

3R - 322

APPROVALS

YEAR(S):

1999



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

November 1, 1999

CERTIFIED MAIL

RETURN RECEIPT NO. Z-274-520-726

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

**RE: GROUND WATER WELL INSTALLATION WORK PLANS
SAN JUAN BASIN, NEW MEXICO**

Dear Ms. Gannon:

The New Mexico Oil Conservation Division (OCD) has reviewed Public Service Company of New Mexico's (PNM) September 13, 1999 "WELL INSTALLATION PLANS FOR SAN JUAN BASIN GROUNDWATER SITES". This document contains PNM's proposed work plans for installation of additional monitor wells at the Dogie Canyon Compressor Station North and East Pits, Florance #32A well site, Honolulu Line Drip, Jacques #2A well site, Jicarilla Contract 147-6 well site, Mangum #1E well site, McClannahan #22 well site and Randalman #1 well site.

The above referenced monitor well installation work plans are approved. Please be advised that OCD approval does not relieve PNM of liability if the investigations fail to adequately define the extent of contamination related to PNM's activities or if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve PNM of responsibility for compliance with any other federal, state, tribal or local laws and regulations.

If you have any questions, please call me at (505) 827-7154.

Sincerely,

A handwritten signature in black ink, appearing to read "Will Olson".

William C. Olson
Hydrologist
Environmental Bureau

xc: Denny Foust, OCD Aztec District Office
Bill Liess, BLM Farmington District Office



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

August 16, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. Z-274-520-691

Ms. Kathy Juckes
PNM Gas Services
P.O. Box 4750
Farmington, NM 87499

RE: FINAL SAN JUAN BASIN PIT CLOSURE REPORTS

Dear Ms. Juckes:

The New Mexico Oil Conservation Division (OCD) has reviewed 4 requests for closure of ground water remediation sites which are contained in PNM Gas Services' (PNM) April 29, 1999 "OCD CLOSURE REPORTS - 1ST REPORTING QUARTER 1999". This document requests closure of the sites since ground water has been remediated to below New Mexico Water Quality Control Commission (WQCC) standards as demonstrated in 4 consecutive quarterly sampling events at each site. The document also contains PNM's proposed ground water monitoring well plugging and abandonment procedures.

Below is the OCD's review of these closure requests:

- A. The pit closure/remediation activities and the proposed monitor well plugging and abandonment proposals for the site listed below are **approved**.

1. McClanahan A #2E (Separator pit) Unit O, Sec. 23, T28N, R10W.

Please be advised that OCD approval does not relieve PNM of liability if remaining contaminants are found to pose a future threat to surface water, ground water, human health or the environment. In addition, OCD approval does not relieve PNM of responsibility for compliance with any other federal, state, tribal or local laws and regulations.

- B. The sites listed below which are requested for closure were previously required to have additional ground water monitoring wells installed to determine the extent of ground water contamination that was in excess of WQCC ground water standards. Since the

OCD has no record of this work being completed, the request for closure of these sites is denied. The OCD will reconsider closure of these sites when the required information is submitted.

- | | | |
|----|---------------|-----------------------------|
| 1. | Florance #32A | Unit F, Sec. 15, T30N, R08W |
| 2. | Jacques #2A | Unit D, Sec. 25, T30N, R09W |
| 3. | Mangum #1E | Unit F, Sec. 33, T29N, R11W |

- C. On May 28, 1998, the OCD required that PNM submit plans to install additional ground water monitoring wells to determine the extent of ground water contamination that was in excess of WQCC ground water standards at a number of sites. These plans were to have been submitted to the OCD by July 28, 1999. A review of the case files shows that the OCD does not have any record of receiving these plans. The OCD requires that PNM submit the plans as required in Item A and Item B of the OCD's May 28, 1999 correspondence. The plans shall be submitted to the OCD Santa Fe Office by August 31, 1999 with a copy provided to the OCD Aztec District Office.

If you have any questions, please call me at (505) 827-7154.

Sincerely,



William C. Olson
Hydrologist
Environmental Bureau

xc: Denny Foust, OCD Aztec District Office
Bill Liess, BLM Farmington District Office

3R - 322

**GENERAL
CORRESPONDENCE**

YEAR(S):
2000-1997

Olson, William

From: m. harvey [SMTP:markh@ditell.com]
Sent: Tuesday, September 05, 2000 1:46 PM
To: Olson, William
Subject: Annual Groundwater Report (PNM)

As a follow-up to our telephone conversation last week, this serves to acknowledge the extension of time that NMOCD has granted Williams in order to submit the annual groundwater report for former PNM sites.

