3R - 310

REPORTS

DATE:

Aug. 1, 1996

Public Service Company
of New Mexico
Alvarado Square MS. 0408
Albuquerque, NM 87158

August 1, 1996

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

RE: SAN JUAN BASIN 2ND QUARTER 1996 GROUNDWATER REPORT

Dear Bill:

PNM Gas Services, PNMGS, (formerly Gas Company of New Mexico) is pleased to submit the 2nd Quarter 1996 Groundwater Report on Unlined Surface Impoundments in the San Juan Basin. Pursuant to PNM's Groundwater Management Program for Unlined Surface Impoundment Closures, the report details the ongoing investigation/remedial activities at unlined surface impoundments having groundwater contamination as identified by PNM. A list of groundwater sites is provided below.

Abrams Gas/Com L1
Cozzens B1
Cozzens B1E
Florance 44
Honolulu Loop-Line Drip
Kaufmann 1
McCoy A1A
Templeton 1E

If you have any questions regarding the contents of the report, please contact me at (505) 241-2974.

Sincerely,
PNM Environmental Services Department

Maureen Gannon
Project Manager

MDG/GASPITS/OLSON01.LTR

Attachment

cc: Denver Bearden, PNMGS
Denny Foust, OCD-Aztec Office
Leigh Gooding, WFS

Public Service Company of New Mexico
2nd Quarter 1996 Groundwater Report
August 1, 1996

Prepared for:

New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Prepared by:

Public Service Company of New Mexico
Environmental Services Department
Alvarado Square - MS 0408
Albuquerque, New Mexico 87158

PNMGS Well Site: Cozzens #B1

Site Summary Report

Copies: WFS(1)
Operator (1)
NMOCD District Office (1)
NMOCD Santa Fe (1)

Quarter: 2 **Year:** 96

Operator: Meridian (SRC)
Sec: 19 **Twn:** 29 **Rng:** 11 **Unit:** L
Canyon: San Juan

Vulnerable Class: Original
OCD Ranking: 60
Lead Agency: NMOCD

Topo Map: Figure 1
Groundwater Contour Map: Figure 2
Hydrograph: Figure 3
Site Map with Analysis: Figure 4
Well Completion Diagram: previously submitted
Analytical Results: attached

Activities for Quarter:

Since the Cozzens B1 is located in a sensitive area, PNM conducted two sampling events at the well site during the second quarter of 1996 (4/10/96 and 6/26/96). The first event was conducted shortly after the Citizens Ditch was turned on at the end of March. The second was conducted after the site was reworked where additional leach line was installed and a peroxide solution injected into the vadose zone.

PNM conducted sampling in strict compliance with EPA protocol and delivered samples to OnSite Technologies, Farmington, New Mexico, for chemical analyses of benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Method 8020.

Conclusions and Recommendations:

Figure 2 is the groundwater contour map for the month of June. The groundwater gradient continues to remain in a southerly direction beneath the site. Figure 3 is the hydrograph (water level versus time) for the site. MW-1, MW-2 and MW-3 have experienced a rise in water level due to the impact of Citizens Ditch. MW-4 and MW-5 have experienced a drop in water level. A factor contributing to these decreases may be the addition of leach line at the site, diverting the flow away from the direction of these wells and towards the seep pond and MW-3. PNM still believes MW-4 and MW-5 lie in a downgradient direction in terms of groundwater flow since they are located directly in the wash below the well pad and above the Pennington Pond located approximately 0.5 miles to the southeast of the well pad.

Figure 4 presents a site map with analytical data collected thus far at the Cozzens B1. The June results show that BTEX concentrations are exhibiting a downward trend since the April event. MW-2, the well located directly in the previous source area, shows BTEX concentrations below WQCC standards for all constituents. The two downgradient wells, MW-4 and MW-5, exhibit no signs of contamination. MW-3, located southwest of Meridian's equipment contains benzene and xylenes above WQCC standards. However, analytical results reveal a 35% reduction in benzene concentration and a 59% decrease in toluene concentration between April and June of this year. Ethylbenzene and xylenes show little change in MW-3.

Further Action:

PNM will continue to monitor the site on a quarterly basis and notify OCD immediately of any evidence of plume migration.

Public Service Company of New Mexico - Gas Services
Environmental Services Division - Alvarado Square, MS-0408
Albuquerque, NM 87158

Contact: Maureen Gannon **Telephone: (505) 241-2974**

Figure 1. HORN CANYON QUADRANGLE
NEW MEXICO – SAN JUAN CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

