

3R - 186

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:

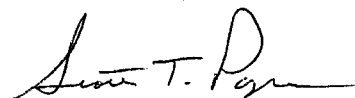
In accordance with reporting requirements, El Paso Field Services (EPFS) has enclosed annual reports for the 30 remaining groundwater impacted sites that were identified during our pit closure project of 1994 / 1995.

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 IB-Federal Sites**

RECEIVED

MAR 04 2002

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

March 2002

Prepared for

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



MWH

MONTGOMERY WATSON HARZA

EPFS GROUNDWATER PITS

2001 ANNUAL GROUNDWATER REPORT

Hammond #41A

Meter Code 89894

SITE DETAILS

Legals Twn: 27N Rng: 08W Sec: 25 UNIT: O
NMOCD Haz Ranking 40 Land Type: Federal Operator: R & G Drilling Company

PREVIOUS ACTIVITIES

Site Assessment: Jun-94 Excavation Jul-94 Soil Boring: July-95 Monitor Well: May-97
Geoprobe: Nov-96 Additional MWs: Sep-99 Downgradient MW's: Sep-99 Replace MW: NA
PSH Removal Initiated: NA ORC Nutrient Injection July-98 Re-Excavation: May-97
Quarterly Initiated Jun-97 Annual Initiated Sep-99 Quarterly Resumed: NA

2001 ACTIVITY

Groundwater monitoring - Quarterly sampling continued through 2001 for MW-1 and MW-2. Annual sample for MW-3 completed.

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 are BTEX Data graphs for MW-1 through MW-3.

SITE MAP

Site Maps with BTEX concentrations and groundwater elevations are attached.

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

No drilling activities were performed at this site for 2001.

DISPOSITION OF GENERATED WASTES

No wastes were generated for this site during 2001.

EPFS GROUNDWATER PITS

2001 ANNUAL GROUNDWATER REPORT

Hammond #41A
Meter Code: 89894

ISOCONCENTRATION MAPS

An isoconcentration map was not generated for this site.

CONCLUSIONS

Concentrations in source well MW-1 have been decreasing with time, the November 2001 sampling event had less than 10 ppb benzene detected.

MW-2 and MW-3 did not detect concentrations above laboratory detection limits for hydrocarbons during any of the sampling events in 2001. Groundwater flow is towards the northwest.

RECOMMENDATIONS

- > Continue quarterly monitoring in MW-1, until analytical results show hydrocarbon constituents are below NMWQCC standards for four consecutive quarters.
- > Continue semi-annual monitoring in MW-2 and MW-3 until four consecutive samples are obtained below NMWQCC standards, at which time we will stop sampling until the time of closure.
- > Following OCD approval for closure MW1, MW-2 and MW3 will be abandoned using OCD approved procedures.

Table 1 BTEX
Hammond #41A

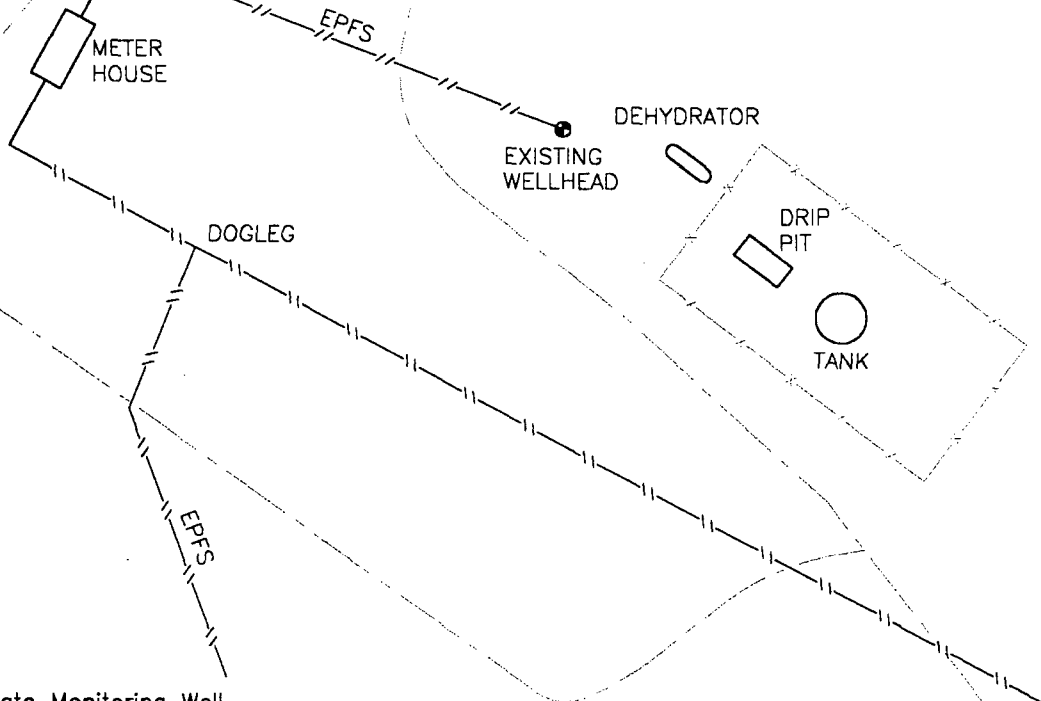
Sample #	Meter Line #	Site Name	Sample Date	MW#	Benzene (µg/l)	Ethyl Benzene (µg/l)	Toluene (µg/l)	Total Xylenes (µg/l)	Depth to Water (Feet)	Groundwater Elevation (feet)
HAM0106	89894	Hammond #41A	6/4/2001	1	39	5.5	0.6	16	18.09	5956.72
HAM0108	89894	Hammond #41A	8/7/2001	1	33	2.8	< 0.5	4.9	18.62	5956.19
HMD1101	89894	Hammond #41A	11/27/2001	1	3.2	0.6	< 0.5	< 0.5	18.06	5956.75
HAM0106	89894	Hammond #41A	6/4/2001	2	< 0.5	< 0.5	< 0.5	< 0.5	17.54	5955.01
HAM0108	89894	Hammond #41A	8/7/2001	2	< 0.5	< 0.5	< 0.5	< 0.5	18.08	5954.47
HMD1101	89894	Hammond #41A	11/27/2001	2	< 0.5	< 0.5	< 0.5	< 0.5	17.47	5955.08
HAM0108	89894	Hammond #41A	8/7/2001	3	< 0.5	< 0.5	< 0.5	< 0.5	19.58	5934.31

