

3R - 164

REPORTS

DATE:

2001

Certified Mail: #7001 1940 0003 1553 8513

February 28, 2002

RECEIVED

MAR 04 2002

Mr. William C. Olson
New Mexico Oil Conservation Division
1220 St. Francis Dr.
Santa Fe, NM 87504

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

RE: 2001 Pit Project Annual Groundwater Report

Dear Mr. Olson:

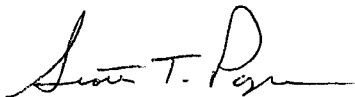
In accordance with reporting requirements, El Paso Field Services (EPFS) has enclosed annual reports for the 30 remaining groundwater impacted sites that were identified during our pit closure project of 1994 / 1995.

EPFS has organized the 30 reports (Volumes IA, IB, II and III), reports by land type. Volume IA and IB contain annual reports for sites found on Federal land. Volume II contains Non Federal sites and Volume III contains sites on Navajo land. Of the 30 reports submitted EPFS is requesting closure of three sites located on Navajo lands. Of the three Navajo sites submitted for closure OCD has closed the Charley Pah #4 and the John Charles #8. The Rementa et al #1 has not been closed by either agency. EPFS understands closure of groundwater sites on Navajo land falls under jurisdiction of the Navajo Environmental Protection Agency and original documents have been submitted to them for review. Other Navajo sites are included in the report for your information.

The Jaquez Com. C #1 and Jaquez Com. E #1 site is not included in with this report and will be submitted by the required deadline of April 1, 2002.

If you have any questions concerning the enclosed reports, 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 # 7001 1940 0003 1553 8506**
Mr. Bill Liesse, BLM - w / enclosures (federal sites only), **Certified Mail # 7001 1940 0003 1553 8520**

SAN JUAN BASIN PIT CLOSURES

San Juan Basin, New Mexico

**El Paso Field Services
Pit Project Groundwater Sites
Annual Report
Volume II-Non-Federal Sites**

March 2002

Prepared for

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



MWH
MONTGOMERY WATSON HARZA

EL PASO FIELD SERVICES ANNUAL GROUNDWATER REPORT

NON-FEDERAL SITES VOLUME II

TABLE OF CONTENTS

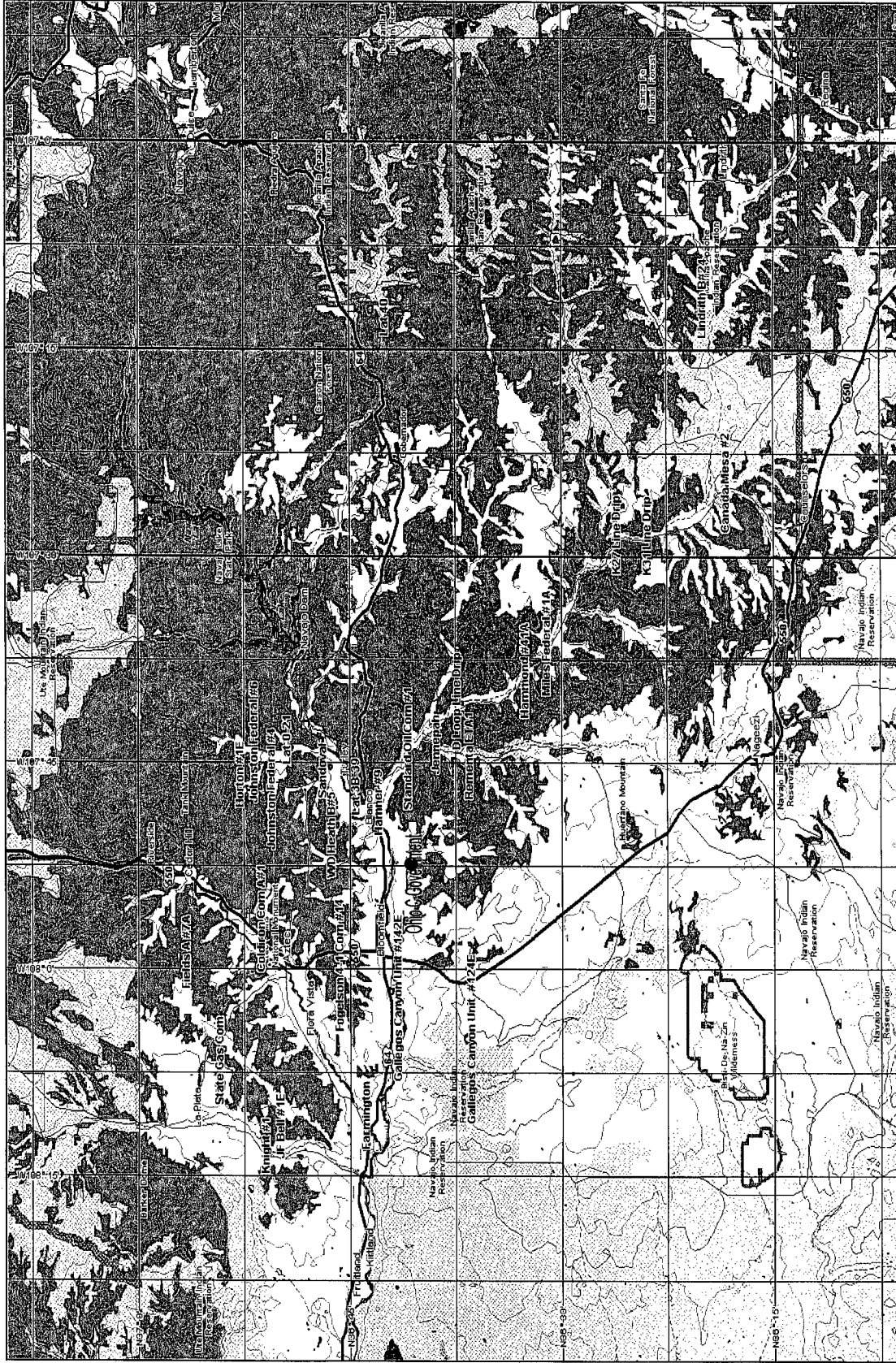
Site Map

METER or LINE ID	SITE NAME	TOWNSHIP	RANGE	SECTION	UNIT
71669	State Gas Com N #1	31N	12W	16	H
70194	Johnston Fed #4	31N	09W	33	H
93388	Horton #1E	31N	09W	28	H
72556	Knight #1	30N	13W	5	A
73551	Goldiron A #1	30N	11W	2	K
03906	GCU Com A #142E	29N	12W	25	G
70445	Standard Oil Com #1	29N	09W	36	N
LD146	Lat 3B-39 Line Drip	29N	09W	10	M
LD087	K-31 Line Drip	25N	06W	16	N
94967	Lindrith B #24	24N	03W	9	N



MWH
MONTGOMERY WATSON HARZA

Groundwater Site Map



3-D TopoQuest Copyright © 1999 DeLorme Vermont, ME 04896 3 mi Scale: 1 : 600,000 Detail: 2.4 Datum: WGS84

EPFS GROUNDWATER PITS 2001 ANNUAL GROUNDWATER REPORT

Coldiron A #1

Meter Code 73551

SITE DETAILS

Legals Twn: 30N Rng: 11W Sec: 2 UNIT: K
NMOCD Haz Ranking 40 Land Type: Fee Operator: Amoco Production Company

PREVIOUS ACTIVITIES

Site Assessment: Mar-94 Excavation Apr-94 (50cy) Soil Boring: Oct-95 Monitor Well: Oct-95
Geoprobe: NA Additional MWs: NA Downgradient MW's: NA Replace MW: NA
PSH Removal Initiated: NA ORC Nutrient Injection NA Re-Excavation: NA
Quarterly Initiated Apr-96 Annual Initiated NA Quarterly Resumed: NA

2001 ACTIVITY

Groundwater monitoring - Quarterly sampling of MW-1 continued through 2001.

SUMMARY TABLES AND GRAPHS

Groundwater analytical data is presented in Table 1 BTEX. Copies of the laboratory data sheets and the associated quality assurance/quality control data are presented in Attachment 1. Included is a BTEX Data graph for MW-1.

SITE MAP

Site Maps with BTEX concentrations and groundwater elevations are attached.

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

There were no drilling activities at this site in 2001.

DISPOSITION OF GENERATED WASTES

No wastes were generated at this site in 2001.

**EPFS GROUNDWATER PITS
2001 ANNUAL GROUNDWATER REPORT**

Coldiron A #1
Meter Code: 73551

ISOCONCENTRATION MAPS

An isoconcentration map was not generated at this site.

