GW - 2

MONITORING REPORTS

DATE: 1993 - 1995

December 4, 1998

GPM GAS CORPORATION

4044 PENBROOK
ODESSA, TEXAS 79762

NEW MEXICO REGION

Mr. William C. Olson
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
Environmental Bureau
2040 S. Pacheco
Santa Fe, New Mexico 87505

Dear Mr. Olson:

Attached is the 1998 Annual Groundwater Monitoring and Sampling Report for GPM Gas Corporation's Lee Gas Plant. The report contains the following recommendations:

1. Continue groundwater recovery operations since the present system has been effective in limiting the downgradient migration of the dissolved-phase hydrocarbon plume.

2. For groundwater recovery operations to be a continued successful remedial option, installation of two or three new recovery wells are necessary because of declining water levels which corresponds to reduced groundwater recovery rates in the present system.

3. Continue free product recovery from monitoring well MW-5 and MW-15 using the Xitech product recovery system.

4. Continue hand bailing free product from monitoring well MW-8.

5. Continue the sampling and monitoring program on a semi-annual basis.

The next sampling event for Lee Gas Plant is scheduled for January 1999. The OCD will be notified at least one week in advance of any scheduled activity at the site. If you have any questions or concerns with our recommendations, please advise. I can be reached at (915) 368-1142.

Sincerely,

Mel P. Driver

Mel P. Driver
Environmental Engineer, P.E.
New Mexico Region

Attachments

xc: Chris Williams, OCD-Hobbs District
Mark Nault, GPM-Linam Ranch Plant
Gilbert Van Deventer, BDM-Midland

GPM GAS SERVICES COMPANY
A DIVISION OF PHILLIPS PETROLEUM COMPANY

December 11, 1997

Mr. William C. Olson
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
Environmental Bureau
2040 S. Pacheco
Santa Fe, New Mexico 87505

Dear Mr. Olson:

Attached are the 1997 Annual Groundwater Monitoring and Sampling Reports for GPM Gas Corporation's Lee Gas Plant, Linam Ranch Plant (EOTT tanks), and Monument Booster Station.

The next sampling event for each site is scheduled for January 1998. The OCD will be notified at least one week in advance of any scheduled activity at the sites.

If you have any questions or concerns with the recommendations provided in each report, please advise. I can be reached at (915) 368-1142.

Sincerely,

Mel Driver
Environmental Engineer
New Mexico Region

cc: Jerry Sexton, OCD-Hobbs District
Mark Nault, GPM-Linam Ranch Plant
Tony Canfield, GPM-Eunice Plant
Gilbert Van Deventer, BDM-Midland

BDM

RECORD OF: MEETING √ TELECON

Project Name / Number: P/2341/3C	**Call From:** Bill Olson
Topic: Lee Plant Remediation and Sampling Program	**Company Name:** NMOCD **Address:** 2040 S. Pacheco **City:** Santa Fe **State:** NM **Zip:** 87505 **Phone:** 505-827-7154
Other Participants:	**Call To:** Gil Van Deventer BDM Environmental Services Midland, TX

Date: June 18, 1997

Discussion:

Bill returned my call after I faxed him a copy of the *First Quarter 1997 Analytical Results* report for GPM's Lee Plant. In this report, GPM requests a change in sampling frequency, which basically is a reduction from a quarterly sampling frequency to a semi-annual frequency. Bill approved the request for the change with the following exceptions, clarifications and additions:

- Two sampling events shall occur each year (first quarter and third quarter).
- During the annual sampling event (3rd quarter), all monitoring wells will be sampled except for those with free product or unless they are dry.
- Additional analyses are required for intrinsic bioremediation indicators, including dissolved oxygen (DO), iron (Fe), manganese (Mn), nitate (NO_3) and sulfate (SO_4).
- Historical analytical results must be summarized in tabular form in the annual report.
- Plots of concentration vs. time for relevant contaminants for each monitoring point.
- Plots of water table elevation vs. time for each monitoring point.
- Only one report needs to be submitted to the OCD on an annual basis (due October 1 each year).

Bill gave verbal approval to conduct the next (annual) sampling event during the 3rd quarter of 1997 implementing the above requirements. Bill will need an original copy of the *First Quarter 1997 Analytical Results* report and can provide written response in approximately 60 days after receipt of the report.

Action Items:

GPM - Submit *First Quarter 1997 Analytical Results* report to OCD Santa Fe and Hobbs offices.

BDM - Conduct annual sampling event during third quarter (July or August). Notify OCD 1 week prior.

Distribution: Scott Seeby - GPM, Mel Driver - GPM Bill Olson - NMOCD, Mike Selke - BDM	**Signed:** G L Van Deventer

FACSIMILE TRANSMISSION

BDM

Date: January 14, 1997
Time: 11:55 AM
Operator: gjv

To: **Company:** New Mexico Energy,Minerals & Natural Resources Department
Attention: Bill Olson
FAX No: 505-827-8177 **Telephone No.:** 505-827-7154

From: Gil Van Deventer GVD
BDM International, Inc.
Engineering Services Division
415 West Wall Street, Suite 1818
Midland, TX 79701

Telephone No.: (915) 682-0008 **FAX No.:**(915) 682-0028

Number of Pages (Including Lead Page): 1

Re: **Notification of Field Activities at the GPM - Lee Plant near Buckeye, NM**

BDM has scheduled the First Quarter 1997 Groundwater Sampling Event at the GPM - Lee Plant near Buckeye, NM for January 22, 1997 (weather permitting).

Work will consist of gauging all monitoring wells on site and sampling the following monitoring wells: MW-11, MW-12, MW-13, MW-19, MW-20, MW-2 & MW-18. The samples will be analyzed for BTEX (EPA Method 8020) as outlined in the OCD-approved discharge plan.

Please call me at 915-682-0008 if you have any questiions.

GPM GAS CORPORATION
4044 PENBROOK
ODESSA, TX 79762

September 21, 1996

Mr. William Olson - Hydrogeologist
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco
State Land Office Building
Santa Fe, New Mexico 87505

RE: SECOND QUARTER 1996 ANALYTICAL RESULTS
LEE PLANT, DISCHARGE PLAN GW-2
LEA COUNTY, NEW MEXICO

Dear Mr. Olson:

GPM Gas Corporation (GPM) herein submits the laboratory analytical reports for groundwater sampling at our Lee Plant for the second quarter of 1996 (see attached analytical results, report date May 2, 1996). Sampling was conducted by Geoscience Consultants, Ltd. (GCL) on April 25, 1996, pursuant to New Mexico Oil Conservation Division (NMOCD) Discharge Plan GW-2 requirements.

Depth to groundwater and product thickness was measured in all monitor wells. A groundwater level contour map for the April event is provided in Attachment B.

The average daily pumping rates in gallons per day (gpd) from the remediation system recovery wells for the months of March, April, and May 1996 are as follows:

- RW-1 (1161 gpd)
- MW-6 (422 gpd)
- MW-7 (458 gpd)
- MW-10 (867 gpd)

Quarterly groundwater sampling was conducted at five down-gradient wells (MW-11, MW-12, MW-13, MW-19, and MW-20), and at three remediation system monitoring wells (MW-14, MW-21, and MW-22). To prevent the potential for cross-contamination, the 4-inch diameter monitoring wells were first purged of approximately 50 gallons with a Grundfos Redi-Flow 2 pump. Monitoring wells MW-21 and MW-22 (2-inch diameter) were purged by hand bailing approximately 5 gallons of water using a new decontaminated disposable bailer. After purging each monitoring well, a dedicated disposable bailer was used to collect the sample for laboratory analysis. All samples were submitted to NDRC Laboratories, Inc., Richardson, Texas, following strict chain-of-custody procedures to ensure the integrity of the samples during transport to the laboratory. The groundwater samples from the eight wells were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) using Environmental Protection Agency (EPA) Method 602.

Table 1 summarizes the second quarter 1996 analytical results. A site map of the plant which lists the historical analytical results from January 1992 to present is provided in Plate 1. A discussion of the field data and analytical results is provided below.

- A sheen (< 0.01 ft.) of free-phase floating product was encountered in MW-4 during the April 25, 1996 sampling event. This indicates a continued decrease in floating product thickness in this monitoring well since the May 1995 (0.95 ft.) and August 1995 (0.01 ft.) sampling events.

- MW-5 contained product at a thickness of 4.11 ft on the April 25, 1996 sampling event which is consistent with previous measurements.

- No free product was encountered in MW-15. This is a continued decrease from the previous October 1995 and January 1996 sampling events in which a thickness of 0.03 feet and < 0.01 feet, respectively, were measured. Free-phase floating product was not observed prior to the August 1995 sampling event.

- Analytical results from the laboratory indicate the BTEX concentrations in all down-gradient wells (MW-11, MW-12, MW-13, MW-19, and MW-20), and remediation monitoring wells MW-21 and MW-22 are near or below the laboratory detection limit of 1.0 microgram per liter (μg/l).

- The BTEX concentrations for monitoring well MW-14 (downgradient from pumping well MW-10) indicates an increase from previous sampling events in 1992 and 1993.

- The analytical results for the downgradient wells have been below WQCC standards, and in most cases also below the laboratory detection limits for the last four to eight quarters.

- The analytical data indicates the continued effectiveness of the remediation system in capturing the hydrocarbon plume and reversal of downgradient migration.

GPM has tentatively scheduled the second quarter sampling event at the Lee Plant to take place in July of this year in conjunction with sampling activities at the Linam Ranch Plant and Monument Booster Station. We will notify your office and the NMOCD Hobbs District Office at least one week prior to conducting the next sampling event. Please call me at 915-368-1142 if you have any questions.

Sincerely,

Scott Seeby
Environmental Engineer
New Mexico Region

attachments
cc: M.S. Nault, GPM-Linam Ranch Plant, NM
Jerry Sexton, NMOCD-Hobbs, NM
Gilbert Van Deventer, GCL-Midland, TX

ATTACHMENTS

ATTACHMENT C

LABORATORY ANALYTICAL REPORTS

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

RECEIVED JAN 2 5 1996

ANALYTICAL REPORT

DATE RECEIVED : 18-JAN-1996
REPORT NUMBER : D96-536
REPORT DATE : 19-JAN-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya
PROJECT : GPM Lee Plant

Included in this data package are the analytical results for the sample group which you have submitted to Inchcape Testing Services for analysis. These results are representative of the samples as received by the laboratory.

The information contained herein has undergone extensive review and is deemed accurate and complete. Sample analysis and quality control were performed in accordance with all applicable protocols. Any deviations from these protocols or observations of interest are detailed in an accompanying Case Narrative. Please refrain from reproducing this report except in its entirety.

If you have any questions regarding this report and its associated materials please call your Project Manager at (214) 238-5591.

We appreciate the opportunity to serve you and look forward to providing continued service in the future.

Martin Jeffus
General Manager

Inchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 18-JAN-1996

REPORT NUMBER : D96-536-1
REPORT DATE : 19-JAN-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9601161015 MW-11
PROJECT : GPM Lee Plant
DATE SAMPLED : 16-JAN-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : MKS
ANALYZED ON : 19-JAN-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-011896A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	99.6 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 18-JAN-1996

REPORT NUMBER : D96-536-2
REPORT DATE : 19-JAN-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9601161100 Rinsate #1
PROJECT : GPM Lee Plant
DATE SAMPLED : 16-JAN-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : MKS
ANALYZED ON : 19-JAN-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-011896A

BTEX ANALYSIS				
TEST REQUESTED	DETECTION LIMIT		RESULTS	
Benzene	1.0	µg/L	< 1.0	µg/L
Toluene	1.0	µg/L	< 1.0	µg/L
Ethyl benzene	1.0	µg/L	< 1.0	µg/L
Xylenes	1.0	µg/L	< 1.0	µg/L
BTEX (total)			< 1.0	µg/L #

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene	50.0	µg/L	99.5	%

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 18-JAN-1996

REPORT NUMBER : D96-536-3
REPORT DATE : 19-JAN-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9601161110 Rinsate #2
PROJECT : GPM Lee Plant
DATE SAMPLED : 16-JAN-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : MKS
ANALYZED ON : 19-JAN-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-011896A

BTEX ANALYSIS			
TEST REQUESTED	DETECTION LIMIT	RESULTS	
Benzene	1.0 µg/L	< 1.0 µg/L	
Toluene	1.0 µg/L	< 1.0 µg/L	
Ethyl benzene	1.0 µg/L	< 1.0 µg/L	
Xylenes	1.0 µg/L	< 1.0 µg/L	
BTEX (total)		< 1.0 µg/L	#

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	100 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 18-JAN-1996

REPORT NUMBER : D96-536-4
REPORT DATE : 19-JAN-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9601161200 MW-13
PROJECT : GPM Lee Plant
DATE SAMPLED : 16-JAN-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : MKS
ANALYZED ON : 19-JAN-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-011896A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	97.6 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 18-JAN-1996

REPORT NUMBER : D96-536-5
REPORT DATE : 19-JAN-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9601161245 MW-12
PROJECT : GPM Lee Plant
DATE SAMPLED : 16-JAN-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : MKS
ANALYZED ON : 19-JAN-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-011896A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	100 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 18-JAN-1996

REPORT NUMBER : D96-536-6
REPORT DATE : 19-JAN-1996

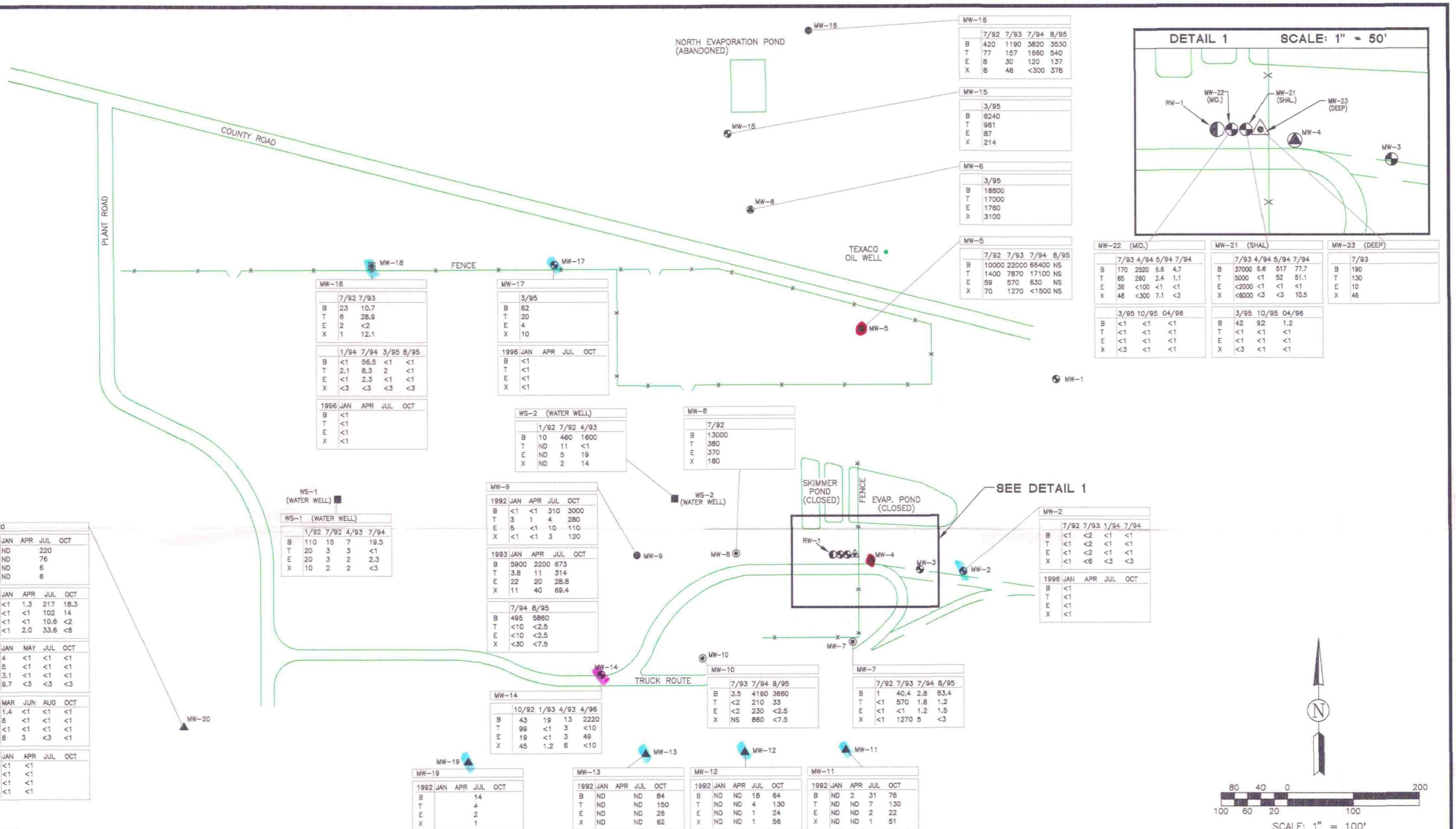
SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9601161330 MW-20
PROJECT : GPM Lee Plant
DATE SAMPLED : 16-JAN-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : MKS
ANALYZED ON : 19-JAN-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-011896A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	98.7 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.



MW-16

	7/92	7/93	7/94	8/95
B	420	1190	3820	3530
T	77	157	1660	540
E	8	30	120	137
X	8	48	<300	378

MW-15

	3/95
B	6240
T	981
E	87
X	214

MW-6

	3/95
B	18800
T	17000
E	1760
X	3100

MW-5

	7/92	7/93	7/94	8/95
B	10000	22000	66400	NS
T	1400	7870	17100	NS
E	59	570	630	NS
X	70	1270	<1500	NS

DETAIL 1 SCALE: 1" = 50'

MW-22 (MID.)

	7/93	4/94	5/94	7/94
B	170	2520	5.6	4.7
T	65	260	2.4	1.1
E	36	<100	<1	<1
X	48	<300	7.1	<3

	3/95	10/95	04/96
B	<1	<1	<1
T	<1	<1	<1
E	<1	<1	<1
X	<3	<1	<1

MW-21 (SHAL)

	7/93	4/94	5/94	7/94
B	37000	5.6	517	77.7
T	5000	<1	52	51.1
E	<2000	<1	<1	<1
X	<6000	<3	<3	10.5

	3/95	10/95	04/96
B	42	9.2	1.2
T	<1	<1	<1
E	<1	<1	<1
X	<3	<1	<1

MW-23 (DEEP)

	7/93
B	190
T	130
E	10
X	46

MW-18

	7/92	7/93
B	23	10.7
T	8	28.9
E	2	<2
X	1	12.1

	1/94	7/94	3/95	8/95
B	<1	56.5	<1	<1
T	2.1	8.3	2	<1
E	<1	2.3	<1	<1
X	<3	<3	<3	<3

1996	JAN	APR	JUL	OCT
B	<1			
T	<1			
E	<1			
X	<1			

MW-17

	3/95
B	62
T	20
E	4
X	10

1996	JAN	APR	JUL	OCT
B	<1			
T	<1			
E	<1			
X	<1			

WS-2 (WATER WELL)

	1/92	7/92	4/93
B	10	460	1600
T	ND	11	<1
E	ND	5	19
X	ND	2	14

MW-8

	7/92
B	13000
T	380
E	370
X	180

WS-1 (WATER WELL)

	1/92	7/92	4/93	7/94
B	110	15	7	19.5
T	20	3	3	<1
E	20	3	2	2.3
X	10	2	2	<3

MW-9

1992	JAN	APR	JUL	OCT
B	<1	<1	310	3000
T	3	1	4	280
E	5	<1	10	110
X	<1	<1	3	120

1993	JAN	APR	JUL	OCT
B	5900	2200	673	
T	3.8	11	314	
E	22	20	28.8	
X	11	40	69.4	

	7/94	8/95
B	495	5860
T	<10	<2.5
E	<10	<2.5
X	<30	<7.5

MW-2

	7/92	7/93	1/94	7/94
B	<1	<2	<1	<1
T	<1	<2	<1	<1
E	<1	<2	<1	<1
X	<1	<6	<3	<3

1996	JAN	APR	JUL	OCT
B	<1			
T	<1			
E	<1			
X	<1			

MW-20

1992	JAN	APR	JUL	OCT
B	ND		220	
T	ND		76	
E	ND		6	
X	ND		6	

1993	JAN	APR	JUL	OCT
B	<1	1.3	217	18.3
T	<1	<1	102	14
E	<1	<1	10.6	<2
X	<1	2.0	33.6	<6

1994	JAN	MAY	JUL	OCT
B	4	<1	<1	<1
T	5	<1	<1	<1
E	3.1	<1	<1	<1
X	9.7	<3	<3	<3

1995	MAR	JUN	AUG	OCT
B	1.4	<1	<1	<1
T	6	<1	<1	<1
E	<1	<1	<1	<1
X	6	3	<3	<1

1996	JAN	APR	JUL	OCT
B	<1	<1		
T	<1	<1		
E	<1	<1		
X	<1	<1		

MW-14

	10/92	1/93	4/93	4/96
B	43	19	13	2220
T	99	<1	3	<10
E	19	<1	3	49
X	45	1.2	6	<10

MW-10

	7/93	7/94	8/95
B	3.5	4160	3660
T	<2	210	33
E	<2	230	<2.5
X	NS	860	<7.5

MW-7

	7/92	7/93	7/94	8/95
B	1	40.4	2.8	83.4
T	<1	570	1.8	1.2
E	<1	<1	1.2	1.5
X	<1	1270	5	<3

MW-19

1992	JAN	APR	JUL	OCT
B			14	
T			4	
E			2	
X			1	

1993	JAN	APR	JUL	OCT
B			15.3	11.2
T			35.8	12.3
E			<2	<2
X			13.5	<6

1994	JAN	MAY	JUL	OCT
B	2.5	<1	5.4	<1
T	3.4	<1	<1	<1
E	<1	<1	<1	<1
X	<3	<3	<3	<3

1995	MAR	JUN	AUG	OCT
B	79	3.1	<1	<1
T	28	3.8	<1	<1
E	5	1.8	<1	<1
X	11	3.4	<3	<1

1996	JAN	APR	JUL	OCT
B	<1	<1		
T	<1	<1		
E	<1	<1		
X	<1	<1		

MW-13

1992	JAN	APR	JUL	OCT
B	ND		ND	84
T	ND		ND	150
E	ND		ND	26
X	ND		ND	62

1993	JAN	APR	JUL	OCT
B	28	13	14.6	28.6
T	<1	<1	34.3	29.6
E	<1	<1	<2	<2
X	<1	<1	13.4	10.2

1994	JAN	MAY	JUL	OCT
B	2.4	<1	6.5	<1
T	3.4	<1	1.2	<1
E	<1	<1	<1	<1
X	<3	<3	<3	<3

1995	MAR	JUN	AUG	OCT
B	<1	<1	<1	<1
T	3	<1	<1	<1
E	<1	<1	<1	<1
X	<3	3	<3	<1

1996	JAN	APR	JUL	OCT
B	<1	<1		
T	<1	<1		
E	<1	<1		
X	<1	<1		

MW-12

1992	JAN	APR	JUL	OCT
B	ND	ND	18	64
T	ND	ND	4	130
E	ND	ND	1	24
X	ND	ND	1	56

1993	JAN	APR	JUL	OCT
B	67	30	11.4	<2
T	1.1	<1	29.2	<2
E	<1	<1	<2	<2
X	<1	<1	12.1	<6

1994	JAN	MAY	JUL	OCT
B	2.6	<1	3.7	<1
T	4	1.6	<1	<1
E	<1	1.1	<1	<1
X	<3	4.1	<3	<3

1995	MAR	JUN	AUG	OCT
B	<1	<1	<1	<1
T	3	<1	<1	<1
E	<1	<1	<1	<1
X	4	<3	<3	<1

1996	JAN	APR	JUL	OCT
B	<1	<1		
T	<1	<1		
E	<1	<1		
X	<1	<1		

MW-11

1992	JAN	APR	JUL	OCT
B	ND	2	31	78
T	ND	ND	7	130
E	ND	ND	2	22
X	ND	ND	1	51

1993	JAN	APR	JUL	OCT
B	1.3	1.1	15.5	<2
T	<1	<1	31.3	<2
E	<1	<1	<2	<2
X	1.1	<1	11.6	<6

1994	JAN	MAY	JUL	OCT
B	3.7	<1	1.9	<1
T	5.5	<1	1.1	2
E	<1	1.3	<1	<1
X	3.7	3.9	<3	<3

1995	MAR	JUN	AUG	OCT
B	<1	<1	<1	<1
T	2	1.1	<1	<1
E	<1	<1	<1	<1
X	3.2	<3	<3	<1

1996	JAN	APR	JUL	OCT
B	<1	<1		
T	<1	<1		
E	<1	<1		
X	<1	<1		

LEGEND

- MONITOR WELL
- MONITOR WELL SAMPLED ANNUALLY
- SUPPLY WELL
- MONITOR WELL SAMPLED QUARTERLY
- MONITOR WELL SAMPLED SEMI-ANNUALLY
- RECOVERY WELL SAMPLED ANNUALLY
- PRODUCT RECOVERY WELL
- INJECTION WELL
- VAPOR EXTRACTION/RECOVERY WELL
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X TOTAL XYLENES
- ND NO DETECTION
- NS NOT SAMPLED BECAUSE PRODUCT PRESENT IN WELL
- * SAMPLING FOR TPH DISCONTINUED

NOTE: CONCENTRATIONS IN MICROGRAMS PER LITER (ppb) UNLESS OTHERWISE STATED.
WELLS CONTAINING FREE-PHASE HYDROCARBONS ARE NOT SAMPLED.

GCL

PLATE 1
ANALYTICAL RESULTS (ppb)
LEE PLANT

CLIENT: GPM GAS CORPORATION

DATE: APRIL 25, 1996

CHECKED BY: GJV

DRAWN BY: RG061196

DWG. NO. D:\GPM\TEXAS\BTEXV10.DWG

Inchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 18-JAN-1996

REPORT NUMBER : D96-536-7
REPORT DATE : 19-JAN-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9601161216 MW-2
PROJECT : GPM Lee Plant
DATE SAMPLED : 16-JAN-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : MKS
ANALYZED ON : 19-JAN-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-011896A

BTEX ANALYSIS				
TEST REQUESTED	DETECTION LIMIT		RESULTS	
Benzene	1.0	µg/L	< 1.0	µg/L
Toluene	1.0	µg/L	< 1.0	µg/L
Ethyl benzene	1.0	µg/L	< 1.0	µg/L
Xylenes	1.0	µg/L	< 1.0	µg/L
BTEX (total)			< 1.0	µg/L #

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene	50.0	µg/L	98.7	%

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 18-JAN-1996

REPORT NUMBER : D96-536-8
REPORT DATE : 19-JAN-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9601161400 MW-19
PROJECT : GPM Lee Plant
DATE SAMPLED : 16-JAN-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : MKS
ANALYZED ON : 19-JAN-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-011896A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	99.0 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 18-JAN-1996

REPORT NUMBER : D96-536-9
REPORT DATE : 19-JAN-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9601161430 MW-18
PROJECT : GPM Lee Plant
DATE SAMPLED : 16-JAN-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : MKS
ANALYZED ON : 19-JAN-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-011896A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	98.5 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 18-JAN-1996

REPORT NUMBER : D96-536-10
REPORT DATE : 19-JAN-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9601161435 Trip Blank
PROJECT : GPM Lee Plant
DATE SAMPLED : 16-JAN-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : MKS
ANALYZED ON : 19-JAN-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-011896A

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	1.0	µg/L	<	1.0	µg/L
Toluene	1.0	µg/L	<	1.0	µg/L
Ethyl benzene	1.0	µg/L	<	1.0	µg/L
Xylenes	1.0	µg/L	<	1.0	µg/L
BTEX (total)			<	1.0	µg/L #

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene	50.0	µg/L	100	%

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 18-JAN-1996

REPORT NUMBER : D96-536-11
REPORT DATE : 19-JAN-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 96011611515 MW-17
PROJECT : GPM Lee Plant
DATE SAMPLED : 16-JAN-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : MKS
ANALYZED ON : 19-JAN-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-011896A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	91.0 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 18-JAN-1996

REPORT NUMBER : D96-536-12
REPORT DATE : 19-JAN-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9601161610 MW-25
PROJECT : GPM Lee Plant
DATE SAMPLED : 16-JAN-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : MKS
ANALYZED ON : 19-JAN-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-011896A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	91.1 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

REPORT DATE : 19-JAN-1996 REPORT NUMBER : D96-536

SAMPLE SUBMITTED BY : GCL
ATTENTION : Ms. Annette Montoya
PROJECT : GPM Lee Plant

LABORATORY QUALITY CONTROL REPORT

ANALYTE	Benzene	Ethylbenzene
BATCH NO.	34-011896A	34-011896A
LCS LOT NO.	AB214-82A	AB214-82A
PREP METHOD	---	---
PREPARED BY	---	---
ANALYSIS METHOD	EPA 8020	EPA 8020
ANALYZED BY	MKS	MKS
UNITS	µg/L	µg/L
METHOD BLANK	< 1.00	< 1.00
SPIKE LEVEL	500	500
MS RESULT	506	529
MS RECOVERY %	101	106
MSD RESULT	485	504
MSD RECOVERY %	97.0	101
MS/MSD RPD %	4.24	4.84
BS RESULT	NA	NA
BS RECOVERY %	NA	NA
BSD RESULT	NA	NA
BSD RECOVERY %	NA	NA
BS/BSD RPD %	NA	NA
DUPLICATE RPD %	NA	NA
LCS LEVEL	50.0	50.0
LCS RESULT	53.2	54.3
LCS RECOVERY %	106	109
SPIKE SAMPLE ID	536-10	536-10
DUP SAMPLE ID	---	---

NA Not applicable

GCL
Environmental Science and Engineering
A BDM International Company

Albuquerque
505 Marquette NW, Ste. 1100
Albuquerque, NM 87102
(505) 842-0001
FAX: (505) 842-0595

Mid Atlantic Region
4221 Forbes Blvd., Ste. 240
Lanham, MD 20706-4325
(301) 459-9677
FAX: (301) 459-3064

NASA-WSTF
PO Drawer MM
Las Cruces, NM 88004
(505) 524-5353
FAX: (505) 524-5315

ORIGINAL
DIANE

№ 9889

Chain of Custody

Date 1/16/96 Page 1 of 1

Lab Name Inchcape Testing Services
Address 1089 E. Collins Blvd
Richardson TX 75081
Telephone 214 238 5571

Samplers (SIGNATURES)
D Lee

Analysis Request

Sample Number	Matrix	Location	Halogenated Volatiles 601/8010	Aromatic Volatiles 602/8020	Phenols, Sub Phenols 604/8040	Pesticides/PCB 608/8080	Polynuclear Aromatic Hydrocarbons 610/8310	Volatile Compounds GC/MS 624/8240	Base/Neu/Acid Compounds GC/MS 625/8270	Total Organic Carbon (TOC) 415/9060	Total Organic Halides (TOX) 9020	Petroleum Hydrocarbons 418.1	TPH/BTEX Modified 8015	TCLP- Vol., Semi-Vol. Herbicides, Pesticides	TCLP- Metals	RCRA Metals(8)	Priority Pollutant Metals (13)	CAM Metals (18) TTLC/STLC	Flash Point	Corrosivity	Reactivity	Oil & Grease	Cyanide Total/Amenable	Chemical Oxygen Demand (COD)					Number of Containers
9601161015	H2O	MW-11		3																	5	36		1	1				3
9601161100	H2O	Rinsate #1		3																					2				3
9601161110	H2O	Rinsate #2		3																					3				3
9601161200	H2O	MW-13		3																					4				3
9601161245	H2O	MW-12		3																					5				3
9601161330	H2O	MW-20		3																					6				3
9601161216	H2O	MW-2		3																					7				3
9601161400	H2O	MW-19		3																					8				3
9601161430	H2O	MW-18		3																					9				3
9601161455	H2O	Trip Blank		2																					10				2

COOLER TEMPERATURE WHEN RECEIVED — °C

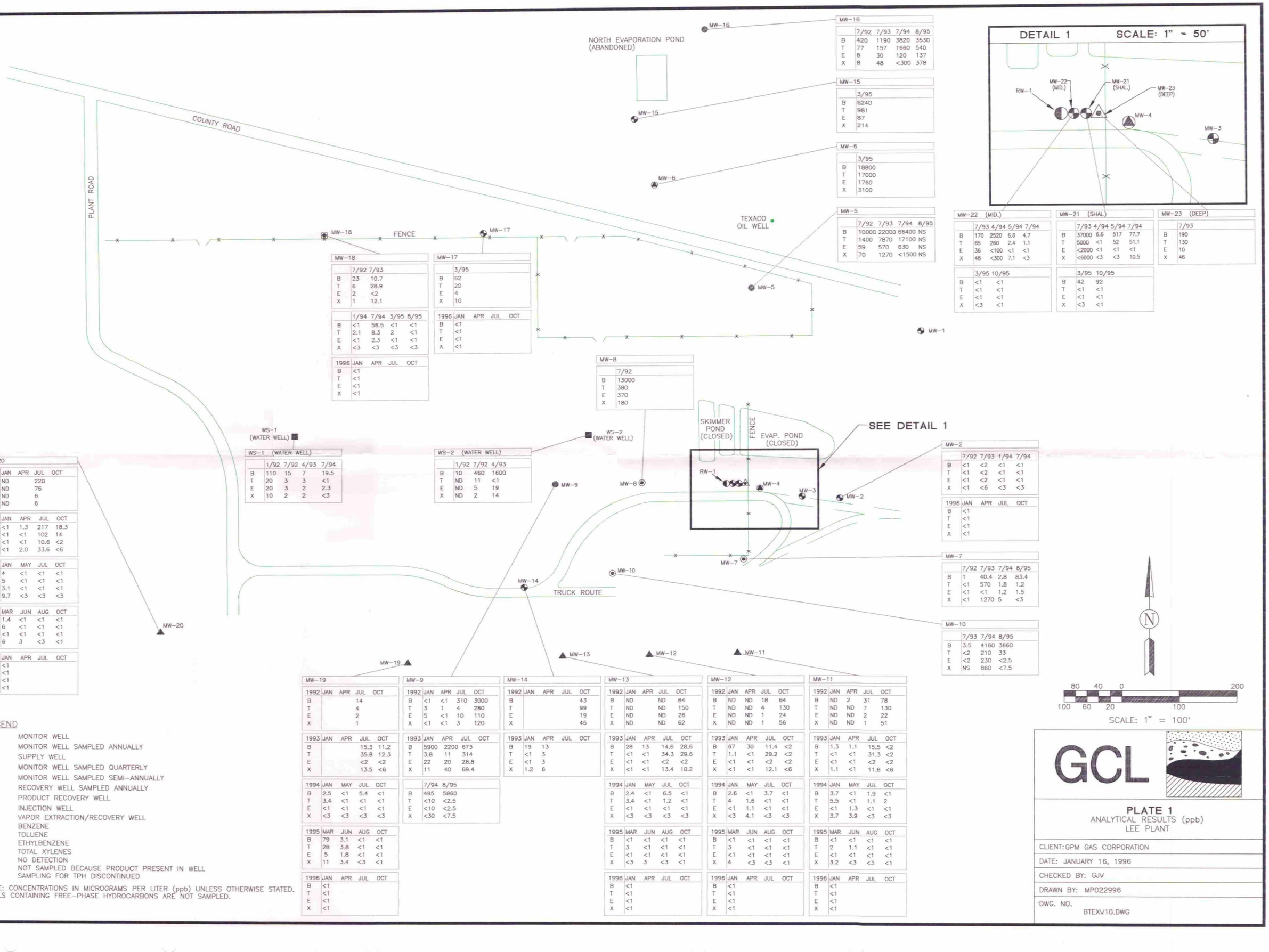
Project Information	
Project	GPM Lee Plant
Project Director	Mike Sellce
Charge Code No.	3025.002
Shipping ID. No.	Fedx
Via:	453938356 4

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Rec'd Good Condition/Cold	
Conforms to Record	
Lab No.	