● MW-2
TOC=5972.55
GWEL=5955.01

FORMER
PIT
MW-1
TOC=5974.81
GWEL=5956.72

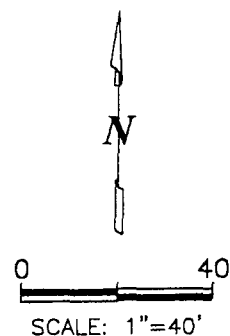
● MW-3
TOC=5974.30
NS

	MW-1	MW-2
B	39	<0.5
T	0.6	<0.5
E	5.5	<0.5
X	16	<0.5



LEGEND

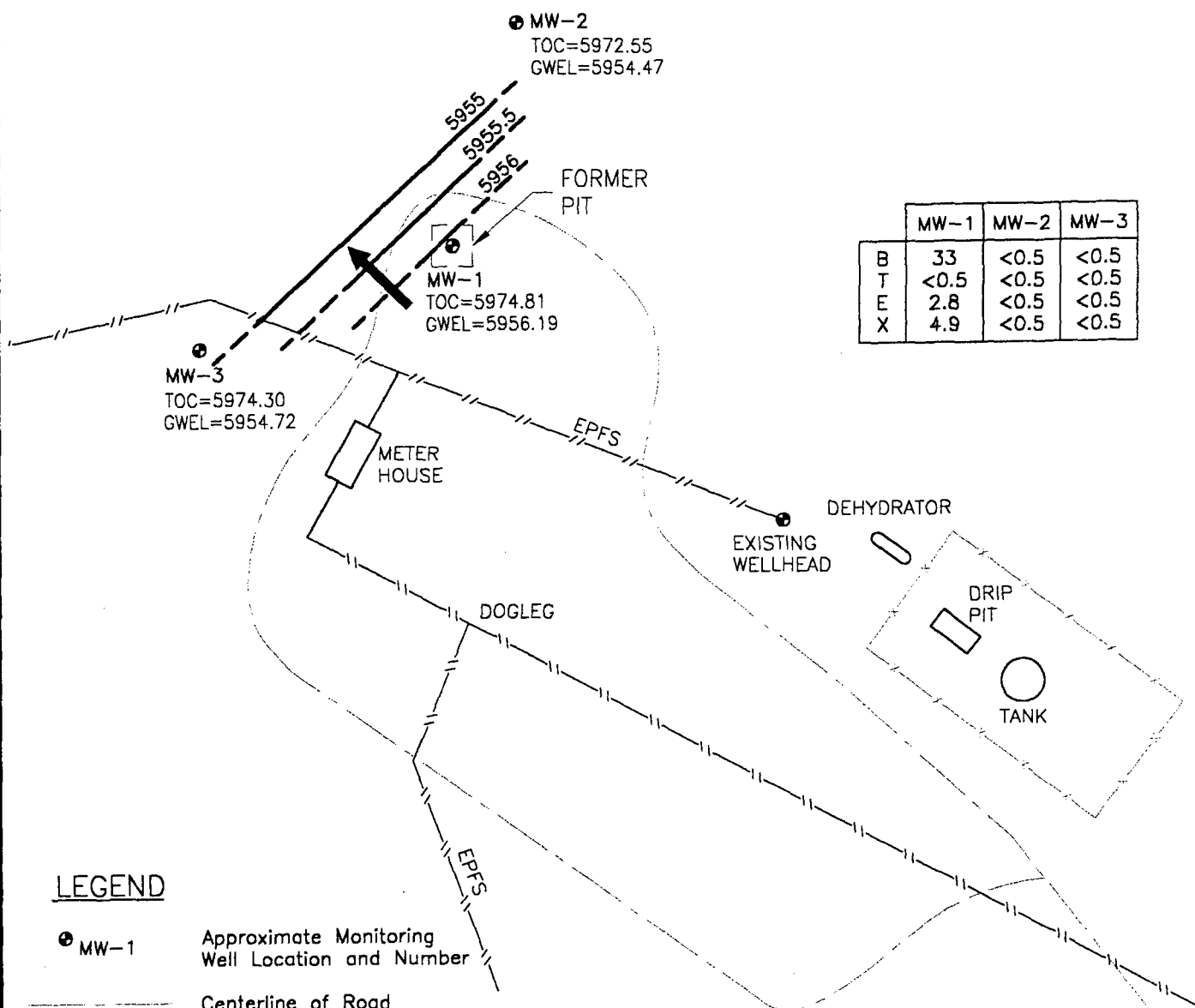
- MW-1 Approximate Monitoring Well Location and Number
- Centerline of Road
- x - x - Fence Line
- // - // - Pipe Line
- B Benzene ($\mu\text{g/L}$)
- T Toluene ($\mu\text{g/L}$)
- E Ethylbenzene ($\mu\text{g/L}$)
- X Total Xylenes ($\mu\text{g/L}$)
- NS Not Sampled
- GWEL Groundwater Elevation (FT Above Mean Sea Level Unless Noted Otherwise)
- TOC Top of Casing



HAMMOND 41 A, METER 89894
JUNE, 2001

GROUNDWATER SITES
EL PASO FIELD SERVICES

FIGURE 1



	MW-1	MW-2	MW-3
B	33	<0.5	<0.5
T	<0.5	<0.5	<0.5
E	2.8	<0.5	<0.5
X	4.9	<0.5	<0.5

LEGEND

● MW-1

Approximate Monitoring Well Location and Number

Centerline of Road

Fence Line

Pipe Line

B Benzene ($\mu\text{g/L}$)

T Toluene ($\mu\text{g/L}$)

E Ethylbenzene ($\mu\text{g/L}$)

X Total Xylenes ($\mu\text{g/L}$)

GWEL Groundwater Elevation
(FT Above Mean Sea Level Unless Noted Otherwise)

TOC Top of Casing

5794 Potentiometric Surface
(Approximate & Assumed Where Dashed)

Direction of Groundwater Flow
(Estimated)



0 40
SCALE: 1"=40'

HAMMOND 41 A, METER 89894
AUGUST, 2001

GROUNDWATER SITES
EL PASO FIELD SERVICES

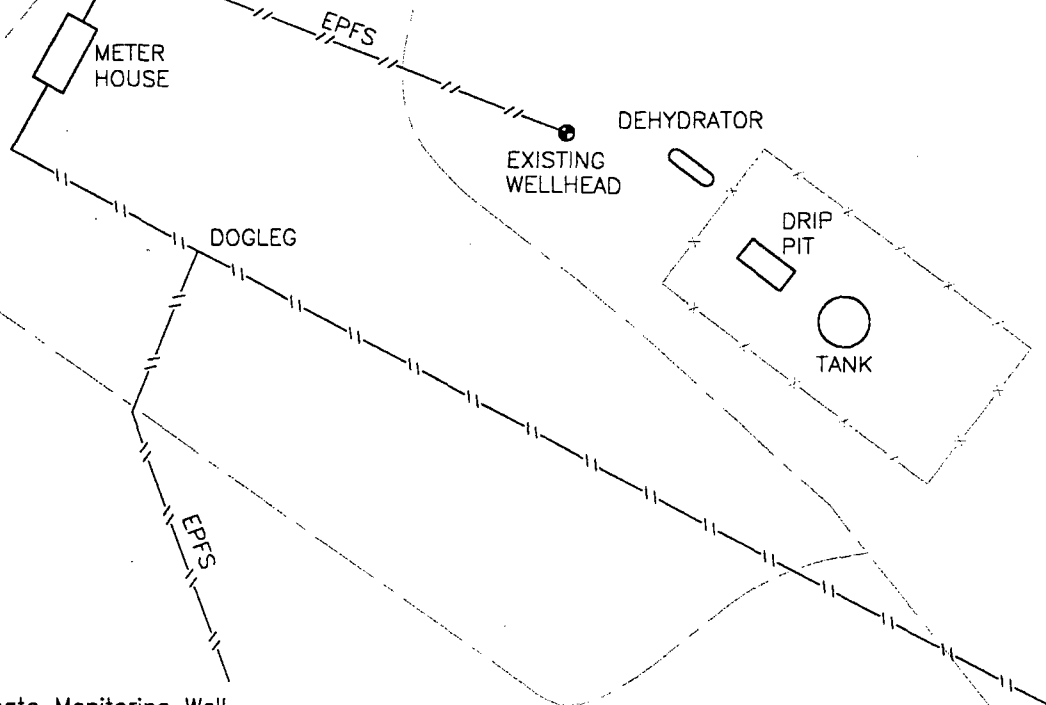
FIGURE 2

● MW-2
TOC=5972.55
GWEL=5954.49

FORMER
PIT
MW-1
TOC=5974.81
GWEL=5956.75

● MW-3
TOC=5974.30
NS

	MW-1	MW-2
B	3.2	<0.5
T	<0.5	<0.5
E	0.6	<0.5
X	<0.5	<0.5



LEGEND

● MW-1 Approximate Monitoring Well Location and Number

--- Centerline of Road

- x - x - Fence Line

- // - Pipe Line

B Benzene ($\mu\text{g/L}$)

