

August 11, 1998

CERTIFIED MAIL:

Bill Olson
Hydrologist, Environmental Bureau
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

RE: Hampton 4M Site
July 1998 Sampling Results

Dear Bill:

In response to your request to Maureen Gannon of PNM, enclosed are the most recent groundwater and free product recovery data collected by PNM at the Hampton 4M site. As you know, PNM has concerns regarding the effectiveness of any further remedial actions taken by PNM in the face of continuing hydrocarbon sources at this site.

Summary of PNM Activities

To update our last groundwater data report submitted to you on March 31, 1998, enclosed are groundwater potentiometric surface maps for April and July 1998 including the latest survey coordinates for monitoring wells MW-9 and MW-10. As shown on the map, groundwater flow is down-canyon towards the northwest. The hydraulic gradient is fairly steep and subparallel to the topographic gradient at approximately 0.10. This is a high energy environment, where contamination will move relatively quickly downgradient from the site of release. This is corroborated by the extent to which dissolved phase contamination is detected along the wash. The furthest downgradient monitoring well installed to date, MW-7, contains 950 ppb benzene and 4610 ppb total BTEX; benzene levels in this well have been increasing with time whereas total BTEX levels have decreased slightly. As free product has now been detected in upgradient wells MW-8 and MW-10, PNM has no downgradient wells in excess of site background concentrations (free product) when comparing downgradient water quality to water quality upgradient of PNM equipment. July 1998 sampling data are summarized in Table 1.

Hydrographs and contaminant trends with time are provided for wells with no free product and are presented in Attachment A. Contaminant trend graphs were not provided for monitoring wells MW-2, MW-6, MW-8, or MW-10 due to the presence of free product. Trend graphs were also not provided for MW-3, as it remains below standards, and for MW-9, as this well has only been sampled once since installation. The privately-owned EB well is located cross-gradient (north-northeast). No hydrocarbon constituents above the 0.2 ppb detection limit were detected in this well on original sampling; PNM has not resampled this well.

PNM installed a free product recovery well, MW-6, in November 1997 and initiated free product recovery in January 1998. Initial free product thickness in MW-6 was 4.71 feet on January 12, 1998.

Approximately 820 gallons of free product were recovered from MW-6, with an accompanying 2.3-foot drop in free product thickness, between January 12 and July 31, 1998. The sheer volume of free product recovered by PNM suggests that sources other than the former PNM pit have contributed free product to the subsurface. Free product thickness in MW-2 has remained relatively stable since April 1998 while free product recovery continues at a constant rate. Again, this suggests a large volume of product and/or intermittent or continuing sources of free product. Attachment B provides a figure illustrating free product thickness over the course of free product recovery.

As free phase is now detected in several upgradient wells, MW-10 (2 foot of accumulation) and MW-8 (0.37 feet of accumulation), it is clear that continued operation of the limited PNM free product recovery system will not offer environmental benefits until additional source removal and remediation are performed by the party(ies) responsible for upgradient contamination.

The presence of significant free phase in the subsurface is also the most likely cause of dissolved phase groundwater contamination detected at this site. Burlington, PNM, and NMOCD are aware of continuing hydrocarbon surface discharges in the area of the hydrocarbon seep along the northwestern area of the well pad. While dissolved hydrocarbon concentrations at the seep are below NMWQCC standards, this seep continues to visibly impact soils along the wash. As PNM did not discharge free product at this site, PNM maintains it is not the responsible party for dissolved phase groundwater contamination associated with ongoing free phase hydrocarbon discharges.

In addition to sampling groundwater monitoring wells, PNM also obtained samples from the temporary well TMP-1, soil and water samples from the Burlington excavation, and water samples from the hydrocarbon seep. Results of these analyses are provided in Table 1; analytical laboratory data are provided in Attachment C. Surface water samples showed relatively low levels of BTEX constituents (below NMWQCC standards); however, soil samples collected at the water table within the Burlington excavation showed over 2,000 ppm BTEX constituents remaining.

PNM is continuing to collect data and prepare for the NMOCC hearing on this site scheduled for August 20 and 21, 1998. If you have any questions related to the data summary provided for the Hampton 4M site or other project-related activities, please contact me at 505.241.2974.

Sincerely,

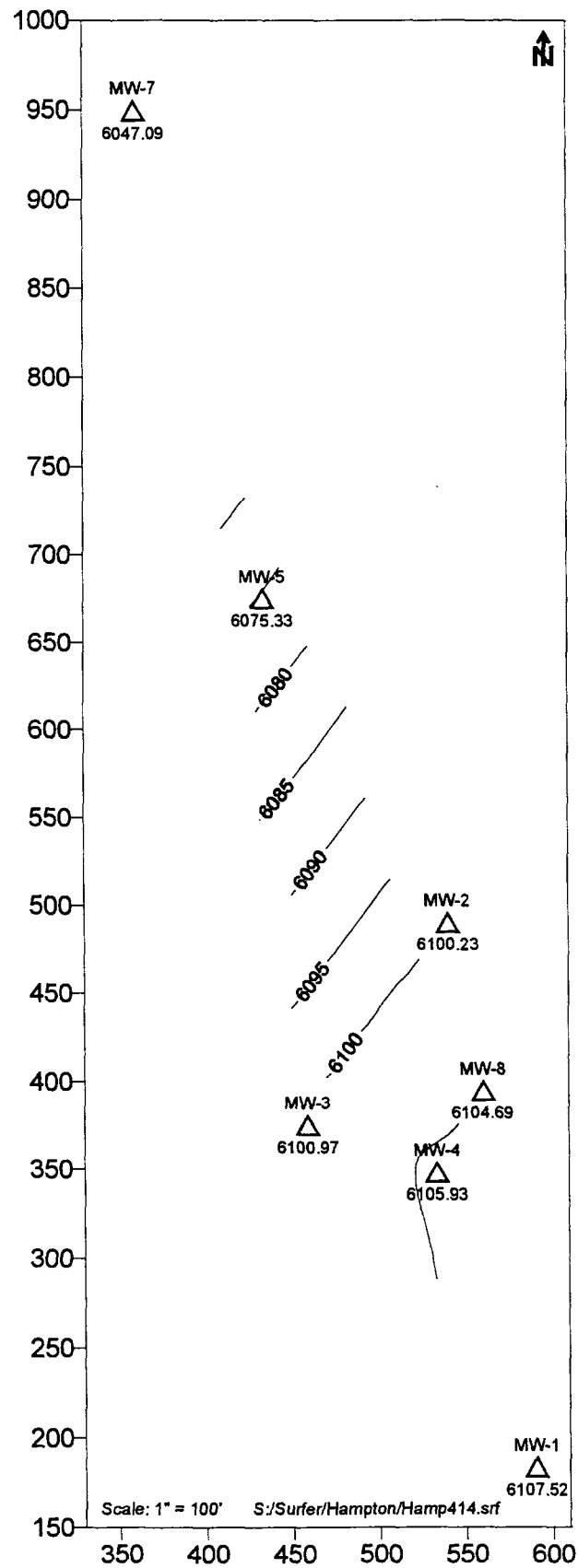


Maureen Gannon
Project Manager

cc: Roger Anderson, NMOCD
Ed Haseley, Burlington Resources
Ingrid Deklau, Williams Field Services
Bill Von Drehle, Williams Field Services
Colin Adams, PNM
Denny Foust, NMOCD - Aztec

bcc: Rick Alvidrez

Hampton 4M Groundwater Contour Map (April, 1998)



Hampton 4M Groundwater Contour Map (July, 1998)

