3R - 240

REPORTS

DATE:
1998

EL PASO
FIELD SERVICES

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

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,

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

Prepared For

El Paso Field Services
Farmington, New Mexico

Project 17520
Book 1

PHILIP SERVICES CORP

EPFS GROUNDWATER PITS
1998 CLOSURE REPORT

TRUJILLO GAS COM A #1
Meter/Line ID - 95136

RECEIVED
APR 0 5 1999
ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

SITE DETAILS

Legals - Twn: 29N **Rng:** 10W **Sec:** 28 **Unit:** C
NMOCD Hazard Ranking: 40 **Land Type:** FEE
Operator: AMOCO PRODUCTION COMPANY

PREVIOUS ACTIVITIES

Site Assessment: Apr-94 **Excavation:** Apr-94 (30 cy) **Soil Boring:** Mar-97
Monitor Well: Mar-97

The pit was excavated to approximately 7 feet below ground surface (bgs) where groundwater was encountered. A composite soil sample was collected from the excavation bottom and four walls. Approximately 30 cubic yards of impacted soil was removed during excavation. The headspace soil reading from the excavation bottom was 354 parts per million. Soil analytical from the excavation bottom was as follows; benzene - 1.4 mg/kg, total BTEX - 81.6 mg/kg, TPH (418.1) – 6,270 mg/kg.

Groundwater was encountered at approximately 7 feet bgs and a groundwater sample was collected from the open excavation. The sample was above standards. It should be noted that the water sample collected from the pit was not collected from a properly constructed groundwater monitor well and would not accurately represent actual groundwater conditions.

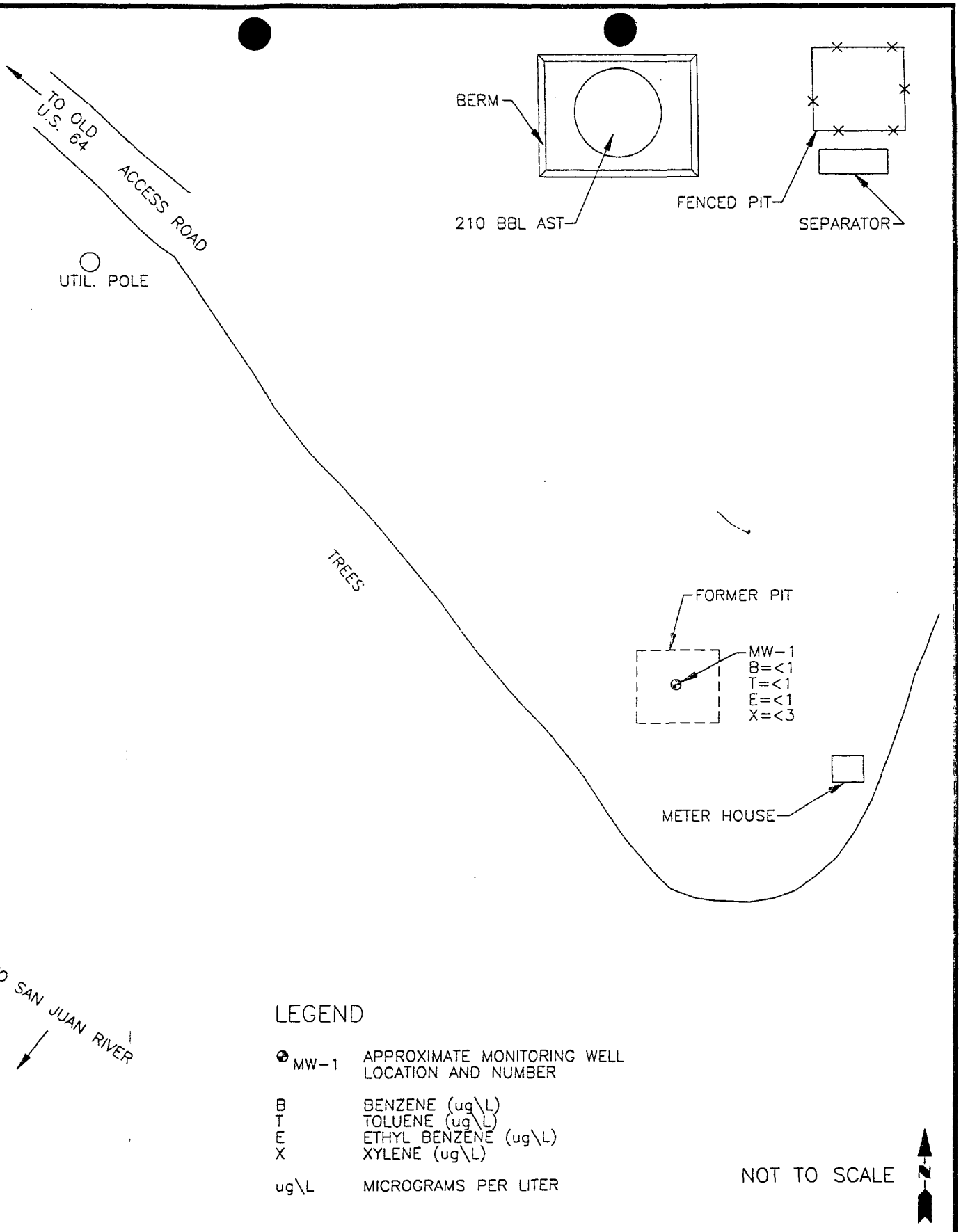
One soil boring was drilled in the center of the former pit. Groundwater was encountered at approximately 7 feet bgs and a monitoring well was installed. No soil samples were collected, as groundwater was encountered. Quarterly groundwater monitoring was initiated on 4/3/97 and continued through 5/5/98. Groundwater analytical data prior to 1998 has been previously submitted in the 1997 Annual Report, along with boring logs and monitoring well installation diagrams.

