)	10
	RANKING SCORE (TOTAL POINTS):	30

B0007 DEHY. PIT

Date Remediation Started: _____ **Date Completed:** 6/22/94 mv

Remediation Method: (Check all appropriate sections) Excavation ✓ Approx. cubic yards 160

Landfarmed ✓ Insitu Bioremediation ___

Other _____

Remediation Location: (ie. landfarmed onsite, name and location of offsite facility) Onsite ✓ Offsite _____

General Description Of Remedial Action: EXCAVATION, GROUNDWATER IMPACT. GW PUMPED & DISPOSED BY TRIPLE S PRIOR TO LAST SAMPLING EVENT (DISPOSAL NOTED TO AN UNKNOWN INJECTION WELL). mv

Ground Water Encountered: No ___ Yes ✓ Depth 14'

Final Pit: Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location SEE "CLOSURE VERIFICATION" SHEET MULTIPLE SAMPLING EVENTS

Sample depth _____

Sample date _____ Sample time _____

Sample Results

Benzene(ppm) _____

Total BTEX(ppm) _____

Field headspace(ppm) _____

TPH _____

Ground Water Sample: Yes ✓ No ___ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE ~~6/15/94~~ mv 2/15/00

SIGNATURE B J Shaw

PRINTED NAME AND TITLE Buddy D Shaw Environmental Coordinator

RESULTS GIVEN TO BOB McCOY 6/9/94 & 6/13/94

CLIENT: AMOCO	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: B0007 C.O.C. NO: 1564

FIELD REPORT: CLOSURE VERIFICATION

JOB No:
PAGE No: 1 of 1

LOCATION: NAME: SULLIVAN FRAME GU WELL #: A 1E PIT: OEHV
QUAD/UNIT: A SEC: 30 TWP: 29N RNG: 10W BM: NM CNTY: SJ ST: NM
QTR/FOOTAGE: NE/4 NE/4 990' FNL 790' FEL CONTRACTOR:

DATE STARTED: 6/8/94
DATE FINISHED: 6/10/94
ENVIRONMENTAL SPECIALIST: NV

SOIL REMEDIATION: EXCAVATION APPROX. 16 FT. x 17 FT. x 16' FT. DEEP.
DISPOSAL FACILITY: LANDFARMED ON-SITE CUBIC YARDAGE: 160
LAND USE: RANGE LEASE: FEE

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 160 FEET S42E FROM WELLHEAD.
DEPTH TO GROUNDWATER: <50 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: <1000
NMOCD RANKING SCORE: 30 NMOCD TPH CLOSURE STD: 100 PPM Fm. - DK. Fm - CH-MV DUAL COMPLETION

SOIL AND EXCAVATION DESCRIPTION: DK. YELL, ORANGE TO BROWN SAND, ⑤@7' - LT. OLIVE GRAY, NON-COHESIVE, SLIGHTLY MOIST, LOOSE TO FIRM, BOTTOM SAMPLE HAD STRONG HC ODOR.

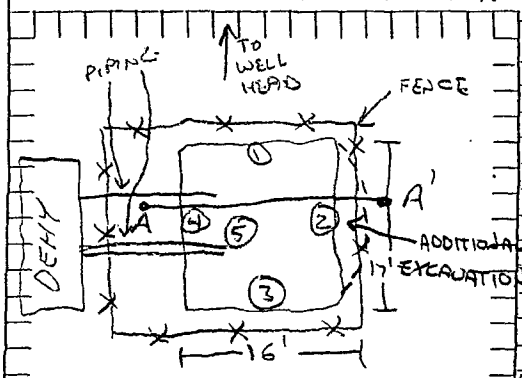
6/10/94 - NORTH SIDEWALL REVEALED APPROX. 5-6' OF DISCOLORED SOIL BELOW 7-8' OF POSSIBLY CLEAN OVERBURDENED. DISCOLORATION APPEARS TO BE TAPERING OFF TOWARDS EAST-NORTHEAST DIRECTION AS WELL AS THE EAST-SOUTHEAST DIRECTION.

