

3R - 224

REPORTS

DATE:

1998



Certified Mail: #Z 211 324 121

March 31, 1999

Mr. William C. Olson
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87504

RECEIVED

APR 05 1999

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

RE: 1998 Pit Project Annual Groundwater Report

Dear Mr. Olson:

In accordance with reporting requirements, El Paso Field Services (EPFS) has enclosed annual updates for the 49 remaining groundwater impacted locations that were identified during our pit closure project of 1994 / 1995.

Of the 49 reports, EPFS hereby requests closure of 18 of these locations. The 18 sites EPFS is requesting closure on are presented in 4 separate binders entitled "Final Closure Report for Groundwater Sites with Four Consecutive Quarters Below Standards".

The Jaquez Com. C #1 and Jaquez Com. E #1 site is included in a separate report which is entitled "Jaquez Com. C #1 and Jaquez Com. E #1 Annual Report for Soil and Groundwater Remediation".

If you have any questions concerning the enclosed reports or closure requests, please call me at (505) 599-2124.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Scott T. Pope'.

Scott T. Pope P.G.
Senior Environmental Scientist

xc: Mr. Denny Foust, NMOCD, Aztec - w / enclosures; **Certified Mail # Z 211 324 122**
Mr. Bill Liesse, BLM - w / enclosures; **Certified Mail # Z 211 324 123**
Ms. Charmaine Tso, Navajo EPA - w / enclosures; **Certified Mail # Z 211 324 120**

SAN JUAN BASIN PIT CLOSURES
San Juan Basin, New Mexico

El Paso Field Services
Final Closure Report For Groundwater Sites With Four
Consecutive Quarters Below Standards

December 1998

RECEIVED

APR 05 1999

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Prepared For

El Paso Field Services
Farmington, New Mexico

Project 17520
Book 1



EPFS GROUNDWATER PITS 1998 CLOSURE REPORT

MILES FED #1E
Meter/Line ID - 94495

RECEIVED

APR 05 1999

SITE DETAILS

Legals - Twn: 26N
NMOCD Hazard Ranking: 50
Operator: LOUIS DREYFUS

Rng: 7W Sec: 5

Unit: N
Land Type: FEDERAL
ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

PREVIOUS ACTIVITIES

Site Assessment: Jun-94 Excavation: Jul-94 (260 cy) Re-Excavation: Nov-95 (1,020 cy)
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 260 cubic yards of impacted soil was removed during excavation. The headspace reading from soil at the excavation bottom was 910 ppm. Soil analytical was as follows; benzene - .90 mg/kg, total BTEX - 130 mg/kg, TPH (418.1) - 15,200 mg/kg.

The pit was re-excavated to 21 feet beneath ground surface (bgs) and groundwater was encountered at approximately 19 feet bgs. A soil sample was collected from the excavation bottom and four walls. Approximately 1,020 cubic yards of impacted soil were removed during excavation. The headspace soil reading from the excavation bottom was 148 ppm. Soil analytical was as follows; benzene - <0.5 mg/kg, total BTEX - <3 mg/kg, TPH (418.1) - 82.3 mg/kg. Approximately 100 pounds of nitrogen enriched fertilizer was added to excavation prior to backfilling to aid in natural degradation of residual hydrocarbons.