CONCLUSIONS

Groundwater analytical data has been below laboratory detection limits 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

N

PHILIP SERVICES CORP

TITLE:
TRUJILLO GC A#1
95136

DWN: TMM	DES.: CC	PROJECT NO.: 17520 EPFS GW PITS	
CHKD: CC	APPD:		
DATE: 12/8/97	REV.: 0	FIGURE 1	

COL. 17520Z-001

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 95136 Location: TRUJILLO GAS COM A #1

Operator #: 0203 Operator Name: AMOCO P/L District: BLOOMFIELD

Coordinates: Letter: C Section 28 Township: 29 Range: 10

Or Latitude _____ Longitude _____

Pit Type: Dehydrator ___ Location Drip: X Line Drip: ___ Other: _____

Site Visit Date: 4.12.94 Run: 10 42

SITE ASSESSMENT

NMOCD Zone: (From NMOCD Maps)
- Inside Vulnerable Zone ☒
- Outside ☐

Land Type:
- BLM ☐
- State ☐
- Fee ☒
- Indian _____

Depth to Groundwater
- Less Than 50 Feet (20 points) ☒
- 50 Ft to 99 Ft (10 points) ☐
- Greater Than 100 Ft (0 points) ☐

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? ☐ YES (20 points) ☒ 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) ☐

Name of Surface Water Body SAN JUAN RIVER

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

TOTAL HAZARD RANKING SCORE: 40 **POINTS**

REMARKS

Remarks : TWO PITS ON LOCATION. WILL CLOSE ONLY ONE. PIT IS DRY. LOCATION IS RIGHT NEXT TO SAN JUAN RIVER.

PHASE I EXCAVATION

FIELD REMEDIATION/CLOSURE FORM

GENERAL

Meter: 95136 Location: Trujillo Gas Com A #1

Coordinates: Letter: C Section 28 Township: 29 Range: 10

Or Latitude _____ Longitude _____

Date Started : 4-29-94 Area: 10 Run: 42

FIELD OBSERVATIONS

Sample Number(s): 945045 SP8 _____ _____ _____

Sample Depth: 7 Feet

Final PID Reading 354 ppm PID Reading Depth 7 Feet

	Yes	No	
Groundwater Encountered	☒ (1)	☐ (2)	Approximate Depth 7 Feet

CLOSURE

Remediation Method :

Excavation	☒ (1)	Approx. Cubic Yards 30
Onsite Bioremediation	☐ (2)	
Backfill Pit Without Excavation	☐ (3)	

Soil Disposition:

Envirotech	☐ (1)	☒ (3)	Tierra
Other Facility	☐ (2)	Name:	

Pit Closure Date: 4-29-94 Pit Closed By: BEI

REMARKS

Remarks : STARted remediating pit, hit groundwater at 7ft Alton called OCD. Rick took pictures, soil sample + water samples Took VC sample PID Reading is 354 ppm at 71°
Alton talked to Bill Olson at OCD

Signature of Specialist: James T Pence

(SP3191) 04/07/94

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	JP8	945045
MTR CODE | SITE NAME:	95136	Trujillo Gas Com A #1
SAMPLE DATE | TIME (Hrs):	04/29/94	1400
PROJECT:	Phase I	
DATE OF TPH EXT. | ANAL.:	05/02/94	05/02/94
DATE OF BTEX EXT. | ANAL.:	05/14/94	05/06/94
TYPE | DESCRIPTION:	VC	Brown sand/clay