FIELD 418.1 CALCULATIONS

SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

SCALE
0 FT

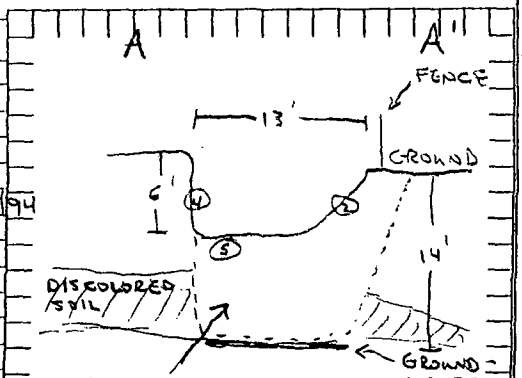
PIT PERIMETER



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 4'	0.2
2 @ 3'	0.9
3 @ 5'	0.7
4 @ 4'	0.1
5 @ 7'	498
6 @ GW (14')	512 6/10/94
	LAB SAMPLES
⑤ @ 7'	TPH (418.1)
	BTEX (8020)
⑥ @ GW (14')	BTEX (8020) 6/10/94
⑦ @ GW (14')	BTEX (8020) 6/22/94

PIT PROFILE



TRAVEL NOTES: CALLOUT: 6/8/94 ONSITE: 6/8/94

ON SITE TECHNOLOGIES, LTD.

TOTAL PETROLEUM HYDROCARBONS

Attn:	*Nelson Velez*	Date:	6/9/94
Company:	*Blagg Engineering*	*Lab ID:*	*1564*
Address:	*P.O. Box 87*	*Sample No.*	*1654*
City, State:	*Bloomfield, NM 87413*	*Job No.*	*2-1000*

Project Name:	***Amoco Production***				
Project Location:	***Sullivan Frame GU A1E; 5 @ 7ft. - Dehy. Pit***				
Sampled by:	NV	Date:	6/7/94	Time:	1150
Analyzed by:	TT	Date:	6/8/94		
Type of Sample:	*Soil*				

Laboratory Analysis

Laboratory Identification	***Sample Identification***	***Total Petroleum Hydrocarbons***
1654-1564	*Amoco Production* ***Sullivan Frame GU A1E; 5 @ 7ft. - Dehy. Pit***	32500 *mg/kg*

Method - *EPA Method 418.1 Total Petroleum Hydrocarbons*

Approved by: J-L

Date: 6/9/94

FAX: (505) 327-1496 ▪ 24 HR. – (505) 327-7105 ▪ OFF.: (505) 325-8786

3005 NORTHRIDGE DRIVE ▪ SUITE F ▪ P. O. BOX 2606 ▪ FARMINGTON, NEW MEXICO 87499

ON SITE TECHNOLOGIES, LTD.

AROMATIC VOLATILE ORGANICS

Attn:	*Nelson Velez*	Date:	6/10/94
Company:	*Blagg Engineering*	*Lab ID:*	*1568*
Address:	*P.O. Box 87*	*Sample ID:*	*1660*
City, State:	*Bloomfield, NM 87413*	*Job No.*	*2-1000*

Project Name:	***Sullivan Frame G.U. A1E***				
Project Location:	***6 @ GW (14')***				
Sampled by:	NV	Date:	6/10/94	Time:	8:30
Analyzed by:	DLA	Date:	6/10/94		
Sample Matrix:	*Liquid*				

Aromatic Volatile Organics

Component	****Measured Concentration ug/L***
Benzene	*90*
Toluene	*1,094*
Ethylbenzene	*72*
m,p-Xylene	*1,148*
o-Xylene	*221*
TOTAL	*2,625 ug/L*

ND - Not Detectable
*** - Method Detection Limit, 2 ug/L*

Method *- SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: Bill Vinal
Date: 6/10/94

FAX: (505) 327-1496 ▪ 24 HR. – (505) 327-7105 ▪ OFF.: (505) 325-8786
3005 NORTHRIDGE DRIVE ▪ SUITE F ▪ P. O. BOX 2606 ▪ FARMINGTON, NEW MEXICO 87499

B0007

ON SITE TECHNOLOGIES, LTD.

AROMATIC VOLATILE ORGANICS

Attn:	*Nelson Velez*	Date:	6/23/94
Company:	*Blagg Engineering Inc.*	*Lab ID:*	*1601*
Address:	*P.O. Box 87*	*Sample ID:*	*1727*
City, State:	*Bloomfield, NM 87413*	*Job No.*	*2-1000*

Project Name:	***Sullivan Frame GU A1E***				
Project Location:	***2 @ GW (14') - Dehy. Pit***				
Sampled by:	NV	Date:	6/22/94	Time:	10:25
Analyzed by:	DLA	Date:	6/23/94		
Sample Matrix:	*Liquid*				

Aromatic Volatile Organics

Component	****Measured Concentration ug/L***
Benzene	*ND*
Toluene	*2.3*
Ethylbenzene	*ND*
m,p-Xylene	*ND*
o-Xylene	*ND*
TOTAL	*2.3 ug/L*