Special Instructions/Comments:
Fax RESULTS to GCL Midland
915 682 0028

Relinquished By 1.	Relinquished By 2.	Relinquished By 3.
D Lee 1500		
(Signature) (Time)	(Signature) (Time)	(Signature) (Time)
DAVID LEE 1/17/96		
(Printed Name) (Date)	(Printed Name) (Date)	(Printed Name) (Date)
GCL		
(Company)	(Company)	(Company)
Received By 1.	**Received By 2.**	**Received By (Laboratory) 3.**
		David Meyer
(Signature) (Time)	(Signature) (Time)	(Signature) (Time)
		David Meyer 1010
(Printed Name) (Date)	(Printed Name) (Date)	(Printed Name) (Date)
		ITS / Dallas 1/18/96
(Company)	(Company)	(Laboratory)

White - Canary: Laboratory Pink - GCL



DETAIL 1 SCALE: 1" = 50'

MW-16	7/92	7/93	7/94	8/95
B	420	1190	3820	3530
T	77	157	1660	540
E	8	30	120	137
X	8	48	<300	378

MW-15	3/95
B	6240
T	981
E	87
X	214

MW-6	3/95
B	18800
T	17000
E	1760
X	3100

MW-5	7/92	7/93	7/94	8/95
B	10000	22000	66400	NS
T	1400	7870	17100	NS
E	59	570	630	NS
X	70	1270	<1500	NS

MW-22 (MID.)	7/93	4/94	5/94	7/94
B	170	2520	6.6	4.7
T	65	260	2.4	1.1
E	36	<100	<1	<1
X	48	<300	7.1	<3

	3/95	10/95
B	<1	<1
T	<1	<1
E	<1	<1
X	<3	<1

MW-21 (SHAL)	7/93	4/94	5/94	7/94
B	37000	6.6	517	77.7
T	5000	<1	52	51.1
E	<2000	<1	<1	<1
X	<6000	<3	<3	10.5

	3/95	10/95
B	42	92
T	<1	<1
E	<1	<1
X	<3	<1

MW-23 (DEEP)	7/93
B	190
T	130
E	10
X	46

MW-18	7/92	7/93
B	23	10.7
T	6	28.9
E	2	<2
X	1	12.1

	1/94	7/94	3/95	8/95
B	<1	56.5	<1	<1
T	2.1	8.3	2	<1
E	<1	2.3	<1	<1
X	<3	<3	<3	<3

1996	JAN	APR	JUL	OCT
B	<1			
T	<1			
E	<1			
X	<1			

MW-17	3/95
B	62
T	20
E	4
X	10

1996	JAN	APR	JUL	OCT
B	<1			
T	<1			
E	<1			
X	<1			

MW-8	7/92
B	13000
T	380
E	370
X	180

MW-2	7/92	7/93	1/94	7/94
B	<1	<2	<1	<1
T	<1	<2	<1	<1
E	<1	<2	<1	<1
X	<1	<6	<3	<3

1996	JAN	APR	JUL	OCT
B	<1			
T	<1			
E	<1			
X	<1			

MW-7	7/92	7/93	7/94	8/95
B	1	40.4	2.8	83.4
T	<1	570	1.8	1.2
E	<1	<1	1.2	1.5
X	<1	1270	5	<3

MW-10	7/93	7/94	8/95
B	3.5	4160	3660
T	<2	210	33
E	<2	230	<2.5
X	NS	860	<7.5

WS-1 (WATER WELL)	1/92	7/92	4/93	7/94
B	110	15	7	19.5
T	20	3	3	<1
E	20	3	2	2.3
X	10	2	2	<3

WS-2 (WATER WELL)	1/92	7/92	4/93
B	10	460	1600
T	ND	11	<1
E	ND	5	19
X	ND	2	14

MW-20	JAN	APR	JUL	OCT
1992 B	ND		220	
1992 T	ND		76	
1992 E	ND		6	
1992 X	ND		6	
1993 B	<1	1.3	217	18.3
1993 T	<1	<1	102	14
1993 E	<1	<1	10.6	<2
1993 X	<1	2.0	33.6	<6

1994	JAN	MAY	JUL	OCT
B	4	<1	<1	<1
T	5	<1	<1	<1
E	3.1	<1	<1	<1
X	9.7	<3	<3	<3

1995	MAR	JUN	AUG	OCT
B	1.4	<1	<1	<1
T	6	<1	<1	<1
E	<1	<1	<1	<1
X	6	3	<3	<1

1996	JAN	APR	JUL	OCT
B	<1			
T	<1			
E	<1			
X	<1			

MW-19	JAN	APR	JUL	OCT
1992 B			14	
1992 T			4	
1992 E			2	
1992 X			1	
1993 B			15.3	11.2
1993 T			35.8	12.3
1993 E			<2	<2
1993 X			13.5	<6

1994	JAN	MAY	JUL	OCT
B	2.5	<1	5.4	<1
T	3.4	<1	<1	<1
E	<1	<1	<1	<1
X	<3	<3	<3	<3

1995	MAR	JUN	AUG	OCT
B	79	3.1	<1	<1
T	28	3.8	<1	<1
E	5	1.8	<1	<1
X	11	3.4	<3	<1

1996	JAN	APR	JUL	OCT
B	<1			
T	<1			
E	<1			
X	<1			

MW-9	JAN	APR	JUL	OCT
1992 B	<1	<1	310	3000
1992 T	3	1	4	280
1992 E	5	<1	10	110
1992 X	<1	<1	3	120
1993 B	5900	2200	673	
1993 T	3.8	11	314	
1993 E	22	20	28.8	
1993 X	11	40	69.4	

	7/94	8/95
B	495	5860
T	<10	<2.5
E	<10	<2.5
X	<30	<7.5

MW-14	JAN	APR	JUL	OCT
1992 B				43
1992 T				99
1992 E				19
1992 X				45
1993 B	19	13		
1993 T	<1	3		
1993 E	<1	3		
1993 X	1.2	6		

MW-13	JAN	APR	JUL	OCT
1992 B	ND		ND	84
1992 T	ND		ND	150
1992 E	ND		ND	26
1992 X	ND		ND	62
1993 B	28	13	14.6	28.6
1993 T	<1	<1	34.3	29.6
1993 E	<1	<1	<2	<2
1993 X	<1	<1	13.4	10.2

1994	JAN	MAY	JUL	OCT
B	2.4	<1	6.5	<1
T	3.4	<1	1.2	<1
E	<1	<1	<1	<1
X	<3	<3	<3	<3

1995	MAR	JUN	AUG	OCT
B	<1	<1	<1	<1
T	3	<1	<1	<1
E	<1	<1	<1	<1
X	<3	3	<3	<1

1996	JAN	APR	JUL	OCT
B	<1			
T	<1			
E	<1			
X	<1			

MW-12	JAN	APR	JUL	OCT
1992 B	ND	ND	18	64
1992 T	ND	ND	4	130
1992 E	ND	ND	1	24
1992 X	ND	ND	1	56
1993 B	67	30	11.4	<2
1993 T	1.1	<1	29.2	<2
1993 E	<1	<1	<2	<2
1993 X	<1	<1	12.1	<6

1994	JAN	MAY	JUL	OCT
B	2.6	<1	3.7	<1
T	4	1.6	<1	<1
E	<1	1.1	<1	<1
X	<3	4.1	<3	<3

1995	MAR	JUN	AUG	OCT
B	<1	<1	<1	<1
T	3	<1	<1	<1
E	<1	<1	<1	<1
X	4	<3	<3	<1

1996	JAN	APR	JUL	OCT
B	<1			
T	<1			
E	<1			
X	<1			

MW-11	JAN	APR	JUL	OCT
1992 B	ND	2	31	78
1992 T	ND	ND	7	130
1992 E	ND	ND	2	22
1992 X	ND	ND	1	51
1993 B	1.3	1.1	15.5	<2
1993 T	<1	<1	31.3	<2
1993 E	<1	<1	<2	<2
1993 X	1.1	<1	11.6	<6

1994	JAN	MAY	JUL	OCT
B	3.7	<1	1.9	<1
T	5.5	<1	1.1	2
E	<1	1.3	<1	<1
X	3.7	3.9	<3	<3

1995	MAR	JUN	AUG	OCT
B	<1	<1	<1	<1
T	2	1.1	<1	<1
E	<1	<1	<1	<1
X	3.2	<3	<3	<1

1996	JAN	APR	JUL	OCT
B	<1			
T	<1			
E	<1			
X	<1			

LEGEND

- MONITOR WELL
- MONITOR WELL SAMPLED ANNUALLY
- SUPPLY WELL
- MONITOR WELL SAMPLED QUARTERLY
- MONITOR WELL SAMPLED SEMI-ANNUALLY
- RECOVERY WELL SAMPLED ANNUALLY
- PRODUCT RECOVERY WELL
- INJECTION WELL
- VAPOR EXTRACTION/RECOVERY WELL
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X TOTAL XYLENES
- ND NO DETECTION
- NS NOT SAMPLED BECAUSE PRODUCT PRESENT IN WELL
- * SAMPLING FOR TPH DISCONTINUED

NOTE: CONCENTRATIONS IN MICROGRAMS PER LITER (ppb) UNLESS OTHERWISE STATED.
WELLS CONTAINING FREE-PHASE HYDROCARBONS ARE NOT SAMPLED.

N

80 40 0 200
100 60 20 100
SCALE: 1" = 100'

GCL

PLATE 1
ANALYTICAL RESULTS (ppb)
LEE PLANT

CLIENT: GPM GAS CORPORATION
DATE: JANUARY 16, 1996
CHECKED BY: GJV
DRAWN BY: MP022996
DWG. NO. BTEXV10.DWG

ATTACHMENT A

TABLE 1

TABLE 1

Second Quarter Analytical Results - Lee Plant
Samples Obtained on April 25, 1996

	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
WQCC Standards	0.010	0.750	0.750	0.620
DOWN GRADIENT				
MW-11	<0.001	<0.001	<0.001	<0.001
MW-12	<0.001	<0.001	<0.001	<0.001
MW-13	<0.001	<0.001	<0.001	<0.001
MW-19	<0.001	<0.001	<0.001	<0.001
MW-20	<0.001	<0.001	<0.001	<0.001
REMEDIATION SYSTEM				
MW-21	0.001	<0.001	<0.001	<0.001
MW-22	<0.001	<0.001	<0.001	<0.001
MW-14	2.220	<0.010	0.049	<0.010
Detection Limit	0.001	0.001	0.001	0.001
Trip Blank	<0.001	<0.001	<0.001	<0.001
Rinsate #1	<0.001	<0.001	<0.001	<0.001
Duplicate (MW-21)	0.001	<0.001	<0.001	<0.001

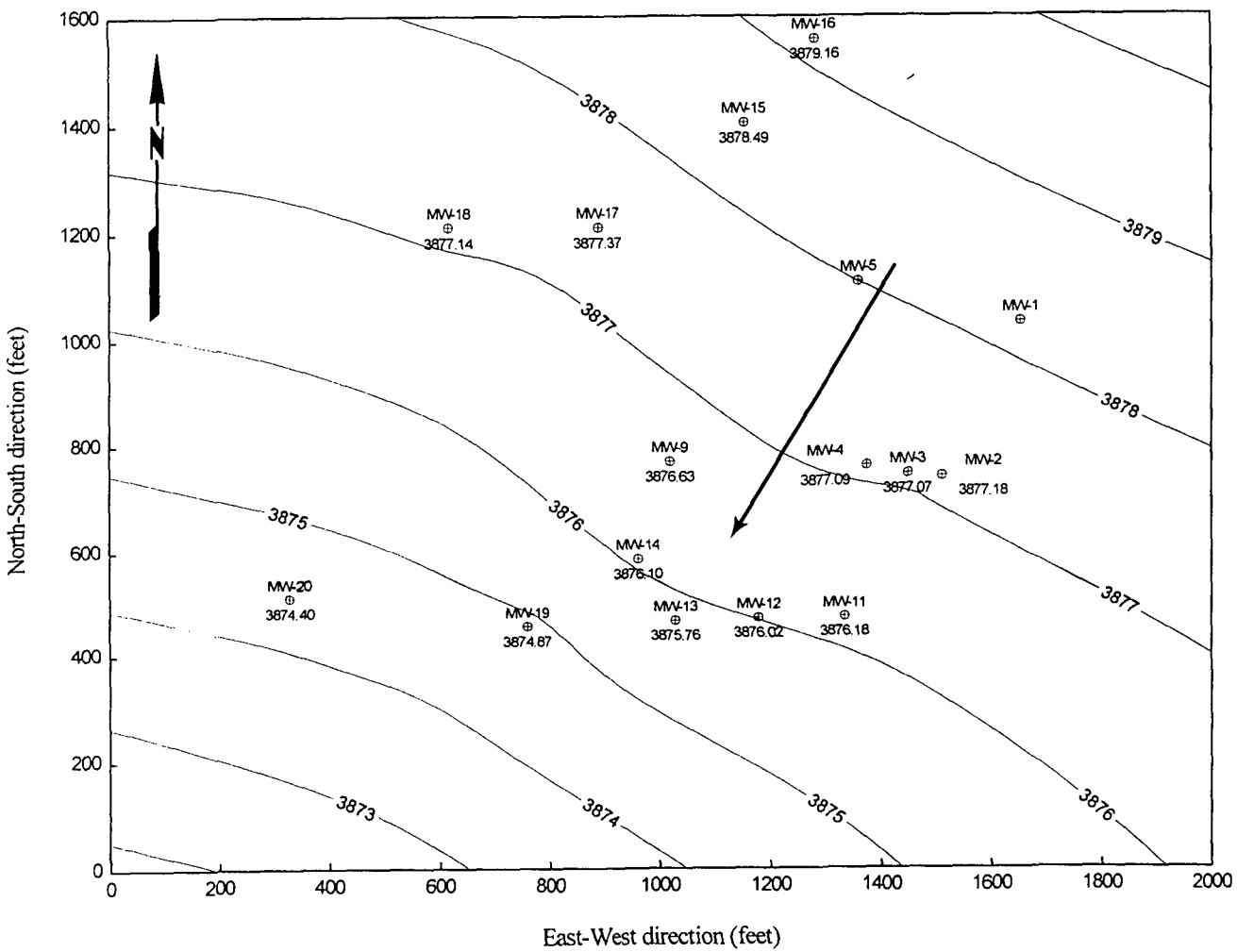
D:\3023\1STQTR96.WQ2:1996

ATTACHMENT B

FIGURES

GPM Lee Plant April 1996 Water Level Contour

(Groundwater Elevation in feet AMSL)



S:/PROJECTS/3023/LEE/GW/APR96.SRF

ATTACHMENT C

LABORATORY ANALYTICAL REPORTS

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

ANALYTICAL REPORT

DATE RECEIVED : 26-APR-1996
REPORT NUMBER : D96-4452
REPORT DATE : 2-MAY-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002

Included in this data package are the analytical results for the sample group which you have submitted to Inchcape Testing Services for analysis. These results are representative of the samples as received by the laboratory.

The information contained herein has undergone extensive review and is deemed accurate and complete. Sample analysis and quality control were performed in accordance with all applicable protocols. Any deviations from these protocols or observations of interest are detailed in an accompanying Case Narrative. Please refrain from reproducing this report except in its entirety.

If you have any questions regarding this report and its associated materials please call your Project Manager at (214) 238-5591.

We appreciate the opportunity to serve you and look forward to providing continued service in the future.

Martin Jeffus
General Manager

Anchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 26-APR-1996

REPORT NUMBER : D96-4452-1
REPORT DATE : 2-MAY-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9604250830 MW-11
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 25-APR-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 30-APR-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-043096

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	103 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Lancaster Testing Services
Environmental Laboratories

DATE RECEIVED : 26-APR-1996

REPORT NUMBER : D96-4452-2
REPORT DATE : 2-MAY-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9604250945 MW-12
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 25-APR-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 30-APR-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-043096

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	102 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Anchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 26-APR-1996

REPORT NUMBER : D96-4452-3
REPORT DATE : 2-MAY-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9604251015 MW-13
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 25-APR-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 30-APR-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-043096

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	103 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Anchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 26-APR-1996

REPORT NUMBER : D96-4452-4
REPORT DATE : 2-MAY-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9604251050 MW-19
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 25-APR-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 1-MAY-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 30-043096A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	95.2 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Anchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 26-APR-1996

REPORT NUMBER : D96-4452-5
REPORT DATE : 2-MAY-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9604251145 MW-20
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 25-APR-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 1-MAY-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 30-043096A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	95.4 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Anchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 26-APR-1996

REPORT NUMBER : D96-4452-6
REPORT DATE : 2-MAY-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9604251230 MW-22
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 25-APR-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 1-MAY-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 30-043096A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	95.3 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Chcape Testing Services
Environmental Laboratories

DATE RECEIVED : 26-APR-1996

REPORT NUMBER : D96-4452-7
REPORT DATE : 2-MAY-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9604251300 MW-21
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 25-APR-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 1-MAY-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-043096A

BTEX ANALYSIS				
TEST REQUESTED	DETECTION LIMIT		RESULTS	
Benzene	1.0 µg/L		1.2 µg/L	
Toluene	1.0 µg/L	<	1.0 µg/L	
Ethyl benzene	1.0 µg/L	<	1.0 µg/L	
Xylenes	1.0 µg/L	<	1.0 µg/L	
BTEX (total)			1.2 µg/L	#

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	96.8 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Anchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 26-APR-1996

REPORT NUMBER : D96-4452-8
REPORT DATE : 2-MAY-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9604251330 MW-21D
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 25-APR-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 1-MAY-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-043096A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	1.2 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		1.2 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	96.7 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Anchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 26-APR-1996

REPORT NUMBER : D96-4452-9
REPORT DATE : 2-MAY-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9604251410 Rinsate
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 25-APR-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 1-MAY-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 34-043096A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	96.8 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Anchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 26-APR-1996

REPORT NUMBER : D96-4452-10
REPORT DATE : 2-MAY-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : 9604251500 MW-14
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 25-APR-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 1-MAY-1996
DILUTION FACTOR : 10
METHOD FACTOR : 1
QC BATCH NO : 30-043096A

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	10	µg/L	2220	µg/L	
Toluene	10	µg/L	< 10	µg/L	
Ethyl benzene	10	µg/L	49	µg/L	
Xylenes	10	µg/L	< 10	µg/L	
BTEX (total)			2270	µg/L	#

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene	50.0	µg/L	82.5	%

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 26-APR-1996

REPORT NUMBER : D96-4452-11
REPORT DATE : 2-MAY-1996

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Liquid
ID MARKS : Trip Blank
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 25-APR-1996
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 1-MAY-1996
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 30-043096A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	94.9 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Anchcape Testing Services
Environmental Laboratories

REPORT DATE : 21-JUN-1996 REPORT NUMBER : D96-4452

SAMPLE SUBMITTED BY : GCL
ATTENTION : Ms. Annette Montoya

LABORATORY QUALITY CONTROL REPORT

ANALYTE	Benzene	Ethylbenzene	Benzene	Ethylbenzene	Benzene
BATCH NO.	34-043096	34-043096	30-043096A	30-043096A	34-043096A
LCS LOT NO.	AB709-4A	AB709-4A	AB709-4A	AB709-4A	AB709-4A
PREP METHOD	---	---	---	---	---
PREPARED BY	---	---	---	---	---
ANALYSIS METHOD	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8020
ANALYZED BY	VHT	VHT	VHT	VHT	VHT
UNITS	µg/L	µg/L	µg/L	µg/L	µg/L
METHOD BLANK	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
SPIKE LEVEL	500	500	500	500	500
MS RESULT	524	525	491	474	498
MS RECOVERY %	105	105	98.2	94.8	99.6
MSD RESULT	512	513	480	463	538
MSD RECOVERY %	102	103	96.0	92.6	108
MS/MSD RPD %	2.32	2.31	2.27	2.35	7.72
BS RESULT	NA	NA	NA	NA	NA
BS RECOVERY %	NA	NA	NA	NA	NA
BSD RESULT	NA	NA	NA	NA	NA
BSD RECOVERY %	NA	NA	NA	NA	NA
BS/BSD RPD %	NA	NA	NA	NA	NA
DUPLICATE RPD %	NA	NA	NA	NA	NA
LCS LEVEL	50.0	50.0	50.0	50.0	50.0
LCS RESULT	52.8	53.1	49.2	46.8	49.4
LCS RECOVERY %	106	106	98.4	93.6	98.8
SPIKE SAMPLE ID	4452-3	4452-3	4459-6	4459-6	4503-3
DUP SAMPLE ID	---	---	---	---	---

NA Not applicable

Anchcape Testing Services
Environmental Laboratories

REPORT DATE : 21-JUN-1996 REPORT NUMBER : D96-4452

SAMPLE SUBMITTED BY : GCL
ATTENTION : Ms. Annette Montoya

LABORATORY QUALITY CONTROL REPORT

ANALYTE	Ethylbenzene
BATCH NO.	34-043096A
LCS LOT NO.	AB709-4A
PREP METHOD	---
PREPARED BY	---
ANALYSIS METHOD	EPA 8020
ANALYZED BY	VHT
UNITS	µg/L
METHOD BLANK	< 1.00
SPIKE LEVEL	500
MS RESULT	499
MS RECOVERY %	99.8
MSD RESULT	538
MSD RECOVERY %	108
MS/MSD RPD %	7.52
BS RESULT	NA
BS RECOVERY %	NA
BSD RESULT	NA
BSD RECOVERY %	NA
BS/BSD RPD %	NA
DUPLICATE RPD %	NA
LCS LEVEL	50.0
LCS RESULT	49.2
LCS RECOVERY %	98.4
SPIKE SAMPLE ID	4503-3
DUP SAMPLE ID	---

NA Not applicable

GCL
Environmental Science and Engineering
A BDM International Company

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☐ NASA-WSTF
PO Drawer MM
Las Cruces, NM 88004
(505) 524-5353
FAX: (505) 524-5315

№ 8626

Chain of Custody

Date 4/25/96 Page 1 of 1

Lab Name ITS Labs Inc
Address 1089 East Collins blvd
Richardson, Tx 75081
Telephone 214 238-5591
Samplers (SIGNATURES)

Analysis Request

Sample Number	Matrix	Location	Halogenated Volatiles 601/8010	Aromatic Volatiles 602/8020	Phenols, Sub Phenols 604/8040	Pesticides/PCB 608/8080	Polynuclear Aromatic Hydrocarbons 610/8310	Volatile Compounds GC/MS 624/8240	Base/Neu/Acid Compounds GC/MS 625/8270	Total Organic Carbon (TOC) 415/9060	Total Organic Halides (TOX) 9020	Petroleum Hydrocarbons 418.1	TPH/BTEX Modified 8015	TCLP - Vol., Semi-Vol. Herbicides, Pesticides	TCLP - Metals	RCRA Metals(8)	Priority Pollutant Metals (13)	CAM Metals (18) TTLC/STLC	Flash Point	Corrosivity	Reactivity	Oil & Grease	Cyanide Total/Amenable	Chemical Oxygen Demand (COD)				Number of Containers
9604250830	H2O	MW-11		3																		4452			-	1		3
9604250945	H2O	MW-12		3																						2		3
9604251015	H2O	MW-13		3																						3		3
9604251050	H2O	MW-19		3																						4		3
9604251145	H2O	MW-20		3																						5		3
9604251230	H2O	MW-22		3																						6		3
9604251300	H2O	MW-21		3																						7		3
9604251330	H2O	MW-21d		3																						8		3
9604251410	H2O	~~MW-18~~ DW		3		Rinsate																				9		3
9604251500	H2O	MW-14		3																						10		3

Project Information

Project GPM Buckeye
Project Director Selle
Charge Code No. 3023-002
Shipping ID. No. 709245054
Via: Fed X

Sample Receipt

Total No. of Containers	
Chain of Custody Seals	
Rec'd Good Condition/Cold	
Conforms to Record	
Lab No.	

Special Instructions/Comments:
COOLER TEMPERATURE WHEN RECEIVED ____ °C

SCREENED FOR RADIOACTIVITY

Relinquished By 1.	Relinquished By 2.	Relinquished By 3.
(Signature) 1700 (Time)	(Signature) (Time)	(Signature) (Time)
(Printed Name) DAVID NEE 4/25/96 (Date)	(Printed Name) (Date)	(Printed Name) (Date)
(Company) GCL	(Company)	(Company)
Received By 1.	**Received By 2.**	**Received By (Laboratory) 3.**
(Signature) (Time)	(Signature) (Time)	(Signature) B. Wilson (Time)
(Printed Name) (Date)	(Printed Name) (Date)	(Printed Name) B. Wilson 10:20 (Date)
(Company)	(Company)	(Laboratory) ITS 4-26-96

Distribution: White, Canary-Laboratory • Pink, GCL

GCL Environmental Science and Engineering
A BDM International Company

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FAX: (505) 524-5315

№ 8629

Chain of Custody

Date 4/25/96 Page 1 Of 1

Lab Name ITS Labs Inc
Address 1089 East Collins Blvd Richardson Tx 75081
Telephone 214 238 5591
Samplers (SIGNATURES) [signature]

Analysis Request

Sample Number	Matrix	Location	Halogenated Volatiles 601/8010	Aromatic Volatiles 602/8020 BTEX	Phenols, Sub Phenols 604/8040	Pesticides/PCB 608/8080	Polynuclear Aromatic Hydrocarbons 610/8310	Volatile Compounds GC/MS 624/8240	Base/Neu/Acid Compounds GC/MS 625/8270	Total Organic Carbon (TOC) 415/9060	Total Organic Halides (TOX) 9020	Petroleum Hydrocarbons 418.1	TPH/BTEX Modified 8015	TCLP-Vol., Semi-Vol., Herbicides, Pesticides	TCLP-Metals	RCRA Metals(8)	Priority Pollutant Metals (13)	CAM Metals (18) TTLC/STLC	Flash Point	Corrosivity	Reactivity	Oil & Grease	Cyanide Total/Amenable	Chemical Oxygen Demand (COD)					Number of Containers
9604251415	H2O	TripBlank		1																	4452-11								1

Project Information
Project GPM Buckeye
Project Director Selke
Charge Code No. 3023-00C
Shipping ID. No. 709244 3054
Via: Fed X

Sample Receipt
Total No. of Containers
Chain of Custody Seals
Rec'd Good Condition/Cold
Conforms to Record
Lab No.

Relinquished By 1. (Signature) [signature] (Time) 1708 (Printed Name) DAVID NEE (Date) 4/25/96 (Company) GCL

Relinquished By 2. (Signature) (Time) (Printed Name) (Date) (Company)

Relinquished By 3. (Signature) (Time) (Printed Name) (Date) (Company)

Received By 1. (Signature) (Time) (Printed Name) (Date) (Company)

Received By 2. (Signature) (Time) (Printed Name) (Date) (Company)

Received By (Laboratory) 3. (Signature) B Wilson (Time) 1020 (Printed Name) B. Wilson (Date) 4-26-96 (Laboratory) ITS

Special Instructions/Comments:

Distribution: White ...

GPM GAS CORPORATION
4044 PENBROOK
ODESSA, TX 79762

April 6, 1996

Mr. William Olson
Hydrogeologist
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco
State Land Office Building
Santa Fe, New Mexico 87505

RE: FIRST QUARTER 1996 ANALYTICAL RESULTS
LEE PLANT, DISCHARGE PLAN GW-2
LEA COUNTY, NEW MEXICO

Dear Mr. Olson:

GPM Gas Corporation (GPM) herein submits the laboratory analytical reports for groundwater sampling at our Lee Plant for the first quarter of 1996 (see attached analytical results, report date October 13, 1995). Sample collection was conducted on January 16, 1996, pursuant to the NMOCD Discharge Plan GW-2 requirements. Samples were collected by GCL, our consultant.

Depth to groundwater and product thickness measurements were conducted at all monitor wells. A groundwater level contour map for the January event is provided as an attachment. The average daily pumping rates in gallons per day (gpd) from the remediation system recovery wells for the months of January and February 1996 are as follows: RW-1 (1118 gpd), MW-6 (84 gpd), MW-7 (84 gpd), and MW-10 (880 gpd). Due to the failure of the packer in the injection well (MW-23), injection was discontinued on January 15, 1996, and the packer removed from the well. BTEX concentrations in MW-21 and MW-22 will be monitored semi-annually to determine when injection operations will be resumed, if necessary.

Quarterly groundwater sampling was conducted at five down-gradient wells (MW-11, MW-12, MW-13, MW-19, and MW-20), and at three cross-gradient wells (MW-2, MW-17, and MW-18). To prevent the potential for cross-contamination, the monitoring wells were first purged with a Grundfos Redi-Flow 2 pump. After purging approximately 50 gallons from each sampled well, a dedicated disposable bailer was used to collect the sample for laboratory analysis. All samples were submitted to NDRC Laboratories, Inc., Houston, Texas, following strict chain-of-custody procedures to ensure the integrity of the samples during transport to the laboratory. The groundwater samples from the eight wells were analyzed for dissolved aromatic hydrocarbons using EPA Method 602.

Table 1 summarizes the first quarter 1996 analytical results. A site map of the plant which lists the historical analytical results from January 1992 to present is provided in Plate 1. A discussion of the field data and analytical results is provided below.

- A heavy sheen (< 0.01 ft.) of free-phase floating product was encountered in MW-4 during the January 16, 1996 sampling event. This indicates a continued decrease in floating product thickness in this monitoring well since the May 1995 (0.95 ft.) and August 1995 (0.01 ft.) sampling events.

- MW-5 contained product at a thickness of 4.08 ft on the January 16, 1996 sampling event which is consistent with previous measurements.

- A heavy sheen (< 0.01 ft.) of product was also encountered in MW-15. This is a decrease from the previous sampling event in October 1995 in which a thickness of 0.03 feet was measured. Free-phase floating product was not observed prior to the August 1995 sampling event.

- Analytical results from the laboratory indicate the BTEX concentrations in all down-gradient wells (MW-11, MW-12, MW-13, MW-19, and MW-20), and cross-gradient wells MW-2, MW-17, and MW-18 are below 0.001 mg/l.

- The analytical results for the downgradient wells have been below WQCC standards, and in most cases also below the laboratory detection limits for the last four to eight quarters.

GPM has tentatively scheduled the second quarter sampling event at the Lee Plant to take place in April or May of this year in conjunction with sampling activities at the Linam Ranch Plant and Monument Booster Station. We will notify your office and the OCD Hobbs District Office at least one week prior to conducting the next sampling event. Please call me at (915) 368-1142 if you have any questions.

Sincerely,

Scott Seeby
Environmental Engineer
New Mexico Region

attachments

cc: M.S. Nault, GPM-Linam Ranch Plant, NM
Jerry Sexton, OCD-Hobbs, NM
Gilbert Van Deventer, GCL-Midland, TX

D:\3023\1STQTR96.LTR

ATTACHMENTS

ATTACHMENT A

TABLE 1

TABLE 1

First Quarter Analytical Results - Lee Plant
Samples Obtained on January 16, 1996

	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Xylenes (mg/l)
WQCC Standards	0.010	0.750	0.750	0.620
CROSS-GRADIENT				
MW-2	<0.001	<0.001	<0.001	<0.001
MW-17	<0.001	<0.001	<0.001	<0.001
MW-18	<0.001	<0.001	<0.001	<0.001
DOWN GRADIENT				
MW-11	<0.001	<0.001	<0.001	<0.001
MW-12	<0.001	<0.001	<0.001	<0.001
MW-13	<0.001	<0.001	<0.001	<0.001
MW-19	<0.001	<0.001	<0.001	<0.001
MW-20	<0.001	<0.001	<0.001	<0.001
Detection Limit	0.001	0.001	0.001	0.001
Trip Blank	<0.001	<0.001	<0.001	<0.001
Rinsate #1	<0.001	<0.001	<0.001	<0.001
Rinsate #2	<0.001	<0.001	<0.001	<0.001

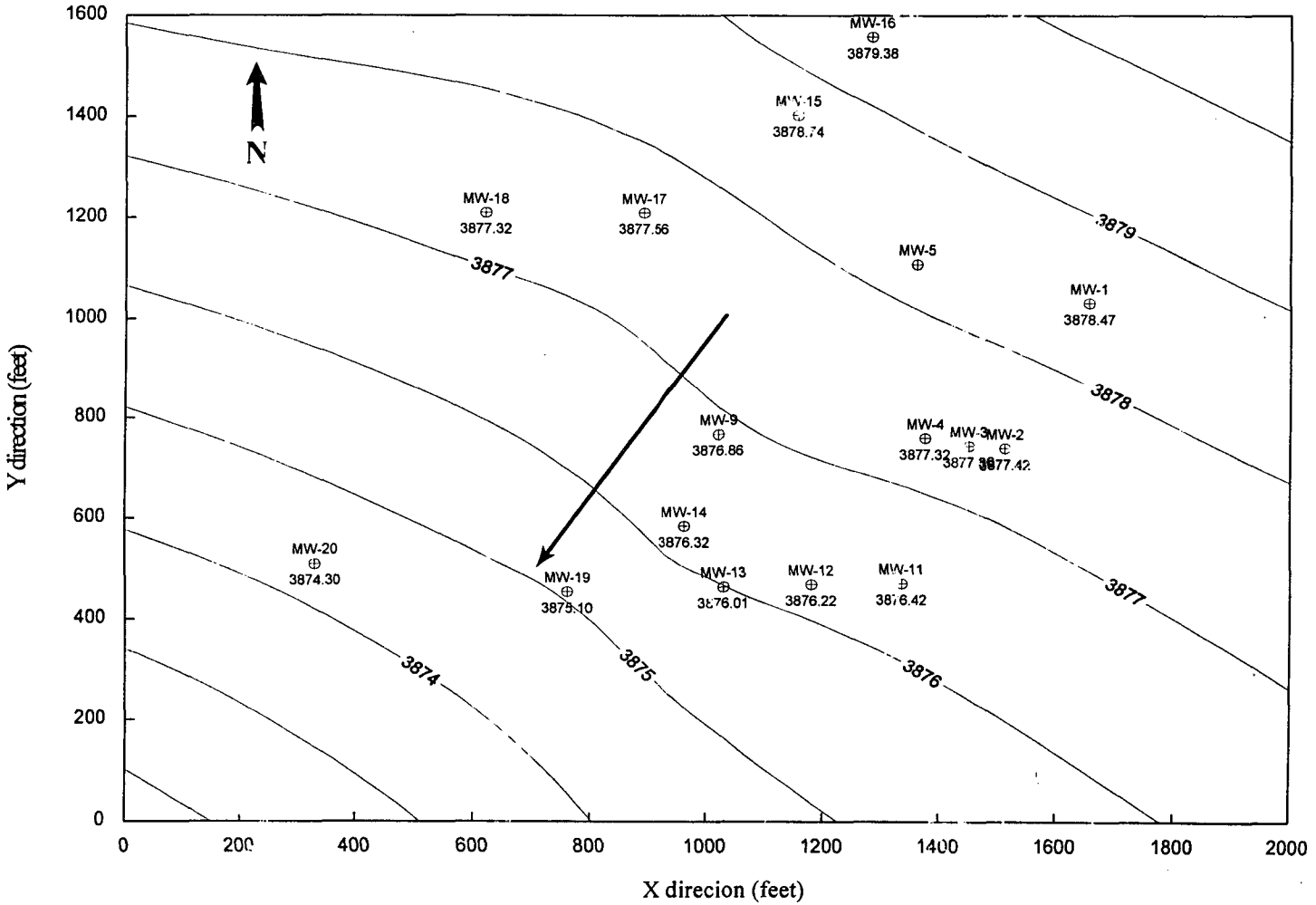
D:\3023\1STQTR96.WQ2:JAN96

ATTACHMENT B

FIGURES

GPM Lee Plant January 1996 Water Level Contour

(Groundwater Elevation in feet AMSL)



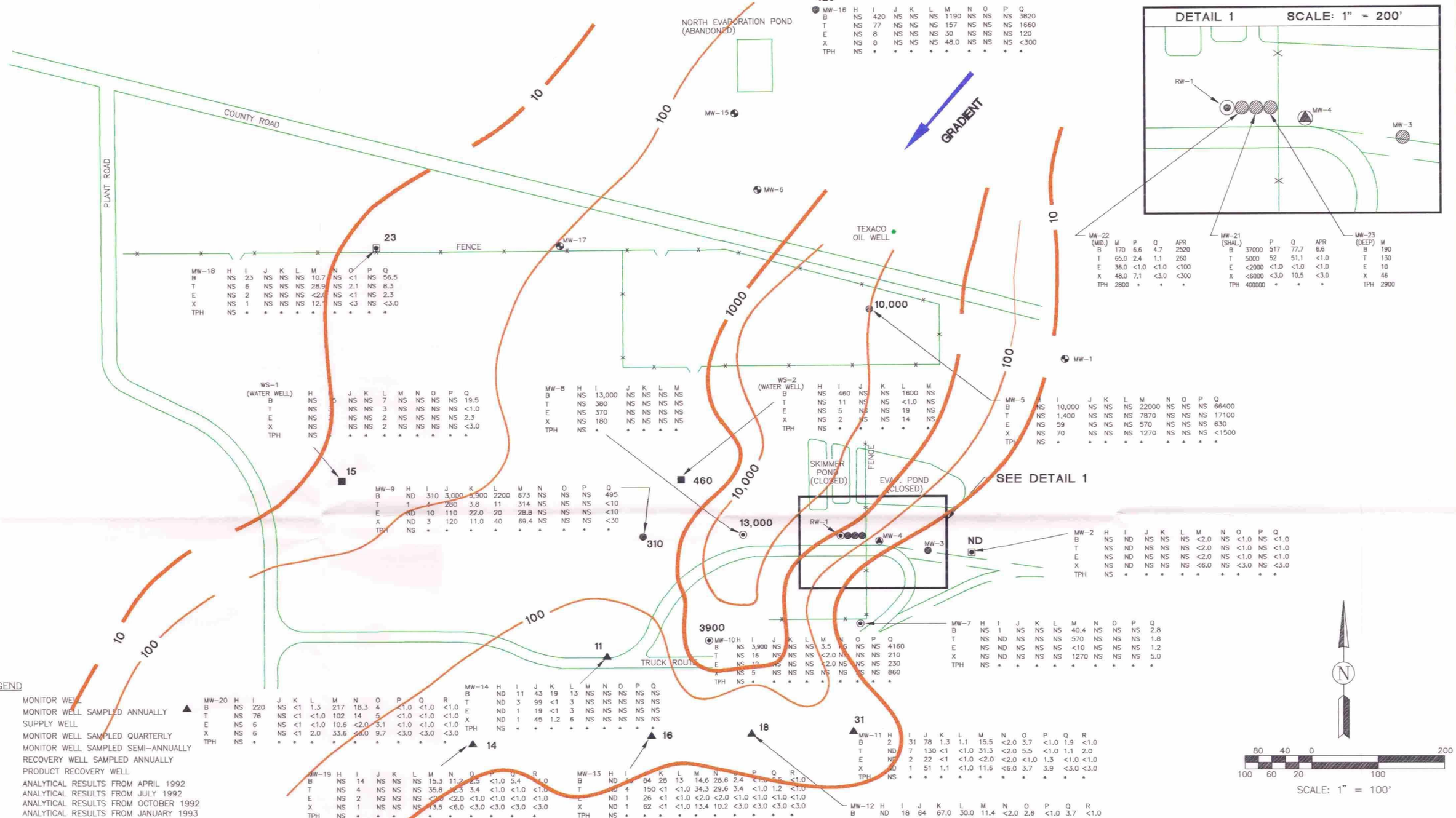
If you have any questions concerning this extension, contact Dave Boyer at (505) 827-5812.