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS DF	Q	M(g)	V(ml)
BENZENE	1.4	MG/KG				
TOLUENE	<0.25	MG/KG				
ETHYL BENZENE	7.9	MG/KG				
TOTAL XYLENES	72	MG/KG				
TOTAL BTEX	81.6	MG/KG				
TPH (418.1)	6270	MG/KG			0.76	28
HEADSPACE PID	354	PPM				
PERCENT SOLIDS	80.3	%				

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

The Surrogate Recovery was at 93 % for this sample All QA/QC was acceptable.

Narrative:

[illegible]omed analysis.

DF = Dilution Factor Used

Approved By: John Leal

Date: 7/19/96

El Paso Natural Gas Company

CHAIN OF CUSTODY RECORD

Page 1 of 1

PROJECT NUMBER	PROJECT NAME												CONTRACT LABORATORY P. O. NUMBER
	Pit Closure Project # 24324												
SAMPLERS: (Signature) James F Peron				DATE: 4-29-94									
LAB ID	DATE	TIME	MATRIX	SAMPLE NUMBER	TOTAL NUMBER OF CONTAINERS	SAMPLE TYPE	TPH EPA 418.1	BTEX EPA 8020				STEX	REMARKS
	4-29-94	1130	Soil	SP7	1	VG	X	X				5	Ground water 10'
	4-29-94	1400	Soil	SP8	1	VG	X	X				6	Ground water 7'
	4-29-94	1645	Soil	SP9	1	VG	X	X				7	

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
James F Peron	4/29/94 31° 1800	Susan T. Pyron 31°	Susan T. Pyron 30°	5/2/94 30° 1005	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED OF LABORATORY BY: (Signature)

REQUESTED TURNAROUND TIME:
☐ ROUTINE ☐ RUSH

CARRIER CO.

BILL NO.:

SAMPLE RECEIPT REMARKS

CHARGE CODE

RESULTS & INVOICES TO:

FIELD SERVICES LABORATORY
EL PASO NATURAL GAS COMPANY
P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499
505-599-2144 FAX: 505-599-2261

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

Analytical Technologies, Inc.

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

ATI I.D. **405313**

May 13, 1994

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

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On **05/03/94**, 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.

EPA Method 8015 analysis was added on 05/05/94 for sample 945008 per Stacy Sendler.

The matrix spike/spike duplicate data from the samples extracted on 05/05/94 is reported twice reflecting quantification using both the internal standard and external standard protocols. Both protocols were employed to quantify the samples submitted for this project.

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:jd

Enclosure

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX, MTBE (EPA 8020)

CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 405313

PROJECT # : 24324

PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
31	945044	NON-AQ	04/29/94	05/05/94	05/06/94	2
32	945045	NON-AQ	04/29/94	05/05/94	05/06/94	10
33	945046	NON-AQ	04/29/94	05/05/94	05/08/94	20

PARAMETER	UNITS	31	32	33
BENZENE	MG/KG	<0.05	1.4	<0.50
TOLUENE	MG/KG	1.1	<0.25	<0.50
ETHYLBENZENE	MG/KG	1.2	7.9	2.2
TOTAL XYLENES	MG/KG	17	72	27
METHYL-t-BUTYL ETHER	MG/KG	<0.24	<1.2	<2.4
SURROGATE:				
BROMOFLUOROBENZENE (%)		65	93	52*

*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Water

SAMPLE IDENTIFICATION

SAMPLE NUMBER:	945055
MTR CODE | SITE NAME:	95136 TRUJILLO GAS Com A #1
SAMPLE DATE:	4/29/94
SAMPLE TIME (Hrs):	1345
SAMPLED BY:	~~JWB 6/14/94~~ R. Cosby
DATE OF BTEX ANALYSIS:	5/11/94
SAMPLE TYPE:	G

REMARKS: Ref. Soil #945045

EPA Method 8020 (BTEX) RESULTS

PARAMETER	RESULT PPB	QUALIFIER	WQCC LIMIT PPB
BENZENE	3200		10
TOLUENE	2500		740
ETHYL BENZENE	2500		750
TOTAL XYLENES	28,000		620
SURROGATE % RECOVERY	81	Allowed Range 80 to 120 %	

NOTES:

ATI results attached. D/F = 250

Sample contained headspace upon arrival at ATI.