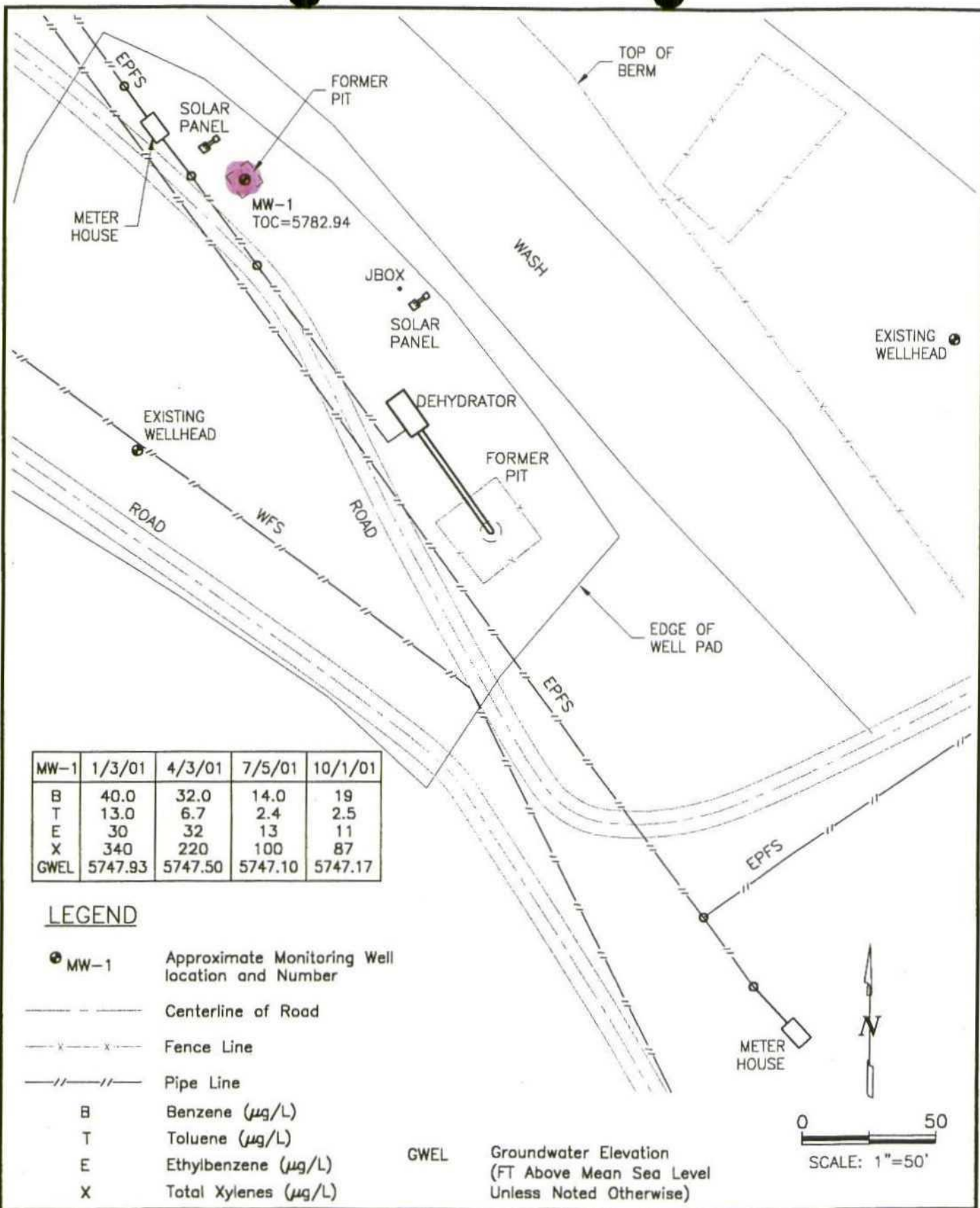
CONCLUSIONS

Quarterly sampling of MW-1 indicated decreasing benzene concentrations from January through October 2001, decreasing from 40 ppb benzene to 19 ppb benzene during this time period. EPFS expects to continue quarterly sampling of this well to attain closure.

Groundwater elevations have also been decreasing slightly over the first three quarters, and then increasing slightly in November.

RECOMMENDATIONS

- > Continue quarterly monitoring in MW-1, until four consecutive quarters less than NMWQCC standards. EPFS will evaluate the possible addition of oxygen and nutrients after the second quarter of sampling.
- > Following OCD approval for closure MW-1 will be abandoned using OCD approved procedures.



COLDIRON COM A#1, METER 73551
 JANUARY, APRIL, JULY, AND OCTOBER, 2001

GROUNDWATER SITES
 EL PASO FIELD SERVICES

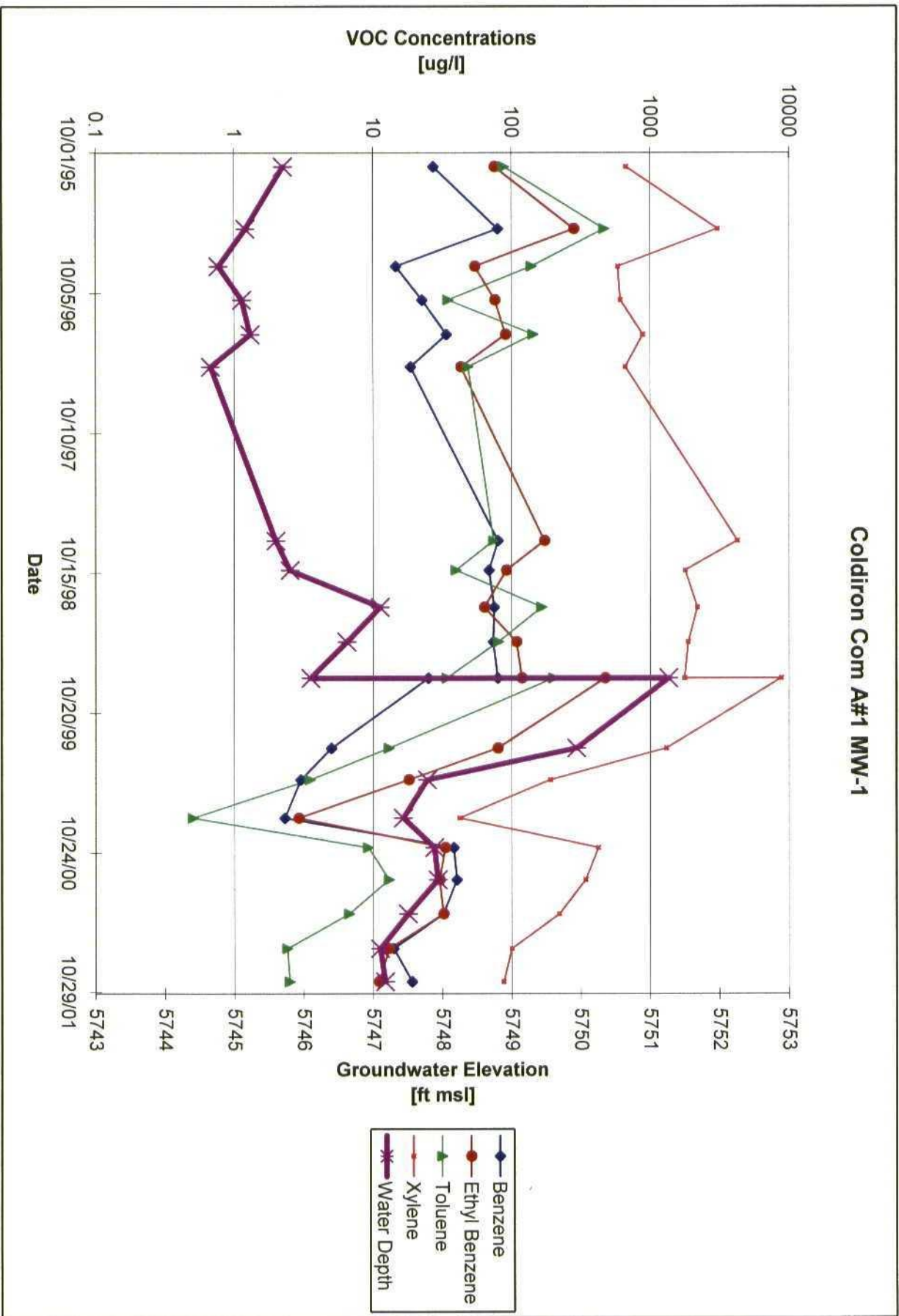
FIGURE 1

celdironcemo.1s_01.dwg

**Table 1 BTEX
Coldiron Com A#1**

Sample #	Meter Line #	Site Name	Sample Date	MW#	Benzene (µg/l)	Ethyl Benzene (µg/l)	Toluene (µg/l)	Total Xylenes (µg/l)	Depth to Water (Feet)	Groundwater Elevation (feet)
COL0101	73551	Coldiron A #1	1/3/2001	1	40	30	13	340	35.01	5747.93
COL0104	73551	Coldiron A #1	4/3/2001	1	32	32	6.7	220	35.44	5747.5
COL0107	73551	Coldiron A #1	7/5/2001	1	14	13	2.4	100	35.84	5747.1
110012	73551	Coldiron A #1	10/1/2001	1	19	11	2.5	87	35.77	5747.17

Coldiron Com A#1 MW-1



ATTACHMENT 1

2001 GROUNDWATER ANALYTICAL

Development
 Purging

WELL DEVELOPMENT AND PURGING DATA FORM



1320 / 410

Well Number MV 1

Page 1 of 1

Project Name EPFS Gw project

Project Manager List Winn

Project No. 151700012

Client Company El Paso Field Services

Site Name GOLDIRON A#1 23551

Site Address Rural San Juan CO

Development Criteria

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

Water Volume Calculation

Initial Depth of Well (feet) 45.21
 Initial Depth to Water (feet) 35.87
 Height of Water Column in Well (feet) 9.34
 Diameter (inches): Well 4" Gravel Pack _____

Item	Water Volume in Well Cubic Feet	Gallons	Gallons to be Removed
Well Casing	9.34	6.09 x 3	18.29
Gravel Pack			
Drilling Fluids			
Total			

Methods of Development

- Pump
 - Centrifugal
 - Submersible
 - Peristaltic
 - Other _____
- Boiler
 - Bottom Valve
 - Double Check Valve
 - Stainless-steel Kemmerer

Instruments

- pH Meter YSI 63
- DO Monitor _____
- Conductivity Meter YSI 63
- Temperature Meter YSI 63
- Other _____

Water Disposal

KUTZ Separator Brownfield N.M.

Water Removal Data

Date	Time	Development Method	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons)		Product Volume Removed (gallons)		Temperature (°C)	pH	Conductivity (mmhos/cm)	Dissolved Oxygen (mg/l)	Comments
						Incremental	Cumulative	Incremental	Cumulative					
1-5-02	1329	X				4.0	4.0			14.8	7.10	2181		Gravity filter RETURN TO GROUND. SHELV
	1334	X				4.0	8.0			14.8	7.23	2630		"
	1337	X				4.0	12.0			14.9	7.25	3011		"
	1342	X				4.0	16.0			14.5	7.28	3186		"
		X			37.91	4.0	20.0			14.6	7.24	3396		NO CHANGING

Comments SAMPLED @ 1400

Developer's Signature(s) [Signature]

Date 1-5-02

Reviewer [Signature]

Date 1/9/02

PLEASE FILL THIS FORM IN COMPLETELY.

SHADED AREAS ARE FOR LAB USE ONLY.

