

**EPFS GROUNDWATER PITS
1998 CLOSURE REPORT**

DEPUTY OIL & GAS INSPECTOR

AUG 16 1999

**SAN JUAN 28-6 #79 (MV)
Meter/Line ID - 72265**

RECEIVED
APR - 2 1999

SITE DETAILS

**Legals - Twn: 27N Rng: 6W
NMOC Hazard Ranking: 40
Operator: BURLINGTON RESOURCES**

**Sec: 11 Unit: M
Land Type: FEDERAL**

**OIL CON. DIV.
DIST. 3**

PREVIOUS ACTIVITIES

**Site Assessment: Mar-95 Excavation: Mar-95 (240cy) Soil Boring: Jul-95
Re-Excavation: Aug-95 (686cy) Soil Boring: Mar-97 Monitor Well: Mar-97**

The pit was excavated to 12 feet beneath ground surface (bgs) and a composite soil sample was collected from the excavation bottom and four walls. Approximately 240 cubic yards were removed during excavation. The headspace soil reading from the excavation bottom was 306 ppm. Soil analytical results were as follows; benzene - 2.92 mg/kg, total BTEX - 277 mg/kg, TPH (418.1) 1900 mg/kg.

One soil boring was drilled in the center of the former pit and encountered contaminated soils deeper than 12 feet bgs. No samples were collected during this drilling event.

The pit was re-excavated to 19 feet beneath ground surface (bgs) and a composite soil sample was collected from the excavation bottom and four walls. Groundwater was encountered at approximately 19 feet bgs. Approximately 686 cubic yards of impacted soil were removed during re-excavation. The headspace soil reading from the excavation bottom was 340 ppm. Soil analytical results were as follows; benzene - <0.5 mg/kg, total BTEX - < 78.0 mg/kg, TPH (418.1) 3360 mg/kg.

One monitor well was installed in the center of the former pit. Groundwater was encountered at 22 feet bgs and a monitoring well was installed. No soil samples were collected, as groundwater was encountered. Quarterly groundwater monitoring was initiated on 8/14/97 and continued through 8/10/98. Groundwater analytical data are presented in Table 1. Groundwater data prior to 1998 has been previously submitted in the 1997 Annual Report, along with boring logs and monitoring well installation diagrams.

CONCLUSIONS

Initial groundwater analytical data from MW-1 were slightly above New Mexico Groundwater Quality Commission standards for benzene (10 ppb) at 16.2 ppb and the first quarter of quarterly sampling was slightly over standards at 10.2 ppb. Quarterly groundwater samples collected during the last four quarters were all below standards for BTEX compounds.

Based on groundwater samples there appears to be minimal impact to groundwater at this site.

