3R - 305

REPORTS

DATE: 2000



Environmental Services
187 County Road 4980
Bloomfield, New Mexico 87413
(505) 632-4409
(505) 632-4405

September 18, 2000

RECEIVED

SEP 2 8 2000

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

ENVIRONMENTAL BUREAU OIL CONSERVATION DIVISION

RE: 2000 SAN JUAN BASIN ANNUAL GROUNDWATER REPORT

Dear Mr. Olson:

Enclosed for your review is the 2000 San Juan Basin Annual Groundwater Report prepared by Williams for work conducted by Public Service New Mexico (PNM). The report presents monitoring data for twenty-two sites having petroleum hydrocarbon impacted groundwater, which resulted from the past use of unlined surface impoundments. The reporting period begins in the second quarter of 1999 and ends in the second quarter of 2000. The sites included in the report are listed in Table 1, attached.

The natural gas production and gathering facilities at which the impacted groundwater sites are located were formerly owned and operated by PNM. The facilities became assets of Williams upon purchase of the Gas Company of New Mexico (GCNM) from PNM. PNM had retained certain environmental liabilities associated with the assets including obligations for unlined surface impoundment impacts to soil and groundwater. Subsequent negotiations between PNM and Williams resulted in an agreement whereby Williams would complete further investigations and remediation at sites not previously closed by PNM. The agreement also states that Williams will complete work at sites where PNM has identified soil or groundwater contamination or otherwise initiated remedial actions.

During PNM's tenure, management of sites with hydrocarbon impacted groundwater was directed by their Ground Water Management Plan. This plan specified general procedures for site investigation, remediation, and reporting. The plan called for PNM to prepare an annual report summarizing the results of groundwater monitoring at each site. The report was to be submitted each April 1st and include data collected during the second, third and fourth quarters of the previous year and data from the first quarter of the reporting year.

Anticipating termination of their environmental obligations, PNM requested on March 4, 2000 an extension for submittal of the 2000 annual report so that they could also include data collected during the second quarter of 2000. Although PNM completed collection of monitoring data for the second quarter of 2000, they did not prepare and submit an annual report. Williams has prepared the 2000 annual report in an effort to maintain project continuity and to provide closure to PNM's management of the project.

As with most projects of this magnitude, first hand knowledge is paramount to prepare a thorough summary of site activities. Given the limited firsthand knowledge of project workings, Williams is in the unenviable position of trying to glean information from only the paper record. As such, the 2000 report simply transmits the PNM-collected data to OCD in what we hope is a concise and useable format. Initially, it was Williams' goal to provide more comprehensive reporting on the status of each site, however, preliminary evaluation of the data soon revealed that accurate interpretations could not be formulated in a timely manner.

Williams is continuing to review and evaluate the data provided by PNM to determine the best course for future actions at the sites. Preliminary review has revealed several high priority needs. For the majority of sites, accurate surveys are needed along with development of site base maps and a comprehensive database to facilitate project management. Moreover, sites with free product should be evaluated to determine the efficacy of free-product recovery and whether or not all source contributions are known.

Organization of the report follows the same format used by PNM. Data for each site is contained in a separate tabbed section labeled with the site name. Each section contains a data summary table listing each monitoring well. The absence or presence of free product is indicated on the table and the concentrations of the BTEX compounds for the reporting period are noted. Following the data summary table are the actual laboratory analytical reports. In an effort to make this document more manageable, the laboratory quality control reports have not been included. These reports will of course remain a part of the project file and be made available for review upon request. In addition to the analytical data, a contour map depicting the elevation of the water table as interpolated from water-level data is also included. When possible, hydrographs illustrating the seasonal fluctuations in water-table elevations are presented.

Thank you for your understanding of the Williams position and the time to review this submittal. Mr. Jim Struhs has been assigned the role of Project Hydrogeologist and as such will be involved in many of the day to day project operations. If you have any questions regarding the report, you may call me at (505) 632-4409 or Jim at (505) 632-4457.