Pinnacle Laboratories

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

Accession #:

DATE: 1-3-02 PAGE: 1 OF 1

PROJECT MANAGER: Lisa K. Brown

COMPANY: MEC
 ADDRESS: 2050 HATON Place
 Farmington NM, 87401
 PHONE: (505) 327-7928
 FAX: (505) 326-5221
 BILL TO: SCOTT POPE
 COMPANY: El Paso Field Services
 ADDRESS: 614 Reilly Ave
 Farmington NM 87401

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1) TRPH (MOD.8015) Diesel/Direct Inject	(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline) MTBE	8021 (BTEX) <input type="checkbox"/> MTBE <input type="checkbox"/> TMB <input type="checkbox"/> PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB <input type="checkbox"/> / DBCP <input type="checkbox"/>	8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081/8082)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310/8270-SIMS)	General Chemistry:	Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:	NUMBER OF CONTAINERS		
COL-0201-MW/1	1-3-02	1400	Had																											
TRIP BLANK	11-26-01	1945	H2O					X	X																					

PROJECT INFORMATION

PROJ. NO.: 5170009121

PROJ. NAME: EDS Gil Dyer

P.O. NO.:

SHIPPED VIA: FedEx

SAMPLE RECEIPT

NO. CONTAINERS:

CUSTODY SEALS: Y/N/NA

RECEIVED INTACT:

BLANKS:

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) 24hr 48hr 72hr 1 WEEK (NORMAL)

CERTIFICATION REQUIRED: NM SDWA OTHER

METHANOL PRESERVATION

COMMENTS: FIXED FEE:

COLDIRON A #1 (73551) meter #

RELINQUISHED BY: Signature: [Signature] Time: 1630 Date: 1-3-02

Printed Name: [Name] Date: 1-3-02

Company: MEC

RECEIVED BY: Signature: [Signature] Time: 1 Date: 1-3-02

Printed Name: [Name] Date: 1-3-02

Company: Pinnacle Laboratories Inc.

RELINQUISHED BY: Signature: [Signature] Time: 2 Date: 1-3-02

Printed Name: [Name] Date: 1-3-02

Company: Pinnacle Laboratories Inc.

11/10/98 P.U. Inc.: Pinnacle Laboratories, Inc. • 2709-D Pan American Freeway, NE • Albuquerque, New Mexico 87107 • (505) 344-3777 • Fax (505) 344-4413 • E-mail: PIN_LAB@WORLDNET.ATT.NET DISTRIBUTION: White - P.U. Canary - Original

TITLE PAGE

Survey/Profile NOTES OF

MONITORING WELLS

FROM M.C. # 73551

EPFS, Cold Iron A #1 Com.

A.T.E.S. _____

M.C. # 73551

E.S. _____

TO E.S. _____

CO. NAME EL PASO FIELD SERVICES

FARM NAME & NO. Cold Iron A #1 Com. Monitoring

WELLS

LOCATION SW 1/4 SEC. 2 T. 30 N. R. 11 W. NMPM

FROM _____ LINE _____ FROM _____ LINE
Sam Durant Co., N.M.

RW No. _____ DATE Oct. 2, 2001

W/O No. _____ WEATHER Clear, Hot

FILE: CDINAI1M1W, #22

CREW (D.E.I.)

BO. B. - GPS ASTRO

A. Garcia

INSTRU. - TRIMBLE RTK

O. Valdez

REF. - REDUVE BOOK

QUAD - AZTEC

E. Seeley

NOTE - SURVEY ON

EXISTING PAD

CHECKED BY

PLOTTED BY



EPES - Cold Iron A#1 Com.

ENG STA.	+	H.I.	GR. OR ROD.	PIPE	TRELEV
	SIA	PI			
			REMARKS		

SEES FOLD SWING

ARTICULATED FILES?

TEXTILES = AMOCO CONDIPON AT MURKITT

RAWLGRS : IRON COLD ALCOM-DC

EPES CHECK, DC

RAWLGRS : COLD IRON EXPROBT, DC

DRAWING FILE CONTAINING

PROCESSED COLTOURS?

COLD IRON DWG

SURVEY FIELD NOTES - AS BUILT - ELEVATIONS

ENGINEERING DEPT

San Juan report Form 71-83

San Juan report Form 71-83

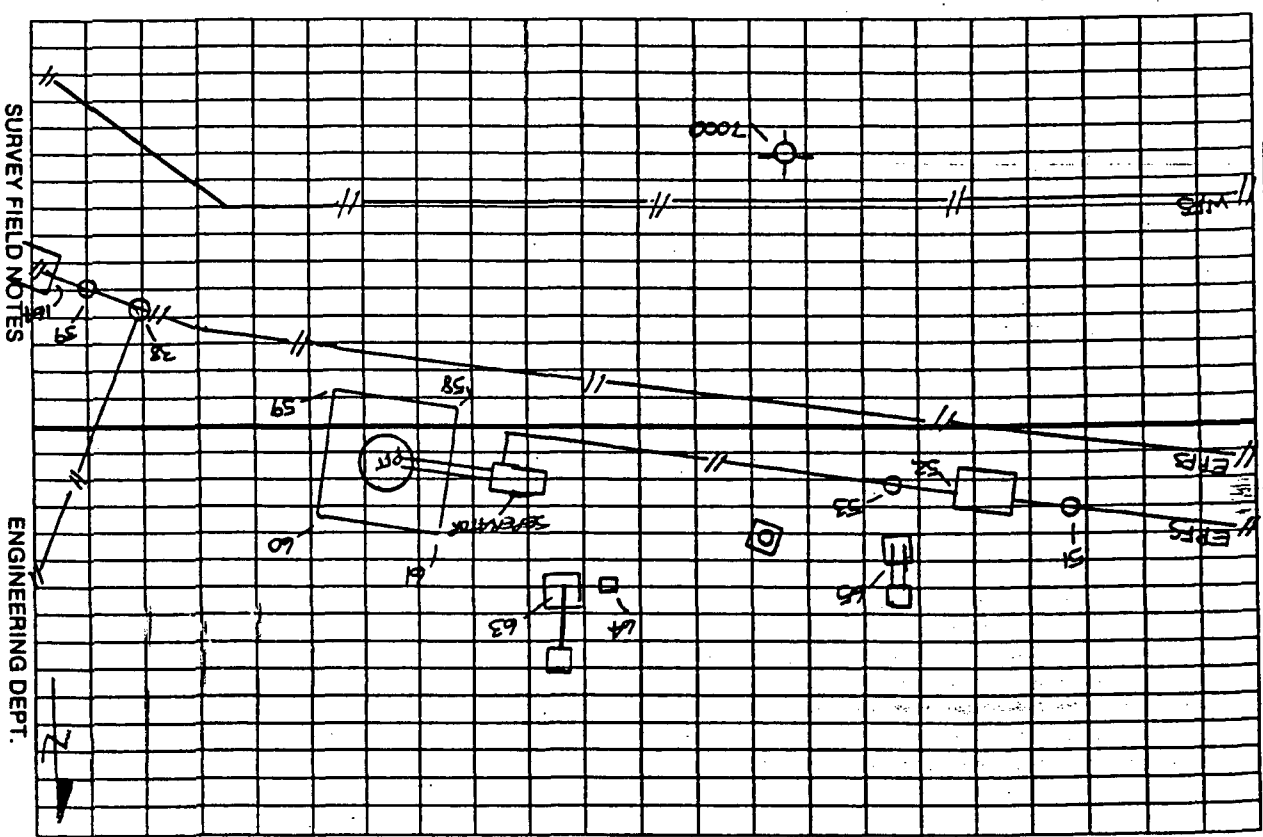
WEATHER CLEAR HOT

CO. & STATE San Juan NM

DATE 10/02/01

PC Garcia

1



SURVEY FIELD NOTES

ENGINEERING DEPT.

2

EPFS - Gulp Iron #A-1 G.M. MW

ENG STA.	+	H.I.	GR. OROD.	PIPE	TRELEV
	SIA	PI. &	REMARKS		

INVERSES TURN
CONTROL

SURVEY FIELD NOTES - AS BUILT - ELEVATIONS

ENGINEERING DEPT.

San Juan report Form 71-83

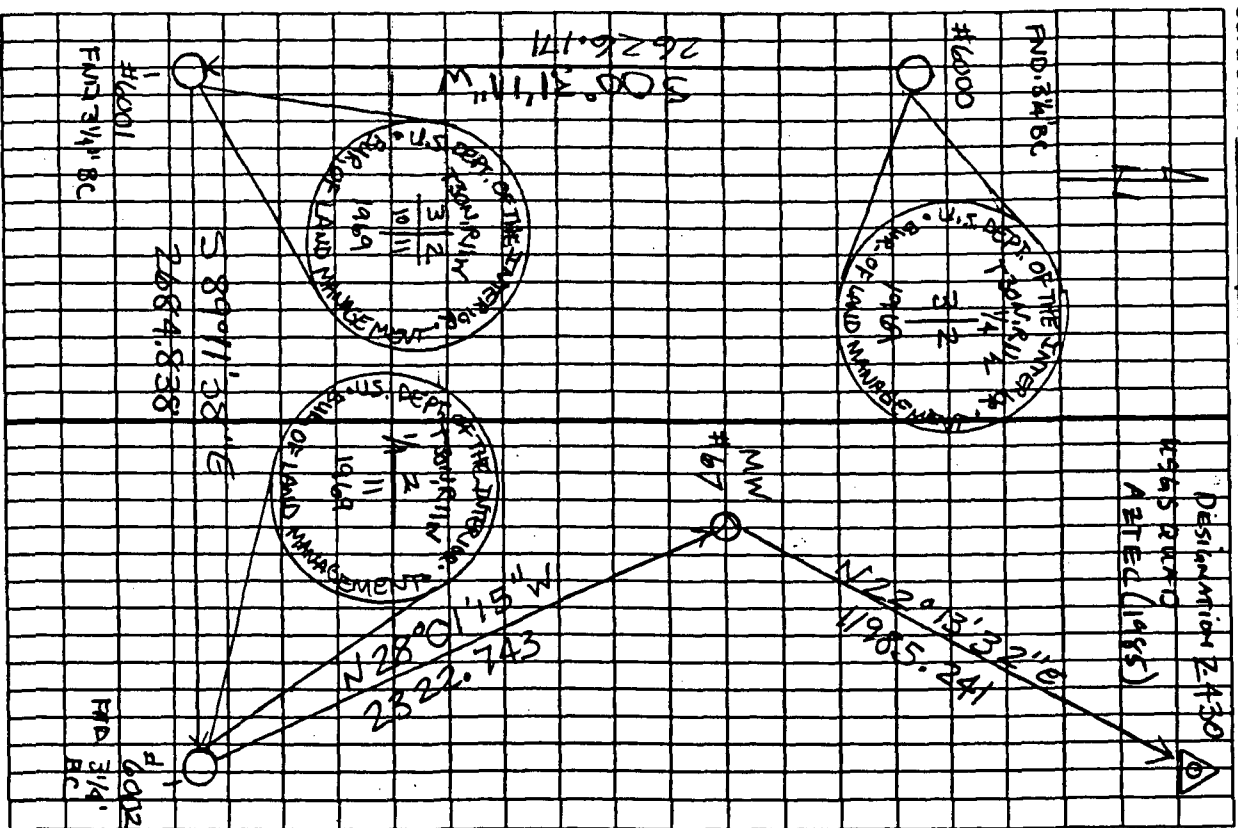
WEATHER CLEAR HOT

CO. & STATE SAN JUAN NEW MEX.