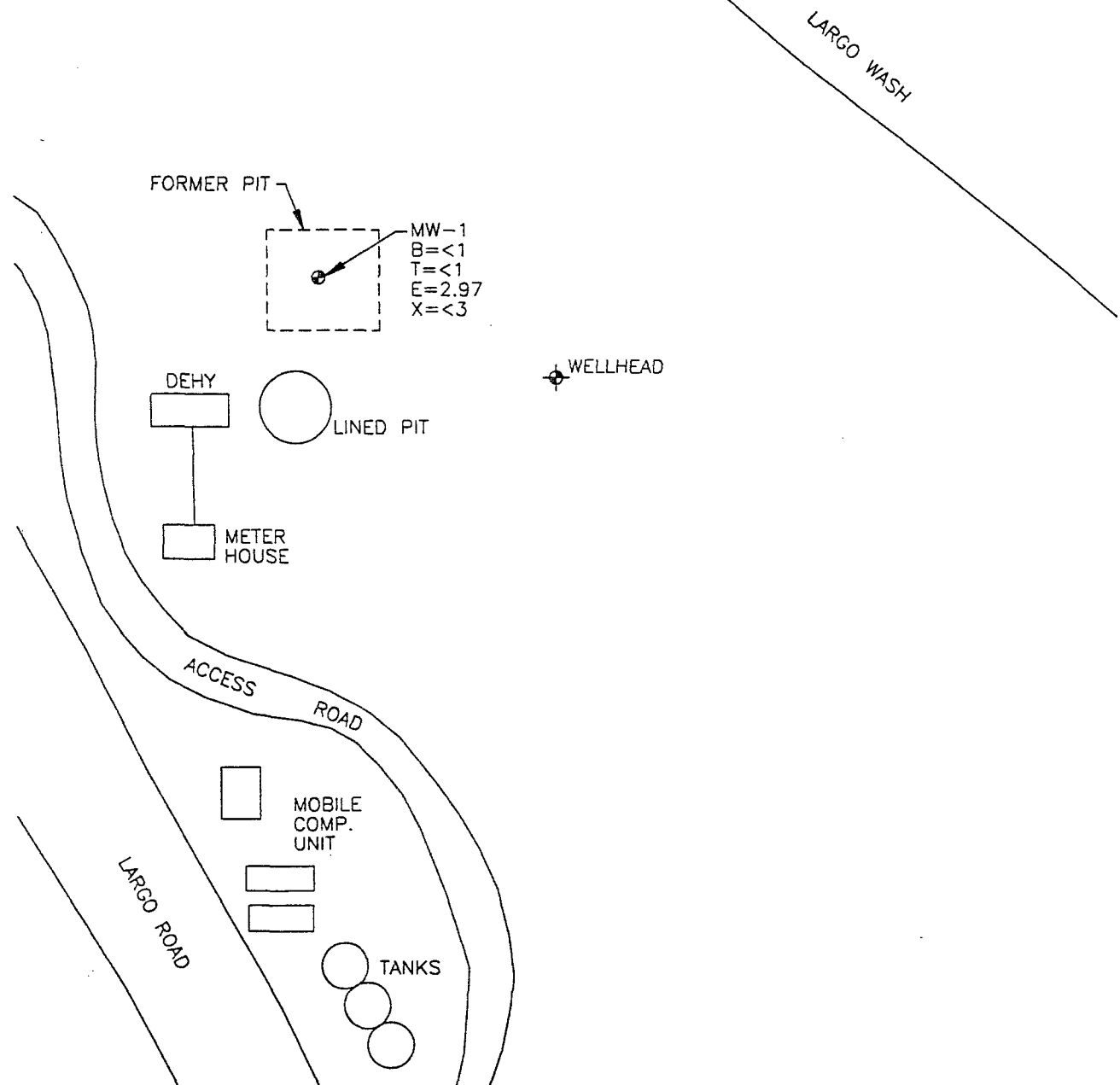
One soil boring was drilled in the center of the former pit. Groundwater was encountered at 15 feet bgs and a monitoring well was installed. Quarterly groundwater monitoring was initiated on 4/2/97 and has continued through 3/19/98. Groundwater analytical data are presented in Table 1. Groundwater analytical data prior to 1998 has been previously submitted in the 1997 Annual Report, along with boring logs and well installation diagrams.

CONCLUSIONS

Groundwater analytical data has been below standards for 4 consecutive quarters since quarterly sampling was initiated. Minimal impact to groundwater has occurred at this site.

RECOMMENDATIONS

- EPFS request closure at this site.
- Following OCD approval for closure, MW-1 will be abandoned following OCD approved abandonment procedures.



LEGEND

● MW-1 APPROXIMATE MONITORING WELL LOCATION AND NUMBER

B BENZENE (ug\L)
T TOLUENE (ug\L)
E ETHYL BENZENE (ug\L)
X XYLENE (ug\L)

ug\L MICROGRAMS PER LITER

NOT TO SCALE



COL 17520AL-001



TITLE:
MILES FED 1E
94495

DWN: TMM	DES.: CC
CHKD: CC	APPD:
DATE: 1/14/98	REV.: 0

PROJECT NO.: 17520
EPFS GW PITS

FIGURE 1

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 94497 Location: MILES FEDERAL #1E
 Operator #: 0448 Operator Name: LOUIS DEBARD/L District: BALLARD
 Coordinates: Letter: N Section 5 Township: 26 Range: 7
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator ☒ Location Drip: _____ Line Drip: _____ Other: _____
 Site Assessment Date: 6-16-94 Area: 07 Run: 51

SITE ASSESSMENT

NMOCD Zone: (From NMOCD Maps) Inside ☒ (1) Outside ☐ (2)