Approved By: John Leach

7/14/94
Date

El Paso Natural Gas Company

CHAIN OF CUSTODY RECORD

Page 1 of 1

PROJECT NUMBER	PROJECT NAME											CONTRACT LABORATORY P. O. NUMBER
	Pit Closure Project # 24324											
SAMPLERS: (Signature)		DATE:										
		4/29/94										
LAB ID	DATE	TIME	MATRIX	SAMPLE NUMBER	TOTAL NUMBER OF CONTAINERS	SAMPLE TYPE	TPH EPA 418.1	BTEX EPA 8020				REMARKS
74 5055	4-29	1345	WATER		2		X	X				REF SOIL (JPB) 945045 TRUJILLO GAS COM A#1 95136
	4-29	1350	SOIL		1		X	X				REF SOIL (JPB) 945045 TRUJILLO GAS COM A#1 95136

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
	4-29-94 1410	James F Pierce	James F Pierce	4/29/94 1800	31°
RELINQUISHED BY: (Signature)	DATE/TIME 30°	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED OF LABORATORY BY: (Signature)
	5/2/94 1025				

REQUESTED TURNAROUND TIME:
☐ ROUTINE ☐ RUSH

CARRIER CO.

BILL NO.:

SAMPLE RECEIPT REMARKS

CHARGE CODE

RESULTS & INVOICES TO:

FIELD SERVICES LABORATORY
EL PASO NATURAL GAS COMPANY
P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499

505-599-2144 FAX: 505-599-2261

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

FM-08-0565A (Rev. 03-94)

PHASE II SOIL BORING

RECORD OF SUBSURFACE EXPLORATION

Borehole # BH-2
Well # 1
Page 1 of 1

PHILIP ENVIRONMENTAL SERVICES INC.
4000 Monroe Road
[illegible]mington, New Mexico 87401
[illegible]5) 326-2262 FAX (505) 326-2388

Project Name EPFS GW PITS
Project Number 17520 Phase 600277
Project Location TRUJILLO GC A #1 - 95136

Elevation
Borehole Location T27 R10 S28 Ltr C
GWL Depth 5.5' BGS
Logged By D CESARK
Drilled By K PADILLA
Date/Time Started 3/24/97 - 1200
Date/Time Completed " - 1330

Well Logged By D CESARK
Personnel On-Site ~~D CESARK~~, C MAIZ
Contractors On-Site J KIRBY
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 BZ	BH	S	Drilling Conditions & Blow Counts
0				BACKFILL						
5				TO 7'						
				GWC 5.5'						
10				COBBLES/GRAVELS C 8'						
				TD = 13'						
15										
20										
25										
30										
35										
40										

Comments: ENCOUNTERED GW C 5.5' BGS. OVER-DRILLED TO 13' BGS + SET GW MW-1. NO SAMPLES COLLECTED. PLEASE REFER TO MON. WELL INSTALLATION RECORD.

Geologist Signature

MONITORING WELL INSTALLATION RECORD

Borehole # 2
Well # 1
Page 1 of 1

Philip Environmental Services, Inc.
4000 Monroe Rd.
Farmington, NM 87401
(505) 326-2262 FAX (505) 326-2388

Project Name EPFS GW PITS
Project Number 17520 Phase 6005.77
Site Location TRUJILLO GC A #1 - 95136

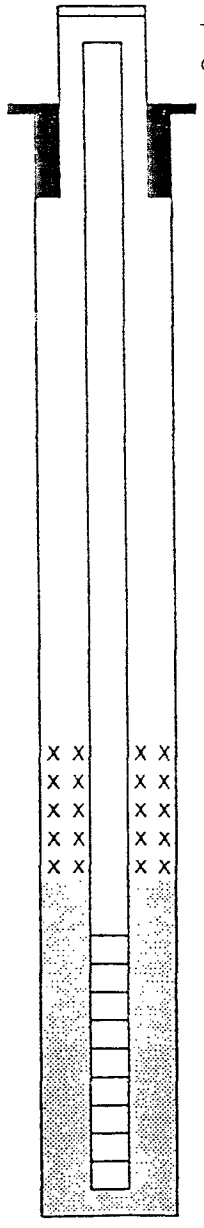
Elevation
Well Location T29N- R10W- S-28- L
GWL Depth 5.5' BGS
Installed By K PADILLA