P.C. A. GARCIA

DATE

2



SURVEY FIELD NOTES

ENGINEERING DEPT.



Well Development and Purging Data

Project No. 0169 Development Purging Page 1 of 1

Task No. _____ Site Name/Identification COOPER A# (D355) Site Address AZtec W/M

Well No. MW 1 Client/Project Name El Paso Field Services EPS 12 remediation project Project Manager LISA

Development Criteria
 3 to 5 Casing Volumes of Water Removal
 Stabilization of Indicator Parameters
 Other _____

Water Volume Calculation
 Initial Depth of Well (feet) 45.21
 Initial Depth to Water (feet) 35.77
 Height of Water Column in Well (feet) 9.44
 Diameter (inches): Well 4" Gravel Pack _____

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing	4,441	6,643	18,48
Gravel Pack			
Drilling Fluids			
Total			18 48

Methods of Development
 Pump Centrifugal Submersible Peristaltic Other _____

Bailer Bottom Valve Double Check Valve Stainless-steel Kemmerer Other _____

Water Removal Data

Date	Time	Development Method		Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons)		Product Volume Removed (gallons)		Temperature (°C)	pH	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Comments
		Pump	Bailer				Increment	Cumulative	Increment	Cumulative					
10-01	15:40		X				3.75	3.75			19.4	6.76	3020		Casing & Bailer Test Bottom egg odor. Start
	16:44		X				3.75	7.5			19	6.91	2950		"
	16:40		X				3.75	11.25			17.1	6.97	3220		"
	16:54		X				3.75	15			16.7	7.02	3590		"
	16:59		X			38.14	3.75	18.75			16.4	7.04	3770		no change

Sampling Activities
 Type of Container MOA No. of Containers 2
 Parameters Sampled For BRX

Instruments
 PH Meter
 DO Monitor
 Conductivity Meter
 Temperature Meter
 Other _____

Water Disposal 11
 KWTZ Separator Bloomfield W/M
 Hydrac _____
 Hydrac _____

Circle the date and time that the development criteria are met.
 Comments Sampled for BRX 1715

Developer Signature (s) 10-1-01 Date 10/1/01
 Reviewer Signature

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER: Lisa Britton

COMPANY: GEM
 ADDRESS: 906 San Juan Blvd S-1E D. Farmington NM 87401
 PHONE: (505) 566-9116
 FAX: (505) 566-9120
 BILL TO: SCOTT ROBE
 COMPANY: El Paso Field Services
 ADDRESS: OH Bell Ave Farmington NM 87401

SAMPLE ID DATE TIME MATRIX LAB ID.

COL-0110-MV1 10/01/01 H2O
 Empty Blank 01/20/01/335 H2O

SAMPLE ID	DATE	TIME	MATRIX	LAB ID.	Petroleum Hydrocarbons (418.1) TRPH (MOD.8015) Diesel/Direct Inject	(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline) MTBE	8021 (BTEX) <input type="checkbox"/> MTBE <input type="checkbox"/> TMB <input type="checkbox"/> PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB <input type="checkbox"/> / DBCP <input type="checkbox"/>	8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081/8082)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310/8270-SIMS)	General Chemistry:	Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:	
COL-0110-MV1	10/01/01		H2O					<input checked="" type="checkbox"/>																				
Empty Blank	01/20/01		335 H2O					<input checked="" type="checkbox"/>																				

ANALYSIS REQUEST

PROJECT INFORMATION

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

RELINQUISHED BY: 1

RELINQUISHED BY: 2

PROJ. NO.: G169

(RUSH) 24hr 48hr 72hr 1 WEEK (NORMAL)

Signature: [Signature] Time: 0930

Signature: [Signature] Time:

PROJ. NAME: EPTS Reused

CERTIFICATION REQUIRED: NM SDWA OTHER

Printed Name: [Name] Date: 02-01

Printed Name: [Name] Date:

P.O. NO.:

METHANOL PRESERVATION

Company: [Company]

Company: [Company]

SHIPPED VIA:

COMMENTS: FIXED FEE

Signature: [Signature] Time:

Signature: [Signature] Time:

SAMPLE RECEIPT

RECEIVED BY: 1

RECEIVED BY: (LAB) 1

RECEIVED BY: (LAB) 2

NO. CONTAINERS:

COULD NOT AFF 1

Signature: [Signature] Time:

Signature: [Signature] Time:

CUSTODY SEALS:

meter # 73551

Printed Name: [Name] Date:

Printed Name: [Name] Date:

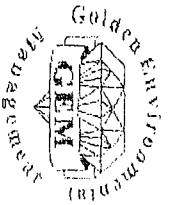
RECEIVED INTACT

Y/N/NA

Company: [Company]

Company: [Company]

BLUE ICE/ICE



Well Development and Purging Data

Project No. 9169 Development Purging Page 1 of 1

Task No. _____ Site Name/Identification Coltiron A#1 (73551) Site Address Russell San Juan CO

Well No. MW1 Client/Project Name El Paso Field Services EPOFS Remediation project Project Manager Lisa Weir

Development Criteria
 5 Casing Volumes of Water Removal
 Stabilization of Indicator Parameters
 Other _____

Water Volume Calculation
 Initial Depth of Well (feet) 45.21
 Initial Depth to Water (feet) 35.84
 Height of Water Column in Well (feet) 9.37
 Diameter (inches): Well 4" Gravel Pack _____

Item	Water Volume in Well Cubic Feet	Gallons	Gallons to be Removed
Well Casing	9.37	611.23	18.33
Gravel Pack			
Drilling Fluids			
Total			18.33

Methods of Development
 Pump
 Centrifugal
 Submersible
 Peristaltic
 Other _____

Bailer
 Bottom Valve
 Double Check Valve
 Stainless-steel Kemmerer

Water Disposal
 Other _____
Water Separator Bloomfield NM.

Water Removal Data

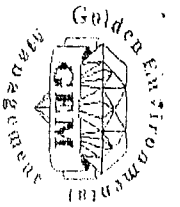
Date	Time	Development Method		Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons)		Product Volume Removed (gallons)		Temperature (°C)	pH	Conductivity (microhm/cm)	Dissolved Oxygen (mg/L)	Comments
		Pump	Bailer				Increment	Cumulative	Increment	Cumulative					
7-5-01	1449		X				3.75	3.75			20.9	6.83	2280		90% Grey Tint Shaded Grey Tint Cyanide & Iron eg odor
	1454		X				3.75	7.5			19.5	6.84	2280		"
	1500		X				3.75	11.25			19.3	6.84	2280		"
	1508						3.75	15			19	6.83	230		"
	1513						3.75	18.75			18.7	6.83	260		no change

Check the date and time from the development criteria are met.
 Comments Sampled for BTEX 1530
 Developer's Signature (s) W.A. Gm Date 7/1/01
 Reviewer J. Adams

PLEASE FILL THIS FORM IN COMPLETELY.

SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER: LISA LINN		ANALYSIS REQUEST	
COMPANY: GEM	ADDRESS: 906 San Juan Blvd Farmington NM 87401	Petroleum Hydrocarbons (418.1) TRPH (MOD.8015) Diesel/Direct Inject	
PHONE: (505) 586-9116	FAX: (505) 586-9120	(M8015) Gas/Purge & Trap	
BILL TO: SCOTT PAGE	COMPANY: El Paso Field Services	8021 (BTEX)/8015 (Gasoline) MTBE	
ADDRESS: 614 Bell Ave Farmington NM 87401		8021 (BTEX) <input type="checkbox"/> MTBE <input type="checkbox"/> TMB <input type="checkbox"/> PCE	
SAMPLE ID: 0102-MW1	DATE: 7-5-01	8021 (TCL)	
	TIME: 1530	8021 (EDX)	
	MATRIX: H2O	8021 (HALO)	
	LAB ID: 92401	8021 (CUST)	
		504.1 EDB <input type="checkbox"/> / DBCP <input type="checkbox"/>	
		8260 (TCL) Volatile Organics	
		8260 (Full) Volatile Organics	
		8260 (CUST) Volatile Organics	
		8260 (Landfill) Volatile Organics	
		Pesticides /PCB (608/8081/8082)	
		Herbicides (615/8151)	
		Base/Neutral/Acid Compounds GCMS (625/8270)	
		Polynuclear Aromatics (610/8310/8270-SIMS)	
		General Chemistry:	
		Priority Pollutant Metals (13)	
		Target Analyte List Metals (23)	
		RCRA Metals (8)	
		RCRA Metals by TCLP (Method 1311)	
		Metals:	
		NUMBER OF CONTAINERS	
PROJECT INFORMATION		PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS	
PROJ. NO.: 6168	(RUSH) <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 1 WEEK	(NORMAL) <input checked="" type="checkbox"/>	
PROJ. NAME: 6168	CERTIFICATION REQUIRED: <input type="checkbox"/> NM <input type="checkbox"/> SDWA <input type="checkbox"/> OTHER		
PO NO.: 105	METHANOL PRESERVATION <input type="checkbox"/>		
SHIPPED VIA:	COMMENTS: FIXED FEE <input type="checkbox"/>	RELIQUISHED BY: 1. Signature: [Signature] Time: 0800	
SAMPLE RECEIPT	COLDIRON A#1	RELIQUISHED BY: 2. Signature: [Signature] Time: [Blank]	
NO. CONTAINERS:	MATER # (03551)	RECEIVED BY: 1. Signature: [Signature] Time: [Blank]	
CUSTODY SEALS: Y/N/NA		RECEIVED BY: (LAB) 2. Signature: [Signature] Time: [Blank]	
RECEIVED INTACT:		Printed Name: [Blank] Date: [Blank]	
BLUE ICE/ICE:		Printed Name: [Blank] Date: [Blank]	