Land Type: BLM ☒ (1) State ☐ (2) Fee ☐ (3) Indian _____

Depth to Groundwater
 Less Than 50 Feet (20 points) ☒ (1)
 50 Ft to 99 Ft (10 points) ☐ (2)
 Greater Than 100 Ft (0 points) ☐ (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) ☐ (1)
 200 Ft to 1000 Ft (10 points) ☒ (2)
 Greater Than 1000 Ft (0 points) ☐ (3)

Name of Surface Water Body CANON LARGO
 (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: 50 POINTS

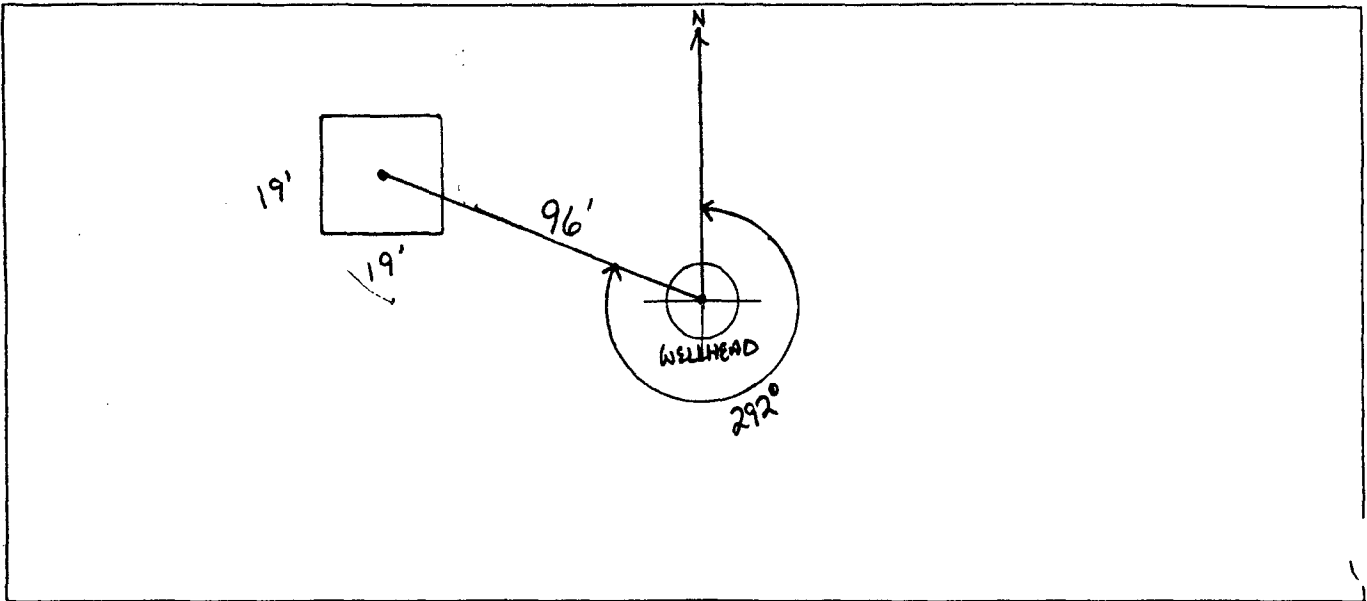
REMARKS

Remarks : THREE PITS ON LOCATION. WILL CLOSE ONLY ONE PIT IS ONLY.
LOCATION IS IN LARGO CANYON NEXT TO LARGO WASH. REDLINE AND TOPO
CONFIRMED LOCATION IS INSIDE U-Z.

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 292° Footage from Wellhead 96'
 b) Length : 19' Width : 19' Depth : 3'

ORIGINAL PIT LOCATION



REMARKS

Remarks :

TOOK PICTURES AT 2:22 PM

END DUMP

Completed By:

Robert Thompson
 Signature

6.16.94
 Date

PHASE I EXCAVATION

FIELD REMEDIATION/CLOSURE FORM

GENERAL

94495 ^{KD 163}
 Meter: 94497 Location: Miles Federal # 1E
 Coordinates: Letter: N Section 5 Township: 26 Range: 7
 Or Latitude _____ Longitude _____
 Date Started : 7/22/94 Run: 07 51

FIELD OBSERVATIONS

Sample Number(s): KD 163
 Sample Depth: 12' Feet
 Final PID Reading 910 ppm PID Reading Depth 12' Feet
 Yes No
 Groundwater Encountered ☐ ☒ Approximate Depth _____ Feet

CLOSURE

Remediation Method :
 Excavation ☒ Approx. Cubic Yards 260
 Onsite Bioremediation ☐
 Backfill Pit Without Excavation ☐
 Soil Disposition:
 Envirotech ☒ ☐ Tierra
 Other Facility ☐ Name: _____
 Pit Closure Date: 7/25/94 Pit Closed By: BEI

REMARKS

Remarks : Excavated pit to 12', took PID Sample, closed pit.