Sincerely,

R. L. STAMETS
Director

RLS/DB/dp

cc: Artesia District Office



DETAIL 1 SCALE: 1" = 200'

MW-18	H	I	J	K	L	M	N	O	P	Q
B	NS	23	NS	NS	NS	10.7	NS	<1	NS	56.5
T	NS	6	NS	NS	NS	28.9	NS	2.1	NS	8.3
E	NS	2	NS	NS	NS	<2.0	NS	<1	NS	2.3
X	NS	1	NS	NS	NS	12.1	NS	<3	NS	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*

MW-16	H	I	J	K	L	M	N	O	P	Q
B	NS	420	NS	NS	NS	1190	NS	NS	NS	3820
T	NS	77	NS	NS	NS	157	NS	NS	NS	1660
E	NS	8	NS	NS	NS	30	NS	NS	NS	120
X	NS	8	NS	NS	NS	48.0	NS	NS	NS	<300
TPH	NS	*	*	*	*	*	*	*	*	*

MW-22 (MID.)	M	P	Q	APR
B	170	6.6	4.7	2520
T	65.0	2.4	1.1	260
E	36.0	<1.0	<1.0	<100
X	48.0	7.1	<3.0	<300
TPH	2800	*	*	*

MW-21 (SHAL.)	P	Q	APR
B	517	77.7	6.6
T	52	51.1	<1.0
E	<1.0	<1.0	<1.0
X	<3.0	10.5	<3.0
TPH	*	*	*

MW-23 (DEEP)	M
B	190
T	130
E	10
X	46
TPH	2900

WS-1 (WATER WELL)	H	J	K	L	M	N	O	P	Q
B	NS	NS	NS	7	NS	NS	NS	NS	19.5
T	NS	NS	NS	3	NS	NS	NS	NS	<1.0
E	NS	NS	NS	2	NS	NS	NS	NS	2.3
X	NS	NS	NS	2	NS	NS	NS	NS	<3.0
TPH	NS	*	*	*	*	*	*	*	*

MW-8	H	I	J	K	L	M
B	NS	13,000	NS	NS	NS	NS
T	NS	380	NS	NS	NS	NS
E	NS	370	NS	NS	NS	NS
X	NS	180	NS	NS	NS	NS
TPH	NS	*	*	*	*	*

WS-2 (WATER WELL)	H	I	J	K	L	M
B	NS	460	NS	NS	1600	NS
T	NS	11	NS	NS	<1.0	NS
E	NS	5	NS	NS	19	NS
X	NS	2	NS	NS	14	NS
TPH	NS	*	*	*	*	*

MW-5	H	I	J	K	L	M	N	O	P	Q
B	NS	10,000	NS	NS	NS	22000	NS	NS	NS	66400
T	NS	1,400	NS	NS	NS	7870	NS	NS	NS	17100
E	NS	59	NS	NS	NS	570	NS	NS	NS	630
X	NS	70	NS	NS	NS	1270	NS	NS	NS	<1500
TPH	NS	*	*	*	*	*	*	*	*	*

MW-9	H	I	J	K	L	M	N	O	P	Q
B	ND	310	3,000	3,900	2200	673	NS	NS	NS	495
T	1	4	280	3.8	11	314	NS	NS	NS	<10
E	ND	10	110	22.0	20	28.8	NS	NS	NS	<10
X	ND	3	120	11.0	40	69.4	NS	NS	NS	<30
TPH	NS	*	*	*	*	*	*	*	*	*

MW-2	H	I	J	K	L	M	N	O	P	Q
B	NS	ND	NS	NS	NS	<2.0	NS	<1.0	NS	<1.0
T	NS	ND	NS	NS	NS	<2.0	NS	<1.0	NS	<1.0
E	NS	ND	NS	NS	NS	<2.0	NS	<1.0	NS	<1.0
X	NS	ND	NS	NS	NS	<6.0	NS	<3.0	NS	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*

MW-10	H	I	J	K	L	M	N	O	P	Q
B	NS	3,900	NS	NS	NS	3.5	NS	NS	NS	4160
T	NS	16	NS	NS	NS	<2.0	NS	NS	NS	210
E	NS	12	NS	NS	NS	<2.0	NS	NS	NS	230
X	NS	5	NS	NS	NS	NS	NS	NS	NS	860
TPH	NS	*	*	*	*	*	*	*	*	*

MW-7	H	I	J	K	L	M	N	O	P	Q
B	NS	1	NS	NS	NS	40.4	NS	NS	NS	2.8
T	NS	ND	NS	NS	NS	570	NS	NS	NS	1.8
E	NS	ND	NS	NS	NS	<10	NS	NS	NS	1.2
X	NS	ND	NS	NS	NS	1270	NS	NS	NS	5.0
TPH	NS	*	*	*	*	*	*	*	*	*

MW-14	H	I	J	K	L	M	N	O	P	Q
B	ND	11	43	19	13	NS	NS	NS	NS	NS
T	ND	3	99	<1	3	NS	NS	NS	NS	NS
E	ND	1	19	<1	3	NS	NS	NS	NS	NS
X	ND	1	45	1.2	6	NS	NS	NS	NS	NS
TPH	NS	*	*	*	*	*	*	*	*	*

MW-13	H	I	J	K	L	M	N	O	P	Q	R
B	ND	5	84	28	13	14.6	28.6	2.4	<1.0	6.5	<1.0
T	ND	4	150	<1	<1.0	34.3	29.6	3.4	<1.0	1.2	<1.0
E	ND	1	26	<1	<1.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0
X	ND	1	62	<1	<1.0	13.4	10.2	<3.0	<3.0	<3.0	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*	*

MW-11	H	I	J	K	L	M	N	O	P	Q	R
B	2	31	78	1.3	1.1	15.5	<2.0	3.7	<1.0	1.9	<1.0
T	ND	7	130	<1	<1.0	31.3	<2.0	5.5	<1.0	1.1	2.0
E	ND	2	22	<1	<1.0	<2.0	<2.0	<1.0	1.3	<1.0	<1.0
X	ND	1	51	1.1	<1.0	11.6	<6.0	3.7	3.9	<3.0	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*	*

MW-12	H	I	J	K	L	M	N	O	P	Q	R
B	ND	18	64	67.0	30.0	11.4	<2.0	2.6	<1.0	3.7	<1.0
T	ND	4	130	1.1	<1.0	29.2	<2.0	4.0	1.6	<1.0	<1.0
E	ND	1	24	<1	<1.0	<2.0	<2.0	<1.0	1.1	<1.0	<1.0
X	ND	1	56	<1	<1.0	12.1	<6.0	<3.0	4.1	<3.0	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*	*

MW-20	H	I	J	K	L	M	N	O	P	Q	R
B	NS	220	NS	<1	1.3	217	18.3	4	<1.0	<1.0	<1.0
T	NS	76	NS	<1	<1.0	102	14	5	<1.0	<1.0	<1.0
E	NS	6	NS	<1	<1.0	10.6	<2.0	3.1	<1.0	<1.0	<1.0
X	NS	6	NS	<1	2.0	33.6	<6.0	9.7	<3.0	<3.0	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*	*

MW-19	H	I	J	K	L	M	N	O	P	Q	R
B	NS	14	NS	NS	NS	15.3	11.2	2.5	<1.0	5.4	1.0
T	NS	4	NS	NS	NS	35.8	12.3	3.4	<1.0	<1.0	<1.0
E	NS	2	NS	NS	NS	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0
X	NS	1	NS	NS	NS	13.5	<6.0	<3.0	<3.0	<3.0	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*	*

LEGEND

- MONITOR WELL
- MONITOR WELL SAMPLED ANNUALLY
- SUPPLY WELL
- MONITOR WELL SAMPLED QUARTERLY
- MONITOR WELL SAMPLED SEMI-ANNUALLY
- RECOVERY WELL SAMPLED ANNUALLY
- PRODUCT RECOVERY WELL

H ANALYTICAL RESULTS FROM APRIL 1992
I ANALYTICAL RESULTS FROM JULY 1992
J ANALYTICAL RESULTS FROM OCTOBER 1992
K ANALYTICAL RESULTS FROM JANUARY 1993
L ANALYTICAL RESULTS FROM APRIL 1993
M ANALYTICAL RESULTS FROM JULY 1993
N ANALYTICAL RESULTS FROM OCTOBER 1993
NA NOT AVAILABLE
ND NO DETECTION
NS NOT SAMPLED
NI NOT INSTALLED AT THE DATE OF SAMPLING
O ANALYTICAL RESULTS FROM JANUARY 1994
P ANALYTICAL RESULTS FROM MAY 1994
Q ANALYTICAL RESULTS FROM JULY 1994
R ANALYTICAL RESULTS FROM OCTOBER 1994
B BENZENE
T TOLUENE
E ETHYLBENZENE
X TOTAL XYLENES
APR ANALYTICAL RESULTS FOR APRIL 1994
TPH TOTAL PETROLEUM HYDROCARBONS.
mg/l MILLIGRAMS PER LITER
* SAMPLING FOR TPH DISCONTINUED

NOTE: CONCENTRATIONS IN MICROGRAMS PER LITER UNLESS OTHERWISE STATED.
WELLS CONTAINING SEPERATE-PHASE HYDROCARBONS ARE NOT SAMPLED.

NOTE: BOLDED NUMBERS SUGGEST DATA POINTS USED IN CONTOURING.

N

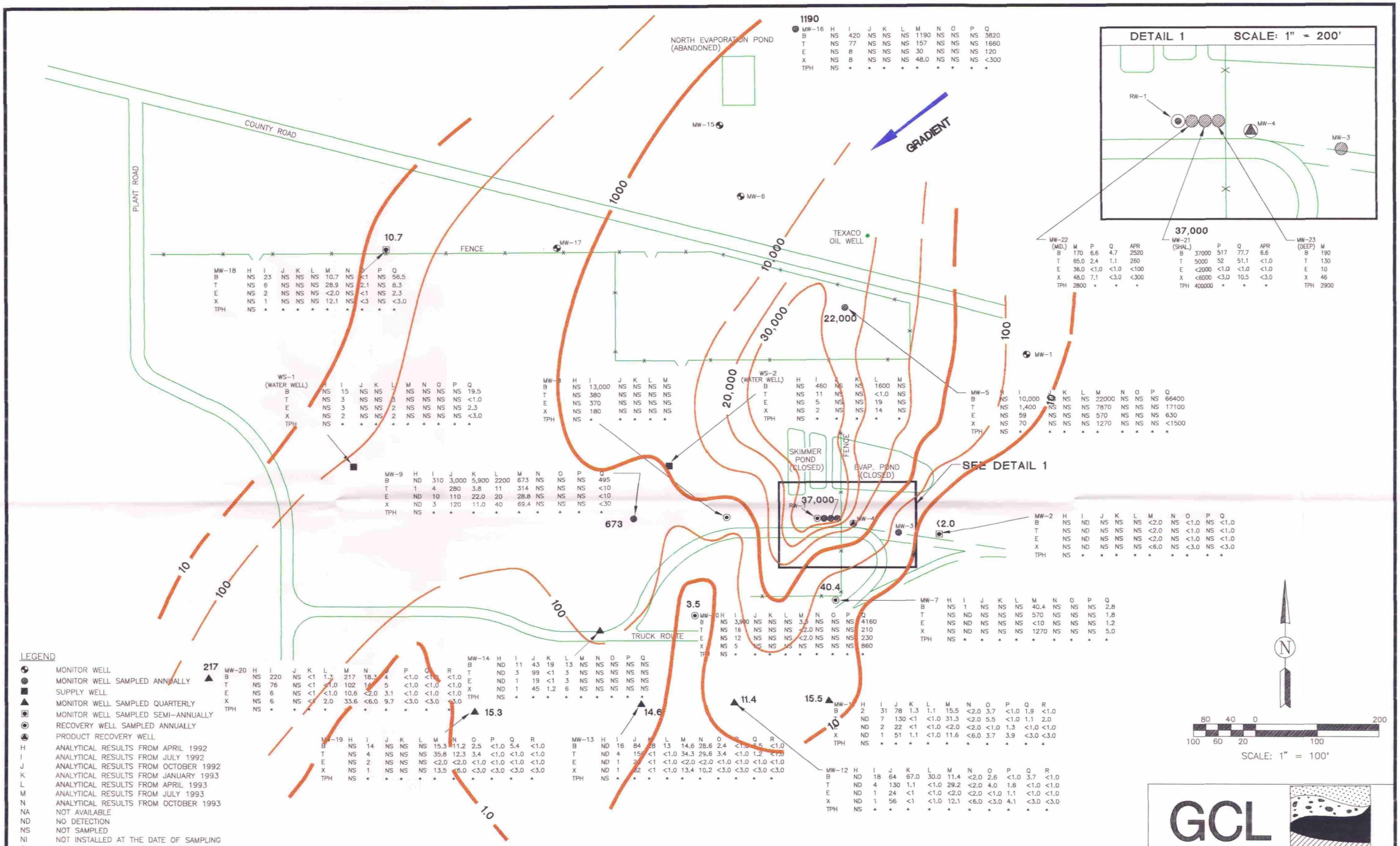
80 40 0 200
100 60 20 100
SCALE: 1" = 100'

GCL

PLATE 1

JULY 1992 CONTOUR MAP
of BENZENE CONCENTRATIONS (ppb)

CLIENT: GPM GAS CORP.
DATE: DECEMBER 1994
CHECKED BY: M. GANNON
DRAWN BY: M.P.
DWG. NO. BTEXTV4.DWG



DETAIL 1 SCALE: 1" = 200'

MW-16	H	I	J	K	L	M	N	O	P	Q
B	NS	420	NS	NS	NS	1190	NS	NS	NS	3820
T	NS	77	NS	NS	NS	157	NS	NS	NS	1660
E	NS	8	NS	NS	NS	30	NS	NS	NS	120
X	NS	8	NS	NS	NS	48.0	NS	NS	NS	<300
TPH	NS	*	*	*	*	*	*	*	*	*

MW-18	H	I	J	K	L	M	N	O	P	Q
B	NS	23	NS	NS	NS	10.7	NS	<1	NS	56.5
T	NS	6	NS	NS	NS	28.9	NS	2.1	NS	8.3
E	NS	2	NS	NS	NS	<2.0	NS	<1	NS	2.3
X	NS	1	NS	NS	NS	12.1	NS	<3	NS	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*

WS-1 (WATER WELL)	H	I	J	K	L	M	N	O	P	Q
B	NS	15	NS	NS	7	NS	NS	NS	NS	19.5
T	NS	3	NS	NS	3	NS	NS	NS	NS	<1.0
E	NS	3	NS	NS	2	NS	NS	NS	NS	2.3
X	NS	2	NS	NS	2	NS	NS	NS	NS	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*

MW-8	H	I	J	K	L	M
B	NS	13,000	NS	NS	NS	NS
T	NS	380	NS	NS	NS	NS
E	NS	370	NS	NS	NS	NS
X	NS	180	NS	NS	NS	NS
TPH	NS	*	*	*	*	*

WS-2 (WATER WELL)	H	I	J	K	L	M
B	NS	460	NS	NS	1600	NS
T	NS	11	NS	NS	<1.0	NS
E	NS	5	NS	NS	19	NS
X	NS	2	NS	NS	14	NS
TPH	NS	*	*	*	*	*

MW-5	H	I	J	K	L	M	N	O	P	Q
B	NS	10,000	NS	NS	NS	22000	NS	NS	NS	66400
T	NS	1,400	NS	NS	NS	7870	NS	NS	NS	17100
E	NS	59	NS	NS	NS	570	NS	NS	NS	630
X	NS	70	NS	NS	NS	1270	NS	NS	NS	<1500
TPH	NS	*	*	*	*	*	*	*	*	*

MW-9	H	I	J	K	L	M	N	O	P	Q
B	ND	310	3,000	5,900	2200	673	NS	NS	NS	495
T	1	4	280	3.8	11	314	NS	NS	NS	<10
E	ND	10	110	22.0	20	28.8	NS	NS	NS	<10
X	ND	3	120	11.0	40	69.4	NS	NS	NS	<30
TPH	NS	*	*	*	*	*	*	*	*	*

MW-2	H	I	J	K	L	M	N	O	P	Q
B	NS	ND	NS	NS	NS	<2.0	NS	<1.0	NS	<1.0
T	NS	ND	NS	NS	NS	<2.0	NS	<1.0	NS	<1.0
E	NS	ND	NS	NS	NS	<2.0	NS	<1.0	NS	<1.0
X	NS	ND	NS	NS	NS	<6.0	NS	<3.0	NS	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*

MW-10	H	I	J	K	L	M	N	O	P	Q
B	NS	3,900	NS	NS	NS	3.5	NS	NS	NS	4160
T	NS	16	NS	NS	NS	<2.0	NS	NS	NS	210
E	NS	12	NS	NS	NS	<2.0	NS	NS	NS	230
X	NS	5	NS	NS	NS	NS	NS	NS	NS	860
TPH	NS	*	*	*	*	*	*	*	*	*

MW-7	H	I	J	K	L	M	N	O	P	Q
B	NS	1	NS	NS	NS	40.4	NS	NS	NS	2.8
T	NS	ND	NS	NS	NS	570	NS	NS	NS	1.8
E	NS	ND	NS	NS	NS	<10	NS	NS	NS	1.2
X	NS	ND	NS	NS	NS	1270	NS	NS	NS	5.0
TPH	NS	*	*	*	*	*	*	*	*	*

MW-20	H	I	J	K	L	M	N	O	P	Q	R
B	NS	220	NS	<1	1.3	217	18.3	4	<1.0	<1.0	<1.0
T	NS	76	NS	<1	<1.0	102	14	5	<1.0	<1.0	<1.0
E	NS	6	NS	<1	<1.0	10.6	<2.0	3.1	<1.0	<1.0	<1.0
X	NS	6	NS	<1	2.0	33.6	<6.0	9.7	<3.0	<3.0	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*	*

MW-14	H	I	J	K	L	M	N	O	P	Q
B	ND	11	43	19	13	NS	NS	NS	NS	NS
T	ND	3	99	<1	3	NS	NS	NS	NS	NS
E	ND	1	19	<1	3	NS	NS	NS	NS	NS
X	ND	1	45	1.2	6	NS	NS	NS	NS	NS
TPH	NS	*	*	*	*	*	*	*	*	*

MW-19	H	I	J	K	L	M	N	O	P	Q	R
B	NS	14	NS	NS	NS	15.3	11.2	2.5	<1.0	5.4	<1.0
T	NS	4	NS	NS	NS	35.8	12.3	3.4	<1.0	<1.0	<1.0
E	NS	2	NS	NS	NS	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0
X	NS	1	NS	NS	NS	13.5	<6.0	<3.0	<3.0	<3.0	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*	*

MW-13	H	I	J	K	L	M	N	O	P	Q	R
B	ND	16	84	28	13	14.6	28.6	2.4	<1.0	5.5	<1.0
T	ND	4	15	<1	<1.0	34.3	29.6	3.4	<1.0	1.2	<1.0
E	ND	1	2	<1	<1.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0
X	ND	1	12	<1	<1.0	13.4	10.2	<3.0	<3.0	<3.0	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*	*

MW-12	H	I	J	K	L	M	N	O	P	Q	R
B	ND	18	64	67.0	30.0	11.4	<2.0	2.6	<1.0	3.7	<1.0
T	ND	4	130	1.1	<1.0	29.2	<2.0	4.0	1.6	<1.0	<1.0
E	ND	1	24	<1	<1.0	<2.0	<2.0	<1.0	1.1	<1.0	<1.0
X	ND	1	56	<1	<1.0	12.1	<6.0	<3.0	4.1	<3.0	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*	*

MW-11	H	I	J	K	L	M	N	O	P	Q	R
B	2	31	78	1.3	1.1	15.5	<2.0	3.7	<1.0	1.9	<1.0
T	ND	7	130	<1	<1.0	31.3	<2.0	5.5	<1.0	1.1	2.0
E	ND	2	22	<1	<1.0	<2.0	<2.0	<1.0	1.3	<1.0	<1.0
X	ND	1	51	1.1	<1.0	11.6	<6.0	3.7	3.9	<3.0	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*	*

MW-21 (SHAL.)		P	Q	APR
B	37000	517	77.7	6.6
T	5000	52	51.1	<1.0
E	<2000	<1.0	<1.0	<1.0
X	<6000	<3.0	10.5	<3.0
TPH	400000	*	*	*

MW-22 (MID.)	M	P	Q	APR
B	170	6.6	4.7	2520
T	65.0	2.4	1.1	260
E	36.0	<1.0	<1.0	<100
X	48.0	7.1	<3.0	<300
TPH	2800	*	*	*

MW-23 (DEEP)	M
B	190
T	130
E	10
X	46
TPH	2900

LEGEND

- MONITOR WELL
- MONITOR WELL SAMPLED ANNUALLY
- SUPPLY WELL
- MONITOR WELL SAMPLED QUARTERLY
- MONITOR WELL SAMPLED SEMI-ANNUALLY
- RECOVERY WELL SAMPLED ANNUALLY
- PRODUCT RECOVERY WELL

H ANALYTICAL RESULTS FROM APRIL 1992
I ANALYTICAL RESULTS FROM JULY 1992
J ANALYTICAL RESULTS FROM OCTOBER 1992
K ANALYTICAL RESULTS FROM JANUARY 1993
L ANALYTICAL RESULTS FROM APRIL 1993
M ANALYTICAL RESULTS FROM JULY 1993
N ANALYTICAL RESULTS FROM OCTOBER 1993
NA NOT AVAILABLE
ND NO DETECTION
NS NOT SAMPLED
NI NOT INSTALLED AT THE DATE OF SAMPLING
O ANALYTICAL RESULTS FROM JANUARY 1994
P ANALYTICAL RESULTS FROM MAY 1994
Q ANALYTICAL RESULTS FROM JULY 1994
R ANALYTICAL RESULTS FROM OCTOBER 1994
B BENZENE
T TOLUENE
E ETHYLBENZENE
X TOTAL XYLENES
APR ANALYTICAL RESULTS FOR APRIL 1994
TPH TOTAL PETROLEUM HYDROCARBONS.
mg/l MILLIGRAMS PER LITER
* SAMPLING FOR TPH DISCONTINUED

NOTE: CONCENTRATIONS IN MICROGRAMS PER LITER UNLESS OTHERWISE STATED.
WELLS CONTAINING SEPERATE-PHASE HYDROCARBONS ARE NOT SAMPLED.

NOTE: BOLDED NUMBERS SUGGEST DATA POINTS USED IN CONTOURING.

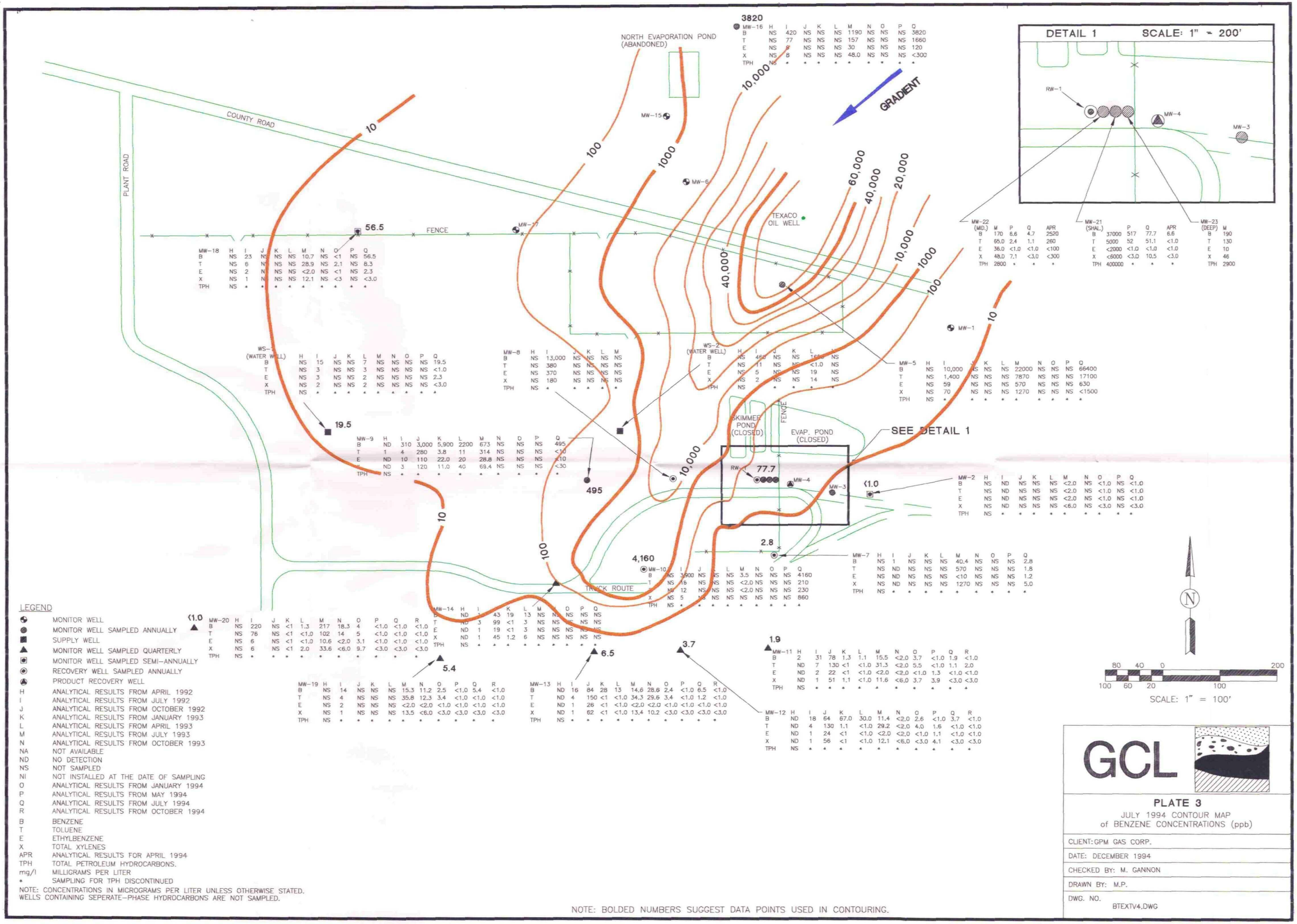
N

80 40 0 200
100 60 20 100
SCALE: 1" = 100'

GCL

PLATE 2
JULY 1993 CONTOUR MAP
of BENZENE CONCENTRATIONS (ppb)

CLIENT: GPM GAS CORP.
DATE: DECEMBER 1994
CHECKED BY: M. GANNON
DRAWN BY: M.P.
DWG. NO. BTEXTV4.DWG



MW-16	H	I	J	K	L	M	N	O	P	Q
B	NS	420	NS	NS	NS	1190	NS	NS	NS	3820
T	NS	77	NS	NS	NS	157	NS	NS	NS	1660
E	NS	8	NS	NS	NS	30	NS	NS	NS	120
X	NS	8	NS	NS	NS	48.0	NS	NS	NS	<300
TPH	NS	*	*	*	*	*	*	*	*	*

MW-18	H	I	J	K	L	M	N	O	P	Q
B	NS	23	NS	NS	NS	10.7	NS	<1	NS	56.5
T	NS	6	NS	NS	NS	28.9	NS	2.1	NS	8.3
E	NS	2	NS	NS	NS	<2.0	NS	<1	NS	2.3
X	NS	1	NS	NS	NS	12.1	NS	<3	NS	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*

MW-22 (MID.)	M	P	Q	APR
B	170	6.6	4.7	2520
T	65.0	2.4	1.1	260
E	36.0	<1.0	<1.0	<100
X	48.0	7.1	<3.0	<300
TPH	2800	*	*	*

MW-21 (SHAL.)	P	Q	APR
B	37000	517	77.7	6.6
T	5000	52	51.1	<1.0
E	<2000	<1.0	<1.0	<1.0
X	<6000	<3.0	10.5	<3.0
TPH	400000	*	*	*

MW-23 (DEEP)	M
B	190
T	130
E	10
X	46
TPH	2900

WS-3 (WATER WELL)	H	I	J	K	L	M	N	O	P	Q
B	NS	15	NS	NS	7	NS	NS	NS	NS	19.5
T	NS	3	NS	NS	3	NS	NS	NS	NS	<1.0
E	NS	3	NS	NS	2	NS	NS	NS	NS	2.3
X	NS	2	NS	NS	2	NS	NS	NS	NS	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*

MW-8	H	I	J	K	L	M
B	NS	13,000	NS	NS	NS	NS
T	NS	380	NS	NS	NS	NS
E	NS	370	NS	NS	NS	NS
X	NS	180	NS	NS	NS	NS
TPH	NS	*	*	*	*	*

WS-2 (WATER WELL)	H	I	J	K	L	M
B	NS	460	NS	NS	160	NS
T	NS	11	NS	NS	<1.0	NS
E	NS	5	NS	NS	19	NS
X	NS	2	NS	NS	14	NS
TPH	NS		*	*	*	*

MW-5	H	I	J	K	L	M	N	O	P	Q
B	NS	10,000	NS	NS	NS	22000	NS	NS	NS	66400
T	NS	1,400	NS	NS	NS	7870	NS	NS	NS	17100
E	NS	59	NS	NS	NS	570	NS	NS	NS	630
X	NS	70	NS	NS	NS	1270	NS	NS	NS	<1500
TPH	NS	*	*	*	*	*	*	*	*	*

MW-9	H	I	J	K	L	M	N	O	P	Q
B	ND	310	3,000	5,900	2200	673	NS	NS	NS	495
T	1	4	280	3.8	11	314	NS	NS	NS	<10
E	ND	10	110	22.0	20	28.8	NS	NS	NS	<10
X	ND	3	120	11.0	40	69.4	NS	NS	NS	<30
TPH	NS	*	*	*	*	*	*	*	*	*

MW-2	H	I	J	K	L	M	N	O	P	Q
B	NS	ND	NS	NS	NS	<2.0	NS	<1.0	NS	<1.0
T	NS	ND	NS	NS	NS	<2.0	NS	<1.0	NS	<1.0
E	NS	ND	NS	NS	NS	<2.0	NS	<1.0	NS	<1.0
X	NS	ND	NS	NS	NS	<6.0	NS	<3.0	NS	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*

MW-10	I	J	K	L	M	N	O	P	Q
B	3,900	NS	NS	NS	3.5	NS	NS	NS	4160
T	16	NS	NS	NS	<2.0	NS	NS	NS	210
E	12	NS	NS	NS	<2.0	NS	NS	NS	230
X	5	NS	NS	NS	NS	NS	NS	NS	860
TPH	*	*	*	*	*	*	*	*	*

MW-7	H	I	J	K	L	M	N	O	P	Q
B	NS	1	NS	NS	NS	40.4	NS	NS	NS	2.8
T	NS	ND	NS	NS	NS	570	NS	NS	NS	1.8
E	NS	ND	NS	NS	NS	<10	NS	NS	NS	1.2
X	NS	ND	NS	NS	NS	1270	NS	NS	NS	5.0
TPH	NS	*	*	*	*	*	*	*	*	*

MW-14	H	I	J	K	L	M	N	O	P	Q
B	ND	1	43	19	13	NS	NS	NS	NS	NS
T	ND	3	99	<1	3	NS	NS	NS	NS	NS
E	ND	1	19	<1	3	NS	NS	NS	NS	NS
X	ND	1	45	1.2	6	NS	NS	NS	NS	NS
TPH	NS	*	*	*	*	*	*	*	*	*

MW-20	H	I	J	K	L	M	N	O	P	Q	R
B	NS	220	NS	<1	1.3	217	18.3	4	<1.0	<1.0	<1.0
T	NS	76	NS	<1	<1.0	102	14	5	<1.0	<1.0	<1.0
E	NS	6	NS	<1	<1.0	10.6	<2.0	3.1	<1.0	<1.0	<1.0
X	NS	6	NS	<1	2.0	33.6	<6.0	9.7	<3.0	<3.0	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*	*

MW-19	H	I	J	K	L	M	N	O	P	Q	R
B	NS	14	NS	NS	NS	15.3	11.2	2.5	<1.0	5.4	<1.0
T	NS	4	NS	NS	NS	35.8	12.3	3.4	<1.0	<1.0	<1.0
E	NS	2	NS	NS	NS	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0
X	NS	1	NS	NS	NS	13.5	<6.0	<3.0	<3.0	<3.0	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*	*

MW-13	H	I	J	K	L	M	N	O	P	Q	R
B	ND	16	84	28	13	14.6	28.6	2.4	<1.0	6.5	<1.0
T	ND	4	150	<1	<1.0	34.3	29.6	3.4	<1.0	1.2	<1.0
E	ND	1	26	<1	<1.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0
X	ND	1	62	<1	<1.0	13.4	10.2	<3.0	<3.0	<3.0	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*	*

MW-11	H	I	J	K	L	M	N	O	P	Q	R
B	2	31	78	1.3	1.1	15.5	<2.0	3.7	<1.0	1.9	<1.0
T	ND	7	130	<1	<1.0	31.3	<2.0	5.5	<1.0	1.1	2.0
E	ND	2	22	<1	<1.0	<2.0	<2.0	<1.0	1.3	<1.0	<1.0
X	ND	1	51	1.1	<1.0	11.6	<6.0	3.7	3.9	<3.0	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*	*

MW-12	H	I	J	K	L	M	N	O	P	Q	R
B	ND	18	64	67.0	30.0	11.4	<2.0	2.6	<1.0	3.7	<1.0
T	ND	4	130	1.1	<1.0	29.2	<2.0	4.0	1.6	<1.0	<1.0
E	ND	1	24	<1	<1.0	<2.0	<2.0	<1.0	1.1	<1.0	<1.0
X	ND	1	56	<1	<1.0	12.1	<6.0	<3.0	4.1	<3.0	<3.0
TPH	NS	*	*	*	*	*	*	*	*	*	*

LEGEND

- MONITOR WELL
- MONITOR WELL SAMPLED ANNUALLY
- SUPPLY WELL
- MONITOR WELL SAMPLED QUARTERLY
- MONITOR WELL SAMPLED SEMI-ANNUALLY
- RECOVERY WELL SAMPLED ANNUALLY
- PRODUCT RECOVERY WELL
- H ANALYTICAL RESULTS FROM APRIL 1992
- I ANALYTICAL RESULTS FROM JULY 1992
- J ANALYTICAL RESULTS FROM OCTOBER 1992
- K ANALYTICAL RESULTS FROM JANUARY 1993
- L ANALYTICAL RESULTS FROM APRIL 1993
- M ANALYTICAL RESULTS FROM JULY 1993
- N ANALYTICAL RESULTS FROM OCTOBER 1993
- NA NOT AVAILABLE
- ND NO DETECTION
- NS NOT SAMPLED
- NI NOT INSTALLED AT THE DATE OF SAMPLING
- O ANALYTICAL RESULTS FROM JANUARY 1994
- P ANALYTICAL RESULTS FROM MAY 1994
- Q ANALYTICAL RESULTS FROM JULY 1994
- R ANALYTICAL RESULTS FROM OCTOBER 1994
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X TOTAL XYLENES
- APR ANALYTICAL RESULTS FOR APRIL 1994
- TPH TOTAL PETROLEUM HYDROCARBONS.
- mg/l MILLIGRAMS PER LITER
- * SAMPLING FOR TPH DISCONTINUED

NOTE: CONCENTRATIONS IN MICROGRAMS PER LITER UNLESS OTHERWISE STATED.
WELLS CONTAINING SEPERATE-PHASE HYDROCARBONS ARE NOT SAMPLED.

NOTE: BOLDED NUMBERS SUGGEST DATA POINTS USED IN CONTOURING.

GCL

PLATE 3

JULY 1994 CONTOUR MAP
of BENZENE CONCENTRATIONS (ppb)

CLIENT: GPM GAS CORP.

DATE: DECEMBER 1994

CHECKED BY: M. GANNON

DRAWN BY: M.P.

DWG. NO. BTEXTV4.DWG

GPM GAS SERVICES COMPANY
A DIVISION OF PHILLIPS PETROLEUM COMPANY

December 29, 1995

Mr. William Olson
Hydrogeologist
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco
State Land Office Building
Santa Fe, New Mexico 87505

RE: FOURTH QUARTER 1995 ANALYTICAL RESULTS
LEE PLANT, DISCHARGE PLAN GW-2
LEA COUNTY, NEW MEXICO

Dear Mr. Olson:

GPM Gas Corporation (GPM) herein submits the laboratory analytical reports for groundwater sampling at our Lee Plant for the fourth quarter of 1995 (see attached analytical results, report date October 13, 1995). Sample collection was conducted on October 10, 1995, pursuant to the NMOCD Discharge Plan GW-2 requirements. Samples were collected by GCL, our consultant.

Depth to groundwater and product thickness measurements were conducted at all monitor wells. A groundwater level contour map for the October event is provided as an attachment. The average daily pumping rates in gallons per day (gpd) from the remediation system recovery wells for the fourth quarter of 1995 are as follows: RW-1 (1407 gpd), MW-6 (144 gpd), MW-7 (441 gpd), and MW-10 (879 gpd).

Quarterly groundwater sampling was conducted at five down-gradient wells (MW-11, MW-12, MW-13, MW-19, and MW-20), and at two wells (MW-21 and MW-22) located adjacent to recovery well RW-1 near the source area. To prevent the potential for cross-contamination, the monitoring wells were first purged with a Grundfos Redi-Flow 2 pump. After purging approximately 50 gallons from each sampled well, a dedicated disposable bailer was used to collect the sample for laboratory analysis. In addition, downgradient wells were sampled prior to sampling upgradient and cross-gradient wells. All samples were submitted to NDRC Laboratories, Inc., Houston, Texas, following strict chain-of-custody procedures to ensure the integrity of the samples during transport to the laboratory. The groundwater samples from the seven wells were analyzed for dissolved aromatic hydrocarbons using EPA Method 602.

Table 1 summarizes the fourth quarter 1995 analytical results. A site map of the plant which lists the historical analytical results from January 1992 to present is provided in Plate 1. A discussion of the field data and analytical results is provided below.

- A heavy sheen (< 0.01 ft.) of product was encountered in MW-4 indicating a continued decrease from the May 1995 (0.95 ft.) and August 1995 (0.01 ft.) sampling events.

- MW-5 contained product at a thickness of 4.06 ft on the day of the October sampling which is consistent with previous measurements.

- Free-phase floating product was also encountered in MW-15 at a thickness of 0.03 ft. Free-phase floating product was not observed prior to the August 1995 sampling event.

- Analytical results from the laboratory indicate the BTEX concentrations in all down-gradient wells, MW-11, MW-12, MW-13, MW-19, and MW-20, are below the laboratory detection limits (< 0.001 mg/l).

- Analytical results for samples from wells MW-21 and MW-22 indicate a continued significant decrease in BTEX concentrations since July 1993. The BTEX levels are below the laboratory detection limits for each constituent with the exception of a 0.0915 mg/l concentration for benzene in MW-21.

GPM will conduct the fourth quarter sampling event at the Lee Plant in January of this year. At that time, we will continue to monitor the free-phase product in MW-4, MW-5, and MW-15. Please call me at (915) 368-1085 if you have any questions.

Sincerely,

Scott Seeby
Environmental Analyst
Safety and Environmental Group

attachments

cc: M.S. Nault, GPM-Linam Ranch Plant, NM
Jerry Sexton, OCD-Hobbs, NM
Gilbert Van Deventer, GCL-Midland, TX

3023\LEE\4THQTR95.LTR

ATTACHMENTS

ATTACHMENT A

TABLE 1

TABLE 1

Fourth Quarter Analytical Results: Lee Plant

October 10, 1995

	Benzene mg/l	Toluene mg/l	Ethylbenzene mg/l	Xylenes mg/l
WQCC Standards	**0.010**	**0.750**	**0.750**	**0.620**
DOWN GRADIENT				
MW-11	<0.0010	<0.0010	<0.0010	<0.0010
MW-12	<0.0010	<0.0010	<0.0010	<0.0010
MW-13	<0.0010	<0.0010	<0.0010	<0.0010
MW-19	<0.0010	<0.0010	<0.0010	<0.0010
Duplicate MW-19	<0.0010	<0.0010	<0.0010	<0.0010
MW-20	<0.0010	<0.0010	<0.0010	<0.0010
Trip Blank	<0.0010	<0.0010	<0.0010	<0.0010
REMEDIATION SYSTEM				
MW-21	**0.0915**	<0.0010	<0.0010	<0.0010
MW-22	<0.0010	<0.0010	<0.0010	<0.0010

Values shown in bold are above WQCC Standards

Well screen for MW-21 (shallow) located within upper 10 feet of aquifer (95 to 115 feet bgs).

Well screen for MW-22 located from 30 to 35 feet below top of aquifer (135 to 140 feet bgs).