Date/Time Started 3/24/97 - 1330
Date/Time Completed " - 1500

On-Site Geologist D CESARK
Personnel On-Site ~~D CHARLEY~~, C MAIZ
Contractors On-Site J KIRBY
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	SCH 40 PVC	+2.5'
Bottom of Well Riser	"	-2.5'
Top of Well Screen	.010 SLOT	-2.5'
Bottom of Well Screen	"	-12.5'
Top of Peltonite Seal	ENVIROPLUG	-1'
Bottom of Peltonite Seal	"	-2'
Top of Gravel Pack	10-20 S. SAND	-2'
Bottom of Gravel Pack	"	-12.5'
Top of Natural Cave-In		-12.5'
Bottom of Natural Cave-In		-13'
Top of Groundwater		-5.5'
Total Depth of Borehole		-13'



Top of Protective Casing
Top of Riser +2.5'
Ground Surface -0'-
Top of Seal -1'
Top of Gravel Pack -2'
Top of Screen -2.5'
Bottom of Screen -12.5'
Bottom of Borehole -13'

Comments:

Geologist Signature

MWINSTAL.wk1

PHILIP ENVIRONMENTAL Well Development and Purging Data

☒ Development ☒ Purging Well Number MW-1

Serial No. WDPD- Page 1 of 1

Project Name GW PITS Project Manager C CHANCE Project No. 17520

Client Company EPFS Phase.Task No. 6003.77

Site Name TRUJILLO GC A #1 — 95136 Site Address

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) 12.5' BGS

Initial Depth to Water (feet) 4.5' BGS

Height of Water Column in Well (feet) 8'

Diameter (inches): Well 4 Gravel Pack

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		5.2	
Gravel Pack			
Drilling Fluids			
Total			26

Instruments

Serial No. (If applicable)

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

Water Disposal

Water Removal Data

Date	Time	Development Method: Pump	Development Method: Bailer	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons): Increment	Water Volume Removed (gallons): Cumulative	Product Volume Removed (gallons): Increment	Product Volume Removed (gallons): Cumulative	Temperature (°C)	pH	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Comments
4/3	1325		X				10	10			10.7	8.22	078		
"	1340		"				10	20			11.0	8.07	074		
"	1350		"				6	26			10.8	8.03	075		

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

Comments First bailer was clear, muddy after that, no evidence of HC's, did not bail well dry.

Developer's Signature(s) [signature] Date 4/3/97 Reviewer Date

PHILIP ENVIRONMENTAL

Water Sampling Data

Location No. MW-1

Serial No. WSD-

Group List Number

Sample Type: ☒ Groundwater ☐ Surface Water ☐ Other Date 4/3/97

Project Name EPFS GW PITS Project No. 17520

Project Manager C CHANCE Phase.Task No. 6003.77

Site Name TRUJILLO GC A #1 — 95136

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)

Preservatives: H = HCl; N = HNO_3; S = H_2SO_4; 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	DRC28	VV	40		X	Y	X		TRIP BLANK
"	DEC29	"	"		X	Y	X		MW-1

Filter Type Chain-of-Custody Form Number

Comments * PLEASE REFER TO WELL DEVP. & PURGING DATA FORM

Signature Date 4/3/97 Reviewer Date

EL PASO FIELD SERVICES

5-22-97

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	DRC29	970248
MTR CODE | SITE NAME:	95136	Trujillo GC A#1
SAMPLE DATE | TIME (Hrs):	4/3/97	1410
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 97.8 for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative:

Approved By: John Ladden Date: 4/8/97

970248,4/8/97

El Paso Natural Gas Company

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
# 24324	Pit Closure Project

SAMPLERS: (Signature) DATE: 4/3/97

LAB ID	DATE	TIME	MATRIX	FIELD ID	TOTAL NUMBER OF CONTAINERS	SAMPLE TYPE	TPH EPA 418.1	BTEX EPA 8020	LAB PID			SEQUENCE #	REMARKS
970246	4/3	1140	W	DRC 27	3	M		X				21	GCU #188E - 93296 (MW-1)
970247	4/3	1145	B	DRC 28	1	B		X				21	TRIP BLANK
970248	4/3	1410	W	DRC 29	3	M		X				22	TRUJILLO GC A #1 - 95136 (MW-1)

REQUESTED ANALYSIS

CONTRACT LABORATORY P. O. NUMBER

32°

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
[signature]	4/3/97 1530		[signature]	4-4-97 10:35	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED OF LABORATORY BY: (Signature)
				4-4-97 1035	Marlo Armenta

REQUESTED TURNAROUND TIME:
☐ ROUTINE ☐ RUSH

CARRIER CO.