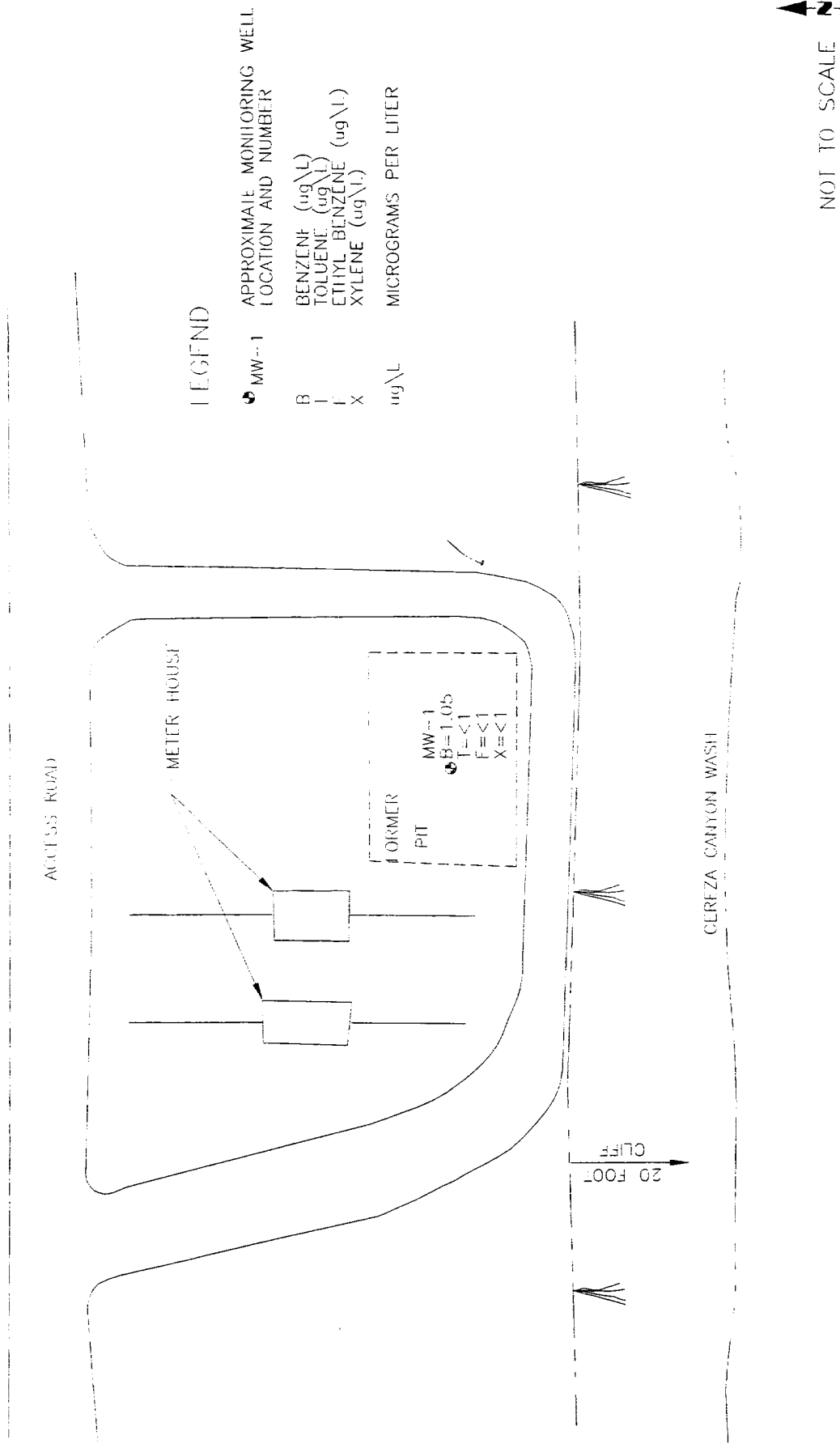
RECOMMENDATIONS

- Following OCD approval for closure, MW-1 will be abandoned following OCD approved abandonment procedures.



TITLE: SAN JUAN 28 6 #79 PM
METER 72265
8/10/98

DWG: TMM	DES: CC	PROJECT NO.: 17520
CHKD: CC	APRD:	EPFS GW PITS
DATE: 3/23/99	REV: 0	FIGURE 1



FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 72265 Location: San Juan 28-6 # 79 m.v
 Operator #: 1987 Operator Name: Meridian P/L District: Bloomfield
 Coordinates: Letter: M Section 11 Township: 27 Range: 06
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator ☒ Location Drip: ☒ Line Drip: _____ Other: _____
 Site Assessment Date: 3/10/95 Area: 10 Run: 52

NMOCD Zone:

(From NMOCD
Maps)

Inside

Outside

Land Type:

BLM

State

Fee

Indian

☒ (1)

☐ (2)

☐ (3)

☒ (1)

☐ (2)

Depth to Groundwater

Less Than 50 Feet (20 points)

50 Ft to 99 Ft (10 points)

Greater Than 100 Ft (0 points)

☒ (1)

☐ (2)

☐ (3)

Wellhead Protection Area :

Is it less than 1000 ft from wells, springs, or other sources of fresh water extraction? , or ; Is it less than 200 ft from a private domestic water source? ☐ (1) YES (20 points) ☒ (2) NO (0 points)

Horizontal Distance to Surface Water Body

Less Than 200 Ft (20 points)

200 Ft to 1000 Ft (10 points)

Greater Than 1000 Ft (0 points)

☒ (1)

☐ (2)

☐ (3)

Name of Surface Water Body Cerza Canyon Wash

(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)

Distance to Nearest Ephemeral Stream ☐ (1) < 100' (Navajo Pits Only)

☐ (2) > 100'

TOTAL HAZARD RANKING SCORE: 40 POINTS

SITE ASSESSMENT

REMARK

Remarks : Red line shows Inside Topo shows Inside VZ
1 pit on loc. Old Rehy, also loc. Drip pit. belongs to EPNG
Will close pit