4457 IV
(AZTEC 1:62 500)

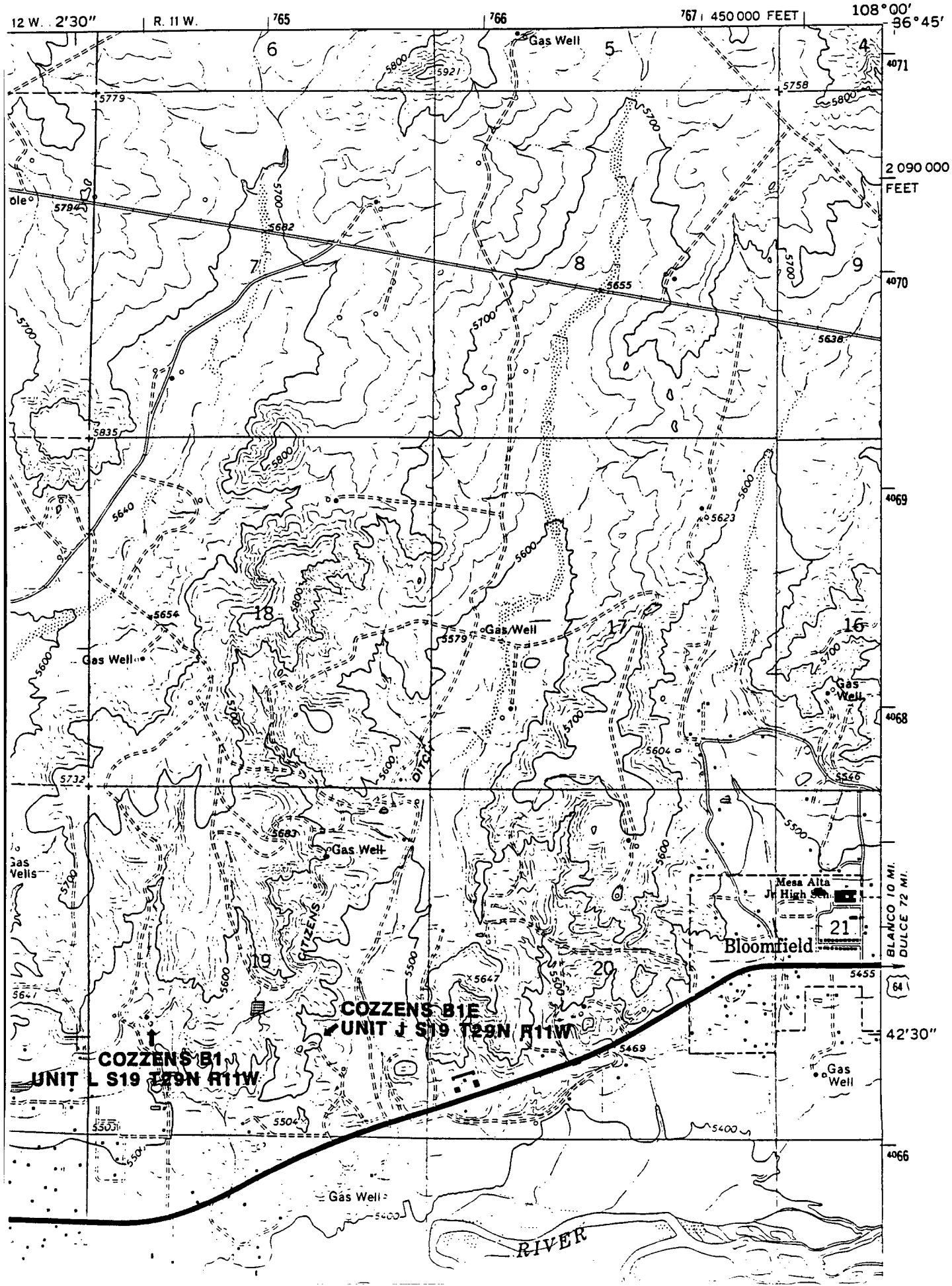


Figure 2. Cozzens B1 Groundwater Contour Map (June 1996)

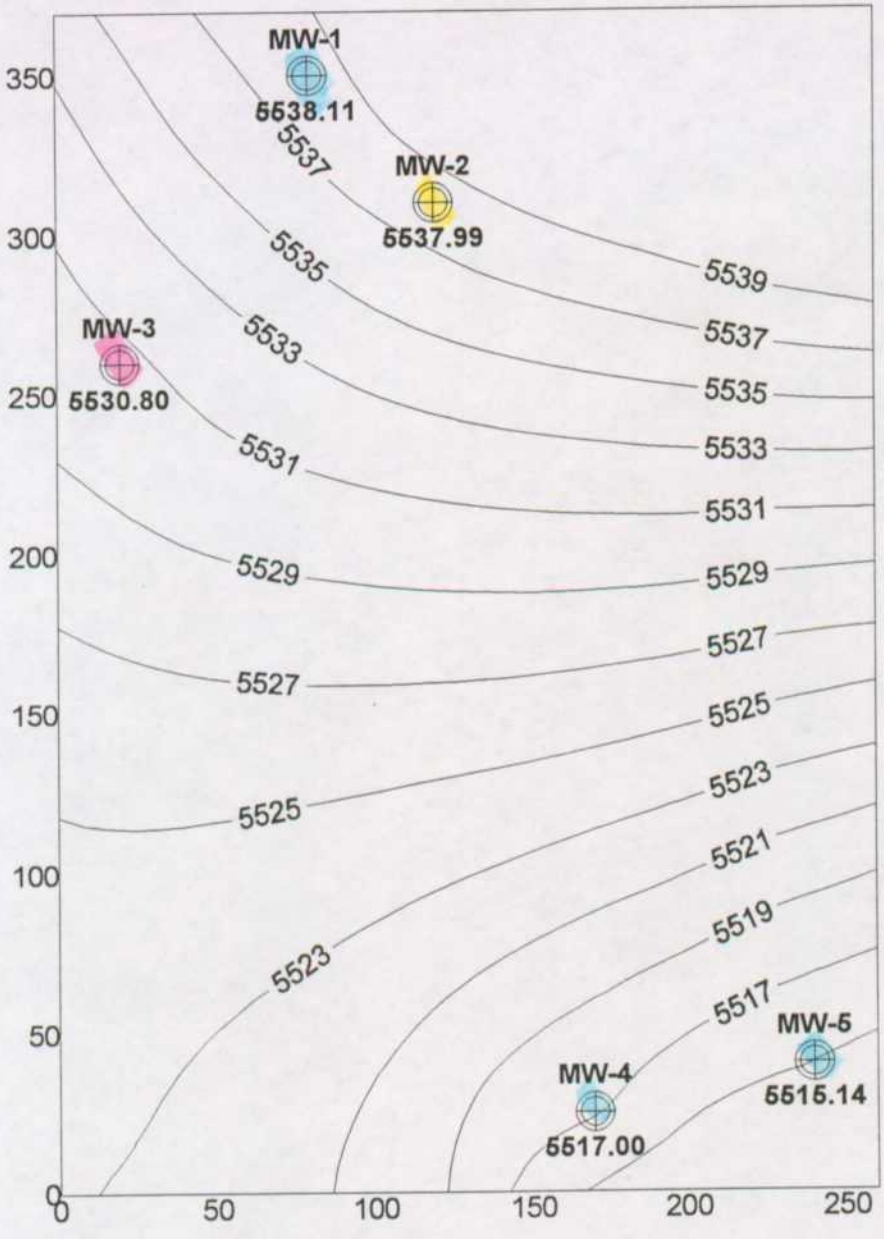


Figure 3. Cozzens B1 Hydrograph

(water level vs. time)

