3R - 217

# REPORTS

# DATE:

July, 1997

EL PASO
FIELD SERVICES

November 5, 1997

**Certified Mail**
**Return Receipt Nos. P 532 649 088**
**P 532 649 089**

RECEIVED
NOV 1 1 1997
Environmental Bureau
Oil Conservation Division

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

**Re: Request for Closure of Eleven Groundwater Locations**

Dear Mr. Olson:

I have enclosed closure packages for eleven groundwater locations that were identified during our pit closure project. El Paso Field Services (EPFS) hereby requests your review and approval for closure of these sites.

I have included a summary listing of the eleven locations. If you have any questions regarding this information, please call me at 505/599-2141.

Sincerely,

Sandra D. Miller
Environmental Manager

xc: Mr. Bill Liesse, BLM w/o enclosures
Mr. Denny Foust, NMOCD - Aztec w/enclosures

# Groundwater Locations
# Request for Closure, 11/97

| Meter/Line # | Location/Line Name | LTR | Sec | TN | RG | Land Type |
|---|---|---|---|---|---|---|
| 74943 | NM COM G1 | P | 36 | 30 | 10 | 1 - State |
| LD102 | 2C-22 #1 LINE DRIP | N | 35 | 24 | 06 | 2 - Federal |
| 94180 | SALAZAR G 34-1 | K | 34 | 25 | 06 | 2 - Federal |
| 89230 | JOHNSTON FEDERAL #3A | I | 12 | 30 | 09 | 2 - Federal |
| 73079 | Mae Gail Com #1 | E | 24 | 29 | 11 | 4 - Fee |
| 70862 | MCGRATH #1 | F | 07 | 30 | 11 | 4 - Fee |
| 93156 | MARY ACKROYD #1 | J | 18 | 30 | 11 | 4 - Fee |
| 93828 | JACQUEZ #3 | E | 25 | 30 | 09 | 4 - Fee |
| 94984 | ANDERSON GAS COM A#1 PC | C | 28 | 29 | 10 | 4 - Fee |
| 93296 | GALLEGOS CANYON UNIT 188E | B | 30 | 29 | 12 | 4 - Fee |
| 93462 | GALLEGOS CANYON UT 145 E | D | 26 | 29 | 12 | 4 - Fee |

filed individually in case files

# SAN JUAN BASIN PIT CLOSURES
## San Juan Basin, New Mexico

## Pit Closure Report

**July 1997**



**Prepared For**

**El Paso Field Services**
**Farmington, New Mexico**

**Project 17520**

PHILIP ENVIRONMENTAL

# Closure Checklist

## Meter Code 73079

Summary ☑
Site Map ☑
Site Assessment Sheet ☑

**Phase I Excavation** 1

- closure form ☑
- soil analytical results ☑
- soil chain-of-custody ☑
- groundwater analytical results ☐
- groundwater chain-of-custody ☐

**Phase II Soil Boring** ____

- boring log ☐
- soil analytical results ☐
- soil chain-of-custody ☐
- well installation form ☐
- development form ☐
- groundwater analytical ☐
- groundwater chain-of-custody ☐

**Phase III Excavation** ____

- closure form ☐
- soil analytical results ☐
- soil chain-of-custody ☐
- groundwater analytical ☐
- groundwater chain of-custody ☐

**Recon/Geoprobe performed** 1

- groundwater analytical ☑
- soil-gas analytical ☐

If item boxes are not checked they are not applicable

PHILIP ENVIRONMENTAL

Environmental Services Group
Southern Region

**Mae Gail Com #1**
**Meter Code 73079**

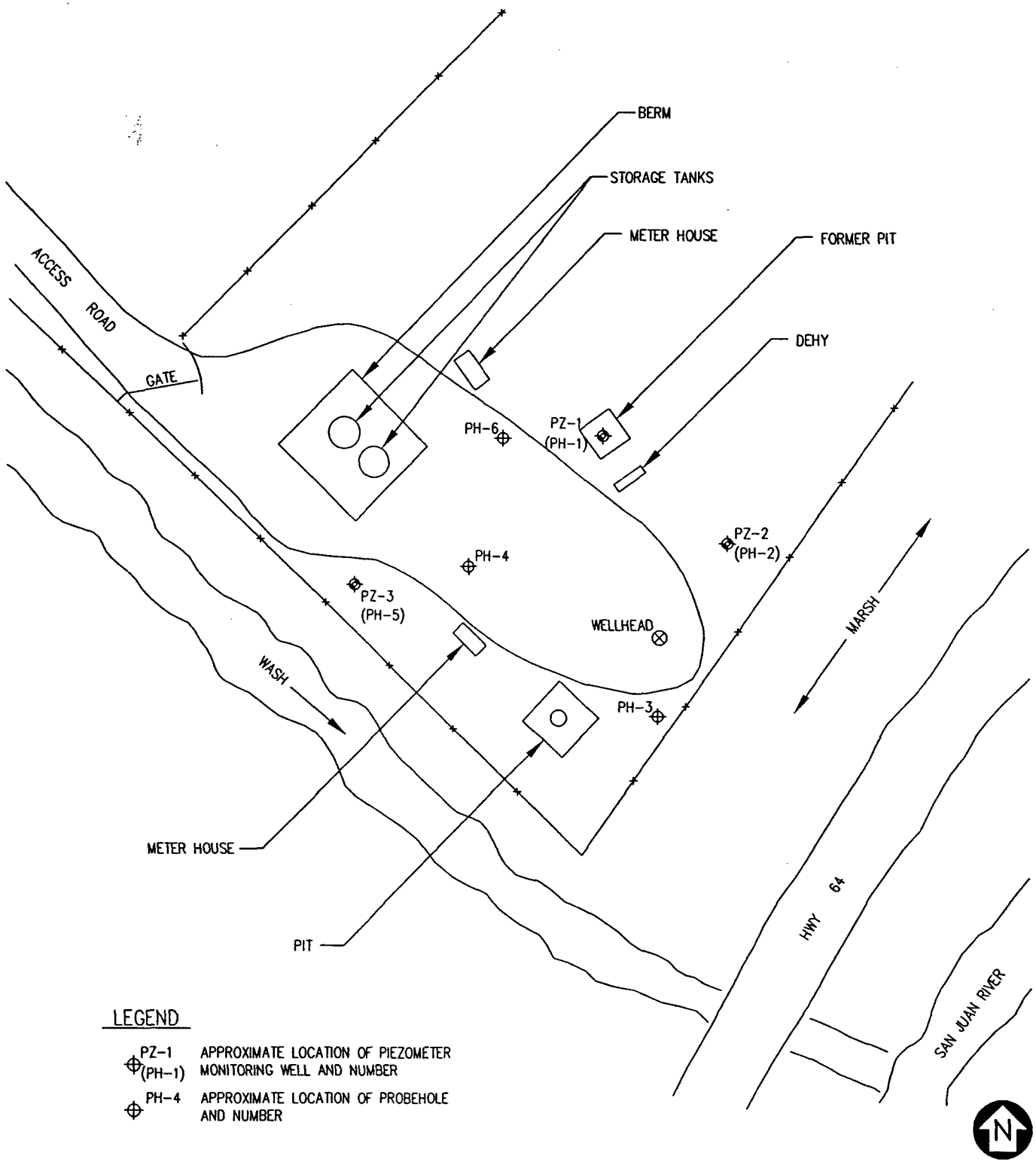
Pit was excavated to 5 feet beneath ground surface. The headspace soil reading from excavation bottom was 12 parts per million. Soil analytical were as follows; benzene - <0.03 mg/kg, total BTEX - <0.12 mg/kg, TPH - 81.3 mg/kg.