Well Development and Purging Data

Project No. GLG9 Development Purging Page 1 of 1

Task No. Well No. MW1 Site Name/Identification Collin A#1 (23551) Site Address Russell San Juan CO

Client/Project Name El Paso Field Services EPOFS Remediation project Project Manager Lisa Weira

Development Criteria 3 to 5 Casing Volumes of Water Removal Water Volume Calculation 45.21

Stabilization of Indicator Parameters Other Initial Depth of Well (feet) 35 Initial Depth to Water (feet) 84 Height of Water Column in Well (feet) 9.37 Diameter (inches): Well 4" Gravel Pack

Methods of Development Pump Bailor Centrifugal Submersible Peristaltic Other

Water Disposal Other Water Separator Roomfield NM

Sampling Activities Other Type of Container LOA No. of Containers 2 Parameters Sampled For BTX

Date	Time	Development Method		Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons)		Product Volume Removed (gallons)		Temperature (°C)	pH	Conductivity (micro/cm)	Dissolved Oxygen (mg/l)	Comments
		Pump	Bailor				Increment	Cumulative	Increment	Cumulative					
7-5-01	14:19		X				3.75	3.75			20.9	6.83	2280		Plugs Grey Int
	14:54		X				3.75	7.5			19.5	6.91	2470		Plugs Grey Int
	15:00		X				3.75	11.25			19.3	6.94	2620		Plugs Grey Int
	15:08						3.75	15			19	6.93	250		Plugs Grey Int
	15:13						3.75	18.75			18.2	6.93	260		Plugs Grey Int

Comments Sampled for BTX 1530

Developer's Signature Date 7-5-01 Reviewer Date 7-11-01

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER: LISA LIVING

COMPANY: GEM

ADDRESS: 906 San Juan Blvd
 Farmington NM 87401

PHONE: (505) 566-9116

FAX: (505) 566-9130

BILL TO: SCOTT PAPP

COMPANY: El Paso Field Services

ADDRESS: 614 Reilly Ave
 Farmington NM 87401

SAMPLE ID: 906-0107 - MW 17-501/1530 H&D

DATE: 7-5-01

TIME: 1530

MATRIX: H&D

LAB I.D.:

Petroleum Hydrocarbons (418.1) TRPH (MOD.8015) Diesel/Direct Inject	
(M8015) Gas/Purge & Trap	
8021 (BTEX)/8015 (Gasoline) MTBE	X
8021 (BTEX) <input type="checkbox"/> MTBE <input type="checkbox"/> TMB <input type="checkbox"/> PCE	
8021 (TCL)	
8021 (EDX)	
8021 (HALO)	
8021 (CUST)	
504.1 EDB <input type="checkbox"/> / DBCP <input type="checkbox"/>	
8260 (TCL) Volatile Organics	
8260 (Full) Volatile Organics	
8260 (CUST) Volatile Organics	
8260 (Landfill) Volatile Organics	
Pesticides /PCB (608/8081/8082)	
Herbicides (615/8151)	
Base/Neutral/Acid Compounds GC/MS (625/8270)	
Polynuclear Aromatics (610/8310/8270-SIMS)	
General Chemistry:	
Priority Pollutant Metals (13)	
Target Analyte List Metals (23)	
RCRA Metals (8)	
RCRA Metals by TCLP (Method 1311)	
Metals:	
NUMBER OF CONTAINERS	

ANALYSIS REQUEST

PROJECT INFORMATION

PROJ NO.: 9169

PROJ NAME: E 1025

PO NO.: 705

SHIPPED VIA: _____

SAMPLE RECEIPT

NO. CONTAINERS: _____

CUSTODY SEALS: _____ Y/N/NA

RECEIVED INTACT: _____

BLUE ICE/ICE: _____

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) 24hr 48hr 72hr 1 WEEK (NORMAL)

CERTIFICATION REQUIRED: NM SDWA OTHER

METHANOL PRESERVATION

COMMENTS: FIXED FEE

COLDIRON A# 1

METER # (03557)

RELINQUISHED BY: 1
 Signature: [Signature] Time: 0800
 Printed Name: [Name] Date: 7-6-01

RELINQUISHED BY: 2
 Signature: _____ Time: _____
 Printed Name: _____ Date: _____

RECEIVED BY: 1
 Signature: [Signature] Time: _____
 Printed Name: _____ Date: _____

RECEIVED BY (LAB): 2
 Signature: _____ Time: _____
 Printed Name: _____ Date: _____

Company: Pinnacle Laboratories Inc.

Project Name EPFS quarterly Sampling

Client Company EL Paso Field Services

Site Name SOLDIRON A#1 (73551)

LISA Wynn

Project No. 62800107
Phase/Task No. 0301

Rural San Juan Co.

Development Criteria

- No 5 Casing Volumes of Water Removal
- Stabilization of Indicator Parameters
- Other

Instrument

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

Serial No. (if applicable)

Hydac

Hydac

Hydac

Methods of Development

- Pump
- Centrifugal
- Submersible
- Peristaltic
- Other
- Boiler
- Bottom Valve
- Double Check Valve
- Stainless-steel Kammeter

Water Removal Data

9.77	6.52x3	19.11	45.21	35.44	9.77
19.11					

Water Disposal
KUTZ Separator Bloomfield ALM

Date	Time	Development Method	Pump	Boiler	Removal Rate (gal/min)	Intake Depth (feet)	Outlet Depth (feet)	Flow Rate (gpm)	pH	Conductivity (microsiemens/cm)	Dissolved Oxygen (mg/l)	Comments
4-3-01	1601	X						4	20.1	2.55	2280	Clog (dr) KORTON 83
	1606	X						4	17.6	2.92	2400	
	1613	X						4	16.9	2.40	2740	
	1620	X						4	16.1	2.10	3070	
	1626	X						4	16.3	2.59	3230	no change

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

Comments Sampled for BTEX 1536

Developer's Signature(s) [Signature]

Date 4-3-01

Reviewer RT Date 4/3/01

Well Number MW 1

WELL DEVELOPMENT AND PURGING DATA

Page 1 of 1

Serial No. WDPD-_____

Project Name EPFS quarterly Sampling

Operator LISA Wynn

Project No. 62800107

Client Company EL Paso Field Services

Location Rural San Juan Co.

Phase/Job No. 0301

Site Name COLDFRONT A#1 (73551)

Development Criteria

- 5 Casing Volumes of Water Removal
- Stabilization of Indicator Parameters
- Other _____

Instruments

pH Meter Hydac Serial No. (if applicable) _____

DO Monitor _____

Conductivity Meter Hydac

Temperature Meter Hydac

Other _____

Methods of Development

- Pump _____
- Centrifugal Bottom Valve
- Submersible Double Check Valve
- Peristaltic Stainless-Steel Kemmerer
- Other _____

Time	Flow Rate (gpm)	Flow Rate (m3/hr)	Flow Rate (m3/d)
9:11	45.21	35.44	9.77
9:27	6.32x3	19.11	

Water Disposal EUTZ Separator Roomfield A/M-

Water Removal Data

Date	Time	Development Method	Pump/Boiler	Removal Rate (gal/min)	Intake Depth (feet)	Outlet Depth (feet)	Flow Rate (gpm)	Conductivity (micro-mhos/cm)	Dissolved Oxygen (mg/l)	Comments
4-3-01	16:01	X		4	4	4	20.1	2280		Chlorine added
	16:06	X		4	4	4	17.6	2400		
	16:13	X		4	4	4	16.9	2740		
	16:20	X		4	4	4	16.1	3010		
	16:26	X		4	4	4	16.3	3230		no charge

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

Comments Sampled for BTEX 1536

Developer's Signature(s) [Signature]

Date 4-3-01

Reviewer RT Date 4/3/01

Well Number MW 01

Development Purging

WELL DEVELOPMENT AND PURGING DATA

Serial No. WDPD

Project Manager R. Thompson

Page 1 of 1

Project Name EPFS quarterly Sampling

Project No. 62800102

Phase/Task No. 0301

Client Company EPFS

Site Name COLDIRON COM. A#1 (93551) Site Address AZTEC NM.

Development Criteria

- No 5 Casing Volumes of Water Removal
 Stabilization of Indicator Parameters
 Other _____

Water Volume Calculation

Initial Depth of Well (feet) 45.81
 Initial Depth to Water (feet) 35.01
 -Height of Water Column in Well (feet) 10.2
 Diameter (inches): Well 4" Gravel Pack

Item	Water Volume in Well (Gallons)	Gravel to be Removed (Gallons)
Well Casing	<u>10.2</u>	<u>655x3</u>
Gravel Pack		<u>19.95</u>
Drilling Fluid		
Total		<u>19.95</u>

Instruments

pH Meter Hydac

DO Monitor

Conductivity Meter Hydac

Temperature Meter Hydac

Other _____

Water Disposal

K-72 Separator Brownfield NM.