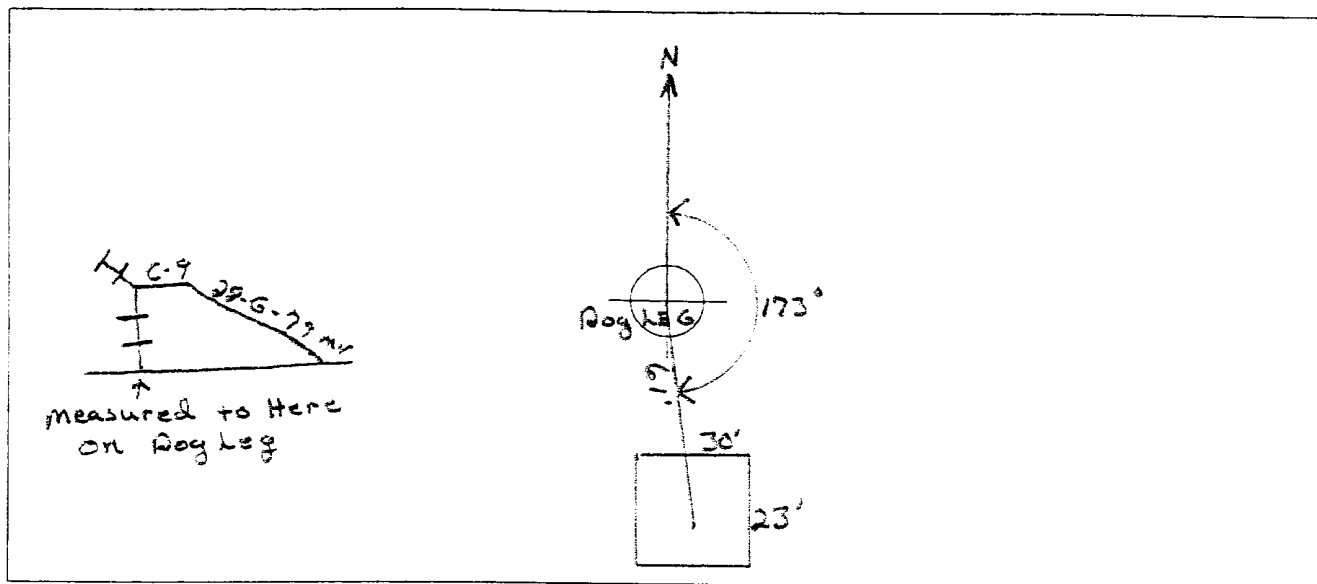
Dig + Haul

(003100) 04/08/04

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 173° Footage from ^{Dog Leg}~~Wellhead~~ 61'
 b) Length : 30' Width : 23' Depth : 3'



REMARKS

Remarks :

Photos: 10:27

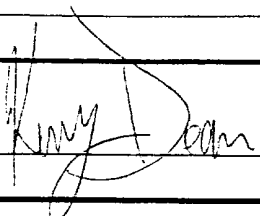
Could not locate Well Head, measured to Dog Leg
 C-9 28-G-79-MV

Completed By:

James J. Penner
 Signature

3/10/95
 Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	Meter: <u>72265</u> Location: <u>SAN JUAN 28-6 #79 MV</u> Coordinates: Letter: <u>M</u> Section: <u>11</u> Township: <u>27</u> Range: <u>06</u> Or Latitude _____ Longitude _____ Date Started : <u>3/29/95</u> Run: <u>10</u> <u>52</u>
FIELD OBSERVATIONS	Sample Number(s): <u>KD 399</u> Sample Depth: <u>12'</u> Feet Final PID Reading <u>625 ppm</u> PID Reading Depth: <u>12'</u> Feet Yes No Groundwater Encountered ☐ ☒ Approximate Depth _____ Feet
CLOSURE	Remediation Method : Excavation Onsite Bioremediation Backfill Pit Without Excavation ☒ ☐ ☐ Approx. Cubic Yards <u>240</u> Soil Disposition: Envirotech ☐ Other Facility ☐ Name: _____ ☒ Tierra Pit Closure Date: <u>3/29/95</u> Pit Closed By: <u>BEI</u>
REMARKS	Remarks : <u>Excavated pit to 12', TOOK p.i.D Sample,</u> <u>closed pit.</u>
Signature of Specialist: <u></u>	



FIELD SERVICES LABORATORY
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD 399	946765
MTR CODE SITE NAME:	WVC 3/1/95 72265	N/A
SAMPLE DATE TIME (Hrs):	3-29-95	1425
SAMPLED BY:	N/A	
DATE OF TPH EXT. ANAL.:	4/4/95	4/4/95
DATE OF BTEX EXT. ANAL.:	4/4/95	4/5/95
TYPE DESCRIPTION:	CL	Dark brown sand & clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	2.92	MG/KG	0.78125		2.56	20
TOLUENE	66.3	MG/KG	I		I	I
ETHYL BENZENE	7.49	MG/KG	I		I	I
TOTAL XYLENES	200	MG/KG	I		I	I
TOTAL BTEX	277	MG/KG				
TPH (418.1)	1900	MG/KG			2.07	28
HEADSPACE PID	625	PPM				
PERCENT SOLIDS	86.1	%				

-- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 --

The Surrogate Recovery was at
1 %:

97.9 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Date:

4/8/95



CHAIN OF CUSTODY RECORD

[illegible]

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Phase II Drill

Borehole # BH-1
Well # _____
Page 1 of 1

Project Name EPNG Pits
Project Number 14509 Phase 80T 6000
Project Location San Juan 28-6 #79 MW, 72265

Elevation _____
Borehole Location 127, R6, S. 11, M
GWL Depth _____
Logged By S. Kelly
Drilled By R. Padilla
Date/Time Started 7/12/95, 1300
Date/Time Completed 7/12/95, 1415

Well Logged By S. Kelly
Personnel On-Site R. Padilla, F. Rivera, P. Chadey
Contractors On-Site _____
Client Personnel On-Site _____
Drilling Method 4 1/4" ID HSA
Air Monitoring Method CGI, PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU BZ BH S			Drilling Conditions & Blow Counts
0				Backfill to 12'						
5										
10										
15	1	15- 16.5	1.5' 1.5'	silty SAND, gray, fine to med sand, loose damp.		16'				
20	2	20- 22	1.3' 2.0'	silty CLAY, dark brown, non plastic, soft, damp.		17'				
25				SAND, dk. grey, fine to med sand, loose, wet.						
30				Bottom - 22						
35										
40										

79
230
57
1320.
Hit water
at approx. 20'.
1330. no heads space
taken,
due to wet sample
water level
at 19'3"

Comments: No sample taken or well installed due to appearance of
contamination at shallow water table. Further source
remediation is possible.