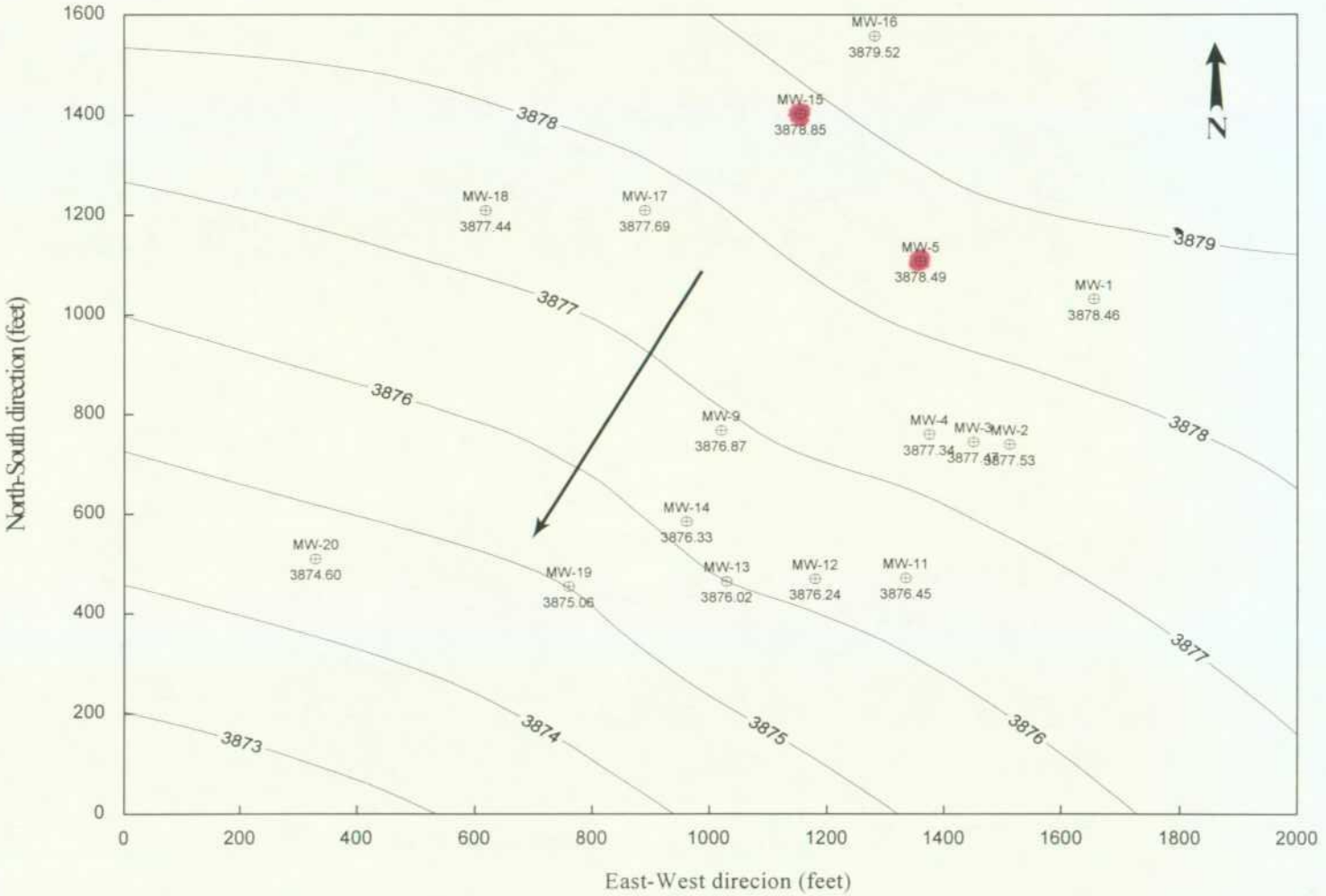
G:\3023\LEE\4THDQRT95.WQ2

ATTACHMENT B

FIGURES

GPM Lee Plant October 1995 Water Level Contour

(Groundwater Elevation in feet AMSL)



ATTACHMENT C

LABORATORY ANALYTICAL REPORTS

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

DATE RECEIVED : 12-OCT-1995

REPORT NUMBER : D95-9975
REPORT DATE : 13-OCT-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : David Nee
PROJECT : GPM

Included in this data package are the analytical results for the sample group which you have submitted to Inchcape Testing Services for analysis.

The information contained herein has undergone extensive review and is deemed accurate and complete. Sample analysis and quality control were performed in accordance with all applicable protocols. Any deviations from these protocols or observations of interest are detailed in an accompanying Case Narrative.

If you have any questions regarding this report and its associated materials please call your Project Manager at (214) 238-5591.

We appreciate the opportunity to serve you and look forward to providing continued service in the future.

Martin Jeffus
General Manager

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

DATE RECEIVED : 12-OCT-1995

REPORT NUMBER : D95-9975-1
REPORT DATE : 13-OCT-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : David Nee

SAMPLE MATRIX : Liquid
ID MARKS : 9510100930 MW-19
PROJECT : GPM
DATE SAMPLED : 11-OCT-1995
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 13-OCT-1995
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 30-101295A

BTEX ANALYSIS			
TEST REQUESTED	DETECTION LIMIT	RESULTS	
Benzene	1.0 µg/L	< 1.0 µg/L	
Toluene	1.0 µg/L	< 1.0 µg/L	
Ethyl benzene	1.0 µg/L	< 1.0 µg/L	
Xylenes	1.0 µg/L	< 1.0 µg/L	
BTEX (total)		< 1.0 µg/L	#

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	101 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

DATE RECEIVED : 12-OCT-1995

REPORT NUMBER : D95-9975-2
REPORT DATE : 13-OCT-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : David Nee

SAMPLE MATRIX : Liquid
ID MARKS : 9510100950 MW-19A
PROJECT : GPM
DATE SAMPLED : 11-OCT-1995
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 12-OCT-1995
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 30-101295A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	102 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

DATE RECEIVED : 12-OCT-1995

REPORT NUMBER : D95-9975-3
REPORT DATE : 13-OCT-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : David Nee

SAMPLE MATRIX : Liquid
ID MARKS : 9510101100 MW-20
PROJECT : GPM
DATE SAMPLED : 11-OCT-1995
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 12-OCT-1995
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 30-101295A

BTEX ANALYSIS			
TEST REQUESTED	DETECTION LIMIT	RESULTS	
Benzene	1.0 µg/L	< 1.0 µg/L	
Toluene	1.0 µg/L	< 1.0 µg/L	
Ethyl benzene	1.0 µg/L	< 1.0 µg/L	
Xylenes	1.0 µg/L	< 1.0 µg/L	
BTEX (total)		< 1.0 µg/L	#

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	101 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

DATE RECEIVED : 12-OCT-1995

REPORT NUMBER : D95-9975-4
REPORT DATE : 13-OCT-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : David Nee

SAMPLE MATRIX : Liquid
ID MARKS : 9510101110 MW-22
PROJECT : GPM
DATE SAMPLED : 11-OCT-1995
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 12-OCT-1995
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 30-101295A

BTEX ANALYSIS			
TEST REQUESTED	DETECTION LIMIT	RESULTS	
Benzene	1.0 µg/L	< 1.0 µg/L	
Toluene	1.0 µg/L	< 1.0 µg/L	
Ethyl benzene	1.0 µg/L	< 1.0 µg/L	
Xylenes	1.0 µg/L	< 1.0 µg/L	
BTEX (total)		< 1.0 µg/L	#

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	101 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

DATE RECEIVED : 12-OCT-1995

REPORT NUMBER : D95-9975-5
REPORT DATE : 13-OCT-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : David Nee

SAMPLE MATRIX : Liquid
ID MARKS : 9510101120 MW-21
PROJECT : GPM
DATE SAMPLED : 11-OCT-1995
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 12-OCT-1995
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 30-101295A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	91.5 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		91.5 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	92.8 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

DATE RECEIVED : 12-OCT-1995

REPORT NUMBER : D95-9975-6
REPORT DATE : 13-OCT-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : David Nee

SAMPLE MATRIX : Liquid
ID MARKS : 9510101200 MW-11
PROJECT : GPM
DATE SAMPLED : 11-OCT-1995
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 12-OCT-1995
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 30-101295A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	101 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

DATE RECEIVED : 12-OCT-1995

REPORT NUMBER : D95-9975-7
REPORT DATE : 13-OCT-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : David Nee

SAMPLE MATRIX : Liquid
ID MARKS : 9510101245 MW-12
PROJECT : GPM
DATE SAMPLED : 11-OCT-1995
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 12-OCT-1995
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 30-101295A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	101 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

DATE RECEIVED : 12-OCT-1995

REPORT NUMBER : D95-9975-8
REPORT DATE : 13-OCT-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : David Nee

SAMPLE MATRIX : Liquid
ID MARKS : 9510101345 MW-13
PROJECT : GPM
DATE SAMPLED : 11-OCT-1995
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 13-OCT-1995
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 30-101295A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	99.9 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

DATE RECEIVED : 12-OCT-1995

REPORT NUMBER : D95-9975-9
REPORT DATE : 13-OCT-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW Suite 1100
: Albuquerque, NM 87102
ATTENTION : David Nee

SAMPLE MATRIX : Liquid
ID MARKS : 9510101255 Trip Blanks
PROJECT : GPM
DATE SAMPLED : 11-OCT-1995
ANALYSIS METHOD : EPA 8020 /1
ANALYZED BY : VHT
ANALYZED ON : 12-OCT-1995
DILUTION FACTOR : 1
METHOD FACTOR : 1
QC BATCH NO : 30-101295A

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene	50.0 µg/L	102 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

REPORT DATE : 16-OCT-1995 REPORT NUMBER : D95-9975

SAMPLE SUBMITTED BY : GCL
ATTENTION : David Nee

LABORATORY QUALITY CONTROL REPORT

ANALYTE	Benzene	Ethylbenzene
BATCH NO.	30-101295A	30-101295A
LCS LOT NO.	AB214-70B	AB214-70B
PREP METHOD	---	---
PREPARED BY	---	---
ANALYSIS METHOD	EPA 8020	EPA 8020
ANALYZED BY	VHT	VHT
UNITS	µg/L	µg/L
METHOD BLANK	< 1.00	< 1.00
SPIKE LEVEL	500	500
MS RESULT	418	393
MS RECOVERY %	83.6	78.6
MSD RESULT	426	421
MSD RECOVERY %	85.2	84.2
MS/MSD RPD %	1.90	6.88
BS RESULT	NA	NA
BS RECOVERY %	NA	NA
BSD RESULT	NA	NA
BSD RECOVERY %	NA	NA
BS/BSD RPD %	NA	NA
DUPLICATE RPD %	NA	NA
LCS LEVEL	50.0	50.0
LCS RESULT	44.6	44.7
LCS RECOVERY %	89.2	89.4
SPIKE SAMPLE ID	9906-11	9906-11
DUP SAMPLE ID	---	---

NA Not applicable

GCL
Environmental Science and Engineering
A BDM International Company

☒ Albuquerque
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(505) 842-0001
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4221 Forbes Blvd., Ste. 240
Lanham, MD 20706-4325
(301) 459-9677
FAX: (301) 459-3064

☐ NASA-WSTF
PO Drawer MM
Las Cruces, NM 88004
(505) 524-5353
FAX: (505) 524-5315

№ 9901

Chain of Custody

Date 10/10/95 Page 1 Of 1

Lab Name NDRC Laboratories, Inc.
Address 1089 East Collins Blvd.
Richardson, TX 75081
Telephone (214) 238-5591

Samplers (SIGNATURES)
D Nee

Analysis Request

Sample Number	Matrix	Location	Halogenated Volatiles 601/8010	Aromatic Volatiles 602/8020	Phenols, Sub Phenols 604/8040	Pesticides/PCB 608/8080	Polynuclear Aromatic Hydrocarbons 610/8310	Volatile Compounds GC/MS 624/8240	Base/Neu/Acid Compounds GC/MS 625/8270	Total Organic Carbon (TOC) 415/9060	Total Organic Halides (TOX) 9020	Petroleum Hydrocarbons 418.1	TPH/BTEX Modified 8015	TCLP- Vol., Semi-Vol. Herbicides, Pesticides	TCLP- Metals	RCRA Metals(8)	Priority Pollutant Metals (13)	CAM Metals (18) TTLC/STLC	Flash Point	Corrosivity	Reactivity	Oil & Grease	Cyanide Total/Amenable	Chemical Oxygen Demand (COD)					Number of Containers
9510100930	H_2O	MW-19		3																				9915			-1		3
9510100950	H_2O	MW-19A		3																							-2		3
9510101100	H_2O	MW-20		3																							-3		3
9510101110	H_2O	MW-22		3																							-4		3
9510101120	H_2O	MW-21		3																							-5		3
9510101200	H_2O	MW-11		3																							-6		3
9510101245	H_2O	MW-12		3																							-7		3
9510101345	H_2O	MW-13		3																							-8		3
9510101255	H_2O	Trip Blanks		2																							-9		2

ORIGINAL

SCREENED FOR RADIOACTIVITY

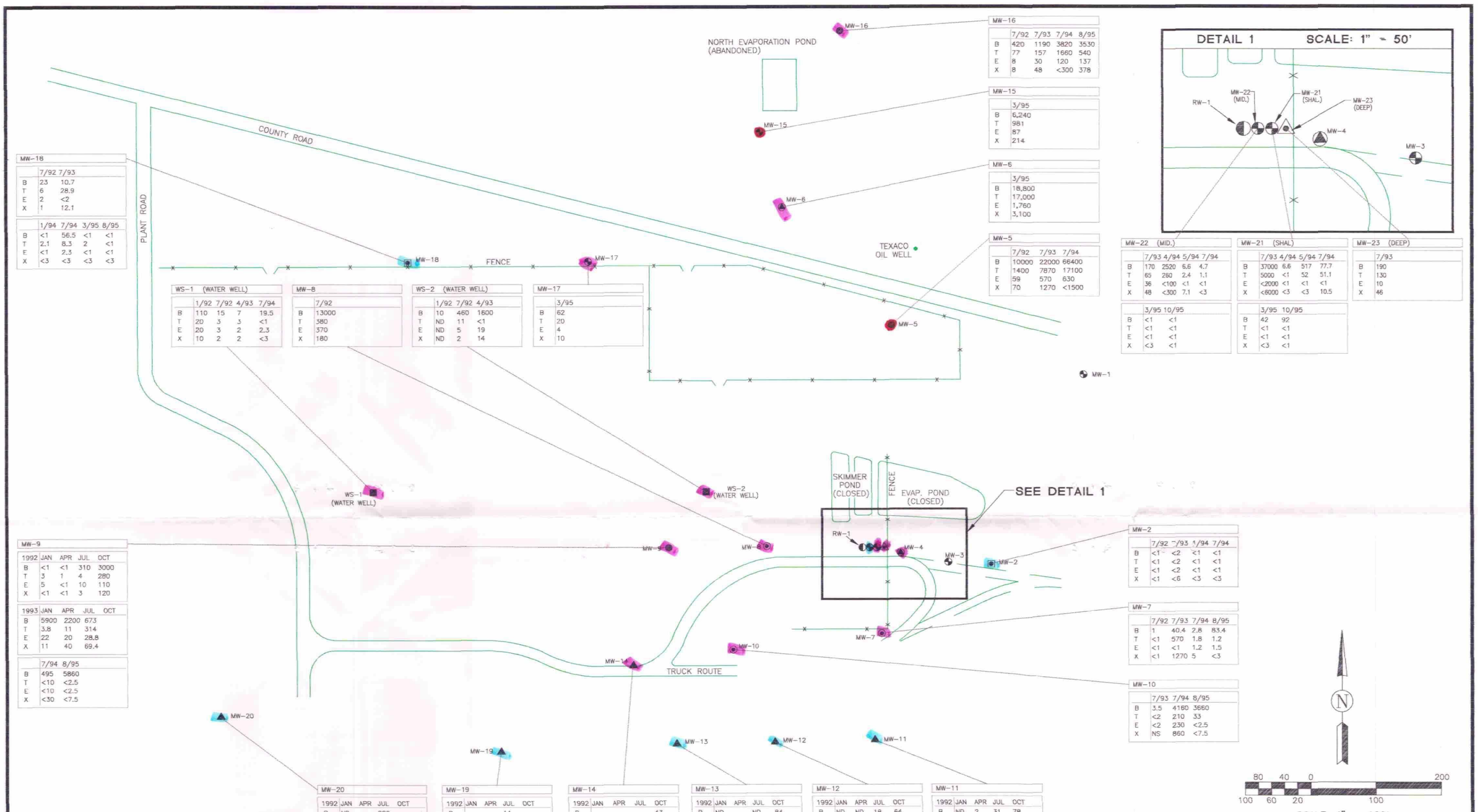
COOLER TEMPERATURE WHEN RECEIVED 3 °C

Project Information	Sample Receipt
Project GPM	Total No. of Containers
Project Director GAMMON	Chain of Custody Seals
Charge Code No. 3023.001	Rec'd Good Condition/Cold
Shipping ID. No. 0213993706	Conforms to Record
Via: FED X	Lab No.

Special Instructions/Comments:

Relinquished By 1.	Relinquished By 2.	Relinquished By 3.
D Nee 0700 (Signature) (Time)	(Signature) (Time)	(Signature) (Time)
DAVID NEE 10/11/95 (Printed Name) (Date)	(Printed Name) (Date)	(Printed Name) (Date)
GCL (Company)	(Company)	(Company)
Received By 1.	**Received By 2.**	**Received By (Laboratory) 3.**
(Signature) (Time)	(Signature) (Time)	David Meyer (Signature) (Time)
(Printed Name) (Date)	(Printed Name) (Date)	David Meyer TTS Dallas (Printed Name) (Date)
(Company)	(Company)	(Laboratory)

Distribution: White, Canary-Laborat[illegible] Pink, GCL



MW-16

	7/92	7/93	7/94	8/95
B	420	1190	3820	3530
T	77	157	1660	540
E	8	30	120	137
X	8	48	<300	378

MW-15

	3/95
B	6,240
T	981
E	87
X	214

MW-6

	3/95
B	18,800
T	17,000
E	1,760
X	3,100

MW-5

	7/92	7/93	7/94
B	10000	22000	66400
T	1400	7870	17100
E	59	570	630
X	70	1270	<1500

MW-18

	7/92	7/93
B	23	10.7
T	6	28.9
E	2	<2
X	1	12.1

	1/94	7/94	3/95	8/95
B	<1	56.5	<1	<1
T	2.1	8.3	2	<1
E	<1	2.3	<1	<1
X	<3	<3	<3	<3

WS-1 (WATER WELL)

	1/92	7/92	4/93	7/94
B	110	15	7	19.5
T	20	3	3	<1
E	20	3	2	2.3
X	10	2	2	<3

MW-8

	7/92
B	13000
T	380
E	370
X	180

WS-2 (WATER WELL)

	1/92	7/92	4/93
B	10	460	1600
T	ND	11	<1
E	ND	5	19
X	ND	2	14

MW-17

	3/95
B	62
T	20
E	4
X	10

DETAIL 1 SCALE: 1" = 50'

MW-22 (MID.)

	7/93	4/94	5/94	7/94
B	170	2520	6.6	4.7
T	65	280	2.4	1.1
E	36	<100	<1	<1
X	48	<300	7.1	<3

	3/95	10/95
B	<1	<1
T	<1	<1
E	<1	<1
X	<3	<1

MW-21 (SHAL)

	7/93	4/94	5/94	7/94
B	37000	6.6	517	77.7
T	5000	<1	52	51.1
E	<2000	<1	<1	<1
X	<6000	<3	<3	10.5

	3/95	10/95
B	42	92
T	<1	<1
E	<1	<1
X	<3	<1

MW-23 (DEEP)

	7/93
B	190
T	130
E	10
X	46

MW-2

	7/92	7/93	1/94	7/94
B	<1	<2	<1	<1
T	<1	<2	<1	<1
E	<1	<2	<1	<1
X	<1	<6	<3	<3

MW-7

	7/92	7/93	7/94	8/95
B	1	40.4	2.8	83.4
T	<1	570	1.8	1.2
E	<1	<1	1.2	1.5
X	<1	1270	5	<3

MW-10

	7/93	7/94	8/95
B	3.5	4160	3660
T	<2	210	33
E	<2	230	<2.5
X	NS	860	<7.5

MW-9

1992	JAN	APR	JUL	OCT
B	<1	<1	310	3000
T	3	1	4	280
E	5	<1	10	110
X	<1	<1	3	120

1993	JAN	APR	JUL	OCT
B	5900	2200	673	
T	3.8	11	314	
E	22	20	28.8	
X	11	40	69.4	

	7/94	8/95
B	495	5860
T	<10	<2.5
E	<10	<2.5
X	<30	<7.5

MW-20

1992	JAN	APR	JUL	OCT
B	ND		220	
T	ND		76	
E	ND		6	
X	ND		6	

1993	JAN	APR	JUL	OCT
B	<1	1.3	217	18.3
T	<1	<1	102	14
E	<1	<1	10.6	<2
X	<1	2.0	33.6	<6

1994	JAN	MAY	JUL	OCT
B	4	<1	<1	<1
T	5	<1	<1	<1
E	3.1	<1	<1	<1
X	9.7	<3	<3	<3

1995	MAR	JUN	AUG	OCT
B	1.4	<1	<1	<1
T	6	<1	<1	<1
E	<1	<1	<1	<1
X	6	3	<3	<1

MW-19

1992	JAN	APR	JUL	OCT
B			14	
T			4	
E			2	
X			1	

1993	JAN	APR	JUL	OCT
B			15.3	11.2
T			35.8	12.3
E			<2	<2
X			13.5	<6

1994	JAN	MAY	JUL	OCT
B	2.5	<1	5.4	<1
T	3.4	<1	<1	<1
E	<1	<1	<1	<1
X	<3	<3	<3	<3

1995	MAR	JUN	AUG	OCT
B	79	3.1	<1	<1
T	28	3.8	<1	<1
E	5	1.8	<1	<1
X	11	3.4	<3	<1

MW-14

1992	JAN	APR	JUL	OCT
B				43
T				99
E				19
X				45

1993	JAN	APR	JUL	OCT
B	19	13		
T	<1	3		
E	<1	3		
X	1.2	6		

MW-13

1992	JAN	APR	JUL	OCT
B	ND		ND	84
T	ND		ND	150
E	ND		ND	26
X	ND		ND	62

1993	JAN	APR	JUL	OCT
B	28	13	14.6	28.6
T	<1	<1	34.3	29.6
E	<1	<1	<2	<2
X	<1	<1	13.4	10.2

1994	JAN	MAY	JUL	OCT
B	2.4	<1	6.5	<1
T	3.4	<1	1.2	<1
E	<1	<1	<1	<1
X	<3	<3	<3	<3

1995	MAR	JUN	AUG	OCT
B	<1	<1	<1	<1
T	3	<1	<1	<1
E	<1	<1	<1	<1
X	<3	3	<3	<1

MW-12

1992	JAN	APR	JUL	OCT
B	ND	ND	18	64
T	ND	ND	4	130
E	ND	ND	1	24
X	ND	ND	1	56

1993	JAN	APR	JUL	OCT
B	67	30	11.4	<2
T	1.1	<1	29.2	<2
E	<1	<1	<2	<2
X	<1	<1	12.1	<6

1994	JAN	MAY	JUL	OCT
B	2.6	<1	3.7	<1
T	4	1.6	<1	<1
E	<1	1.1	<1	<1
X	<3	4.1	<3	<3

1995	MAR	JUN	AUG	OCT
B	<1	<1	<1	<1
T	3	<1	<1	<1
E	<1	<1	<1	<1
X	4	<3	<3	<1

MW-11

1992	JAN	APR	JUL	OCT
B	ND	2	31	78
T	ND	ND	7	130
E	ND	ND	2	22
X	ND	ND	1	51

1993	JAN	APR	JUL	OCT
B	1.3	1.1	15.5	<2
T	<1	<1	31.3	<2
E	<1	<1	<2	<2
X	1.1	<1	11.6	<6

1994	JAN	MAY	JUL	OCT
B	3.7	<1	1.9	<1
T	5.5	<1	1.1	2
E	<1	1.3	<1	<1
X	3.7	3.9	<3	<3

1995	MAR	JUN	AUG	OCT
B	<1	<1	<1	<1
T	2	1.1	<1	<1
E	<1	<1	<1	<1
X	3.2	<3	<3	<1

LEGEND

- MONITOR WELL
- MONITOR WELL SAMPLED ANNUALLY
- SUPPLY WELL
- MONITOR WELL SAMPLED QUARTERLY
- MONITOR WELL SAMPLED SEMI-ANNUALLY
- RECOVERY WELL SAMPLED ANNUALLY
- PRODUCT RECOVERY WELL
- INJECTION WELL
- VAPOR EXTRACTION/RECOVERY WELL
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X TOTAL XYLENES
- ND NO DETECTION
- * SAMPLING FOR TPH DISCONTINUED

NOTE: CONCENTRATIONS IN MICROGRAMS PER LITER (ppb) UNLESS OTHERWISE STATED.
WELLS CONTAINING SEPERATE-PHASE HYDROCARBONS ARE NOT SAMPLED.

N

80 40 0 200
100 60 20 100
SCALE: 1" = 100'

GCL

PLATE 1
ANALYTICAL RESULTS (ppb)
LEE PLANT

CLIENT: GPM GAS CORPORATION
DATE: OCTOBER 10, 1995
CHECKED BY: GJV
DRAWN BY: MP (12/27/95)
DWG. NO. BTEXV09.DWG

RECEIVED
MAR 2 5 1996
Environmental Bureau
Oil Conservation Division

GPM GAS SERVICES COMPANY
A DIVISION OF PHILLIPS PETROLEUM COMPANY

4044 PENBROOK
ODESSA, TX 79762

October 3, 1995

Mr. William Olson
Hydrogeologist
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Third Quarter 1995 Analytical Results
Lee Plant, Discharge Plan GW-2

Dear Mr. Olson:

GPM Gas Corporation (GPM) herein submits the laboratory analytical reports for groundwater sampling at our Lee Plant for the third quarter of 1995 (see attached analytical results, report date August 17, 1995). Sample collection was conducted on August 10, 1995, pursuant to the NMOCD Discharge Plan GW-2 requirements. Samples were collected by GCL, our consultant.

Depth to groundwater and product thickness measurements were conducted at all monitor wells. A groundwater level contour map for the August event is provided as an attachment. The average daily pumping rates in gallons per day (gpd) from the remediation system recovery wells for the third quarter of 1995 are as follows: RW-1 (1700 gpd), MW-6 (79 gpd), MW-7 (1268 gpd), and MW-10 (1934 gpd).

Quarterly groundwater sampling was conducted at five down-gradient wells (MW-11, MW-12, MW-13, MW-19, and MW-20), four cross-gradient wells (MW-7, MW-9, MW-10, and MW-18) and one up-gradient well (MW-16). All samples were submitted to NDRC Labs out of Houston, Texas following strict chain-of-custody procedures to ensure the integrity of the samples during transport to the laboratory. The groundwater samples from the ten wells were analyzed for dissolved aromatic hydrocarbons using EPA method 602.

Table 1 summarizes the third quarter 1995 analytical results. A site map of the plant with analytical results from October 1992 to present is provided in Plate 1. A discussion of the field data and analytical results is provided below.

- Free-phase floating product was encountered in MW-4 at a thickness of 0.01 ft. This is a decrease from the May 1995 sampling event product thickness of 0.95 ft.

- MW-5 contained product at a thickness of 4.02 ft. on the day of the August sampling. Free-phase floating product was not observed during the May sampling event in this

well, but was observed in the March sampling event at a thickness of 5.96 ft. GPM is currently conducting visual observations of product in this well.

- Free-phase floating product was also encountered in MW-15 at a thickness of 0.03 ft. Free-phase floating product was not observed during previous sampling events.

- Analytical results from the laboratory indicate the BTEX concentrations in all down-gradient wells (MW-11, MW-12, MW-13, MW-19 and MW-20) are below the laboratory detection limits.

- Analytical results for samples from the four cross-gradient wells (MW-7, MW-9, MW- 10 and MW-18) are shown in Table 1. When compared with the July 1994 sampling event, the results indicate an increase in the BTEX concentrations in wells MW-7 and MW-9, while a slight decrease in BTEX concentration was noted in MW-10. The BTEX concentrations found in MW-18 have consistently decreased over the last three sampling events (July 1994, March 1995 and August 1995), and are currently below the laboratory detection limit.

The March sampling results for MW-19 showed unusually high BTEX concentrations. Based upon the results from the May and August events, it is suspected that the March results were caused by residual hydrocarbons left in the hose during sampling. The sampling procedure has been modified in order to prevent a reoccurrence of this anomaly. The well(s) will now be purged with the Grundfus pump, and a dedicated disposable bailer used to collect the sample for laboratory analysis. In addition, GCL will sample all downgradient wells prior to sampling upgradient and cross-gradient wells.

GPM will conduct the fourth quarter sampling event at the Lee Plant in October of this year. At that time, we will continue to monitor the free-phase product in MW-4, MW-5 and MW-15. Please call me at (915) 368-1085 if you have any questions or concerns.

Sincerely,

Vince Bernard
Safety & Environmental Director
New Mexico Region

VBB
Attachments

cc: Maureen Gannon - GCL Albuquerque
S.J. Seeby
M.S. Nault (w/ Attachments)

GPM Lee Plant August 1995 Water Level Contour

(feet)

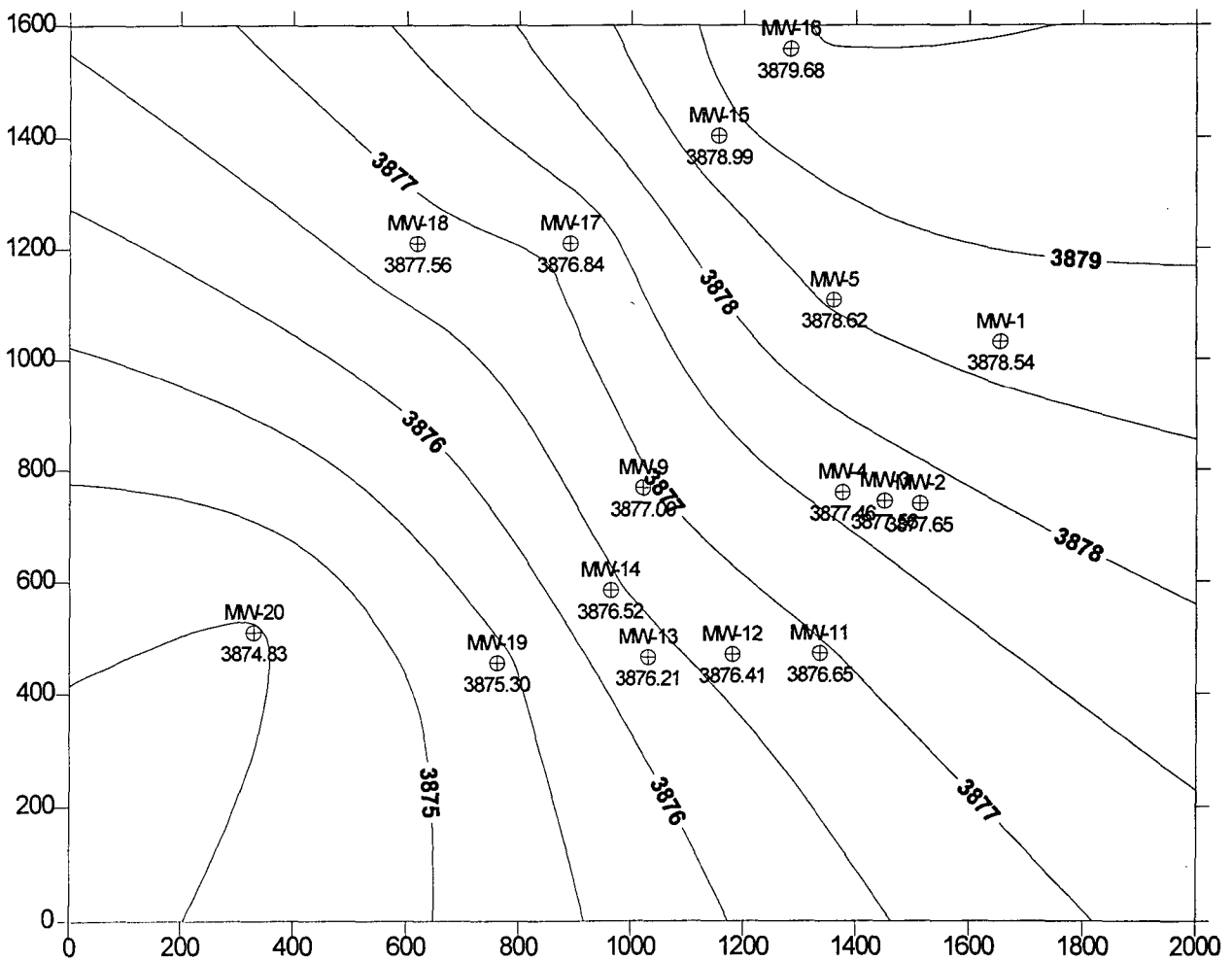


TABLE 1

Third Quarter Analytical Results: Lee Plant
August 1995

	Benzene ppm	Toluene ppm	Ethyl Benzene ppm	Xylenes ppm
WQCC Stds	**0.010**	**0.750**	**0.750**	**0.620**
DOWN GRADIENT				
MW-11	<0.0010	<0.0010	<0.0010	<0.0030
MW-12	<0.0010	<0.0010	<0.0010	<0.0030
MW-13	<0.0010	<0.0010	<0.0010	<0.0030
MW-19	<0.0010	<0.0010	<0.0010	<0.0030
Duplicate MW-19	<0.0010	<0.0010	<0.0010	<0.0030
MW-20	<0.0010	<0.0010	<0.0010	<0.0030
Trip Blank	<0.0010	<0.0010	<0.0010	<0.0030
CROSS GRADIENT				
MW-7	**0.0834**	0.0012	0.0015	<0.0030
MW-9	**5.8600**	<0.0025	<0.0025	<0.0075
MW-10	**3.6600**	0.0330	<0.0025	<0.0075
MW-18	<0.0010	<0.0010	<0.0010	<0.0030
UP GRADIENT				
MW-16	**3.5300**	0.5400	0.1370	0.3780
RINSATE *				
MW-27	<0.0010	0.0021	<0.0010	<0.0030

* Rinsate sample (MW-27) was collected after MW-10 sample collection

** Values shown in bold are above WQCC Standards

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Environmental Laboratories

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Houston, TX 77025
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Fax: 713-661-2661

SUMMARY REPORT

CLIENT : GCL
CONTACT : Ms. Maurine Gannon
PROJECT : GPM Lee Plant

JOB NUMBER : H95-4586
REPORT DATE : 17-AUG-1995

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	9508091630 MW-7	Groundwater	9-AUG-1995
2	9508091645 MW-10	Groundwater	9-AUG-1995
3	9508100900 MW-27	Groundwater	10-AUG-1995
4	9508100930 MW-20	Groundwater	10-AUG-1995

BTEX ANALYSIS, EPA 8020		1	2	3	4
Benzene	µg/L	83.4	3660	< 1.0	< 1.0
Toluene	µg/L	1.2	33	2.1	< 1.0
Ethyl benzene	µg/L	1.5	< 25	< 1.0	< 1.0
Xylenes	µg/L	< 3.0	< 75	< 3.0	< 3.0

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SUMMARY REPORT

CLIENT : GCL
CONTACT : Ms. Maurine Gannon
PROJECT : GPM Lee Plant

JOB NUMBER : H95-4586
REPORT DATE : 17-AUG-1995

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
5	9508101345 MW-11	Groundwater	10-AUG-1995
6	9508101445 MW-12	Groundwater	10-AUG-1995
7	9508101545 MW-13	Groundwater	10-AUG-1995
8	9508101630 MW-19	Groundwater	10-AUG-1995

BTEX ANALYSIS, EPA 8020		5	6	7	8
Benzene	µg/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethyl benzene	µg/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes	µg/L	< 3.0	< 3.0	< 3.0	< 3.0

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SUMMARY REPORT

CLIENT : GCL
CONTACT : Ms. Maurine Gannon
PROJECT : GPM Lee Plant

JOB NUMBER : H95-4586
REPORT DATE : 17-AUG-1995

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
9	9508101645 MW-25	Groundwater	10-AUG-1995
10	9508101745 MW-9	Groundwater	10-AUG-1995
11	9508101830 MW-18	Groundwater	10-AUG-1995
12	9508101930 MW-16	Groundwater	10-AUG-1995

BTEX ANALYSIS, EPA 8020		9	10	11	12
Benzene	µg/L	< 1.0	5860	< 1.0	3530
Toluene	µg/L	< 1.0	< 25	< 1.0	540
Ethyl benzene	µg/L	< 1.0	< 25	< 1.0	137
Xylenes	µg/L	< 3.0	< 75	< 3.0	378

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SUMMARY REPORT

CLIENT : GCL
CONTACT : Ms. Maurine Gannon
PROJECT : GPM Lee Plant

JOB NUMBER : H95-4586
REPORT DATE : 17-AUG-1995

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
13	Trip Blank	Water	10-AUG-1995
14	Method Blank	Water	15-AUG-1995

BTEX ANALYSIS, EPA 8020		13		14			
Benzene	µg/L	<	1.0	<	1.0		
Toluene	µg/L	<	1.0	<	1.0		
Ethyl benzene	µg/L	<	1.0	<	1.0		
Xylenes	µg/L	<	3.0	<	3.0		

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DATE RECEIVED : 15-AUG-1995

REPORT NUMBER : H95-4586-1
REPORT DATE : 17-AUG-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Maurine Gannon

SAMPLE MATRIX : Groundwater
ID MARKS : 9508091630
: MW-7
PROJECT : GPM Lee Plant
DATE SAMPLED : 9-AUG-1995
ANALYSIS METHOD : EPA 8020
ANALYZED BY : M. Tobias
ANALYZED ON : 16-AUG-1995
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	83.4 µg/L
Toluene	1.0 µg/L	1.2 µg/L
Ethyl benzene	1.0 µg/L	1.5 µg/L
Xylenes	3.0 µg/L	< 3.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	100 µg/L	93.8 %

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DATE RECEIVED : 15-AUG-1995

REPORT NUMBER : H95-4586-2
REPORT DATE : 17-AUG-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Maurine Gannon

SAMPLE MATRIX : Groundwater
ID MARKS : 9508091645
: MW-10
PROJECT : GPM Lee Plant
DATE SAMPLED : 9-AUG-1995
ANALYSIS METHOD : EPA 8020
ANALYZED BY : M. Tobias
ANALYZED ON : 16-AUG-1995
DILUTION FACTOR : 25

BTEX ANALYSIS				
TEST REQUESTED	DETECTION LIMIT		RESULTS	
Benzene	25	µg/L	3660	µg/L
Toluene	25	µg/L	33	µg/L
Ethyl benzene	25	µg/L	< 25	µg/L
Xylenes	75	µg/L	< 75	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	90.7	%

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DATE RECEIVED : 15-AUG-1995

REPORT NUMBER : H95-4586-3
REPORT DATE : 17-AUG-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Maurine Gannon

SAMPLE MATRIX : Groundwater
ID MARKS : 9508100900
: MW-27
PROJECT : GPM Lee Plant
DATE SAMPLED : 10-AUG-1995
ANALYSIS METHOD : EPA 8020
ANALYZED BY : M. Tobias
ANALYZED ON : 16-AUG-1995
DILUTION FACTOR : 1

BTEX ANALYSIS				
TEST REQUESTED	DETECTION LIMIT		RESULTS	
Benzene	1.0	µg/L	< 1.0	µg/L
Toluene	1.0	µg/L	2.1	µg/L
Ethyl benzene	1.0	µg/L	< 1.0	µg/L
Xylenes	3.0	µg/L	< 3.0	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	83.6	%

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DATE RECEIVED : 15-AUG-1995

REPORT NUMBER : H95-4586-4
REPORT DATE : 17-AUG-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Maurine Gannon

SAMPLE MATRIX : Groundwater
ID MARKS : 9508100930
: MW-20
PROJECT : GPM Lee Plant
DATE SAMPLED : 10-AUG-1995
ANALYSIS METHOD : EPA 8020
ANALYZED BY : M. Tobias
ANALYZED ON : 16-AUG-1995
DILUTION FACTOR : 1

BTEX ANALYSIS				
TEST REQUESTED	DETECTION LIMIT		RESULTS	
Benzene	1.0	µg/L	< 1.0	µg/L
Toluene	1.0	µg/L	< 1.0	µg/L
Ethyl benzene	1.0	µg/L	< 1.0	µg/L
Xylenes	3.0	µg/L	< 3.0	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	88.9	%

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DATE RECEIVED : 15-AUG-1995

REPORT NUMBER : H95-4586-5
REPORT DATE : 17-AUG-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Maurine Gannon