ND - Not Detectable
*** - Method Detection Limit, 2 ug/L*

Method *- SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: [signature]
Date: 6/23/94

FAX: (505) 327-1496 ▪ 24 HR. – (505) 327-7105 ▪ OFF.: (505) 325-8786
3005 NORTHRIDGE DRIVE ▪ SUITE F ▪ P. O. BOX 2606 ▪ FARMINGTON, NEW MEXICO 87499

ON SITE TECHNOLOGIES LIMITED

CHAIN OF CUSTODY RECORD

№ 1564

Date: 6/8/94

Page 1 of 1

657 W. Maple • P. O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

B0007

Purchase Order No.:	Reference No.:		
SEND INVOICE TO: Name		REPORT RESULTS TO: Name	NELSON VELEZ — Title PE
Company	BLAGG ENGINEERING — Dept.	Company	SAME
Address	P.O. BOX 87	Mailing Address	SAME
City, State, Zip	BLOOMFIELD, NM 87413	City, State, Zip	SAME
		Telephone No.	632-1199 — Telefax No.

Special Instructions: SULLIVAN HOME GL AIE

Sampler: Nelson Velez

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE/ GRAB	PRESERVATIVES	Number of Containers	TPH (418.1)	BTEX (8020)	Remarks (matrix)
SQ 1' - DEHY PIT	6/8/94 1250	GRAB	-	1	✓	✓	IF TPH < 100 RUN BTEX
1654 - 1564							

Relinquished by: Nelson Velez	Date/Time 6/8/94 1431	Received by: Nelson T. Velez	Date/Time 6/8/94 1431
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: _____ Date _____
(Client Signature Must Accompany Request)

Rush	5 Working Days	10 Working Days	Sampling Location:

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

ON SITE TECHNOLOGIES LIMITED

657 W. Maple ▪ P. O. Box 2606 ▪ Farmington, NM 87499
LAB: (505) 325-5667 ▪ FAX: (505) 325-6256

CHAIN OF CUSTODY RECORD

№ 1568

Date: 6/10/94

Page 1 of 1

B0007

Purchase Order No.:	Reference No.:		
SEND INVOICE TO: Name		REPORT RESULTS TO: Name	Title
Company: BLAGG ENGINEERING	Dept.	Company: SAME	
Address: P.O. BOX 87		Mailing Address: SAME	
City, State, Zip: BLOOMFIELD, NM 87413		City, State, Zip: SAME	
		Telephone No.: 632-1199	Telefax No.

Special Instructions: SULLIVAN FRAME G.W. AIE

Sampler: Nelson Velez

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE/ GRAB	PRESERVATIVES	Number of Containers	ANALYSIS REQUESTED: BTEX (8020)	Remarks (matrix)
(6) @ GW (14')	6/6/94 0830	GRAB	HgCl	2	✓	
1660 - 1568						

Relinquished by: Nelson Velez	Date/Time 6/6/94 1017	Received by:	Date/Time 6/10/94 1017
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: _____ Date _____
(Client Signature Must Accompany Request)

Rush	5 Working Days	10 Working Days	Sampling Location:

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

ON SITE TECHNOLOGIES LIMITED

657 W. Maple ▪ P. O. Box 2606 ▪ Farmington, NM 87499
LAB: (505) 325-5667 ▪ FAX: (505) 325-6256

CHAIN OF CUSTODY RECORD

Date: 6/22/94

No. 1601

Page 1 of 1

B007

Purchase Order No.:	Reference No.:		
SEND INVOICE TO: Name		REPORT RESULTS TO: Name	Nelson Velez — Title PG
Company	Blagg Engineering — Dept.	Company	same
Address	P.O. Box 87	Mailing Address	same
City, State, Zip	Bloomfield, NM 87401	City, State, Zip	same
		Telephone No.	632-1199 — Telefax No.