Signature of Specialist: King Dunn



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD163	945759
MTR CODE SITE NAME:	94495	Miles Federal #1E
SAMPLE DATE TIME (Hrs):	07/25/94	1350
PROJECT:	Phase I	
DATE OF TPH EXT. ANAL.:	07/28/94	07/28/94
DATE OF BTEX EXT. ANAL.:	07/29/94	07/29/94
TYPE DESCRIPTION:	VC	Fine dark brown/gray sand

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	0.90	MG/KG	20			
TOLUENE	11	MG/KG	20			
ETHYL BENZENE	8.4	MG/KG	20			
TOTAL XYLENES	110	MG/KG	20			
TOTAL BTEX	130	MG/KG				
TPH (418.1)	15,200	MG/KG			0.54	28
HEADSPACE PID	910	PPM				
PERCENT SOLIDS	86.2	%				

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

The Surrogate Recovery was at 90 % for this sample All QA/QC was acceptable.

ative:

1. rmed analysis.

F = Dilution Factor Used

pproved By: John LeubkeDate: 7/19/96



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White - Testing Laboratory Canary - EPNG Lab Pink - Field Sampler

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
 CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 407422
 PROJECT # : 24324
 PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	945759	NON-AQ	07/25/94	07/29/94	07/29/94	20
02	945760	NON-AQ	07/26/94	07/29/94	07/29/94	1
03	945761	NON-AQ	07/26/94	07/29/94	07/29/94	20

PARAMETER	UNITS	01	02	03
BENZENE	MG/KG	0.90	<0.025	<0.025
TOLUENE	MG/KG	11	<0.025	<0.025
ETHYLBENZENE	MG/KG	8.4	<0.025	<0.025
TOTAL XYLENES	MG/KG	110	<0.025	36

SURROGATE:

BROMOFLUOROBENZENE (%)	90	82	93
------------------------	----	----	----



Analytical **Technologies**, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. 407422

August 3, 1994

El Paso Natural Gas Co.
P.O. Box 4990
Farmington, NM 87499

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On 07/29/94, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **non-aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

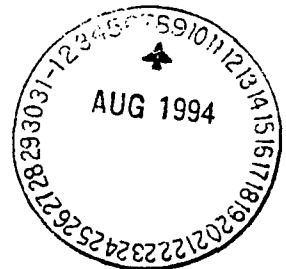
If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Letitia Krakowski, Ph.D.
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure



PHASE III RE-EXCAVATION

FIELD PIT REMEDIATION/CLOSURE FORM/PHASE II

Meter: 94495 Location: Mike's Federal #1 E MV

Coordinates: Letter: N Section 05 Township: 26 Range: 07

Or Latitude _____ Longitude _____

Date Started : 11-3-95 Area: 07 Run: 51

Sample Number(s): 4P81 4P82 _____

Sample Depth: 21 Feet

Final PID Reading 148 PID Reading Depth 21 Feet
Yes No

Groundwater Encountered ☐ (1) ☒ (2) Approximate Depth 19 Feet

Final Dimensions: Length 46 Width 42 Depth 21

Remediation Method :

Excavation ☒ (1) Approx. Cubic Yards 1020 LT ^{11/4/95}

Onsite Bioremediation ☐ (2)

Backfill Pit Without Excavation ☐ (3)

Overburden Cubic Yards 40 LT ^{11/4/95}

Soil Disposition:

Envirotech ☒ (1) ☐ (3) Tierra

Other Facility ☐ (2) Name: _____

Pit Closure Date: 11-7-95 Pit Closed By: Philip Env.

Phase III used 100 lbs Fertilizer

Remarks : Dug to 21 Ft. Encountered ground water, but it was only a trickle, not enough to pull a sample.

Took PID N wall 16 ppm S wall ppm was 3 E wall 4 ppm West wall was 20 ppm Bot was 11 ppm comp. sample 148 ppm

over.