T Toluene ($\mu\text{g/L}$)

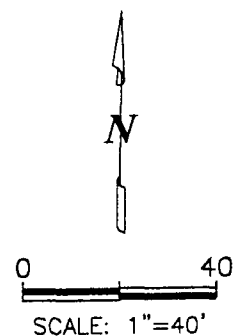
E Ethylbenzene ($\mu\text{g/L}$)

X Total Xylenes ($\mu\text{g/L}$)

NS Not Sampled

GWEL Groundwater Elevation
(FT Above Mean Sea Level Unless Noted Otherwise)

TOC Top of Casing

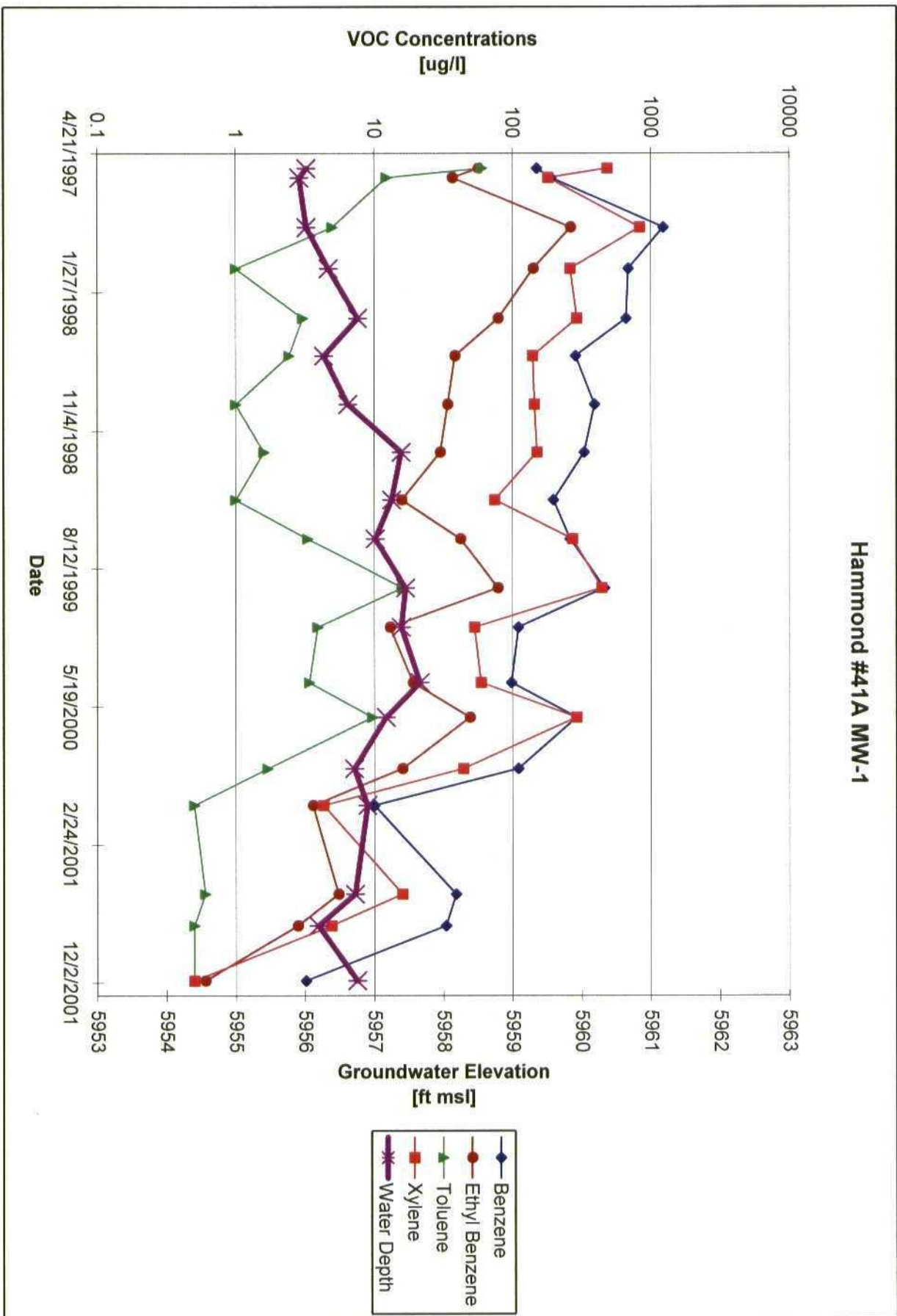


HAMMOND 41 A, METER 89894
NOVEMBER, 2001

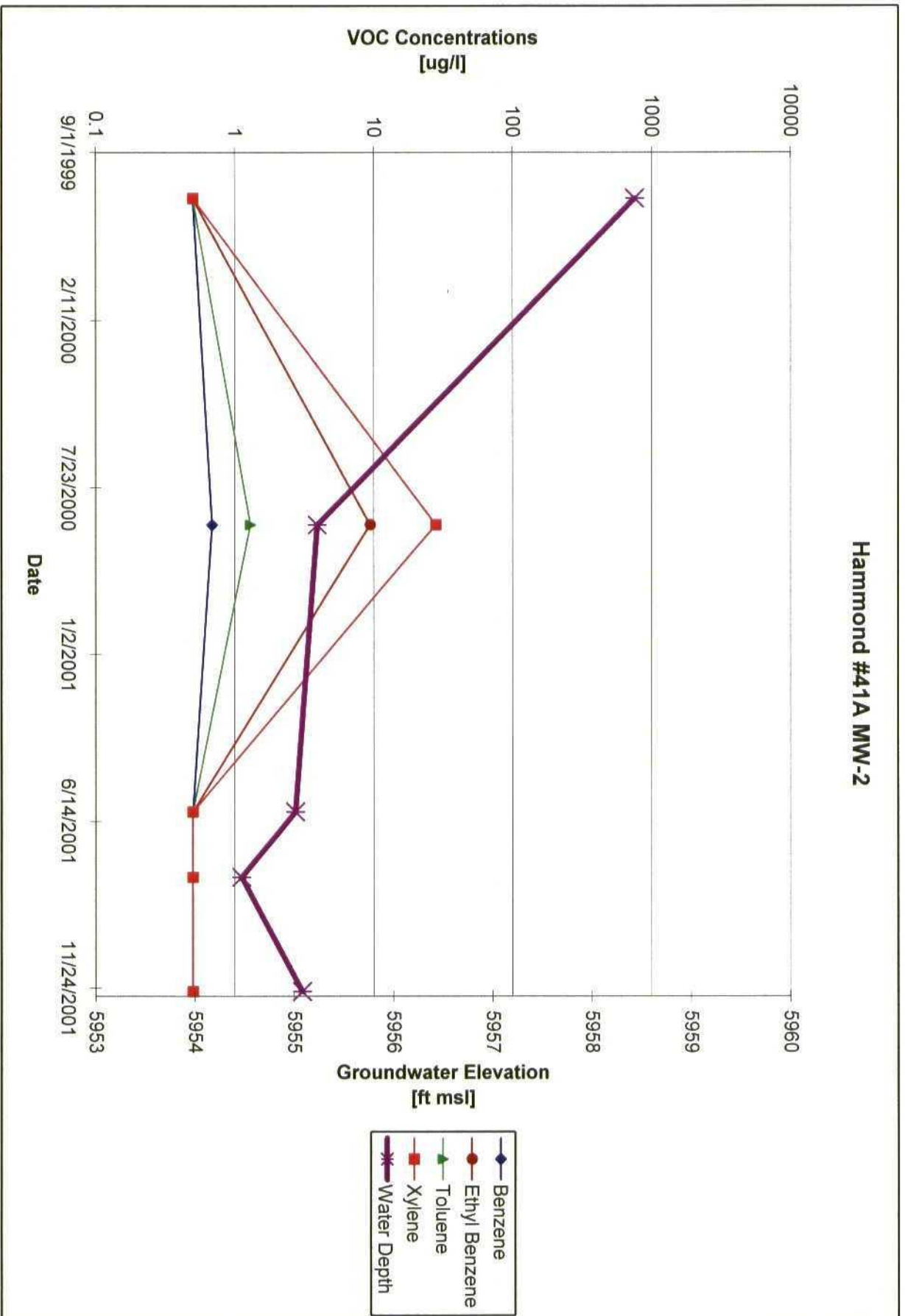
GROUNDWATER SITES
EL PASO FIELD SERVICES

FIGURE 3

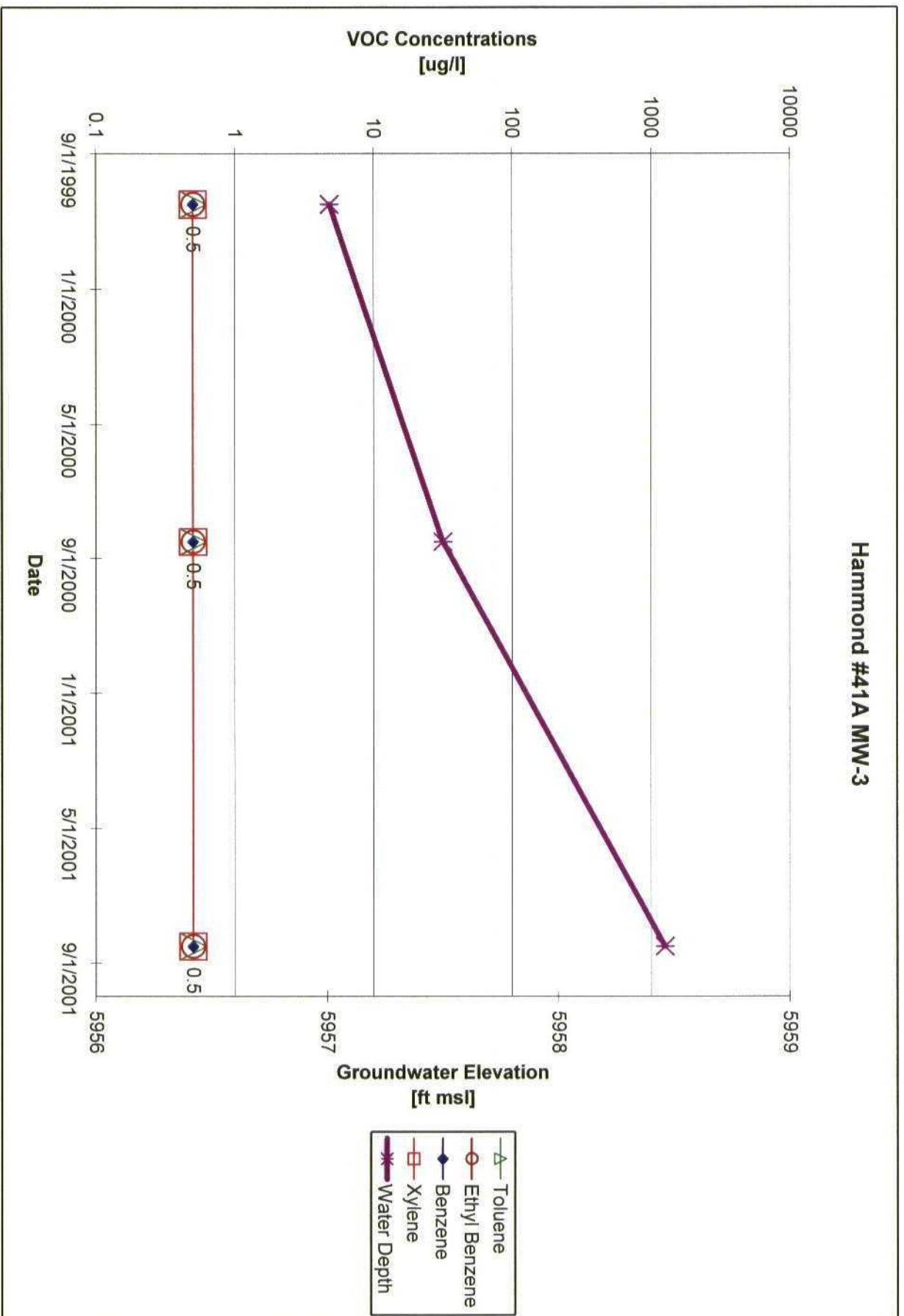
Hammond #41A MW-1



Hammond #41A MW-2



Hammond #41A MW-3



ATTACHMENT 1

2001 GROUNDWATER ANALYTICAL

☐ Development
☒ Purging

WELL DEVELOPMENT AND PURGING DATA FORM

Well Number MW-2

Page 1 of 1

Project Name EPFS GW PROJECT

Project Manager LISA LYNN

Project No. 1517000121-2

Client Company EL PASO FIELD SERVICES

Site Name HAMMOND #41/A (89894)

Site Address RURAL SAN JUAN COUNTY

Development Criteria

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

Methods of Development

Pump
☐ Centrifugal