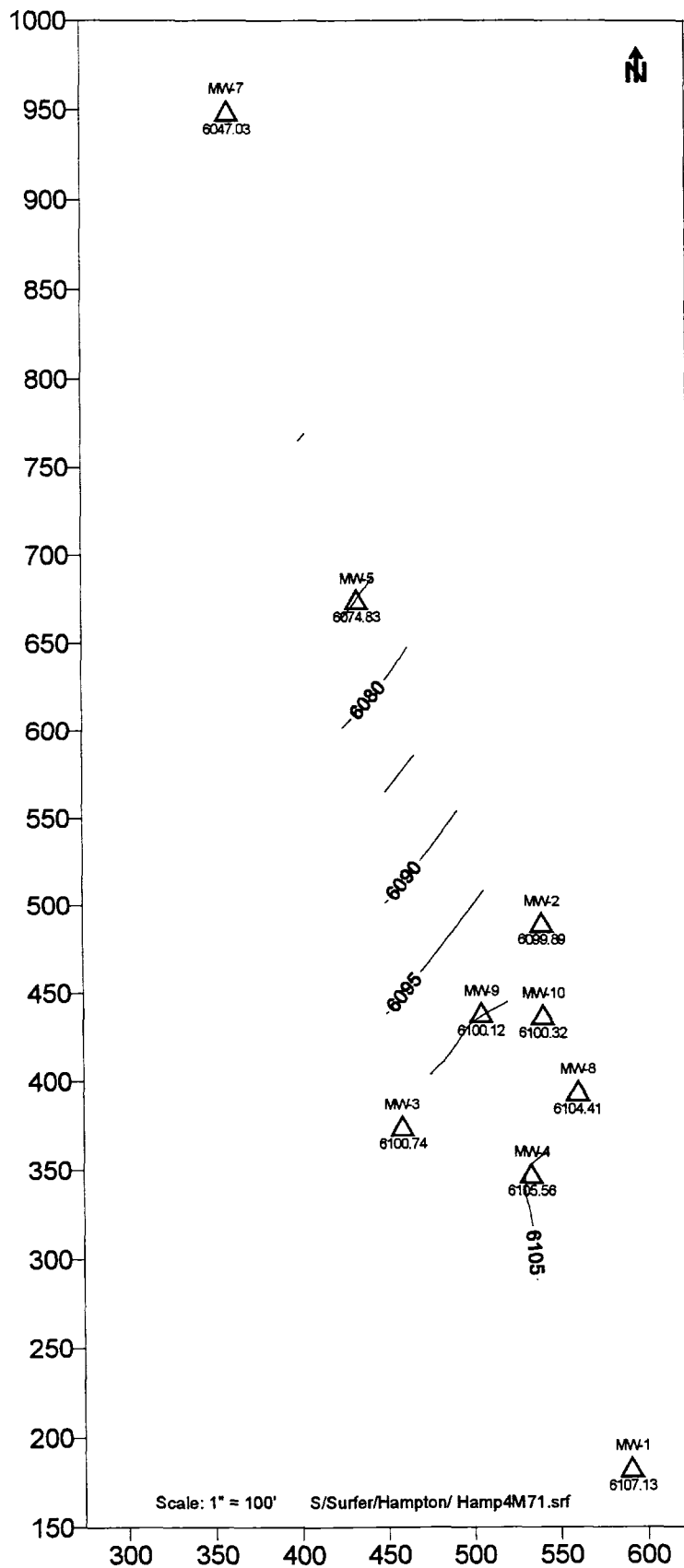


Table 1: SUMMARY OF ANALYTICAL RESULTS

GROUNDWATER MONITORING DATA - collected by PNM, except as noted

Well		Date Sampled	GWEL (ft,msl)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	Total BTEX (ug/L)	Product	
									Thickness (ft)	2-MethylPentane (ug/L)
MW-1 Upgradient well		10/30/97	6110.10	2.4	2.3	<0.2	1.1	5.8	--	NA
		01/12/98	6107.47	4.3	3.3	0.2	1.0	8.8	--	NA
		04/14/98	6107.52	1.0	1.3	<0.5	<0.5	2.3	--	NA
		07/01/98	6107.13	1.3	1.0	<0.5	3.7	6.0	--	42.0
MW-2 PNM drip pit well		01/04/96	6097.88	NA	NA	NA	NA	NA	4.40	NA
		12/16/96	NM	3840.0	7960.0	896.0	7920.0	20618.0	NM	NA
		08/27/97	6097.87	NA	NA	NA	NA	NA	4.75	NA
		10/29/97	6098.08	NA	NA	NA	NA	NA	4.58	NA
		01/12/98	6098.10	NA	NA	NA	NA	NA	4.41	NA
		04/14/98	6100.88	NA	NA	NA	NA	NA	2.59	NA
		07/01/98	6102.14	NA	NA	NA	NA	NA	2.25	NA
MW-3 Up & cross-gradient to PNM (Burlington)		1/4/96	6101.06	NA	NA	NA	NA	NA	--	NA
		1/31/97	NM	<0.2	<0.2	<0.2	<0.2	<0.2	--	NA
		5/5/97	NM	NA	NA	NA	NA	NA	--	NA
		10/29/97	6101.19	<0.2	<0.2	<0.2	<0.2	<0.2	--	NA
		1/12/98	6101.11	<0.2	<0.2	<0.2	<0.2	<0.2	--	NA
		4/14/98	6100.97	<0.5	<0.5	<0.5	<0.5	<0.5	--	NA
		7/1/98	6101.14	0.03 JB	0.05 JB	<0.5	<0.5	0.08 JB	--	<30.0
MW-4 Upgradient PNM; downgradient Burlington (Burlington)		1/3/96	6106.16	NA	NA	NA	NA	NA	--	NA
		1/31/97	NM	811.7	1420.5	31.0	388.1	2651.3	--	NA
		5/1/97	NM	1162.0	1797.0	41.0	486.0	3486.0	--	NA
		8/27/97	6106.87	NA	NA	NA	NA	NA	--	NA
		10/29/97	6106.73	NA	NA	NA	NA	NA	--	NA
		1/12/98	6105.88	1251.0	6.0	82.0	24.0	1363.0	--	NA
		4/14/98	6105.93	1100.0	7.2	28.0	12.0	1147.2	--	NA
		7/1/98	6106.14	1400.0	50.0	120.0	124.0	1694.0	--	10.0 J
MW-5 Downgradient along wash		10/29/97	6075.23	5934.0	10024.0	709.0	8188.0	24855.0	--	NA
		1/12/98	6075.09	7521.0	11213.0	779.0	8436.0	27949.0	--	NA
		4/14/98	6075.33	7000.0	11000.0	720.0	7800.0	26520.0	--	NA
		7/1/98	6075.43	6500.0	10000.0	780.0	7500.0	24780.0	--	800.0
MW-6 PNM drip pit/product recovery		11/12/97	6098.08	NA	NA	NA	NA	NA	4.80	NA
		1/12/98	6097.43	NA	NA	NA	NA	NA	4.71	NA
		4/14/98	NM	NA	NA	NA	NA	NA	pumping	NA
		7/1/98	NM	NA	NA	NA	NA	NA	pumping	NA
MW-7 Downgradient along wash; adj pipeline		1/12/98	6047.12	780.0	246.0	258.0	3942.0	5226.0	--	NA
		04/14/98	6047.09	820.0	340.0	190.0	2450.0	3800.0	--	NA
		07/01/98	6047.03	950.0	440.0	200.0	3020.0	4610.0	--	200.0
MW-8 Upgradient PNM; downgradient Burlington		1/12/98	6104.71	6410.0	17301.0	693.0	9397.0	33801.0	Sheen	NA
		4/14/98	6104.41	NA	NA	NA	NA	NA	0.37	NA
		7/1/98	6105.14	NA	NA	NA	NA	NA	0.37	NA
MW-9 Upgradient PNM, crossgradient Burlington		7/1/98	6100.51	12.0	0.2	0.6	1.3	14.1	--	<30.0
MW-10 Upgradient PNM, downgradient Burlington		7/1/98	NM	NA	NA	NA	NA	NA	2.00	NA
TMP-1 Temporary well; wash midway MW-5, MW-7		11/11/97	NM	2171.0	4185.0	190.0	2856.0	9402.0	--	NA
		7/1/98	6057.61	2000.0	4300.0	180.0	2700.0	9180.0	--	80.0
EB WELL Downgradient private well		11/25/97	5959.74	<0.2	<0.2	<0.2	<0.2	<0.2	--	NA
Burlington Excavation	Soil - @ water	7/1/98	NM	36000.0	560000.0	100000.0	1430000.0	2126000.0	--	NA
	Surface Water	7/1/98	6106.26	10.0	0.4	0.1	1.5	12.0	rainbow	<30.0
Hydrocarbon Seep	Surface Water	7/1/98	6098.72	1.6	0.7	0.6	0.36	3.26	rainbow	6.0 J

Notes:

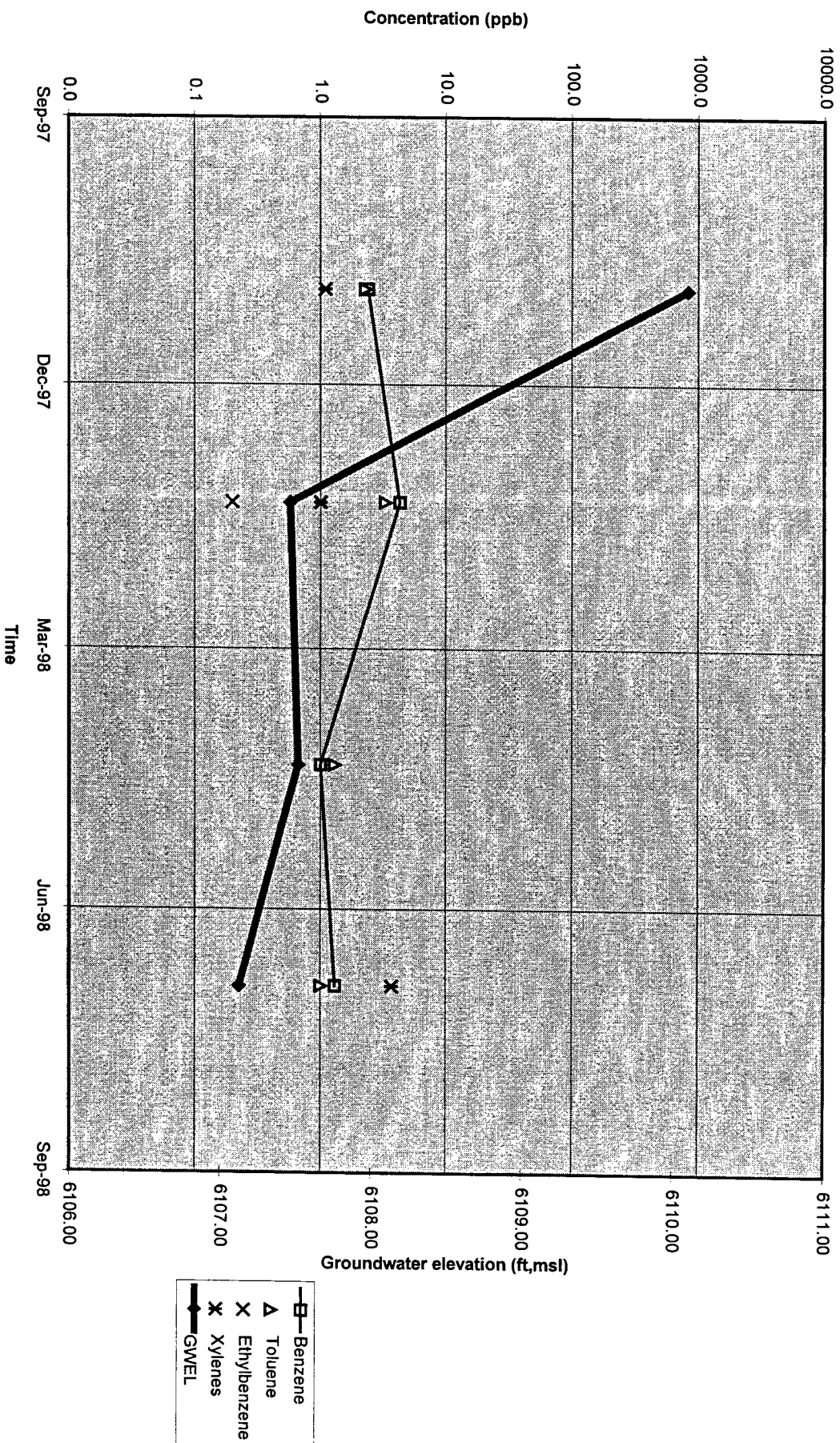
J = Analyte detected below Practical Quantitation Limit
B = Analyte detected in the associated Method Blank