A Geoprobe survey was conducted and six groundwater samples were collected between the pit and valley bottom. The analytical results are as follows; PH-01 benzene - <1 ug/L, toluene - <1 ug/L, ethylbenzene - <1 ug/L, xylenes - 1.52 ug/L, PH-02 benzene - <1 ug/L, toluene - <1 ug/L, ethylbenzene - <1 ug/L, xylenes - <3 ug/L, PH-03 benzene - <1 ug/L, toluene - 1.62 ug/L, ethylbenzene - <1 ug/L, xylenes - 1.57 ug/L, PH-04 benzene - <1 ug/L, toluene - <1 ug/L, ethylbenzene - <1 ug/L, xylenes - <3 ug/L, PH-05 benzene - 8.49 ug/L, toluene - <1 ug/L, ethylbenzene - <1 ug/L, xylenes - <3 ug/L,
PH-06 benzene - <1 ug/L, toluene - 1.96 ug/L, ethylbenzene - <1 ug/L, xylenes - 1.98 ug/L. Groundwater was encountered at approximately 4 to 6 feet.

This site is ready for closure based on the following:

- Excavation soil analytical results are below standards.
- Geoprobe groundwater analytical from within the former pit, and up and down gradient of the former pit are below standards.

PHILIP ENVIRONMENTAL SERVICES CORPORATION
4000 Monroe Road ◦ Farmington, NM 87401
(505) 326-2262 ◦ Fax (505) 326-2388




LEGEND

PZ-1 (PH-1) — APPROXIMATE LOCATION OF PIEZOMETER MONITORING WELL AND NUMBER

PH-4 — APPROXIMATE LOCATION OF PROBEHOLE AND NUMBER

NOTE: THIS FIGURE WAS PREPARED USING A SITE SKETCH MADE BY C.M. CHANCE, PHILIP ENVIRONMENTAL.

PHILIP ENVIRONMENTAL



| NO. | REVISION | BY | APPR. | DATE |
|---|---|---|---|---|
| 3 | RE-LABELED PIEZOMETER MONITORING WELLS | M.R.W. | | 5/13/97 |
| 2 | GENERAL REVISIONS | M.R.W. | | 4/30/97 |
| 1 | GENERAL REVISIONS | M.R.W. | | 4/29/97 |

TITLE:

SITE PLAN
MAE GAIL COM #1 73079
T29-R11-S24-E

| | | |
|---|---|---|
| SCALE | NONE | DATE |
| DWN: | M.R.W. | 4/28/97 |
| DES: | | |
| CHKD: | | |
| APPD: | | |

PROJECT NO: 17520
EPFS PITS
BLOOMFIELD, NM

FIGURE 1

REV: 3

COL. J:\17520\CIV\CL3-1

# FIELD PIT SITE ASSESSMENT FORM

## GENERAL

Meter: 73079 Location: Mae Gail Com #1
Operator #: 1862 Operator Name: Dugan P/L District: Bloomfield
Coordinates: Letter: E Section 24 Township: 29 Range: 11
Or Latitude _____ Longitude _____
Pit Type: Dehydrator X Location Drip: ___ Line Drip: ___ Other: _____
Site Assessment Date: 6-13-95 Area: 10 Run: 81

## 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)
FFF 6-13-95

**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 San Juan River
(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:** _____ **POINTS**

## REMARKS

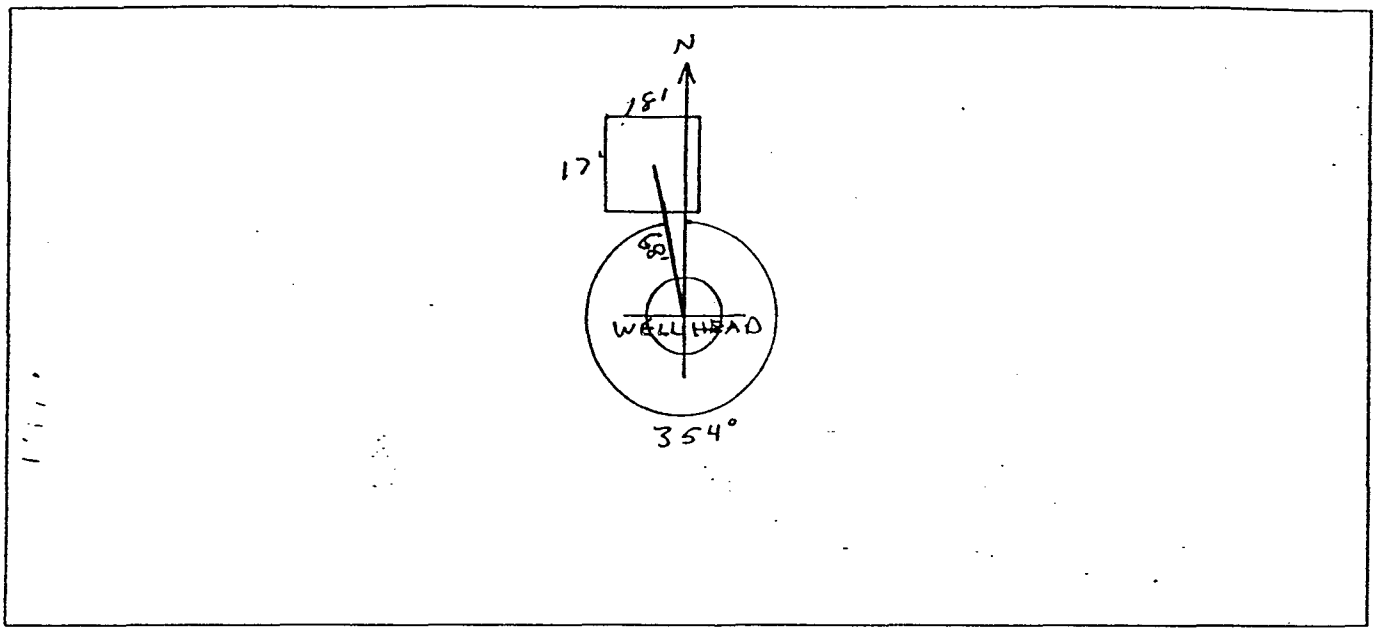
Remarks : Redline + Topo both show inside VZ
3 pits on loc 2 pits have Fiberglass Liners. Dehy pit belongs to EPNG with close Dehy pit
Dig + Haul

ORIGINAL PIT LOCATION

## ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 354° Footage from Wellhead 68'

b) Length : 18' Width : 17' Depth : 3'




REMARKS

Remarks :

Photos 0910 4pict

Pit has water in it, does not look to have any product in water

Completed By:

James F Powers

Signature

6-13-95

Date

# Phase I Excavation

# FIELD PIT REMEDIATION/CLOSURE FORM

## GENERAL

Meter: 73079 Location: Mae Gail com #1

Coordinates: Letter: E Section 24 Township: 29 Range: 11

Or Latitude _____ Longitude _____

Date Started : 7-7-95 Run: 10 81

## FIELD OBSERVATIONS

Sample Number(s): MK 427 427 _____ _____ _____

Sample Depth: 5' Feet

Final PID Reading 12 ppm PID Reading Depth 5 Feet

| | Yes | No |
|---|---|---|
| Groundwater Encountered | ☐ | ☒ |

Approximate Depth _____ Feet

## CLOSURE

Remediation Method :

Excavation ☒ Approx. Cubic Yards 30 LT 9/28/95

Onsite Bioremediation ☐

Backfill Pit Without Excavation ☐

Soil Disposition:

Envirotech ☐ ☒ Tierra

Other Facility ☐ Name: _____

Pit Closure Date: 7-7-95 Pit Closed By: Phillips

## REMARKS

Remarks : Arrived took Fence Down Dug Sample Hole Soil was Black and very wet Took Sample at 5' Soil was Gray No Hydrocarbon odor water was seeping in From side Bob Took water sample 24x23x3 : FENCE No NET 9/28/95 LT