Signature of Specialist: James F. Penac



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

SAMPLE NUMBER:	Field ID JP81	Lab ID 947749
MTR CODE SITE NAME:	94495	Miles Federal #1E
SAMPLE DATE TIME (Hrs):	11/06/95	1500
PROJECT:	Phase III Excavation	
DATE OF TPH EXT. ANAL.:	11/07/95	11/07/95
DATE OF BTEX EXT. ANAL.:	11/07/95	11/07/95
TYPE DESCRIPTION:	VC	Dark brown sand & clay

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	W(g)	V(ml)
BENZENE	<0.5	MG/KG				
TOLUENE	<0.5	MG/KG				
ETHYL BENZENE	<0.5	MG/KG				
TOTAL XYLENES	<1.5	MG/KG				
TOTAL BTEX	<3	MG/KG				
TPH (418.1)	82.3	MG/KG			2.02	28
HEADSPACE PID	148	PPM				
PERCENT SOLIDS	83.8	%				

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

The Surrogate Recovery was at 106 % for this sample All QA/QC was acceptable.
five:

DF = Dilution Factor Used

Approved By:

John Savich

Date:

7/19/96



2x3 II 2001/02

CHAIN OF STUDY RECORD

[illegible]

White - Testing Laboratory Canary - EPNG Lab Pink - Field Sampler



FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Water

SAMPLE IDENTIFICATION

SAMPLE NUMBER:

947747

FIELD ID:

JP82

MTR CODE:

94495

SAMPLE DATE:

11-06-95

SAMPLE TYPE:

WG [Exc.]

SITE NAME:

Miles Fed. #1E MV

PROJECT:

Phase III Excavation

DATE OF BTEX ANALYSIS:

11/7/95

FIELD COMMENTS:

EPA Method 8020 (BTEX) RESULTS

PARAMETER	RESULT	QUALIFIER	WQCC LIMIT PPB
TDS - TOTAL DISSOLVED SOLIDS (PPM)			None
BENZENE (PPB)	31.1		10
TOLUENE (PPB)	131		740
ETHYL BENZENE (PPB)	11.0		750
TOTAL XYLENES (PPB)	467	DI	620
SURROGATE % RECOVERY	102%	Allowed Range 80 to 120 %	

NOTES:

Result for m/p xylenes was above calibration range.

Approved By:

A handwritten signature, likely of the analyst or supervisor.

11-9-95

Date

Page _____ of _____

CHAIN OF CUSTODY RECORD



PROJECT NUMBER		PROJECT NAME		CONTACT LABORATORY P. O. NUMBER		REQUESTED ANALYSIS		SAMPLE TYPE		TOTAL NUMBER OF CONTAINERS		REMARKS			
24324		Pit Closure Project # 24324				EPA 8020 BTEX		TPH EPA 418.1							
SAMPLERS: (Signature)		DATE: 11-6-95													
LAB ID	DATE	TIME	MATRIX	SAMPLE NUMBER											
947747	11-6-95	9:00	Water	4P82	2	VG	X	X							
947747 11-6-95 9:00 Water 4P82 2 VG X X 74 Miles Fed #1E MV 94495															
RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		DATE/TIME		RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)			
James P. Fournier		11-6-95 11:30		Julia D. Dicks		11-7-95 9:20		Julia D. Dicks				Julia D. Dicks			
RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		DATE/TIME		RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)			
REQUESTED TURNAROUND TIME:				SAMPLE RECEIPT REMARKS				RESULTS & INVOICES TO:				FIELD SERVICES LABORATORY			
☐ ROUTINE ☐ RUSH												EL PASO NATURAL GAS COMPANY			
CARRIER CO.				CHARGE CODE								P. O. BOX 4990			
BILL NO.:												FARMINGTON, NEW MEXICO 87499			
												FAX: 505-599-2261			

PHASE II SOIL BORING

RECORD OF SUBSURFACE EXPLORATION

PHILIP ENVIRONMENTAL SERVICES INC.

4000 Monroe Road

Albuquerque, 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

6001.77

Project Location

MILES FED # 1E-94495

Elevation

Borehole Location T26 R7 S5 - Ltr N

GWL Depth 19' BGS

Logged By D CESARK

Drilled By K PADILLA

Date/Time Started 3/13/97 - 1230

Date/Time Completed 11 - 1300

Well Logged By

D CESARK

Personnel On-Site

D CHARLEY, C MAIS

Contractors On-Site

Client Personnel On-Site

Drilling Method

4 1/4" ID HSA

Air Monitoring Method

PID, CGI

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			Drilling Conditions & Blow Counts
							BZ	BH	S	
0										
5				BACKFILL						
10				TO						
15				21'						
20										
25				(HIGHLY CONTAMIN SOIL)						
30				TD=25'						
35										
40										

Comments:

ENCOUNTERED GW IN FILL MATERIAL @ 19' BGS. OVER-DRILLED TO 25' BGS + SET MW-1. NO SAMPLES COLLECTED. PLEASE REFER TO MW INSTALL RECORD.