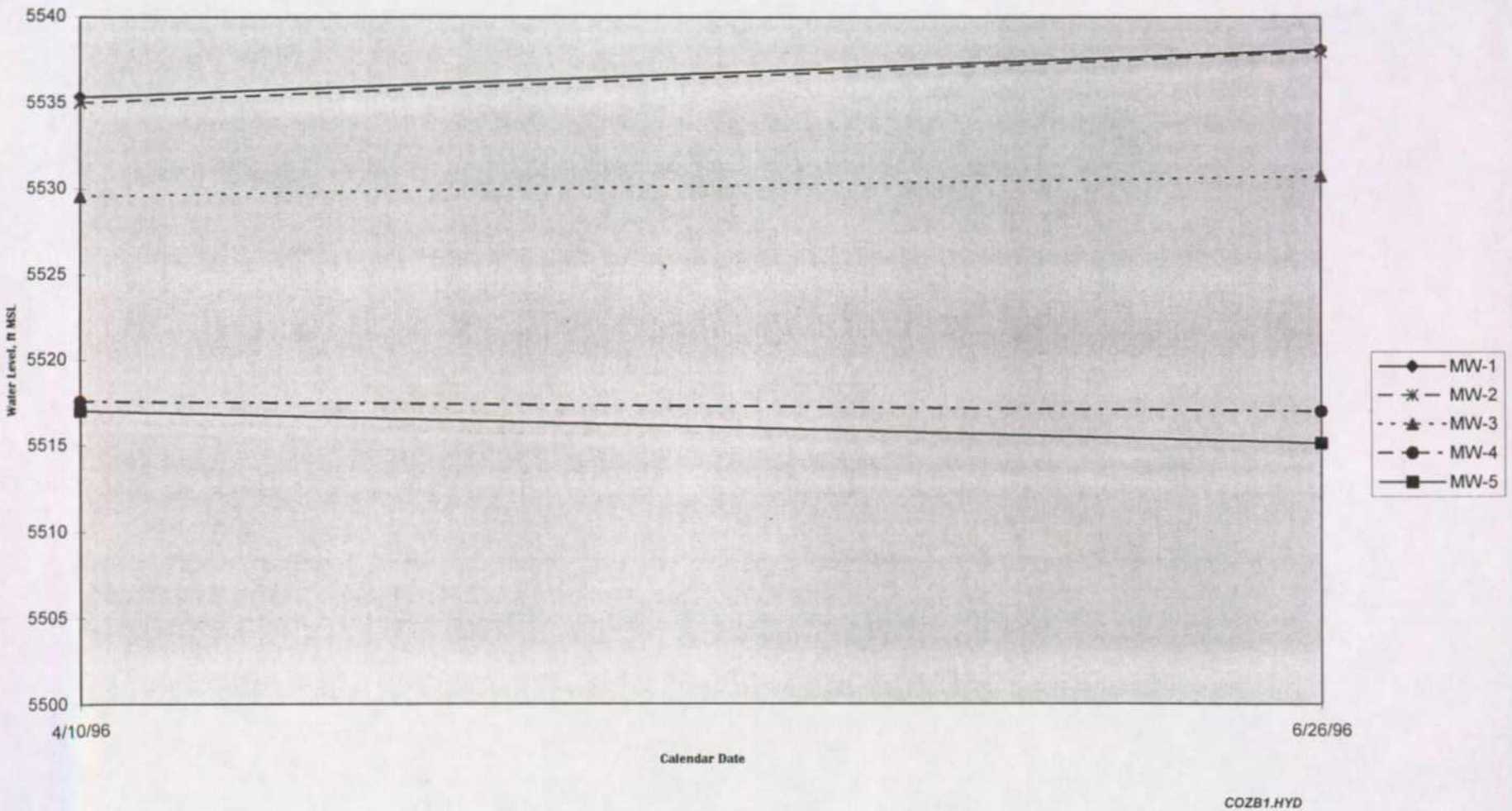
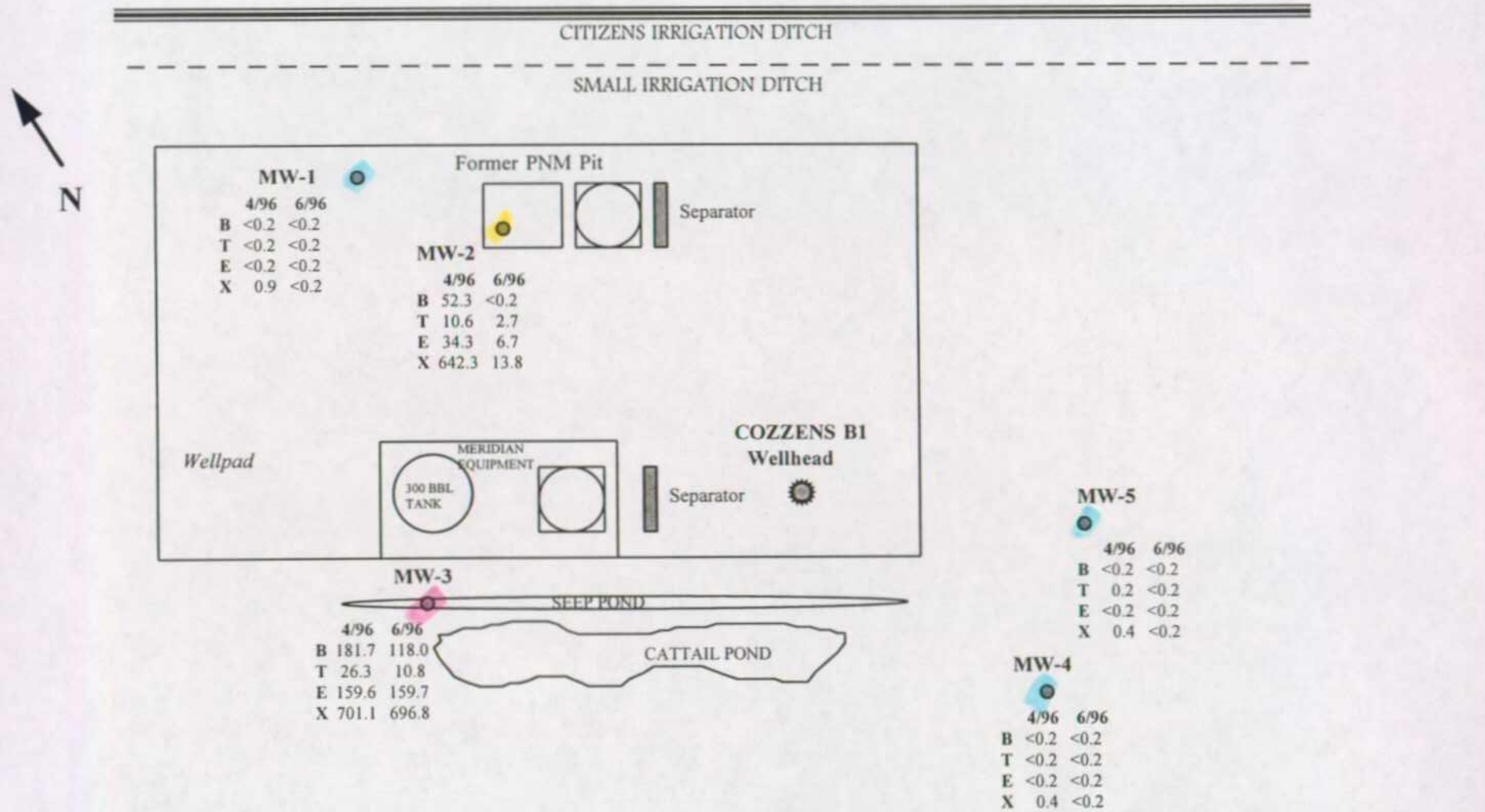