BILL NO.:

SAMPLE RECEIPT REMARKS

CHARGE CODE

RESULTS & INVOICES TO:

FIELD SERVICES LABORATORY
EL PASO NATURAL GAS COMPANY
P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499

505-599-2144 FAX: 505-599-2261

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

FM-08-0565 A (Rev. 05-94)

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
970248 *	95136	Trujillo GC A#1	4/3/97	Phase II Drilling - Initial	<	1	<	1	<	1	<	3	<	6
970804 *	95136	Trujillo GC A#1	8/4/97	Sample 4 - 1st Qtr	<	1	<	1	<	1	<	3	<	6
971179 *	95136	Trujillo GC A#1	11/3/97	Sample 4 - 2nd Qtr	<	1	<	1	<	1	<	3	<	6
980143	95136	Trujillo GC A#1	2/5/98	Sample 4 - 3rd Qtr	<	1	<	1	<	1	<	3	<	6
980346	95136	Trujillo GC A#1	5/5/98	Sample 4 - 4th Qtr	<	1	<	1	<	1	<	3	<	6

* Analytical reports provided to NMOCD in prior annual report.

EL PASO FIELD SERVICES

Well Development and Purging Data

☐ Development
☒ Purging

Well Number MW-1

Site Name TRUJILLO GC A#1

Meter Code 95136

Development Criteria

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

Water Volume Calculation

Initial Depth of Well (feet) 14.80
Initial Depth to Water (feet) 6.75
Height of Water Column in Well (feet) 8.05
Diameter (inches): Well 4 Gravel Pack

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		5.3	16.0
Gravel Pack			
Drilling Fluids			
Total			

Instruments

☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☒ Other D.O. CHEMETS KIT

Methods of Development

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

☐ Other

Water Disposal

KOT2 SEPARATOR

Water Removal Data

Date	Time	Development Method		Removal Rate	Intake Depth	Ending Water Depth	Water Volume Removed (gal)		Product Volume Removed (gallons)		Temperature °C	pH	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
		Pump	Bailer	(gal/min)	(feet)	(feet)	Increment	Cumulative	Increment	Cumulative					
5-5-98	1155										15.5	6.95	1082		
5-5-98	1201						5.0	5.0			14.0	7.19	1191		
5-5-98	1207						5.0	10.0			14.0	7.25	1231		
5-5-98	1213						5.0	15.0			14.0	7.27	1178		
5-5-98	1219						5.0	20.0			13.5	7.30	1216	1.5	

Comments THE NEW METER CODE FOR THIS LOCATION IS 97969

Developer's Signature Dennis Bird Date 5-5-98 Reviewer John Fowler Date 5/11/98

EL[illegible]SO FIE[illegible] SERVICES

Well Development and Purging Data

☐ Development
☒ Purging

Well Number MW-1

Site Name TRUJILLO GC A #1

Meter Code 95136

Development Criteria

☒ 3 to 5 Casing Volumes of Water Removel
☐ 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) 14.80
Initial Depth to Water (feet) 7.43
Height of Water Column in Well (feet) 7.37
Diameter (inches): Well 4 Gravel Pack_____

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		4.9	14.6
Gravel Pack			
Drilling Fluids			
Total			

Instruments

☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☒ Other D.O. CHEMETS KIT

Water Disposal

KUTZ SEPARATOR

Water Removal Data

Date	Time	Development Method		Removal Rate	Intake Depth	Ending Water Depth	Water Volume Removed (gal)		Product Volume Removed (gallons)		Temperature °C	pH	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
		Pump	Bailer	(gal/min)	(feet)	(feet)	Increment	Cumulative	Increment	Cumulative					
2-5-98	1207										10.7	7.19	1042		
2-5-98	1211						5.0	5.0			10.2	7.16	1107		
2-5-98	1217						5.0	10.0			10.4	7.06	1118		
2-5-98	1223						5.0	15.0			10.3	7.02	1128		
2-5-98	1228						5.0	20.0			10.2	7.05	1131	1.5	

Comments THE NEW METER CODE FOR THIS LOCATION IS 97969

Developer's Signature Dennis Bird Date 2-5-98 Reviewer John Farb Date 2/17/98

EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980143
MTR CODE | SITE NAME:	95136	Trujillo GC A #1
SAMPLE DATE | TIME (Hrs):	2/5/98	1243
PROJECT:	Sample 4 3rd Quarter	
DATE OF BTEX EXT. | ANAL.:	2/6/98	2/6/98
TYPE | DESCRIPTION:	MW-1	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				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 95.2 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Narrative:

Approved By: John Fortner Date: 2/17/98

980143BTEXMW,2/10/98

SAMPLE 4 3RD QTR

El Paso Natural Gas Company

A 2195

2-12-98

CHAIN OF CUSTODY RECORD

Project No.	Project Name	Type and No. of Sample Containers	Preservation Technique	Requested Analysis				Remarks
	MC #95136			BTEX				
Samplers: (Signature) Dennis Bird	Date: 2-5-98							

MATRIX	Date	Time	Comp.	GRAB	Sample Number							
WATER	2-5-98	1243		X	980143	5	4°C	X				TRUITT GC A #1 MW-1

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Dennis Bird	2-5-98 1713				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks:	
		Marlon Hopper	2/6/98 1145		

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	980346
MTR CODE | SITE NAME:	95136	Trujillo GC A #1
SAMPLE DATE | TIME (Hrs):	5/5/98	1230
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	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	<6	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 94.7 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Narrative:

Approved By: John Fowler Date: 5/11/98

980346BTEXMW,5/8/98

Sample 4 4TH QTR

El Paso Natural Gas Company

CHAIN OF CUSTODY RECORD

5-18-98 Hall.
5-18-98 Excel.
5-18-98 Chem.

A 2657

Project No.	Project Name	Type and No. of Sample Containers	Preservation Technique	Requested Analysis				Remarks
	MC# 95136			BTXE				
Samplers: (Signature) Dennis Bird	Date: 5-5-98							

MATRIX	Date	Time	Comp.	GRAB	Sample Number							
WATER	5-5-98	1230		X	980346	G-1	4°C	X				TRO7660 GCA #1 MW-1

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Dennis Bird	5-5-98 1715				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks:	
		Marlon Hoppe	5/7/98 0900		

Carrier Co:	Carrier Phone No.	Date Results Reported / by: (Signature)
Air Bill No.:		

EL PASO FIELD SERVICES

QUALITY CONTROL REPORT
EPA METHOD 8020 - BTEX

Samples: 980345 to 980348, 980350 to 980352

QA/QC for 5/7/98 Sample Set

LABORATORY CALIBRATION CHECKS / LABORATORY CONTROL SAMPLES:

SAMPLE NUMBER ICV LA-52589 50 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE RANGE	YES	NO
Benzene	Standard	50.0	49.7	99.4	75 - 125 %	X	
Toluene	Standard	50.0	50.9	102	75 - 125 %	X	
Ethylbenzene	Standard	50.0	51.7	103	75 - 125 %	X	
m & p - Xylene	Standard	100	104.0	104.0	75 - 125 %	X	
o - Xylene	Standard	50.0	50.8	102	75 - 125 %	X	

SAMPLE NUMBER LCS LA-45476 25 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE RANGE	YES	NO
Benzene	Standard	25.0	25.1	100.5	39 - 150	X	
Toluene	Standard	25.0	25.6	102	46 - 148	X	
Ethylbenzene	Standard	25.0	26.0	104	32 - 160	X	
m & p - Xylene	Standard	50.0	52.7	105	Not Given	X	
o - Xylene	Standard	25.0	25.7	103	Not Given	X	

SAMPLE NUMBER CCV LA-52589 50 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE RANGE	YES	NO
Benzene	Standard	50.0	48.8	97.5	75 - 125 %	X	
Toluene	Standard	50.0	50.0	100.0	75 - 125 %	X	
Ethylenzene	Standard	50.0	51.2	102.3	75 - 125 %	X	
m & p - Xylene	Standard	100	103.0	103.0	75 - 125 %	X	
o - Xylene	Standard	50.0	49.9	100	75 - 125 %	X	

SAMPLE NUMBER CCV LA-52589 50 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE RANGE	YES	NO
Benzene	Standard	50.0	48.1	96.2	75 - 125 %	X	
Toluene	Standard	50.0	49.0	98.1	75 - 125 %	X	
Ethylbenzene	Standard	50.0	50.2	100.3	75 - 125 %	X	
m & p - Xylene	Standard	100	100.7	100.7	75 - 125 %	X	
o - Xylene	Standard	50.0	49.1	98.1	75 - 125 %	X	

Narrative: Acceptable.