☐ Submersible
☐ Peristaltic
☐ Other

Boiler
☒ Bottom Valve
☐ Double Check Valve
☐ Stainless-steel Kemmerer

Water Volume Calculation

Initial Depth of Well (feet) 28.07' TOR
Initial Depth to Water (feet) 17.47' TOR
Height of Water Column in Well (feet) 10.60
Diameter (inches): Well 2 Gravel Pack

Item	Water Volume in Well	Gallons	Gallons to be Removed
Well Casing	10.60	1.73	1.73x3
Gravel Pack			
Drilling Fluids			
Total			5.19

Instruments

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

Serial No. (if applicable)
YSI 63
YSI 63

Water Disposal

KUTZ SEPARATOR

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
11-27-01	1214	X				0	0	14.7	7.54	2950	—	Cloudy
11-27-01	1219	X				1	1	14.3	7.56	2912	—	BROWN
11-27-01	1225	X				1	2	14.3	7.55	2884	—	BROWN
11-27-01	1232	X				1	3	14.2	7.58	2847	—	BROWN
11-27-01	1238	X				1	4	14.1	7.57	2811	—	BROWN
11-27-01	1247	X				1	5	13.8	7.60	2645	—	BROWN
11-27-01	1251	X				1	6	13.9	7.64	2669	—	BROWN

Comments SAMPLED AT 1306.