Geologist Signature Sarah Kelly

GENERAL

Date Started : 8-14-95 Area: 10 Run: 52

OLD OBSERVATIONS

Final Dimensions: Length 33 Width 31 Depth 19

CLOSURE

Pit Closure Date: 08-18-95 Pit Closed By: Philip Enr

ACKS

Remarks : Dig to 19' ground water was only a small trickle, not enough to pull a sample. Could not dig deeper, due to cave off's. Back-filled pit Phase III

Signature of Specialist: James F. Fennor

not to
be



FIELD SERVICES LABORATORY
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

SAMPLE NUMBER:	Field ID	Lab ID
MTR CODE SITE NAME:	5P49	947235
SAMPLE DATE TIME (Hrs):	72265	San Juan 28-6 #79 MV
PROJECT:	08-15-95	10:00
DATE OF TPH EXT. ANAL.:	Phase III	
DATE OF BTEX EXT. ANAL.:	8/17/95	8/17/95
TYPE DESCRIPTION:	8/18/95	8/18/95
	VC	Dark brown sand & clay

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	< .5	MG/KG		F		
TOLUENE	2.9	MG/KG				
ETHYL BENZENE	3.5	MG/KG				
TOTAL XYLENES	71.6	MG/KG				
TOTAL BTEX	78.0	MG/KG				
TPH (418.1)	3360	MG/KG			199 27.03	28
HEADSPACE PID	340	PPM				
PERCENT SOLIDS	84.5	%				

-- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 --

Surrogate Recovery was at 117% for this sample All QA/QC was acceptable.

ative:

Benzene Taken from FID.

DF = Dilution Factor Used

Approved By:

JP

Date:

8/24/95



CHAIN OF CUSTODY RECORD

[illegible]

RECORD OF SUBSURFACE EXPLORATION

PHILIP ENVIRONMENTAL SERVICES INC.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # BH- 2

Well # 1

Page 1 of 1

Project Name EPFS GW PITS

Project Number 17520 Phase 6007.77

Project Location SAN JUAN 28-6 UNIT # 79 MV - 72265

Well Logged By D CESARK

Personnel On-Site D CHARLEY, C MAIZ

Contractors On-Site

Client Personnel On-Site

Drilling Method 4 1/4" ID HSA

Air Monitoring Method PID, CGI

Elevation

Borehole Location T27R 6-S 11-Ltr M

GWL Depth 22' BGS

Logged By D CESARK

Drilled By REGINA K PADILLA

Date/Time Started 3/13/97 - 0830

Date/Time Completed " - 0900

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM BZ BH S			Drilling Conditions & Blow Counts
0				BACKFILL						
5				TO						
10				19'						
15										
20				GWC 22'						
25										
30				TD=32'						
35										
40										

Comments:

INSTALLED BH-2 ~10' EAST OF BH-1. ENCOUNTERED GWC 22' BGS. OVER-DRAINED 10' & COMPLETED MW-1 @ 32' BGS. NO SAMPLES COLLECTED. PLEASE REFER TO SITE SKETCH & WELL COMP. DIAGRAM.

Geologist Signature

[Signature]

(505) 325-2262 FAX (505) 325-2366

Borehole # 2
Well # 1
Page 1 of 1

Project Name EPFS GW PITS
Project Number 17520 Phase 6008-77
Site Location SAN JUAN 28-6 #79-72265

Elevation _____
Well Location T 27N-R 6W-S 11-L 1M
GWL Depth 22' BGS
Installed By ~~AD JONES~~ K PADILLA

On-Site Geologist D CESARK
 Personnel On-Site D CHARLEY, C MAIZ
 Contractors On-Site _____
 Client Personnel On-Site _____

Date/Time Started 3/13/97-0900
Date/Time Completed " 1030

Depths in Reference to Ground Surface		
Item	Material	Depth (feet)
Top of Protective Casing		
Bottom of Protective Casing		
Top of Permanent Borehole Casing		N/A
Bottom of Permanent Borehole Casing		N/A
Top of Concrete		
Bottom of Concrete		
Top of Grout	CEMENT	-2
Bottom of Grout	"	-12
Top of Well Riser	SCH 40 PIC	+3'
Bottom of Well Riser	"	-17'
Top of Well Screen	.010 SLOT	-17'
Bottom of Well Screen	"	-32'
Top of Peltonite Seal	ENVIR. SEAL	-12'
Bottom of Peltonite Seal	"	-14'
Top of Gravel Pack	10-20 S. SAND	-14'
Bottom of Gravel Pack	"	-32'
Top of Natural Cave-In		N/A
Bottom of Natural Cave-In		N/A
Top of Groundwater		-22'
Total Depth of Borehole		-32'

Top of Protective Casing

Top of Riser

Ground Surface

+3'

-0'-

Top of Seal

-12'

Top of Gravel Pack

-14'

Top of Screen

-17'

Bottom of Screen

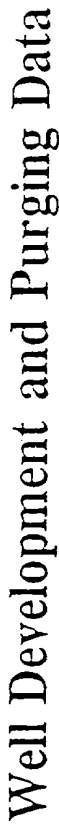
-32'

Bottom of Borehole

-32'

Comments:

Geologist Signature



Well Development and Purging Data

Well Number MW-1

Page 1 of 1

Project Name GW PITS Project Manager C CHANCE Project No. 17520
Client Company EPES Phase Task No. 60003.77

Water Volume Calculation

- Initial Depth of Well (feet) 32' ~~X~~ BGS
Initial Depth to Water (feet) 19' BGS
Height of Water Column in Well (feet) 13'

Pump
Bailer

Item	Water Volume In Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		8.5	
Gravel Pack			
Drilling Fluids			
Total			43.5

Water Removal Data

[illegible]

Circle the date and time that the development criteria are met.