LABORATORY DUPLICATES:

SAMPLE ID 980345	TYPE	SAMPLE RESULT PPB	DUPLICATE RESULT PPB	RPD	ACCEPTABLE RANGE	YES	NO
Benzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X	
Toluene	Matrix Duplicate	1.8	1.8	0.31	+/- 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 2nd Analysis 980345	SPIKE ADDED PPB	SAMPLE RESULT PPB	SPIKE SAMPLE RESULT PPB	%R	ACCEPTABLE RANGE	YES	NO
Benzene	50	<1	49.2	98.4	75 - 125 %	X	
Toluene	50	1.8	51.8	100	75 - 125 %	X	
Ethylbenzene	50	<1	50.2	100	75 - 125 %	X	
m & p - Xylene	100	<2	101.3	101.3	75 - 125 %	X	
o - Xylene	50	<1	50.2	100	75 - 125 %	X	

Narrative: Acceptable

AUTO BLANK	SOURCE	PPB (2 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 (2 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.

Reported By: CV Approved By: [signature] Date: 5/11/98

EL PASO FIELD SERVICES

QUALITY CONTROL REPORT
EPA METHOD 8020 - BTEX

Samples: 980132 to 980135, 980142 to 980145

QA/QC for 2/6/98 Sample Set

LABORATORY CALIBRATION CHECKS / LABORATORY CONTROL SAMPLES:

SAMPLE NUMBER ICV LA-52589 50 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE RANGE	YES	NO
Benzene	Standard	50.0	47.5	95.0	75 - 125 %	X	
Toluene	Standard	50.0	47.8	96	75 - 125 %	X	
Ethylbenzene	Standard	50.0	48.3	97	75 - 125 %	X	
m & p - Xylene	Standard	100	96.4	96.4	75 - 125 %	X	
o - Xylene	Standard	50.0	48.4	97	75 - 125 %	X	

SAMPLE NUMBER LCS LA-45476 25 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE RANGE	YES	NO
Benzene	Standard	25.0	24.7	98.7	39 - 150	X	
Toluene	Standard	25.0	24.5	98	46 - 148	X	
Ethylbenzene	Standard	25.0	24.5	98	32 - 160	X	
m & p - Xylene	Standard	50.0	48.8	98	Not Given	X	
o - Xylene	Standard	25.0	24.5	98	Not Given	X	

SAMPLE NUMBER CCV LA-52589 50 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE RANGE	YES	NO
Benzene	Standard	50.0	49.2	98.4	75 - 125 %	X	
Toluene	Standard	50.0	49.4	98.7	75 - 125 %	X	
Ethylenzene	Standard	50.0	49.6	99.2	75 - 125 %	X	
m & p - Xylene	Standard	100	98.9	98.9	75 - 125 %	X	
o - Xylene	Standard	50.0	49.7	99	75 - 125 %	X	

SAMPLE NUMBER CCV LA-52589 50 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE RANGE	YES	NO
Benzene	Standard	50.0	49.3	98.5	75 - 125 %	X	
Toluene	Standard	50.0	50.4	100.8	75 - 125 %	X	
hylbenzene	Standard	50.0	49.9	99.7	75 - 125 %	X	
& p - Xylene	Standard	100	99.3	99.3	75 - 125 %	X	
o - Xylene	Standard	50.0	50.0	100.0	75 - 125 %	X	

Narrative: Acceptable.

SAMPLE NUMBER CCV LA-52589 50 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE RANGE	YES	NO
Benzene	Standard	50.0	47.6	95.2	75 - 125 %	X	
Toluene	Standard	50.0	47.0	94.0	75 - 125 %	X	
Ethylbenzene	Standard	50.0	47.9	95.7	75 - 125 %	X	
m & p - Xylene	Standard	100	95.0	95.0	75 - 125 %	X	
o - Xylene	Standard	50.0	48.5	97.0	75 - 125 %	X	

Narrative: Acceptable.

LABORATORY DUPLICATES:

SAMPLE ID 980143	TYPE	SAMPLE RESULT PPB	DUPLICATE RESULT PPB	RPD	ACCEPTABLE RANGE	YES	NO
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 2nd Analysis 980143	SPIKE ADDED PPB	SAMPLE RESULT PPB	SPIKE SAMPLE RESULT PPB	%R	ACCEPTABLE RANGE	YES	NO
Benzene	50	<1	48.7	97.3	75 - 125 %	X	
Toluene	50	<1	48.4	97	75 - 125 %	X	
Ethylbenzene	50	<1	48.6	97	75 - 125 %	X	
m & p - Xylene	100	<2	96.7	96.7	75 - 125 %	X	
o - Xylene	50	<1	48.6	97	75 - 125 %	X	

Narrative: Acceptable

AUTO BLANK	SOURCE	PPB (2 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 (3 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

arrative: Acceptable.

eported By: CW Approved By: John Fardi Date: 2/17/98