NM = Not measured
NA = Not analyzed

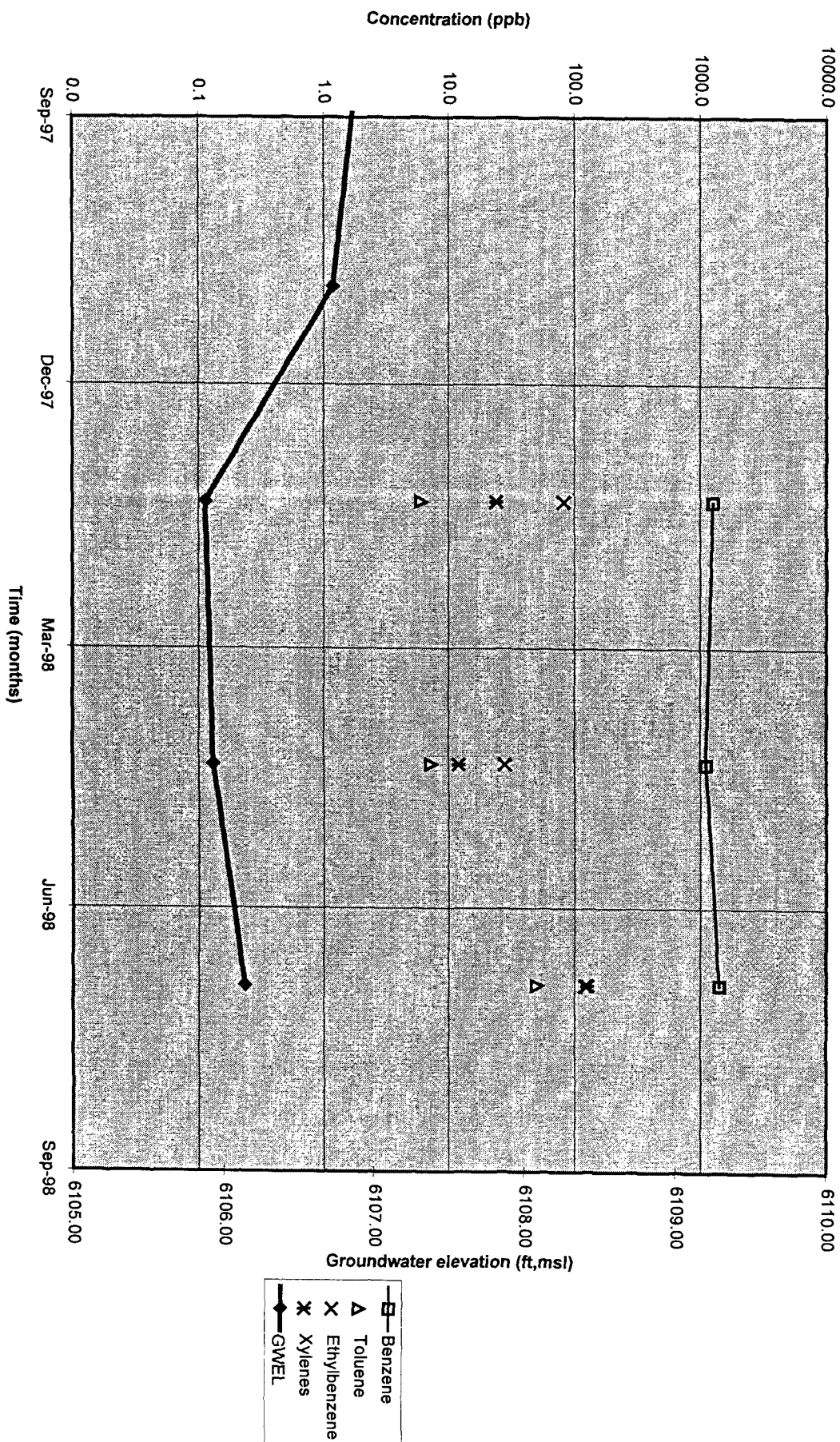
Attachment A

Hydrographs and Concentrations versus Time

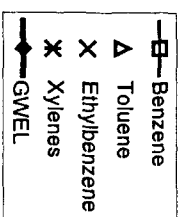
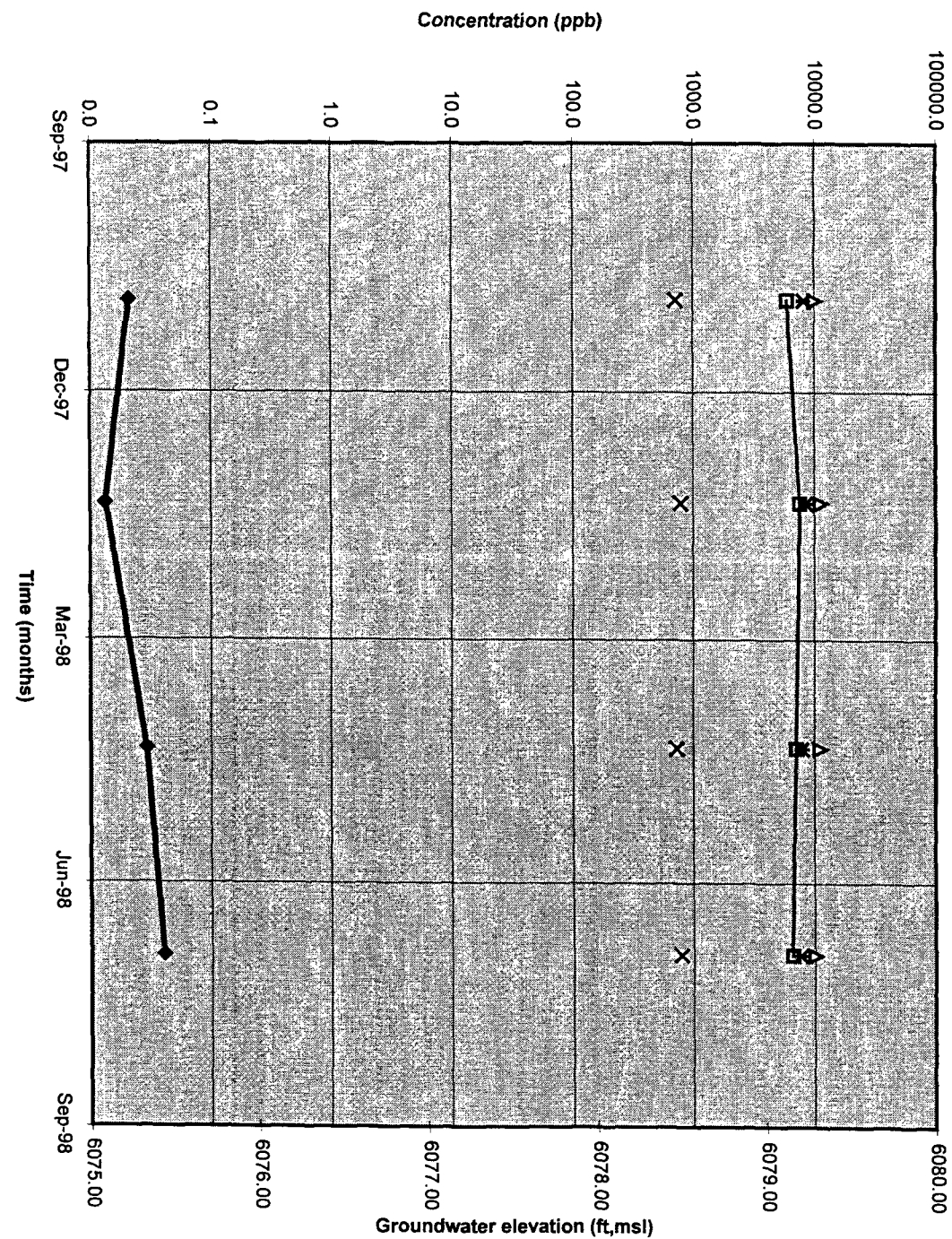
MW-1: Concentration vs. Time