Water Removal Data

Date	Time	Development Method Pump/Bailer	Removal Rate (gal/min)	Inlet Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons)	Product Volume Estimated (gallons)	Temperature (°F)	pH	Conductivity (micro/m/cm)	Dissolved Oxygen (mg/l)	Comments
01-03-01	14:28	X				4		12.2	8.12	4040		Clear Greenish that K-72 has egg odor
	14:35	X				4		11.9	7.61	4870		Black Specs
	14:41	X				4		12.2	7.64	5190		"
	14:50	X				4		11.8	6.88	5540		"
	14:56	X				4		11.8	7.10	5820		No Change

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

Comments Sampled for BTEX 1503

Developer's Signature(s) Rob A. O'Neil

Date 1/3/01

Reviewer RT

Date 2/20/01

Well Number MLV 01

Development Region

WELL DEVELOPMENT AND PURGING DATA

Serial No. WDPP

Project Manager

Page 1 of 1

Project Name EPFS quarterly Sampling

Project Manager R. Thompson

Project No. 62800102

Client Company EPFS

Site Name COLDIRON COM. A#1

Phase, Task No. 0301

Address 9355 1 St. Address AZtec NM.

Development Criteria

- No 5 Casing Volumes of Water Removal
- Stabilization of Indicator Parameters
- Other

Water Volume Stabilization

Initial Depth of Well (feet) 45.21

Initial Depth to Water (feet) 35.01

Height of Water Column in Well (feet) 10.2

Diameter (inches) Well 4" Grovel Point

Diameter (inches) Grovel Point

Diameter (inches) Drilling Fluids

Initial

Final

Instruments

Serial No. (if applicable)

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

Hydac

Hydac

Hydac

- Other

Water Disposal

K-12 Separator Bloomfield NM.

Water Removal Data

Date	Time	Development Method / Pump Failure	Removal Rate (gal/min)	Initial Depth (feet)	Ending Water Depth (feet)	Water Volume Purged (ft ³)	Conductivity (µmhos/cm)	Temperature (°F)	pH	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/l)	Comments
01-03-01	1428	X		4	4	4	12.2	8.17	4040			Clear, greenish tint
	1435	X		4	4	8	11.9	7.61	4270			K-12 Separator
	1441	X		4	4	12	12.2	7.64	5190			Black Specs
	1450	X		4	4	16	11.8	6.88	5540			"
	1456	X		4	4	20	11.8	7.10	5870			NO Change

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

Comments Sampled for BTEX 1503

Developer's Signature(s)

Chris A. May

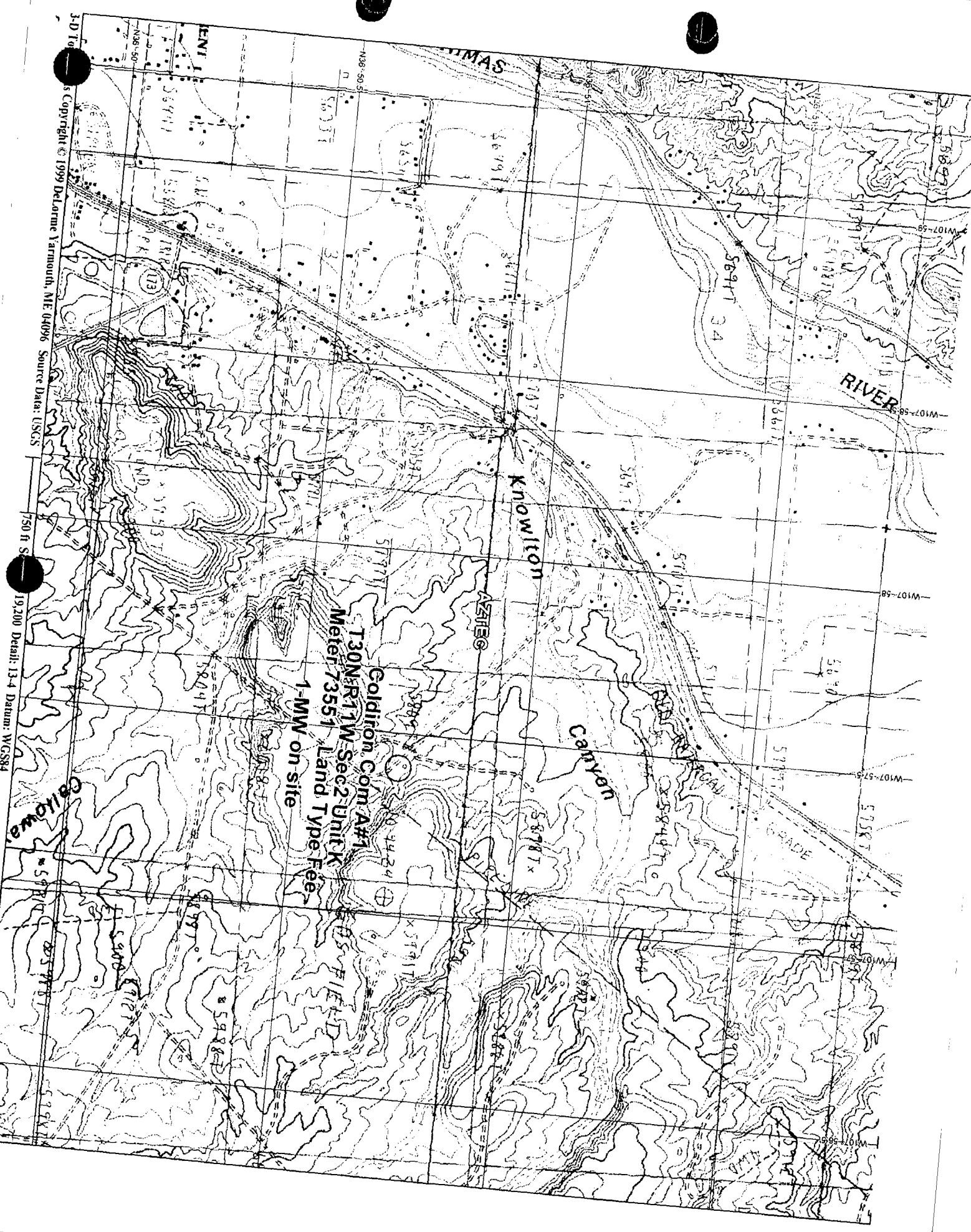
Date 01-03-01

Reviewer

RT

Date

1/31/01



RIVER

Knowlton

Canyon

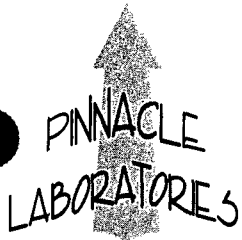
Goldilocks Corn A#1
T30N R11W Sec2 Unit K
Meter 73551
Land Type Fee
1-MW on site

AZITEG

Collova

3-D 10
Copyright © 1999 DeLorme Vermont, ME 04096 Source Data: USGS

1:50,000 Detail: 1:34 Datum: WGS84



2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

Pinnacle Lab ID number **110012**
October 11, 2001

GOLDEN ENVIRONMENTAL MNGT.
906 SAN JUAN BLVD.
FARMINGTON, NM 87401

EL PASO FIELD SERVICES
614 RIELLY STREET
FARMINGTON, NM 87401

Project Name EPFS REMEDIATION PROJECT
Project Number 6169

Coldiron

Attention: LISA WINN/SCOTT POPE

On 10/02/01 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), received a request to analyze **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.

H. Mitchell Rubenstein, Ph. D.
General Manager

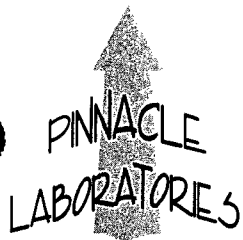
MR: jt

Enclosure



2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

CLIENT	: GOLDEN ENVIRONMENTAL MNGT.	PINNACLE ID	: 110012
PROJECT #	: 6169	DATE RECEIVED	: 10/02/01
PROJECT NAME	: EPFS REMEDIATION PROJECT	REPORT DATE	: 10/11/01
PINNACLE			DATE
ID #	CLIENT DESCRIPTION	MATRIX	COLLECTED
110012 - 01	COL-0110-MW1	AQUEOUS	10/01/01
110012 - 02	TRIP BLANK	AQUEOUS	09/10/01



2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : GOLDEN ENVIRONMENTAL MNGT.
PROJECT # : 6169
PROJECT NAME : EPFS REMEDIATION PROJECT

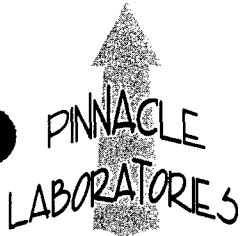
PINNACLE I.D.: 110012

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	COL-0110-MW1	AQUEOUS	10/01/01	NA	10/04/01	5
02	TRIP BLANK	AQUEOUS	09/10/01	NA	10/04/01	1

PARAMETER	DET. LIMIT	UNITS	COL-0110-MW1	TRIP BLANK
BENZENE	0.5	UG/L	19	< 0.5
TOLUENE	0.5	UG/L	2.5	< 0.5
ETHYLBENZENE	0.5	UG/L	11	< 0.5
TOTAL XYLENES	0.5	UG/L	87	< 0.5

PROBATE:
BROMOFLUOROBENZENE (%) 96 90
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:
N/A



2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST : EPA 8021 MODIFIED
MSMSD # : 100401
CLIENT : GOLDEN ENVIRONMENTAL MNGT.
PROJECT # : 6169
PROJECT NAME : EPFS REMEDIATION PROJECT

PINNACLE I.D. : 110012
DATE EXTRACTED : NA
DATE ANALYZED : 10/04/01
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	20.0	100	19.5	98	3	(80 - 120)	20
TOLUENE	<0.5	20.0	18.5	93	18.0	90	3	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	19.0	95	18.5	93	3	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	57.4	96	56.3	94	2	(80 - 120)	20

CHEMIST NOTES:
N/A

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

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

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER: Lisa Winn
 COMPANY: G.E.M.
 ADDRESS: 906 San Juan Blvd Suite D.
 Farmington NM. 87401
 PHONE: (505) 566-9116
 FAX: (505) 566-9120
 BILL TO: Scott Pope
 COMPANY: El Paso Field Services
 ADDRESS: 604 Reilly Ave
 Farmington N.M. 87401