It is agreed that the report will be submitted by September 15, 2000 and include data from PNM efforts during 1999 and 2000. Williams appreciates the time extension and NMOCD's understanding of the complications associated with inheriting a project of this magnitude.

After submitting the report and allowing review time, Williams intends to schedule a meeting with you to discuss its' plan to effect mitigation of groundwater impacts. Your feedback will be helpful in finalizing a program strategy.

Thank you for your consideration.

From: Deklau, Ingrid [SMTP:Ingrid.Deklau@Williams.com]
Sent: Friday, July 07, 2000 1:35 PM
To: Olson, William
Cc: 'mark'; 'mgannon@pnm.com'
Subject: Groundwater Report Extension

Per our discussion today, this note is to confirm extension of the Annual Groundwater Report submittal from July 15, 2000 to August 31, 2000.

On March 4, 2000, Maureen Gannon of PNM emailed you and requested the April 1, 2000 deadline for the report submittal be postponed to July 15, 2000 so that PNM could incorporate all information gathered through June 30, 2000 into the report. Since then, PNM and Williams have entered into a Settlement Agreement transferring certain responsibilities to Williams. The responsibility of the preparation of this report is currently under discussion between PNM and Williams. Regardless of the responsibility, it is clear to me that this report will not be ready by the July 15, 2000 deadline.

Thank you for your assistance in this matter.

Ingrid Deklau

307-872-2880

Olson, William

From: Olson, William
Sent: Monday, March 06, 2000 8:13 AM
To: 'Gannon, Maureen'
Subject: RE: Request for Extension on Annual Groundwater Report

The below requested extension is approved.

From: Gannon, Maureen [SMTP:MGannon@pnm.com]
Sent: Saturday, March 04, 2000 3:31 PM
To: Olson, William
Cc: Sikelianos, Mark; 'Ingrid Deklau'; Johnson, Ronald
Subject: Request for Extension on Annual Groundwater Report

As a follow-up to our phone conversation on Thursday, March 2, 2000, PNM herein requests an extension of the date for submittal of our San Juan Basin Annual Groundwater Report. The report is normally due on April 1st of each year. However, since PNM's environmental obligations associated with the purchase and sale of our former gas assets in the San Juan Basin will terminate on June 30, 2000 (with the exception of retained liabilities), we would like to file our annual report by July 15, 2000 so that the data and information contained in the annual report is current through the June 30th date.

Please let me know if this extension is acceptable to you. You may email me or call me at (505) 241-2974. Thank you for your time and consideration of this matter.

Maureen Gannon
Environmental Services
241-2974

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

SEP 14 1999

September 13, 1999

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



RE: WELL INSTALLATION PLANS FOR SAN JUAN BASIN GROUNDWATER SITES

Dear Bill:

PNM herein submits monitoring well installation plans for several groundwater sites that we are managing in the San Juan Basin. You requested these plans in an August 16, 1999 letter entitled, "Final San Juan Basin Pit Closure Reports," that was sent to Ms. Kathy Juckes, PNM-Farmington. The subject groundwater sites are the Dogie Compressor Station North Pit, Florance #32A, Jacques #2A, Mangum #1E, McClanahan #22, Dogie Compressor Station East Pit, Honolulu Loop Line Drip, Ice Canyon Drip, Jicarilla Contract 147-6, and Randleman #1.

The well installation plan for each of the above-referenced sites consists of a map depicting the existing monitoring well configuration at the site with associated historical BTEX data. Any proposed new well location is denoted by a large "X" on the map. In some instances, the proposed wells have already been installed and sampled, and the analytical results for BTEX are reported next to these locations on the attached maps. PNM will prepare formal reports on all of the subject sites requiring new well installations in either individual groundwater/pit closure reports or the Annual Groundwater Report to be submitted to the OCD in 2000.

PNM would like to bring the Randleman 1 well site and the Honolulu Loop Line Drip to your attention. The Randleman 1 site is operated by Burlington Resources and poses many unique problems, including:

- an increase in benzene concentrations in PNM's source and downgradient wells after cessation of discharge, and primary and secondary remediation of PNM's former pit (see figure 10);
- elevated chloride levels groundwater monitoring wells on site (see attachment to figure 10); and
- potential impacts to underlying groundwater from Burlington's operations and their former pit (Approximately one year after remediation, Burlington's pit excavation and on site landfarm remain open).