Figure 4. Cozzens B1 Well Site

Well Locations & Analytical Results

(Concentrations in ppb)



COZZB1.PPT
No Scale
Created 7/96

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Maureen Gannon*	Date:	12-Apr-96
Company:	*PNM Gas Services*	*COC No.:*	*4644*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample No.*	*10615*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - Cozzens B1***				
Project Location:	***9604101800; MW-1***				
Sampled by:	MG/MS	Date:	10-Apr-96	Time:	18:00
Analyzed by:	DC	Date:	11-Apr-96		
Type of Sample:	*Liquid*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	0.9	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	0.9	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: JaC
Date: 4/12/96

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Maureen Gannon*	Date:	12-Apr-96
Company:	*PNM Gas Services*	*COC No.:*	*4644*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample No.*	*10616*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - Cozzens B1***				
Project Location:	***9604101830; MW-2***				
Sampled by:	MG/MS	Date:	10-Apr-96	Time:	18:30
Analyzed by:	DC	Date:	11-Apr-96		
Type of Sample:	*Liquid*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	52.3	ug/L	0.2	ug/L
Toluene	10.6	ug/L	0.2	ug/L
Ethylbenzene	34.3	ug/L	0.2	ug/L
m,p-Xylene	519.1	ug/L	0.2	ug/L
o-Xylene	123.2	ug/L	0.2	ug/L
TOTAL	739.5	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DaG

Date: 4/12/96

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Maureen Gannon*	Date:	12-Apr-96
Company:	*PNM Gas Services*	*COC No.:*	*4644*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample No.*	*10617*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - Cozzens B1***				
Project Location:	***9604110930; MW-3***				
Sampled by:	MG/MS	Date:	11-Apr-96	Time:	9:30
Analyzed by:	DC	Date:	11-Apr-96		
Type of Sample:	*Liquid*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	181.7	ug/L	0.2	ug/L
Toluene	26.3	ug/L	0.2	ug/L
Ethylbenzene	159.6	ug/L	0.2	ug/L
m,p-Xylene	651.2	ug/L	0.2	ug/L
o-Xylene	49.9	ug/L	0.2	ug/L
TOTAL	1068.7	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DaG

Date: 4/12/96

OFF: (505) 325-8786

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TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Maureen Gannon*	Date:	12-Apr-96
Company:	*PNM Gas Services*	*COC No.:*	*4644*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample No.*	*10618*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - Cozzens B1***				
Project Location:	***9604110945; MW-4***				
Sampled by:	MG/MS	Date:	11-Apr-96	Time:	9:45
Analyzed by:	DC	Date:	11-Apr-96		
Type of Sample:	*Liquid*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	0.4	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	0.4	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DA
Date: 4/12/96

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Maureen Gannon*	Date:	12-Apr-96
Company:	*PNM Gas Services*	*COC No.:*	*4644*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample No.*	*10619*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - Cozzens B1***				
Project Location:	***9604111000; MW-5***				
Sampled by:	MG/MS	Date:	11-Apr-96	Time:	10:00
Analyzed by:	DC	Date:	11-Apr-96		
Type of Sample:	*Liquid*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	0.4	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	0.6	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DaG

Date: 4/12/96

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Maureen Gannon*	Date:	12-Apr-96
Company:	*PNM Gas Services*	*COC No.:*	*4644*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample No.*	*10620*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - Cozzens B1***				
Project Location:	***9604101835; MW-6*** MW-2 Dup				
Sampled by:	MG/MS	Date:	10-Apr-96	Time:	18:35
Analyzed by:	DC	Date:	11-Apr-96		
Type of Sample:	*Liquid*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	53.9	ug/L	0.2	ug/L
Toluene	10.6	ug/L	0.2	ug/L
Ethylbenzene	36.6	ug/L	0.2	ug/L
m,p-Xylene	529.5	ug/L	0.2	ug/L
o-Xylene	124.9	ug/L	0.2	ug/L
TOTAL	755.5	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: JaC

Date: 4/12/96

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Maureen Gannon*	Date:	12-Apr-96
Company:	*PNM Gas Services*	*COC No.:*	*4644*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample No.*	*10621*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - Cozzens B1***				
Project Location:	***Trip Blank***				
Sampled by:	DC	Date:	19-Mar-96	Time:	16:00
Analyzed by:	DC	Date:	11-Apr-96		
Type of Sample:	*Liquid*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	0.8	ug/L	0.2	ug/L
o-Xylene	0.3	ug/L	0.2	ug/L
TOTAL	1.1	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DaG
Date: 4/12/96