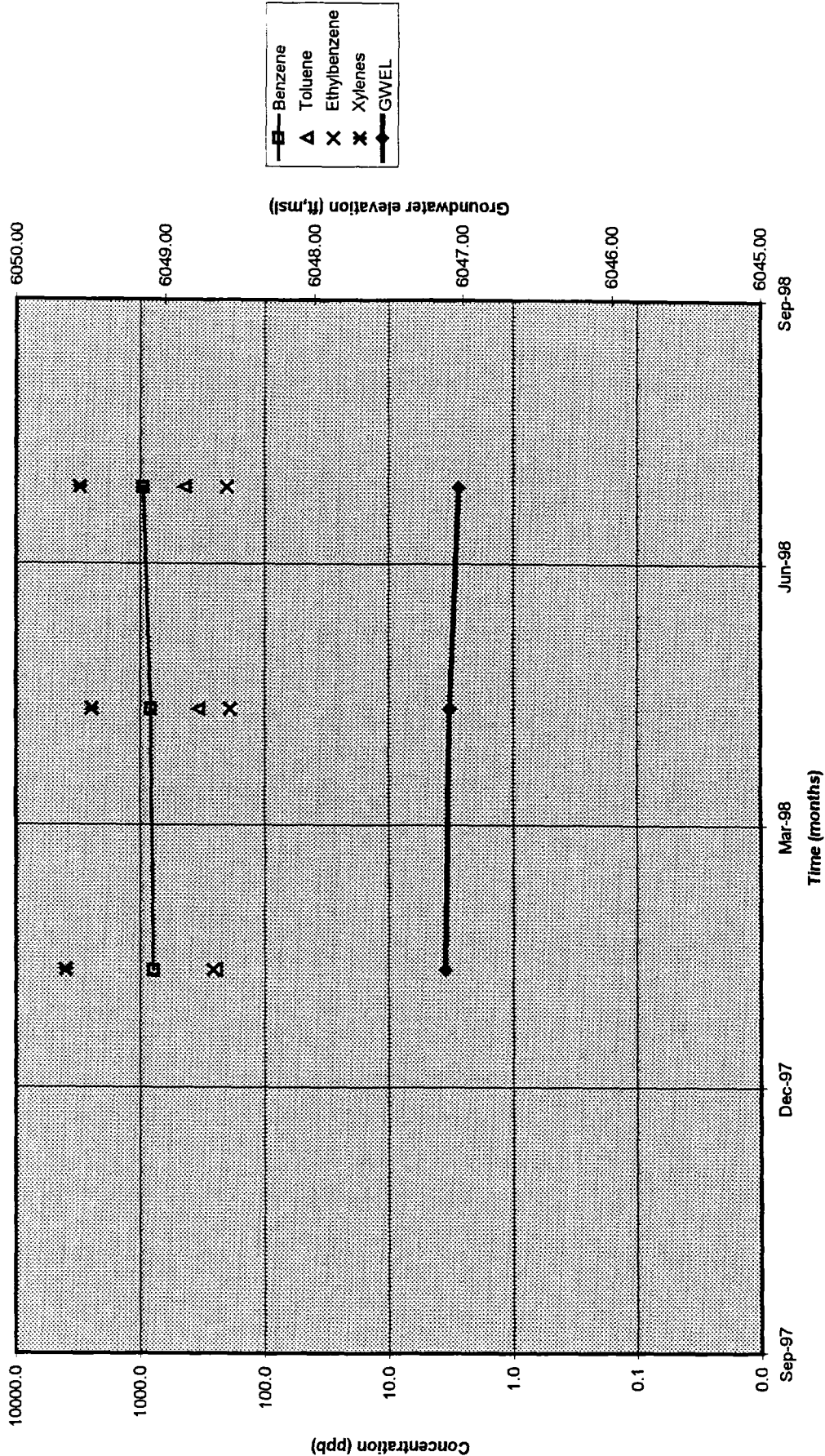
MW-4: Trends with Time



MW-5: Trends with Time



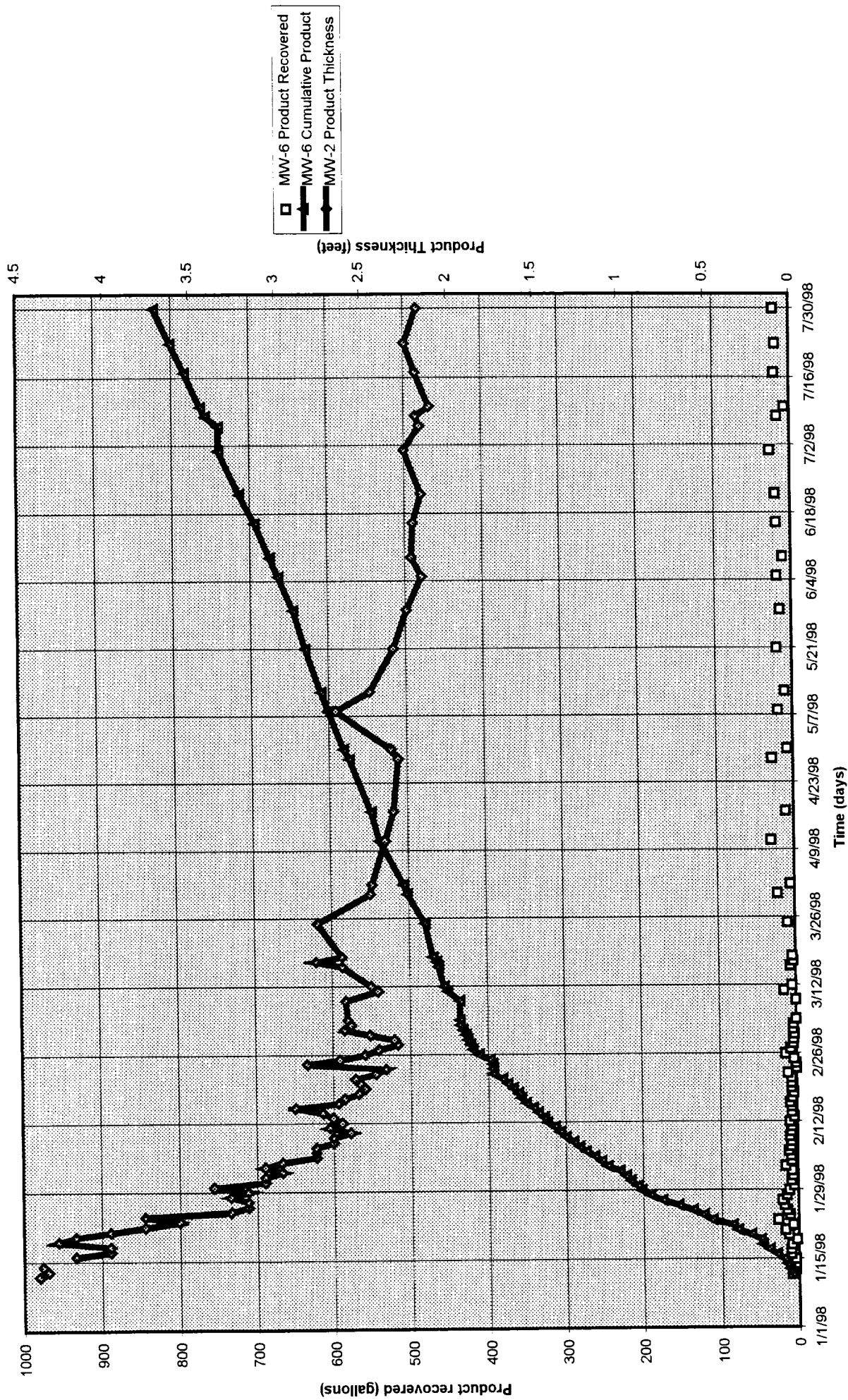
MW-7: Trends with Time



Attachment B

Free Product Recovery Response

Hampton 4M Free Product Recovery



Attachment C

Analytical Laboratory Data

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

July 21, 1998

Maureen Gannon
PNM - Public Service Company of NM
Alvarado Square Mail Stop 0408
Albuquerque, NM 87158
TEL: (505) 241-2974
FAX (505) 241-2340

RE: Hampton 4M

Order No.: 9807024

Dear Maureen Gannon,

On Site Technologies, LTD. received 2 samples on 7/9/98 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

BTEX (SW8020A)

Gasoline Range Organics (SW8015)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



David Cox

P.O. BOX 2606 • FARMINGTON, NM 87499

— Technology for a Better Environment —

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 21-Jul-98

CLIENT: PNM - Public Service Company of NM

Project: Hampton 4M

Lab Order: 9807024

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 21-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Hampton 4M
Work Order:	9807024	Client Sample ID:	9807091045; TMP-1
Lab ID:	9807024-01A	Matrix:	AQUEOUS
Project:	Hampton 4M	Collection Date:	7/9/98 10:45:00 AM
		COC Record:	7278

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS		SW8015				Analyst: DC
2-Methylpentane	80	300	J	µg/L	10	7/13/98
BTEX		SW8020A				Analyst: DC
Benzene	2000	25		µg/L	50	7/20/98
Toluene	4300	25		µg/L	50	7/20/98
Ethylbenzene	180	5		µg/L	10	7/17/98
m,p-Xylene	2100	50		µg/L	50	7/20/98
o-Xylene	600	5		µg/L	10	7/17/98

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

TECHNOLOGY SERVING INDUSTRY WITH THE ENVIRONMENT

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 21-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Hampton 4M
Work Order:	9807024	Client Sample ID:	9807091100; Seep
Lab ID:	9807024-02A	Matrix:	AQUEOUS
Project:	Hampton 4M	Collection Date:	7/9/98 11:00:00 AM
		COC Record:	7278

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS		SW8015				Analyst: DC
2-Methylpentane	6	30	J	µg/L	1	7/13/98
BTEX		SW8020A				Analyst: DC
Benzene	1.6	0.5		µg/L	1	7/17/98
Toluene	0.7	0.5		µg/L	1	7/17/98
Ethylbenzene	0.6	0.5		µg/L	1	7/17/98
m,p-Xylene	0.3	1	JB	µg/L	1	7/17/98
o-Xylene	0.06	0.5	JB	µg/L	1	7/17/98

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

ON SITE TECHNOLOGIES, LTD. 2100 N. HIGHWAY 100, SUITE 100, FARMINGTON, NM 87401

On Site Technologies, LTD.

Date: 21-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807024
Project: Hampton 4M

QC SUMMARY REPORT
Method Blank

Sample ID: MB1	Batch ID: GC-1_980713	Test Code: SW8015	Units: µg/L	Analysis Date 7/13/98	Prep Date:
Client ID:	9807024	Run ID: GC-1_980713B		SeqNo: 4530	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
2-Methylpentane	ND				30

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

1 of 1

On Site Technologies, LTD.

Date: 21-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807024
Project: Hampton 4M

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: 9807010-10AMS		Batch ID: GC-1_980713		Test Code: SW8015		Units: µg/L		Analysis Date 7/13/98		Prep Date:		
Client ID:		9807024		Run ID:		GC-1_980713B		SeqNo: 4536				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylpentane		14450	1500	15000	952.6	90.0%	70	130				

Sample ID: 9807010-10AMSD		Batch ID: GC-1_980713		Test Code: SW8015		Units: µg/L		Analysis Date 7/13/98		Prep Date:		
Client ID:		9807024		Run ID:		GC-1_980713B		SeqNo: 4537				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylpentane		13990	1500	15000	952.6	86.9%	70	130	14450	3.3%	20	

On Site Technologies, LTD.

Date: 21-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807024
Project: Hampton 4M

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID: LCS Water	Batch ID: GC-1_980713	Test Code: SW8015	Units: µg/L	Analysis Date 7/13/98	Prep Date:						
Client ID:	9807024	Run ID: GC-1_980713B		SeqNo: 4532							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylpentane	281.8	30	300	0	93.9%	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

1 of 1

On Site Technologies, LTD.

Date: 21-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807024
Project: Hampton 4M

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: CCV1 QC0593	Batch ID: GC-1_980713	Test Code: SW8015	Units: µg/L	Analysis Date 7/13/98	Prep Date:
Client ID:	9807024	Run ID: GC-1_980713B		SeqNo: 4531	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

2-Methylpentane	296.2	30	300	0	98.7%	85	115
Trifluorotoluene	97.59	0	100	0	97.6%	70	130

Sample ID: CCV2 QC0593	Batch ID: GC-1_980713	Test Code: SW8015	Units: µg/L	Analysis Date 7/13/98	Prep Date:
Client ID:	9807024	Run ID: GC-1_980713B		SeqNo: 4538	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

2-Methylpentane	274.1	30	300	0	91.4%	85	115
Trifluorotoluene	98.82	0	100	0	98.8%	70	130

Sample ID: CCV3 QC0593	Batch ID: GC-1_980713	Test Code: SW8015	Units: µg/L	Analysis Date 7/13/98	Prep Date:
Client ID:	9807024	Run ID: GC-1_980713B		SeqNo: 4539	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

2-Methylpentane	266.2	30	300	0	88.7%	85	115
Trifluorotoluene	97.09	0	100	0	97.1%	70	130

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 21-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807024
Project: Hampton 4M

QC SUMMARY REPORT
Method Blank

Sample ID: MB1	Batch ID: GC-1_980717	Test Code: SW8020A	Units: µg/L	Analysis Date 7/17/98	Prep Date:
Client ID:	9807024	Run ID: GC-1_980717A		SeqNo: 4649	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	.0436	0.5			J
Ethylbenzene	.0759	0.5			J
m,p-Xylene	.1652	1			J
Methyl tert-Butyl Ether	ND	1			
o-Xylene	.1832	0.5			J
Toluene	.1127	0.5			J

Sample ID: MB1	Batch ID: GC-1_980720	Test Code: SW8020A	Units: µg/L	Analysis Date 7/20/98	Prep Date:
Client ID:	9807024	Run ID: GC-1_980720A		SeqNo: 4731	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	.0649	0.5			J
Ethylbenzene	ND	0.5			
m,p-Xylene	ND	1			
Methyl tert-Butyl Ether	ND	1			
o-Xylene	ND	0.5			
Toluene	.0787	0.5			J

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 21-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807024
Project: Hampton 4M

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: 9807025-01AMS		Batch ID: GC-1_980717		Test Code: SW8020A		Units: µg/L		Analysis Date 7/17/98				Prep Date:	
Client ID:		9807024		Run ID: GC-1_980717A				SeqNo: 4650					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Benzene	1764	25	2000	21.02	87.2%	56	128						
Ethylbenzene	1933	25	2000	75.09	92.9%	78	107						
m,p-Xylene	3626	50	4000	127.2	87.5%	67	118						
o-Xylene	1817	25	2000	30.73	89.3%	78	107						
Toluene	1860	25	2000	67.96	89.6%	74	116						

Sample ID: 9807025-01AMS		Batch ID: GC-1_980717		Test Code: SW8020A		Units: µg/L		Analysis Date 7/17/98				Prep Date:	
Client ID:		9807024		Run ID: GC-1_980717A				SeqNo: 4651					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Benzene	1699	25	2000	21.02	83.9%	56	128	1764	3.8%	12			
Ethylbenzene	1865	25	2000	75.09	89.5%	78	107	1933	3.6%	11			
m,p-Xylene	3501	50	4000	127.2	84.4%	67	118	3626	3.5%	10			
o-Xylene	1775	25	2000	30.73	87.2%	78	107	1817	2.3%	14			
Toluene	1791	25	2000	67.96	86.1%	74	116	1860	3.8%	14			