Signature of Specialist: Morgan Killion

EL PASO FIELD SERVICES

# FIELD SERVICES LABORATORY
# ANALYTICAL REPORT
# PIT CLOSURE PROJECT

## SAMPLE IDENTIFICATION

| | Field ID | Lab ID |
|---|---|---|
| SAMPLE NUMBER: | MK427 | 946969 |
| MTR CODE \| SITE NAME: | 73079 | MaeGail Com #1 |
| SAMPLE DATE \| TIME (Hrs): | 7/7/95 | 1500 |
| PROJECT: | Phase I | |
| DATE OF TPH EXT. \| ANAL.: | 7/12/95 | 7/12/95 |
| DATE OF BTEX EXT. \| ANAL.: | 7/17/95 | 7/17/95 |
| TYPE \| DESCRIPTION: | VC | Dark gray black sand & clay |

Field Remarks: Wet sample

## RESULTS

| PARAMETER | RESULT | UNITS | QUALIFIERS | | | |
|---|---|---|---|---|---|---|
| | | | DF | Q | M(g) | V(ml) |
| BENZENE | <0.03 | MG/KG | | | | |
| TOLUENE | <0.03 | MG/KG | | | | |
| ETHYL BENZENE | <0.03 | MG/KG | | | | |
| TOTAL XYLENES | <0.03 | MG/KG | | | | |
| TOTAL BTEX | <0.12 | MG/KG | | | | |
| TPH (418.1) | 81.3 | MG/KG | | | 1.99 | 28 |
| HEADSPACE PID | 12 | PPM | | | | |
| PERCENT SOLIDS | 80.0 | % | | | | |

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

The Surrogate Recovery was at 96.0 for this sample All QA/QC was acceptable.

Narrative:

ATI Results Attached

= Dilution Factor Used

Approved By: John Scalla INGVZPIT.XLS Date: 8/3/95

El Paso Natural Gas Company

# CHAIN OF CUSTODY RECORD

Page _____ of _____

| PROJECT NUMBER | PROJECT NAME |
|---|---|
| # 24324 | Pit Closure Project |

SAMPLERS: (Signature) Morgan Killion

DATE: 7-7-95

| LAB ID | DATE | TIME | MATRIX | FIELD ID | TOTAL NUMBER OF CONTAINERS | SAMPLE TYPE | TPH EPA 418.1 | BTEX EPA 8020 | LAB PID | | | SEQUENCE # | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 946969 | 7-7-95 | 1500 | Soil | mK427 | 1 | VC | X | X | | | | 383 | Gray Soil No Hydrocarbon odor |

CONTRACT LABORATORY P. O. NUMBER

REQUESTED ANALYSIS

| RELINQUISHED BY: (Signature) | DATE/TIME | RECEIVED BY: (Signature) | RELINQUISHED BY: (Signature) | DATE/TIME | RECEIVED BY: (Signature) |
|---|---|---|---|---|---|
| Morgan Killion | 7-7-95 16:46 | Kelly Stovall | Kelly Stovall | 7/12/95 | |
| | DATE/TIME | RECEIVED BY: (Signature) | RELINQUISHED BY: (Signature) | DATE/TIME | RECEIVED OF LABORATORY BY: (Signature) |
| | | | | | RL Bp |

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

.PH by Modified 418.1 by Infrared

**Date of Analysis: July 12, 1995**

**17 Pit Samples**
**2 SJRP M/W**

**LABORATORY CONTROL SAMPLES: CALIBRATION CHECKS**

| SAMPLE ID | SOURCE | TRUE VALUE (PPM) | FOUND (MG/KG) | %R | ACCEPTABLE RANGE 75-125 %R YES | NO |
|---|---|---|---|---|---|---|
| INITIAL CALIBRATION VERIF. "B" Heavy Oil (Lot M3G9616) | HORIBA | 100 | 100 | 100 | X | |

Narrative: Acceptable.

**LABORATORY DUPLICATES:**

| SAMPLE NUMBER | TYPE | SAMPLE RESULT (S)MG/KG | DUPLICATE RESULT (D)MG/KG | RPD | ACCEPTABLE RANGE + / - 35% YES | NO |
|---|---|---|---|---|---|---|
| 946966 | 2nd Extract | 139 | 100 | 32.9 | X | |
| 946970 | 2nd Extract | 127 | 100 | 24.0 | X | |

Narrative : Acceptable.

**LABORATORY SPIKES:**

| SAMPLE NUMBER | SPIKE ADDED (SA)MG/KG | SAMPLE RESULT (S)MG/KG | SPIKE SAMPLE RESULT (SR)MG/KG | %R | ACCEPTABLE RANGE 75-125 %R YES | NO |
|---|---|---|---|---|---|---|
| 946966 | 3180 | 139 | 3660 | 111 | X | |
| 946970 | 2990 | 127 | 3700 | 119 | X | |

Narrative: Acceptable.

**REFERENCE SOIL (Laboratory Control Sample):**

| SAMPLE ID | SOURCE | KNOWN VALUE (MG/KG) | SAMPLE RESULT FOUND (MG/KG) | MFG SPECIFIED RANGE | ACCEPTABLE YES | NO |
|---|---|---|---|---|---|---|
| ERA TPH STANDARD #1 LOT # 91026 | ENVIRONMENTA RESOURCE ASS. | 1340 | 1620 | 804 - 1680 | X | |
| ERA TPH STANDARD #2 w/int LOT # 91026 | ENVIRONMENTA RESOURCE ASS. | 2590 | 3210 | 1550 - 3240 | X | |

Narrative: Acceptable.

**LABORATORY REAGENT BLANK:**

| SAMPLE ID | SOURCE | TPH LEVEL (MG/KG) | STATUS |
|---|---|---|---|
| Freon Solvent | EPNG Lab | <10.0 | ACCEPTABLE |
| Reagent Blank | EPNG Lab | <10.0 | ACCEPTABLE |

Narrative: Acceptable.

Extracted: 07/12/95

Approved By: _____ Date: 14-Jul-95

Analytical Technologies, Inc.

# GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)

CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 507340

PROJECT # : 24324

PROJECT NAME : PIT CLOSURE/PHASE I PHASE II

| SAMPLE ID. = | CLIENT I.D. | MATRIX | DATE SAMPLED | DATE EXTRACTED | DATE ANALYZED | DIL. FACTOR |
|---|---|---|---|---|---|---|
| 04 | 946965 | NON-AQ | 07/10/95 | 07/17/95 | 07/17/95 | 1 |
| 05 | 946966 | NON-AQ | 07/10/95 | 07/17/95 | 07/17/95 | 1 |
| 06 | 946969 | NON-AQ | 07/07/95 | 07/17/95 | 07/17/94 | 1 |

| PARAMETER | UNITS | 04 | 05 | 06 |
|---|---|---|---|---|
| BENZENE | MG/KG | <0.025 | <0.025 | <0.025 |
| TOLUENE | MG/KG | <0.025 | <0.025 | <0.025 |
| ETHYLBENZENE | MG/KG | <0.025 | <0.025 | <0.025 |
| TOTAL XYLENES | MG/KG | <0.025 | <0.025 | <0.025 |
| SURROGATE: | | | | |
| BROMOFLUOROBENZENE (%) | | 98 | 97 | 96 |

Analytical Technologies, Inc.