ANALYSIS REQUEST	PETROLEUM HYDROCARBONS (418.1) TRPH	(MOD 8015) Diesel/Direct Inject	(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline) MTBE	8021 (BTEX) <input type="checkbox"/> MTBE <input type="checkbox"/> TMB <input type="checkbox"/> PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB <input type="checkbox"/> / DBCP <input type="checkbox"/>	8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides / PCB (608/8081/8082)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polyuclear Aromatics (610/8310/8270-SIMS)	General Chemistry:	Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:	NUMBER OF CONTAINERS
					X																				2
					X																				1

SAMPLE ID	DATE	TIME	MATRIX	LAB ID
COL0110-Mw1	10-10-11	1715	H ₂ O	0
Trip Blank	09-00-11	1335	H ₂ O	012

PROJECT INFORMATION		PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS	
PROJ. NO.: 6169	(RUSH) <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 1 WEEK	(NORMAL) <input checked="" type="checkbox"/>	
PROJ. NAME: EPPS Remediation Project	CERTIFICATION REQUIRED: <input type="checkbox"/> NM <input type="checkbox"/> SDWA <input type="checkbox"/> OTHER		
P.O. NO.:	METHANOL PRESERVATION <input type="checkbox"/>		
SHIPPED VIA:	COMMENTS: FIXED FEE <input type="checkbox"/>		
SAMPLE RECEIPT		RECEIVED BY: (LAB)	
NO. CONTAINERS: 3	Y/N/O	Signature: <i>[Signature]</i>	
CUSTODY SEALS: YES	Y/N/O	Time: 0930	
RECEIVED INTACT: YES	Y/N/O	Printed Name: Chris A. Mass	
BLUE ICE/ICE: 430	Y/N/O	Date: 10-2-11	
RECEIVED BY: 1. <i>[Signature]</i>		RECEIVED BY: 2. <i>[Signature]</i>	
Signature: <i>[Signature]</i>		Signature: <i>[Signature]</i>	
Printed Name: JACINTA TENORIO		Printed Name: JACINTA TENORIO	
Date: 10/2		Date: 10/2	
Company: Pinnacle Laboratories Inc.		Company: Pinnacle Laboratories Inc.	

PINNACLE
LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

Pinnacle Lab ID number **107030**
July 12, 2001

GOLDEN ENVIRONMENTAL MNGT.
906 SAN JUAN BLVD.
FARMINGTON, NM 87401

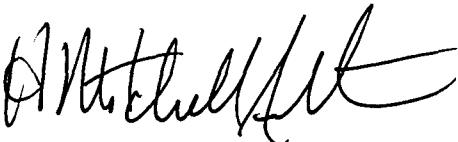
EL PASO FIELD SERVICES
614 RIELLY STREET
FARMINGTON, NM 87401

Project Name EPFS REMEDIATION PROJECT
Project Number 6169

Attention: LISA WINN/SCOTT POPE

On 07/06/01 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), received a request to analyze **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.



H. Mitchell Rubenstein, Ph. D.
General Manager

MR: jt

Enclosure

PINNACLE
LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

CLIENT : GOLDEN ENVIRONMENTAL MNGT. PINNACLE ID : 107030
PROJECT # : 6169 DATE RECEIVED : 07/06/01
PROJECT NAME : EPFS REMEDIATION PROJECT REPORT DATE : 07/12/01

PINNACLE ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
107030 - 01	COL-0107-MW1	AQUEOUS	07/05/01

PINNACLE
LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : GOLDEN ENVIRONMENTAL MNGT.
PROJECT # : 6169
PROJECT NAME : EPFS REMEDIATION PROJECT

PINNACLE I.D.: 107030

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	COL-0107-MW1	AQUEOUS	07/05/01	NA	07/09/01	1

PARAMETER	DET. LIMIT	UNITS	COL-0107-MW1
BENZENE	0.5	UG/L	14
TOLUENE	0.5	UG/L	2.4
ETHYLBENZENE	0.5	UG/L	13
TOTAL XYLENES	0.5	UG/L	100

SURROGATE:
BROMOFLUOROBENZENE (%) 141**
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:

N/A

** Surrogate not recoverable due to matrix interference.

PINNACLE
LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST : EPA 8021 MODIFIED PINNACLE I.D. : 107030
BLANK I. D. : 070901 DATE EXTRACTED : NA
CLIENT : GOLDEN ENVIRONMENTAL MNGT. DATE ANALYZED : 07/09/01
PROJECT # : 6169 SAMPLE MATRIX : AQUEOUS
PROJECT NAME : EPFS REMEDIATION PROJECT

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5

SURROGATE:

BROMOFLUOROBENZENE (%) 94

SURROGATE LIMITS: (80 - 120)

CHEMIST NOTES:

N/A

PINNACLE
LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 107030
MSMSD #	: 107026-01	DATE EXTRACTED	: NA
CLIENT	: GOLDEN ENVIRONMENTAL MNGT.	DATE ANALYZED	: 07/09/01
PROJECT #	: 6169	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: EPFS REMEDIATION PROJECT	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	19.7	99	19.9	100	1	(80 - 120)	20
TOLUENE	<0.5	20.0	20.1	101	20.5	103	2	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	20.5	103	20.8	104	1	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	61.6	103	62.5	104	1	(80 - 120)	20

CHEMIST NOTES:
N/A

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

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

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

PROJECT MANAGER: Lisa Winn
COMPANY: G.E.M.
ADDRESS: 906 San Juan Blvd.
 Farmington N.M. 87401
PHONE: (505) 566-9116
FAX: (505) 566-9120
BILL TO: Scott Pope
COMPANY: El Paso Field Services
ADDRESS: 614 Reilly Ave
 Farmington N.M. 87401

ANALYSIS REQUEST	SAMPLE ID	DATE	TIME	MATRIX	LAB ID	CONTAINERS	
						NUMBER	DESCRIPTION
Petroleum Hydrocarbons (418.1) TRPH	COL-0107 - MV1	7-501	1530	HAO	01	2	
(M8015) Gas/Purge & Trap							
8021 (BTEX)/8015 (Gasoline) MTBE							
8021 (BTEX) <input type="checkbox"/> MTBE <input type="checkbox"/> TMB <input type="checkbox"/> PCE							
8021 (TCL)							
8021 (EDX)							
8021 (HALO)							
8021 (CUST)							
504.1 EDB <input type="checkbox"/> / DBCP <input type="checkbox"/>							
8260 (TCL) Volatile Organics							
8260 (Full) Volatile Organics							
8260 (CUST) Volatile Organics							
8260 (Landfill) Volatile Organics							
Pesticides / PCB (608/8081/8082)							
Herbicides (615/8151)							
Base/Neutral/Acid Compounds GC/MS (625/8270)							
Polynuclear Aromatics (610/8310/8270-SIMS)							
General Chemistry:							
Priority Pollutant Metals (13)							
Target Analyte List Metals (23)							
RCRA Metals (8)							
RCRA Metals by TCLP (Method 1311)							
Metals:							

PROJECT INFORMATION

PROJ. NO.: 6169
 PROJ. NAME: ERF's Remediation Project
 P.O. NO.:
 SHIPPED VIA:
SAMPLE RECEIPT

NO. CONTAINERS	2
CUSTODY SEALS	Y/N (NA)
RECEIVED INTACT	YES
BLUE ICE	2.3

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) 24hr 48hr 72hr 1 WEEK (NORMAL)
 CERTIFICATION REQUIRED: NM SDWA OTHER
 METHANOL PRESERVATION
 COMMENTS: FIXED FEE
COLDIRON A#1
METER# (73551)

RELINQUISHED BY:

1. Signature: [Signature] Time: 0900
 Printed Name: Chris Thomas Date: 7-6-01
 Company: See reverse side (Force Majeure)

2. Signature: [Signature] Time:
 Printed Name: [Signature] Date:
 Company: [Signature]

RECEIVED BY: (LAB)

1. Signature: [Signature] Time:
 Printed Name: [Signature] Date:
 Company: [Signature]

2. Signature: [Signature] Time:
 Printed Name: [Signature] Date:
 Company: Pinnacle Laboratories Inc.

PINNACLE
LABORATORIES


2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

July 9, 2001

Scott Pope

This is to inform you that Pinnacle Laboratories, Inc. received samples on 7-6-01.
Enclosed is a copy of the Chain of Custody. If you have any questions regarding the status of
your project please reference Pinnacle ID number 107030.

Thank you,


Jacinta Tenorio, Project Manager
Pinnacle Laboratories, Inc.

PLEASE FILL THIS FORM IN COMPLETELY.

SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER: LISA Wink COMPANY: GEM ADDRESS: 906 San Juan Blvd. Farmington NM. 87401 PHONE: (505) 566-9116 FAX: (505) 566-9120 BILL TO: Scott Pope COMPANY: El Paso Field Services ADDRESS: 614 Reilly Ave Farmington NM 87401		ANALYSIS REQUEST Petroleum Hydrocarbons (418.1) TRPH (MOD.8015) Diesel/Direct Inject (M8015) Gas/Purge & Trap 8021 (BTEX) 8015 (Gasoline) MTBE 8021 (BTEX) <input type="checkbox"/> MTBE <input type="checkbox"/> TMB <input type="checkbox"/> PCE 8021 (TCL) 8021 (EDX) 8021 (HALO) 8021 (CUST) 504.1 EDB <input type="checkbox"/> / DBCP <input type="checkbox"/> 8260 (TCL) Volatile Organics 8260 (Full) Volatile Organics 8260 (CUST) Volatile Organics 8260 (Landfill) Volatile Organics Pesticides /PCB (608/8081/8082) Herbicides (615/8151) Base/Neutral/Acid Compounds GC/MS (625/8270) Polynuclear Aromatics (610/8310/8270-SIMS) General Chemistry: Priority Pollutant Metals (13) Target Analyte List Metals (23) RCRA Metals (8) RCRA Metals by TCLP (Method 1311) Metals:	
PROJECT INFORMATION PROJ NO.: G169 PROJ. NAME: ERF5 Remediation project P.O. NO.: SHIPPED VIA: SAMPLE RECEIPT NO. CONTAINERS: 2 CUSTODY SEALS: Y/N (MA) RECEIVED INTACT: YES BLUE ICE: YES		PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS (RUSH) <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 1 WEEK CERTIFICATION REQUIRED: <input type="checkbox"/> NM <input type="checkbox"/> SDWA <input type="checkbox"/> OTHER METHANOL PRESERVATION <input type="checkbox"/> COMMENTS: FIXED FEE <input type="checkbox"/> COLIRON A# 1 Meter# (13551)	
RELINQUISHED BY: Signature: [Signature] Printed Name: Chris Thomas Date: 7-6-01 Company: Pinnacle Laboratories Inc.		RECEIVED BY: Signature: [Signature] Printed Name: [Signature] Date: [Date] Company: Pinnacle Laboratories Inc.	