Sample ID: 9807032-01AMS		Batch ID: GC-1_980720		Test Code: SW8020A		Units: µg/L		Analysis Date 7/20/98				Prep Date:	
Client ID:		9807024		Run ID: GC-1_980720A				SeqNo: 4732					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Benzene	7611	50	4000	3831	94.5%	56	128						
Ethylbenzene	5361	50	4000	1595	94.1%	78	107						
m,p-Xylene	15130	100	8000	7290	98.0%	67	118						
Methyl tert-Butyl Ether	3598	100	4000	392.2	80.2%	70	130						
o-Xylene	6591	50	4000	2774	95.4%	78	107				E		
Toluene	21850	50	4000	17660	104.6%	74	116						

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: PNM - Public Service Company of NM

Work Order: 9807024

Project: Hampton 4M

QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID: 9807032-01AMSD		Batch ID: GC-1_980720	Test Code: SW8020A	Units: µg/L	Analysis Date 7/20/98	Prep Date:	
Client ID:		9807024	Run ID: GC-1_980720A		SeqNo: 4733		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Benzene	7448	50	4000	3831	90.4%	56	128
Ethylbenzene	5241	50	4000	1595	91.1%	78	107
m,p-Xylene	14760	100	8000	7290	93.4%	67	118
Methyl tert-Butyl Ether	3818	100	4000	392.2	85.6%	70	130
o-Xylene	6504	50	4000	2774	93.2%	78	107
Toluene	21400	50	4000	17660	93.4%	74	116
						RPDLimit	Qual
						2.2%	12
						2.3%	11
						2.5%	10
						5.9%	15
						1.3%	14
						2.1%	14
							E

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 21-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807024
Project: Hampton 4M

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID: LCS WATER	Batch ID: GC-1_980717	Test Code: SW8020A	Units: µg/L	Analysis Date 7/17/98	Prep Date:						
Client ID:	9807024	Run ID: GC-1_980717A		SeqNo: 4848							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	37.81	0.5	40	0.0436	94.4%	56	128				
Ethylbenzene	38.38	0.5	40	0.0759	95.8%	78	107				
m,p-Xylene	73.54	1	80	0.1652	91.7%	67	118				
Methyl tert-Butyl Ether	46.48	1	40	0	116.2%	70	130				
o-Xylene	38.42	0.5	40	0.1832	95.6%	78	107				
Toluene	37.72	0.5	40	0.1127	94.0%	74	116				

Sample ID: LCS WATER	Batch ID: GC-1_980720	Test Code: SW8020A	Units: µg/L	Analysis Date 7/20/98	Prep Date:						
Client ID:	9807024	Run ID: GC-1_980720A		SeqNo: 4730							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	36.97	0.5	40	0.0649	92.3%	56	128				
Ethylbenzene	38.46	0.5	40	0	96.1%	78	107				
m,p-Xylene	75.83	1	80	0	94.8%	67	118				
Methyl tert-Butyl Ether	35.6	1	40	0	89.0%	70	130				
o-Xylene	38.64	0.5	40	0	96.6%	78	107				
Toluene	38.03	0.5	40	0.0787	94.9%	74	116				

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 21-Jul-98

CLIENT: PNM - Public Service Company of NM
 Work Order: 9807024
 Project: Hampton 4M

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 QC0606/07		Batch ID: GC-1_980717	Test Code: SW8020A	Units: µg/L	Analysis Date 7/17/98		Prep Date:				
Client ID:		9807024	Run ID: GC-1_980717A		SeqNo: 4645						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.67	0.5	20	0	98.4%	85	115				
Ethylbenzene	19.86	0.5	20	0	99.3%	85	115				
m,p-Xylene	37.75	1	40	0	94.4%	85	115				
o-Xylene	19.83	0.5	20	0	99.2%	85	115				
Toluene	19.63	0.5	20	0	98.2%	85	115				
1,4-Difluorobenzene	86.73	0	100	0	86.7%	70	130				
4-Bromochlorobenzene	96.42	0	100	0	96.4%	70	130				
Fluorobenzene	83.42	0	100	0	83.4%	70	130				

Sample ID: CCV2 QC0606/07		Batch ID: GC-1_980717	Test Code: SW8020A	Units: µg/L	Analysis Date 7/17/98			Prep Date:			
Client ID:		9807024	Run ID: GC-1_980717A		SeqNo: 4646						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.82	0.5	20	0	94.1%	85	115				
Ethylbenzene	19.37	0.5	20	0	96.8%	85	115				
m,p-Xylene	36.78	1	40	0	91.9%	85	115				
o-Xylene	19.36	0.5	20	0	96.8%	85	115				
Toluene	19.05	0.5	20	0	95.3%	85	115				
1,4-Difluorobenzene	86.52	0	100	0	86.5%	70	130				
4-Bromochlorobenzene	90.57	0	100	0	90.6%	70	130				
Fluorobenzene	82.78	0	100	0	82.8%	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: PNM - Public Service Company of NM

Work Order: 9807024

Project: Hampton 4M

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV3 QC0606/07		Batch ID: GC-1_980717	Test Code: SW8020A	Units: µg/L	Analysis Date 7/17/98		Prep Date:				
Client ID:		9807024	Run ID: GC-1_980717A		SeqNo: 4647						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	35.5	0.5	40	0	88.7%	85	115				
Ethylbenzene	37.28	0.5	40	0	93.2%	85	115				
m,p-Xylene	71.23	1	80	0	89.0%	85	115				
o-Xylene	36.68	0.5	40	0	91.7%	85	115				
Toluene	37.03	0.5	40	0	92.6%	85	115				
1,4-Difluorobenzene	85.63	0	100	0	85.6%	70	130				
4-Bromochlorobenzene	74.02	0	100	0	74.0%	70	130				
Fluorobenzene	81.58	0	100	0	81.6%	70	130				

Sample ID: CCV1 QC0606/07		Batch ID: GC-1_980720	Test Code: SW8020A	Units: µg/L	Analysis Date 7/20/98		Prep Date:				
Client ID:		9807024	Run ID:	GC-1_980720A	SeqNo:	4728					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.53	0.5	20	0	92.6%	85	115				
Ethylbenzene	19.44	0.5	20	0	97.2%	85	115				
m,p-Xylene	37.86	1	40	0	94.7%	85	115				
Methyl tert-Butyl Ether	17.75	1	20	0	88.8%	85	115				
o-Xylene	19.5	0.5	20	0	97.5%	85	115				
Toluene	19.16	0.5	20	0	95.8%	85	115				
1,4-Difluorobenzene	86.54	0	100	0	86.5%	70	130				
4-Bromochlorobenzene	80.3	0	100	0	80.3%	70	130				
Fluorobenzene	81.99	0	100	0	82.0%	70	130				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: PNM - Public Service Company of NM
Work Order: 9807024
Project: Hampton 4M

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: CCV2 QC0606/07		Batch ID: GC-1_980720		Test Code: SW8020A		Units: µg/L		Analysis Date 7/20/98		Prep Date:	
Client ID:		Run ID:		GC-1_980720A				SeqNo: 4729			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.45	0.5	20	0	92.3%	85	115				
Ethylbenzene	19.33	0.5	20	0	96.7%	85	115				
m,p-Xylene	37.72	1	40	0	94.3%	85	115				
Methyl tert-Butyl Ether	18.7	1	20	0	93.5%	85	115				
o-Xylene	19.46	0.5	20	0	97.3%	85	115				
Toluene	19.09	0.5	20	0	95.5%	85	115				
1,4-Difluorobenzene	86.44	0	100	0	86.4%	70	130				
4-Bromochlorobenzene	80.25	0	100	0	80.2%	70	130				
Fluorobenzene	81.78	0	100	0	81.8%	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: PNM - Public Service Company of NM

Work Order: 9807024

Project: Hampton 4M

Test No: SW8020A

**QC SUMMARY REPORT
SURROGATE RECOVERIES****BTEX**

Sample ID	14FBZ	4BCBZ	FLBZ					
9807024-01A	83.1	68.1 *	79.6					
9807024-02A	87.7	99.1	84.4					
9807025-01A	80.9	77.7	77.1					
9807025-01AMS	85	66.3 *	80.7					
9807025-01AMSD	84.8	68 *	81.1					
9807025-02A	80.6	70.2	76.3					
9807026-01A	83.1	92.3	80					
9807026-02A	83.1	90.7	79.8					
9807032-01A	85.2	71.4	81.4					
9807032-01AMS	85.2	75.3	81.4					
9807032-01AMSD	85.5	78.5	81.4					
9807033-01A	86.8	96	82.8					
9807033-02A	86.9	96.7	82.8					
9807033-03A	86.6	92.2	83.7					
9807033-04A	90.3	94.2	81.3					
9807033-05A	86.5	90.8	83					
9807033-06A	90.2	81.1	80.1					
9807033-07A	86.9	83.2	82.2					
9807034-01A	86.8	91.7	81.8					
CCV1 QC0606/07	86.5	80.3	82					
CCV2 QC0606/07	86.4	80.2	81.8					
CCV3 QC0606/07	85.6	74	81.6					
LCS WATER	85.4	82.1	81.9					
MB1	86.5	75.6	82.6					

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

* Surrogate recovery outside acceptance limits

OFF: (505) 325-5667



LAB: (505) 325-1556

July 20, 1998

Maureen Gannon
PNM - Public Service Company of NM
Alvarado Square Mail Stop 0408
Albuquerque, NM 87158
TEL: (505) 241-2974
FAX (505) 241-2340

RE: PNM Pit Remediation *Hampton 4M*

Order No.: 9807004

Dear Maureen Gannon,

On Site Technologies, LTD. received 9 samples on 7/2/98 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

BTEX (SW8020A)
Diesel Range Organics (SW8015)
Gasoline Range Organics (SW8015)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read "David Cox", written in a cursive style.