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 11-Apr-96

Internal QC No.: 0444-STD
Surrogate QC No.: 0445-STD
Reference Standard QC No.: 0355-STD

Method Blank

Analyte	Result	Units of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Analyte	Units of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	20.0	0	15%
Toluene	ppb	20.0	19.8	1	15%
Ethylbenzene	ppb	20.0	20.0	0	15%
m,p-Xylene	ppb	40.0	39.4	1	15%
o-Xylene	ppb	20.0	19.9	1	15%

Matrix Spike

Analyte	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	111	113	(39-150)	2	20%
Toluene	111	114	(46-148)	2	20%
Ethylbenzene	111	114	(32-160)	2	20%
m,p-Xylene	107	112	(35-145)	3	20%
o-Xylene	105	107	(35-145)	1	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)	
10615-4644	95	
10616-4644	90	
10617-4644	89	
10618-4644	93	
10619-4644	94	
10620-4644	90	
10621-4644	93	

S1: Flourobenzene

CHAIN OF CUSTODY RECORD

4644

ON SITE TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 4-11-96

Page 1 of ~~2~~ 1

Purchase Order No.:		Job No.	
SEND INVOICE TO	Name: Denver Bearden		
	Company: PNM Gas Services	Dept. 324-3763	
	Address: 603 W. Elm Street		
	City, State, Zip: Farmington, NM 87401		

REPORT RESULTS TO	Name: Maureen Gannon	Title	
	Company: PNM Gas Services		
	Mailing Address: Alvarado Square, Mail Stop 0408		
	City, State, Zip: Albuquerque, NM 87158		
	Telephone No. 505-848-2974	Telefax No.	

Sampling Location: COZZENS B1

Sampler: Maureen Gannon

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	BTEX 8020	CATIONS/ ANIONS	WQCC METALS	PAHS	LAB ID
MW-1 9604101800			H2O	None	3	X	X	MG		10615-4644
MW-2 9604101830			H2O	None	5	X	X	X	X	10616
MW-3 9604110930			H2O	None	3	X	X			10617
MW-4 9604110945			H2O	None	3	X	X			10618
MW-5 9604111000			H2O	None	3	X	X			10619
MW-6 9604101835			H2O	None	5	X	X	X	X	10620
TRIP BLANK (no)	3/19/96	1600	H2O	None	1	X				10621

Relinquished by: Maureen Gannon	Date/Time 4/11/96	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time 4/11/96 14:33
Relinquished by:	Date/Time 14:33 4/11/96	Received by:	Date/Time 4/11/96 1900

Method of Shipment:

Authorized by: Maureen Gannon Date 4-11-96
(Client Signature Must Accompany Request)

Rush	24-48 Hours	10 Working Days	Special Instructions:
			Results to be sent to both parties.

Distribution: White On Site Yellow LAB Pink Sampler Goldenrod Client

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

POLYNUCLEAR AROMATIC HYDROCARBONS

Attn:	*Maureen Gannon*	Date:	23-Apr-96
Company:	*PNM Gas Services*	*Lab ID:*	*4644*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample ID:*	*10616*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - Cozzens B1***				
Project Location:	***9604101830; MW-2***				
Sampled by:	MG/MS	Date:	10-Apr-96	Time:	18:30
Analyzed by:	ILFC	Date:	23-Apr-96		
Sample Matrix:	*Water*				

Laboratory Analysis

Component	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Acenaphthene	<1	ug/L	1	ug/L
Acenaphthylene	<1	ug/L	1	ug/L
Benzo (a) anthracene	<1	ug/L	1	ug/L
Benzo (a) pyrene	<1	ug/L	1	ug/L
Pyrene	<1	ug/L	1	ug/L
Benzo (b) fluoranthene	<1	ug/L	1	ug/L
Benzo (ghi) perylene	<5	ug/L	5	ug/L
Benzo (k) flouranthene	<1	ug/L	1	ug/L
Chrysene	<1	ug/L	1	ug/L
Dibenzo (a,h) anthrace	<5	ug/L	5	ug/L
Flouranthene	<1	ug/L	1	ug/L
Fluorene	<1	ug/L	1	ug/L
Indeno (1,2,3-cd) pyre	<5	ug/L	5	ug/L
Naphthalene	4	ug/L	1	ug/L
Phenanthrene	<1	ug/L	1	ug/L

Method - *SW-846 EPA Method 8100 - Polynuclear Aromatic Hydrocarbons*

Approved by: DaG

Date: 4/23/96

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

POLYNUCLEAR AROMATIC HYDROCARBONS

Attn:	*Maureen Gannon*	Date:	23-Apr-96
Company:	*PNM Gas Services*	*Lab ID:*	*4644*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample ID:*	*10620*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - Cozzens B1***				
Project Location:	***9604101835; MW-6*** MW-2 Dup.				
Sampled by:	MG/MS	Date:	10-Apr-96	Time:	18:35
Analyzed by:	ILFC	Date:	23-Apr-96		
Sample Matrix:	*Water*				

Laboratory Analysis

Component	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Acenaphthene	<1	ug/L	1	ug/L
Acenaphthylene	<1	ug/L	1	ug/L
Benzo (a) anthracene	<1	ug/L	1	ug/L
Benzo (a) pyrene	<1	ug/L	1	ug/L
Pyrene	<1	ug/L	1	ug/L
Benzo (b) fluoranthene	<1	ug/L	1	ug/L
Benzo (ghi) perylene	<5	ug/L	5	ug/L
Benzo (k) flouranthene	<1	ug/L	1	ug/L
Chrysene	<1	ug/L	1	ug/L
Dibenzo (a,h) anthrace	<5	ug/L	5	ug/L
Flouranthene	<1	ug/L	1	ug/L
Fluorene	<1	ug/L	1	ug/L
Indeno (1,2,3-cd) pyre	<5	ug/L	5	ug/L
Naphthalene	<1	ug/L	1	ug/L
Phenanthrene	<1	ug/L	1	ug/L