Developer Signature(s)

Robert Thompson

Date 11-27-01

Reviewer

LYNN

Date

11/29/01

amec

Project No.: 1517 000121

Task: N/A

Date: 11-27-01

Site Name: HAMMOND #41 A

[illegible]

Reason Not Measured: D = Dry; O = Obstructed; N = Not Accessible

Comments: _____

Signature: Robert Thompson

Date: 11-27-01

PLEASE FILL THIS FORM IN COMPLETELY.

SHADED AREAS ARE FOR LAB USE ONLY.

Pinnacle
LABORATORIES

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY
DATE: 12-10-01 PAGE: 1 OF 1

PLI Accession #:

PROJECT MANAGER: LISA WILKINSON		ANALYSIS REQUEST	
COMPANY: AMEC SAATH & ENVIRONMENTAL		Petroleum Hydrocarbons (418.1) TRPH	
ADDRESS: 2060 AFTON PLACE		(MOD.8015) Diesel/Direct Inject	
FARMINGTON, NM 87101		(M8015) Gas/Purge & Trap	
PHONE: (505) 327-7928		8021 (BTEX)/8015 (Gasoline) MTBE	
FAX: (505) 326-5721		8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	
BILL TO: SCOTT POPE		8021 (TCL)	
COMPANY: EL PASO FIELD SERVICE		8021 (EDX)	
ADDRESS: 6111 RILEY AVE.		8021 (HALO)	
FARMINGTON, NM 87101		8021 (CUST)	
SAMPLE ID: HMD-1101-MW01		504.1 EDB ☐ / DBCP ☐	
DATE: 12-27-01		8260 (TCL) Volatile Organics	
TIME: 1402		8260 (Full) Volatile Organics	
MATRIX: H ₂ O		8260 (CUST) Volatile Organics	
LAB ID: HMD-1101-MW02		8260 (Landfill) Volatile Organics	
11-27-01 1306		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	
PROJECT INFORMATION		RECEIVED BY: 1	
PROJ. NO. 1517000121	PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS	RECEIVED BY: 2	
PROJ. NAME: EPTS GW PROTECT	(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☒	Signature: [Signature] Time: 0815	
P.O. NO.:	CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER	Printed Name: [Name] Date: 12-10-01	
SHIPPED VIA: GREEHOUND	METHANOL PRESERVATION ☐	Company: AMEC	
SAMPLE RECEIPT	COMMENTS: FIXED FEE ☐	See reverse side (Force Majeure)	
NO. CONTAINERS	1 BOTTLE FROM MW02 FROTH AND SPOKE	RECEIVED BY: 1	
CUSTODY SEALS	IN THE RESIDUAL	Signature: [Signature] Time: 1	
RECEIVED/INTACT		Printed Name: [Name] Date: 12-10-01	
BLUE ID		Company: Pinnacle Laboratories Inc.	



Well Development and Purging Data

Water Removal Data

Article the date and time that the assignment criteria are met.

Comments	Sampled 10/1/01	Developer's Signature (s)	Chris A. Miller	Date	8-7-01	Reviewer	J. J. J.	Date	8/16/01
----------	-----------------	---------------------------	-----------------	------	--------	----------	----------	------	---------



10/9/8

Development ☐

Purgings

Site	Name/Identification	UAK
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Project Manager *Lisa*

Water Volume Calculation

Initial Depth of Well (feet)

Initial Depth to Water (feet)

Height of Water Column in Well (feet)

Diameter (inches): Well 2" Gravel Pack

ent

Bäiler

☒ Bottom Valve☐ Double Check Valve☐ Stainless-steel Kemmerer

Sampling Activities

Type of Container	No. of Containers
1. 20' Dry Van	1
2. 40' Dry Van	1
3. 20' High Cube Dry Van	1
4. 40' High Cube Dry Van	1
5. 20' Refrigerated Van	1
6. 40' Refrigerated Van	1
7. 20' Flatbed	1
8. 40' Flatbed	1
9. 20' Open Top	1
10. 40' Open Top	1
11. 20' Tank	1
12. 40' Tank	1
13. 20' Special	1
14. 40' Special	1
15. 20' Other	1
16. 40' Other	1
17. 20' Other	1
18. 40' Other	1
19. 20' Other	1
20. 40' Other	1
21. 20' Other	1
22. 40' Other	1
23. 20' Other	1
24. 40' Other	1
25. 20' Other	1
26. 40' Other	1
27. 20' Other	1
28. 40' Other	1
29. 20' Other	1
30. 40' Other	1
31. 20' Other	1
32. 40' Other	1
33. 20' Other	1
34. 40' Other	1
35. 20' Other	1
36. 40' Other	1
37. 20' Other	1
38. 40' Other	1
39. 20' Other	1
40. 40' Other	1
41. 20' Other	1
42. 40' Other	1
43. 20' Other	1
44. 40' Other	1
45. 20' Other	1
46. 40' Other	1
47. 20' Other	1
48. 40' Other	1
49. 20' Other	1
50. 40' Other	1
51. 20' Other	1
52. 40' Other	1
53. 20' Other	1
54. 40' Other	1
55. 20' Other	1
56. 40' Other	1
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59. 20' Other	1
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71. 20' Other	1
72. 40' Other	1
73. 20' Other	1
74. 40' Other	1
75. 20' Other	1
76. 40' Other	1
77. 20' Other	1
78. 40' Other	1
79. 20' Other	1
80. 40' Other	1
81. 20' Other	1
82. 40' Other	1
83. 20' Other	1
84. 40' Other	1
85. 20' Other	1
86. 40' Other	1
87. 20' Other	1
88. 40' Other	1
89. 20' Other	1
90. 40' Other	1
91. 20' Other	1
92. 40' Other	1
93. 20' Other	1
94. 40' Other	1
95. 20' Other	1
96. 40' Other	1
97. 20' Other	1
98. 40' Other	1
99. 20' Other	1
100. 40' Other	1
101. 20' Other	1
102. 40' Other	1
103. 20' Other	1
104. 40' Other	1
105. 20' Other	1
106. 40' Other	1
107. 20' Other	1
108. 40' Other	1
109. 20' Other	1
110. 40' Other	1
111. 20' Other	1
112. 40' Other	1
113. 20' Other	1
114. 40' Other	1
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119. 20' Other	1
120. 40' Other	1
121. 20' Other	1
122. 40' Other	1
123. 20' Other	1
124. 40' Other	1
125. 20' Other	1
126. 40' Other	1
127. 20' Other	1
128. 40' Other	1
129. 20' Other	1
130. 40' Other	1
131. 20' Other	1
132. 40' Other	1
133. 20' Other	1
134. 40' Other	1
135. 20' Other	1
136. 40' Other	1
137. 20' Other	1
138. 40' Other	1
139. 20' Other	1
140. 40' Other	1
141. 20' Other	1
142. 40' Other	1
143. 20' Other	1

Parameters Sampled For BTEX

]

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

Comments	SAMPLED FOR BTOK 11/2/15

Developer's Signature (s) _____

Ch. A. May

Date 8-7-61

Reviewer

Date 8/16/01

Pinnacle Laboratories Inc.