Developer's Signature(s) _____ Date 4/14/97 Reviewer _____ Date _____



Water Sampling Data

Location No. MW-1Serial No. WSD-Group List Number Sample Type: ☒ Groundwater ☐ Surface Water ☐ Other Date 4/14/97Project Name EPFS GW PITS Project No. 17520Project Manager C CHANCE Phase/Task No. 6003.77Site Name SAN JUAN 28-6 #79 - 722605

Sampling Specifications

Requested Sampling
Depth Interval (feet)
Requested Wait Following
Development/Purging (hours)

Initial Measurements

Time Elapsed From Final Development/Purging (hours)
Initial Water Depth (feet)
Nonaqueous Liquids Present (Describe)

Water Quality/Water Collection

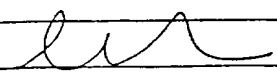
DO = Dissolved Oxygen; Cond. = Conductivity

Date	Time	Sampler Initials	Water Quality Readings				Water Collection Data				Notes (Explain in Comments Below)
			Temp. (°C)	pH	DO (mg/L)	Cond. (µmhos/ cm)	Volume Removed (gallons)	Removal Rate (gal/min)	Pump Intake Depth (feet)	Final Water Depth (feet)	

Container Type: G = Clear Glass; A = Amber Glass; P = Plastic; V = VOA Vial (Glass); O = Other (Specify)
Preservatives: H = HCl; N = HNO₃; S = H₂SO₄; A = NaOH; O = Other (Specify); - = None

Sample Containers

Analytical Parameter List	Container			Field Filtered		Preserved	Cooled During Collection		Comments
	Number	Type	Volume (mL)	Yes	No		Yes	No	
EPA 8020 BTEX	X2	G/VV	40		X	Y	X		SJ 28-6 #79 (MW-1)

Type Chain-of-Custody Form Number Comments * PLEASE REFER TO WELL DEVELOPMENT + PURGING DATA FORM.Signature  Date 4/14/97 Reviewer Date



EL PASO FIELD SERVICES



5-6-97

FIELD SERVICES LABORATORY ANALYTICAL REPORT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	DRC 37	970295
MTR CODE SITE NAME:	72265	ST 28-6 #79
SAMPLE DATE TIME (Hrs):	4/14/97	1630
PROJECT:	Phase II Drilling - Initial	
DATE OF BTEX EXT. ANAL.:	4/18/97	4/18/97
TYPE DESCRIPTION:	Monitor Well	Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	16.1	PPB				
TOLUENE	3.98	PPB				
ETHYL BENZENE	11.2	PPB				
TOTAL XYLENES	112	PPB				
TOTAL BTEX	143	PPB				

The Surrogate Recovery was at 90.0 % for this sample All QA/QC was acceptable.

Narrative:

Approved By:

John Sallie

Date:

4/24/97

970295.XLS,4/21/97



4/14/97 INITIAL WATER SAMPLING

CHAIN OF CUSTODY RECORD

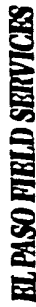
Page 1 of 1

PROJECT NUMBER # 24324		PROJECT NAME Pit Closure Project		DATE 4/14/97		CONTRACT LABORATORY P. O. NUMBER	
SAMPLERS: (Signature)							
LAB ID	DATE	TIME	MATRIX	FIELD ID	TOTAL NUMBER OF CONTAINERS	SAMPLE TYPE	REQUESTED ANALYSIS
							TPH EPA 418.1 BTX EPA 8020 LAB PID
							SEQUENCE #
970294	4/14	1625	B	DRC 36	1	B	27
970295	4/14	1630	W	DRC 37	2	M	27
REMARKS TRIP BLANK SAN JUAN 28-6 #79-72265 (MW-1)							
31° F							
RELINQUISHED BY: (Signature)		DATE/TIME 4/14/1810		RECEIVED BY: (Signature)		DATE/TIME 4-16-97 11:30	
RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		DATE/TIME 4/16/97 1130	
REQUESTED TURNAROUND TIME: ☐ ROUTINE ☐ RUSH		SAMPLE RECEIPT REMARKS		RESULTS & INVOICES TO:		RECEIVED OF LABORATORY BY: (Signature)	
CARRIER CO.				FIELD SERVICES LABORATORY EL PASO NATURAL GAS COMPANY P. O. BOX 4990 FARMINGTON, NEW MEXICO 87499		FAX: 505-599-2261	
BILL NO.:		CHARGE CODE		505-599-2144			

Monitor

Sample #	Meter/ Line #	Site Name	Sample Date	Project	S1	Benzene (PPB)	S2	Toluene (PPB)	S3	Ethyl Benzene (PPB)	S4	Total Xylenes (PPB)	S7	Total BTEX PPB
970295 *	72265	San Juan 28-6 #79	04/14/97	Phase II Drilling - Initial	=	16.1	=	3.98	=	11.2	=	112	=	143
970861 *	72265	San Juan 28-6 #79	08/14/97	Sample 4 - 1st Quarter	=	10.20	<	1.0	=	5.19	=	11.4	=	27.0
971178 *	72265	San Juan 28-6 #79	11/03/97	Sample 4 - 2nd Quarter	=	6.56	<	1.0	=	4.97	=	5.2	=	17.0
980162	72265	San Juan 28-6 #79	02/19/98	Sample 4 - 3rd Quarter	=	1.42	<	1.0	=	1.08	<	3.0	=	3.0
980352	72265	San Juan 28-6 #79	05/07/98	Sample 4 - 4th Quarter	=	1.11	<	1.0	=	1.45	<	3.0	=	3.0
980550	72265	San Juan 28-6 #79	08/10/98	Sample 4 - 5th Quarter	=	1.05	<	1.0	<	1.00	<	3.0	=	1.0

* Analytical reports provided to NMOCD in prior annual report.