Geologist Signature

[Signature]

MONITORING WELL INSTALLATION RECORD

Borehole # 2
Well # 1
Page 1 of 1

Phillip Environmental Services, Inc.
1000 Monroe Rd.
Farmington, NM 87401
(505) 326-2262 FAX (505) 326-2388

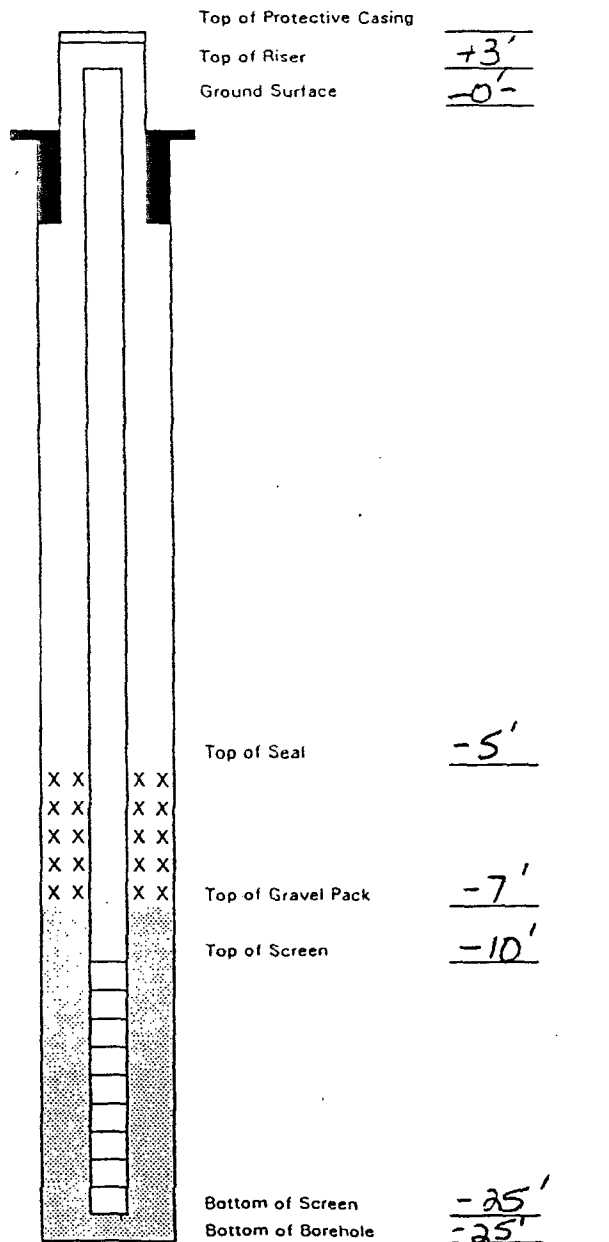
Project Name EPFS GW PITS
Project Number 17520 Phase 6002.77
Site Location MILES FED # 1E-94495

Elevation _____
Well Location T27N-R7W-S5-L1N'
GWL Depth 15' BGS
Installed By M. DODD
K. PADILLA
Date/Time Started 3/13/97 1300
Date/Time Completed 1430

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

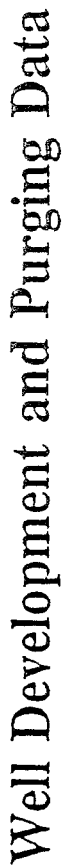
Depths in Reference to Ground Surface

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		
Bottom of Grout		
Top of Well Riser	<u>40 PRC</u>	<u>+3'</u>
Bottom of Well Riser	<u>"</u>	<u>-10'</u>
Top of Well Screen	<u>.010 SLOT</u>	<u>-10'</u>
Bottom of Well Screen	<u>"</u>	<u>-25'</u>
Top of Peltonite Seal	<u>ENVIROPLUG</u>	<u>-5'</u>
Bottom of Peltonite Seal	<u>"</u>	<u>-7'</u>
Top of Gravel Pack	<u>10-20 S.SND.</u>	<u>-7'</u>
Bottom of Gravel Pack	<u>"</u>	<u>-25'</u>
Top of Natural Cave-In		N/A
Bottom of Natural Cave-In		N/A
Top of Groundwater		<u>-15'</u>
Total Depth of Borehole		<u>-25'</u>



Comments: _____

Geologist Signature lu



☒ Development
☒ Purging

Well Number MW-1

Page/ of C

GW PITS

Project Manager

Project No. 17520

EPFS

Site Name MILES FEDERAL #1E-9449S

Site Address

Water Volume Calculation

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

Initial Depth of Well (feet) 25' 665
Initial Depth to Water (feet) 12' 665
Height of Water Column in Well (feet) 13

Instruments

☒ pH Meter

☐ DO Monitor☒ Conductivity Meter

☒ Temperature Meter

☐ Other

Water Disposal

Water Removal Data

[illegible]

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

Comments

Unit 2-3 Gales clear, red were muddy, removed alot of pit, almost batted well dry.