The Honolulu Loop Line Drip is operated by Williams and has also experienced its own set of problems, including, most recently, a significant increase in benzene in MW-5 and MW-12 (see figure 7 and attachment to figure 7). As you may recall, PNM conducted extensive secondary removal of contaminated soils in the area and south of Williams pipeline in December of 1998 after the appearance of free product and high dissolved-phase BTEX contaminants. At both the Randleman 1 and the Honolulu Loop Line Drip, PNM agrees that the installation of additional wells is necessary to fully define the extent of the dissolved-phase contaminant plumes. However, such action, on the part of PNM, assumes that all responsibility at the site is ours. In contrast, we believe that the ongoing problems may be the responsibility of the producer or are at least shared with them. Therefore, before agreeing to install additional wells at these particular locations, PNM is considering several options at either site and will be contacting you in the very near future to inform you of our proposed strategies.

Mr. B. Olson
09/13/1999
Page 2

Please review the attached site maps and accept them as our groundwater monitoring well installation plans. All well installations and sampling events will be conducted in accordance with PNM's Groundwater Management Plan for Unlined Surface Impoundments, March 1996. If you need additional information or have any questions, you may call me at (505) 241-2974. Thank you for your time and consideration concerning this matter.

Sincerely,
PNM Environmental Services

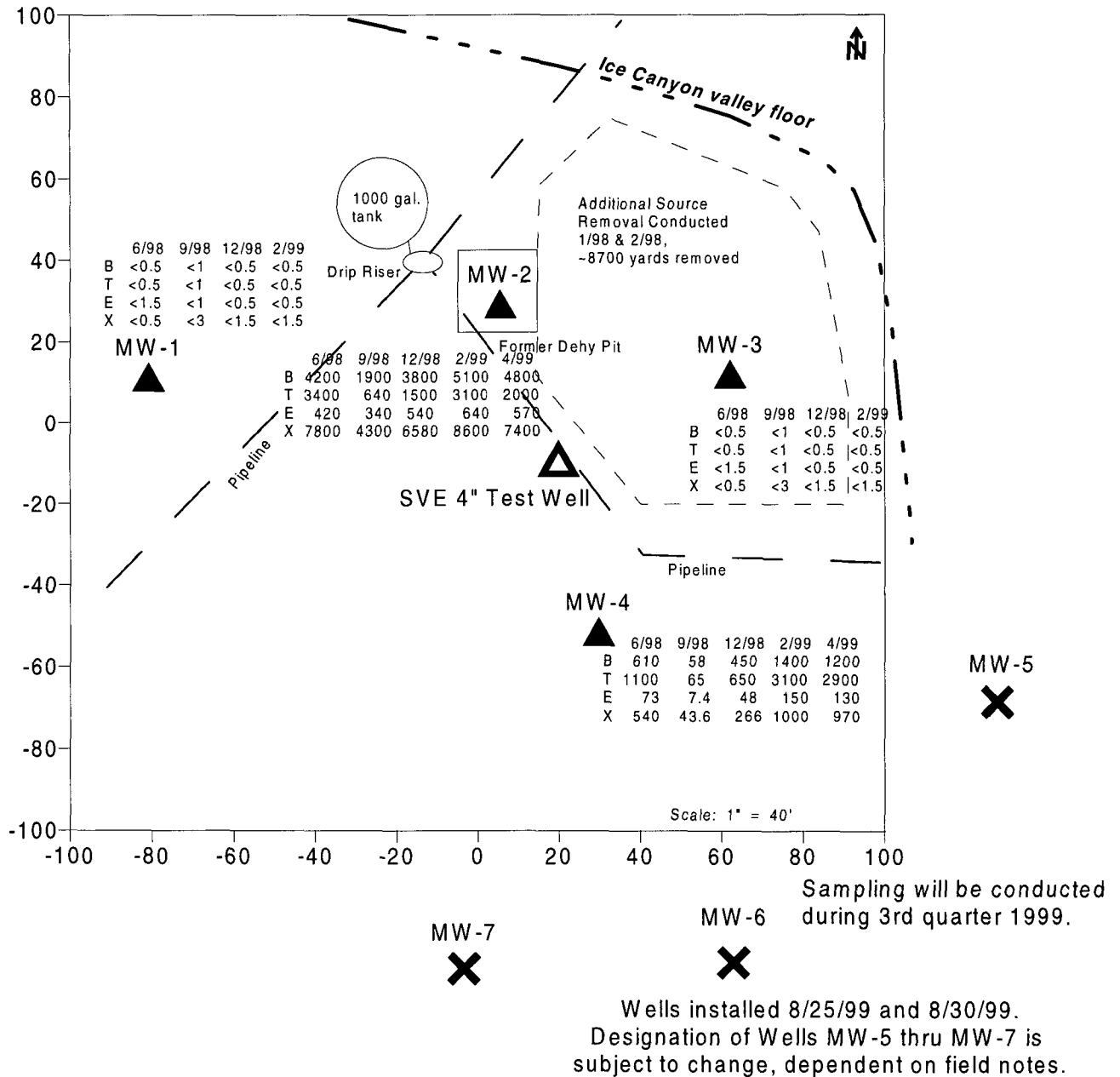


Maureen Gannon
Project Manager

Attachments

cc: Ingrid Deklau, WFS
Denny Foust, OCD-Aztec Office
Kathy Juckes, PNM Farmington File
Keith Manwell, Jicarilla Environmental Protection Office
Mark Sikelianos, PNM

Figure 8.
Ice Canyon Drip Site Map and Analytical Results
(Groundwater Concentrations in ppb)



Olson, William

From: Olson, William
Sent: Tuesday, August 31, 1999 8:07 AM
To: 'MGannon@pnm.com'
Subject: RE: Request for Extension
Importance: High

The below requested extension is approved.

From: MGannon@pnm.com[SMTP:MGannon@pnm.com]
Sent: Monday, August 30, 1999 4:30 PM
To: Olson, William
Cc: MSikeli@pnm.com
Subject: Request for Extension

As discussed with you last week during the OCC hearing on the Hampton 4M site, PNM requests an extension to complete our plans documenting additional ground water monitoring well installations at several sites we are currently managing in the San Juan Basin. Your letter of August 16, 1999 asks that a plan be submitted by Tuesday, August 31, 1999. We request an additional two weeks from this date to finish the plans and submit them to your office. We will have the plans to you by Tuesday, September 14, 1999.