EL PASO FIELD SERVICES

Site Name SAN JUAN 286 #179

Well Number MW-1
Meter Code 72265

Development Criteria

- ☒ 3 to 5 Casing Volumes of Water Removal
☐ Stabilization of Indicator Parameters
☐ Other

Methods of Development

- | | | | |
|--------------------------|-------------|-------------------------------------|--------------------------|
| ☐ | Pump | ☐ | Baller |
| ☐ | Centrifugal | ☒ | Bottom Valve |
| ☐ | Submersible | ☐ | Double Check Valve |
| ☐ | Peristaltic | ☐ | Stainless-steel Kemmerer |

Water Volume Calculation

Initial Depth of Well (feet) 34.85
Initial Depth to Water (feet) 22.97
Height of Water Column in Well (feet) 11.88

4 Diameter (inches): Well

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		7.9	23.6
Gravel Pack			
Drilling Fluids			
Total			

Instruments

- ☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☒ Other ORC

Water Disposal

Water Disposal
K072 SEPARATOR

Water Removal Data

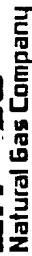
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Comments

Comments _____

Developer's Signature Rennio Bird Date 8/14/97

Reviewer [Signature] Date 8/28/97



Sample 4 - 1st Qtr

A 2057

[illegible]



EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	970861
MTR CODE SITE NAME:	72265	San Juan 28-6 #79 MW-1
SAMPLE DATE TIME (Hrs):	8/14/97	1339
PROJECT:	Sample 4 - 1st Quarter	
DATE OF BTEX EXT. ANAL.:	8/15/97	8/15/97
TYPE DESCRIPTION:	Monitor Well	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	10.2	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	5.19	PPB				
TOTAL XYLENES	11.4	PPB				
TOTAL BTEX	27	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 101 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: _____

Date: 8/28/97

970861BTEX, 8/28/97



EL PASO FIELD SERVICES

Field Services Laboratory Analytical Report

SAMPLE IDENTIFICATION

EPFS LAB ID:	970861
DATE SAMPLED:	08/14/97
TIME SAMPLED (Hrs):	1339
SAMPLED BY:	DB
MATRIX:	Water
METER CODE:	72265
SAMPLE SITE NAME:	San Juan 28-6 #79
SAMPLE POINT:	MW-1

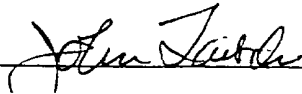
FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Laboratory pH	8.36	Units	08/15/97
Alkalinity as CO_3	4.0	PPM	08/15/97
Alkalinity as HCO_3	403	PPM	08/15/97
Calcium as Ca	9.3	PPM	08/18/97
Magnesium as Mg	1.21	PPM	08/18/97
Total Hardness as CaCO_3	28	PPM	08/18/97
Chloride as Cl	7.1	PPM	08/15/97
Sulfate as SO_4	120	PPM	08/15/97
Fluoride as F	1.50	PPM	08/15/97
Nitrate as $\text{NO}_3\text{-N}$	<0.1	PPM	08/15/97
Nitrite as $\text{NO}_2\text{-N}$	<0.1	PPM	08/15/97
Ammonium as NH_4^+	<0.3	PPM	08/18/97
Phosphate as PO_4	<0.1	PPM	08/15/97
Potassium as K	<0.3	PPM	08/18/97
Sodium as Na	214	PPM	08/18/97
Total Dissolved Solids	634	PPM	08/15/97
Conductivity	885	umhos/cm	08/15/97
Anion/Cation %	1.8%	%, <5.0 Accepted	08/28/97

Remarks:

Reported By: ev

Approved By: 

Date: 8/28/97



EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY ANALYTICAL REPORT

SAMPLE IDENTIFICATION

SAMPLE NUMBER:	970861
SAMPLE DATE:	08/14/97
SAMPLE TIME (Hrs):	1339
SAMPLED BY:	D. Bird
MATRIX:	Water
METER CODE:	72265
SAMPLE SITE NAME:	San Juan 28-6 #79
SAMPLE POINT:	MW-1

REMARKS:

RESULTS

PARAMETER	TOTAL RESULT (mg/L)	N. M. WQCC LIMIT (mg/L)
ARSENIC (As)	0.005	0.100
BARIUM (Ba)	0.08	1.00
CADMIUM (Cd)	<0.0002	0.010
CHROMIUM (Cr)	<0.004	0.050
LEAD (Pb)	<0.003	0.050
MERCURY (Hg)	<0.0002	0.002
SELENIUM (Se)	<0.011	0.050
SILVER (Ag)	<0.0004	0.050