David Cox

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 20-Jul-98

CLIENT: PNM - Public Service Company of NM
Project: PNM Pit Remediation
Lab Order: 9807004

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

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ANALYTICAL REPORT

Date: 20-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Hampton 4M
Work Order:	9807004	Client Sample ID:	9807011350; MW-1
Lab ID:	9807004-01A	Matrix:	AQUEOUS
Project:	PNM Pit Remediation	Collection Date:	7/1/98 1:50:00 PM
		COC Record:	7275

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS						
		SW8015				Analyst: DC
2-Methylpentane	42	30		µg/L	1	7/12/98
BTEX						
		SW8020A				Analyst: DC
Benzene	1.3	0.5		µg/L	1	7/8/98
Toluene	1	0.5		µg/L	1	7/8/98
Ethylbenzene	ND	0.5		µg/L	1	7/8/98
m,p-Xylene	0.1	1	JB	µg/L	1	7/8/98
o-Xylene	3.6	0.5		µg/L	1	7/8/98

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

1 of 1

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LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 20-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Hampton 4M
Work Order:	9807004	Client Sample ID:	9807011420; MW-3
Lab ID:	9807004-02A	Matrix:	AQUEOUS
Project:	PNM Pit Remediation	Collection Date:	7/1/98 2:20:00 PM
		COC Record:	7275

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS						
	SW8015					
2-Methylpentane	ND	30		µg/L	1	7/12/98
BTEX						
	SW8020A					
Benzene	0.03	0.5	JB	µg/L	1	7/8/98
Toluene	0.05	0.5	JB	µg/L	1	7/8/98
Ethylbenzene	ND	0.5		µg/L	1	7/8/98
m,p-Xylene	ND	1		µg/L	1	7/8/98
o-Xylene	ND	0.5		µg/L	1	7/8/98

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

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LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 20-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Hampton 4M
Work Order:	9807004	Client Sample ID:	9807011445; MW-4
Lab ID:	9807004-03A	Matrix:	AQUEOUS
Project:	PNM Pit Remediation	Collection Date:	7/1/98 2:45:00 PM
		COC Record:	7275

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS						
		SW8015				Analyst: DC
2-Methylpentane	10	30	J	µg/L	1	7/12/98
BTEX						
		SW8020A				Analyst: DC
Benzene	1400	5		µg/L	10	7/8/98
Toluene	50	5		µg/L	10	7/8/98
Ethylbenzene	120	5		µg/L	10	7/8/98
m,p-Xylene	67	10		µg/L	10	7/8/98
o-Xylene	57	5		µg/L	10	7/8/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

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LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 20-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Hampton 4M
Work Order:	9807004	Client Sample ID:	9807011500; Burlington Exc.
Lab ID:	9807004-04A	Matrix:	AQUEOUS
Project:	PNM Pit Remediation	Collection Date:	7/1/98 3:00:00 PM
		COC Record:	7275

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS		SW8015				Analyst: DC
2-Methylpentane	ND	30		µg/L	1	7/12/98
BTEX		SW8020A				Analyst: DC
Benzene	10	0.5		µg/L	1	7/8/98
Toluene	0.4	0.5	JB	µg/L	1	7/8/98
Ethylbenzene	0.1	0.5	JB	µg/L	1	7/8/98
m,p-Xylene	1.3	1		µg/L	1	7/8/98
o-Xylene	0.2	0.5	JB	µg/L	1	7/8/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

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LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 20-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Hampton 4M
Work Order:	9807004	Client Sample ID:	9807011505; Burlington Exc.
Lab ID:	9807004-05A	Matrix:	SOIL
Project:	PNM Pit Remediation	Collection Date:	7/1/98 3:05:00 PM
		COC Record:	7275

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C10-C28	4800	25		mg/Kg	1	7/9/98
BTEX		SW8020A				Analyst: DC
Benzene	36000	10000		µg/Kg	10000	7/10/98
Toluene	560000	20000		µg/Kg	10000	7/10/98
Ethylbenzene	100000	10000		µg/Kg	10000	7/10/98
m,p-Xylene	1200000	20000		µg/Kg	10000	7/10/98
o-Xylene	230000	10000		µg/Kg	10000	7/10/98

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

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LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 20-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Hampton 4M
Work Order:	9807004	Client Sample ID:	9807011545; MW-9
Lab ID:	9807004-06A	Matrix:	AQUEOUS
Project:	PNM Pit Remediation	Collection Date:	7/1/98 3:45:00 PM
		COC Record:	7275

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS		SW8015				Analyst: DC
2-Methylpentane	ND	30		µg/L	1	7/12/98
BTEX		SW8020A				Analyst: DC
Benzene	12	0.5		µg/L	1	7/11/98
Toluene	0.2	0.5	JB	µg/L	1	7/11/98
Ethylbenzene	0.6	0.5		µg/L	1	7/11/98
m,p-Xylene	1.2	1		µg/L	1	7/11/98
o-Xylene	0.1	0.5	JB	µg/L	1	7/11/98

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	I - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

1 of 1

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ANALYTICAL REPORT

Date: 20-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Hampton 4M
Work Order:	9807004	Client Sample ID:	9807011625; MW-5
Lab ID:	9807004-07A	Matrix:	AQUEOUS
Project:	PNM Pit Remediation	Collection Date:	7/1/98 4:25:00 PM
		COC Record:	7275

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS		SW8015				Analyst: DC
2-Methylpentane	800	600		µg/L	20	7/12/98
BTEX		SW8020A				Analyst: DC
Benzene	6500	50		µg/L	100	7/8/98
Toluene	10000	50		µg/L	100	7/8/98
Ethylbenzene	780	50		µg/L	100	7/8/98
m,p-Xylene	6000	100		µg/L	100	7/8/98
o-Xylene	1500	50		µg/L	100	7/8/98

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr - Surrogate

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 20-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Hampton 4M
Work Order:	9807004	Client Sample ID:	9807011650; MW-7
Lab ID:	9807004-08A	Matrix:	AQUEOUS
Project:	PNM Pit Remediation	Collection Date:	7/1/98 4:50:00 PM
		COC Record:	7275

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS		SW8015				Analyst: DC
2-Methylpentane	200	300	J	µg/L	10	7/12/98
BTEX		SW8020A				Analyst: DC
Benzene	950	5		µg/L	10	7/8/98
Toluene	440	5		µg/L	10	7/8/98
Ethylbenzene	200	5		µg/L	10	7/8/98
m,p-Xylene	2300	20		µg/L	20	7/11/98
o-Xylene	720	5		µg/L	10	7/8/98

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 20-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Hampton 4M
Work Order:	9807004	Client Sample ID:	9807011700; MW-11
Lab ID:	9807004-09A	Matrix:	AQUEOUS
Project:	PNM Pit Remediation	Collection Date:	7/1/98 5:00:00 PM
		COC Record:	7275

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS		SW8015				Analyst: DC
2-Methylpentane	100	300	J	µg/L	10	7/12/98
BTEX		SW8020A				Analyst: DC
Benzene	930	5		µg/L	10	7/8/98
Toluene	470	5		µg/L	10	7/8/98
Ethylbenzene	180	5		µg/L	10	7/8/98
m,p-Xylene	1900	20		µg/L	20	7/11/98
o-Xylene	620	5		µg/L	10	7/8/98

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

1 of 1

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 20-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation

QC SUMMARY REPORT
Method Blank

Sample ID: MB1	Batch ID: GC-1_980712	Test Code: SW8015	Units: µg/L	Analysis Date 7/12/98	Prep Date:
Client ID:	9807004	Run ID: GC-1_980712B		SeqNo: 4484	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
2-Methylpentane	ND	30			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 20-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: 9807010-16AMS		Batch ID: GC-1_980712		Test Code: SW8015		Units: µg/L		Analysis Date 7/12/98		Prep Date:	
Client ID:		9807004		Run ID: GC-1_980712B				SeqNo: 4511			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylpentane	6397	600	6000	775.4	93.7%	70	130				

Sample ID: 9807010-16AMSD		Batch ID: GC-1_980712		Test Code: SW8015		Units: µg/L		Analysis Date 7/12/98		Prep Date:	
Client ID:		9807004		Run ID: GC-1_980712B				SeqNo: 4512			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylpentane	6268	600	6000	775.4	91.5%	70	130	6397	2.0%	20	

On Site Technologies, LTD.

Date: 20-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID: LCS Water	Batch ID: GC-1_980712	Test Code: SW8015	Units: µg/L	Analysis Date	7/12/98	Prep Date:					
Client ID:	9807004	Run ID: GC-1_980712B		SeqNo:	4486						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylpentane	294.7	30	300	0	98.2%	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 20-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: CCV1 QC0593	Batch ID: GC-1_980712	Test Code: SW8015	Units: µg/L	Analysis Date 7/12/98	Prep Date:
Client ID:	9807004	Run ID: GC-1_980712B		SeqNo: 4485	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

2-Methylpentane	312.5	30	300	0	104.2%	85	115
Trifluorotoluene	100	0	100	0	100.0%	70	130

Sample ID: CCV2 QC0593	Batch ID: GC-1_980712	Test Code: SW8015	Units: µg/L	Analysis Date 7/12/98	Prep Date:
Client ID:	9807004	Run ID: GC-1_980712B		SeqNo: 4513	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

2-Methylpentane	281.1	30	300	0	93.7%	85	115
Trifluorotoluene	100.6	0	100	0	100.6%	70	130

Sample ID: CCV3 QC0593	Batch ID: GC-1_980712	Test Code: SW8015	Units: µg/L	Analysis Date 7/12/98	Prep Date:
Client ID:	9807004	Run ID: GC-1_980712B		SeqNo: 4514	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

2-Methylpentane	272.3	30	300	0	90.8%	85	115
Trifluorotoluene	98	0	100	0	98.0%	70	130

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

On Site Technologies, LTD.

Date: 20-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation

QC SUMMARY REPORT
Method Blank

Sample ID: MB1	Batch ID: GC-2_980709	Test Code: SW8015	Units: mg/Kg	Analysis Date 7/9/98	Prep Date: 7/9/98
Client ID:	9807004	Run ID: GC-2_980709A		SeqNo: 4327	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
T/R Hydrocarbons: C10-C28					
	ND				25

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 20-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation

QC SUMMARY REPORT
Sample Duplicate

Sample ID: 9807004-05AD		Batch ID: GC-2_980709		Test Code: SW8015		Units: mg/Kg		Analysis Date 7/9/98		Prep Date: 7/9/98	
Client ID: 9807011505; Burll		9807004		Run ID: GC-2_980709A				SeqNo: 4331			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C10-C28	5367	25	0	0	0.0%	0	0	4766	11.8%	15	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

1 of 1

Date: 20-Jul-98

On Site Technologies, LTD.

QC SUMMARY REPORT

Sample Matrix Spike

CLIENT: PNM - Public Service Company of NM

Work Order: 9807004

Project: PNM Pit Remediation

Prep Date: 7/14/98

Sample ID: 9807018-04AMS	Batch ID: GC-2_980709	Test Code: SW8015	Units: mg/Kg	Analysis Date 7/14/98	SeqNo: 4356				
Client ID:	9807004	Run ID: GC-2_980709A							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
T/R Hydrocarbons: C10-C28	543.4	25	502	28.36	102.6%	70	130		

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank
I of I

On Site Technologies, LTD.