Developer's Signature(s)

Date 7/2/97

Date



Water Sampling Data

Location No. MW-1Serial No. WSD-Group List Number Sample Type: ☒ Groundwater ☐ Surface Water ☐ Other Date 4/2/97Project Name EPFS GW DITS Project No. 17520Project Manager C CHANCE Phase Task No. 6003.77Site Name MILES FEDERAL #1E - 94495

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)	Bail	Final Water Depth (feet)	

Container Type: G = Clear Glass; A = Amber Glass; P = Plastic; V = VOA Vial (Glass); O = Other (Specify)

Sample Containers

Preservatives: H = HCl; N = HNO₃; S = H₂SO₄; A = NaOH; O = Other (Specify); -- = None

Analytical Parameter List	Container			Field Filtered		Preserved	Cooled During Collection		Comments
	Number	Type	Volume (mL)	Yes	No		Yes	No	
BTEX	DRC26	VV	40		X	Y	X		

Type Chain-of-Custody Form Number
Notes * PLEASE REFER TO WELL DEVELOPMENT + PURGING DATA FORMSignature [Signature] Date 4/2/97 Reviewer Date



5-22-97

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	DRC26	970242
MTR CODE SITE NAME:	94495	Miles Fed #1E
SAMPLE DATE TIME (Hrs):	4/2/97	1405
PROJECT:	Phase II Drilling - Initial	
DATE OF BTEX EXT. ANAL:	4/4/97	4/4/97
TYPE DESCRIPTION:	Monitor Well	Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	<1	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	<6	PPB				

The Surrogate Recovery was at 105 for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative:

Approved By:

John Larden

Date:

4/8/97

970242,4/8/97



Page.

[illegible]

QUARTERLY MONITORING RESULTS

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
970242 *	94495	Miles Fed #1E	4/2/97	Phase II Drilling - Initial	<	1	<	1	<	1	<	3	<	6
970530 *	94495	Miles Fed #1E	6/5/97	Sample 4 - 1st Qtr	=	5.29	<	1	=	10.7	<	3	=	16
970972 *	94495	Miles Fed #1E	9/11/97	Sample 4 - 2nd Qtr	=	1.19	<	1	=	2.51	<	3	=	4
971263 *	94495	Miles Fed #1E	12/2/97	Sample 4 - 3rd Qtr	<	1	<	1	=	2.97	<	3	=	3
980242	94495	Miles Fed #1E	3/19/98	Sample 4 - 4th Qtr	<	1	<	1	=	2.53	<	3	=	3

* Analytical reports provided to NMOCD in prior annual report.



Nature Gas Company

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	980242
MTR CODE SITE NAME:	94495	Miles Federal #1E
SAMPLE DATE TIME (Hrs):	3/19/98	1518
PROJECT:	Sample 4 4th Quarter	
DATE OF BTEX EXT. ANAL.:	3/23/98	3/23/98
TYPE DESCRIPTION:	MW-1	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	< 1	PPB				
TOLUENE	< 1	PPB				
ETHYL BENZENE	2.53	PPB				
TOTAL XYLENES	< 3	PPB				
TOTAL BTEX	3	PPB				

--BTEX is by EPA Method 8020 --

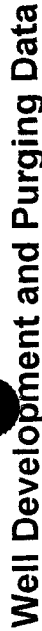
The Surrogate Recovery was at 106.6 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: _____

Date: 3/27/98

980242BTEXMW,3/25/98



Development	☐
Purging	☒

Well Number MW-1
Meter Code 94495

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

Initial Depth of Well (feet) 29.10
Initial Depth to Water (feet) 15.52
Height of Water Column in Well (feet) 13.58

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

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

Water Disposal

KUTZ SEPARATOR

[illegible]

Comments
THE WELL BAILED ONLY 0.50 GALLONS.