PROJECT MANAGER: Lisa Winn

COMPANY: GEM
ADDRESS: 406 San Juan Blvd Suite D
Farmington N.M. 87401
PHONE: (505) 566-9116
FAX: (505) 566-7120
BILL TO: SCOTT PAYE
COMPANY: El Paso Field Services
ADDRESS: 601 Reilly Ave
Farmington N.M. 87401

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.
-----------	------	------	--------	----------

HAM-008	- MW 1	8-2-01	1030	H ₂ O
HAM-010	- MW 2	8-2-01	1110	H ₂ O
HAM-010	- MW 3	8-2-01	1145	H ₂ O

[illegible]

PROJECT INFORMATION

PROJ NO: 6170

PROJ. NAME:	EOPS Remediation
DISPOS:	Disposal

P.O. NO.:

SHIPPED VIA:

SAMPLE RECEIPT

NO CONTAINERS

CUSTODY SEALS

RECEIVED INTACT:

APPENDIX C

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

☐ 24hr
 ☐ 48hr
 ☐ 72hr
 ☐ 1 WEEK

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA

ETHANOL PRESERVATION ☐

RECEIVED

COMMENTS: FIXED FEE ☐

三

#16# CINOVA

100

7-21-04 (H-1118)

100

100

San American Freeway NE • Albuquerque New Mexico 87101

continued from page 10

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	
0	0	1	4	9	16	25	36	49	64	81	100	121	144	169	196	225	256	289	324	361	400	441	484	529	576	625	676	729	784	841	900	961	1024	1089	1156	1225	1296	1369	1444	1521	1600	1681	1764	1849	1936	2025	2116	2209	2304	2401	2500	2601	2704	2809	2916	3025	3136	3249	3364	3481	3600	3721	3844	3969	4096	4225	4356	4489	4624	4761	4900	5041	5184	5329	5476	5625	5776	5929	6084	6241	6400	6561	6724	6889	7056	7225	7396	7569	7744	7921	8100	8281	8464	8649	8836	9025	9216	9409	9604	9801	10000

[illegible]



Methods of Development		Water Volume in Well	Gallons to be
			☐ Other

Sampling Activities	No. of Containers
Type of Container <u>WA</u>	<u>2</u>
Parameters Sampled For <u>BTEX</u>	

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
		Pump	Bailer				Increment	Cumulative	Increment	Cumulative					
6-1-01	1301		X				3.5	5.5			20.8	7.14	2670		Cloudy surface odor
	1305		X				3.5	7			16.8	7.04	2850		"
	1308		X				3.5	10.5			15.9	6.72	2540		"
	1312		X				3.5	14			15.6	6.57	2530		"
	1316		X		18.40		3.5	17.5			15.2	6.59	2510		no change

Comments	Sampled for BTEX 1320

Developer's Signature (s)	Date	Reviewer	Date
<i>[Signature]</i>	6-4-01	<i>[Signature]</i>	6/7/01



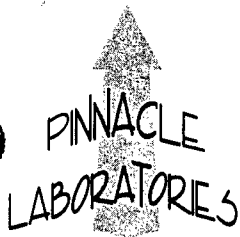
Date 6/7/01

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER: LISA WINK		ANALYSIS REQUEST	
COMPANY: GEM	ADDRESS: 906 San Juan CO	8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics
PHONE: (505) 566-9116	FARMINGTON NM 87401	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics
FAX: (505) 566-9120		Pesticides / PCB (608/8081/8082)	Herbicides (615/8151)
BILL TO: EPTS SCOTT POPE		Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310/8270-SIMS)
COMPANY: El Paso Field Services		General Chemistry:	Priority Pollutant Metals (13)
ADDRESS: 614 Reilly AVE		RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)
FARMINGTON NM 87499		Metals:	
SAMPLE ID	DATE	TIME	MATRIX
HAM-0106-MW1	6-4-01	1320	H ₂ O
HAM-0106-MW2	6-4-01	1400	H ₂ O
Petroleum Hydrocarbons (418.1) TRPH		(MOD.8015) Diesel/Direct Inject	
(M8015) Gas/Purge & Trap		(8021 (BTEX)/8015 (Gasoline) MTBE	
8021 (BTEX) □ MTBE □ TMB □ PCE		8021 (TCL)	
8021 (EDX)		8021 (HALO)	
8021 (CUST)		504.1 EDB □ / DBCP □	
8260 (TCL) Volatile Organics		8260 (CUST) Volatile Organics	
8260 (Full) 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)	
RCRA Metals (8)		RCRA Metals by TCLP (Method 1311)	
Metals:			
NO. CONTAINERS		2	
CUSTODY SEALS		Y/N/NA	
RECEIVED INTACT			
BLUE ICE/ICE			
PROJECT INFORMATION		RECEIVED BY	
PROJ. NO.: 6169	(RUSH) □ 24hr □ 48hr □ 72hr □ 1 WEEK	Signature: Chris A May	Time: 1500
PROJ. NAME: EPTS Remediation	CERTIFICATION REQUIRED: □ NM □ SDWA □ OTHER	Printed Name: Chris A May	Date: 6-5-01
P.O. NO.:	METHANOL PRESERVATION □	Signature: Chris A May	Time: 6-5-01
SHIPPED VIA:	COMMENTS: FIXED FEE □	Company: See reverse side (Force Majeure)	
SAMPLE RECEIPT		RECEIVED BY	
NO. CONTAINERS	Y/N/NA	Signature:	Time:
CUSTODY SEALS		Printed Name:	Date:
RECEIVED INTACT		Company:	
BLUE ICE/ICE		Company:	

Date 6-4-01



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

Pinnacle Lab ID number **112029**
December 27, 2001

AMEC EARTH & ENVIRONMENTAL
2060 AFTON PLACE
FARMINGTON, NM 87401

EL PASO FIELD SERVICES
614 RIELLY STREET
FARMINGTON, NM 87401

Project Name EPFS GW PROJECT **Hammond #41A 89814**
Project Number 1517000121

Attention: LISA WINN/SCOTT POPE

On 12/10/01 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

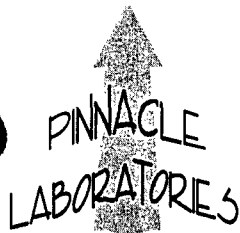


2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

CLIENT : AMEC EARTH & ENVIRONMENTAL
PROJECT # : 1517000121
PROJECT NAME : EPFS GW PROJECT

PINNACLE ID : 112029
DATE RECEIVED : 12/10/01
REPORT DATE : 12/27/01

PINNACLE ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
112029 - 01	HMD-1101-MW01	AQUEOUS	11/27/01
112029 - 02	HMD-1101-MW02	AQUEOUS	11/27/01



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 : AMEC EARTH & ENVIRONMENTAL
PROJECT # : 1517000121
PROJECT NAME : EPFS GW PROJECT

PINNACLE I.D.: 112029

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	HMD-1101-MW01	AQUEOUS	11/27/01	NA	12/10/01	1
02	HMD-1101-MW02	AQUEOUS	11/27/01	NA	12/10/01	1

PARAMETER	DET. LIMIT	UNITS	HMD-1101- MW01	HMD-1101- MW02
BENZENE	0.5	UG/L	3.2	< 0.5
TOLUENE	0.5	UG/L	< 0.5	< 0.5
ETHYLBENZENE	0.5	UG/L	0.6	< 0.5
TOTAL XYLENES	0.5	UG/L	< 0.5	< 0.5

SURROGATE:

BROMOFLUOROBENZENE (%)

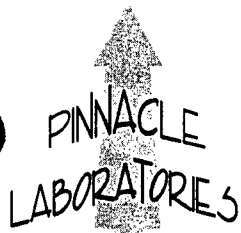
111

113

SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:

N/A



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Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

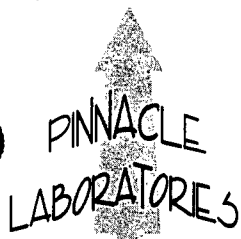
TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 112029
BLANK I. D.	: 121001	DATE EXTRACTED	: N/A
CLIENT	: AMEC EARTH & ENVIRONMENTAL	DATE ANALYZED	: 12/10/01
PROJECT #	: 1517000121	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: EPFS GW PROJECT		