7-17-95

CLIENT : EL PASO NATURAL GAS CO. DATE RECEIVED : 07/14/95
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE/PHASE I PHASE II REPORT DATE : 07/20/95

ATI ID: 507340

| ATI # | CLIENT DESCRIPTION | MATRIX | DATE COLLECTED |
|---|---|---|---|
| 01 | 946962 | NON-AQ | 07/10/95 |
| 02 | 946963 | NON-AQ | 07/10/95 |
| 03 | 946964 | NON-AQ | 07/10/95 |
| 04 | 946965 | NON-AQ | 07/10/95 |
| 05 | 946966 | NON-AQ | 07/10/95 |
| 06 | 946969 | NON-AQ | 07/07/95 |
| 07 | 946970 | NON-AQ | 07/10/95 |
| 08 | 946971 | NON-AQ | 07/10/95 |
| 09 | 946972 | NON-AQ | 07/11/95 |
| 10 | 946973 | NON-AQ | 07/11/95 |
| 11 | 946975 | NON-AQ | 07/11/95 |
| 12 | 946981 | NON-AQ | 07/12/95 |
| 13 | 946982 | NON-AQ | 07/12/95 |
| 14 | 946983 | NON-AQ | 07/12/95 |
| 15 | 946984 | NON-AQ | 07/12/95 |
| 16 | 946985 | NON-AQ | 07/12/95 |
| 17 | 946986 | NON-AQ | 07/12/95 |
| 18 | 946987 | NON-AQ | 07/12/95 |
| 19 | 946988 | NON-AQ | 07/12/95 |

---TOTALS---

| MATRIX | #SAMPLES |
|---|---|
| NON-AQ | 19 |

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

Analytical Technologies, Inc.

# GENERAL CHEMISTRY - QUALITY CONTROL

| | | | |
|---|---|---|---|
| CLIENT | : EL PASO NATURAL GAS CO. | ATI I.D. | : 507340 |
| PROJECT # | : 24324 | SAMPLE MATRIX | : NON-AQ |
| PROJECT NAME | : PIT CLOSURE/PHASE I PHASE | UNITS | : MG/KG |

| PARAMETER | ATI I.D. | SAMPLE RESULT | DUP. RESULT | RPD | SPIKED SAMPLE | SPIKE CONC. | % REC |
|---|---|---|---|---|---|---|---|
| PETROLEUM HYDROCARBONS | 50735202 | <20 | <20 | NA | 160 | 150 | 107 |

CK
DL
7/25/95

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

# GAS CHROMATOGRAPHY RESULTS

## REAGENT BLANK

| | | | |
|---|---|---|---|
| TEST | : EPA 8015 MODIFIED | ATI I.D. | : 507340 |
| BLANK I.D. | : 071495 | MATRIX | : NON-AQ |
| CLIENT | : EL PASO NATURAL GAS CO. | DATE EXTRACTED | : 07/14/95 |
| PROJECT # | : 24324 | DATE ANALYZED | : 07/14/95 |
| PROJECT NAME | : PIT CLOSURE/PHASE I PHASE II | DILUTION FACTOR | : 1 |

| PARAMETER | UNITS | |
|---|---|---|
| FUEL HYDROCARBONS | MG/KG | <5 |
| HYDROCARBON RANGE | | - |
| HYDROCARBONS QUANTITATED USING | | - |
| SURROGATE: | | |
| o-TERPHENYL (%) | | 120 |

Acceptable
7/25/95

Analytical Technologies, Inc.

# GAS CHROMATOGRAPHY - QUALITY CONTROL

## MSMSD

| | | | |
|---|---|---|---|
| TEST | : EPA 8015 MODIFIED | | |
| MSMSD # | : 071495 | ATI I.D. | : 507340 |
| CLIENT | : EL PASO NATURAL GAS CO. | DATE EXTRACTED | : 07/14/95 |
| PROJECT # | : 24324 | DATE ANALYZED | : 07/14/95 |
| PROJECT NAME | : PIT CLOSURE/PHASE I PHASE | SAMPLE MATRIX | : NON-AQ |
| REF. I.D. | : 071495 | UNITS | : MG/KG |

| PARAMETER | SAMPLE RESULT | CONC SPIKE | SPIKED SAMPLE | % REC | DUP SPIKE | DUP % REC | RPD |
|---|---|---|---|---|---|---|---|
| FUEL HYDROCARBONS | <5 | 100 | 120 | 120 | 120 | 120 | 0 |

DF
7/18/95

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

# GAS CHROMATOGRAPHY RESULTS

## REAGENT BLANK

| | | | |
|---|---|---|---|
| TEST | : BTEX (EPA 8020) | ATI I.D. | : 507340 |
| BLANK I.D. | : 071795 | MATRIX | : NON-AQ |
| CLIENT | : EL PASO NATURAL GAS CO. | DATE EXTRACTED | : 07/17/95 |
| PROJECT # | : 24324 | DATE ANALYZED | : 07/17/95 |
| PROJECT NAME | : PIT CLOSURE/PHASE I PHASE II | DILUTION FACTOR | : 1 |

| PARAMETER | UNITS | |
|---|---|---|
| BENZENE | MG/KG | <0.025 |
| TOLUENE | MG/KG | <0.025 |
| ETHYLBENZENE | MG/KG | <0.025 |
| TOTAL XYLENES | MG/KG | <0.025 |

SURROGATE:

| | |
|---|---|
| BROMOFLUOROBENZENE (%) | 103 |

OK
7/25/95

Analytical Technologies, Inc.

# GAS CHROMATOGRAPHY - QUALITY CONTROL

## MSMSD

| | | | |
|---|---|---|---|
| TEST | : BTEX (EPA 8020) | | |
| MSMSD # | : 50734008 | ATI I.D. | : 507340 |
| CLIENT | : EL PASO NATURAL GAS CO. | DATE EXTRACTED | : 07/17/95 |
| PROJECT # | : 24324 | DATE ANALYZED | : 07/18/95 |
| PROJECT NAME | : PIT CLOSURE/PHASE I PHASE | SAMPLE MATRIX | : NON-AQ |
| REF. I.D. | : 50734008 | UNITS | : MG/KG |

| PARAMETER | SAMPLE RESULT | CONC SPIKE | SPIKED SAMPLE | % REC | DUP SPIKE | DUP % REC | RPD |
|---|---|---|---|---|---|---|---|
| BENZENE | <0.025 | 1.0 | 1.1 | 110 | 0.99 | 99 | 11 |
| TOLUENE | <0.025 | 1.0 | 1.1 | 110 | 1.0 | 100 | 10 |
| ETHYLBENZENE | <0.025 | 1.0 | 1.1 | 110 | 1.0 | 100 | 10 |
| TOTAL XYLENES | <0.025 | 3.0 | 3.2 | 107 | 3.1 | 103 | 3 |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

# Analytical Technologies, Inc., Albuquerque, NM

San Diego • Phoenix • Seattle • Pensacola • Ft. Collins • Portland • Albuquerque

# CHAIN OF CUSTODY

DATE: 7/13/95 PAGE 1 OF 3

ATI LAB I.D. 9507340

PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER: JOHN LAMBDIN

COMPANY: EL PASO NATURAL GAS
ADDRESS: P.O. BOX 4990
FARMINGTON, NM 87499
PHONE: (505) 599-2144
FAX: (505) 599-2261

BILL TO: SAME AS ABOVE
COMPANY:
ADDRESS:

## ANALYSIS REQUEST

| SAMPLE ID | DATE | TIME | MATRIX | LAB ID | Petroleum Hydrocarbons (418.1) | (MOD 8015) Gas/Diesel | Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020) | BTXE/MTBE (8020) | BETX (8020) | Chlorinated Hydrocarbons (601/8010) | Aromatic Hydrocarbons (602/8020) | SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg. | Pesticides/PCB (608/8080) | Herbicides (615/8150) | Base/Neutral/Acid Compounds GC/MS (625/8270) | Volatile Organics GC/MS (624/8240) | Polynuclear Aromatics (610/8310) | SDWA Primary Standards - Arizona | SDWA Secondary Standards - Arizona | SDWA Primary Standards - Federal | SDWA Secondary Standards - Federal | The 13 Priority Pollutant Metals | RCRA Metals [illegible] Digestion | RCRA Metals by TCLP (1311) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 946962 | 7-10-95 | 1030 | Soil | -01 | | | | | X | | | | | | | | | | | | | | | |
| 9469 63 | ↑ | 1210 | ↑ | -02 | | X | | | X | | | | | | | | | | | | | | | |
| 9469 64 | | 1325 | | -03 | | | | | X | | | | | | | | | | | | | | | |
| 9469 65 | ↓ | 1520 | | -04 | | | | | X | | | | | | | | | | | | | | | |
| 9469 66 | 7-10-95 | 1530 | | -05 | | X | | | X | | | | | | | | | | | | | | | |
| 9469 69 | 7/7/95 | 1500 | | -06 | | | | | X | | | | | | | | | | | | | | | |
| 9469 70 | 7/10/95 | 1145 | | -07 | | | | | X | | | | | | | | | | | | | | | |
| 9469 71 | 7/10/95 | 1300 | ↓ | -08 | | | | | X | | | | | | | | | | | | | | | |
| 9469 72 | 7/11/95 | 0845 | Soil | -09 | | | | | X | | | | | | | | | | | | | | | |