SAMPLE MATRIX : Groundwater
ID MARKS : 9508101345
: MW-11
PROJECT : GPM Lee Plant
DATE SAMPLED : 10-AUG-1995
ANALYSIS METHOD : EPA 8020
ANALYZED BY : M. Tobias
ANALYZED ON : 16-AUG-1995
DILUTION FACTOR : 1

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	1.0	µg/L	<	1.0	µg/L
Toluene	1.0	µg/L	<	1.0	µg/L
Ethyl benzene	1.0	µg/L	<	1.0	µg/L
Xylenes	3.0	µg/L	<	3.0	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	92.0	%

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DATE RECEIVED : 15-AUG-1995

REPORT NUMBER : H95-4586-6
REPORT DATE : 17-AUG-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Maurine Gannon

SAMPLE MATRIX : Groundwater
ID MARKS : 9508101445
: MW-12
PROJECT : GPM Lee Plant
DATE SAMPLED : 10-AUG-1995
ANALYSIS METHOD : EPA 8020
ANALYZED BY : M. Tobias
ANALYZED ON : 16-AUG-1995
DILUTION FACTOR : 1

BTEX ANALYSIS				
TEST REQUESTED	DETECTION LIMIT		RESULTS	
Benzene	1.0	µg/L	< 1.0	µg/L
Toluene	1.0	µg/L	< 1.0	µg/L
Ethyl benzene	1.0	µg/L	< 1.0	µg/L
Xylenes	3.0	µg/L	< 3.0	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	91.0	%

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DATE RECEIVED : 15-AUG-1995

REPORT NUMBER : H95-4586-7
REPORT DATE : 17-AUG-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Maurine Gannon

SAMPLE MATRIX : Groundwater
ID MARKS : 9508101545
: MW-13
PROJECT : GPM Lee Plant
DATE SAMPLED : 10-AUG-1995
ANALYSIS METHOD : EPA 8020
ANALYZED BY : M. Tobias
ANALYZED ON : 16-AUG-1995
DILUTION FACTOR : 1

BTEX ANALYSIS				
TEST REQUESTED	DETECTION LIMIT		RESULTS	
Benzene	1.0	µg/L	< 1.0	µg/L
Toluene	1.0	µg/L	< 1.0	µg/L
Ethyl benzene	1.0	µg/L	< 1.0	µg/L
Xylenes	3.0	µg/L	< 3.0	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	89.9	%

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DATE RECEIVED : 15-AUG-1995

REPORT NUMBER : H95-4586-8
REPORT DATE : 17-AUG-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Maurine Gannon

SAMPLE MATRIX : Groundwater
ID MARKS : 9508101630
: MW-19
PROJECT : GPM Lee Plant
DATE SAMPLED : 10-AUG-1995
ANALYSIS METHOD : EPA 8020
ANALYZED BY : M. Tobias
ANALYZED ON : 16-AUG-1995
DILUTION FACTOR : 1

BTEX ANALYSIS				
TEST REQUESTED	DETECTION LIMIT		RESULTS	
Benzene	1.0	µg/L	< 1.0	µg/L
Toluene	1.0	µg/L	< 1.0	µg/L
Ethyl benzene	1.0	µg/L	< 1.0	µg/L
Xylenes	3.0	µg/L	< 3.0	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	88.3	%

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DATE RECEIVED : 15-AUG-1995

REPORT NUMBER : H95-4586-9
REPORT DATE : 17-AUG-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Maurine Gannon

SAMPLE MATRIX : Groundwater
ID MARKS : 9508101645
: MW-25
PROJECT : GPM Lee Plant
DATE SAMPLED : 10-AUG-1995
ANALYSIS METHOD : EPA 8020
ANALYZED BY : M. Tobias
ANALYZED ON : 16-AUG-1995
DILUTION FACTOR : 1

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	1.0	µg/L	<	1.0	µg/L
Toluene	1.0	µg/L	<	1.0	µg/L
Ethyl benzene	1.0	µg/L	<	1.0	µg/L
Xylenes	3.0	µg/L	<	3.0	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	90.8	%

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DATE RECEIVED : 15-AUG-1995

REPORT NUMBER : H95-4586-10
REPORT DATE : 17-AUG-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Maurine Gannon

SAMPLE MATRIX : Groundwater
ID MARKS : 9508101745
: MW-9
PROJECT : GPM Lee Plant
DATE SAMPLED : 10-AUG-1995
ANALYSIS METHOD : EPA 8020
ANALYZED BY : M. Tobias
ANALYZED ON : 16-AUG-1995
DILUTION FACTOR : 25

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	25 µg/L	5860 µg/L
Toluene	25 µg/L	< 25 µg/L
Ethyl benzene	25 µg/L	< 25 µg/L
Xylenes	75 µg/L	< 75 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	100 µg/L	83.9 %

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DATE RECEIVED : 15-AUG-1995

REPORT NUMBER : H95-4586-11
REPORT DATE : 17-AUG-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Maurine Gannon

SAMPLE MATRIX : Groundwater
ID MARKS : 9508101830
: MW-18
PROJECT : GPM Lee Plant
DATE SAMPLED : 10-AUG-1995
ANALYSIS METHOD : EPA 8020
ANALYZED BY : M. Tobias
ANALYZED ON : 16-AUG-1995
DILUTION FACTOR : 1

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	1.0	µg/L	<	1.0	µg/L
Toluene	1.0	µg/L	<	1.0	µg/L
Ethyl benzene	1.0	µg/L	<	1.0	µg/L
Xylenes	3.0	µg/L	<	3.0	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	89.1	%

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DATE RECEIVED : 15-AUG-1995

REPORT NUMBER : H95-4586-12
REPORT DATE : 17-AUG-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Maurine Gannon

SAMPLE MATRIX : Groundwater
ID MARKS : 9508101930
: MW-16
PROJECT : GPM Lee Plant
DATE SAMPLED : 10-AUG-1995
ANALYSIS METHOD : EPA 8020
ANALYZED BY : M. Tobias
ANALYZED ON : 16-AUG-1995
DILUTION FACTOR : 25

BTEX ANALYSIS				
TEST REQUESTED	DETECTION LIMIT		RESULTS	
Benzene	25	µg/L	3530	µg/L
Toluene	25	µg/L	540	µg/L
Ethyl benzene	25	µg/L	137	µg/L
Xylenes	75	µg/L	378	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	85.9	%

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DATE RECEIVED : 15-AUG-1995

REPORT NUMBER : H95-4586-13
REPORT DATE : 17-AUG-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Maurine Gannon

SAMPLE MATRIX : Water
ID MARKS : Trip Blank
PROJECT : GPM Lee Plant
DATE SAMPLED : 10-AUG-1995
ANALYSIS METHOD : EPA 8020
ANALYZED BY : M. Tobias
ANALYZED ON : 16-AUG-1995
DILUTION FACTOR : 1

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	1.0	µg/L	<	1.0	µg/L
Toluene	1.0	µg/L	<	1.0	µg/L
Ethyl benzene	1.0	µg/L	<	1.0	µg/L
Xylenes	3.0	µg/L	<	3.0	µg/L

QUALITY CONTROL DATA					
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED		
Bromofluorobenzene(SS)	100	µg/L	92.8	%	

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DATE RECEIVED : 15-AUG-1995

REPORT NUMBER : H95-4586-14
REPORT DATE : 17-AUG-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Maurine Gannon

SAMPLE MATRIX : Water
ID MARKS : Method Blank
PROJECT : GPM Lee Plant
DATE SAMPLED : 15-AUG-1995
ANALYSIS METHOD : EPA 8020
ANALYZED BY : M. Tobias
ANALYZED ON : 16-AUG-1995
DILUTION FACTOR : 1

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	1.0	µg/L	<	1.0	µg/L
Toluene	1.0	µg/L	<	1.0	µg/L
Ethyl benzene	1.0	µg/L	<	1.0	µg/L
Xylenes	3.0	µg/L	<	3.0	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	85.0	%

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REPORT DATE : 17-AUG-1995 REPORT NUMBER : H95-4586

SAMPLE SUBMITTED BY : GCL
ATTENTION : Ms. Maurine Gannon

LABORATORY QUALITY CONTROL REPORT

ANALYTE	Benzene	Toluene	Ethylbenzene	Xylenes
BATCH NO.	8020D_705	8020D_705	8020D_705	8020D_705
LCS LOT NO.	---	---	---	---
PREP METHOD	---	---	---	---
DATE PREPARED	---	---	---	---
PREPARED BY	---	---	---	---
ANALYSIS METHOD	EPA 8020	EPA 8020	EPA 8020	EPA 8020
DATE ANALYZED	16-AUG-1995	16-AUG-1995	16-AUG-1995	16-AUG-1995
ANALYZED BY	M. Tobias	M. Tobias	M. Tobias	M. Tobias
UNITS	µg/L	µg/L	µg/L	µg/L
METHOD BLANK	< 1.00	< 1.00	< 1.00	< 3.00
MS RECOVERY %	100	101	104	96.7
MSD RECOVERY %	102	104	106	100
MS/MSD RPD %	2.0	2.5	1.9	3.4
BS RECOVERY %	NA	NA	NA	NA
BSD RECOVERY %	NA	NA	NA	NA
BS/BSD RPD %	NA	NA	NA	NA
DUPLICATE RPD %	NA	NA	NA	NA
LCS RECOVERY %	99.0	102	106	100
SPIKE SAMPLE ID	4583-7	4583-7	4583-7	4583-7
DUP SAMPLE ID	---	---	---	---

NA Not Applicable

RECEIVED AUG 2 3 1995

Due: 8-21-95

ORIGINAL

№ 8458

GCL Environmental Science and Engineering
A BDM International Company

☒ Albuquerque
505 Marquette NW, Ste. 1100
Albuquerque, NM 87102
(505) 842-0001
FAX: (505) 842-0595

☐ Mid Atlantic Region
4221 Forbes Blvd., Ste. 240
Lanham, MD 20706-4325
(301) 459-9677
FAX: (301) 459-3064

☐ NASA-WSTF
PO Drawer MM
Las Cruces, NM 88004
(505) 524-5353
FAX: (505) 524-5315

Chain of Custody

Date 8/10/95 Page 1 Of 2

Sent Report to Attn: Maureen Gannon per M. Shelmandos

Lab Name NDRC/Inchcape Testing Service
Address 11155 South Main
Houston, TX 77025
Telephone (713) 661-8150

Samplers (SIGNATURES) [signature]

Analysis Request

Sample Number	Matrix	Location	Halogenated Volatiles 601/8010	Aromatic Volatiles 602/8020 (BTEX Only)	Phenols, Sub Phenols 604/8040	Pesticides/PCB 608/8080	Polynuclear Aromatic Hydrocarbons 610/8310	Volatile Compounds GC/MS 624/8240	Base/Neu/Acid Compounds GC/MS 625/8270	Total Organic Carbon (TOC) 415/9060	Total Organic Halides (TOX) 9020	Petroleum Hydrocarbons 418.1	TPH/BTEX Modified 8015	TCLP- Vol., Semi-Vol. Herbicides, Pesticides	TCLP- Metals	RCRA Metals(8)	Priority Pollutant Metals (13)	CAM Metals (18) TTLC/STLC	Flash Point	Corrosivity	Reactivity	Oil & Grease	Cyanide Total/Amenable	Chemical Oxygen Demand (COD)					Number of Containers
950809 1630	Aqueous	MW-7		X																			495-4586					-1	3
950909 1645	↓	MW-10		X																								2	3
950810 0900		MW-27		X																								3	3
950810 0930		MW-20		X																								4	3
950810 1345		MW-11		X																								5	3
950810 1445		MW-12		X																								6	3
950810 1545		MW-13		X																								7	3
950810 ~~1645~~ 1630 M.S		MW-19		X																								8	3
950810 1645		MW-25		X																								9	3
950810 1745	↓	MW-9		X																								10	3

Project Information	
Project	GPM Lee Plant
Project Director	Maureen Gannon
Charge Code No.	3023.002
Shipping ID. No.	0218935183
Via:	Federal Express

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Rec'd Good Condition/Cold	
Conforms to Record	
Lab No.	

	1.	2.	3.
Relinquished By (Signature) / (Time)	[signature] 1700		
(Printed Name) / (Date)	Mark S. Kelliams 8/11/95		
(Company)	GCL		
Received By (Signature) / (Time)	**	[signature] 1120	Received By (Laboratory): J. Bryant 1355
(Printed Name) / (Date)		Joe L. Espinoza	J. BRYANT 8/15/95
(Company) / (Laboratory)		ITS - Houston	Southern Petroleum Labs

Special Instructions/Comments:
*Run EPA 8020 BTEX only - Per. M. Shelmandos 8/15/95

** Cooler was delivered to SPL on Saturday, 8/12/95 by Fed.Ex by mistake. Rec'd cooler @ 1430 8/15/95

Distribution: White, Canary-Laboratory • Pink, GCL

RECEIVED AUG 2 3 1995

Due: 8-21-95

GCL
Environmental Science and Engineering
A BDM International Company

☒ Albuquerque
505 Marquette NW, Ste. 1100
Albuquerque, NM 87102
(505) 842-0001
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FAX: (505) 524-5315

№ 8459

Chain of Custody

Date 8/10/95 Page 2 of 2

Lab Name NDRC/Inchcape Testing Service
Address 11155 South Main
Houston, TX 77025
Telephone (713) 661-8150

Samplers (SIGNATURES)

Analysis Request

Sample Number	Matrix	Location	Halogenated Volatiles 601/8010	Aromatic Volatiles 602/8020 BTEX only	Phenols, Sub Phenols 604/8040	Pesticides/PCB 608/8080	Polynuclear Aromatic Hydrocarbons 610/8310	Volatile Compounds GC/MS 624/8240	Base/Neu/Acid Compounds GC/MS 625/8270	Total Organic Carbon (TOC) 415/9060	Total Organic Halides (TOX) 9020	Petroleum Hydrocarbons 418.1	TPH/BTEX Modified 8015	TCLP- Vol., Semi-Vol. Herbicides, Pesticides	TCLP- Metals	RCRA Metals(8)	Priority Pollutant Metals (13)	CAM Metals (18) TTLC/STLC	Flash Point	Corrosivity	Reactivity	Oil & Grease	Cyanide Total/Amenable	Chemical Oxygen Demand (COD)					Number of Containers
A4 950810 1830	Aqueous	MW-19		X																			1195. TF, SCr		-11			3
950810 1930	↓	MW-16		X																					12			3
Tr.P Blank	↓	Tr.P Blank		X																					13			1

Project Information	Sample Receipt	Relinquished By 1.	Relinquished By 2.	Relinquished By 3.
Project GPM	Total No. of Containers	1700		
Project Director Maureen Gannon	Chain of Custody Seals	(Signature) (Time)	(Signature) (Time)	(Signature) (Time)
Charge Code No. 3023.002	Rec'd Good Condition/Cold	Mark S. Kelinos 8/11/95		
Shipping ID. No. 0218935183	Conforms to Record	(Printed Name) (Date)	(Printed Name) (Date)	(Printed Name) (Date)
Via: Federal Express	Lab No.	GCL		
Special Instructions/Comments:		(Company)	(Company)	(Company)
		Received By 1.	Received By 2.	Received By (Laboratory) 3.
		**	1130	1355
		(Signature) (Time)	(Signature) (Time)	(Signature) (Time)
				8/15/95
		(Printed Name) (Date)	(Printed Name) (Date)	(Printed Name) (Date)
			IT S - Houston	Southern Petroleum Labs
		(Company)	(Company)	(Laboratory)

Distribution: White, Canary-Laboratory • Pink, GCL

0218935183

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
(713) 661-8150
Fax (713) 661-2661

SAMPLE PRESERVATION INFORMATION SHEET

Company: GCL Job No.: 4586

No. of Cooler(s): 1 Temperature of Cooler(s): <4°C

Sample No.	Temperature of Sample	Sample Container	Volume	Preservation Used *	Initial pH	Final pH	Bottles Generated	Comments
4586-1	<4°C	3-V	40ml/ea	1,4	—	—	0	
2	↓	↓	↓	↓	↓	↓	↓	
3								
4								
5								
6								
7								
8								
9								
10								
11								
12		↓	↓					
13	↓	V	40ml	↓	↓	↓	↓	

PRESERVATION USED *

1 - Cool to 4° C
2 - H_2SO_4 to pH < 2
3 - HNO_3 to pH < 2
4 - HCL to pH < 2
5 - NaOH to pH > 12
6 - $Na_2S_2O_3$ 0.008%
7 - 2 ml Zinc Acetate and NaOH to pH > 12
8 - None Required

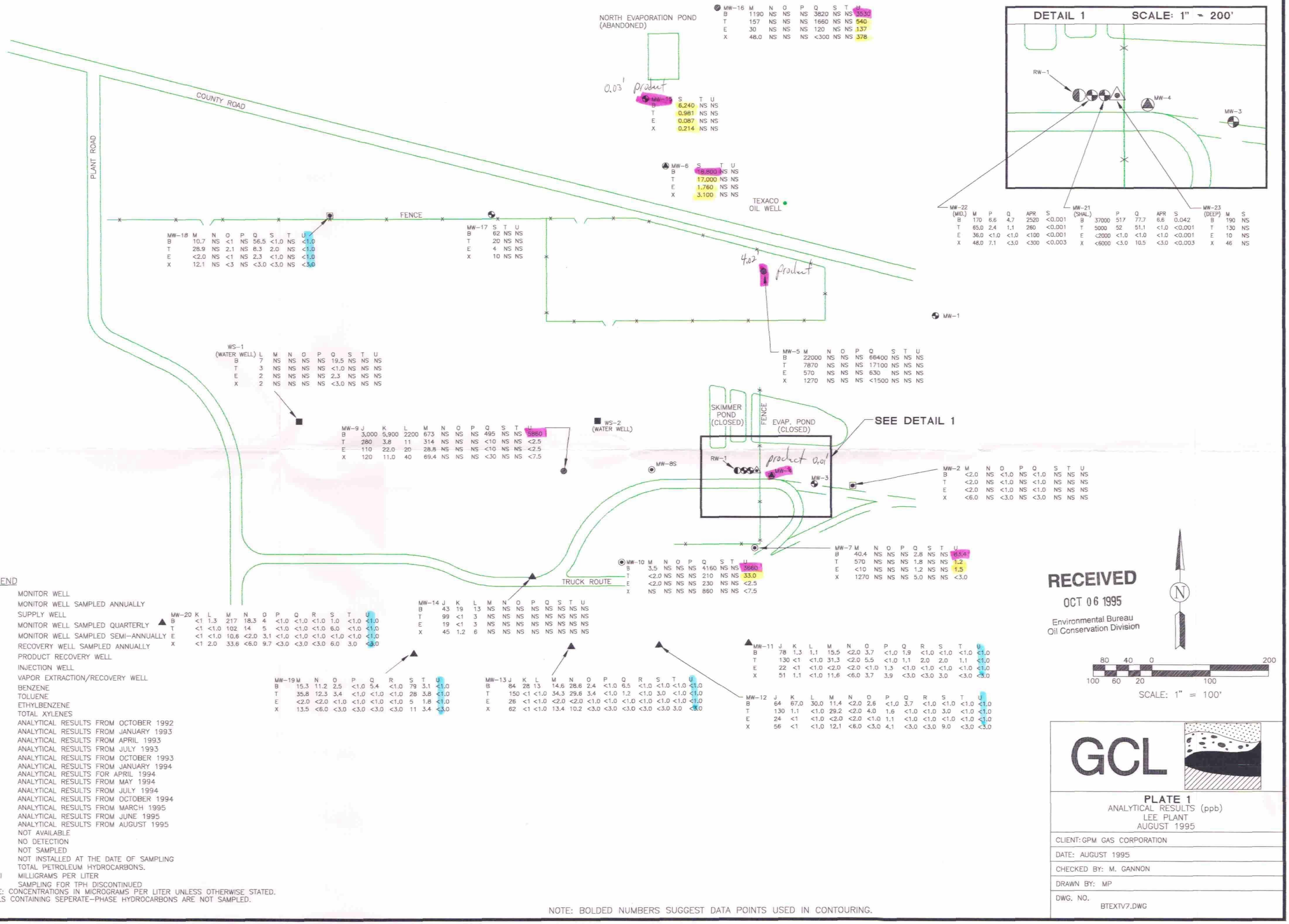
CONTAINERS USED

A - Amber
G - Clear Glass
V - VOA
P - Plastic
T - Tedlar
Tb - Tube

Preserved by

8-15-95
Date

ORIGINAL



MW-16	M	N	O	P	Q	S	T	U
B	1190	NS	NS	NS	3820	NS	NS	3530
T	157	NS	NS	NS	1660	NS	NS	540
E	30	NS	NS	NS	120	NS	NS	137
X	48.0	NS	NS	NS	<300	NS	NS	378

MW-15	S	T	U
B	6,240	NS	NS
T	0.981	NS	NS
E	0.087	NS	NS
X	0.214	NS	NS

MW-6	S	T	U
B	18,800	NS	NS
T	17,000	NS	NS
E	1,760	NS	NS
X	3,100	NS	NS

MW-18	M	N	O	P	Q	S	T	U
B	10.7	NS	<1	NS	56.5	<1.0	NS	<1.0
T	28.9	NS	2.1	NS	8.3	2.0	NS	<1.0
E	<2.0	NS	<1	NS	2.3	<1.0	NS	<1.0
X	12.1	NS	<3	NS	<3.0	<3.0	NS	<3.0

MW-17	S	T	U
B	62	NS	NS
T	20	NS	NS
E	4	NS	NS
X	10	NS	NS

MW-5	M	N	O	P	Q	S	T	U
B	22000	NS	NS	NS	66400	NS	NS	NS
T	7870	NS	NS	NS	17100	NS	NS	NS
E	570	NS	NS	NS	630	NS	NS	NS
X	1270	NS	NS	NS	<1500	NS	NS	NS

WS-1 (WATER WELL)	L	M	N	O	P	Q	S	T	U
B	7	NS	NS	NS	NS	19.5	NS	NS	NS
T	3	NS	NS	NS	NS	<1.0	NS	NS	NS
E	2	NS	NS	NS	NS	2.3	NS	NS	NS
X	2	NS	NS	NS	NS	<3.0	NS	NS	NS

MW-9	J	K	L	M	N	O	P	Q	S	T	U
B	3,000	5,900	2200	673	NS	NS	NS	495	NS	NS	5860
T	280	3.8	11	314	NS	NS	NS	<10	NS	NS	<2.5
E	110	22.0	20	28.8	NS	NS	NS	<10	NS	NS	<2.5
X	120	11.0	40	69.4	NS	NS	NS	<30	NS	NS	<7.5

MW-10	M	N	O	P	Q	S	T	U
B	3.5	NS	NS	NS	4160	NS	NS	3560
T	<2.0	NS	NS	NS	210	NS	NS	33.0
E	<2.0	NS	NS	NS	230	NS	NS	<2.5
X	NS	NS	NS	NS	860	NS	NS	<7.5

MW-7	M	N	O	P	Q	S	T	U
B	40.4	NS	NS	NS	2.8	NS	NS	83.4
T	570	NS	NS	NS	1.8	NS	NS	1.2
E	<10	NS	NS	NS	1.2	NS	NS	1.5
X	1270	NS	NS	NS	5.0	NS	NS	<3.0

MW-2	M	N	O	P	Q	S	T	U
B	<2.0	NS	<1.0	NS	<1.0	NS	NS	NS
T	<2.0	NS	<1.0	NS	<1.0	NS	NS	NS
E	<2.0	NS	<1.0	NS	<1.0	NS	NS	NS
X	<6.0	NS	<3.0	NS	<3.0	NS	NS	NS

MW-22 (MID.)	M	P	Q	APR	S
B	170	6.6	4.7	2520	<0.001
T	65.0	2.4	1.1	260	<0.001
E	36.0	<1.0	<1.0	<100	<0.001
X	48.0	7.1	<3.0	<300	<0.003

MW-21 (SHAL.)	M	P	Q	APR	S
B	37000	517	77.7	6.6	0.042
T	5000	52	51.1	<1.0	<0.001
E	<2000	<1.0	<1.0	<1.0	<0.001
X	<6000	<3.0	10.5	<3.0	<0.003

MW-23 (DEEP)	M	S
B	190	NS
T	130	NS
E	10	NS
X	46	NS

MW-20	K	L	M	N	O	P	Q	R	S	T	U
B	<1	1.3	217	18.3	4	<1.0	<1.0	<1.0	1.0	<1.0	<1.0
T	<1	<1.0	102	14	5	<1.0	<1.0	<1.0	6.0	<1.0	<1.0
E	<1	<1.0	10.6	<2.0	3.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
X	<1	2.0	33.6	<6.0	9.7	<3.0	<3.0	<3.0	6.0	3.0	<3.0

MW-14	J	K	L	M	N	O	P	Q	S	T	U
B	43	19	13	NS	NS	NS	NS	NS	NS	NS	NS
T	99	<1	3	NS	NS	NS	NS	NS	NS	NS	NS
E	19	<1	3	NS	NS	NS	NS	NS	NS	NS	NS
X	45	1.2	6	NS	NS	NS	NS	NS	NS	NS	NS

MW-19	M	N	O	P	Q	R	S	T	U
B	15.3	11.2	2.5	<1.0	5.4	<1.0	79	3.1	<1.0
T	35.8	12.3	3.4	<1.0	<1.0	<1.0	28	3.8	<1.0
E	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	5	1.8	<1.0
X	13.5	<6.0	<3.0	<3.0	<3.0	<3.0	11	3.4	<3.0

MW-13	J	K	L	M	N	O	P	Q	R	S	T	U
B	84	28	13	14.6	28.6	2.4	<1.0	6.5	<1.0	<1.0	<1.0	<1.0
T	150	<1	<1.0	34.3	29.6	3.4	<1.0	1.2	<1.0	3.0	<1.0	<1.0
E	26	<1	<1.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
X	62	<1	<1.0	13.4	10.2	<3.0	<3.0	<3.0	<3.0	<3.0	3.0	<3.0

MW-11	J	K	L	M	N	O	P	Q	R	S	T	U
B	78	1.3	1.1	15.5	<2.0	3.7	<1.0	1.9	<1.0	<1.0	<1.0	<1.0
T	130	<1	<1.0	31.3	<2.0	5.5	<1.0	1.1	2.0	2.0	1.1	<1.0
E	22	<1	<1.0	<2.0	<2.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0
X	51	1.1	<1.0	11.6	<6.0	3.7	3.9	<3.0	<3.0	3.0	<3.0	<3.0

MW-12	J	K	L	M	N	O	P	Q	R	S	T	U
B	64	67.0	30.0	11.4	<2.0	2.6	<1.0	3.7	<1.0	<1.0	<1.0	<1.0
T	130	1.1	<1.0	29.2	<2.0	4.0	1.6	<1.0	<1.0	3.0	<1.0	<1.0
E	24	<1	<1.0	<2.0	<2.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0
X	56	<1	<1.0	12.1	<6.0	<3.0	4.1	<3.0	<3.0	9.0	<3.0	<3.0

LEGEND

- MONITOR WELL
- MONITOR WELL SAMPLED ANNUALLY
- SUPPLY WELL
- MONITOR WELL SAMPLED QUARTERLY
- MONITOR WELL SAMPLED SEMI-ANNUALLY
- RECOVERY WELL SAMPLED ANNUALLY
- PRODUCT RECOVERY WELL
- INJECTION WELL
- VAPOR EXTRACTION/RECOVERY WELL
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X TOTAL XYLENES
- J ANALYTICAL RESULTS FROM OCTOBER 1992
- K ANALYTICAL RESULTS FROM JANUARY 1993
- L ANALYTICAL RESULTS FROM APRIL 1993
- M ANALYTICAL RESULTS FROM JULY 1993
- N ANALYTICAL RESULTS FROM OCTOBER 1993
- O ANALYTICAL RESULTS FROM JANUARY 1994
- APR ANALYTICAL RESULTS FOR APRIL 1994
- P ANALYTICAL RESULTS FROM MAY 1994
- Q ANALYTICAL RESULTS FROM JULY 1994
- R ANALYTICAL RESULTS FROM OCTOBER 1994
- S ANALYTICAL RESULTS FROM MARCH 1995
- T ANALYTICAL RESULTS FROM JUNE 1995
- U ANALYTICAL RESULTS FROM AUGUST 1995
- NA NOT AVAILABLE
- ND NO DETECTION
- NS NOT SAMPLED
- NI NOT INSTALLED AT THE DATE OF SAMPLING
- TPH TOTAL PETROLEUM HYDROCARBONS.
- mg/l MILLIGRAMS PER LITER
- * SAMPLING FOR TPH DISCONTINUED

NOTE: CONCENTRATIONS IN MICROGRAMS PER LITER UNLESS OTHERWISE STATED.
WELLS CONTAINING SEPERATE-PHASE HYDROCARBONS ARE NOT SAMPLED.

NOTE: BOLDED NUMBERS SUGGEST DATA POINTS USED IN CONTOURING.

GCL

PLATE 1
ANALYTICAL RESULTS (ppb)
LEE PLANT
AUGUST 1995

CLIENT: GPM GAS CORPORATION
DATE: AUGUST 1995
CHECKED BY: M. GANNON
DRAWN BY: MP
DWG. NO. BTEXTV7.DWG

GPM GAS CORPORATION

GPM GAS SERVICES COMPANY
A DIVISION OF PHILLIPS PETROLEUM COMPANY

4044 PENBROOK
ODESSA, TX 79762

July 10, 1995

Mr. William Olson
Hydrogeologist
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: **Second Quarter 1995 Analytical Results**
Lee Plant, Discharge Plan GW-2

Dear Mr. Olson:

GPM Gas Corporation (GPM) herein submits the laboratory analytical reports for groundwater sampling at our Lee Plant for the second quarter of 1995 (see attached analytical results, report date June 2, 1995). Sample collection was conducted on May 24, 1995, pursuant to the New Mexico Oil Conservation Division (NMOCD) Discharge Plan GW-2 requirements. Samples were collected by our consultant, GCL.

Depth to groundwater and product thickness measurements were conducted at all monitor wells. A groundwater level contour map for the May event is provided as an attachment. The average daily pumping rates in gallons per day (GPD) from the remediation system recovery wells for the second quarter of 1995 are as follows: RW-1 (1399 gpd), MW-6 (208 gpd), MW-7 (0), MW-10 (2383 gpd), and MW-23 (219 gpd).

Quarterly groundwater sampling was conducted at the following monitor wells: MW-11, MW-12, MW-13, MW-19 and MW-20. All samples were submitted to NDRC Laboratories, Inc., out of Houston following strict chain-of-custody procedures to ensure the integrity of the samples during transport to the laboratory. The groundwater samples from the five wells were analyzed for dissolved aromatic hydrocarbons using EPA Method 602.

Table 1 provides a summary of the second quarter 1995 analytical results. A discussion of field data and analytical results is provided below.

- Free-phase floating product was encountered in MW-14 at a thickness of 0.95 ft. which is an increase from March 1995 when the product thickness was 0.24 ft.

- MW-5 did not contain product on the day of the June sampling. The March event provided a product thickness of 5.96 ft. in this well. GPM is currently conducting visual observations of product in this well.

- The results of BTEX analysis of water samples from down gradient wells, MW-11, MW-12, MW-13, MW-19, and MW-20 indicated concentrations below WQCC water quality standards. The BTEX concentration in MW-19 was significantly lower than the March event (see First Quarter 1995 correspondence, GPM to NMOCD).

GPM will conduct the annual sampling event at the Lee Plant in July. At that time, we will sample several wells including MW-5 (if no product is present in the well) and MW-16 in order to monitor upgradient activities. In the meantime, please call me at (915) 368-1085 if you have any questions.

Sincerely,

Vince Bernard
Safety & Environmental Director
New Mexico Region

VBB
Attachments

GPM Lee Plant May 1995 Water Level Contour

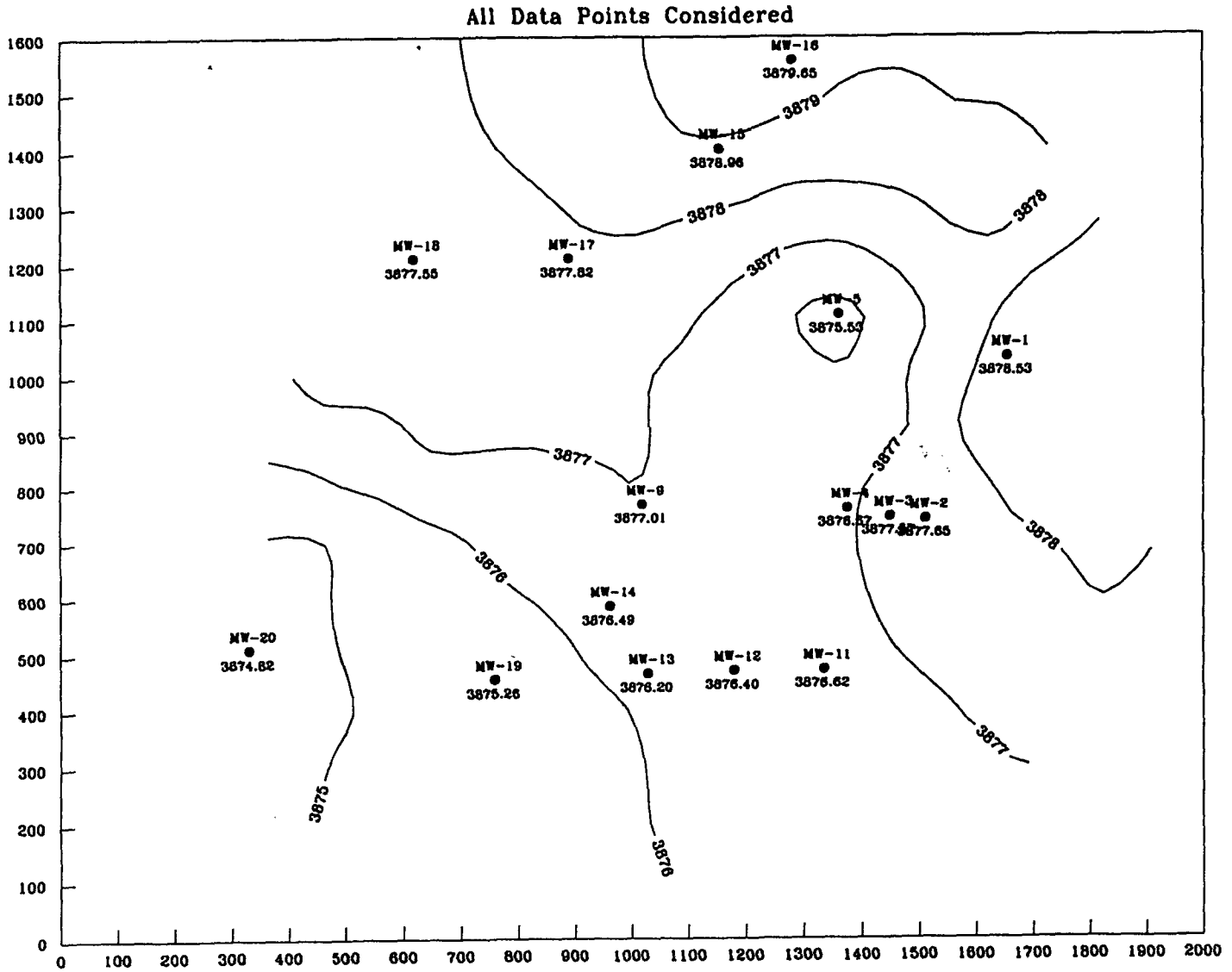


TABLE 1

Second Quarter Analytical Results: Lee Plant
June 1995

	Benzene ppm	Toluene ppm	Ethyl Benzene ppm	Xylenes ppm
WQCC Stds	**0.010**	**0.750**	**0.750**	**0.620**
DOWN GRADIENT				
MW-11	<0.0010	0.0011	<0.0010	<0.0030
Duplicate MW-11	<0.0010	<0.0010	<0.0010	<0.0030
MW-12	<0.0010	<0.0010	<0.0010	<0.0030
MW-13	<0.0010	<0.0010	<0.0010	<0.0030
MW-19	0.0031	0.0038	0.0018	<0.0034
MW-20	<0.0010	<0.0010	<0.0010	0.0030
Trip Blank	<0.0010	<0.0010	<0.0010	<0.0030

* Values shown in bold are above WQCC Standards

\3023\2NDQRT95.WQ2:B

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

SUMMARY REPORT

CLIENT : GCL
CONTACT : Ms. Annette Montoya
PROJECT : GPM Buckeye

JOB NUMBER : H95-2994
REPORT DATE : 2-JUN-1995

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	9505241020 MW-19	Water	24-MAY-1995
2	9505241100 MW-20	Water	24-MAY-1995
3	9505241145 MW-13	Water	24-MAY-1995
4	9505241210 MW-12	Water	24-MAY-1995

BTEX ANALYSIS, EPA 602		1	2	3	4
Benzene	µg/L	3.1	< 1.0	< 1.0	< 1.0
Toluene	µg/L	3.8	< 1.0	< 1.0	< 1.0
Ethyl benzene	µg/L	1.8	< 1.0	< 1.0	< 1.0
Xylenes	µg/L	3.4	< 3.0	< 3.0	< 3.0

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

SUMMARY REPORT

CLIENT : GCL
CONTACT : Ms. Annette Montoya
PROJECT : GPM Buckeye

JOB NUMBER : H95-2994
REPORT DATE : 2-JUN-1995

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
5	9505241245 MW-11	Water	24-MAY-1995
6	9505241345 MW-11d	Water	24-MAY-1995
7	9505241400 Trip Blank	Water	3-MAY-1995
8	Method Blank	Water	25-MAY-1995

BTEX ANALYSIS, EPA 602		5	6	7	8
Benzene	µg/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/L	1.1	< 1.0	< 1.0	< 1.0
Ethyl benzene	µg/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes	µg/L	< 3.0	< 3.0	< 3.0	< 3.0

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

DATE RECEIVED : 25-MAY-1995

REPORT NUMBER : H95-2994-1
REPORT DATE : 2-JUN-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Water
ID MARKS : 9505241020
: MW-19
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 24-MAY-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : M. Tobias
ANALYZED ON : 26-MAY-1995
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	3.1 µg/L
Toluene	1.0 µg/L	3.8 µg/L
Ethyl benzene	1.0 µg/L	1.8 µg/L
Xylenes	3.0 µg/L	3.4 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	100 µg/L	117 %

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

DATE RECEIVED : 25-MAY-1995

REPORT NUMBER : H95-2994-2
REPORT DATE : 2-JUN-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Water
ID MARKS : 9505241100
: MW-20
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 24-MAY-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : M. Tobias
ANALYZED ON : 26-MAY-1995
DILUTION FACTOR : 1

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	1.0	µg/L	<	1.0	µg/L
Toluene	1.0	µg/L	<	1.0	µg/L
Ethyl benzene	1.0	µg/L	<	1.0	µg/L
Xylenes	3.0	µg/L	<	3.0	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	129	%

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

DATE RECEIVED : 25-MAY-1995

REPORT NUMBER : H95-2994-3
REPORT DATE : 2-JUN-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Water
ID MARKS : 9505241145
: MW-13
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 24-MAY-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : M. Tobias
ANALYZED ON : 26-MAY-1995
DILUTION FACTOR : 1