We appreciate your patience in this matter. If you have any questions or concerns, please call me at (505) 241-2974.

Maureen Gannon
Environmental Services
241-2974



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

May 28, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. 7-274-520-668

Ms. Maureen Gannon
Public Service Company of New Mexico
Alvarado Square, MS-0408
Albuquerque, New Mexico 87401

RE: 1999 SAN JUAN BASIN ANNUAL GROUNDWATER REPORT

Dear Ms. Gannon:

The New Mexico Oil Conservation Division (OCD) has reviewed Public Service Company of New Mexico's (PNM) April 5, 1999 "1999 SAN JUAN BASIN ANNUAL GROUNDWATER REPORT". This document contains the results of PNM's 1998 monitoring and remediation of contaminated ground water related to the closure of unlined oil and gas production pits in the San Juan Basin.

The OCD has the following comments and requirements regarding the above referenced document:

- A. On July 14, 1999, the OCD required that PNM install additional ground water monitoring wells at 7 sites to determine the extent of ground water contamination that was in excess of New Mexico Water Quality Control Commission (WQCC) ground water standards. According to the above referenced documents additional wells were installed at 2 of the sites. However, the documents do not contain any information on the installation of additional monitoring wells for the sites listed below. The OCD requires that PNM submit a plan to address this deficiency for these sites. The plan shall be submitted to the OCD Santa Fe Office by July 28, 1999 with a copy provided to the OCD Aztec District Office.

- | | |
|---------------------------------------|-----------------------------|
| 1. Dogie Compressor Station North Pit | Unit D, Sec. 04, T25N, R06W |
| 2. Florance #32A | Unit F, Sec. 15, T30N, R08W |
| 3. Jacques #2A | Unit D, Sec. 25, T30N, R09W |
| 4. Mangum #1E | Unit F, Sec. 33, T29N, R11W |
| 5. McClanahan #22 | Unit G, Sec. 14, T28N, R10W |

Ms. Maureen Gannon
May 28, 1999
Page 2

- B. The closure reports for the sites listed below show that the extent of ground water contamination in excess of New Mexico WQCC ground water standards has not been completely defined. Therefore, the OCD requires that PNM submit a plan for the installation of additional monitor wells to determine the extent of ground water contamination at these sites. The plan shall be submitted to the OCD Santa Fe Office by July 28, 1999 with a copy provided to the OCD Aztec District Office.