Best regards,

Mark B. Harvey

Project Manager Mark.Harvey@Williams.com James P. Struhs

Project Hydrogeologist Jim.Struhs@Williams.com

Attachment Enclosure

c: Denny Foust, OCD Aztec District Office Bill Liess, BLM Farmington District Office Allen Talley, Williams

Table 1. List of Sites for Period Q2/1999 to Q2/2000

				Unit	ОСО	Installed	2nd QTR	3rd QTR	4th QTR	1st QTR	2nd QTR
Site Name	Section	Section Township	Range	Letter	Notified	Wells	1999	1999	1999	2000	2000
Albright #4 Drip	22	29N	10W	ட	66-InC-6	28-Jul-99		66-BnV-9	66-peq-9	5-Mar-00	7-Jun-00
Blanco Wash Drip	31	27N	8W	7	19-Feb-99	6-Apr-99	28-Apr-99	28-Sep-99	66-pec-99	17-Mar-00	7-Jun-00
Chamberlain 1	14	32N	12W	L	30-Sep-99	13-Sep-99			11-Nov-99	1-Feb-00	2-May-00
Davis 1	11	31N	12W	Ш	2-Mar-99	2-Aug-99	25-May-99	20-Sep-99	8-Dec-99	14-Mar-00	8-Jun-00
Dogie East Pit	4	25N	M9	Δ	7-Jul-97	20-May-98	27-Apr-99	21-Sep-99 16-Nov-99	16-Nov-99	15-Feb-00	11-May-00
Dogie North Pit	4	25N	9W	Ω	7-Jul-97	6-Jul-97	27-Apr-99	21-Sep-99	16-Nov-99	15-Feb-00	11-May-00
Florance 124	27	79N	M 6	ပ	12-Aug-96	28-Aug-96	7-Apr-99	28-Jul-99	14-Oct-99	1-Feb-00	26-Apr-00
Florance 40	21	NOE	8W	9	27-Jan-97	29-Jan-97	21-Apr-99	28-Jul-99	1-Nov-99	21-Mar-00	14-Jun-00
Florance M 47X	2	N0E	M6	9	27-Jan-97	6-Feb-97	21-Apr-99	28-Jul-99	3-Nov-99	23-Mar-00	14-Jun-00
Grenier 4A	2	31N	11W	Σ	18-Oct-99	28-Sep-99			3-Nov-99	7-Mar-00	12-Jun-00
Hampton 4M	13	N0E	11W	z	7-Jan-97	31-Jan-97	5-May-99	12-Jul-99	21-Oct-99	27-Jan-00	13-Jun-00
Honolulu Drip	15	76N	4W	В	18-Jun-96	13-Jun-96	14-Apr-99	21-Sep-99	21-Sep-99 23-Nov-99	9-Feb-00	23-May-00
Ice Canyon Drip	15	76N	M9	В	1-Dec-97	13-May-98	27-Apr-99	20-Sep-99	20-Sep-99 16-Nov-99	7-Feb-00	18-May-00
Jicarilla Contract 147-6	9	75N	2W	၁	13-Aug-98	27-Jan-99	14-Apr-99	27-Sep-99	15-Nov-99	20-Mar-00	7-Jun-00
Kaufman 1	33	31N	13W	Н	9-Mar-00					9-Mar-00	22-May-00
Miles Federal 1E Drip	2	26N	7W	Z	23-Jun-97	76-lut-7	1-Jun-99	3-Aug-99	3-Aug-99 23-Nov-99	7-Feb-00	18-May-00
O' Shea 1M	3	31N	13W	Ъ	6-Jun-98	86-Inf-6	24-May-99	6-Aug-99	12-Nov-99	3-Feb-00	9-May-00
Patterson A Com A1	2	31N	12W	9	2-Mar-99	15-Mar-99	2-Jun-99	6-8nd-9	22-Nov-99	15-Mar-00	8-Jun-00
Pritchard 2	9	NOE	8W	ſ	22-Feb-99	1-Apr-99	26-May-99	17-Aug-99	17-Aug-99 20-Oct-99	26-Jan-00	17-Apr-00
Randleman 1	13	31N	11W	X	9-May-97	14-May-97	19-Apr-99	17-Aug-99	17-Aug-99 27-Oct-99	25-Jan-00	10-Apr-00
Wilmerding 1M	10	31N	13W	၁	5-Jun-98	1-Jul-98	1-Jun-99	10-Aug-99	12-Oct-99	1-Feb-00	1-May-00
Zachry 18E	11	28N	10W	0	6-Sep-96	19-Nov-96	20-Apr-99	2-Aug-99	1-Nov-99	31-Jan-00	26-Apr-00