BTEX ANALYSIS				
TEST REQUESTED	DETECTION LIMIT		RESULTS	
Benzene	1.0	µg/L	< 1.0	µg/L
Toluene	1.0	µg/L	< 1.0	µg/L
Ethyl benzene	1.0	µg/L	< 1.0	µg/L
Xylenes	3.0	µg/L	< 3.0	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	127	%

Inchcape Testing Services
NDRC Laboratories

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Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

DATE RECEIVED : 25-MAY-1995

REPORT NUMBER : H95-2994-4
REPORT DATE : 2-JUN-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Water
ID MARKS : 9505241210
: MW-12
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 24-MAY-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : M. Tobias
ANALYZED ON : 26-MAY-1995
DILUTION FACTOR : 1

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	1.0	µg/L	<	1.0	µg/L
Toluene	1.0	µg/L	<	1.0	µg/L
Ethyl benzene	1.0	µg/L	<	1.0	µg/L
Xylenes	3.0	µg/L	<	3.0	µg/L

QUALITY CONTROL DATA					
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED		
Bromofluorobenzene(SS)	100	µg/L	128	%	

Inchcape Testing Services
NDRC Laboratories

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Fax. 713-661-2661

DATE RECEIVED : 25-MAY-1995

REPORT NUMBER : H95-2994-5
REPORT DATE : 2-JUN-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Water
ID MARKS : 9505241245
: MW-11
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 24-MAY-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : M. Tobias
ANALYZED ON : 31-MAY-1995
DILUTION FACTOR : 1

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	1.0	µg/L	<	1.0	µg/L
Toluene	1.0	µg/L		1.1	µg/L
Ethyl benzene	1.0	µg/L	<	1.0	µg/L
Xylenes	3.0	µg/L	<	3.0	µg/L

QUALITY CONTROL DATA					
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED		
Bromofluorobenzene(SS)	100	µg/L	104	%	

Inchcape Testing Services
NDRC Laboratories

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Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

DATE RECEIVED : 25-MAY-1995

REPORT NUMBER : H95-2994-5
REPORT DATE : 2-JUN-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Water
ID MARKS : 9505241245
: MW-11
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 24-MAY-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : M. Tobias
ANALYZED ON : 31-MAY-1995
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	1.1 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	3.0 µg/L	< 3.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	100 µg/L	104 %

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

DATE RECEIVED : 25-MAY-1995

REPORT NUMBER : H95-2994-6
REPORT DATE : 2-JUN-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Water
ID MARKS : 9505241345
: MW-11d
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 24-MAY-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : M. Tobias
ANALYZED ON : 27-MAY-1995
DILUTION FACTOR : 1

BTEX ANALYSIS			
TEST REQUESTED	DETECTION LIMIT		RESULTS
Benzene	1.0 µg/L	<	1.0 µg/L
Toluene	1.0 µg/L	<	1.0 µg/L
Ethyl benzene	1.0 µg/L	<	1.0 µg/L
Xylenes	3.0 µg/L	<	3.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	100 µg/L	130 %

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

DATE RECEIVED : 25-MAY-1995

REPORT NUMBER : H95-2994-7
REPORT DATE : 2-JUN-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Water
ID MARKS : 9505241400
: Trip Blank
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 3-MAY-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : M. Tobias
ANALYZED ON : 27-MAY-1995
DILUTION FACTOR : 1

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	1.0	µg/L	<	1.0	µg/L
Toluene	1.0	µg/L	<	1.0	µg/L
Ethyl benzene	1.0	µg/L	<	1.0	µg/L
Xylenes	3.0	µg/L	<	3.0	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	132	%

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

DATE RECEIVED : 25-MAY-1995

REPORT NUMBER : H95-2994-8
REPORT DATE : 2-JUN-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Water
ID MARKS : Method Blank
PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002
DATE SAMPLED : 25-MAY-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : M. Tobias
ANALYZED ON : 26-MAY-1995
DILUTION FACTOR : 1

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	1.0	µg/L	<	1.0	µg/L
Toluene	1.0	µg/L	<	1.0	µg/L
Ethyl benzene	1.0	µg/L	<	1.0	µg/L
Xylenes	3.0	µg/L	<	3.0	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	115	%

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

REPORT DATE : 2-JUN-1995 REPORT NUMBER : H95-2994

SAMPLE SUBMITTED BY : GCL
ATTENTION : Ms. Annette Montoya

LABORATORY QUALITY CONTROL REPORT

ANALYTE	Benzene	Toluene	Ethylbenzene	Xylenes
BATCH NO.	8020D_565	8020D_565	8020D_565	8020D_565
LCS LOT NO.	---	---	---	---
PREP METHOD	---	---	---	---
DATE PREPARED	---	---	---	---
PREPARED BY	---	---	---	---
ANALYSIS METHOD	EPA 602	EPA 602	EPA 602	EPA 602
DATE ANALYZED	26-MAY-1995	26-MAY-1995	26-MAY-1995	26-MAY-1995
ANALYZED BY	MHT	MHT	MHT	MHT
UNITS	µg/L	µg/L	µg/L	µg/L
METHOD BLANK	< 1.00	< 1.00	< 1.00	< 3.00
MS RECOVERY %	102	108	113	112
MSD RECOVERY %	102	110	112	113
MS/MSD RPD %	0.4	1.7	1.1	0.6
BS RECOVERY %	NA	NA	NA	NA
BSD RECOVERY %	NA	NA	NA	NA
BS/BSD RPD %	NA	NA	NA	NA
DUPLICATE RPD %	NA	NA	NA	NA
LCS RECOVERY %	91.2	102	103	103
SPIKE SAMPLE ID	2991-5	2991-5	2991-5	2991-5
DUP SAMPLE ID	---	---	---	---

NA Not Applicable

Inchcape Testing Services
NDRC Laboratories

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Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

REPORT DATE : 2-JUN-1995 REPORT NUMBER : H95-2994

SAMPLE SUBMITTED BY : GCL
ATTENTION : Ms. Annette Montoya

LABORATORY QUALITY CONTROL REPORT

ANALYTE	Benzene	Toluene	Ethylbenzene	Xylenes
BATCH NO.	8020D_572	8020D_572	8020D_572	8020D_572
LCS LOT NO.	---	---	---	---
PREP METHOD	---	---	---	---
DATE PREPARED	---	---	---	---
PREPARED BY	---	---	---	---
ANALYSIS METHOD	EPA 602	EPA 602	EPA 602	EPA 602
DATE ANALYZED	31-MAY-1995	31-MAY-1995	31-MAY-1995	31-MAY-1995
ANALYZED BY	MHT	MHT	MHT	MHT
UNITS	µg/L	µg/L	µg/L	µg/L
METHOD BLANK	< 1.00	< 1.00	< 1.00	< 3.00
MS RECOVERY %	89.6	100	106	106
MSD RECOVERY %	93.4	102	109	109
MS/MSD RPD %	4.2	2.0	2.8	2.5
BS RECOVERY %	NA	NA	NA	NA
BSD RECOVERY %	NA	NA	NA	NA
BS/BSD RPD %	NA	NA	NA	NA
DUPLICATE RPD %	NA	NA	NA	NA
LCS RECOVERY %	97.0	108	110	109
SPIKE SAMPLE ID	2974-5	2974-5	2974-5	2974-5
DUP SAMPLE ID	---	---	---	---

NA Not Applicable

GCL
Environmental Science and Engineering
A BDM International Company

05 Marquette NW, Ste. 1100 • Albuquerque, NM 87102
505) 842-0001 • FAX: (505) 842-0595

To Agent Assuming Sample Custody

RE: CHAIN-OF-CUSTODY PROCEDURES

Please return the signed, white **"original"** copy of the enclosed chain-of-custody form and mail to Geoscience Consultants, Ltd. (GCL) in the enclosed, stamped, self-address envelope. Your prompt attention to this request will be greatly appreciated.

Upon receipt of samples, if any discrepancy exists between written and verbal instructions for analysis requested, please call Annette Montoya immediately at (505) 842-0001 before any sample preparation takes place. If Annette is not available, contact Dwayne Salisbury at the same number.

Please include a copy of the chain-of-custody with the final analytical report (one report per chain-of-custody), invoice, or any correspondence regarding the analysis in question.

PLEASE RETURN COOLERS AND BLUE ICE

Sincerely,
Geoscience Consultants, Ltd. (GCL)

RECEIVED JUN 0 8 1995

Doc: ~~6-1-95~~ 6-1-95

GCL
Environmental Science and Engineering
A BDM International Company

☑ Albuquerque
505 Marquette NW, Ste. 1100
Albuquerque, NM 87102
(505) 842-0001
FAX: (505) 842-0595

☐ Mid Atlantic Region
4221 Forbes Blvd., Ste. 240
Lanham, MD 20706-4325
(301) 459-9677
FAX: (301) 459-3064

☐ NASA-WSTF
PO Drawer MM
Las Cruces, NM 88004
(505) 524-5353
FAX: (505) 524-5315

№ 8455

Chain of Custody

Date 5/24/95 Page 1 Of 1

Lab Name NDRC/Inchcape Testing Service
Address 11155 South Main
Houston, TX 77025
Telephone (713) 661-8150

Samplers (SIGNATURES) D Nee

Analysis Request

Sample Number	Matrix	Location	Halogenated Volatiles 601/8010	Aromatic Volatiles 602/8020 BTEX	Phenols, Sub Phenols 604/8040	Pesticides/PCB 608/8080	Polynuclear Aromatic Hydrocarbons 610/8310	Volatile Compounds GC/MS 624/8240	Base/Neu/Acid Compounds GC/MS 625/8270	Total Organic Carbon (TOC) 415/9060	Total Organic Halides (TOX) 9020	Petroleum Hydrocarbons 418.1	TPH/BTEX Modified 8015	TCLP- Vol., Semi-Vol. Herbicides, Pesticides	TCLP- Metals	RCRA Metals(8)	Priority Pollutant Metals (13)	CAM Metals (18) TTLC/STLC	Flash Point	Corrosivity	Reactivity	Oil & Grease	Cyanide Total/Amenable	Chemical Oxygen Demand (COD)					Number of Containers
9505241020	H2O	mw-19		3																1495 - 29941					-1				3
9505241100	H2O	mw-20		3																					2				3
9505241145	H2O	mw-13		3																					3				3
9505241210	H2O	mw-12		3																					4				3
9505241245	H2O	mw-11		3																					5				3
9505241345	H2O	mw-11d		3																					6				3
9505241400	H2O	Trip Blank		2																					7				2

Project Information	
Project	GPM Buckeye
Project Director	Gannon
Charge Code No.	3023-002
Shipping ID. No.	0218935205
Via:	FED X

Sample Receipt	
Total No. of Containers	4 coolers rec'd
Chain of Custody Seals	sealed
Rec'd Good Condition/Cold	4°C
Conforms to Record	
Lab No.	

Special Instructions/Comments: 20-40ml Vials

	1.	2.	3.
Relinquished By	D Nee (Signature) 1405 (Time) DAVID NEE (Printed Name) 5/24/95 (Date) GCL (Company)	(Signature) (Time) (Printed Name) (Date) (Company)	(Signature) (Time) (Printed Name) (Date) (Company)
Received By	(Signature) (Time) (Printed Name) (Date) (Company)	(Signature) (Time) (Printed Name) (Date) (Company)	Received By (Laboratory): Joe L. Espinosa (Signature) 1030 (Time) Joe L. Espinosa (Printed Name) 5-25-95 (Date) ITS - Houston (Laboratory)

Distribution: White, Canary-Laboratory • Pink, GCL

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
(713) 661-8150
Fax (713) 661-2661

SAMPLE PRESERVATION INFORMATION SHEET

Company: GCL Job No.: 2994

No. of Cooler(s): 1 Temperature of Cooler(s): <4°C

Sample No.	Temperature of Sample	Sample Container	Volume	Preservation Used*	Initial pH	Final pH	Bottles Generated	Comments
2994-1	<4°C	3-V	40ml	1,4	–	–	0	
2	↓	↓	↓	↓	↓	↓	↓	
3								
4								
5								
6		↓						
7	↓	2-V	↓	↓	↓	↓	↓	

PRESERVATION USED *

1 - Cool to 4° C
2 - H_2SO_4 to pH < 2
3 - HNO_3 to pH < 2
4 - HCl to pH < 2
5 - NaOH to pH > 12
6 - $Na_2S_2O_3$ 0.008%
7 - 2 ml Zinc Acetate and NaOH to pH > 12
8 - None Required

CONTAINERS USED

A - Amber
G - Clear Glass
V - VOA
P - Plastic
T - Tedlar
Tb - Tube

Preserved by

5-25-95
Date

ORIGINAL

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

DATE RECEIVED : 25-MAY-1995

REPORT NUMBER : H95-2994
REPORT DATE : 2-JUN-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

PROJECT : GPM Buckeye
PURCHASE ORDER NO : 3023-002

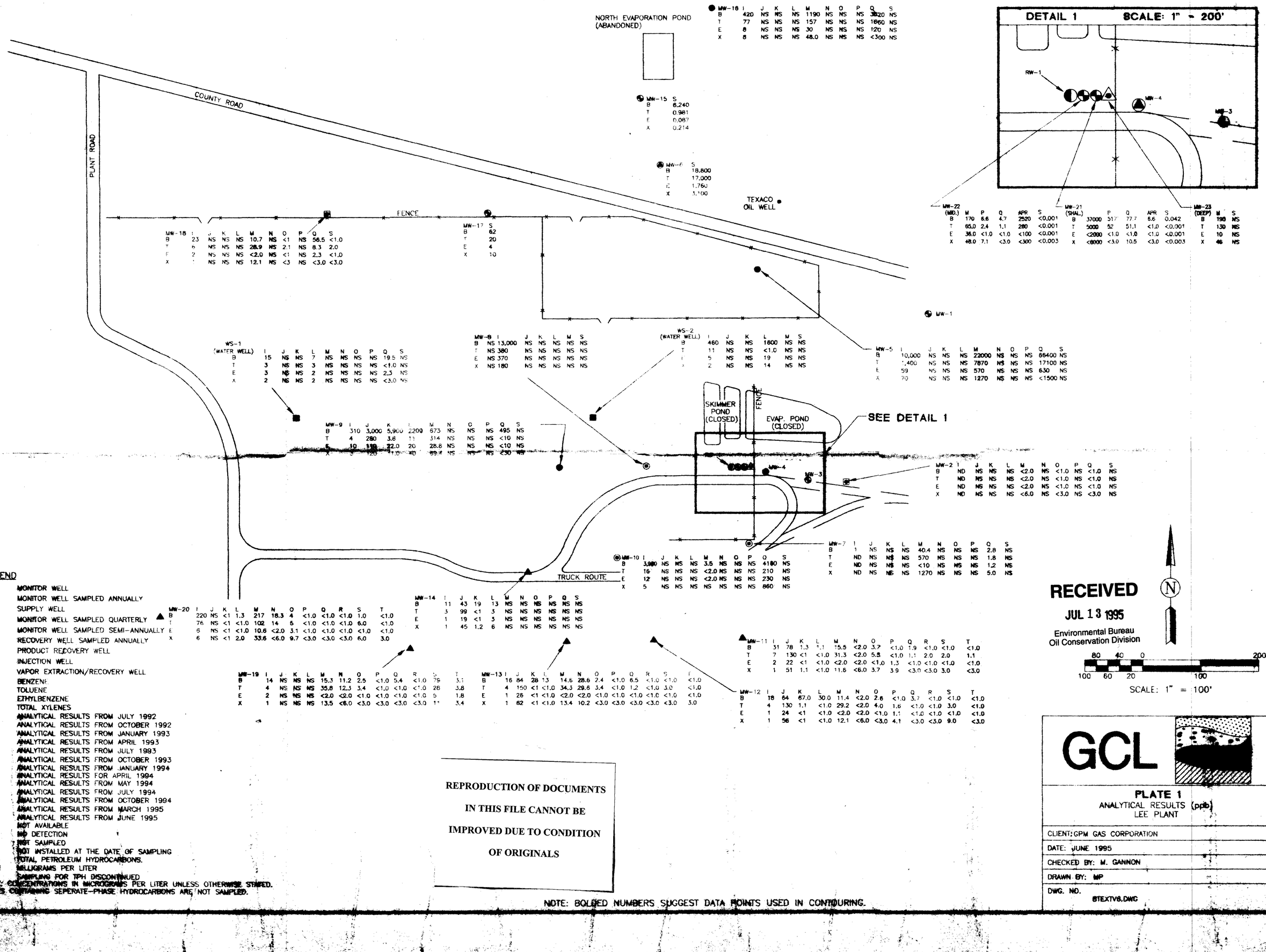
The enclosed results of analyses are representative of the sample(s) as received by the laboratory. Inchcape makes no representations or certifications as to the method of sample collection, sample identification, or transportation/handling procedures used by non-Inchcape personnel. Field Sampling protocol and sampling plans used by Inchcape personnel are developed and/or provided by the client. To the best of my knowledge, the information contained in this report is accurate and complete.

Kuei-Mei Li
Technical Director

6/2/95
Date

Robert R Barrientos
Project Manager

6/2/95
Date



MW-18	I	J	K	L	M	N	O	P	Q	S
B	420	NS	NS	NS	1190	NS	NS	NS	3820	NS
T	77	NS	NS	NS	157	NS	NS	NS	1660	NS
E	8	NS	NS	NS	30	NS	NS	NS	120	NS
X	8	NS	NS	NS	48.0	NS	NS	NS	<300	NS

MW-15	S
B	6,240
T	0.981
E	0.087
X	0.214

MW-6	S
B	18,800
T	17,000
E	1,760
X	3,100

MW-18	I	J	K	L	M	N	O	P	Q	S
B	23	NS	NS	NS	10.7	NS	<1	NS	56.5	<1.0
T	6	NS	NS	NS	28.9	NS	2.1	NS	8.3	2.0
E	2	NS	NS	NS	<2.0	NS	<1	NS	2.3	<1.0
X	1	NS	NS	NS	12.1	NS	<3	NS	<3.0	<3.0

MW-17	S
B	62
T	20
E	4
X	10

MW-22 (MID.)	M	P	Q	APR	S
B	170	6.6	4.7	2520	<0.001
T	65.0	2.4	1.1	280	<0.001
E	36.0	<1.0	<1.0	<100	<0.001
X	48.0	7.1	<3.0	<300	<0.003

MW-21 (SHAL.)	M	P	Q	APR	S
B	37000	517	77.7	6.6	0.042
T	5000	52	51.1	<1.0	<0.001
E	<2000	<1.0	<1.0	<1.0	<0.001
X	<8000	<3.0	10.5	<3.0	<0.003

MW-23 (DEEP)	M	S
B	190	NS
T	130	NS
E	10	NS
X	46	NS

MW-5	I	J	K	L	M	N	O	P	Q	S
B	10,000	NS	NS	NS	22000	NS	NS	NS	86400	NS
T	1,400	NS	NS	NS	7870	NS	NS	NS	17100	NS
E	59	NS	NS	NS	570	NS	NS	NS	630	NS
X	70	NS	NS	NS	1270	NS	NS	NS	<1500	NS

WS-1 (WATER WELL)	I	J	K	L	M	N	O	P	Q	S
B	15	NS	NS	7	NS	NS	NS	NS	19.5	NS
T	3	NS	NS	3	NS	NS	NS	NS	<1.0	NS
E	3	NS	NS	2	NS	NS	NS	NS	2.3	NS
X	2	NS	NS	2	NS	NS	NS	NS	<3.0	NS

MW-8	I	J	K	L	M	S
B	NS 13,000	NS	NS	NS	NS	NS
T	NS 380	NS	NS	NS	NS	NS
E	NS 370	NS	NS	NS	NS	NS
X	NS 180	NS	NS	NS	NS	NS

WS-2 (WATER WELL)	I	J	K	L	M	S
B	460	NS	NS	1600	NS	NS
T	11	NS	NS	<1.0	NS	NS
E	5	NS	NS	19	NS	NS
X	2	NS	NS	14	NS	NS

MW-9	I	J	K	L	M	N	O	P	Q	S
B	310	3,000	5,900	2200	673	NS	NS	NS	495	NS
T	4	280	3.8	11	314	NS	NS	NS	<10	NS
E	10	110	22.0	20	28.8	NS	NS	NS	<10	NS
X	5	120	1.0	40	89.4	NS	NS	NS	<30	NS

MW-2	I	J	K	L	M	N	O	P	Q	S
B	ND	NS	NS	NS	<2.0	NS	<1.0	NS	<1.0	NS
T	ND	NS	NS	NS	<2.0	NS	<1.0	NS	<1.0	NS
E	ND	NS	NS	NS	<2.0	NS	<1.0	NS	<1.0	NS
X	ND	NS	NS	NS	<6.0	NS	<3.0	NS	<3.0	NS

MW-10	I	J	K	L	M	N	O	P	Q	S
B	3,980	NS	NS	NS	3.5	NS	NS	NS	4180	NS
T	16	NS	NS	NS	<2.0	NS	NS	NS	210	NS
E	12	NS	NS	NS	<2.0	NS	NS	NS	230	NS
X	5	NS	NS	NS	NS	NS	NS	NS	860	NS

MW-7	I	J	K	L	M	N	O	P	Q	S
B	1	NS	NS	NS	40.4	NS	NS	NS	2.8	NS
T	ND	NS	NS	NS	570	NS	NS	NS	1.8	NS
E	ND	NS	NS	NS	<10	NS	NS	NS	1.2	NS
X	ND	NS	NS	NS	1270	NS	NS	NS	5.0	NS

MW-20	I	J	K	L	M	N	O	P	Q	R	S	T
B	220	NS	<1	1.3	217	18.3	4	<1.0	<1.0	<1.0	1.0	<1.0
T	76	NS	<1	<1.0	102	14	5	<1.0	<1.0	<1.0	6.0	<1.0
E	6	NS	<1	<1.0	10.6	<2.0	3.1	<1.0	<1.0	<1.0	<1.0	<1.0
X	6	NS	<1	2.0	33.6	<6.0	9.7	<3.0	<3.0	<3.0	6.0	3.0

MW-14	I	J	K	L	M	N	O	P	Q	S
B	11	43	19	13	NS	NS	NS	NS	NS	NS
T	3	99	<1	3	NS	NS	NS	NS	NS	NS
E	1	19	<1	3	NS	NS	NS	NS	NS	NS
X	1	45	1.2	6	NS	NS	NS	NS	NS	NS

MW-19	I	J	K	L	M	N	O	P	Q	R	S	T
B	14	NS	NS	NS	15.3	11.2	2.5	<1.0	5.4	<1.0	79	3.1
T	4	NS	NS	NS	35.8	12.3	3.4	<1.0	<1.0	<1.0	28	3.8
E	2	NS	NS	NS	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	5	1.8
X	1	NS	NS	NS	13.5	<6.0	<3.0	<3.0	<3.0	<3.0	11	3.4

MW-13	I	J	K	L	M	N	O	P	Q	R	S	T
B	16	84	28	13	14.6	28.6	2.4	<1.0	6.5	<1.0	<1.0	<1.0
T	4	150	<1	<1.0	34.3	29.6	3.4	<1.0	1.2	<1.0	3.0	<1.0
E	1	26	<1	<1.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
X	1	62	<1	<1.0	13.4	10.2	<3.0	<3.0	<3.0	<3.0	<3.0	3.0

MW-11	I	J	K	L	M	N	O	P	Q	R	S	T
B	31	78	1.3	1.1	15.5	<2.0	3.7	<1.0	1.9	<1.0	<1.0	<1.0
T	7	130	<1	<1.0	31.3	<2.0	5.5	<1.0	1.1	2.0	2.0	1.1
E	2	22	<1	<1.0	<2.0	<2.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0
X	1	51	1.1	<1.0	11.6	<6.0	3.7	3.9	<3.0	<3.0	3.0	<3.0

MW-12	I	J	K	L	M	N	O	P	Q	R	S	T
B	18	64	67.0	30.0	11.4	<2.0	2.6	<1.0	3.7	<1.0	<1.0	<1.0
T	4	130	1.1	<1.0	29.2	<2.0	4.0	1.6	<1.0	<1.0	3.0	<1.0
E	1	24	<1	<1.0	<2.0	<2.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0
X	1	56	<1	<1.0	12.1	<6.0	<3.0	4.1	<3.0	<3.0	9.0	<3.0

LEGEND

- ● MONITOR WELL
- ● MONITOR WELL SAMPLED ANNUALLY
- ■ SUPPLY WELL
- ▲ MONITOR WELL SAMPLED QUARTERLY
- ▣ MONITOR WELL SAMPLED SEMI-ANNUALLY
- ◉ RECOVERY WELL SAMPLED ANNUALLY
- ● PRODUCT RECOVERY WELL
- ▲ INJECTION WELL
- ◐ VAPOR EXTRACTION/RECOVERY WELL

B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
I	ANALYTICAL RESULTS FROM JULY 1992
J	ANALYTICAL RESULTS FROM OCTOBER 1992
K	ANALYTICAL RESULTS FROM JANUARY 1993
L	ANALYTICAL RESULTS FROM APRIL 1993
M	ANALYTICAL RESULTS FROM JULY 1993
N	ANALYTICAL RESULTS FROM OCTOBER 1993
O	ANALYTICAL RESULTS FROM JANUARY 1994
APR	ANALYTICAL RESULTS FOR APRIL 1994
P	ANALYTICAL RESULTS FROM MAY 1994
Q	ANALYTICAL RESULTS FROM JULY 1994
R	ANALYTICAL RESULTS FROM OCTOBER 1994
S	ANALYTICAL RESULTS FROM MARCH 1995
T	ANALYTICAL RESULTS FROM JUNE 1995
NA	NOT AVAILABLE
ND	NO DETECTION
NS	NOT SAMPLED
NI	NOT INSTALLED AT THE DATE OF SAMPLING
TPH	TOTAL PETROLEUM HYDROCARBONS.
mg/l	MILLIGRAMS PER LITER
*	SAMPLING FOR TPH DISCONTINUED

NOTE: CONCENTRATIONS IN MICROGRAMS PER LITER UNLESS OTHERWISE STATED.
WELLS CONTAINING SEPERATE-PHASE HYDROCARBONS ARE NOT SAMPLED.

NOTE: BOLDED NUMBERS SUGGEST DATA POINTS USED IN CONTOURING.

RECEIVED
JUL 13 1995
Environmental Bureau
Oil Conservation Division

N

80 40 0 200
100 60 20 100
SCALE: 1" = 100'

GCL

PLATE 1
ANALYTICAL RESULTS (ppb)
LEE PLANT

CLIENT: GPM GAS CORPORATION
DATE: JUNE 1995
CHECKED BY: M. GANNON
DRAWN BY: MP
DWG. NO. BTEXTV8.DWG

Analytical Technologies, Inc.

CLIENT	: NM OIL CONSERVATION DIV.	DATE RECEIVED	: 03/17/95
PROJECT #	: (NONE)		
PROJECT NAME	: PHILLIPS LEE GAS PLANT	REPORT DATE	: 04/10/95

ATI ID: 503354

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	CLAVE JONES WINDMILL	AQUEOUS	03/15/95
02	MW-12	AQUEOUS	03/16/95
03	MW-11	AQUEOUS	03/16/95
04	MW-13	AQUEOUS	03/16/95
05	MW-15	AQUEOUS	03/16/95
06	MW-6	AQUEOUS	03/16/95
07	MW-19	AQUEOUS	03/16/95
08	MW-17	AQUEOUS	03/16/95

---TOTALS---

MATRIX	#SAMPLES
AQUEOUS	8

ATI STANDARD DISPOSAL PRACTICE

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

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)

CLIENT : NM OIL CONSERVATION DIV. ATI I.D.: 503354

PROJECT # : (NONE)

PROJECT NAME : PHILLIPS LEE GAS PLANT

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
02	MW-12	AQUEOUS	03/16/95	NA	03/20/95	1
03	MW-11	AQUEOUS	03/16/95	NA	03/20/95	1
04	MW-13	AQUEOUS	03/16/95	NA	03/20/95	1

PARAMETER	UNITS	02	03	04
BENZENE	UG/L	0.6	<0.5	0.6
TOLUENE	UG/L	2.0	1.6	1.4
ETHYLBENZENE	UG/L	<0.5	<0.5	<0.5
TOTAL XYLENES	UG/L	2.7	2.2	2.2
SURROGATE:				
BROMOFLUOROBENZENE (%)		89	93	100

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
CLIENT : NM OIL CONSERVATION DIV. ATI I.D.: 503354
PROJECT # : (NONE)
PROJECT NAME : PHILLIPS LEE GAS PLANT

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
05	MW-15	AQUEOUS	03/16/95	NA	03/20/95	100
06	MW-6	AQUEOUS	03/16/95	NA	03/20/95	100
07	MW-19	AQUEOUS	03/16/95	NA	03/20/95	1

PARAMETER	UNITS	05	06	07
BENZENE	UG/L	4700	15000	59
TOLUENE	UG/L	720	14000	21
ETHYLBENZENE	UG/L	76	1500	3.8
TOTAL XYLENES	UG/L	120	2400	8.4
SURROGATE:				
BROMOFLUOROBENZENE (%)		95	89	96

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)

CLIENT : NM OIL CONSERVATION DIV. ATI I.D.: 503354

PROJECT # : (NONE)

PROJECT NAME : PHILLIPS LEE GAS PLANT

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
08	MW-17	AQUEOUS	03/16/95	NA	03/20/95	1

PARAMETER	UNITS	08
BENZENE	UG/L	48
TOLUENE	UG/L	16
ETHYLBENZENE	UG/L	3.2
TOTAL XYLENES	UG/L	7.6
SURROGATE:		
BROMOFLUOROBENZENE (%)		98

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

REAGENT BLANK

TEST	: BTEX (EPA 8020)	ATI I.D.	: 503354
BLANK I.D.	: 032095	MATRIX	: AQUEOUS
CLIENT	: NM OIL CONSERVATION DIV.	DATE EXTRACTED	: NA
PROJECT #	: (NONE)	DATE ANALYZED	: 03/20/95
PROJECT NAME	: PHILLIPS LEE GAS PLANT	DILUTION FACTOR	: 1

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 (%)		96

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

TEST	: BTEX (EPA 8020)		
MSMSD #	: 50335404	ATI I.D.	: 503354
CLIENT	: NM OIL CONSERVATION DIV.	DATE EXTRACTED	: NA
PROJECT #	: (NONE)	DATE ANALYZED	: 03/20/95
PROJECT NAME	: PHILLIPS LEE GAS PLANT	SAMPLE MATRIX	: AQUEOUS
REF. I.D.	: 50335404	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD
BENZENE	0.6	10	9.6	90	9.1	85	5
TOLUENE	1.4	10	11	96	10	86	10
ETHYLBENZENE	<0.5	10	9.7	97	9.5	95	2
TOTAL XYLENES	2.2	30	30	93	29	89	3

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

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

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

AT I # 503354

LABORATORY SAMPLE RECORD

PROJ. NO.	PROJECT NAME: Phillips Lea Gas Plant	NO. OF CONTAINERS	8010/8020	Cations/Anions Heavy Metals	602			REMARKS
SAMPLERS: (Signature) Olson								
DATE TIME	STATION LOCATION							
01 9503151300	Clave Jones Windmill	4	2	1	1			Al, Antimony, As, Ba, Be,
02 9503160845	MW-12	2				2		Cd, Ca, Cr, Co, Cu, Fe, Pb,
03 " 0930	MW-11	2				2		Mg, Mn, Hg, Ni, K, Se, ~~Si~~, Ag,
04 " 1030	MW-13	2				2		Na, Tl, Vn, Zn
05 " 1300	MW-15	2				2		
06 " 1310	MW-6	2				2		Fl, Br, Alk, Cl, SO4, TDS,
07 " 1400	MW-19	2				2		pH, EC
08 "	MW-17	2				2		
09								

Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Bill Olson	3/17/95 1450	D. Cutler
Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)

SEALS INTACT ☐ YES ☐ NO

: (Signature)

: (Signature)

Date / Time

Remarks

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

Analytical**Technologies,**Inc. Albuquerque, NM

Chain of Custody

DATE 3/17/95 PAGE 1 OF 1

NETWORK PROJECT MANAGER: LETITIA KRAKOWSKI

COMPANY: **Analytical Technologies, Inc.**
ADDRESS: 2709-D Pan American Freeway, NE
Albuquerque, NM 87107

CLIENT PROJECT MANAGER:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	TOX	TOC	ORGANIC LEAD	SULFIDE	SURFACTANTS (MBAS)		632/632 MOD	619/619 MOD	610/8310	Al,Sb,As,Ba,Be,Cd,Ca,Cr,	Co,Cu,Fe,Pb,Mg,Mn,Hg,	8240 (TCLP 1311) ZHE	Ni,K,Se,Ag,Na,Tl,V,Zn	Diesel/Gasoline/BTXE/MTBE/ (MOD 8015/8020)	Volatile Organics GC/MS (624/8240)	F,Br,Alk,Cl,SO4,TDS,pH,EC	NACE	ASBESTOS		BOD	TOTAL COLIFORM	FECAL COLIFORM		GROSS ALPHA/BETA	RADIUM 226/228		AIR - O2, CO2, METHANE	AIR/Diesel/Gasoline/BTXE/ (MOD 8015/8020)	NUMBER OF CONTAINERS
503354-01	3/15	1300	AQ	1										X	X		X			X													2

PROJECT INFORMATION	
PROJECT NUMBER:	503354
PROJECT NAME:	EMNRC
QC LEVEL: (STD) IV	
(QC REQUIRED) MS MSD BLANK	
TAT: (STANDARD) RUSH!	

DUE DATE: 3/31
RUSH SURCHARGE: 0
CLIENT DISCOUNT: See Quote

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	2
CHAIN OF CUSTODY SEALS	NA
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	

SAMPLES SENT TO:	
SAN DIEGO	
FT. COLLINS	
RENTON	
PENSACOLA	
PORTLAND	
PHOENIX	X
FIBERQUANT	

RELINQUISHED BY: 1.
Signature: [signature] Time: 1730
Printed Name: D. Kimmelotter Date: 3/17/95
Analytical Technologies, Inc.
Albuquerque

RECEIVED BY: (LAB) 1.
Signature: Time:
Printed Name: Date:
Company:

RELINQUISHED BY: 2.
Signature: Time:
Printed Name: Date
Company:

RECEIVED BY: (LAB) 2.
Signature: Melanie Giarguzzo Time: 1135
Printed Name: Melanie Giarguzzo Date: 3/18/95
Company: ATI-Phoenix

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab Analytical Technology Contract No. 95-521.07-040

OCD Sample No. 950316 0845

Collection Date	Collection Time	Collected by—Person/Agency
3/16/95	0845	Olson /OCD

SITE INFORMATION

Sample location: Phillips Lee Gas Plant MW-12

Collection Site Description:

Township, Range, Section, Tract: | | | + | | + | + | | |

SEND FINAL REPORT TO ▸
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

SAMPLING CONDITIONS

☐ Bailed ☒ Pump ☐ Dipped ☐ Tap

Water level:

Discharge:

Sample type: grab

pH(00400): 6.85

Conductivity (Uncorrected): 1730 µmho

Water Temp. (00010): 67.5°F

Conductivity at 25° C: µmho

SAMPLE FIELD TREATMENT— *Check proper boxes*

No. of samples submitted: 2

☒ **NF:** Whole sample (Non-filtered)
☐ **F:** Filtered in field with 0.45 µ membrane filter
☐ **PF:** Pre-filtered w/45 µ membrane filter

☐ **NA:** No acid added
☐ **A:** HCL
☐ **A:** 2ml H_2SO_4/L added
☐ **A:** 5ml conc. HNO_3 added
☐ **A:** 4ml fuming HNO_3 added
☒ $HgCl_2$

FIELD COMMENTS:

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☒ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☐ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☐ 031	Se	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☐ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☐ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☐ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab Analytical Technology Contract No. 95-521.07-040

OCD Sample No. 9503160930

Collection Date	Collection Time	Collected by—Person/Agency
3/16/95	0930	Olson /OCD

SITE INFORMATION Phillips Lee Gcs Plant

Sample location MW-11

Collection Site Description

Township, Range, Section, Tract:

SEND FINAL REPORT TO ▸ ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

SAMPLING CONDITIONS

☐ Bailed ☒ Pump
☐ Dipped ☐ Tap

pH(00400) 6.78

Water Temp. (00010) @ 68.8°F

Water level

Discharge

Sample type grab

Conductivity (Uncorrected) 2310 µmho

Conductivity at 25° C µmho

SAMPLE FIELD TREATMENT— *Check proper boxes*

No. of samples submitted: 2

☒ **NF:** Whole sample (Non-filtered)
☐ **F:** Filtered in field with 0.45 µ membrane filter
☐ **PF:** Pre-filtered w/45 µ membrane filter

☐ **NA:** No acid added
☐ **A:** HCL
☐ **A:** 2ml H_2SO_4/L added
☐ **A:** 5ml conc. HNO_3 added
☐ **A:** 4ml fuming HNO_3 added
☒ HgCl

FIELD COMMENTS:

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☒ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☐ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☐ 031	Se	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☐ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☐ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☐ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab Analytical Technology Contract No. 95-521.07-040

OCD Sample No. 950316 1030

Collection Date	Collection Time	Collected by —Person/Agency
3/16/95	1030	Olson /OCD

SITE INFORMATION

Sample location: Phillips Lee Gas Plant MW-13

Collection Site Description:

Township, Range, Section, Tract:

SEND FINAL REPORT TO

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

SAMPLING CONDITIONS

☐ Bailed ☒ Pump ☐ Dipped ☐ Tap

Water level:

Discharge:

Sample type: grab

pH(00400): 6.65

Conductivity (Uncorrected): 1875 µmho

Water Temp. (00010): 67.9 °F

Conductivity at 25° C: µmho

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 2

☒ **NF:** Whole sample (Non-filtered)
☐ **F:** Filtered in field with 0.45 µ membrane filter
☐ **PF:** Pre-filtered w/45 µ membrane filter

☐ **NA:** No acid added
☐ **A:** HCL
☐ **A:** 2ml H_2SO_4/L added
☐ **A:** 5ml conc. HNO_3 added
☐ **A:** 4ml fuming HNO_3 added
☒ HgCl

FIELD COMMENTS:

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☒ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☐ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☐ 031	Se	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☐ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☐ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☐ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab Analytical Technology Contract No. 95-521.07-040

OCD Sample No. 9503161300

Collection Date	Collection Time	Collected by—Person/Agency
3/16/95	1300	Olson /OCD

SITE INFORMATION Phillips Lee Gas Plant

Sample location MW-15

Collection Site Description

Township, Range, Section, Tract:

SEND FINAL REPORT TO ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

SAMPLING CONDITIONS

☐ Bailed ☒ Pump
☐ Dipped ☐ Tap

Water level

Discharge

Sample type grab

pH(00400) 6.81

Conductivity (Uncorrected) 800 µmho

Water Temp. (00010) 68.9 °F

Conductivity at 25° C µmho

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 2

☒ **NF:** Whole sample (Non-filtered)
☐ **F:** Filtered in field with 0.45 µ membrane filter
☐ **PF:** Pre-filtered w/45 µ membrane filter

☐ **NA:** No acid added
☐ **A:** HCL
☐ **A:** 2ml H_2SO_4/L added
☐ **A:** 5ml conc. HNO_3 added
☐ **A:** 4ml fuming HNO_3 added
☒ H_2Cl

FIELD COMMENTS:

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☒ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☐ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☐ 031	Se	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☐ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☐ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☐ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab Analytical Technology Contract No. 95-521.07-040

OCD Sample No. 9503161310

Collection Date	Collection Time	Collected by—Person/Agency
3/16/95	1310	Olson /OCD

SITE INFORMATION Phillips Lee Gas Plant

Sample location MW-6

Collection Site Description

Township, Range, Section, Tract:

SEND FINAL REPORT TO

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

SAMPLING CONDITIONS

☐ Bailed ☒ Pump
☐ Dipped ☐ Tap

pH(00400)

Water Temp. (00010)

Water level

Discharge

Sample type grab

Conductivity(Uncorrected) μmho

Conductivity at 25° C μmho

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 2

☒ **NF:** Whole sample (Non-filtered)
☐ **F:** Filtered in field with 0.45 μ membrane filter
☐ **PF:** Pre-filtered w/45 μ membrane filter

☐ **NA:** No acid added
☐ **A:** HCL
☐ **A:** 2ml H_2SO_4/L added
☐ **A:** 5ml conc. HNO_3 added
☐ **A:** 4ml fuming HNO_3 added
☒ $HgCl$

FIELD COMMENTS:

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☒ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☐ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☐ 031	Se	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☐ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☐ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☐ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER_____	

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab Analytical Technology   Contract No. 95-521.07-040

OCD Sample No. 95-0316 1400

Collection Date	Collection Time	Collected by —Person/Agency
3/16/95	1400	Olson /OCD

SITE INFORMATION Phillips Lee Gas Plant

Sample location MW-19

Collection Site Description

pumping recovery well

Township, Range, Section, Tract: | | | + | | + | + | |

SEND FINAL REPORT TO ▸
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

SAMPLING CONDITIONS

☐ Bailed ☒ Pump
☐ Dipped ☐ Tap

Water level	
Discharge	
pH(00400) 6.43	Sample type grab
Water Temp. (00010) 67.7 °F	Conductivity (Uncorrected) 1750 µmho
	Conductivity at 25° C µmho

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 2

☒ **NF:** Whole sample (Non-filtered)
☐ **F:** Filtered in field with 0.45 µ membrane filter
☐ **PF:** Pre-filtered w/45 µ membrane filter

☐ **NA:** No acid added
☐ **A:** HCL
☐ **A:** 2ml H_2SO_4/L added
☐ **A:** 5ml conc. HNO_3 added
☐ **A:** 4ml fuming HNO_3 added
☒ HgCl

FIELD COMMENTS:

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☒ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☐ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☐ 031	Se	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☐ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☐ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☐ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER ______	

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab Analytical Technology Contract No. 95-521.07-040

OCD Sample No. 9503161440

Collection Date	Collection Time	Collected by —Person/Agency
3/16/95	1440	Olson /OCD

SITE INFORMATION

Sample location: Phillips Lee Gas Plant MW-17

Collection Site Description:

Township, Range, Section, Tract: | | | + | | + | + | |

SEND FINAL REPORT TO ▸ ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

SAMPLING CONDITIONS

☐ Bailed ☒ Pump ☐ Dipped ☐ Tap

pH(00400)

Water Temp. (00010)

Water level

Discharge

Sample type: grab

Conductivity (Uncorrected) μmho

Conductivity at 25° C μmho

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 2

☒ **NF:** Whole sample (Non-filtered)
☐ **F:** Filtered in field with 0.45 μ membrane filter
☐ **PF:** Pre-filtered w/45 μ membrane filter

☐ **NA:** No acid added
☐ **A:** HCL
☐ **A:** 2ml H_2SO_4/L added
☐ **A:** 5ml conc. HNO_3 added
☐ **A:** 4ml fuming HNO_3 added
☒ $HgCl$

FIELD COMMENTS:

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☒ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☐ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☐ 031	Se	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☐ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☐ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
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☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	

GPM GAS CORPORATION

GPM GAS SERVICES COMPANY
A DIVISION OF PHILLIPS PETROLEUM COMPANY

4044 PENBROOK
ODESSA, TX 79762

April 25, 1995

Mr. William Olson
Hydrogeologist
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: First Quarter 1995 Analytical Results,
Lee Plant, Discharge Plan GW-2

Dear Mr. Olson:

GPM Gas Corporation (GPM) herein submits the laboratory analytical reports for groundwater sampling at our Lee Plant for the first quarter of 1995 (see attached analytical results, report date October 22, 1995). Sample collection was conducted on March 14, 15 and 16, 1995, pursuant to the NMOCD Discharge Plan GW-2 requirements. Samples were collected by our consultant, GCL, and NMOCD (Mr. William Olson).