Developer's Signature Dennis Bied

Date 3-19-98 Reviewer

Valentin Turchi Date 3/25/98



QUALITY CONTROL REPORT
EPA METHOD 8020 - BTEX

Samples: 980232, 980234, 980235, 980240 to 980246

QA/QC for 3/23/98 Sample Set

LABORATORY CALIBRATION CHECKS / LABORATORY CONTROL SAMPLES:

SAMPLE NUMBER	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE	
					YES	NO
ICV LA-52589 50 PPB					RANGE	
Benzene	Standard	50.0	52.3	104.6	75 - 125 %	X
Toluene	Standard	50.0	53.3	107	75 - 125 %	X
Ethylbenzene	Standard	50.0	54.1	108	75 - 125 %	X
m & p - Xylene	Standard	100	108.9	108.9	75 - 125 %	X
o - Xylene	Standard	50.0	53.5	107	75 - 125 %	X
LCS LA-45476 25 PPB					RANGE	
Benzene	Standard	25.0	26.6	106.6	39 - 150	X
Toluene	Standard	25.0	27.2	109	46 - 148	X
Ethylbenzene	Standard	25.0	27.5	110	32 - 160	X
m & p - Xylene	Standard	50.0	55.9	112	Not Given	X
o - Xylene	Standard	25.0	27.2	109	Not Given	X
CCV LA-52589 50 PPB					RANGE	
Benzene	Standard	50.0	52.3	104.7	75 - 125 %	X
Toluene	Standard	50.0	53.1	106.2	75 - 125 %	X
Ethylbenzene	Standard	50.0	54.4	108.8	75 - 125 %	X
m & p - Xylene	Standard	100	109.6	109.6	75 - 125 %	X
o - Xylene	Standard	50.0	53.3	107	75 - 125 %	X
CCV LA-52589 50 PPB					RANGE	
Benzene	Standard	50.0	52.2	104.4	75 - 125 %	X
Toluene	Standard	50.0	52.7	105.4	75 - 125 %	X
Ethylbenzene	Standard	50.0	53.8	107.6	75 - 125 %	X
m & p - Xylene	Standard	100	108.4	108.4	75 - 125 %	X
o - Xylene	Standard	50.0	52.8	105.7	75 - 125 %	X

Narrative: Acceptable.

SAMPLE NUMBER	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE	
					YES	NO
CCV LA-52589 50 PPB					RANGE	
Benzene	Standard	50.0	51.9	103.9	75 - 125 %	X
Toluene	Standard	50.0	51.9	103.9	75 - 125 %	X
Ethylbenzene	Standard	50.0	52.1	104.1	75 - 125 %	X
m & p - Xylene	Standard	100	105.0	105.0	75 - 125 %	X
o - Xylene	Standard	50.0	51.9	103.8	75 - 125 %	X

narrative: Acceptable.

LABORATORY DUPLICATES:

SAMPLE ID	TYPE	SAMPLE RESULT PPB	DUPLICATE RESULT PPB	RPD	ACCEPTABLE	
					YES	NO
980232					RANGE	
Benzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
Toluene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
Ethylbenzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
m & p - Xylene	Matrix Duplicate	<2	<2	0.00	+/- 20 %	X
o - Xylene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X

narrative: Acceptable.

LABORATORY SPIKES:

SAMPLE ID	SPIKE ADDED PPB	SAMPLE RESULT PPB	SPIKE SAMPLE RESULT PPB	%R	ACCEPTABLE	
					YES	NO
2nd Analysis 980232					RANGE	
Benzene	50	<1	52.7	105.4	75 - 125 %	X
Toluene	50	<1	53.3	107	75 - 125 %	X
Ethylbenzene	50	<1	54.6	109	75 - 125 %	X
m & p - Xylene	100	<2	110.0	110.0	75 - 125 %	X
o - Xylene	50	<1	53.4	107	75 - 125 %	X

narrative: Acceptable

AUTO BLANK	SOURCE	PPB (4 analyzed with set)	STATUS
Benzene	Boiled Water	<1.0	ACCEPTABLE
Toluene	Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Boiled Water	<3.0	ACCEPTABLE

narrative: Acceptable.

SOIL VIAL BLANK	SOURCE Lot MB1461	PPB (none analyzed with set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

narrative: Acceptable.

CONTAMINATION CARRYOVER CHECK	SOURCE	PPB (none analyzed with this set)	STATUS
● Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
● Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
● Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
● Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

narrative: Acceptable.

TRIP BLANK	SOURCE	PPB (4 analyzed with this set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

rrative: Acceptable.

ported By: CFV

Approved By: John L. Linder

Date: 3/25/98