- | | |
|--------------------------------------|-----------------------------|
| 1. Dogie Compressor Station East Pit | Unit D, Sec. 04, T25N, R06W |
| 2. Honolulu Line Drip | Unit B, Sec. 15, T26N, R04W |
| 3. Ice Canyon Drip | Unit H, Sec. 13, T26N, R07W |
| 4. Jicarilla Contract 147-6 | Unit C, Sec. 06, T25N, R05W |
| 5. Randalman #1 | Unit K, Sec. 13, T31N, R11W |

- C. Several of the reports state that certain contaminants such as chloride, sulfate and total dissolved solids are not enforceable standards under State of New Mexico regulations. For your information, all of the WQCC standards as contained in 20 NMAC 6.2.3101 are enforceable standards.

If you have any questions, please call me at (505) 827-7154.

Sincerely,



William C. Olson
Hydrologist
Environmental Bureau

xc: Denny Foust, OCD Aztec District Office
Bill Liess, BLM Farmington District Office
Kurt Sandoval, Jicarilla Apache Environmental Protection Office

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

April 2, 1998

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

RECEIVED
APR 23 1998
New Mexico
Oil Conservation Division



RE: 1998 SAN JUAN BASIN ANNUAL GROUNDWATER REPORT

Dear Bill:

PNM is pleased to submit the 1998 Annual 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 reported in this document is provided below.

Cozzens B1
Dogie Compressor Station East Pit
Dogie Compressor Station North Pit
Florance 32A
Florance Z 40 M
Florance 44
Florance 47X
Florance 124
Hampton 4M
Honolulu Loop Line Drip
Ice Canyon Drip
Jacques 2A
Mangum 1E
McClanahan 22
McClanahan A2E
McCoy Gas Com A1
Miles Federal 1E
Miles Federal 1E Drip
Randleman 1
Reid 16 Drip
Sammons 2
Turner 1A
Turner 3
Zachry 18E

PNM 1998 Groundwater Report

PNM plans to request closure of two of the above sites, the Cozzens B1 and the Sammons 2, in our April 30, 1998 filing of the San Juan Pit Closure Reports to the OCD Santa Fe office. If you have any questions regarding the contents of the report, please contact me at (505) 241-2974.

Sincerely,



Maureen Gannon
Project Manager

Attachment

cc: Ingrid Deklau, WFS
Denny Foust, OCD-Aztec Office
Bill VonDrehle, WFS

PNM 1998 Groundwater Report

bcc: Colin Adams (w/o analytical results)
Kathy Jukes
Ron Johnson (w/o analytical results)
Mark Sikelianos

Groundwater Site Summary Report

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

Quarter/Year: 4th/97 & 1st/98

Operator: Williams Field Services
Sec: 13 Twn: 26N Rng: 7W Unit: H
Canyon: Largo

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

Topo Map: previously submitted
Well Completion Diagram: NA
Site Map with Analysis: NA
Groundwater Contour Maps: NA
Groundwater Hydrograph: NA
Analytical Results: NA

Activities for Previous Year:

While performing vertical extent drilling at the Ice Canyon Drip pit on November 12, 1997, PNM encountered groundwater at 35 feet below ground surface. The water was sampled and BTEX concentrations were determined to be above WQCC standards. PNM provided verbal notification to OCD on December 1, 1997 and followed up with written notification on December 8, 1997.

Results:

Based upon the results of the initial groundwater sampling (reported in the 12/8/97 letter to OCD), PNM performed additional source removal at this location in January 1998. The pit excavation was backfilled upon completion of source removal.

Future Actions:

PNM will install groundwater monitoring wells and commence monitoring at the Ice Canyon Drip pit during the second quarter of 1998.