## PROJECT INFORMATION

PROJ. NO.: 24324
PROJ. NAME: PIT CLOSURE / Phase II Phase I
P.O. NO.: 38822
SHIPPED VIA: FEDERAL EXPRESS

## SAMPLE RECEIPT

| | |
|---|---|
| NO. CONTAINERS | 19 |
| CUSTODY SEALS | (Y) N / NA |
| RECEIVED INTACT | Y |
| RECEIVED COLD | 4.4°F |

## PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☒ 1 WEEK (NORMAL) ☐ 2 WEEK

Comments:

CHARGE CODE: 50% 108-51570-24-(XXX)-(0012-31-2010) 7210
50% 108-52452-24-(XXX)-(0012-31-2010)

QA/QC ON PROJECT SAMPLES 7210

| SAMPLED & RELINQUISHED BY: 1. | RELINQUISHED BY: 2. | RELINQUISHED BY: |
|---|---|---|
| Signature: Time: | Signature: Time: 1530 | Signature: Time: |
| Printed Name: Date: | Printed Name: Kimbley Date: 7/13/95 | Printed Name: Date: |
| Company: Phone: | Company: EL PASO NATURAL GAS | Company: |
| **RECEIVED BY: 1.** | **RECEIVED BY: 2.** | **RECEIVED BY: (LAB)** |
| Signature: Time: | Signature: Time: | Signature: Time: 09 |
| Printed Name: Date: | Printed Name: Date: | Printed Name: Andrew Parker Date: 7-1 |
| Company: | Company: | Analytical Technologies, I |

Analytical**Technologies,**Inc., Albuquerque, NM
San Diego • Phoenix • Seattle • Pensacola • Ft. Collins • Portland • Albuquerque

# CHAIN OF CUSTODY

DATE: 7/13/95 PAGE 2 OF 3

ATI LAB I.D. 9507340

PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER: JOHN LAMBDIN

COMPANY: EL PASO NATURAL GAS
ADDRESS: P.O. BOX 4990
FARMINGTON, NM 87499
PHONE: (505) 599-2144
FAX: (505) 599-2261

BILL TO: SAME AS ABOVE
COMPANY:
ADDRESS:

## ANALYSIS REQUEST

| SAMPLE ID | DATE | TIME | MATRIX | LAB ID | Petroleum Hydrocarbons (418.1) | (MOD 8015) Gas/Diesel | Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020) | BTXE/MTBE (8020) | BETX (8020) | Chlorinated Hydrocarbons (601/8010) | Aromatic Hydrocarbons (602/8020) | SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg. | Pesticides/PCB (608/8080) | Herbicides (615/8150) | Base/Neutral/Acid Compounds GC/MS (625/8270) | Volatile Organics GC/MS (624/8240) | Polynuclear Aromatics (610/8310) | SDWA Primary Standards - Arizona | SDWA Secondary Standards - Arizona | SDWA Primary Standards - Federal | SDWA Secondary Standards - Federal | The 13 Priority Pollutant Metals | RCRA Metals by Total Digestion | RCRA Metals by TCLP (1311) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 946973 | 7/11/95 | 1355 | Soil | -10 | | X | | | X | | | | | | | | | | | | | | | |
| 946975 | 7/11/95 | 1125 | | -11 | X | | | | | | | | | | | | | | | | | | | |
| 946981 | 7/12/95 | 1000 | | -12 | | X | | | X | | | | | | | | | | | | | | | |
| 946982 | 7/12/95 | 1220 | | -13 | | | | | X | | | | | | | | | | | | | | | |
| 946983 | " | 1505 | | -14 | | X | | | X | | | | | | | | | | | | | | | |
| 946984 | | 0905 | | -15 | | X | | | X | | | | | | | | | | | | | | | |
| 946985 | | 1105 | | -16 | | | | | X | | | | | | | | | | | | | | | |
| 946986 | | 1105 | | -17 | | | | | X | | | | | | | | | | | | | | | |
| 946987 | 7/12/95 | 1130 | Soil | -18 | | | | | X | | | | | | | | | | | | | | | |

## PROJECT INFORMATION

PROJ. NO.: 24324
PROJ. NAME: PIT CLOSURE / Phase II Phase I
P.O. NO.: 38822
SHIPPED VIA: FEDERAL EXPRESS

## SAMPLE RECEIPT

| | |
|---|---|
| NO. CONTAINERS | |
| CUSTODY SEALS | Y / N / NA |
| RECEIVED INTACT | |
| RECEIVED COLD | |

## PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☒ 1 WEEK (NORMAL) ☐ 2 WEEK

Comments:
CHARGE CODE: 50% 108-51570-24-(0001)-(0)12-31-2010 7/10
50% 108-52452-24-(0001)-(0)12-31-2010 7/10
QA/QC ON PROJECT SAMPLES

| SAMPLED & RELINQUISHED BY: 1. | RELINQUISHED BY: 2. | RELINQUISHED BY: |
|---|---|---|
| Signature: Time: | Signature: Time: 1530 | Signature: Time: |
| Printed Name: Date: | Printed Name: Kim Kirby Date: 7/13/95 | Printed Name: Date: |
| Company: Phone: | Company: EL PASO NATURAL GAS | Company: |

| RECEIVED BY: 1. | RECEIVED BY: 2. | RECEIVED BY:(LAB) |
|---|---|---|
| Signature: Time: | Signature: Time: | Signature: Time: |
| Printed Name: Date: | Printed Name: Date: | Printed Name: Date: Andrew Parker 7-14 |
| Company: | Company: | Analytical Technologies, Inc. |

# Analytical Technologies, Inc., Albuquerque, NM

San Diego • Phoenix • Seattle • Pensacola • Ft. Collins • Portland • Albuquerque

# CHAIN OF CUSTODY

DATE: 7/13/95 PAGE 3 OF 3

ATI LAB I.D. 9507340

PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER: JOHN LAMBDIN

COMPANY: EL PASO NATURAL GAS
ADDRESS: P.O. BOX 4990
FARMINGTON, NM 87499
PHONE: (505) 599-2144
FAX: (505) 599-2261

BILL TO: SAME AS ABOVE
COMPANY:
ADDRESS:

ANALYSIS REQUEST

| SAMPLE ID | DATE | TIME | MATRIX | LAB ID | Petroleum Hydrocarbons (418.1) | (MOD 8015) Gas/Diesel | Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020) | BTXE/MTBE (8020) | BETX (8020) | Chlorinated Hydrocarbons (601/8010) | Aromatic Hydrocarbons (602/8020) | SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg. | Pesticides/PCB (608/8080) | Herbicides (615/8150) | Base/Neutral/Acid Compounds GC/MS (625/8270) | Volatile Organics GC/MS (624/8240) | Polynuclear Aromatics (610/8310) | SDWA Primary Standards - Arizona | SDWA Secondary Standards - Arizona | SDWA Primary Standards - Federal | SDWA Secondary Standards - Federal | The 13 Priority Pollutant Metals | RCRA Metals by Total Digestion | RCRA Metals by TCLP (1311) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 946988 | 7/12/95 | 1337 | soil | -19 | | X | | | X | | | | | | | | | | | | | | | |