Depth to groundwater and product thickness measurements were conducted at all monitor wells. A correction for specific gravity was applied to the water level measurements in MW-5 to account for free-phase floating product in this well. Previous contour maps indicated a water level depression in the area of MW-5. After applying the specific gravity correction, the depression is no longer present. Groundwater level contour maps for the past three quarters are provided as attachments.

Table 1 summarizes the average daily pumping rates from monitor wells RW-1, MW-6, MW-7, MW-10 and MW-23 for the months of January, February and March 1995.

Quarterly and semi-annual groundwater sampling was conducted at the following monitor wells: MW-6, MW-11, MW-12, MW-13, MW-15 , MW-17, MW-18, MW-19, MW-20. Samples were also collected from monitor wells MW-21 and MW-22, the shallow and intermediate wells associated with the groundwater remediation system. All samples were submitted to NDRC Laboratories, Inc., Houston, Texas, following strict chain-of-custody procedures to ensure the integrity of the samples during transport to the laboratory. The groundwater samples from the eleven wells were analyzed for dissolved aromatic hydrocarbons using EPA Method 602.

Table 2 provides a summary of the first quarter 1995 analytical results. A discussion of field data and analytical results is provided below.

- Free-phase floating product was encountered in MW-4 and MW-5 (0.24 and 5.96 foot layers, respectively). The free-phase product layer has decreased in MW-4 and increased in MW-5 as compared to the levels observed in October 1994 (1.15 and 4.08, respectively).

- The results for BTEX analysis of water samples from downgradient wells, MW-11, MW-12, MW-13, MW-18, and MW-20 indicated concentrations below WQCC water quality standards.

- The benzene concentration of 0.079 ppm in downgradient well, MW-19, exceeded the WQCC standard for benzene (0.010 ppm). Since BTEX concentrations in MW-19 have been below the WQCC standards for approximately one year (see plate 1), the current results suggest a possible sampling or laboratory analytical error. MW-15, which contains known BTEX contamination, was sampled just prior to MW-19. Some residual contamination may have been present in the sampling equipment. MW-19 will be re-sampled in the second quarter of 1995. Further data analysis will be conducted at that time and submitted with the quarterly report due July 1, 1995.

- MW-21, screened across the water table and located between RW-1 and MW-4, yielded a benzene concentration of 0.042 ppm which exceeds the WQCC standard. Toluene, ethyl benzene and xylenes were below detection in this well. A groundwater sample from MW-22 (which is screened 15 to 20 feet below the water table and located between MW-21 and MW-4), showed no indication of BTEX contamination.

- Upgradient monitoring wells, MW-6, 15, 17, and 18, were contaminated. BTEX contamination in MW-6 exceeded the WQCC standards. Benzene and toluene concentrations in MW-15 were detected above the WQCC standards. In MW-17, the benzene concentration exceeded the WQCC standard. MW-18 had a hit of toluene at 0.002 ppm which is below the 0.750 ppm WQCC standard.

In an attempt to identify possible upgradient sources of contamination, GPM's consultant, GCL, conducted an historical review of the Lee Plant site using aerial photographs dating back to 1949. Using this method, no other sources were located. However, due to the poor quality of the aerials, other means should be used to continue the investigation into potential upgradient sources of hydrocarbon contamination which may be impacting the site.

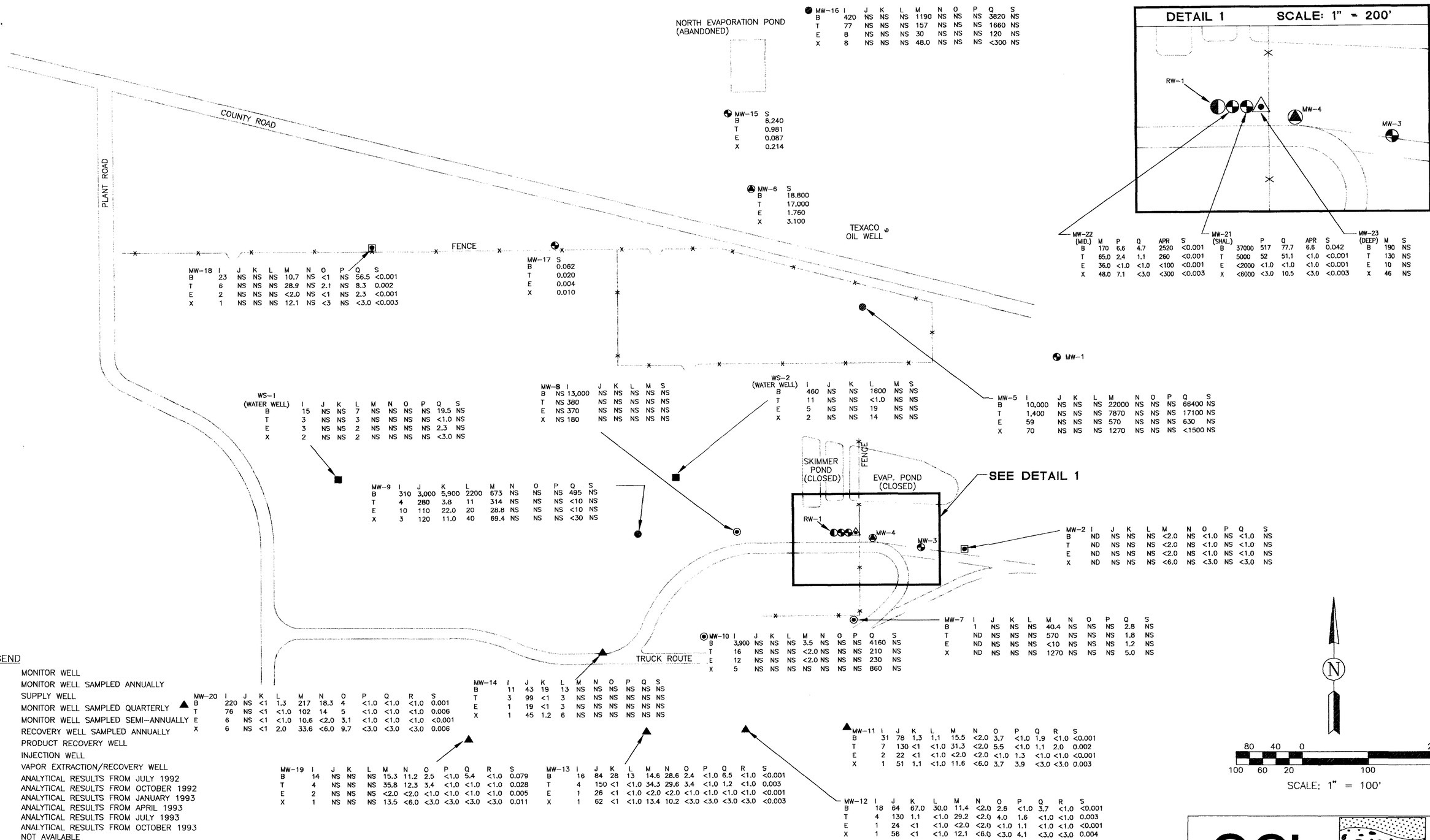
We appreciate OCD's visit to the Lee Plant in March. If GPM can provide additional information or answer any questions, please contact me at (915) 368-1085.

Sincerely,

Vince Bernard
Safety and Environmental Director
New Mexico Region

Attachments

cc: (w/o attach)
S. J. Seeby
J. D. Green
R. G. Stubbs
G. R. Glinsmann
Maureen Gannon - GCL, Albuquerque



DETAIL 1 SCALE: 1" = 200'

MW-22 (MID.)	M	P	Q	APR	S
B	170	6.6	4.7	2520	<0.001
T	65.0	2.4	1.1	260	<0.001
E	36.0	<1.0	<1.0	<100	<0.001
X	48.0	7.1	<3.0	<300	<0.003

MW-21 (SHAL.)	P	Q	APR	S
B	37000	517	77.7	6.6	0.042
T	5000	52	51.1	<1.0	<0.001
E	<2000	<1.0	<1.0	<1.0	<0.001
X	<6000	<3.0	10.5	<3.0	<0.003

MW-23 (DEEP)	M	S
B	190	NS
T	130	NS
E	10	NS
X	46	NS

MW-16	I	J	K	L	M	N	O	P	Q	S
B	420	NS	NS	NS	1190	NS	NS	NS	3820	NS
T	77	NS	NS	NS	157	NS	NS	NS	1660	NS
E	8	NS	NS	NS	30	NS	NS	NS	120	NS
X	8	NS	NS	NS	48.0	NS	NS	NS	<300	NS

MW-15	S
B	6.240
T	0.981
E	0.087
X	0.214

MW-6	S
B	18.800
T	17.000
E	1.760
X	3.100

MW-18	I	J	K	L	M	N	O	P	Q	S
B	23	NS	NS	NS	10.7	NS	<1	NS	56.5	<0.001
T	6	NS	NS	NS	28.9	NS	2.1	NS	8.3	0.002
E	2	NS	NS	NS	<2.0	NS	<1	NS	2.3	<0.001
X	1	NS	NS	NS	12.1	NS	<3	NS	<3.0	<0.003

MW-17	S
B	0.062
T	0.020
E	0.004
X	0.010

MW-5	I	J	K	L	M	N	O	P	Q	S
B	10,000	NS	NS	NS	22000	NS	NS	NS	66400	NS
T	1,400	NS	NS	NS	7870	NS	NS	NS	17100	NS
E	59	NS	NS	NS	570	NS	NS	NS	630	NS
X	70	NS	NS	NS	1270	NS	NS	NS	<1500	NS

WS-1 (WATER WELL)	I	J	K	L	M	N	O	P	Q	S
B	15	NS	NS	7	NS	NS	NS	NS	19.5	NS
T	3	NS	NS	3	NS	NS	NS	NS	<1.0	NS
E	3	NS	NS	2	NS	NS	NS	NS	2.3	NS
X	2	NS	NS	2	NS	NS	NS	NS	<3.0	NS

MW-8	I	J	K	L	M	N	O	P	Q	S
B	NS	13,000	NS	NS	NS	NS	NS	NS	NS	NS
T	NS	380	NS	NS	NS	NS	NS	NS	NS	NS
E	NS	370	NS	NS	NS	NS	NS	NS	NS	NS
X	NS	180	NS	NS	NS	NS	NS	NS	NS	NS

WS-2 (WATER WELL)	I	J	K	L	M	S
B	460	NS	NS	1600	NS	NS
T	11	NS	NS	<1.0	NS	NS
E	5	NS	NS	19	NS	NS
X	2	NS	NS	14	NS	NS

MW-9	I	J	K	L	M	N	O	P	Q	S
B	310	3,000	5,900	2200	673	NS	NS	NS	495	NS
T	4	280	3.8	11	314	NS	NS	NS	<10	NS
E	10	110	22.0	20	28.8	NS	NS	NS	<10	NS
X	3	120	11.0	40	69.4	NS	NS	NS	<30	NS

MW-2	I	J	K	L	M	N	O	P	Q	S
B	ND	NS	NS	NS	<2.0	NS	<1.0	NS	<1.0	NS
T	ND	NS	NS	NS	<2.0	NS	<1.0	NS	<1.0	NS
E	ND	NS	NS	NS	<2.0	NS	<1.0	NS	<1.0	NS
X	ND	NS	NS	NS	<6.0	NS	<3.0	NS	<3.0	NS

MW-10	I	J	K	L	M	N	O	P	Q	S
B	3,900	NS	NS	NS	3.5	NS	NS	NS	4160	NS
T	16	NS	NS	NS	<2.0	NS	NS	NS	210	NS
E	12	NS	NS	NS	<2.0	NS	NS	NS	230	NS
X	5	NS	NS	NS	NS	NS	NS	NS	860	NS

MW-7	I	J	K	L	M	N	O	P	Q	S
B	1	NS	NS	NS	40.4	NS	NS	NS	2.8	NS
T	ND	NS	NS	NS	570	NS	NS	NS	1.8	NS
E	ND	NS	NS	NS	<10	NS	NS	NS	1.2	NS
X	ND	NS	NS	NS	1270	NS	NS	NS	5.0	NS

MW-14	I	J	K	L	M	N	O	P	Q	S
B	11	43	19	13	NS	NS	NS	NS	NS	NS
T	3	99	<1	3	NS	NS	NS	NS	NS	NS
E	1	19	<1	3	NS	NS	NS	NS	NS	NS
X	1	45	1.2	6	NS	NS	NS	NS	NS	NS

MW-20	I	J	K	L	M	N	O	P	Q	R	S
B	220	NS	<1	1.3	217	18.3	4	<1.0	<1.0	<1.0	0.001
T	76	NS	<1	<1.0	102	14	5	<1.0	<1.0	<1.0	0.006
E	6	NS	<1	<1.0	10.6	<2.0	3.1	<1.0	<1.0	<1.0	<0.001
X	6	NS	<1	2.0	33.6	<6.0	9.7	<3.0	<3.0	<3.0	0.006

MW-19	I	J	K	L	M	N	O	P	Q	R	S
B	14	NS	NS	NS	15.3	11.2	2.5	<1.0	5.4	<1.0	0.079
T	4	NS	NS	NS	35.8	12.3	3.4	<1.0	<1.0	<1.0	0.028
E	2	NS	NS	NS	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	0.005
X	1	NS	NS	NS	13.5	<6.0	<3.0	<3.0	<3.0	<3.0	0.011

MW-13	I	J	K	L	M	N	O	P	Q	R	S
B	16	84	28	13	14.6	28.6	2.4	<1.0	6.5	<1.0	<0.001
T	4	150	<1	<1.0	34.3	29.6	3.4	<1.0	1.2	<1.0	0.003
E	1	26	<1	<1.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<0.001
X	1	62	<1	<1.0	13.4	10.2	<3.0	<3.0	<3.0	<3.0	<0.003

MW-11	I	J	K	L	M	N	O	P	Q	R	S
B	31	78	1.3	1.1	15.5	<2.0	3.7	<1.0	1.9	<1.0	<0.001
T	7	130	<1	<1.0	31.3	<2.0	5.5	<1.0	1.1	2.0	0.002
E	2	22	<1	<1.0	<2.0	<2.0	<1.0	1.3	<1.0	<1.0	<0.001
X	1	51	1.1	<1.0	11.6	<6.0	3.7	3.9	<3.0	<3.0	0.003

MW-12	I	J	K	L	M	N	O	P	Q	R	S
B	18	64	67.0	30.0	11.4	<2.0	2.6	<1.0	3.7	<1.0	<0.001
T	4	130	1.1	<1.0	29.2	<2.0	4.0	1.6	<1.0	<1.0	0.003
E	1	24	<1	<1.0	<2.0	<2.0	<1.0	1.1	<1.0	<1.0	<0.001
X	1	56	<1	<1.0	12.1	<6.0	<3.0	4.1	<3.0	<3.0	0.004

LEGEND

- MONITOR WELL
- MONITOR WELL SAMPLED ANNUALLY
- SUPPLY WELL
- MONITOR WELL SAMPLED QUARTERLY
- MONITOR WELL SAMPLED SEMI-ANNUALLY
- RECOVERY WELL SAMPLED ANNUALLY
- PRODUCT RECOVERY WELL
- INJECTION WELL
- VAPOR EXTRACTION/RECOVERY WELL
- I ANALYTICAL RESULTS FROM JULY 1992
- J ANALYTICAL RESULTS FROM OCTOBER 1992
- K ANALYTICAL RESULTS FROM JANUARY 1993
- L ANALYTICAL RESULTS FROM APRIL 1993
- M ANALYTICAL RESULTS FROM JULY 1993
- N ANALYTICAL RESULTS FROM OCTOBER 1993
- NA NOT AVAILABLE
- ND NO DETECTION
- NS NOT SAMPLED
- NI NOT INSTALLED AT THE DATE OF SAMPLING
- O ANALYTICAL RESULTS FROM JANUARY 1994
- P ANALYTICAL RESULTS FROM MAY 1994
- Q ANALYTICAL RESULTS FROM JULY 1994
- R ANALYTICAL RESULTS FROM OCTOBER 1994
- S ANALYTICAL RESULTS FROM MARCH 1995
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X TOTAL XYLENES
- APR ANALYTICAL RESULTS FOR APRIL 1994
- TPH TOTAL PETROLEUM HYDROCARBONS.
- mg/l MILLIGRAMS PER LITER
- * SAMPLING FOR TPH DISCONTINUED

NOTE: CONCENTRATIONS IN MICROGRAMS PER LITER UNLESS OTHERWISE STATED.
WELLS CONTAINING SEPERATE-PHASE HYDROCARBONS ARE NOT SAMPLED.

NOTE: BOLDED NUMBERS SUGGEST DATA POINTS USED IN CONTOURING.

N

80 40 0 200
100 60 20 100
SCALE: 1" = 100'

GCL

PLATE 1
CONTOUR MAP
of BENZENE CONCENTRATIONS (ppb)
(REVISED 4/95)

CLIENT: GPM GAS CORPORATION

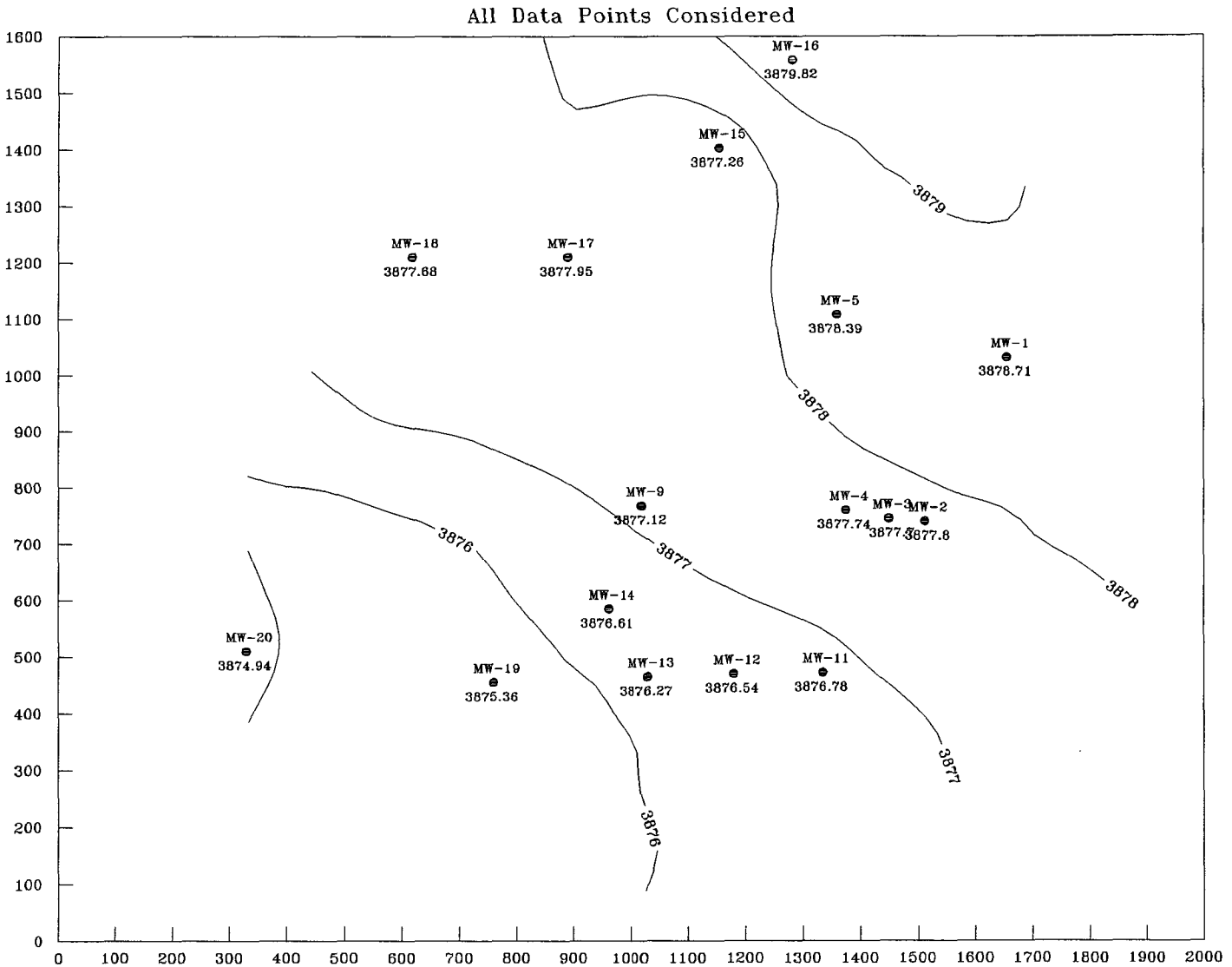
DATE: MARCH 1995

CHECKED BY: M. GANNON

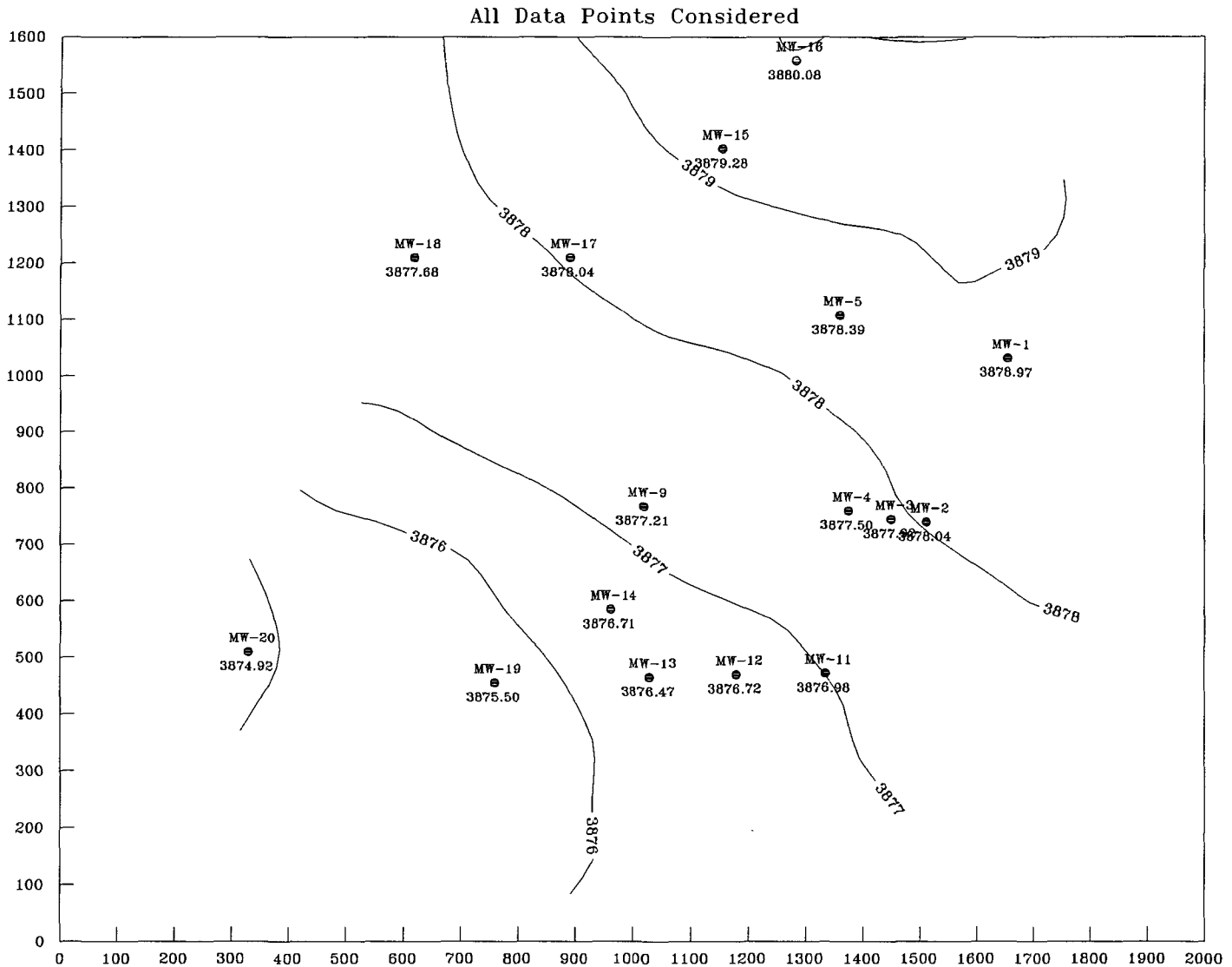
DRAWN BY: MP

DWG. NO.
BTEXTV5.DWG

GPM Lee Plant March 1995 Water Level Contour



GPM Lee Plant October 1994 Water Level Contour



GPM Lee Plant July 1994 Water Level Contour

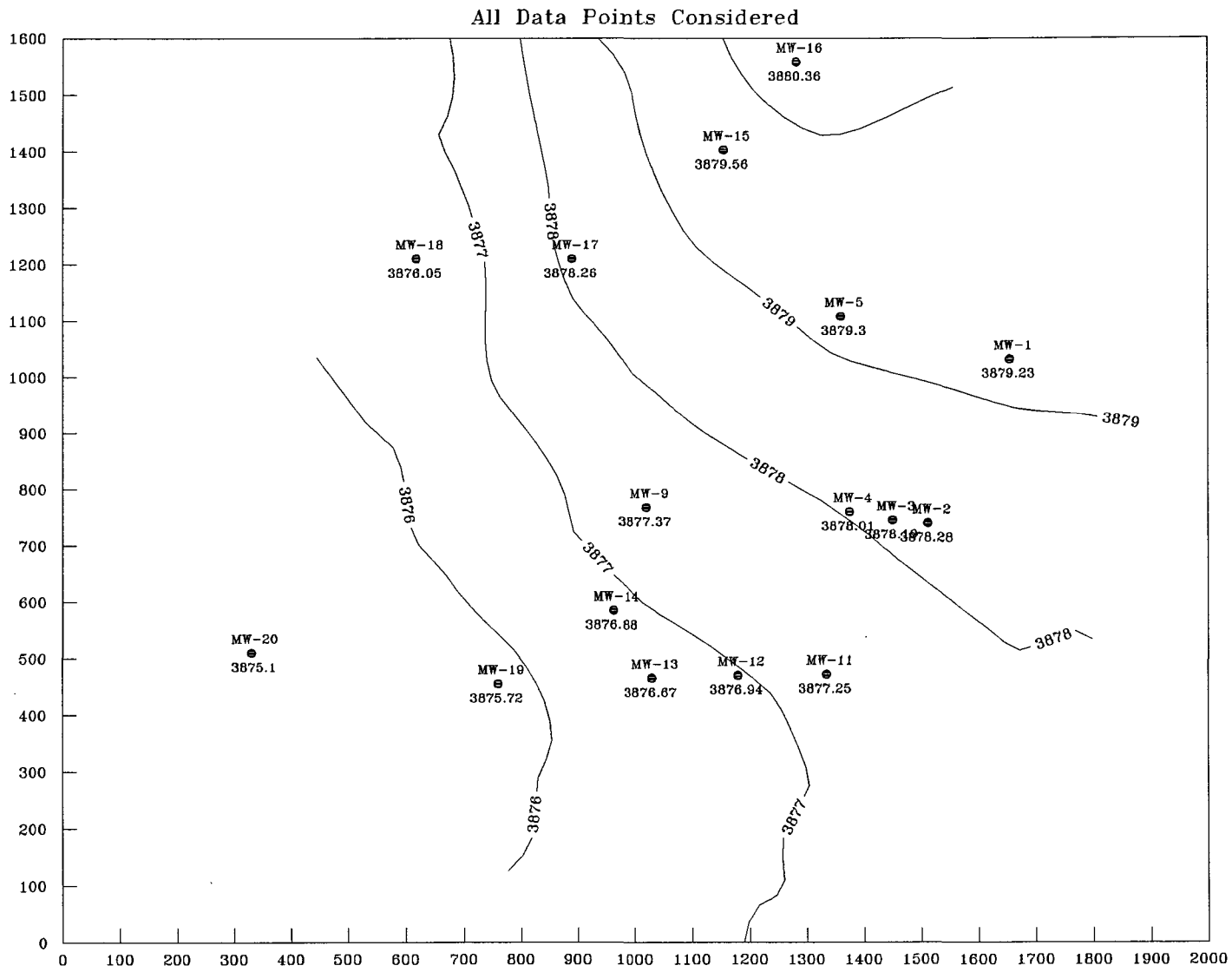


TABLE 1

Average Daily Pumping Rates

	January 1995	February 1995	March 1995
RW-1	1038.1	927.0	2971.3
MW-6	32.4	723.3	1057.0
MW-7	165.5	217.9	0.0
MW-10	1499.1	5365.8	4638.1
MW-23	303.7	253.6	287.7

\drl\3023\1STQTR95.WQ2:A

TABLE 2

First Quarter Analytical Results - Lee Plant - March 1995

	Benzene ppm	Toluene ppm	Ethyl Benzene ppm	Xylenes ppm
WQCC Stds	0.010	0.750	0.750	0.620
UP GRADIENT				
MW-6	**18.800**	**17.000**	**1.760**	**3.100**
MW-15	**6.240**	**0.981**	0.087	0.214
MW-17	**0.062**	0.020	0.004	0.010
MW-18	<0.001	0.002	<0.001	<0.003
DOWN GRADIENT				
MW-11	<0.001	0.002	<0.001	0.003
MW-12	<0.001	0.003	<0.001	0.004
MW-13	<0.001	0.003	<0.001	<0.003
MW-19	**0.079**	0.028	0.005	0.011
MW-20	0.001	0.006	<0.001	0.006
REMEDIATION SYSTEM				
MW-21	**0.042**	<0.001	<0.001	<0.003
MW-22	<0.001	<0.001	<0.001	<0.003
DL	0.001	0.001	0.001	0.003
TRIP BLANK	ND	ND	ND	ND

* Values shown in bold are above WQCC Standards

\drl\3023\1STQTR95.WQ2:B

Inchcape Testing Services
NDRC Laboratories

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SUMMARY REPORT

CLIENT : GCL
CONTACT : Ms. Annette Montoya
PROJECT : 3023.002/GPM

JOB NUMBER : H95-1607
REPORT DATE : 23-MAR-1995

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
11	9503151200	Groundwater	15-MAR-1995
12	9503151300	Groundwater	15-MAR-1995

MW-22 MW-21

BTEX ANALYSIS, EPA 602		11	12		
Benzene	µg/L	< 1.0	42.0		
Toluene	µg/L	< 1.0	< 1.0		
Ethyl benzene	µg/L	< 1.0	< 1.0		
Xylenes	µg/L	< 3.0	< 3.0		

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SUMMARY REPORT

CLIENT : GCL
CONTACT : Ms. Annette Montoya
PROJECT : 3023.002/GPM

JOB NUMBER : H95-1607
REPORT DATE : 23-MAR-1995

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
9	9503161440	Water	16-MAR-1995
10	9503161500	Water	16-MAR-1995

MW-19 Trip

BTEX ANALYSIS, EPA 602		9		10		
Benzene	µg/L	62.0	<	1.0		
Toluene	µg/L	20.0	<	1.0		
Ethyl benzene	µg/L	4.0	<	1.0		
Xylenes	µg/L	10.0	<	3.0		

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DATE RECEIVED : 17-MAR-1995

REPORT NUMBER : H95-1607
REPORT DATE : 22-MAR-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya
PROJECT : 3023.002/GPM

The enclosed results of analyses are representative of the sample(s) as received by the laboratory. Inchcape makes no representations or certifications as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Inchcape. To the best of my knowledge, the information contained in this report is accurate and complete.