Method - *SW-846 EPA Method 8100 - Polynuclear Aromatic Hydrocarbons*

Approved by: DaG
Date: 4/23/96

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

QUALITY ASSURANCE REPORT

EPA Method 8100

Date: 23-Apr-96

Method Blank ***Calibration Check***

Component	*Result*	*Unit of Measure*		*% RPD*	*Limit*
Acenaphthene	<1	ug/L		11%	25%
Acenaphthylene	<1	ug/L		6%	25%
Benzo (a) anthracene	<1	ug/L		9%	25%
Benzo (a) pyrene	<1	ug/L		3%	25%
Pyrene	<1	ug/L		9%	25%
Benzo (b) fluoranthene	<1	ug/L		25%	25%
Benzo (ghi) perylene	<5	ug/L		5%	25%
Benzo (k) flouranthene	<1	ug/L		5%	25%
Chrysene	<1	ug/L		18%	25%
Dibenzo (a,h) anthrace	<5	ug/L		10%	25%
Flouranthene	<1	ug/L		5%	25%
Fluorene	<1	ug/L		1%	25%
Indeno (1,2,3-cd) pyre	<5	ug/L		2%	25%
Naphthalene	<1	ug/L		2%	25%
Phenanthrene	<1	ug/L		1%	25%

Matrix Spike

Component	*1- Percent Recovered*	*2 - Percent Recovered*	*% RSD*
Acenaphthene	34%	34%	0%
Pyrene	36%	34%	6%

Surrogate Recoveries

Laboratory Identification	*S1* Nitrobenzene-d5	*S2* 2-Fluorbiphenyl	*S3* Terphenyl-d14
10616-4644	85%	89%	80%
10620-4644	84%	90%	81%

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

WATER ANALYSIS

Attn:	*Maureen Gannon*	Date:	2-May-96
Company:	*PNM Gas Services*	*COC No.:*	*4644*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample ID:*	*10615*
City, State:	*Albuquerque, NM 87158*	*Job No.:*	*2-1000*

Project Name:	***PNM Gas Services - Cozzens B1***				
Project Location:	***9604101800; MW-1***				
Sampled by:	MG/MS	Date:	10-Apr-96	Time:	18:00
Analyzed by:	OSL/IML/MWL	Date:	30-Apr-96		
Sample Matrix:	Water				

Laboratory Analysis

Parameter	*Result*	*Detection Limit*	*Unit of Measure*	*Method*
Copper (Cu), Total	<0.05	0.05	mg/L	EPA Method 220.1
Iron (Fe), Total	0.25	0.05	mg/L	EPA Method 236.1
Manganese (Mn), Total	3.20	0.05	mg/L	EPA Method 243.1
Zinc (Zn), Total	<0.05	0.05	mg/L	EPA Method 289.1
Chloride (Cl)	3.7	0.5	mg/L	EPA Method 325.3
Fluoride (F)	0.78	0.01	mg/L	EPA Method 340.2
Nitrate (NO3 as N)	<0.05	0.05	mg/L	EPA Method 352.1
Sulfate (SO4)	1309	1	mg/L	EPA Method 375.3
Cyanide (CN), Total	<0.02	0.02	mg/L	EPA Method 335.2
Total Dissolved Solids	2158	1	mg/L	EPA Method 160.1
pH	7.14			EPA Method 150.1

Approved by: Da 4
Date: 5/2/96

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LAB: (505) 325-5667

WATER ANALYSIS

Attn:	*Maureen Gannon*	Date:	2-May-96
Company:	*PNM Gas Services*	*COC No.:*	*4644*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample ID:*	*10616*
City, State:	*Albuquerque, NM 87158*	*Job No.:*	*2-1000*

Project Name:	***PNM Gas Services - Cozzens B1***				
Project Location:	***9604101830; MW-2***				
Sampled by:	MG/MS	Date:	10-Apr-96	Time:	18:30
Analyzed by:	OSL/IML/MWL	Date:	30-Apr-96		
Sample Matrix:	Water				

Laboratory Analysis

Parameter	*Result*	*Detection Limit*	*Unit of Measure*	*Method*
Copper (Cu), Total	<0.05	0.05	mg/L	EPA Method 220.1
Iron (Fe), Total	1.16	0.05	mg/L	EPA Method 236.1
Manganese (Mn), Total	15.7	0.05	mg/L	EPA Method 243.1
Zinc (Zn), Total	<0.05	0.05	mg/L	EPA Method 289.1
Chloride (Cl)	8.7	0.5	mg/L	EPA Method 325.3
Fluoride (F)	0.34	0.01	mg/L	EPA Method 340.2
Nitrate (NO3 as N)	<0.05	0.05	mg/L	EPA Method 352.1
Sulfate (SO4)	1386	1	mg/L	EPA Method 375.3
Cyanide (CN), Total	<0.02	0.02	mg/L	EPA Method 335.2
Total Dissolved Solids	2312	1	mg/L	EPA Method 160.1
pH	6.98			EPA Method 150.1

Approved by: Da 4
Date: 5/2/96

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WATER ANALYSIS

Attn:	*Maureen Gannon*	Date:	2-May-96
Company:	*PNM Gas Services*	*COC No.:*	*4644*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample ID:*	*10617*
City, State:	*Albuquerque, NM 87158*	*Job No.:*	*2-1000*

Project Name:	***PNM Gas Services - Cozzens B1***				
Project Location:	***9604110930; MW-3***				
Sampled by:	MG/MS	Date:	11-Apr-96	Time:	9:30
Analyzed by:	OSL/IML/MWL	Date:	30-Apr-96		
Sample Matrix:	Water				