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 (%) 111

SURROGATE LIMITS: (80 - 120)

ANALYST 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 # : 112031-06
CLIENT : AMEC EARTH & ENVIRONMENTAL
PROJECT # : 1517000121
PROJECT NAME : EPFS GW PROJECT

PINNACLE I.D. : 112029
DATE EXTRACTED : N/A
DATE ANALYZED : 12/11/01
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	20.8	104	20.3	101	2	(80 - 120)	20
TOLUENE	<0.5	20.0	20.7	103	20.6	103	0	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	20.5	103	20.1	100	2	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	64.2	107	63.0	105	2	(80 - 120)	20

CHEMIST NOTES:
N/A

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

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

[illegible]

PINNACLE
LABORATORIES

Hammond # 41 H
809894
2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

Pinnacle Lab ID number 108039
August 22, 2001

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

EL PASO FIELD SERVICES
614 RIELLY STREET
FARMINGTON, NM 87401

Project Name EPFS REMEDIAITON PROJECT
Project Number 6169

Attention: LISA WINN/SCOTT POPE

On 08/08/01 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	: 108039
PROJECT #	: 6169	DATE RECEIVED	: 08/08/01
PROJECT NAME	: EPFS REMEDIAITON PROJECT	REPORT DATE	: 08/22/01
PINNACLE			
ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
108039 - 01	HAM-0108-MW1	AQUEOUS	08/07/01
108039 - 02	HAM-0108-MW2	AQUEOUS	08/07/01
108039 - 03	HAM-0108-MW3	AQUEOUS	08/07/01

GAS CHROMATOGRAPHY RESULTS

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

PINNACLE I.D.: 108039

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	HAM-0108-MW1	AQUEOUS	08/07/01	NA	08/15/01	1
02	HAM-0108-MW2	AQUEOUS	08/07/01	NA	08/15/01	1
03	HAM-0108-MW3	AQUEOUS	08/07/01	NA	08/15/01	1

PARAMETER	DET. LIMIT	UNITS	HAM-0108-MW1	HAM-0108-MW2	HAM-0108-MW3
BENZENE	0.5	UG/L	33	< 0.5	< 0.5
TOLUENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
ETHYLBENZENE	0.5	UG/L	2.8	< 0.5	< 0.5
TOTAL XYLENES	0.5	UG/L	4.9	< 0.5	< 0.5

SURROGATE:

BROMOFLUOROBENZENE (%)

104

98

102

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

EST : EPA 8021 MODIFIED PINNACLE I.D. : 108039
BLANK I. D. : 081501 DATE EXTRACTED : NA
CLIENT : GOLDEN ENVIRONMENTAL MNGT. DATE ANALYZED : 08/15/01
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 (%) 101
SURROGATE LIMITS: (80 - 120)
ANALYST NOTES:
I/A

**PINNACLE
LABORATORIES**

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Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

**GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD**

TEST : EPA 8021 MODIFIED
MSMSD # : 108029-04
CLIENT : GOLDEN ENVIRONMENTAL MNGT.
PROJECT # : 6169
PROJECT NAME : EPFS REMEDIAITON PROJECT

PINNACLE I.D. : 108039
DATE EXTRACTED : NA
DATE ANALYZED : 08/15/01
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	20.9	105	21.3	107	2	(80 - 120)	20
TOLUENE	1.3	20.0	23.1	116	23.3	117	1	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	22.8	114	23.0	115	1	(80 - 120)	20
TOTAL XYLENES	2.4	60.0	69.6	116	70.0	117	1	(80 - 120)	20

CHEMIST NOTES:
I/A

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

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



Pinnacle Laboratories Inc.

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER: Lisa Winn COMPANY: GEM 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: 601 Reilly Ave Farmington NM. 87401		ANALYSIS REQUEST <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:10%;">SAMPLE ID</th> <th style="width:10%;">DATE</th> <th style="width:10%;">TIME</th> <th style="width:10%;">MATRIX</th> <th style="width:10%;">LAB ID</th> <th style="width:10%;">Petroleum Hydrocarbons (418.1) TRPH</th> <th style="width:10%;">(MOD.8015) Diesel/Direct Inject</th> <th style="width:10%;">(M8015) Gas/Purge & Trap</th> <th style="width:10%;">8021 (BTEX)/8015 (Gasoline) MTBE</th> <th style="width:10%;">8021 (BTEX) ☐ MTBE ☐ PCE</th> <th style="width:10%;">8021 (TCL)</th> <th style="width:10%;">8021 (EDX)</th> <th style="width:10%;">8021 (HALO)</th> <th style="width:10%;">8021 (CUST)</th> <th style="width:10%;">504.1 EDB ☐ DBCP ☐</th> <th style="width:10%;">8260 (TCL) Volatile Organics</th> <th style="width:10%;">8260 (Full) Volatile Organics</th> <th style="width:10%;">8260 (CUST) Volatile Organics</th> <th style="width:10%;">8260 (Landfill) Volatile Organics</th> <th style="width:10%;">Pesticides /PCB (608/8081/8082)</th> <th style="width:10%;">Herbicides (615/8151)</th> <th style="width:10%;">Base/Neutral/Acid Compounds GC/MS (625/8270)</th> <th style="width:10%;">Polynuclear Aromatics (610/8310/8270-SIMS)</th> <th style="width:10%;">General Chemistry:</th> <th style="width:10%;">Priority Pollutant Metals (13)</th> <th style="width:10%;">Target Analyte List Metals (23)</th> <th style="width:10%;">RCRA Metals (8)</th> <th style="width:10%;">RCRA Metals by TCLP (Method 1311)</th> <th style="width:10%;">Metals:</th> <th style="width:10%;">NUMBER OF CONTAINERS</th> </tr> <tr> <td>HAM-0108-MV 1</td> <td>8-20-01</td> <td>1030</td> <td>H₂O</td> <td>101</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2</td> </tr> <tr> <td>HAM-0108-MW 2</td> <td>8-20-01</td> <td>1110</td> <td>H₂O</td> <td>102</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2</td> </tr> <tr> <td>HAM-0108-MW 3</td> <td>8-20-01</td> <td>1145</td> <td>H₂O</td> <td>103</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2</td> </tr> </table>		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) ☐ MTBE ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ DBCP ☐	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	HAM-0108-MV 1	8-20-01	1030	H ₂ O	101					X																				2	HAM-0108-MW 2	8-20-01	1110	H ₂ O	102					X																				2	HAM-0108-MW 3	8-20-01	1145	H ₂ O	103					X																				2	PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS (RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK ☐ (NORMAL) ☒ CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER METHANOL PRESERVATION ☐ COMMENTS: FIXED FEE ☐ HAMKOND #41A meter # (898947)		PROJECT INFORMATION PROJ. NO.: 6169 PROJ. NAME: EPCS Remediation Project P.O. NO.: SHIPPED VIA:	
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) ☐ MTBE ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ DBCP ☐	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																																																																																																		
HAM-0108-MV 1	8-20-01	1030	H ₂ O	101					X																				2																																																																																																		
HAM-0108-MW 2	8-20-01	1110	H ₂ O	102					X																				2																																																																																																		
HAM-0108-MW 3	8-20-01	1145	H ₂ O	103					X																				2																																																																																																		
SAMPLE/RECEIPT NO. CONTAINERS: 6 CUSTODY SEALS: 1 (NM) RECEIVED INTACT: YES BLUE ICE: 3.86					RELINQUISHED BY: Signature: [Signature] Printed Name: Chris Macz Date: 8-2-01 Company: See reverse side (Force Majeure)					RELINQUISHED BY: Signature: [Signature] Printed Name: [Blank] Date: [Blank] Company: [Blank]					RECEIVED BY: (LAB) Signature: [Signature] Printed Name: [Blank] Date: [Blank] Company: [Blank]																																																																																																																

PINNACLE
LABORATORIES

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

August 9, 01

Scott Pope

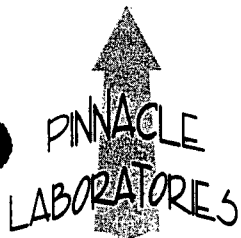
This is to inform you that Pinnacle Laboratories, Inc. received samples on 8/8/01.
Enclosed is a copy of the Chain of Custody. If you have any questions regarding the status of
your project please reference Pinnacle ID number 108039.