RECEIVED

SED 2 0 2000

ENVIRONMENTAL BUREAU OIL CONSERVATION DIVISION

Annual Groundwater Report 2000

San Juan Basin, New Mexico lined Surface Impoundments

Site Summary Report

Site Name: Blanco Wash Drip Reporting Period: 2nd Qtr 1999 - 2nd Qtr 2000

Location: Unit J, Sec 31, Twn 27N, Rng 8W

Canyon: Blanco

Operator: Williams

Vulnerable Class: expanded

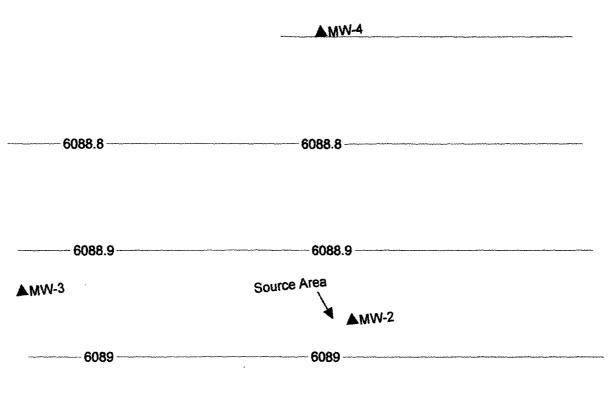
OCD Ranking: 40

Lead Agency: NMOCD, NNEPA, EPA

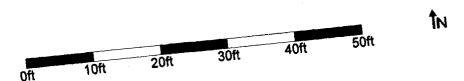
Status Narrative

This site has four monitoring wells installed, with five quarters of ground water monitoring completed to date. The areal extent of contamination has been defined and the direction of ground water flow has been established. Currently, only monitoring well MW-2 (located in the source area) contains contaminant concentrations in excess of WQCC standards. Concentrations are rapidly approaching regulatory standards and natural attenuation should be sufficient to reach this goal.

Blanco Wash Drip Potentiometric Surface Map (June 7, 2000)



▲MW-1



—■—MW-2 ——MW-3 *-MM-4 1-WM-1 00-1qA Jan-00 (month/year) Time **0ct-99** 66-Inc 66-1qA 6088.80 6089.60 6089.40 6088.60 6088.40 6088.20 6088.00 6087.60 6089.20 6089.00 6087.80 Groundwater Elevation (ft. AMSL)

Blanco Wash Drip Hydrograph for Period Q2/1999 - Q2/2000 (Elevation vs. Time)

Blanco Wash Drip Summary of Groundwater Analytical Data (Q2/1999 - Q2/2000)

]	Free	Product	Ana	lytes (va	lues in u	g/L)
Well ID	Sample ID	Sample Date	Present Yes/No	Thickness (ft.)	benzene	toluene	ethylbenzene	total xylenes
	9904281250	28-Apr-99	N		<0.5	<0.5		
	9909281240	28-Sep-99	2		<0.5	<0.5	<0.5	
MW-1	9912060940	6-Dec-99	N		<0.5	1	<0.5	<1.5
	0003170955	17-Mar-00	N		<0.5	<0.5	<0.5	<1.5
	NS	7-Jun-00	N					
	9904281320	28-Apr-99	N		110	93	9	72
	9909281350	28-Sep-99	N		37	8	4	15
MW-2	9912061112	6-Dec-99	N		63	97	9	74
	0003171012	17-Mar-00	N		12	10	3	19
	0006071030	7-Jun-00	N		19	4.3	3.7	25
	9904281340	28-Apr-99	N		<0.5	<0.5	<0.5	<1.5
	9909281300	28-Sep-99	N		<0.5	<0.5	<0.5	<1.5
MW-3	9912061030	6-Dec-99	N		<0.5	1	<0.5	<1.5
	0003171036	17-Mar-00	N		<0.5	<0.5	<0.5	<1.5
	NS	7-Jun-00	N					
	9904281400	28-Apr-99	N		<0.5	<0.5	1.6	3.8
	9909281325	28-Sep-99	N		<0.5	<0.5	<0.5	<1.5
MW-4	9912061000	6-Dec-99	N		0.8	0.9	3.2	4.1
	0003171051	17-Mar-00	N		1.1	<0.5	4.1	6.5
	NS	7-Jun-00	N					

ND = analyte not detected above method detection limit

NS = well not sampled for specified analytes

OFF: (505) 325-5667 **TECHNOLOGIES, LTD**

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 23-Jun-99

Client:

Project:

PNM - Public Service Company of NM

Work Order:

9905002

Lab ID:

9905002-01A

Matrix: AQUEOUS

Blanco Wash Drip

Client Sample Info: Blanco Wash Drip

Client Sample ID: 9904281250; MW-1

Collection Date: 4/28/99 12:50:00 PM

COC Record: 7536

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	sv	V8021B			Analyst: DC
Benzene	ND	0.5	μg/L	1	5/7/99
Toluene	ND	0.5	μg/L	1	5/7/99
Ethylbenzene	ND	. 0.5	μ g/ L	1	5/7/99
m,p-Xylene	ND	1	μg/L	1	5/7/99
o-Xylene	ND	0.5	μg/L	1	5/7/99

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



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 23-Jun-99

Client:

PNM - Public Service Company of NM

Work Order:

9905002

Lab ID:

9905002-02A

Matrix: AQUEOUS

Project:

Blanco Wash Drip

Client Sample Info: Blanco Wash Drip

Client Sample ID: 9904281320; MW-2

Collection Date: 4/28/99 1:20:00 PM

COC Record: 7536

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	sv	V8021B			Analyst: DC
Benzene	110	0.5	µg/L	1	5/7/99
Toluene	93	0.5	μg/L	1	5/7/99
Ethylbenzene -	9.2	0.5	μg/L	1	5/7/99
m,p-Xylene	57	1	μg/L	1	5/7/99
o-Xylene	15	0.5	µg/L	1	5/7/99

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



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 23-Jun-99

Client:

Project:

PNM - Public Service Company of NM

Work Order:

9905002

Lab ID:

9905002-03A

Blanco Wash Drip

Matrix: AQUEOUS

Client Sample ID: 9904281340; MW-3 Collection Date: 4/28/99 1:40:00 PM

Client Sample Info: Blanco Wash Drip

COC Record: 7536

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SV	V8021B			Analyst: DC
Benzene	ND	0.5	μg/L	1	5/7/99
Toluene	ND	0.5	μg/L	1	5/7/99
Ethylbenzene	ND	0.5	μg/L	1	5/7/99
m,p-Xylene	ND	1	μg/L	1	5/7/99
o-Xylene	ND	0.5	μg/L	1	5/7/99

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



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 23-Jun-99

Client:

PNM - Public Service Company of NM

Work Order:

9905002

Lab ID: Project: 9905002-04A

Matrix: AQUEOUS

Blanco Wash Drip

Client Sample Info: Blanco Wash Drip

Client Sample ID: 9904281400; MW-4

Collection Date: 4/28/99 2:00:00 PM

COC Record: 7536

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SV	V8021B			Analyst: DC
Benzene	ND	0.5	μg/L	1	5/7/99
Toluene	ND	0.5	μg/L	1	5/7/99
Ethylbenzene	1.6	0.5	μg/L	1	5/7/99
m,p-Xylene	3.8	1	μg/L	1	5/7/99
o-Xylene	ND	0.5	μg/L	1	5/7/99

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

I of I



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 13-Oct-99

Client:

PNM - Public Service Company of NM

Work Order:

9909080

Lab ID:

9909080-01A

Matrix: AQUEOUS

Project:

Blanco Wash Drip

Client Sample Info: Blanco Wash Drip

Client Sample ID: 9909281240; MW-1

Collection Date: 09/28/1999 12:40:00 PM

COC Record: 7826

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SV	V8021B			Analyst: DM
Benzene	ND	0.5	μ g /L	1	09/30/1999
Toluene	ND	0.5	μ g/ L	1	09/30/1999
Ethylbenzene	ND	0.5	μg/L	1	09/30/1999
m,p-Xylene	ND	1	μg/L	1	09/30/1999
o-Xylene	ND	0.5	μg/L	1	09/30/1999

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



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 13-Oct-99

Client:

PNM - Public Service Company of NM

Work Order:

9909080

Lab ID: Project: 9909080-02A

Matrix: AQUEOUS

Blanco Wash Drip

Client Sample Info: Blanco Wash Drip

Client Sample ID: 9909281350; MW-2

Collection Date: 09/28/1999 1:50:00 PM

COC Record: 7826

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SV	V8021B			Analyst: DM
Benzene	37	0.5	μg/L	1	09/30/1999
Toluene	8.2	0.5	μg/L	1	09/30/1999
Ethylbenzene	4.2	0.5	μg/L	1	09/30/1999
m,p-Xylene	14	1	μg/L	1	09/30/1999
o-Xylene	1.4	0.5	μg/L	1	09/30/1999

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

I of I

TECHNOLOGIES, LTD

OFF: (505) 325-5667

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 13-Oct-99

Client:

PNM - Public Service Company of NM

Work Order:

9909080

Lab ID:

9909080-03A Matrix: AQUEOUS

Project:

Blanco Wash Drip

Client Sample Info: Blanco Wash Drip

Client Sample ID: 9909281300; MW-3

Collection Date: 09/28/1999 1:00:00 PM

COC Record: 7826

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SV	V8021B			Analyst: DM
Benzene	ND	0.5	μg/L	· 1	09/30/1999
Toluene	ND	0.5	μg/L	1	09/30/1999
Ethylbenzene	ND	0.5	μg/L	1	09/30/1999
m,p-Xylene	ND	1	μg/L	1	09/30/1999
o-Xylene	ND	0.5	μg/L	1	09/30/1999

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



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 13-Oct-99

Client:

PNM - Public Service Company of NM

Work Order:

9909080

Lab ID:

9909080-04A

Matrix: AQUEOUS

Project:

Blanco Wash Drip

Client Sample Info: Blanco Wash Drip

Client Sample ID: 9909281325; MW-4

Collection Date: 09/28/1999 1:25:00 PM

COC Record: 7826

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SV	V8021B			Analyst: DM
Benzene	ND	0.5	μg/L	1	09/30/1999
Toluene	ND	0.5	μg/L	1	09/30/1999
Ethylbenzene	ND	0.5	μg/L	1	09/30/1999
m,p-Xylene	ND	1	μg/L	1	09/30/1999
o-Xylene	ND	0.5	μg/L	1	09/30/1999

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

OFF: (505) 325-5667

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Dec-99

Client:

PNM - Public Service Company of NM

Work Order:

9912009

Lab ID:

9912009-01A

Matrix: AQUEOUS

Project:

Blanco Wash Drip

Client Sample Info: Blanco Wash Drip

Client Sample ID: 9912060940; MW-1

Collection Date: 12/6/1999 9:40:00 AM

COC Record: 7744

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SV	V8021B			Analyst: DM
Benzene	ND	0.5	μg/L	1	12/15/1999
Toluene	0.8	0.5	μg/L	1	12/15/1999
Ethylbenzene	ND	0.5	μg/L	1	12/15/1999
m,p-Xylene	ND	1	μg/L	. 1	12/15/1999
o-Xylene	ND	0.5	μg/L	1	12/15/1999

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

Sur: - Surrogate

OFF: (505) 325-5667

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Dec-99

Client:

PNM - Public Service Company of NM

Work Order:

9912009

Lab ID: Project: 9912009-04A

Matrix: AQUEOUS

Blanco Wash Drip

Client Sample Info: Blanco Wash Drip

Client Sample ID: 9912061112; MW-2

Collection Date: 12/6/1999 11:12:00 AM

COC Record: 7744

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SV	V8021B			Analyst: DM
Benzene	63	0.5	μg/L	1	12/15/1999
Toluene	97	0.5	μg/L	1	12/15/1999
Ethylbenzene	9.4	0.5	μg/L	1	12/15/1999
m,p-Xylene	60	1	μ g/ L	1	12/15/1999
o-Xylene	14	0.5	µg∕L	1	12/15/1999

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

I of I

OFF: (505) 325-5667

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Dec-99

Client:

PNM - Public Service Company of NM

Work Order:

9912009

Lab ID:

9912009-03A

Matrix: AQUEOUS

Project:

Blanco Wash Drip

Client Sample Info: Blanco Wash Drip

Client Sample ID: 9912061030; MW-3

Collection Date: 12/6/1999 10:30:00 AM

COC Record: 7744

Parameter	Result	PQL Q	ual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SV	V8021B	-		Analyst: DM
Benzene	ND	0.5	μg/L	1	12/15/1999
Toluene	0.8	0.5	μg/L	1	12/15/1999
Ethylbenzene	ND	0.5	μg/L	1	12/15/1999
m,p-Xylene	1.2	1	μg/L	1 .	12/15/1999
o-Xylene	ND	0.5	μg/L	1	12/15/1999

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



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Dec-99

Client:

PNM - Public Service Company of NM

Work Order:

9912009

Lab ID: Project: 9912009-02A

Matrix: AQUEOUS

Blanco Wash Drip

Client Sample Info: Blanco Wash Drip

Client Sample ID: 9912061000; MW-4

Collection Date: 12/6/1999 10:00:00 AM

COC Record: 7744

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SV	V8021B				Analyst: DM
Benzene	0.8	0.5		μg/L	1	12/15/1999
Toluene	0.9	0.5		μg/L	1	12/15/1999
Ethylbenzene	3.2	0.5		μg/L	1	12/15/1999
m,p-Xylene	4.1	1		μg/L	1	12/15/1999
o-Xylene	ND	0.5		μg/L	1	12/15/1999