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

Ice Canyon Drip



OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *21-Nov-97*
COC No.: *5833*
Sample No.: *16866*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Ice Canyon Drip*
Project Location: *9711120830; MW-2*
Sampled by: *GC* Date: *12-Nov-97* Time: *8:30*
Analyzed by: *DC* Date: *21-Nov-97*
Sample Matrix: *Liquid*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	<i>19523</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>Toluene</i>	<i>31288</i>	<i>ug/L</i>	<i>40</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>886</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>6107</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>1330</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>59134</i>	<i>ug/L</i>		

ND - Not Detected at Limit of Quantitation

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

Approved By: *[Signature]*
Date: *11/21/97*



OFF: (505) 325-5667

LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 21-Nov-97

Internal QC No.: 0559-STD

Surrogate QC No.: 0556-STD

Reference Standard QC No.: 0529/30-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

<i>Parameter</i>	<i>Unit of Measure</i>	<i>True Value</i>	<i>Analyzed Value</i>	<i>RPD</i>	<i>Limit</i>
<i>Benzene</i>	ppb	20.0	19.9	0	15%
<i>Toluene</i>	ppb	20.0	20.9	4	15%
<i>Ethylbenzene</i>	ppb	20.0	20.8	4	15%
<i>m,p-Xylene</i>	ppb	40.0	39.6	1	15%
<i>o-Xylene</i>	ppb	20.0	20.8	4	15%

Matrix Spike

<i>Parameter</i>	<i>1 - Percent Recovered</i>	<i>2 - Percent Recovered</i>	<i>Limit</i>	<i>RPD</i>	<i>Limit</i>
<i>Benzene</i>	85	80	(39-150)	2	20%
<i>Toluene</i>	97	92	(46-148)	1	20%
<i>Ethylbenzene</i>	96	95	(32-160)	1	20%
<i>m,p-Xylene</i>	94	93	(35-145)	1	20%
<i>o-Xylene</i>	99	95	(35-145)	3	20%

Surrogate Recoveries

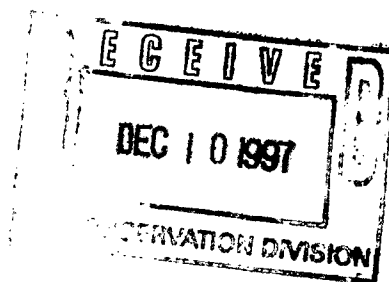
	S1 Percent Recovered	S2 Percent Recovered		S1 Percent Recovered	S2 Percent Recovered
Laboratory Identification			Laboratory Identification		
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
16866-5833	94				
					(nc)
					11/21/97

S1: Flourobenezene

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

December 8, 1997

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



RE: NOTIFICATION OF GROUNDWATER CONTAMINATION AT THE ICE CANYON DRIP SITE

Dear Bill:

Pursuant to New Mexico Water Quality Control Commission (WQCC) Regulations, section 1-203, PNM hereby provides written notification of groundwater contamination in the area underneath PNM's former pit at the Ice Canyon Drip site. The Ice Canyon Drip is situated in the section 13, township 26 north, range 7 west, unit letter "H". A topographic map showing the location of the site is provided as an attachment. The operator is Williams Field Services. Depth to groundwater is 35 feet. This letter follows verbal notification provided to you on Monday, December 1, 1997 (M. Gannon, PNM, to B. Olson, OCD).

On November 12, 1997 while performing vertical extent drilling at the Ice Canyon Drip, a PNM technician encountered groundwater at approximately 35 feet below ground surface. PNM installed a monitoring well and after purging the well and bailing 3 well volumes, a groundwater sample was taken. The sample was delivered to OnSite Technologies, Farmington, New Mexico, for BTEX analysis using EPA method 8020. A hardcopy of the laboratory report is attached. A summary of the analytical results is provided below:

Component	Units	WQCC Stds.	Groundwater Sample
Benzene	ppb	10	19523
Toluene	ppb	750	31288
Ethylbenzene	ppb	750	886
Xylenes	ppb	620	7437
Total BTEX	ppb		59134

Bold type indicates a WQCC exceedance.

This letter serves as written notification of groundwater contamination at the Ice Canyon Drip site. PNM will conduct future activities at the site pursuant to PNM's Groundwater Management Plan. If you have any questions, please call me at (505) 241-2974. Thank you.