## PROJECT INFORMATION

PROJ. NO.: 24324
PROJ. NAME: PIT CLOSURE / Phase II Phase I
P.O. NO.: 38822
SHIPPED VIA: FEDERAL EXPRESS

## SAMPLE RECEIPT

| | |
|---|---|
| NO. CONTAINERS | |
| CUSTODY SEALS | Y / N / NA |
| RECEIVED INTACT | |
| RECEIVED COLD | |

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☒ 1 WEEK (NORMAL) ☐ 2 WEEK

Comments:

CHARGE CODE: 50% 108-51570-24-(XXX)-(XXX)-31-~~2010~~ 7210
50% 108-52452-24-(XXX)-(XXX)-31-~~2010~~ 7210

QA/QC ON PROJECT SAMPLES

| SAMPLED & RELINQUISHED BY: 1. | RELINQUISHED BY: 2. | RELINQUISHED BY: |
|---|---|---|
| Signature: Time: | Signature: Time: 1530 | Signature: Time: |
| Printed Name: Date: | Printed Name: Date: 7/13/95 | Printed Name: Date: |
| Company: Phone: | Company: EL PASO NATURAL GAS | Company: |

| RECEIVED BY: 1. | RECEIVED BY: 2. | RECEIVED BY: (LAB) |
|---|---|---|
| Signature: Time: | Signature: Time: | Signature: Time: 0728 |
| Printed Name: Date: | Printed Name: Date: | Printed Name: Date: Andrew Parker 7-14-95 |
| Company: | Company: | Analytical Technologies, Inc. |

# RECON®/Geoprobe

# SITE ACTIVITIES

*21-Feb-97*

**Meter/Line #:** 73079

**Location/Line #:** Mae Gail Com #1

**MW#:**

**Depth to GW:**

**Depth to Product:**

**Product Thickness:**

**Date:** 10/22/96

**Activity:** Geoprobe. Collect GW samples

**Comments:** Install 3 piezos & 3 probe holes. PZ1 in center pit

# PIEZOMETER INSTALLATION RECORD

Borehole # PZ - 1
Well #
Page 1 of 1

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

Project Name EPFS PITS
Project Number 16297 Phase 6004
Site Location Mae Gail Com 1 73079

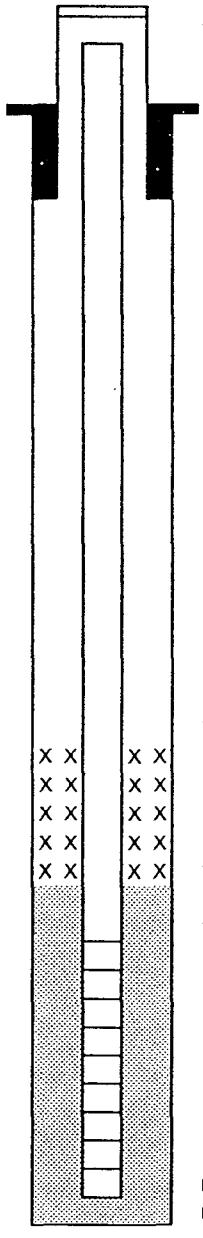
Elevation
Well Location Center of PIT
GWL Depth 3.94 TOR
Installed By K PADILLA

Date/Time Started
Date/Time Completed

On-Site Geologist CM CHANCE
Personnel On-Site D CHARLEY
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 | | |
| Bottom of Well Riser | | |
| Top of Well Screen | | |
| Bottom of Well Screen | | |
| Top of Peltonite Seal | | |
| Bottom of Peltonite Seal | | |
| Top of Gravel Pack | | |
| Bottom of Gravel Pack | | |
| Top of Natural Cave-In | | |
| Bottom of Natural Cave-In | | |
| Top of Groundwater | | |
| Total Depth of Borehole | | |



Top of Protective Casing NA
Top of Riser
Ground Surface
Top of Seal
Top of Gravel Pack
Top of Screen 2.5
Bottom of Screen ~~6.0~~ 5.0
Bottom of Borehole

Comments:

Geologist Signature

MWINSTAL.wk1

# PIEZOMETER INSTALLATION RECORD

Borehole # PZ-2
Well #
Page 1 of 1

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

Project Name EPFS PITS
Project Number 16297 Phase 6004
Site Location Mae Gail Com 1 73079

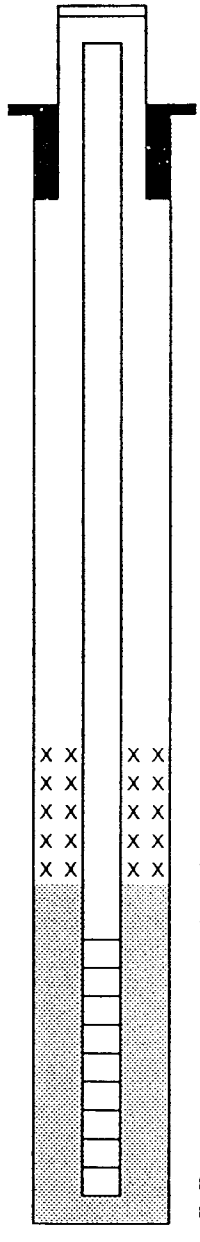
Elevation
Well Location SE of Pit
GWL Depth 4.15 TOR
Installed By K PADILLA

On-Site Geologist CM CHANCE
Personnel On-Site D CHARLEY
Contractors On-Site
Client Personnel On-Site

Date/Time Started 10/23/96
Date/Time Completed 10/23/96

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 | | |
| Bottom of Well Riser | | |
| Top of Well Screen | | |
| Bottom of Well Screen | | |
| Top of Peltonite Seal | | |
| Bottom of Peltonite Seal | | |
| Top of Gravel Pack | | |
| Bottom of Gravel Pack | | |
| Top of Natural Cave-In | | |
| Bottom of Natural Cave-In | | |
| Top of Groundwater | | |
| Total Depth of Borehole | | |



Top of Protective Casing NA
Top of Riser
Ground Surface
Top of Seal
Top of Gravel Pack
Top of Screen 3.5
Bottom of Screen 6.0
Bottom of Borehole

Comments:

Geologist Signature Cory Chancy

MWINSTAL.wk1

# PIEZOMETER INSTALLATION RECORD

Borehole # PZ-3
Well #
Page 1 of 1

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

Project Name EPFS PITS
Project Number 16297 Phase 6004
Site Location Mae Gail Com 1 73079

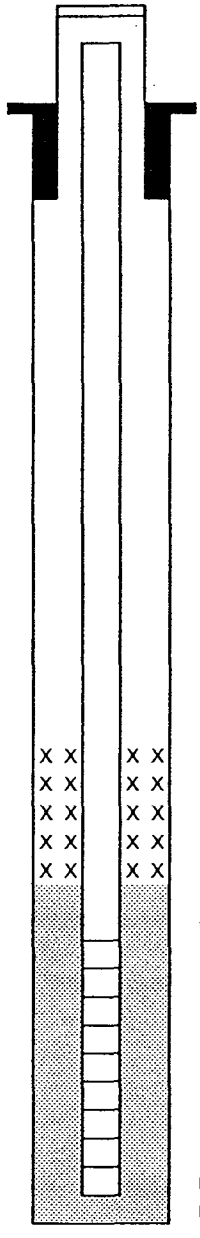
Elevation
Well Location SW of PH
GWL Depth 5.55
Installed By K PADILLA