Kuei-Mei Li
Technical Director

3/22/95
Date

Project Manager

3/23/95
Date

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SUMMARY REPORT

CLIENT : GCL
CONTACT : Ms. Annette Montoya
PROJECT : 3023.002/GPM

JOB NUMBER : H95-1607
REPORT DATE : 22-MAR-1995

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	9503160800	Groundwater	16-MAR-1995
2	9503160900	Groundwater	16-MAR-1995
3	9503160945	Groundwater	16-MAR-1995
4	9503161015	Groundwater	16-MAR-1995

BTEX ANALYSIS, EPA 602		1	2	3	4
Benzene	µg/L	1.4	< 1.0	< 1.0	< 1.0
Toluene	µg/L	6.0	3.0	2.0	3.0
Ethyl benzene	µg/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes	µg/L	6.0	4.0	3.2	< 3.0

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SUMMARY REPORT

CLIENT : GCL
CONTACT : Ms. Annette Montoya
PROJECT : 3023.002/GPM

JOB NUMBER : H95-1607
REPORT DATE : 22-MAR-1995

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
5	9503161115	Groundwater	16-MAR-1995
6	9503161245	Groundwater	16-MAR-1995
7	9503161300	Groundwater	16-MAR-1995
8	9503161345	Groundwater	16-MAR-1995

BTEX ANALYSIS, EPA 602		5	6	7	8
Benzene	µg/L	< 1.0	6240	18800	79.0
Toluene	µg/L	2.0	981	17000	28.0
Ethyl benzene	µg/L	< 1.0	87	1760	5.0
Xylenes	µg/L	< 3.0	214	3100	11.0

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SUMMARY REPORT

CLIENT : GCL
CONTACT : Ms. Annette Montoya
PROJECT : 3023.002/GPM

JOB NUMBER : H95-1607
REPORT DATE : 22-MAR-1995

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
9	9503161440	Water	16-MAR-1995
10	9503161500	Water	16-MAR-1995

BTEX ANALYSIS, EPA 602		9		10		
Benzene	µg/L	62.0	<	1.0		
Toluene	µg/L	20.0	<	1.0		
Ethyl benzene	µg/L	4.0	<	1.0		
Xylenes	µg/L	10.0	<	3.0		

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SUMMARY REPORT

CLIENT : GCL
CONTACT : Ms. Annette Montoya
PROJECT : 3023.002/GPM

JOB NUMBER : H95-1607
REPORT DATE : 22-MAR-1995

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
11	9503151200	Groundwater	15-MAR-1995
12	9503151300	Groundwater	15-MAR-1995

BTEX ANALYSIS, EPA 602		11	12		
Benzene	µg/L	< 1.0	42.0		
Toluene	µg/L	< 1.0	< 1.0		
Ethyl benzene	µg/L	< 1.0	< 1.0		
Xylenes	µg/L	< 3.0	< 3.0		

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DATE RECEIVED : 17-MAR-1995

REPORT NUMBER : H95-1607-1
REPORT DATE : 22-MAR-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Groundwater
ID MARKS : 9503160800
PROJECT : 3023.002/GPM
DATE SAMPLED : 16-MAR-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : MHT
ANALYZED ON : 20-MAR-1995
DILUTION FACTOR : 1

BTEX ANALYSIS				
TEST REQUESTED	DETECTION LIMIT		RESULTS	
Benzene	1.0	µg/L	1.4	µg/L
Toluene	1.0	µg/L	6.0	µg/L
Ethyl benzene	1.0	µg/L	< 1.0	µg/L
Xylenes	3.0	µg/L	6.0	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	104	%

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DATE RECEIVED : 17-MAR-1995

REPORT NUMBER : H95-1607-2
REPORT DATE : 22-MAR-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Groundwater
ID MARKS : 9503160900
PROJECT : 3023.002/GPM
DATE SAMPLED : 16-MAR-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : MHT
ANALYZED ON : 20-MAR-1995
DILUTION FACTOR : 1

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	1.0	µg/L	<	1.0	µg/L
Toluene	1.0	µg/L		3.0	µg/L
Ethyl benzene	1.0	µg/L	<	1.0	µg/L
Xylenes	3.0	µg/L		4.0	µg/L

QUALITY CONTROL DATA					
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED		
Bromofluorobenzene(SS)	100	µg/L	108	%	

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DATE RECEIVED : 17-MAR-1995

REPORT NUMBER : H95-1607-3
REPORT DATE : 22-MAR-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Groundwater
ID MARKS : 9503160945
PROJECT : 3023.002/GPM
DATE SAMPLED : 16-MAR-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : MHT
ANALYZED ON : 20-MAR-1995
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	2.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	3.0 µg/L	3.2 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	100 µg/L	107 %

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DATE RECEIVED : 17-MAR-1995

REPORT NUMBER : H95-1607-4
REPORT DATE : 22-MAR-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Groundwater
ID MARKS : 9503161015
PROJECT : 3023.002/GPM
DATE SAMPLED : 16-MAR-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : MHT
ANALYZED ON : 20-MAR-1995
DILUTION FACTOR : 1

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	1.0	µg/L	<	1.0	µg/L
Toluene	1.0	µg/L		3.0	µg/L
Ethyl benzene	1.0	µg/L	<	1.0	µg/L
Xylenes	3.0	µg/L	<	3.0	µg/L

QUALITY CONTROL DATA					
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED		
Bromofluorobenzene(SS)	100	µg/L		104	%

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DATE RECEIVED : 17-MAR-1995

REPORT NUMBER : H95-1607-5
REPORT DATE : 22-MAR-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Groundwater
ID MARKS : 9503161115
PROJECT : 3023.002/GPM
DATE SAMPLED : 16-MAR-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : MHT
ANALYZED ON : 20-MAR-1995
DILUTION FACTOR : 1

BTEX ANALYSIS			
TEST REQUESTED	DETECTION LIMIT		RESULTS
Benzene	1.0 µg/L		< 1.0 µg/L
Toluene	1.0 µg/L		2.0 µg/L
Ethyl benzene	1.0 µg/L		< 1.0 µg/L
Xylenes	3.0 µg/L		< 3.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	100 µg/L	108 %

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DATE RECEIVED : 17-MAR-1995

REPORT NUMBER : H95-1607-6
REPORT DATE : 22-MAR-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Groundwater
ID MARKS : 9503161245
PROJECT : 3023.002/GPM
DATE SAMPLED : 16-MAR-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : MHT
ANALYZED ON : 20-MAR-1995
DILUTION FACTOR : 50

MW 15

BTEX ANALYSIS				
TEST REQUESTED	DETECTION LIMIT		RESULTS	
Benzene	50	µg/L	6240	µg/L
Toluene	50	µg/L	981	µg/L
Ethyl benzene	50	µg/L	87	µg/L
Xylenes	150	µg/L	214	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	104	%

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DATE RECEIVED : 17-MAR-1995

REPORT NUMBER : H95-1607-7
REPORT DATE : 22-MAR-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Groundwater
ID MARKS : 9503161300
PROJECT : 3023.002/GPM
DATE SAMPLED : 16-MAR-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : MHT
ANALYZED ON : 20-MAR-1995
DILUTION FACTOR : 100

BTEX ANALYSIS				
TEST REQUESTED	DETECTION LIMIT		RESULTS	
Benzene	100	µg/L	18800	µg/L
Toluene	100	µg/L	17000	µg/L
Ethyl benzene	100	µg/L	1760	µg/L
Xylenes	300	µg/L	3100	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	105	%

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DATE RECEIVED : 17-MAR-1995

REPORT NUMBER : H95-1607-8
REPORT DATE : 22-MAR-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Groundwater
ID MARKS : 9503161345
PROJECT : 3023.002/GPM
DATE SAMPLED : 16-MAR-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : MHT
ANALYZED ON : 20-MAR-1995
DILUTION FACTOR : 1

MW-19

BTEX ANALYSIS				
TEST REQUESTED	DETECTION LIMIT		RESULTS	
Benzene	1.0	µg/L	79.0	µg/L
Toluene	1.0	µg/L	28.0	µg/L
Ethyl benzene	1.0	µg/L	5.0	µg/L
Xylenes	3.0	µg/L	11.0	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	102	%

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DATE RECEIVED : 17-MAR-1995

REPORT NUMBER : H95-1607-9
REPORT DATE : 22-MAR-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Water
ID MARKS : 9503161440
PROJECT : 3023.002/GPM
DATE SAMPLED : 16-MAR-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : MHT
ANALYZED ON : 20-MAR-1995
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	62.0 µg/L
Toluene	1.0 µg/L	20.0 µg/L
Ethyl benzene	1.0 µg/L	4.0 µg/L
Xylenes	3.0 µg/L	10.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	100 µg/L	98.0 %

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DATE RECEIVED : 17-MAR-1995

REPORT NUMBER : H95-1607-10
REPORT DATE : 22-MAR-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Water
ID MARKS : 9503161500
PROJECT : 3023.002/GPM
DATE SAMPLED : 16-MAR-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : MHT
ANALYZED ON : 20-MAR-1995
DILUTION FACTOR : 1

BTEX ANALYSIS				
TEST REQUESTED	DETECTION LIMIT		RESULTS	
Benzene	1.0	µg/L	< 1.0	µg/L
Toluene	1.0	µg/L	< 1.0	µg/L
Ethyl benzene	1.0	µg/L	< 1.0	µg/L
Xylenes	3.0	µg/L	< 3.0	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	111	%

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DATE RECEIVED : 17-MAR-1995

REPORT NUMBER : H95-1607-11
REPORT DATE : 22-MAR-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Groundwater
ID MARKS : 9503151200
PROJECT : 3023.002/GPM
DATE SAMPLED : 15-MAR-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : MHT
ANALYZED ON : 20-MAR-1995
DILUTION FACTOR : 1

BTEX ANALYSIS				
TEST REQUESTED	DETECTION LIMIT		RESULTS	
Benzene	1.0	µg/L	< 1.0	µg/L
Toluene	1.0	µg/L	< 1.0	µg/L
Ethyl benzene	1.0	µg/L	< 1.0	µg/L
Xylenes	3.0	µg/L	< 3.0	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	100	µg/L	113	%

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DATE RECEIVED : 17-MAR-1995

REPORT NUMBER : H95-1607-12
REPORT DATE : 22-MAR-1995

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Groundwater
ID MARKS : 9503151300
PROJECT : 3023.002/GPM
DATE SAMPLED : 15-MAR-1995
ANALYSIS METHOD : EPA 602
ANALYZED BY : MHT
ANALYZED ON : 20-MAR-1995
DILUTION FACTOR : 1

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	1.0	µg/L		42.0	µg/L
Toluene	1.0	µg/L	<	1.0	µg/L
Ethyl benzene	1.0	µg/L	<	1.0	µg/L
Xylenes	3.0	µg/L	<	3.0	µg/L

QUALITY CONTROL DATA					
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED		
Bromofluorobenzene(SS)	100	µg/L		95.0	%

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REPORT DATE : 22-MAR-1995 REPORT NUMBER : H95-1607

SAMPLE SUBMITTED BY : GCL
ATTENTION : Ms. Annette Montoya

LABORATORY QUALITY CONTROL REPORT

ANALYTE	Benzene	Toluene	Ethylbenzene	Xylenes
BATCH NO.	8020D_465	8020D_465	8020D_465	8020D_465
LCS LOT NO.	---	---	---	---
PREP METHOD	---	---	---	---
DATE PREPARED	---	---	---	---
PREPARED BY	---	---	---	---
ANALYSIS METHOD	EPA 602	EPA 602	EPA 602	EPA 602
DATE ANALYZED	20-MAR-1995	20-MAR-1995	20-MAR-1995	20-MAR-1995
ANALYZED BY	MHT	MHT	MHT	MHT
UNITS	µg/L	µg/L	µg/L	µg/L
METHOD BLANK	< 1.00	< 1.00	< 1.00	< 3.00
MS RECOVERY %	100	102	104	106
MSD RECOVERY %	100	106	106	108
MS/MSD RPD %	0.0	3.8	1.9	1.9
BS RECOVERY %	NA	NA	NA	NA
BSD RECOVERY %	NA	NA	NA	NA
BS/BSD RPD %	NA	NA	NA	NA
DUPLICATE RPD %	NA	NA	NA	NA
LCS RECOVERY %	100	104	106	107
SPIKE SAMPLE ID	1607-11	1607-11	1607-11	1607-11
DUP SAMPLE ID	---	---	---	---

NA Not Applicable

ORIGINAL

GCL
Environmental Science and Engineering
A BDM International Company

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FAX: (505) 842-0595

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PO Drawer MM
Las Cruces, NM 88004
(505) 524-5353
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№ 8425

Chain of Custody

Date 3/16/95 Page 1 Of 1

Lab Name NDRC/Inchcape Testing Service
Address 11155 South Main
Houston, TX 77025
Telephone (713) 661-8150

Samplers (SIGNATURES)

Analysis Request

Sample Number	Matrix	Location	Halogenated Volatiles 601/8010	Aromatic Volatiles 602/8020 BTEX	Phenols, Sub Phenols 604/8040	Pesticides/PCB 608/8080	Polynuclear Aromatic Hydrocarbons 610/8310	Volatile Compounds GC/MS 624/8240	Base/Neu/Acid Compounds GC/MS 625/8270	Total Organic Carbon (TOC) 415/9060	Total Organic Halides (TOX) 9020	Petroleum Hydrocarbons 418.1	TPH/BTEX Modified 8015	TCLP- Vol., Semi-Vol. Herbicides, Pesticides	TCLP- Metals	RCRA Metals(8)	Priority Pollutant Metals (13)	CAM Metals (18) TTLC/STLC	Flash Point	Corrosivity	Reactivity	Oil & Grease	Cyanide Total/Amenable	Chemical Oxygen Demand (COD)					Number of Containers
9503160800	H_2O	MW-20		2			H95-1607-1																						2
9503160900	H_2O	MW-12		2								2																	2
9503160945	H_2O	MW-11		2								3																	2
9503161015	H_2O	MW-13		2								4																	2
9503161115	H_2O	MW-18		2								5					DUE: 3-23-95												2
9503161245	H_2O	MW-15		2								6																	2
9503161300	H_2O	MW-6		2								7																	2
9503161345	H_2O	MW-19		2								8																	2
9503161410	H_2O	MW-17		2								9																	2
9503162500	H_2O	Trip Blank		2								10									24-VOA								2

Project Information	
Project	GPM
Project Director	CANNON
Charge Code No.	7023.002
Shipping ID. No.	0218935231
Via:	FED X

Sample Receipt	
Total No. of Containers	20
Chain of Custody Seals	Y
Rec'd Good Condition/Cold	Y
Conforms to Record	
Lab No.	

Special Instructions/Comments:

Relinquished By 1.	Relinquished By 2.	Relinquished By 3.
(Signature) DAVID NEE (Time) 1530 3/16	(Signature) (Time)	(Signature) (Time)
(Printed Name) (Date)	(Printed Name) (Date)	(Printed Name) (Date)
(Company) GCL	(Company)	(Company)
Received By 1.	**Received By 2.**	**Received By (Laboratory) 3.**
(Signature) (Time)	(Signature) (Time)	(Signature) 1030 (Time)
(Printed Name) (Date)	(Printed Name) (Date)	(Printed Name) ROBERT RANKIN 3-17-95 (Date)
(Company)	(Company)	(Laboratory) IT-HOUSTON

Distribution: White, Canary-Laboratory • Pink, GCL

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
(713) 661-8150
Fax (713) 661-2661

SAMPLE PRESERVATION INFORMATION SHEET

Company: GCL Job No.: 1607

No. of Cooler(s): 1 Temperature of Cooler(s): -4

Sample No.	Temperature of Sample	Sample Container	Volume	Preservation Used *	Initial pH	Final pH	Bottles Generated	Comments
1	4	2-V	40/ea	1, 4	—	—	0	
2	↓	↓	↓	↓	—	—	↓	
3					—	—		
4					—	—		
5					—	—		
6					—	—		
7					—	—		
8					—	—		
9					—	—		
10					—	—		
11					—	—		
12	↓	↓	↓	↓	—	—	↓	

PRESERVATION USED *

1 - Cool to 4° C
2 - H_2SO_4 to pH < 2
3 - HNO_3 to pH < 2
4 - HCL to pH < 2
5 - NaOH to pH > 12
6 - $Na_2S_2O_3$ 0.008%
7 - 2 ml Zinc Acetate and NaOH to pH > 12
8 - None Required

CONTAINERS USED

A - Amber
G - Clear Glass
V - VOA
P - Plastic
T - Tedlar
Tb - Tube

RR
Preserved by

3-17-95
Date

ORIGINAL

• DO Meter
• CO_2 Kit

GCL Environmental Science and Engineering
A BOMI International Company

FORM 1- PROJECT SAMPLING INFORMATION

Project Name GPM Charge Code 3023.002 Date of Sampling 3/14 - 3/16 Lab Requested Houston / Inch Cape CLP - Yes/No

Report Requirements ☐ Rush (24 Hr. Verbal/FAX) ☒ X Days ☐ 14 Days ☐ 21 Days Normal Insurance: (Approx) $_____ Is Constant Surveillance Required? Yes/No

Analysis Requested	Water/Soil	Water						Soil				Other (specify)	
		Samples	Duplicate	Field Blank	Rinsate	Spike	Trip Blanks	Samples	Duplicate	Field Blank	Spike	Samples	Duplicate
Halogenated Volatiles	601/8010												
Aromatic Volatiles BTEX	602/8020	7	1	1	1		2						
Phenols, Sub Phenols	604/8040												
Pesticides/PCB	608/8080												
Polynuclear Aromatic Hydrocarbons	610/8310												
Volatile Compounds GC/MS	624/8240												
Base/Neu/Acid Compounds GC/MS	625/8270												
Total Organic Carbon (TOC)	415/9060												
Total Organic Halides (TOX)	9020												
TPH	418.1												
TPH	Mod. 8015												
TPH/BTEX	Mod. 8015/8020												
TCLP- Vol., Semi-Vol.Herb., Pest.													
TCLP- Metals													
RCRA Metals(8)													
Priority Pollutant Metals (13)													
CAM Metals (18) TTLC/STLC													
Flash Point													
Corrosivity													
Reactivity													
Oil & Grease													
Cyanide Total/Amenable													
Chemical Oxygen Demand (COD)													
Major Cations / (Ca, Mg, Na, K) / Anions (HCO_3, SO_4, Cl, NO_3)													

10 BTEX & 2 Trip Blanks

Dwayne We need A Total Of 15 Sets Of BTEX & 2 Sets Of Trip Blanks Thanks Mark

Date Sample Kit Requested From Lab _____ Date Sample Kit Received From Lab _____

Comments: MW-11, MW-12, MW-13, MW-19, MW-20, MW-2, MW-18, MW-21, MW-22,

Submitted By: Mark Date: 3/3/95 Date Supplied _____

Maybe? (MW-6, MW-15, Duplicate, etc.)

****
*** ACTIVITY REPORT ***
****

RECEPTION OK

TX/RX NO.	3690
CONNECTION TEL	
CONNECTION ID	
START TIME	03/23 09:22
USAGE TIME	02'42
PAGES	5
RESULT	OK

GPM
Results
From
Lee

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

DATE: 23-MAR-1995 10:14:50.81 FAX #: 15058420595

TOTAL NUMBER OF PAGES 4 (NOT INCLUDING THIS COVER SHEET)

TO:

COMPANY: GCL

ATTENTION: Ms. Annette Montoya

FROM: Keith Partin

NOTES: Analytical Results for H95-1607

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

SUMMARY REPORT

CLIENT : GCL
CONTACT : Ms. Annette Montoya
PROJECT : 3023.002/GPM

JOB NUMBER : H95-1607
REPORT DATE : 23-MAR-1995

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	9503160800	Groundwater	16-MAR-1995
2	9503160900	Groundwater	16-MAR-1995
3	9503160945	Groundwater	16-MAR-1995
4	9503161015	Groundwater	16-MAR-1995

BTEX ANALYSIS, EPA 602		1 (MW-20)	2 (MW-12)	3 (MW-11)	4 (MW-13)
Benzene	µg/L	1.4	< 1.0	< 1.0	< 1.0
Toluene	µg/L	6.0	3.0	2.0	3.0
Ethyl benzene	µg/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes	µg/L	6.0	4.0	3.2	< 3.0

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Tel. 713-661-8150
Fax. 713-661-2661

SUMMARY REPORT

CLIENT : GCL
CONTACT : Ms. Annette Montoya
PROJECT : 3023.002/GPM

JOB NUMBER : H95-1607
REPORT DATE : 23-MAR-1995

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
5	9503161115	Groundwater	16-MAR-1995
6	9503161245	Groundwater	16-MAR-1995
7	9503161300	Groundwater	16-MAR-1995
8	9503161345	Groundwater	16-MAR-1995

			MW-18	MW-15	MW-6	MW-19
BTEX ANALYSIS, EPA 602			5	6	7	8
Benzene	µg/L	<	1.0	6240	18800	79.0
Toluene	µg/L		2.0	981	17000	28.0
Ethyl benzene	µg/L	<	1.0	87	1760	5.0
Xylenes	µg/L	<	3.0	214	3100	11.0

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

March 7, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-218

Mr. Vince Bernard
GPM Gas Services Company
4044 Penbrook
Odessa, TX 79762

RE: QUARTERLY REPORTS
LEE GAS PROCESSING PLANT
BUCKEYE, NEW MEXICO

Dear Mr. Bernard:

The New Mexico Oil Conservation Division (OCD) has reviewed GPM Gas Services Company's January 12, 1995 "FOURTH QUARTER 1994 ANALYTICAL RESULTS, LEE PLANT, DISCHARGE PLAN GW-2". This document contains the results of the fourth quarter sampling of the ground water monitoring system at GPM's Lee Gas Processing Plant. This document also requests a change in the frequency of ground water monitoring and recommends an investigation of potential sources upgradient of the facility.

GPM's request to change the frequency of sampling monitor well MW-2 from semi-annual to annual is approved. Due to the need to demonstrate that the remediation system is keeping contaminants from migrating from the facility and past fluctuations in the sampling results, GPM's request to reduce the sampling frequency of monitor wells MW-11, MW-12, MW-13, MW-19 and MW-20 is denied.

In regards to GPM's recommendation that an investigation be performed of potential sources upgradient of the facility. The OCD has observed the trend of increasing concentrations of contaminants in the upgradient monitoring wells over the past few years and shares your concern. As a result the OCD will discuss the problems in this area and possible future actions during the March 16, 1995 sampling event which the OCD will be attending.

Please be advised that OCD approval does not relieve GPM of liability should the monitoring system fail to adequately monitor contaminant migration from the facility. In addition, OCD approval does not relieve GPM of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions, please contact me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price, OCD Hobbs District Office
Maureen Gannon, GCL

P 667 242 218

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GPM GAS CORPORATION

GPM GAS SERVICES COMPANY
A DIVISION OF PHILLIPS PETROLEUM COMPANY

4044 PENBROOK
ODESSA, TX 79762

January 12, 1995

Mr. Bill Olson
Hydrogeologist
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: Fourth Quarter 1994 Analytical Results,
Lee Plant, Discharge Plan GW - 2

Dear Bill:

GPM Gas Corporation (GPM) herein submits the laboratory analytical reports for groundwater sampling at our Lee Plant for the fourth quarter of 1994. Sample collection was conducted on October 11, 1994 pursuant to the requirements of NMOCD Discharge Plan GW-2. NDRC Laboratories, Inc., of Houston performed the sample analyses. Our consultant, GCL, strictly adhered to chain-of-custody procedures to ensure integrity of the samples during transport to the laboratory.

Depth to groundwater and product thickness measurements were conducted at all monitor wells. A groundwater level contour map is included as an attachment. Quarterly groundwater sampling was conducted at monitor wells MW-11, MW-12, MW-13, MW-19 and MW-20. Groundwater samples from these five wells were analyzed for dissolved aromatic hydrocarbons using EPA Method 602.

Free-phase floating product was encountered in MW-4 (1.05 ft. thickness) and MW-5 (3 ft. thickness). Measurements were not taken in monitor wells, MW-6, MW-7, MW-10, and MW-23 because of downhole recovery equipment.

BTEX concentrations in MW-11, MW-12, MW-13, MW-19 and MW-20 were all below WQCC water quality standards. Toluene was the only constituent found in any of these wells, 0.02 ppm in MW-11. Again, this concentration is below the WQCC standard of 0.75 ppm.

As discussed in previous correspondence, GPM believes that upgradient, off-site sources may be contributing to hydrocarbons detected in monitor wells MW-5 and MW-16. To further support this conclusion, GPM has performed an analysis of benzene concentrations in groundwater samples collected over the past three years at the Lee Plant. Plates 1, 2 and 3 are contour maps of benzene concentrations in groundwater at the site, drawn from analytical data collected during July 1992, July 1993 and July 1994. These maps show that the current plant remediation system has been extremely effective in eliminating off-site migration of contaminated groundwater in the downgradient (southward) direction, and has pulled the BTEX plume back towards the recovery wells onsite. Benzene concentrations in downgradient compliance monitor wells have been reduced

from levels as high as 220 ppb to levels below the WQCC standards between July 1993 and October 1994, indicating a cessation of downgradient migration and confinement of the plume to the site.

We are concerned, however, with the increase in benzene concentrations in wells MW-5 and MW-16, which are **upgradient** monitor wells. Over the past three years, benzene concentrations have increased significantly from 10,000 ppb during the July 1992 sampling event to 66,400 ppb during the July 1994 event in MW-5: over the same period, concentrations have increased from 420 ppb to 3,820 ppb in MW-16, which is located upgradient of the abandoned north evaporation pond. The overall change in the pattern of the contours between July 1992 and July 1994 suggest that contaminants are being pulled in from off-site sources to the north and concentrating towards the onsite recovery wells. A strong possibility exists that another operator's producing oil well located immediately upgradient of MW-5 may be contributing to this increase. As mentioned previously, three feet of free-phase floating product was encountered in MW-5. Other undefined sources may also exist upgradient of the site.

Based on the results of our data analysis, GPM recommends the following:

Due to consistency in trends of the analytical data from July 1993 to October 1994, GPM requests a reduction in frequency of sampling and analysis of monitor wells MW-11, MW-12, MW-13, MW-19 and MW-20 from quarterly to annually.

GPM recommends the reduction of the sampling frequency of monitor well MW-2 from semi-annually to annually, since BTEX has not been detected in this well for over two years.

GPM recommends that a formal investigation of upgradient off-site properties be conducted to determine the contribution of these properties and associated activities to groundwater contamination in the area.

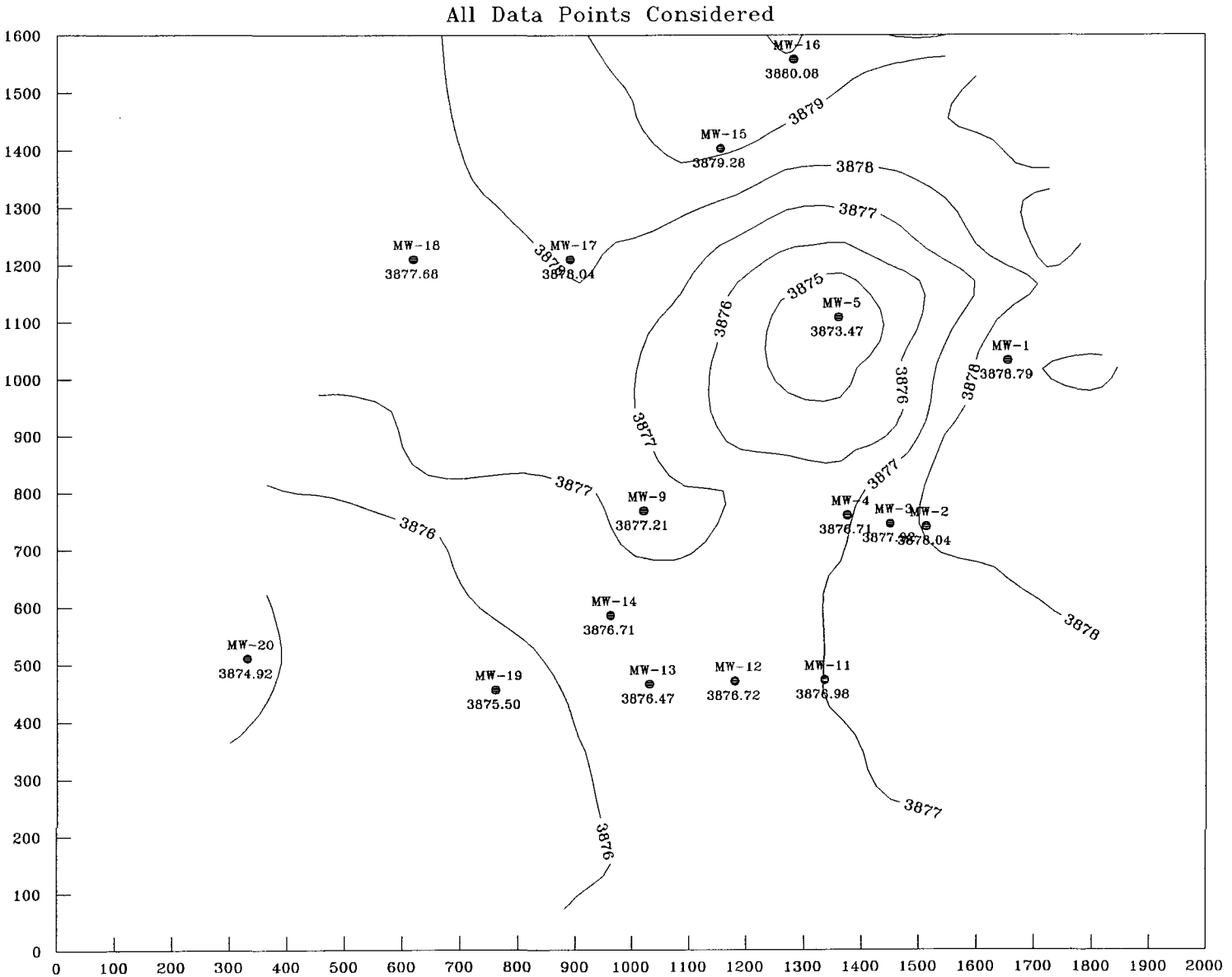
We will await your response on these recommendations. Also, GPM would like to schedule the next groundwater sampling event for the Lee Plant as soon as possible. You had mentioned during a previous conversation that you would like to be present during this sampling, to assess the area in consideration of any possible off-site contamination. As such, we will wait to hear from you before scheduling this activity. If you have any questions regarding the contents of this letter or the analytical results, feel free to call me at (915) 368-1085.

Sincerely,

Vince Bernard
Safety & Environmental Director
New Mexico Region

cc: S. J. Seeby
M. S. Nault
G. R. Glinnsman
D. A. Stell
J. Kuchinski

GPM Lee Plant October 1994 Water Level Contour



Inchcape Testing Services
NDRC Laboratories

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Fax. 713-661-2661

SUMMARY REPORT

CLIENT : GCL
CONTACT : Ms. Annette Montoya
PROJECT : 3023.002/GPM

JOB NUMBER : H94-6489
REPORT DATE : 21-OCT-1994

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	9410121045 MW-12	Groundwater	12-OCT-1994
2	9410121430 MW-11	Groundwater	12-OCT-1994
3	9410121530 MW-13	Groundwater	12-OCT-1994
4	9410121645 MW-19	Groundwater	12-OCT-1994

BTEX ANALYSIS, EPA 602		1 12	2 11	3 13	4 19
Benzene	µg/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/L	< 1.0	2.0	< 1.0	< 1.0
Ethyl benzene	µg/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes	µg/L	< 3.0	< 3.0	< 3.0	< 3.0

Inchcape Testing Services Kuei-Mei Li

Kuei-Mei Li
Technical Director

Inchcape Testing Services
NDRC Laboratories

11155 South Main
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SUMMARY REPORT

CLIENT : GCL
CONTACT : Ms. Annette Montoya
PROJECT : 3023.002/GPM

JOB NUMBER : H94-6489
REPORT DATE : 21-OCT-1994

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
5	9410121730 MW-20	Groundwater	12-OCT-1994
6	9410121840 MW-20A	Groundwater	12-OCT-1994

BTEX ANALYSIS, EPA 602		5 20		6			
Benzene	µg/L	<	1.0	<	1.0		
Toluene	µg/L	<	1.0	<	1.0		
Ethyl benzene	µg/L	<	1.0	<	1.0		
Xylenes	µg/L	<	3.0	<	3.0		

Inchcape Testing Services Kuei-Mei Li

Kuei-Mei Li
Technical Director

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SUMMARY REPORT

CLIENT : GCL
CONTACT : Ms. Annette Montoya
PROJECT : 3023.002/GPM

JOB NUMBER : H94-6489
REPORT DATE : 21-OCT-1994

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
7	9410121900 Trip Blank	Water	12-OCT-1994

BTEX ANALYSIS, EPA 602		7			
Benzene	µg/L	< 1.0			
Toluene	µg/L	< 1.0			
Ethyl benzene	µg/L	< 1.0			
Xylenes	µg/L	< 3.0			

Inchcape Testing Services Kuei-Mei Li

Kuei-Mei Li
Technical Director

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DATE RECEIVED : 14-OCT-1994

REPORT NUMBER : H94-6489-1
REPORT DATE : 21-OCT-1994

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Groundwater
ID MARKS : 9410121045
: MW-12
PROJECT : 3023.002/GPM
DATE SAMPLED : 12-OCT-1994
ANALYSIS METHOD : EPA 602

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	3.0 µg/L	< 3.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	100 µg/L	101 %

Inchcape Testing Services Kuei-Mei Li

Kuei-Mei Li
Technical Director

Inchcape Testing Services
NDRC Laboratories

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DATE RECEIVED : 14-OCT-1994

REPORT NUMBER : H94-6489-2
REPORT DATE : 21-OCT-1994

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Groundwater
ID MARKS : 9410121430
: MW-11
PROJECT : 3023.002/GPM
DATE SAMPLED : 12-OCT-1994
ANALYSIS METHOD : EPA 602

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	2.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	3.0 µg/L	< 3.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	100 µg/L	100 %

Inchcape Testing Services Kuei-Mei Li

Kuei-Mei Li
Technical Director

Inchcape Testing Services
NDRC Laboratories

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Houston, TX 77025
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DATE RECEIVED : 14-OCT-1994

REPORT NUMBER : H94-6489-3
REPORT DATE : 21-OCT-1994

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Groundwater
ID MARKS : 9410121530
: MW-13
PROJECT : 3023.002/GPM
DATE SAMPLED : 12-OCT-1994
ANALYSIS METHOD : EPA 602

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	3.0 µg/L	< 3.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	100 µg/L	105 %

Inchcape Testing Services Kuei-Mei Li

Kuei-Mei Li
Technical Director

Inchcape Testing Services
NDRC Laboratories

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Houston, TX 77025
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DATE RECEIVED : 14-OCT-1994

REPORT NUMBER : H94-6489-4
REPORT DATE : 21-OCT-1994

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Groundwater
ID MARKS : 9410121645
: MW-19
PROJECT : 3023.002/GPM
DATE SAMPLED : 12-OCT-1994
ANALYSIS METHOD : EPA 602

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	3.0 µg/L	< 3.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	100 µg/L	102 %

Inchcape Testing Services Kuei-Mei Li

Kuei-Mei Li
Technical Director

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

DATE RECEIVED : 14-OCT-1994

REPORT NUMBER : H94-6489-5
REPORT DATE : 21-OCT-1994

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Groundwater
ID MARKS : 9410121730
: MW-20
PROJECT : 3023.002/GPM
DATE SAMPLED : 12-OCT-1994
ANALYSIS METHOD : EPA 602

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	3.0 µg/L	< 3.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	100 µg/L	100 %

Inchcape Testing Services Kuei-Mei Li

Kuei-Mei Li
Technical Director

Inchcape Testing Services
NDRC Laboratories

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Houston, TX 77025
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Fax. 713-661-2661

DATE RECEIVED : 14-OCT-1994

REPORT NUMBER : H94-6489-6
REPORT DATE : 21-OCT-1994

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Groundwater
ID MARKS : 9410121840
: MW-20A
PROJECT : 3023.002/GPM
DATE SAMPLED : 12-OCT-1994
ANALYSIS METHOD : EPA 602

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	3.0 µg/L	< 3.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	100 µg/L	105 %

Inchcape Testing Services Kuei-Mei Li

Kuei-Mei Li
Technical Director

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

DATE RECEIVED : 14-OCT-1994

REPORT NUMBER : H94-6489-7
REPORT DATE : 21-OCT-1994

SAMPLE SUBMITTED BY : GCL
ADDRESS : 505 Marquette NW, Ste. 1100
: Albuquerque, NM 87102
ATTENTION : Ms. Annette Montoya

SAMPLE MATRIX : Water
ID MARKS : 9410121900
: Trip Blank
PROJECT : 3023.002/GPM
DATE SAMPLED : 12-OCT-1994
ANALYSIS METHOD : EPA 602

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	3.0 µg/L	< 3.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	100 µg/L	101 %

Inchcape Testing Services

Kuei-Mei Li
Technical Director

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
Tel. 713-661-8150
Fax. 713-661-2661

REPORT DATE : 21-OCT-1994 REPORT NUMBER : H94-6489

SAMPLE SUBMITTED BY : GCL
ATTENTION : Ms. Annette Montoya

LABORATORY QUALITY CONTROL REPORT

ANALYTE	Benzene	Toluene	Ethylbenzene	Xylenes
BATCH NO.	8020D_232	8020D_232	8020D_232	8020D_232
LCS LOT NO.	---	---	---	---
PREP METHOD	---	---	---	---
DATE PREPARED	---	---	---	---
PREPARED BY	---	---	---	---
ANALYSIS METHOD	EPA 602	EPA 602	EPA 602	EPA 602
DATE ANALYZED	17-OCT-1994	17-OCT-1994	17-OCT-1994	17-OCT-1994
ANALYZED BY	MHT	MHT	MHT	MHT
UNITS	µg/L	µg/L	µg/L	µg/L
METHOD BLANK	< 1.00	< 1.00	< 1.00	< 3.00
MS RECOVERY %	100	98.0	100	98.0
MSD RECOVERY %	100	95.0	98.0	96.0
MS/MSD RPD %	0.0	3.1	2.0	2.1
BS RECOVERY %	NA	NA	NA	NA
BSD RECOVERY %	NA	NA	NA	NA
BS/BSD RPD %	NA	NA	NA	NA
DUPLICATE RPD %	NA	NA	NA	NA
LCS RECOVERY %	102	102	102	103
SPIKE SAMPLE ID	6489-6	6489-6	6489-6	6489-6
DUP SAMPLE ID	---	---	---	---

NA Not Applicable

Khei-Mei Li

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GCL
Environmental Science and Engineering
A BDM International Company

☑ Albuquerque
505 Marquette NW, Ste. 1100
Albuquerque, NM 87102
(505) 842-0001
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4221 Forbes Blvd., Ste. 240
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(301) 459-9677
FAX: (301) 459-3064

☐ NASA-WSTF
PO Drawer MM
Las Cruces, NM 88004
(505) 524-5353
FAX: (505) 524-5315

QC REPORT

№ 8422

Chain of Custody

Date 10/12/94 Page 1 Of 1

Lab Name NDRC/Inchcape Testing Service
Address 11155 South Main
Houston, TX 77025
Telephone (713) 661-8150

Samplers (SIGNATURES)

D Nee

Analysis Request

Sample Number	Matrix	Location	Halogenated Volatiles 601/8010	Aromatic Volatiles 602/8020 BTEX	Phenols, Sub Phenols 604/8040	Pesticides/PCB 608/8080	Polynuclear Aromatic Hydrocarbons 610/8310	Volatile Compounds GC/MS 624/8240	Base/Neu/Acid Compounds GC/MS 625/8270	Total Organic Carbon (TOC) 415/9060	Total Organic Halides (TOX) 9020	Petroleum Hydrocarbons 418.1	TPH/BTEX Modified 8015	TCLP- Vol., Semi-Vol. Herbicides, Pesticides	TCLP- Metals	RCRA Metals(8)	Priority Pollutant Metals (13)	CAM Metals (18) TTLC/STLC	Flash Point	Corrosivity	Reactivity	Oil & Grease	Cyanide Total/Amenable	Chemical Oxygen Demand (COD)					Number of Containers
9410121045	H2O	MW-12		3					H94-6489-1																				3
9410121430	H2O	MW-11		3									2																3
9410121530	H2O	MW-13		3									3																3
9410121645	H2O	MW-19		3									4					Due: 10-20-94											3
9410121730	H2O	MW-20		3									5																3
9410121840	H2O	MW-20A		3									6																3
9410121900	H2O	Trip Blanks		2									7																2
																20-VOA													

Project Information	Sample Receipt	Relinquished By 1.	Relinquished By 2.	Relinquished By 3.
Project GPM	Total No. of Containers	D Nee 2000		
Project Director Gannon	Chain of Custody Seals	(Signature) DAVID NEE (Time) 10/12/94	(Signature) (Time)	(Signature) (Time)
Charge Code No. 3023.002	Rec'd Good Condition/Cold	(Printed Name) (Date)	(Printed Name) (Date)	(Printed Name) (Date)
Shipping ID. No. 0218935021	Conforms to Record	GCL		
Via: Fed X	Lab No.	(Company)	(Company)	(Company)
		Received By 1.	Received By 2.	Received By (Laboratory) 3.
		(Signature) (Time)	(Signature) (Time)	(Signature) (Time)
		(Printed Name) (Date)	(Printed Name) (Date)	(Printed Name) (Date)
		(Company)	(Company)	(Laboratory)

Special Instructions/Comments:

Distribution: White, Canary-Laboratory • Pink, GCL

Inchcape Testing Services
NDRC Laboratories

11155 South Main
Houston, TX 77025
(713) 661-8150
Fax (713) 661-2661

SAMPLE PRESERVATION INFORMATION SHEET

Company: GCL Job No.: 6489

No. of Cooler(s): 1 Temperature of Cooler(s): 4

Sample No.	Temperature of Sample	Sample Container	Volume	Preservation Used *	Initial pH	Final pH	Bottles Generated	Comments
1	4	3-V	45 ml ea	4			0	
2	↓	↓	↓	↓			↓	
3								
4								
5								
6		↓						
7	↓	2-V	↓	↓			↓	

PRESERVATION USED *

1 - Cool to 4° C
2 - H_2SO_4 to pH < 2
3 - HNO_3 to pH < 2
4 - HCL to pH < 2
5 - NaOH to pH > 12
6 - $Na_2S_2O_3$ 0.008%
7 - 2 ml Zinc Acetate and NaOH to pH > 12
8 - None Required

CONTAINERS USED

A - Amber
G - Clear Glass
V - VOA
P - Plastic
T - Tedlar
Tb - Tube

TJR
Preserved by

10-14-94
Date

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