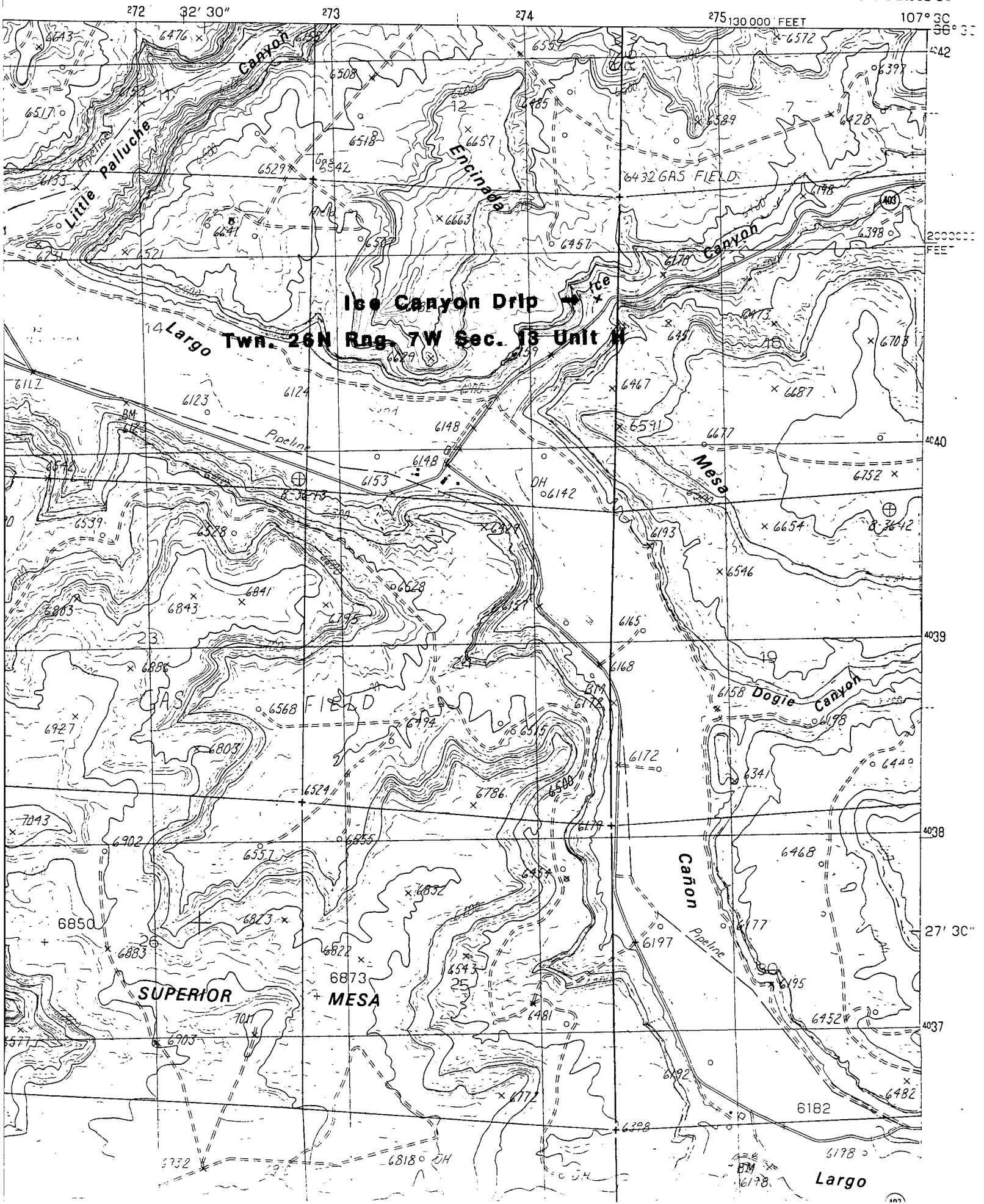
Sincerely,
PNM

Maureen Gannon
Project Manager

Attachment

cc: Colin Adams, PNM
Denver Bearden, PNMGS
Ingrid Deklau, WFS
Denny Foust, OCD-Aztec Office
Bill Von Drehle, WFS

SMOUSE MESA QUADRANGL.
NEW MEXICO
7.5 MINUTE SERIES (TOPOGRAPHICAL)



OFF: (505) 325-5667



Superior 16, 11/19/97
12/51/97
315 Toluene
DIN 50
B 19523
LAB: (505) 325-1556
BTEX 59134
WFS

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: 21-Nov-97
COC No.: 5833
Sample No.: 16866
Job No.: 2-1000