Laboratory Analysis

Parameter	*Result*	*Detection Limit*	*Unit of Measure*	*Method*
Copper (Cu), Total	<0.05	0.05	mg/L	EPA Method 220.1
Iron (Fe), Total	0.72	0.05	mg/L	EPA Method 236.1
Manganese (Mn), Total	1.10	0.05	mg/L	EPA Method 243.1
Zinc (Zn), Total	0.28	0.05	mg/L	EPA Method 289.1
Chloride (Cl)	7.8	0.5	mg/L	EPA Method 325.3
Fluoride (F)	1.13	0.01	mg/L	EPA Method 340.2
Nitrate (NO3 as N)	<0.05	0.05	mg/L	EPA Method 352.1
Sulfate (SO4)	18	1	mg/L	EPA Method 375.3
Cyanide (CN), Total	<0.02	0.02	mg/L	EPA Method 335.2
Total Dissolved Solids	415	1	mg/L	EPA Method 160.1
pH	7.19			EPA Method 150.1

Approved by: Da 4

Date: 5/2/96

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WATER ANALYSIS

Attn:	*Maureen Gannon*	Date:	2-May-96
Company:	*PNM Gas Services*	*COC No.:*	*4644*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample ID:*	*10618*
City, State:	*Albuquerque, NM 87158*	*Job No.:*	*2-1000*

Project Name:	***PNM Gas Services - Cozzens B1***				
Project Location:	***9604110945; MW-4***				
Sampled by:	MG/MS	Date:	11-Apr-96	Time:	9:45
Analyzed by:	OSL/IML/MWL	Date:	30-Apr-96		
Sample Matrix:	Water				

Laboratory Analysis

Parameter	*Result*	*Detection Limit*	*Unit of Measure*	*Method*
Copper (Cu), Total	<0.05	0.05	mg/L	EPA Method 220.1
Iron (Fe), Total	0.08	0.05	mg/L	EPA Method 236.1
Manganese (Mn), Total	2.46	0.05	mg/L	EPA Method 243.1
Zinc (Zn), Total	0.07	0.05	mg/L	EPA Method 289.1
Chloride (Cl)	9.0	0.5	mg/L	EPA Method 325.3
Fluoride (F)	1.35	0.01	mg/L	EPA Method 340.2
Nitrate (NO3 as N)	<0.05	0.05	mg/L	EPA Method 352.1
Sulfate (SO4)	1153	1	mg/L	EPA Method 375.3
Cyanide (CN), Total	<0.02	0.02	mg/L	EPA Method 335.2
Total Dissolved Solids	1963	1	mg/L	EPA Method 160.1
pH	7.13			EPA Method 150.1

Approved by: JaG
Date: 5/2/96

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WATER ANALYSIS

Attn:	*Maureen Gannon*	Date:	2-May-96
Company:	*PNM Gas Services*	*COC No.:*	*4644*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample ID:*	*10619*
City, State:	*Albuquerque, NM 87158*	*Job No.:*	*2-1000*

Project Name:	***PNM Gas Services - Cozzens B1***				
Project Location:	***9604111000; MW-5***				
Sampled by:	MG/MS	Date:	11-Apr-96	Time:	10:00
Analyzed by:	OSL/IML/MWL	Date:	30-Apr-96		
Sample Matrix:	Water				

Laboratory Analysis

Parameter	*Result*	*Detection Limit*	*Unit of Measure*	*Method*
Copper (Cu), Total	<0.05	0.05	mg/L	EPA Method 220.1
Iron (Fe), Total	0.27	0.05	mg/L	EPA Method 236.1
Manganese (Mn), Total	0.32	0.05	mg/L	EPA Method 243.1
Zinc (Zn), Total	0.25	0.05	mg/L	EPA Method 289.1
Chloride (Cl)	22.1	0.5	mg/L	EPA Method 325.3
Fluoride (F)	1.68	0.01	mg/L	EPA Method 340.2
Nitrate (NO3 as N)	0.18	0.05	mg/L	EPA Method 352.1
Sulfate (SO4)	648	1	mg/L	EPA Method 375.3
Cyanide (CN), Total	<0.02	0.02	mg/L	EPA Method 335.2
Total Dissolved Solids	1381	1	mg/L	EPA Method 160.1
pH	8.03			EPA Method 150.1

Approved by: Jack
Date: 5/2/96

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WATER ANALYSIS

Attn:	*Maureen Gannon*	Date:	2-May-96
Company:	*PNM Gas Services*	*COC No.:*	*4644*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample ID:*	*10620*
City, State:	*Albuquerque, NM 87158*	*Job No.:*	*2-1000*

Project Name:	***PNM Gas Services - Cozzens B1***				
Project Location:	***9604101835; MW-6*** MW-2 Dup				
Sampled by:	MG/MS	Date:	10-Apr-96	Time:	18:35
Analyzed by:	OSL/IML/MWL	Date:	30-Apr-96		
Sample Matrix:	Water				

Laboratory Analysis

Parameter	*Result*	*Detection Limit*	*Unit of Measure*	*Method*
Copper (Cu), Total	<0.05	0.05	mg/L	EPA Method 220.1
Iron (Fe), Total	1.90	0.05	mg/L	EPA Method 236.1
Manganese (Mn), Total	16.6	0.05	mg/L	EPA Method 243.1
Zinc (Zn), Total	<0.05	0.05	mg/L	EPA Method 289.1
Chloride (Cl)	9.0	0.5	mg/L	EPA Method 325.3
Fluoride (F)	0.32	0.01	mg/L	EPA Method 340.2
Nitrate (NO3 as N)	0.16	0.05	mg/L	EPA Method 352.1
Sulfate (SO4)	1381	1	mg/L	EPA Method 375.3
Cyanide (CN), Total	<0.02	0.02	mg/L	EPA Method 335.2
Total Dissolved Solids	2298	1	mg/L	EPA Method 160.1
pH	6.95			EPA Method 150.1