Date/Time Started
Date/Time Completed

On-Site Geologist CM CHANCE
Personnel On-Site D CHARLEY
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 | | |
| Bottom of Well Riser | | |
| Top of Well Screen | | |
| Bottom of Well Screen | | |
| Top of Peltonite Seal | | |
| Bottom of Peltonite Seal | | |
| Top of Gravel Pack | | |
| Bottom of Gravel Pack | | |
| Top of Natural Cave-In | | |
| Bottom of Natural Cave-In | | |
| Top of Groundwater | | |
| Total Depth of Borehole | | |



Top of Protective Casing NA
Top of Riser
Ground Surface
Top of Seal
Top of Gravel Pack
Top of Screen 3.0
Bottom of Screen 8.0
Bottom of Borehole

Comments:

Geologist Signature Cory Chance

MWINSTAL.wk1

# EL PASO FIELD SERVICES

## FIELD SERVICES LABORATORY
## ANALYTICAL REPORT
## PIT CLOSURE PROJECT

## SAMPLE IDENTIFICATION

| | Field ID | Lab ID |
|---|---|---|
| SAMPLE NUMBER: | CMC221 | 947944 |
| MTR CODE \| SITE NAME: | 73079 | MaeGail Com #1 |
| SAMPLE DATE \| TIME (Hrs): | 10/22/96 | 1450 |
| PROJECT: | Geoprobe | |
| DATE OF BTEX EXT. \| ANAL.: | 10/23/96 | 10/23/96 |
| TYPE \| DESCRIPTION: | PH1 ~~Grab~~ | ~~PH1~~ Water |

Field Remarks: _____

## RESULTS

| PARAMETER | RESULT | UNITS | QUALIFIERS | | | |
|---|---|---|---|---|---|---|
| | | | DF | Q | | |
| BENZENE | <1 | PPB | | | | |
| TOLUENE | <1 | PPB | | | | |
| ETHYL BENZENE | <1 | PPB | | | | |
| TOTAL XYLENES | 1.52 | PPB | | | | |
| TOTAL BTEX | 1.52 | PPB | | | | |

–BTEX is by EPA Method 8020 –

The Surrogate Recovery was at 108 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Narrative:

Approved By: John Fowler Date: 10/29/96

# EL PASO FIELD SERVICES

## FIELD SERVICES LABORATORY
## ANALYTICAL REPORT
## PIT CLOSURE PROJECT

## SAMPLE IDENTIFICATION

| | Field ID | Lab ID |
|---|---|---|
| SAMPLE NUMBER: | CMC222 | 947945 |
| MTR CODE \| SITE NAME: | 73079 | MaeGail Com #1 |
| SAMPLE DATE \| TIME (Hrs): | 10/22/96 | 1505 |
| PROJECT: | Geoprobe | |
| DATE OF BTEX EXT. \| ANAL.: | 10/23/96 | 10/23/96 |
| TYPE \| DESCRIPTION: | Pit2 ~~Grab~~ | ~~PH2~~ 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 109 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative:

Approved By: John Loudon Date: 10/29/96

947945.XLS,10/25/96

# EL PASO FIELD SERVICES

## FIELD SERVICES LABORATORY
## ANALYTICAL REPORT
## PIT CLOSURE PROJECT

## SAMPLE IDENTIFICATION

| | Field ID | Lab ID |
|---|---|---|
| SAMPLE NUMBER: | CMC223 | 947946 |
| MTR CODE \| SITE NAME: | 73079 | MaeGail Com #1 |
| SAMPLE DATE \| TIME (Hrs): | 10/22/96 | 1600 |
| PROJECT: | Geoprobe | |
| DATE OF BTEX EXT. \| ANAL.: | 10/23/96 | 10/23/96 |
| TYPE \| DESCRIPTION: | PH3 ~~Grab~~ | ~~PH3~~ water |

Field Remarks: _____

## RESULTS

| PARAMETER | RESULT | UNITS | QUALIFIERS | | | |
|---|---|---|---|---|---|---|
| | | | DF | Q | | |
| BENZENE | <1 | PPB | | | | |
| TOLUENE | 1.62 | PPB | | | | |
| ETHYL BENZENE | <1 | PPB | | | | |
| TOTAL XYLENES | 1.57 | PPB | | | | |
| TOTAL BTEX | 3.19 | PPB | | | | |

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 110 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Narrative:

Approved By: John Loveh Date: 10/29/96

947944.XLS,10/25/96

EL PASO FIELD SERVICES

# FIELD SERVICES LABORATORY
# ANALYTICAL REPORT
# PIT CLOSURE PROJECT

## SAMPLE IDENTIFICATION

| | Field ID | Lab ID |
|---|---|---|
| SAMPLE NUMBER: | CMC224 | 947947 |
| MTR CODE \| SITE NAME: | 73079 | MaeGail Com #1 |
| SAMPLE DATE \| TIME (Hrs): | 10/22/96 | 1615 |
| PROJECT: | Geoprobe | |
| DATE OF BTEX EXT. \| ANAL.: | 10/24/96 | 10/24/96 |
| TYPE \| DESCRIPTION: | PH4 ~~Grab~~ | ~~PH4~~ 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 108 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Narrative:

Approved By: John Loudon Date: 10/29/96

947946.XLS,10/25/96

# EL PASO FIELD SERVICES

## FIELD SERVICES LABORATORY
## ANALYTICAL REPORT
## PIT CLOSURE PROJECT

## SAMPLE IDENTIFICATION

| | Field ID | Lab ID |
|---|---|---|
| SAMPLE NUMBER: | CMC225 | 947948 |
| MTR CODE \| SITE NAME: | 73079 | MaeGail Com #1 |
| SAMPLE DATE \| TIME (Hrs): | 10/22/96 | 1655 |
| PROJECT: | Geoprobe | |
| DATE OF BTEX EXT. \| ANAL.: | 10/24/96 | 10/24/96 |
| TYPE \| DESCRIPTION: | PH5 ~~Grab~~ | ~~PH5~~ water |

Field Remarks: _____

## RESULTS

| PARAMETER | RESULT | UNITS | QUALIFIERS | | | |
|---|---|---|---|---|---|---|
| | | | DF | Q | | |
| BENZENE | 8.49 | PPB | | | | |
| TOLUENE | <1 | PPB | | | | |
| ETHYL BENZENE | <1 | PPB | | | | |
| TOTAL XYLENES | <3 | PPB | | | | |
| TOTAL BTEX | 8.49 | PPB | | | | |

–BTEX is by EPA Method 8020 –

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

DF = Dilution Factor Used

Narrative:

Approved By: John Loch Date: 10/29/96

947947.XLS,10/25/96

# EL PASO FIELD SERVICES

## FIELD SERVICES LABORATORY
## ANALYTICAL REPORT
## PIT CLOSURE PROJECT

## SAMPLE IDENTIFICATION

| | Field ID | Lab ID |
|---|---|---|
| SAMPLE NUMBER: | CMC226 | 947950 |
| MTR CODE \| SITE NAME: | 73079 | MacGail Com #1 |
| SAMPLE DATE \| TIME (Hrs): | 10/24/96 | 1005 |
| PROJECT: | Geoprobe | |
| DATE OF BTEX EXT. \| ANAL.: | 10/28/96 | 10/28/96 |
| TYPE \| DESCRIPTION: | PH6 | Water |

Field Remarks: _____

## RESULTS

| PARAMETER | RESULT | UNITS | QUALIFIERS | | | |
|---|---|---|---|---|---|---|
| | | | DF | Q | | |
| BENZENE | <1 | PPB | | | | |
| TOLUENE | 1.96 | PPB | | | | |
| ETHYL BENZENE | <1 | PPB | | | | |
| TOTAL XYLENES | 1.98 | PPB | | | | |
| TOTAL BTEX | 3.94 | PPB | | | | |

–BTEX is by EPA Method 8020 –

The Surrogate Recovery was at 97.8 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Narrative:

Approved By: John Ladd Date: 10/30/96

947950.XLS,10/29/96

El Paso Natural Gas Company

A 2346

# CHAIN OF CUSTODY RECORD

| Project No. | Project Name | Type and No. of Sample Containers | Preservation Technique | Requested Analysis | Remarks |
|---|---|---|---|---|---|
| 1297 | EPFS PITS | | | | |

Samplers: (Signature) Cory Chavez — Date: 10/24/96

| Lab # | Date | Time | Comp. | GRAB | Sample Number | Type and No. of Sample Containers | Preservation Technique | BTEX | | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~~7950~~ | ~~10/24/96~~ | | | | TRIPBLANK | 1 | HCl/4°C | | | | | TRIP BLANK |
| 7950 | | 1005 | | ✓ | CMC226 | 2 | | | | | | PH6 Mae Gail Com 1 73079 |
| 7951 | | 505 | | ✓ | CMC227 | 2 | | | | | | PZ1 NM COM G1 74943 |
| 7952 | | 1620 | | ✓ | CMC228 | 2 | | | | | | PH4 " |

Cmc 10/24/96

| Relinquished by: (Signature) | Date/Time | Received by: (Signature) | Relinquished by: (Signature) | Date/Time | Received by: (Signature) |
|---|---|---|---|---|---|
| Cory Chavez | 10/24/96 1730 | Kelly Stovall | Kelly Stovall | 10/25/96 11:20 | |
| Relinquished by: (Signature) | Date/Time | Received by: (Signature) | Relinquished by: (Signature) | Date/Time | Received by: (Signature) |
| | | | | 10-25-96 1120 | Marla Armenta |
| Relinquished by: (Signature) | Date/Time | Received for Laboratory by: (Signature) | Date/Time | Remarks: | |
| | | | | | |

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

Air Bill No.:

El Paso Natural Gas Company

A 2344

# CHAIN OF CUSTODY RECORD

| Project No. | Project Name |
|---|---|
| 16297 | EPFS PITS |

Samplers: (Signature) Cory Chavez

Date: 10/22/96

| | Date | Time | Comp. | GRAB | Sample Number | Type and No. of Sample Containers | Preservation Technique | Requested Analysis: BTEX | | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47943 | 10/22/96 | 0915 | | ✓ | CMC 220 | 2 | HCl/4°C | ✓ | | | | Ohio C Govt 3 PH2 |
| 47944 | | 1450 | | ✓ | CMC 221 | 2 | | ✓ | | | | ~~PH5~~ CMC 10/22/96 Mae Gail I 73079 PH1 |
| 47945 | | 1505 | | ✓ | CMC 222 | 2 | | ✓ | | | | PH2 Mae Gail I 73079 |
| 47946 | | 1600 | | ✓ | CMC 223 | 2 | | ✓ | | | | PH3 Mae Gail I 73079 |
| 47947 | | 1615 | | ✓ | CMC 224 | 2 | | ✓ | | | | PH4 Mae Gail I 73079 |
| 47948 | | 1655 | | ✓ | CMC 225 | 2 | | ✓ | | | | PH5 Mae Gail I 73079 |
| | | — | | | TRIP Blank | 1 | | ✓ | | | | TRIP Blank |

Cory 10/22/96

| Relinquished by: (Signature) | Date/Time | Received by: (Signature) | Relinquished by: (Signature) | Date/Time | Received by: (Signature) |
|---|---|---|---|---|---|
| Cory Chavez | 10/22/96 1730 | Kelly Stovall | Kelly Stovall | 10-23-96 11:20 | |
| Relinquished by: (Signature) | Date/Time | Received by: (Signature) | Relinquished by: (Signature) | Date/Time | Received by: (Signature) |
| | | | | 10-23-96 1120 | Maria Armenta |
| Relinquished by: (Signature) | Date/Time | Received for Laboratory by: (Signature) | Date/Time | Remarks: | |
| | | | | | |

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: 947943 - 947948 and 960880 & 960881**

**QA/QC for 10/23/96 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 | 55.9 | 112 | 75 - 125 % | X | |
| Toluene | Standard | 50.0 | 55.3 | 111 | 75 - 125 % | X | |
| Ethylbenzene | Standard | 50.0 | 55.0 | 110 | 75 - 125 % | X | |
| m & p - Xylene | Standard | 100 | 109 | 109 | 75 - 125 % | X | |
| o - Xylene | Standard | 50.0 | 54.2 | 108 | 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 | 26.7 | 107 | 39 - 150 | X | |
| Toluene | Standard | 25.0 | 26.8 | 107 | 46 - 148 | X | |
| Ethylbenzene | Standard | 25.0 | 27.2 | 109 | 32 - 160 | X | |
| m & p - Xylene | Standard | 50.0 | 54.6 | 109 | Not Given | X | |
| o - Xylene | Standard | 25.0 | 27.2 | 109 | 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 | 52.7 | 105 | 75 - 125 % | X | |
| Toluene | Standard | 50.0 | 52.2 | 104 | 75 - 125 % | X | |
| Ethylenzene | Standard | 50.0 | 52.1 | 104 | 75 - 125 % | X | |
| m & p - Xylene | Standard | 100 | 104 | 104 | 75 - 125 % | X | |
| o - Xylene | Standard | 50.0 | 52.0 | 104 | 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 | 52.0 | 104 | 75 - 125 % | X | |
| Toluene | Standard | 50.0 | 51.2 | 102 | 75 - 125 % | X | |
| Ethylbenzene | Standard | 50.0 | 50.9 | 102 | 75 - 125 % | X | |
| m & p - Xylene | Standard | 100 | 101 | 101 | 75 - 125 % | X | |
| o - Xylene | Standard | 50.0 | 50.6 | 101 | 75 - 125 % | X | |

Narrative: Acceptable.

# QUALITY CONTROL REPORT
## EPA METHOD 8020 - BTEX
**Samples: 947943 - 947948 and 960880 & 960881**

**LABORATORY DUPLICATES:**

| SAMPLE ID 947935 | TYPE | SAMPLE RESULT PPB | DUPLICATE RESULT PPB | RPD | ACCEPTABLE RANGE | YES | NO |
|---|---|---|---|---|---|---|---|
| Benzene | Matrix Duplicate | 4.07 | 3.99 | 1.99 | +/- 20 % | X | |
| Toluene | Matrix Duplicate | <1 | <1 | 0.00 | +/- 20 % | X | |
| Ethylbenzene | Matrix Duplicate | 7.81 | 7.63 | 2.33 | +/- 20 % | X | |
| m & p - Xylene | Matrix Duplicate | 12.7 | 11.3 | 11.7 | +/- 20 % | X | |
| o - Xylene | Matrix Duplicate | <1 | <1 | 0.00 | +/- 20 % | X | |

Narrative: Acceptable.

**LABORATORY SPIKES:**

| SAMPLE ID 2nd Analysis 947935 | SPIKE ADDED PPB | SAMPLE RESULT PPB | SPIKE SAMPLE RESULT PPB | %R | ACCEPTABLE RANGE | YES | NO |
|---|---|---|---|---|---|---|---|
| Benzene | 50 | 4.07 | 57.2 | 106 | 75 - 125 % | X | |
| Toluene | 50 | <1 | 53.6 | 107 | 75 - 125 % | X | |
| Ethylbenzene | 50 | 7.81 | 60.7 | 106 | 75 - 125 % | X | |
| m & p - Xylene | 100 | 12.7 | 118 | 105 | 75 - 125 % | X | |
| o - Xylene | 50 | <1 | 53.1 | 106 | 75 - 125 % | X | |

Narrative: Acceptable

**ADDITIONAL ANALYTICAL BLANKS:**

| AUTO BLANK | SOURCE | PPB | 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 (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.

| CONTAMINATION CARRYOVER CHECK | SOURCE | PPB (Three 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: _____ Approved By: _____ Date: 10/29/96