PINNACLE
LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

Pinnacle Lab ID number **104011**
April 12, 2001

PHILIP SERVICE CORPORATION
4000 MONROE ROAD
FARMINGTON, NM 87401

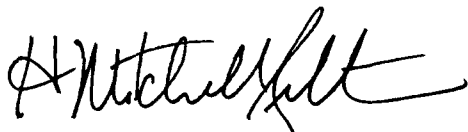
EL PASO FIELD SERVICES
614 RIELLY STREET
FARMINGTON, NM 87401

Project Name EPFS QUARTERLY SAMPLING
Project Number 62800107

Attention: ROBERT THOMPSON/SCOTT POPE

On 04/04/01 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), received a request to analyze **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.



H. Mitchell Rubenstein, Ph. D.
General Manager

MR: jt

Enclosure

PINNACLE
LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

CLIENT	: PHILIP SERVICE CORPORATION	PINNACLE ID	: 104011
PROJECT #	: 62800107	DATE RECEIVED	: 04/04/01
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 04/12/01
PINNACLE			DATE
ID #	CLIENT DESCRIPTION	MATRIX	COLLECTED
104011 - 01	COL-0104-MW 1	AQUEOUS	04/03/01
104011 - 02	TRIP BLANK	AQUEOUS	03/12/01

**PINNACLE
LABORATORIES**

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : PHILIP SERVICE CORPORATION
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D.: 104011

SAMPLE	DATE	DATE	DATE	DIL.		
D. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	COL-0104-MW 1	AQUEOUS	04/03/01	NA	04/09/01	5
02	TRIP BLANK	AQUEOUS	03/12/01	NA	04/09/01	1

PARAMETER	DET. LIMIT	UNITS	COL-0104-MW 1	TRIP BLANK
BENZENE	0.5	UG/L	32	< 0.5
TOLUENE	0.5	UG/L	6.7	< 0.5
ETHYLBENZENE	0.5	UG/L	32	< 0.5
OXYLENES	0.5	UG/L	220	< 0.5

SURROGATE:
BROMOFLUOROBENZENE (%) 116 99
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:
N/A

PINNACLE
LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST : EPA 8021 MODIFIED PINNACLE I.D. : 104011
BLANK I. D. : 041001 DATE EXTRACTED : NA
CLIENT : PHILIP SERVICE CORPORATION DATE ANALYZED : 04/09/01
PROJECT # : 62800107 SAMPLE MATRIX : AQUEOUS
PROJECT NAME : EPFS QUARTERLY SAMPLING

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
METHYLBENZENE	UG/L	<0.5

UNDETECTED:
BROMOFLUOROBENZENE (%) 101
UNDETECTED LIMITS: (80 - 120)
ANALYST NOTES:
/A



2709-D Pan American Freeway NE
 Albuquerque, New Mexico 87107
 Phone (505) 344-3777
 Fax (505) 344-4413

GAS CHROMATOGRAPHY QUALITY CONTROL
 MSMSD

EST : EPA 8021 MODIFIED
 ISMSD # : 104030-01
 CLIENT : PHILIP SERVICE CORPORATION
 PROJECT # : 62800107
 PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 104011
 DATE EXTRACTED : NA
 DATE ANALYZED : 04/10/01
 SAMPLE MATRIX : AQUEOUS
 UNITS : UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
ENZENE	<0.5	20.0	20.3	102	19.8	99	2	(80 - 120)	20
OLUENE	<0.5	20.0	20.8	104	20.0	100	4	(80 - 120)	20
THYLBENZENE	<0.5	20.0	21.8	109	20.9	105	4	(80 - 120)	20
OTAL XYLENES	<0.5	60.0	60.6	101	57.0	95	6	(80 - 120)	20

HEMIST NOTES:
 /A

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

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



Chain of Custody Record

4000 Monroe Road
Farmington, NM 87401

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

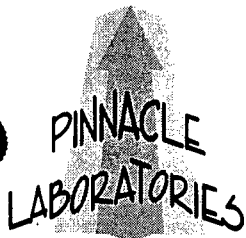
104011

COC Serial No. C 2832

Project Name <i>EPCS Quarterly Sampling</i>		Type of Analysis and Bottle		Comments
Project Number <i>62400107</i> Phase <i>Task 0301</i>		Total Number of Bottles		
Samplers <i>C. Maez</i>		BTEX (C021)		LAB ID#
Laboratory Name <i>DINNACLE</i>		Location <i>ALBQ N.M.</i>		
Sample Number (and depth)	Date	Time	Matrix	
<i>COL-0104-MW 1</i>	<i>4-3-01</i>	<i>1536</i>	<i>H₂O</i>	<i>01</i>
<i>Trip Blank</i>	<i>3-12-01</i>	<i>1510</i>	<i>H₂O</i>	<i>02</i>

Relinquished by:		Received By:	
Signature <i>Chris A. May</i>	Date <i>4-4-01</i>	Signature <i>Shunene Janno</i>	Date <i>4/4/01</i>
Time	<i>0900</i>	Time	<i>1700</i>

Samples Iced: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Carrier: <i>Geyhard</i>	Airbill No. <i>GA1606919919</i>
Preservatives (ONLY for Water Samples)	Shipping and Lab Notes:	
<input type="checkbox"/> Cyanide <input type="checkbox"/> Volatile Organic Analysis <input type="checkbox"/> Metals <input type="checkbox"/> TPH (418.1) <input checked="" type="checkbox"/> Other (Specify) <i>H₂SO₄</i> <input type="checkbox"/> Other (Specify)	<i>Rec'd @ 5.30</i>	



2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

Pinnacle Lab ID number **101016**
January 08, 2001

PHILIP ENVIRONMENTAL
4000 MONROE ROAD
FARMINGTON, NM 87401

EL PASO FIELD SERVICES
614 RIELLY STREET
FARMINGTON, NM 87401

Project Name EPFS QUARTERLY SAMPLING
Project Number 62800107

Attention: ROBERT THOMPSON/SCOTT POPE

On 01/05/01 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), received a request to analyze **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.

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: jt

Enclosure

PINNACLE
LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

CLIENT : PHILIP ENVIRONMENTAL PINNACLE ID : 101016
PROJECT # : 62800107 DATE RECEIVED : 01/05/01
PROJECT NAME : EPFS QUARTERLY SAMPLING REPORT DATE : 01/08/01

PINNACLE ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
101016 - 01	COL-0101-MW01	AQUEOUS	01/03/01
101016 - 02	TRIP BLANK	AQUEOUS	01/04/01



2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D.: 101016

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	COL-0101-MW01	AQUEOUS	01/03/01	NA	01/05/01	10
02	TRIP BLANK	AQUEOUS	01/04/01	NA	01/05/01	1

PARAMETER	DET. LIMIT	UNITS	COL-0101-MW01	TRIP BLANK
BENZENE	0.5	UG/L	40	< 0.5
TOLUENE	0.5	UG/L	13	< 0.5
ETHYLBENZENE	0.5	UG/L	30	< 0.5
TOLYLENES	0.5	UG/L	340	< 0.5

SURROGATE:
BROMOFLUOROBENZENE (%) 106 102
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:
N/A



2709-D Pan American Freeway NE
 Albuquerque, New Mexico 87107
 Phone (505) 344-3777
 Fax (505) 344-4413

GAS CHROMATOGRAPHY QUALITY CONTROL
 MSMSD

TEST : EPA 8021 MODIFIED
 MSMSD # : 010501
 CLIENT : PHILIP ENVIRONMENTAL
 PROJECT # : 62800107
 PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 101016
 DATE EXTRACTED : NA
 DATE ANALYZED : 01/05/01
 SAMPLE MATRIX : AQUEOUS
 UNITS : UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	20.6	103	20.7	104	0	(80 - 120)	20
TOLUENE	<0.5	20.0	19.0	95	19.0	95	0	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	21.1	106	20.5	103	3	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	60.7	101	60.1	100	1	(80 - 120)	20

CHEMIST NOTES:
 N/A

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

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



Chain of Custody Record

4000 Monroe Road
Farmington, NM 87401

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

101016

COC Serial No. C 2819

Project Name		Project Number		Phase / Task		Total Number of Bottles	Type of Analysis and Bottle	Comments
EAFS quarterly Sampling		62800107		Phase . Task 0301				
Samplers	Laboratory	Sample Number (and depth)	Date	Time	Matrix			
C Mac2	PI, NMACLE	COL-0101 - MW 01	01-03-01	1503	H ₂ O	2	X	01
		Trip Blank	01-04-01	1100	H ₂ O	1	X	02
<i>LAB ID: STRK 8021</i>								
<i>COLD LEGN COM, APP (73551)</i>								

Relinquished by:

Signature	Date	Time	Signature	Date	Time
<i>Chris A. May</i>	01-04-01	1100	<i>Sharon L. Jairo</i>	1/5/01	1055

Samples Iced:

Yes No

Preservatives (ONLY for Water Samples)

- Cyanide
- Sodium hydroxide (NaOH)
- Volatile Organic Analysis
- Hydrochloric acid (HCl)
- Metals
- Nitric acid (HNO₃)
- TPH (418.1)
- Sulfuric acid (H₂SO₄)
- Other (Specify) *H₂SO₄*
- Other (Specify)

Carrier: *Greyhound*

Shipping and Lab Notes:

Road @ 1.7c

Airbill No. *GH1606919831*