Approved by: Da 4
Date: 5/2/96

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QUALITY ASSURANCE REPORT

Water Analysis

Date: 30-Apr-96

Quality Control Sample

Parameter	*Laboratory Identification*	*True Value*	*Analyzed Value*	*Units of Measure*	*% Diff*	*Limit % Diff*
Copper, Cu	0422-QC	2.00	2.07	mg/L	3	10
Iron, Fe	0422-QC	2.00	2.14	mg/L	7	10
Manganese, Mn	0422-QC	1.00	0.98	mg/L	-2	10
Zinc, Zn	0422-QC	0.40	0.42	mg/L	5	10
Chloride, Cl	0437-QC	50.0	53.5	mg/L	7	10
Fluoride, F	IML-429	0.40	0.34	mg/L	-15	30
Nitrate, NO3 as N	IML-429	10.30	9.84	mg/L	-4	10
Sulfate, SO4	0456-QC	105	104	mg/L	-1	10
Cyanide, CN	MWL-502	0.20	0.19	mg/L	-6	15
Total Dissolved Solids	0443-QC	1661	1730	mg/L	4	10
pH	0456-QC	9.09	8.90		-2	5

Matrix Spike

Parameter	*Laboratory Identification*	*Analyzed Value*	*Matrix Spike*	*Spike Value*	*Units of Measure*	*Spike Recovery*
Copper (Cu), Total	10620-4644	0.00	1.00	1.00	mg/L	100%
Iron (Fe), Total	10620-4644	1.90	1.00	2.91	mg/L	100%
Manganese (Mn), Total	10620-4644	1.66	1.00	1.86	mg/L	70%
Zinc (Zn), Total	10620-4644	0.00	1.00	0.99	mg/L	99%

Method Blank

Parameter	*Laboratory Identification*	*Analyzed Value*	*Units of Measure*
Copper (Cu), Total	LF-Blank	<0.05	mg/L
Iron (Fe), Total	LF-Blank	<0.05	mg/L
Manganese (Mn), Total	LF-Blank	<0.05	mg/L
Zinc (Zn), Total	LF-Blank	<0.05	mg/L
Chloride, Cl	LF-Blank	<2 X DL	mg/L
Fluoride, F	LF-Blank	<0.01	mg/L
Nitrate, NO3 as N	LF-Blank	<0.05	mg/L
Sulfate, SO4	LF-Blank	<1	mg/L
Cyanide (CN), Total	LF-Blank	<0.02	mg/L
Total Dissolved Solids	LF-Blank	<1	mg/L

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METALS ANALYSIS

Attn:	*Maureen Gannon*	Date:	30-Apr-96
Company:	*PNM Gas Services*	*COC No.:*	*4644*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample No.*	*10616*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - Cozzens B1***				
Project Location:	***9604101830; MW-2***				
Sampled by:	MG/MS	Date:	10-Apr-96	Time:	18:30
Analyzed by:	MWL	Date:	30-Apr-96		
Sample Matrix:	*Water*				

Laboratory Analysis

Parameter	*Result*	*Detection Limit*	*Units of Measure*	*Method*
Arsenic (As), Total	<0.002	0.10	mg/L	EPA Method 200.7
Barium (Ba), Total	3.80	0.005	mg/L	EPA Method 200.7
Cadmium (Cd), Total	0.003	0.002	mg/L	EPA Method 200.7
Chromium (Cr), Total	0.08	0.01	mg/L	EPA Method 200.7
Lead (Pb), Total	0.14	0.05	mg/L	EPA Method 200.7
Selenium (Se), Total	<0.002	0.002	mg/L	EPA Method 270.2
Silver (Ag), Total	<0.01	0.01	mg/L	EPA Method 200.7
Mercury (Hg), Total	0.0012	0.0004	mg/L	EPA Method 245.1

Approved by:
Date: 4/30/96

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METALS ANALYSIS

Attn:	*Maureen Gannon*	Date:	30-Apr-96
Company:	*PNM Gas Services*	*COC No.:*	*4644*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample No.*	*10620*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - Cozzens B1***				
Project Location:	***9604101835; MW-6*** MW-2 D.up				
Sampled by:	MG/MS	Date:	10-Apr-96	Time:	18:35
Analyzed by:	MWL	Date:	30-Apr-96		
Sample Matrix:	*Water*				

Laboratory Analysis

Parameter	*Result*	*Detection Limit*	*Units of Measure*	*Method*
Arsenic (As), Total	<0.002	0.10	mg/L	EPA Method 200.7
Barium (Ba), Total	2.13	0.005	mg/L	EPA Method 200.7
Cadmium (Cd), Total	0.002	0.002	mg/L	EPA Method 200.7
Chromium (Cr), Total	0.05	0.01	mg/L	EPA Method 200.7
Lead (Pb), Total	0.11	0.05	mg/L	EPA Method 200.7
Selenium (Se), Total	<0.002	0.002	mg/L	EPA Method 270.2
Silver (Ag), Total	<0.01	0.01	mg/L	EPA Method 200.7
Mercury (Hg), Total	0.0015	0.0004	mg/L	EPA Method 245.1

Approved by: Jack
Date: 4/30/96

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QUALITY ASSURANCE REPORT

Metals Analysis

Date: 30-Apr-96

Quality Control Sample

Parameter	*Initial Check Sample*	*Final Check Sample*	*Percent Recovery*
Arsenic, As	101	101	%
Barium, Ba	103	101	%
Cadmium, Cd	98	98	%
Chromium, Cr	100	98	%
Lead, Pb	102	99	%
Selenium, Se	98	105	%
Silver, Ag	99	98	%
Mercury, Hg	102	103	%

Matrix Spike

Parameter	*Spike % Recovery*	*Duplication % RSD*
Arsenic, As	92	<2 X D.L.
Barium, Ba	94	<1
Cadmium, Cd	107	<2 X D.L.
Chromium, Cr	90	2.9
Lead, Pb	92	<2 X D.L.
Selenium, Se	81	<2 X D.L.
Silver, Ag	80	<2 X D.L.
Mercury, Hg	98	<2 X D.L.

Method Blank

Parameter	*Analyzed Value*	*Unit of Measure*
Arsenic, As	<0.10	mg/L
Barium, Ba	<0.005	mg/L
Cadmium, Cd	<0.002	mg/L
Chromium, Cr	<0.01	mg/L
Lead, Pb	<0.05	mg/L
Selenium, Se	<0.002	mg/L
Silver, Ag	<0.01	mg/L
Mercury, Hg	<0.0004	mg/L