Date: 20-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID: LCS Soil	Batch ID: GC-2_980709	Test Code: SW8015	Units: mg/Kg	Analysis Date	7/9/98	Prep Date: 7/9/98					
Client ID:	9807004	Run ID: GC-2_980709A		SeqNo: 4329							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C10-C28	490.8	25	502	0	97.8%	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 20-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 QC0602	Batch ID: GC-2_980709	Test Code: SW8015	Units: mg/Kg	Analysis Date 7/9/98	Prep Date:
Client ID:	9807004	Run ID: GC-2_980709A		SeqNo: 4328	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
T/R Hydrocarbons: C10-C28	458.6	25	502	0	91.4% 85 115
Sample ID: CCV2 QC0602	Batch ID: GC-2_980709	Test Code: SW8015	Units: mg/Kg	Analysis Date 7/10/98	Prep Date:
Client ID:	9807004	Run ID: GC-2_980709A		SeqNo: 4352	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
T/R Hydrocarbons: C10-C28	490	25	502	0	97.6% 85 115
Sample ID: CCV3 QC0602	Batch ID: GC-2_980709	Test Code: SW8015	Units: mg/Kg	Analysis Date 7/14/98	Prep Date:
Client ID:	9807004	Run ID: GC-2_980709A		SeqNo: 4353	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
T/R Hydrocarbons: C10-C28	569.6	25	502	0	113.5% 85 115
Sample ID: CCV4 QC0602	Batch ID: GC-2_980709	Test Code: SW8015	Units: mg/Kg	Analysis Date 7/14/98	Prep Date:
Client ID:	9807004	Run ID: GC-2_980709A		SeqNo: 4354	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
T/R Hydrocarbons: C10-C28	566.4	25	502	0	112.8% 85 115
Sample ID: CCV5 QC0602	Batch ID: GC-2_980709	Test Code: SW8015	Units: mg/Kg	Analysis Date 7/14/98	Prep Date:
Client ID:	9807004	Run ID: GC-2_980709A		SeqNo: 4355	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
T/R Hydrocarbons: C10-C28	568.7	25	502	0	113.3% 85 115

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

On Site Technologies, LTD.

Date: 20-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation

QC SUMMARY REPORT
Method Blank

Sample ID: MB1	Batch ID: GC-1_980710	Test Code: SW8020A	Units: µg/Kg	Analysis Date	7/10/98	Prep Date:					
Client ID:	9807004	Run ID: GC-1_980710A		SeqNo:	4324						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	1									
Ethylbenzene	ND	1									
m,p-Xylene	ND	2									
Methyl tert-Butyl Ether	.8227	10									J
o-Xylene	.6462	1									J
Toluene	ND	2									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 20-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: 9806110-02AMS		Batch ID: GC-1_980710		Test Code: SW8020A		Units: µg/Kg		Analysis Date 7/10/98		Prep Date:	
Client ID: 9807004		Run ID: GC-1_980710A		SeqNo: 4325							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2924	50	3000	174.3	91.7%	71	116				
Ethylbenzene	4275	50	3000	1389	96.2%	68	120				
m,p-Xylene	22800	100	6000	16340	107.6%	60	121				E
o-Xylene	6169	50	3000	3308	95.4%	69	124				
Toluene	9771	100	3000	6715	101.9%	62	128				

Sample ID: 9806110-02AMSD		Batch ID: GC-1_980710		Test Code: SW8020A		Units: µg/Kg		Analysis Date 7/10/98		Prep Date:	
Client ID: 9807004		Run ID: GC-1_980710A		SeqNo: 4326							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2748	50	3000	174.3	85.8%	71	116	2924	6.2%	15	
Ethylbenzene	4073	50	3000	1389	89.5%	68	120	4275	4.9%	15	
m,p-Xylene	21880	100	6000	16340	92.4%	60	121	22800	4.1%	15	E
o-Xylene	5986	50	3000	3308	89.3%	69	124	6169	3.0%	15	
Toluene	9425	100	3000	6715	90.3%	62	128	9771	3.6%	15	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 20-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID: LCS SOIL		Batch ID: GC-1_980710		Test Code: SW8020A		Units: µg/Kg		Analysis Date 7/10/98		Prep Date:	
Client ID:		9807004		Run ID: GC-1_980710A				SeqNo: 4323			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	61.1	1	60	0	101.8%	71	116				
Ethylbenzene	64.41	1	60	0	107.3%	68	120				
m,p-Xylene	128.4	2	120	0	107.0%	60	121				
o-Xylene	61.85	1	60	0.6462	102.0%	69	124				
Toluene	63.06	2	60	0	105.1%	62	128				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 20-Jul-98

CLIENT: PNM - Public Service Company of NM
 Work Order: 9807004
 Project: PNM Pit Remediation

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 QC0529/30		Batch ID: GC-1_980710	Test Code: SW8020A	Units: µg/Kg	Analysis Date 7/10/98		Prep Date:				
Client ID:		9807004	Run ID:	GC-1_980710A	SeqNo: 4320						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	60.09	1	60	0	100.2%	85	115				
Ethylbenzene	61.48	1	60	0	102.5%	85	115				
m,p-Xylene	122.9	2	120	0	102.4%	85	115				
o-Xylene	60.43	1	60	0	100.7%	85	115				
Toluene	61.34	2	60	0	102.2%	85	115				
1,4-Difluorobenzene	79.79	0	80	0	99.7%	70	130				
4-Bromochlorobenzene	64.01	0	80	0	80.0%	68	131				
Fluorobenzene	80	0	80	0	100.0%	70	130				

Sample ID: CCV2 QC0529/30		Batch ID: GC-1_980710	Test Code: SW8020A	Units: µg/Kg		Analysis Date 7/10/98			Prep Date:		
Client ID:		9807004	Run ID:	GC-1_980710A	SeqNo: 4321						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	60.08	1	60	0	100.1%	85	115				
Ethylbenzene	63.73	1	60	0	106.2%	85	115				
m,p-Xylene	125.5	2	120	0	104.6%	85	115				
o-Xylene	61.86	1	60	0	103.1%	85	115				
Toluene	62.39	2	60	0	104.0%	85	115				
1,4-Difluorobenzene	79.66	0	80	0	99.6%	70	130				
4-Bromochlorobenzene	68.19	0	80	0	85.2%	68	131				
Fluorobenzene	78.9	0	80	0	98.6%	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: CCV3 QC0529/30		Batch ID: GC-1_980710		Test Code: SW8020A		Units: µg/Kg		Analysis Date 7/10/98		Prep Date:	
Client ID:		Run ID: 9807004		PQL		SPK value GC-1_980710A		SeqNo: 4322			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	57.96	1	60	0	96.6%	85	115				
Ethylbenzene	61.33	1	60	0	102.2%	85	115				
m,p-Xylene	118.8	2	120	0	99.0%	85	115				
o-Xylene	58.93	1	60	0	98.2%	85	115				
Toluene	60.88	2	60	0	101.5%	85	115				
1,4-Difluorobenzene	79.09	0	80	0	98.9%	70	130				
4-Bromochlorobenzene	65.25	0	80	0	81.6%	68	131				
Fluorobenzene	78.05	0	80	0	97.6%	70	130				

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation
Test No: SW8020A

QC SUMMARY REPORT SURROGATE RECOVERIES

BTEX

Sample ID	14FBZ	4BCBZ	FLBZ				
9806110-02A	101	90	100				
9806110-02AMS	101	90.4	100				
9806110-02AMSD	101	92.5	99.7				
9807004-05A	94.4	85.4	100				
9807017-01A	104	97.5	102				
9807017-02A	88.1	82.2	103				
CCV1 QC0529/30	99.7	80	100				
CCV2 QC0529/30	99.6	85.2	98.6				
CCV3 QC0529/30	98.8	81.6	97.6				
LCS SOIL	98.8	83.5	98.6				
MB1	131 *	147 *	125				

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	68-131
FLBZ	= Fluorobenzene	70-130

* Surrogate recovery outside acceptance limits

On Site Technologies, LTD.

Date: 20-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation

QC SUMMARY REPORT
Method Blank

Sample ID: MB1	Batch ID: GC-1_980708	Test Code: SW8020A	Units: µg/L	Analysis Date 7/8/98	Prep Date:
Client ID:	9807004	Run ID: GC-1_980708A		SeqNo: 4280	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	.078	0.5			J
Ethylbenzene	.0704	0.5			J
m,p-Xylene	.1465	1			J
Methyl tert-Butyl Ether	.0657	1			J
o-Xylene	.1008	0.5			J
Toluene	.101	0.5			J

Sample ID: MB1	Batch ID: GC-1_980711	Test Code: SW8020A	Units: µg/L	Analysis Date 7/11/98	Prep Date:
Client ID:	9807004	Run ID: GC-1_980711A		SeqNo: 4307	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	.0361	0.5			J
Ethylbenzene	.0634	0.5			J
m,p-Xylene	.3793	1			J
Methyl tert-Butyl Ether	ND	1			
o-Xylene	.1305	0.5			J
Toluene	.1265	0.5			J

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Date: 20-Jul-98

QC SUMMARY REPORT

Sample ID: 9807004-03AMSD		Batch ID: GC-1_980708	Test Code: SW8020A	Units: µg/L	Analysis Date 7/8/98		Prep Date:				
Client ID: 9807011445; MW-		9807004	Run ID: GC-1_980708A		SeqNo: 4282						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1761	5	400	1408	88.3%	56	128	1798	2.1%	12	E
Ethylbenzene	458.7	5	400	116.7	85.5%	78	107	482	5.0%	11	
m,p-Xylene	814.3	10	800	67.21	93.4%	67	118	847.5	4.0%	10	
Methyl tert-Butyl Ether	332.4	10	400	0	83.1%	70	130	319.8	3.8%	15	
o-Xylene	409.3	5	400	56.82	88.1%	78	107	425.7	3.9%	14	
Toluene	408.5	5	400	50.1	89.6%	74	116	426.9	4.4%	14	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated Method Blank
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	
			1 of 2

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: 9806110-01AMS		Batch ID: GC-1_980711		Test Code: SW8020A		Units: µg/L		Analysis Date 7/11/98		Prep Date:	
Client ID:		9807004		Run ID: GC-1_980711A				SeqNo: 4308			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	428.9	5	400	22.1	101.7%	56	128				
Ethylbenzene	1574	5	400	1116	114.3%	78	107				S
m,p-Xylene	1396	10	800	552.8	105.4%	67	118				
Methyl tert-Butyl Ether	390.1	10	400	0	97.5%	70	130				
o-Xylene	999.5	5	400	562.4	109.3%	78	107				S
Toluene	1830	5	400	1362	117.1%	74	116				S

Sample ID: 9806110-01AMSD		Batch ID: GC-1_980711		Test Code: SW8020A		Units: µg/L		Analysis Date 7/11/98		Prep Date:	
Client ID:		9807004		Run ID: GC-1_980711A				SeqNo: 4309			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	402.5	5	400	22.1	95.1%	56	128	428.9	6.4%	12	
Ethylbenzene	1478	5	400	1116	90.5%	78	107	1574	6.3%	11	
m,p-Xylene	1313	10	800	552.8	95.1%	67	118	1396	6.1%	10	
Methyl tert-Butyl Ether	372.7	10	400	0	93.2%	70	130	390.1	4.6%	15	
o-Xylene	943.3	5	400	562.4	95.2%	78	107	999.5	5.8%	14	
Toluene	1710	5	400	1362	87.1%	74	116	1830	6.8%	14	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 20-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID: LCS WATER		Batch ID: GC-1_980708		Test Code: SW8020A		Units: µg/L		Analysis Date 7/8/98		Prep Date:	
Client ID:		9807004		Run ID: GC-1_980708A				SeqNo: 4279			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.12	0.5	40	0.078	97.6%	56	128				
Ethylbenzene	40.03	0.5	40	0.0704	99.9%	78	107				
m,p-Xylene	78.3	1	80	0.1465	97.7%	67	118				
Methyl tert-Butyl Ether	40.04	1	40	0.0657	99.9%	70	130				
o-Xylene	39.71	0.5	40	0.1008	99.0%	78	107				
Toluene	39.3	0.5	40	0.101	98.0%	74	116				