Project Name: *PNM Gas Services - Ice Canyon Drip*
Project Location: *9711120830; MW-2*
Sampled by: GC Date: 12-Nov-97 Time: 8:30
Analyzed by: DC Date: 21-Nov-97
Sample Matrix: *Liquid*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	19523	ug/L	20	ug/L
<i>Toluene</i>	31288	ug/L	40	ug/L
<i>Ethylbenzene</i>	886	ug/L	20	ug/L
<i>m,p-Xylene</i>	6107	ug/L	20	ug/L
<i>o-Xylene</i>	1330	ug/L	20	ug/L
<i>TOTAL</i>	59134	ug/L		

ND - Not Detected at Limit of Quantitation

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

Approved By: *[Signature]*
Date: *11/21/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

for EPA Method 8020

Reference Standard QC No.: 0529/30-QC

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	< 0.2	ppb

<i>Parameter</i>	<i>Unit of Measure</i>	<i>True Value</i>	<i>Analyzed Value</i>	<i>RPD</i>	<i>Limit</i>
<i>Benzene</i>	ppb	20.0	19.9	0	15%
<i>Toluene</i>	ppb	20.0	20.9	4	15%
<i>Ethylbenzene</i>	ppb	20.0	20.8	4	15%
<i>m,p-Xylene</i>	ppb	40.0	39.6	1	15%
<i>o-Xylene</i>	ppb	20.0	20.8	4	15%

<i>Parameter</i>	<i>1 - Percent Recovered</i>	<i>2 - Percent Recovered</i>	<i>Limit</i>	<i>RPD</i>	<i>Limit</i>
<i>Benzene</i>	85	80	(39-150)	2	20%
<i>Toluene</i>	97	92	(46-148)	1	20%
<i>Ethylbenzene</i>	96	95	(32-160)	1	20%
<i>m,p-Xylene</i>	94	93	(35-145)	1	20%
<i>o-Xylene</i>	99	95	(35-145)	3	20%

	S1 Percent <i>Laboratory Identification</i> <i>Recovered</i>	S2 Percent <i>Laboratory Identification</i> <i>Recovered</i>		S1 Percent <i>Laboratory Identification</i> <i>Recovered</i>	S2 Percent <i>Laboratory Identification</i> <i>Recovered</i>
<i>Limit Percent Recovered</i>	(70-130)		<i>Limit Percent Recovered</i>	(70-130)	
16866-5833	94				
				JHK	(PC)
				11/24/97	11/21/97



CHAIN OF CUSTODY RECORD

5833

Date: 11/12/97Page 1 of 1657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.:		Job No.		REPORT RESULTS TO	Name Maureen Gannon		Title											
SEND INVOICE TO	Name Denver Bearden				Company PNM Gas Services													
	Company PNM Gas Services		Dept. 324-3763		Mailing Address Alverado Square, Mail Stop 0408													
	Address 603 W. Elm Street				City, State, Zip Albuquerque, NM 87158													
	City, State, Zip Farmington, NM 87401				Telephone No. 505-848-2974		Telefax No.											
Sampling Location: Ice Canyon Drip monitoring well # 2				Number of Containers	ANALYSIS REQUESTED													
Sampler: Gary Cook					<div>X 872X-8020</div>													
SAMPLE IDENTIFICATION		SAMPLE											MATRIX		PRES.		LAB ID	
		DATE	TIME															
9711120830		11/12/97	0830										H₂O		HCL		16866-5833	
Relinquished by: Gary Cook		Date/Time 11/12/97 1600		Received by: [Signature]				Date/Time 11/12/97 1600										
Relinquished by:		Date/Time		Received by:				Date/Time										
Relinquished by:		Date/Time		Received by:				Date/Time										
Method of Shipment:				Rush		24-48 Hours		10 Working Days		Special Instructions:								
Authorized by: Gary Cook (Client Signature must Accompany Request)				Date 11/12/97		X		Results to be sent to both parties.										

Bill Olson

From: MGannon[SMTP:MGannon@mail.pnm.com]
Sent: Monday, December 01, 1997 1:23 PM
To: billolson
Subject: Groundwater Contamination Notification at the Ice Canyon Drip Site
Importance: High

The following is an immediate notification of groundwater contamination at the Ice Canyon Drip site located in Ice Canyon, S 15 T 26N R 6W Unit "B." The operator of the site is Williams Field Services (WFS). Depth to groundwater is 35 feet. A groundwater sample taken on November 12, 1997, from a newly installed monitoring well located in the center of the excavation, provided the following results:

benzene- 19523 ppb
BTEX- 59134 ppb

Written notification will follow within 7 days. Thank you. And Happy Birthday!!!