References:

- Method 3015, Microwave Assisted Acid Digestion of Aqueous Samples and Extracts, Test Methods for Evaluating Solid Waste, SW-846, Sept., 1994.
- Method 7061A, Arsenic (Atomic Absorption, Gaseous Hydride), Test Methods for Evaluating Solid Waste, SW-846, USEPA, July, 1992.
- Method 7081, Barium (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, July, 1992.
- Method 7131, Cadmium (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept., 1986.
- Method 7191, Chromium (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept., 1986.
- Method 7421, Lead (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept., 1986.
- Method 245.5, Mercury (Automated Cold Vapor Technique), Methods for the Determination of Metals in Environmental Samples, EPA 600/4-91/010, USEPA, June, 1991.
- Method 7741A, Selenium (Atomic Absorption, Gaseous Hydride), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept., 1994.
- Method 7761, Silver (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, July, 1992.

Reported By: CV

Approved By: Blair L. L. L.

Date: 9-18-97



Well Number 144-1
Meter Code 72265

Development Criteria

- | | |
|-------------------------------------|--|
| ☒ | 3 to 5 Casing Volumes of Water Removal |
| ☐ | Stabilization of Indicator Parameters |
| ☐ | Other |

Methods of Development

- | | | | |
|--------------------------|-------------|-------------------------------------|--------------------------|
| ☐ | Pump | ☐ | Baller |
| ☐ | Centrifugal | ☒ | Bottom Valve |
| ☐ | Submersible | ☐ | Double Check Valve |
| ☐ | Peristaltic | ☐ | Stainless-steel Kemmerer |

☐ Other _____

Water Volume Calculation

Initial Depth of Well (feet) 34.85
Initial Depth to Water (feet) 23.37
Height of Water Column in Well (feet) 11.48

Diameter (Inches): Well 4 Gravel Pack

Item	Water Volume In Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		7.6	22.8
Gravel Pack			
Drilling Fluids			
Total			

Instruments

- | | |
|-------------------------------------|---------------------|
| ☒ | pH Meter |
| ☐ | DO Monitor |
| ☒ | Conductivity Meter |
| ☒ | Temperature Meter |
| ☒ | Other <u>D.O. C</u> |

Water Disposal

KUTZ SEPARATOR

Water Removal Data

[illegible]

Comments

Developer's Signature Dennis Bird

Date 11-3-97 Reviewer _____

John L. Stiller Date 11-12-97

E150
Natural Gas Com

Natural Gas Company

A 2109

CHAIN OF CUSTODY RECORD

[illegible]



EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	971178
MTR CODE SITE NAME:	72265	San Juan 28-6 #79
SAMPLE DATE TIME (Hrs):	11/3/97	1233
PROJECT:	Sample 4 2nd Quarter	
DATE OF BTEX EXT. ANAL.:	11/5/97	11/5/97
TYPE DESCRIPTION:	MW-1	Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	6.56	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	4.97	PPB				
TOTAL XYLENES	5.20	PPB				
TOTAL BTEX	17	PPB				

—BTEX is by EPA Method 8020 —

The Surrogate Recovery was at 91.1 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative:

Approved By:

John Larch

Date:

11-12-97

971178BTEXMW,11/10/97



Well Development and Purging Data

Well Number NW-1
Meter Code 77265

Site Name SAN JUAN 28-6 #79

Development Criteria

- ☒
- 3 to 5 Casing Volumes of Water Removal
-
- ☐
- Stabilization of Indicator Parameters
-
- ☐
- Other

Methods of Development

- | | | | |
|--------------------------|-------------|-------------------------------------|--------------------------|
| ☐ | Pump | ☐ | Bailer |
| ☐ | Centrifugal | ☒ | Bottom Valve |
| ☐ | Submersible | ☐ | Double Check Valve |
| ☐ | Peristaltic | ☐ | Stainless-steel Kemmerer |
| ☐ | Other | | |

Water Volume Calculation

Initial Depth of Well (feet) 34.85
Initial Depth to Water (feet) 23.69
Height of Water Column in Well (feet) 11.16

4 Gravel Pack

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		7.4	32.1
Gravel Pack			
Drilling Fluids			
Total			

Instruments

- ☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☒ Other D.O.C

Water Disposal

KUTZ SEPARATOR

Water Removal Data

[illegible]

Comments

Developer's Signature Dennis Bied Date 2-13-98 Reviewer John Tardella Date 3/2/98

SAMPLE 4 3RD QTR

A 2612

CHAIN OF CUSTODY RECORD

Project No.	Project Name	Requested Analysis		Type and No. of Sample Containers	Preservation Technique	Remarks
Samplers: (Signature)	DATE: 2-13-98					
DATE: 2-13-98	TIME: 1428	Comp. GRAB	X	980123		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Denise Bird	2-13-98 1725					
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks:		
		W. J. Jordan	2/13/98 0750			
Carrier Co:	Carrier Phone No.			Date Results Reported / by: (Signature)		
Air Bill No.:						



EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980162
MTR CODE SITE NAME:	72265	San Juan 28-6 #79
SAMPLE DATE TIME (Hrs):	2/13/98	1428
PROJECT:	Sample 4 3rd Quarter	
DATE OF BTEX EXT. ANAL.:	2/19/98	2/19/98
TYPE DESCRIPTION:	MW-1	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	1.42	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	1.08	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	3	PPB				

--BTEX is by EPA Method 8020 --

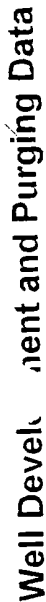
he Surrogate Recovery was at 78.9 % for this sample All QA/QC was acceptable.
F = Dilution Factor Used

narrative: _____

proved By: John Landa

Date: 3/2/98

980162BTEXMW,2/19/98



Site Name SAN JUAN 28-6 #79

☐	Development
☒	Purging

Well Number MW-1

Meter Code 72265

Development Criteria

- | | |
|-------------------------------------|--|
| ☒ | 3 to 5 Casing Volumes of Water Removal |
| ☐ | Stabilization of Indicator Parameters |
| ☐ | Other |

Methods of Development

- | Pump | Bailer |
|--------------------------------------|---|
| ☐ Centrifugal | ☒ Bottom Valve |
| ☐ Submersible | ☐ Double Check Valve |
| ☐ Peristaltic | ☐ Stainless-steel Kemmerer |

Other

Water Volume Calculation

Initial Depth of Well (feet) 34.85
Initial Depth to Water (feet) 32.86
Height of Water Column in Well (feet) 11.99

4 Diameter (inches): Well Gravel Pack

Diameter (Inches)	Well	Water Volume in Well		Gallons to be Removed
		Cubic Feet	Gallons	
	Well Casing		7.9	23.8
	Gravel Pack			
	Drilling Fluids			
	Total			

Instruments

- | | |
|-------------------------------------|--------------------|
| ☒ | pH Meter |
| ☐ | DO Monitor |
| ☒ | Conductivity Meter |
| ☒ | Temperature Meter |
| ☒ | Other <u>DO, C</u> |

Temperature Meter
Other D.O. CHEMETS KIT

Water Disposal

KUTZ SEPARATOR

Water Removal Data

[illegible]

Comments_

Developer's Signature Dennis Bied

Reviewer J. L. Swisher

Date 5-8-98

Date _____

5/11/98



! bias Company

A 23C

CHAIN OF CUSTODY RECORD

[illegible]



EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980352
MTR CODE SITE NAME:	72265	San Juan 28-6 #79
SAMPLE DATE TIME (Hrs):	5/6/98	1423
PROJECT:	Sample 4 4th Quarter	
DATE OF BTEX EXT. ANAL.:	5/7/98	5/7/98
TYPE DESCRIPTION:	MW-1	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	1.11	PPB				
TOLUENE	< 1	PPB				
ETHYL BENZENE	1.45	PPB				
TOTAL XYLENES	< 3	PPB				
TOTAL BTEX	3	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at
DF = Dilution Factor Used

93.7

% for this sample All QA/QC was acceptable.

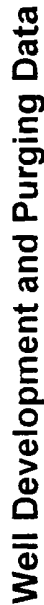
Narrative: _____

Approved By: _____

980352BTEXMW, 5/8/98

Date: _____

5/11/98



Site Name SAN JUAN 28-6 ~~54~~79

Environment	Development	Purging
Development	☐	☒

Well Number MW-1

Meter Code 77265

Development Criteria

- | | |
|-------------------------------------|--|
| ☒ | 3 to 5 Casing Volumes of Water Removal |
| ☐ | Stabilization of Indicator Parameters |
| ☐ | Other |

Water Volume Calculation

Initial Depth of Well (feet) 34.85
Initial Depth to Water (feet) 22.97
Height of Water Column in Well (feet) 11.93

Methods of Development

- | | | | |
|--------------------------|-------------|-------------------------------------|--------------------------|
| ☐ | Pump | ☐ | Bailer |
| ☐ | Centrifugal | ☒ | Bottom Valve |
| ☐ | Submersible | ☐ | Double Check Valve |
| ☐ | Peristaltic | ☐ | Stainless-steel Kemmerer |

Diameter (inches): Well 4 Gravel Pack

4 Diameter (inches): Well Gravel Pack

Item	Water Volume in Well			Gallons to be Removed
	Cubic Feet	Gallons		
Well Casing		7.9	13.7	
Gravel Pack				
Drilling Fluids				
Total				

Instruments

- ☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☒ Other DO, C

Water Disposal

KUTZ SEPARATOR

Water Removal Data

[illegible]

Comments

Developer's Signature Tennis Bird

Date 8-6-98 Reviewer

Date 8/12/98

CHAIN OF CUSTODY RECORD

[illegible]



EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980550
MTR CODE SITE NAME:	72265	San Juan 28-6 #79
SAMPLE DATE TIME (Hrs):	8/6/98	1348
PROJECT:	Sample 4 5th Quarter	
DATE OF BTEX EXT. ANAL.:	8/10/98	8/10/98
TYPE DESCRIPTION:	MW-1	Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	1.05	PPB				
TOLUENE	< 1	PPB				
ETHYL BENZENE	< 1	PPB				
TOTAL XYLENES	< 3	PPB				
TOTAL BTEX	1	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 88.9 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative:

Approved By:

John Larch

Date:

8/12/98

980550BTEXMW,8/11/98