Sample ID: LCS WATER		Batch ID: GC-1_980711		Test Code: SW8020A		Units: µg/L		Analysis Date 7/11/98		Prep Date:	
Client ID:		9807004		Run ID: GC-1_980711A				SeqNo: 4306			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	36.54	0.5	40	0.0361	91.3%	56	128				
Ethylbenzene	39.51	0.5	40	0.0634	98.6%	78	107				
m,p-Xylene	75.72	1	80	0.3793	94.2%	67	118				
Methyl tert-Butyl Ether	36	1	40	0	90.0%	70	130				
o-Xylene	38.74	0.5	40	0.1305	96.5%	78	107				
Toluene	37.79	0.5	40	0.1265	94.2%	74	116				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 20-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: CCV1 QC0529/30		Batch ID: GC-1_980708		Test Code: SW8020A		Units: µg/L		Analysis Date 7/8/98		Prep Date:	
Client ID:		9807004		Run ID:		GC-1_980708A		SeqNo: 4276			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.76	0.5	20	0	98.8%	85	115				
Ethylbenzene	20.22	0.5	20	0	101.1%	85	115				
m,p-Xylene	38.96	1	40	0	97.4%	85	115				
Methyl tert-Butyl Ether	20.01	1	20	0	100.1%	85	115				
o-Xylene	19.9	0.5	20	0	99.5%	85	115				
Toluene	19.74	0.5	20	0	98.7%	85	115				
1,4-Difluorobenzene	92.76	0	100	0	92.8%	70	130				
4-Bromochlorobenzene	91.74	0	100	0	91.7%	70	130				
Fluorobenzene	90.72	0	100	0	90.7%	70	130				

Sample ID: CCV2 QC0529/30		Batch ID: GC-1_980708		Test Code: SW8020A		Units: µg/L		Analysis Date 7/8/98		Prep Date:	
Client ID:		9807004		Run ID:		GC-1_980708A		SeqNo: 4277			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.66	0.5	20	0	103.3%	85	115				
Ethylbenzene	20.93	0.5	20	0	104.7%	85	115				
m,p-Xylene	40.19	1	40	0	100.5%	85	115				
Methyl tert-Butyl Ether	22.08	1	20	0	110.4%	85	115				
o-Xylene	20.72	0.5	20	0	103.6%	85	115				
Toluene	20.54	0.5	20	0	102.7%	85	115				
1,4-Difluorobenzene	93.01	0	100	0	93.0%	70	130				
4-Bromochlorobenzene	93.72	0	100	0	93.7%	70	130				
Fluorobenzene	90.72	0	100	0	90.7%	70	130				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

1 of 3

CLIENT: PNM - Public Service Company of NM

Work Order: 9807004

Project: PNM Pit Remediation

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV3 QC0529/30 Batch ID: GC-1_980708 Test Code: SW8020A Units: µg/L Analysis Date 7/8/98 Prep Date:
Client ID: 9807004 Run ID: GC-1_980708A SeqNo: 4278

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.99	0.5	40	0	102.5%	85	115				
Ethylbenzene	42.13	0.5	40	0	105.3%	85	115				
m,p-Xylene	82.1	1	80	0	102.6%	85	115				
Methyl tert-Butyl Ether	37.21	1	40	0	93.0%	85	115				
o-Xylene	41.89	0.5	40	0	104.7%	85	115				
Toluene	41.32	0.5	40	0	103.3%	85	115				
1,4-Difluorobenzene	92.93	0	100	0	92.9%	70	130				
4-Bromochlorobenzene	91.03	0	100	0	91.0%	70	130				
Fluorobenzene	89.72	0	100	0	89.7%	70	130				

Sample ID: CCV1 QC0529/30 Batch ID: GC-1_980711 Test Code: SW8020A Units: µg/L Analysis Date 7/11/98 Prep Date:
Client ID: 9807004 Run ID: GC-1_980711A SeqNo: 4303

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.83	0.5	20	0	99.2%	85	115				
Ethylbenzene	20.43	0.5	20	0	102.1%	85	115				
m,p-Xylene	38.84	1	40	0	97.1%	85	115				
Methyl tert-Butyl Ether	18.82	1	20	0	94.1%	85	115				
o-Xylene	20.92	0.5	20	0	104.6%	85	115				
Toluene	20.51	0.5	20	0	102.6%	85	115				
1,4-Difluorobenzene	93.84	0	100	0	93.8%	70	130				
4-Bromochlorobenzene	86.54	0	100	0	86.5%	70	130				
Fluorobenzene	90.95	0	100	0	90.9%	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: CCV2 QC0529/30		Batch ID: GC-1_980711		Test Code: SW8020A		Units: µg/L		Analysis Date 7/11/98		Prep Date:	
Client ID:		9807004		Run ID:		GC-1_980711A		SeqNo: 4304			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.58	0.5	20	0	92.9%	85	115				
Ethylbenzene	20.91	0.5	20	0	104.6%	85	115				
m,p-Xylene	39.03	1	40	0	97.6%	85	115				
Methyl tert-Butyl Ether	10.57	1	20	0	52.9%	85	115				
o-Xylene	18.98	0.5	20	0	94.9%	85	115				
Toluene	19.63	0.5	20	0	98.2%	85	115				
1,4-Difluorobenzene	91.13	0	100	0	91.1%	70	130				
4-Bromochlorobenzene	55.28	0	100	0	55.3%	70	130				
Fluorobenzene	87.89	0	100	0	87.9%	70	130				

-8-60
7/10/98
4/5
7/10/98

S

Sample ID: CCV3 QC0529/30		Batch ID: GC-1_980711		Test Code: SW8020A		Units: µg/L		Analysis Date 7/11/98		Prep Date:	
Client ID:		9807004		Run ID:		GC-1_980711A		SeqNo: 4305			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.32	0.5	40	0	100.8%	85	115				
Ethylbenzene	43.01	0.5	40	0	107.5%	85	115				
m,p-Xylene	81.19	1	80	0	101.5%	85	115				
Methyl tert-Butyl Ether	32.06	1	40	0	80.1%	85	115				
o-Xylene	42.05	0.5	40	0	105.1%	85	115				
Toluene	41.78	0.5	40	0	104.5%	85	115				
1,4-Difluorobenzene	93.37	0	100	0	93.4%	70	130				
4-Bromochlorobenzene	81.59	0	100	0	81.6%	70	130				
Fluorobenzene	90.71	0	100	0	90.7%	70	130				

-8-60
7/10/98
4/5
7/10/98

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation
Test No: SW8020A

QC SUMMARY REPORT SURROGATE RECOVERIES

BTEX

Sample ID	14FBZ	4BCBZ	FLBZ				
9806110-01A	93.9	93.3	91.5				
9806110-01AMS	94.1	91.1	91.2				
9806110-01AMSD	93.3	92.1	91.1				
9807004-01A	92.4	91.3	90.8				
9807004-02A	93.1	88.6	90.9				
9807004-03A	92.1	83.9	90.2				
9807004-03AMS	92.8	83.7	90.2				
9807004-03AMSD	92	84.2	90				
9807004-04A	92.7	86.5	89.8				
9807004-06A	94.3	91.4	91.1				
9807004-07A	92.2	92.1	89.8				
9807004-08A	88.3	55.6 *	85.9				
9807004-09A	90.2	62.2 *	87.6				
9807010-01A	93.8	95.1	91.3				
9807010-02A	93.5	95.8	91.1				
9807010-03A	93.4	96.3	91.4				
9807010-04A	93.9	96.2	91.4				
9807010-05A	93.3	98.7	91.2				
9807010-06A	93.9	98.1	91.2				
9807010-07A	93.8	99.6	91.2				
9807010-09A	94.3	59.8 *	90.6				
9807010-10A	95.3	69.2 *	91.4				
9807010-11A	92.6	98.9	91.2				
9807010-12A	93.7	98.4	91.5				
9807010-13A	93.7	95	91.5				
9807010-14A	102	77	92.5				
9807010-15A	93.8	96.7	92.2				

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

* Surrogate recovery outside acceptance limits

CLIENT: PNM - Public Service Company of NM
Work Order: 9807004
Project: PNM Pit Remediation
Test No: SW8020A

QC SUMMARY REPORT SURROGATE RECOVERIES

BTEX

Sample ID	14FBZ	4BCBZ	FLBZ						
9807010-16A	122	58.4 *	92.4						
9807010-18A	97.5	62.4 *	89.8						
9807010-19A	93.2	83.5	91						
9807010-20A	96.9	66.4 *	92.1						
9807010-21A	93.7	75.4	91.7						
9807010-22A	88.7	50 *	85.4						
9807010-23A	85.4	41.5 *	82.1						
9807010-24A	90.5	52.6 *	87.4						
9807010-25A	90.3	53.8 *	87.5						
9807010-26A	72	25.2 *	69.1 *						
9807010-27A	75.1	27.5 *	72.2						
9807016-01A	93.9	92.4	91.4						
CCV1 QC0529/30	93.8	86.5	90.9						
CCV2 QC0529/30	91.1	55.3 *	87.9						
CCV3 QC0529/30	93.4	81.6	90.7						
LCS WATER	93.9	89.1	87.1						
MB1	94	86.4	90.9						

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

* Surrogate recovery outside acceptance limits

612 E. Murphy Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.:		Job No.	
Name		Denver Bearden	
Company		PNM Gas Services	
Address		603 W. Elm Street	
City, State, Zip		Farmington, NM 87401	
Sampling Location:		Hempden Hwy	
Sampler:		Mark Dedrick	
SAMPLE IDENTIFICATION		SAMPLE DATE	SAMPLE TIME
9307011350 MW-1		7/1/93	
9307011400 MW-2			
9307011445 MW-4			
9307011500 Berberly Ex. Co. V. Area			
9307011505 Berberly Ex. Co. V. Area			
9307011505 MW-4			
9307011545 MW-5			
9307011655 MW-7			
9307011700 MW-11			
RELINQUISHED BY:		DATE/TIME	7/1/93 14:00
RELINQUISHED BY:		DATE/TIME	
RELINQUISHED BY:		DATE/TIME	
Method of Shipment:		Hand Delivered	
Authorized by:		Date 7/2/93	
(Client Signature Must Accompany Request)			

Distribution:	White • On Site	Yellow • LAB	Pink • Sampler	Goldenrod • Client
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