Thank you,

Erica Gallagos
Jacinta Tenorio, Project Manager
Pinnacle Laboratories, Inc.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT INFORMATION		PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS				RELINQUISHED BY: 1.		RELINQUISHED BY: 2.	
PROJ. NO.: 6169	EPA Remediation Project	(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK ☒ (NORMAL)	Signature: Art M... 1000		Signature: _____		Signature: _____		
PROJ. NAME:		CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER	Printed Name: _____		Printed Name: _____		Printed Name: _____		
P.O. NO.:		METHANOL PRESERVATION ☐	Date: 8-7-01		Date: _____		Date: _____		
SHIPPED VIA:		COMMENTS: FIXED FEE ☐				Company: _____		Company: _____	
SAMPLE RECEIPT		HAMMOND #414 meter # (898947)				RECEIVED BY: 1.		RECEIVED BY: (LAB) 2.	
NO. CONTAINERS	6	Signature: _____		Signature: _____		Signature: _____		Signature: _____	
CUSTODY SEALS	Y/N (NA)	Time: _____		Time: _____		Time: _____		Time: _____	
RECEIVED INTACT	YES	Date: _____		Date: _____		Date: _____		Date: _____	
BLUE ICE (ICE)	3.82	Company: _____		Company: _____		Company: _____		Company: _____	



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

Pinnacle Lab ID number **106038**
June 13, 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

Hammond # 41A

Attention: LISA WINN/SCOTT POPE

089894

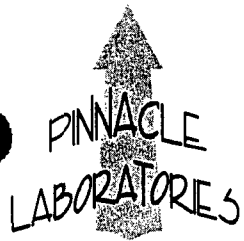
On 06/07/01 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

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

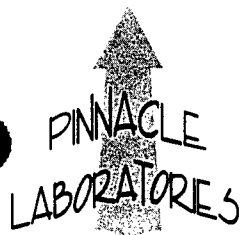
MR: jt

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	: 106038
PROJECT #	: 6169	DATE RECEIVED	: 06/07/01
PROJECT NAME	: EPFS REMEDIATION PROJECT	REPORT DATE	: 06/13/01
PINNACLE		DATE	
ID #	CLIENT DESCRIPTION	MATRIX	COLLECTED
106038 - 01	HAM-0106-MW1	AQUEOUS	06/04/01
106038 - 02	HAM-0106-MW2	AQUEOUS	06/04/01



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GAS CHROMATOGRAPHY RESULTS

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

PINNACLE I.D.: 106038

PROJECT NAME : EPC REMEDIATION PROJECT						
SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	HAM-0106-MW1	AQUEOUS	06/04/01	NA	06/12/01	1
02	HAM-0106-MW2	AQUEOUS	06/04/01	NA	06/12/01	1

PARAMETER	DET. LIMIT	UNITS	HAM-0106-MW1	HAM-0106-MW2
BENZENE	0.5	UG/L	39	< 0.5
TOLUENE	0.5	UG/L	0.6	< 0.5
ETHYLBENZENE	0.5	UG/L	5.5	< 0.5
TOTAL XYLENES	0.5	UG/L	16	< 0.5

SURROGATE:

BROMOFLUOROBENZENE (%)

111

100

SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:

N/A



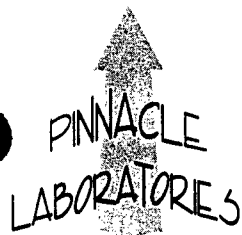
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Albuquerque, New Mexico 87107
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GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

EST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 106038
LAB I. D.	: 061201	DATE EXTRACTED	: NA
CLIENT	: GOLDEN ENVIRONMENTAL MNGT.	DATE ANALYZED	: 06/12/01
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
OTHAL XYLENES	UG/L	<0.5

URROGATE:
PERCENT FLUOROBENZENE (%) 105
URROGATE LIMITS: (80 - 120)
CHEMIST NOTES:
//A



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GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

EST : EPA 8021 MODIFIED
ISMSD # : 106034-04
CLIENT : GOLDEN ENVIRONMENTAL MNGT.
PROJECT # : 6169
PROJECT NAME : EPFS REMEDIATION PROJECT

PINNACLE I.D. : 106038
DATE EXTRACTED : NA
DATE ANALYZED : 06/12/01
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
ENZENE	3.4	20.0	21.2	89	20.4	85	4	(80 - 120)	20
OLUENE	0.5	20.0	19.4	95	19.1	93	2	(80 - 120)	20
THYLBENZENE	<0.5	20.0	19.9	100	19.7	99	1	(80 - 120)	20
OTAL XYLENES	2.2	60.0	61.2	98	60.5	97	1	(80 - 120)	20

HEMIST NOTES:

i/A

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

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

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER: LISA WINK COMPANY: GEM ADDRESS: 906 San Juan CO. Farmington NM. 87401 PHONE: (505) 566-9116 FAX: (505) 566-9120 BILL TO: EPCS SCOTT POPE COMPANY: EPCS Field Services ADDRESS: 614 Reilly AVE Farmington NM. 87499		SAMPLE ID DATE TIME MATRIX LAB ID HAM-0106-MW1 6-4-01 1320 H ₂ O 61 HAM-0106-MW2 6-4-01 1400 H ₂ O 02		ANALYSIS REQUEST														
				Petroleum Hydrocarbons (418.1) TRPH														
				(MOD.8015) Diesel/Direct Inject														
				(M8015) Gas/Purge & Trap														
				8021 (BTX) ☐ MTBE ☐ TMB ☐ PCE														
				8021 (TCL)														
				8021 (EDX)														
				8021 (HALO)														
				8021 (CUST)														
				504.1 EDB ☐ / DBCP ☐														
				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:														
				NUM OF CONTAINERS														

PROJECT INFORMATION PROJ NO.: 6169 PROJ. NAME: EPCS Remediation P.O. NO.: SHIPPED VIA:		PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS (RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK ☒ (NORMAL) CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER METHANOL PRESERVATION ☐ COMMENTS: FIXED FEE ☐		RELINQUISHED BY: Signature: [Signature] Time: 1500 Printed Name: Chris M. [Name] Date: 6-6-01 Company: See reverse side (Force Majeure)	
SAMPLE RECEIPT NO. CONTAINERS: 4 CUSTODY SEALS: Y/N (NA) RECEIVED INTACT: YES BLUE ICE:		RECEIVED BY: (LAB) Signature: [Signature] Time: 1515 Printed Name: [Name] Date: 6/7/01 Company: Pinnacle Laboratories Inc.			