Special Instructions: Sullivan Frame GC AIE

Sampler: Nelson Velez

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE/ GRAB	PRESERVATIVES	Number of Containers	ANALYSIS REQUESTED: BTEX (602)										Remarks (matrix)
(2) @ GW (14') - OFHY PIT	6/22/94 1027	GRAB	HgCl	2	✓		1727-1601								

Relinquished by: Nelson Velez	Date/Time 6/22/94 1417	Received by: Tony Taylor	Date/Time 6/22/94 1417		
Relinquished by:	Date/Time	Received by:	Date/Time		
Relinquished by:	Date/Time	Received by:	Date/Time		
Method of Shipment:		Rush	5 Working Days	10 Working Days	Sampling Location:
Authorized by: _____ Date _____ (Client Signature Must Accompany Request)					

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

CLIENT: AMOCO

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

LOCATION NO: 80007
C.O.C. NO: 5633

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: SULLIVAN FRAME A WELL #: 1E PITS: DEHY
QUAD/UNIT: A SEC: 30 TWP: 29N RNG: 10W PM: NM CNTY: SJ ST: NM
QTR/FOOTAGE: NE¼ NE¼ CONTRACTOR: P&S

DATE STARTED: 11-26-97
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: NV/EP

SOIL REMEDIATION:

REMEDIATION SYSTEM: LANDFARM
APPROX. CUBIC YARDAGE: 160
LAND USE: RANGE
LIFT DEPTH (ft): NA

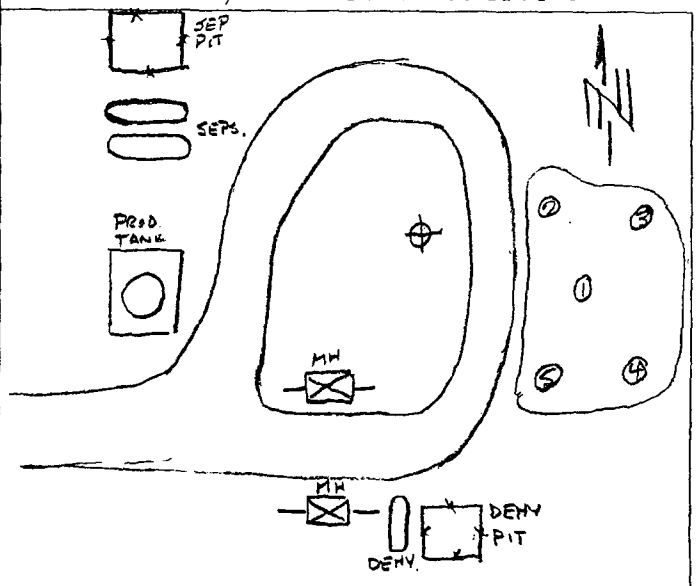
FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: <50' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: <1000'
NMOCD RANKING SCORE: 30 NMOCD TPH CLOSURE STD: 100 PPM
SOIL IS A DARK YELLOW W/ LIGHT BROWN SILTY SAND DRY
NO STAIN OR HC ODOR TOOK 5PT COMP. FROM LANDFARM AREA
FOR LAB ANALYSIS

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 ID	FIELD HEADSPACE PID (ppm)
LF-1	0.0

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	8015	1045	ND

SCALE
0 FT

TRAVEL NOTES: CALLOUT: N/A ONSITE: 11-26-97 1045

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 1	Date Reported:	12-05-97
Laboratory Number:	C620	Date Sampled:	11-26-97
Chain of Custody No:	5633	Date Received:	12-03-97
Sample Matrix:	Soil	Date Extracted:	12-03-97
Preservative:	Cool	Date Analyzed:	12-04-97
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: **Sullivan Frame C # 1E Landfarm. 5 Pt. Composite.**

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

5633

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
BLAGG / AMOCO	LANDFARM SULLIVAN FRAME A #1E	

Sampler: (Signature)	Chain of Custody Tape No.
Ed. Potter 9/15	04034-10

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (8015)						Remarks
												PRESERV. - COOL
LF-1	11/26/97	1045	C620	SOIL	1	V						5 PT. COMPOSITE
				SAMPLE	RECEIVED COOL & INTACT DLH							

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Ed Potter 9/15	12/2/97	0700	Nelson Velez	12/2/97	0700
Relinquished by: (Signature)			Received by: (Signature)		
Nelson Velez	12/3/97	0817	Anna L. Aguirre	12-3-97	0817
Relinquished by: (Signature)			Received by: (Signature)		

Ref COC's 5632 - 5637

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	12-04-PM-TPH QA/QC	Date Reported:	12-05-97
Laboratory Number:	C619	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	12-04-97
Condition:	N/A	Analysis Requested:	TPH

Calibration	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline 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	**ND**	**ND**	**0.0%**	**0 - 30%**
Diesel Range C10 - C28	**ND**	**ND**	**0.0%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**ND**	**250**	**249**	**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 Wast SW-846, USEPA, December 1996.

Comments: **QA/QC for samples C619 - C625.**

Analyst

Review

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