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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OFF: (505) 325-5667

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 27-Mar-00

Client:

PNM - Public Service Company of NM

Work Order:

0003031

Lab ID:

0003031-01A

Matrix: AQUEOUS

Project:

Blanco Wash Drip

Client Sample Info: Blanco Wash Drip Client Sample ID: 0003170955; MW 1

Collection Date: 3/17/2000 9:55:00 AM

COC Record: 7665

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	s	W8021B			Analyst: DM
Benzene	ND	0.5	μg/L	1	3/22/2000
Toluene	ND	0.5	μg/L	1	3/22/2000
Ethylbenzene	ND	0.5	μg/L	. 1	3/22/2000
m,p-Xylene	ND	1	μg/L	1	3/22/2000
o-Xylene	ND	0.5	μg/L	1	3/22/2000

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



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 27-Mar-00

Client:

PNM - Public Service Company of NM

Work Order:

0003031

Lab ID:

0003031-02A

Matrix: AQUEOUS

Project: Blanc

Blanco Wash Drip

Client Sample Info: Blanco Wash Drip

Client Sample ID: 0003171012; MW 2

Collection Date: 3/17/2000 10:12:00 AM

COC Record: 7665

Parameter	Result	PQL Q	al Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	S	W8021B			Analyst: DM
Benzene	12	0.5	µg/L	1	3/22/2000
Toluene	10	0.5	µg/L	1	3/22/2000
Ethylbenzene	2.9	0.5	µg/∟	1	3/22/2000
m,p-Xylene	15	1	µg/L	1	3/22/2000
o-Xylene	4.3	0.5	μg/L	1	3/22/2000

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

TECHNOLOGIES, LTD.

OFF: (505) 325-5667

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 27-Mar-00

Client:

PNM - Public Service Company of NM

Work Order:

0003031

Lab ID: Project: 0003031-03A

Blanco Wash Drip

Matrix: AQUEOUS

Collection Date: 3/17/2000 10:36:00 AM

COC Record: 7665

Client Sample Info: Blanco Wash Drip

Client Sample ID: 0003171036; MW 3

Parameter	Result	PQL Qu	al Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	S	W8021B			Analyst: DM
Benzene	ND	0.5	μg/L	1	3/22/2000
Toluene	ND	0.5	μg/L	1	3/22/2000
Ethylbenzene	ND	0.5	μg/L	1	3/22/2000
m,p-Xylene	ND	1	μg/L	1	3/22/2000
o-Xylene	ND	0.5	μg/L	1	3/22/2000

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

OFF: (505) 325-5667

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 27-Mar-00

Client:

PNM - Public Service Company of NM

Work Order:

0003031

Lab ID:

0003031-04A

Matrix: AQUEOUS

Project:

Blanco Wash Drip

Client Sample Info: Blanco Wash Drip

Client Sample ID: 0003171051; MW 4

Collection Date: 3/17/2000 10:51:00 AM

COC Record: 7665

Parameter	Result	PQL Q	ıal Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	S	W8021B			Analyst: DM
Benzene	1.1	0.5	μg/L	1	3/22/2000
Toluene	ND	0.5	μg/L	1	3/22/2000
Ethylbenzene	4.1	0.5	μg/L	1	3/22/2000
m,p-Xylene	6.5	1	μg/L	1	3/22/2000
o-Xylene	ND	0.5	μg/L	1	3/22/2000

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



OFF: (505) 325-5667 FAX: (505) 327-1496 LAB: (505) 325-1556 FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 20-Jun-00

Client:

PNM - Public Service Company of NM

Work Order:

0006019

Lab ID:

0006019-01A

Matrix: AQUEOUS

Project:

Blanco Wash Drip

Client Sample Info: Blanco Wash Drip

Client Sample ID: 0006071030; MW-2

Collection Date: 6/7/2000 10:30:00 AM

COC Record: 7887

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SV	V8021B			Analyst: DM
Benzene	19	0.5	μg/L	1	6/14/2000
Toluene	4.3	0.5	μg/L	1	6/14/2000
Ethylbenzene	3.7	0.5	μg/L	1	6/14/2000
m,p-Xylene	20	1	μg/L	1	6/14/2000
o-Xylene	5	0.5	μg/L	1	6/14/2000

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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