

3R - 333

# REPORTS

DATE:

July 28, 1997

District I  
P.O. Box 1980, Hobbs, NM

District II  
Drawer DD, Artesia, NM 88221

District III  
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco Street  
Santa Fe, New Mexico 87505

OK  
SUBMIT 1 COPY TO  
APPROPRIATE  
DISTRICT OFFICE  
AND 1 COPY TO  
SANTA FE OFFICE

**PIT REMEDIATION AND CLOSURE REPORT**

<b>Operator:</b> <u>PNM Gas Services ( Amoco )</u>		<b>Telephone:</b> <u>324-3764</u>	
<b>Address:</b> <u>603 W. Elm Street Farmington, NM 87401</u>			
<b>Facility or Well Name:</b> <u>McCoy A #1A</u>			
<b>Location:</b>	Unit <u>F</u>	Sec <u>18</u>	T <u>31 N</u> R <u>10 W</u> County <u>San Juan</u>
<b>Pit Type:</b>	Separator <input type="checkbox"/>	Dehydrator <input checked="" type="checkbox"/>	Other <u>None</u>
<b>Land Type:</b>	BLM <input type="checkbox"/>	State <input type="checkbox"/>	Fee <input checked="" type="checkbox"/> Other <u>No</u>
<b>Pit Location:</b> Pit dimensions: length <u>57</u> width <u>47</u> depth <u>8</u>			
(Attach diagram) Reference: wellhead <input checked="" type="checkbox"/> other _____			
Footage from reference: <u>120'</u>			
Direction from reference: <u>80</u> Degrees <input checked="" type="checkbox"/> East <input checked="" type="checkbox"/> North <input type="checkbox"/> West <input type="checkbox"/> South _____			
<b>Depth to Ground Water:</b>			
<small>(Vertical distance from contaminants to seasonal high water elevation of ground water)</small>		Less than 50 feet	(20 points)
		50 feet to 99 feet	(10 points)
		Greater than 100 feet	( 0 points)
			<u>20</u>
<b>RECEIVED</b>			
<b>JUL 31 1997</b>			
<b>Wellhead Protection Area:</b>		Yes	(20 points)
<small>(Less than 200 feet from a private domestic water source, or, less than 1,000 feet from all other water sources)</small>		No	( 0 points)
			<u>20</u>
		Environmental Bureau Oil Conservation Division	
<b>Distance to Surface Water:</b>			
<small>(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)</small>		Less than 200 feet	(20 points)
		200 feet to 1,000 feet	(10 points)
		Greater than 1,000 feet	( 0 points)
			<u>20</u>
<b>RANKING SCORE (TOTAL POINTS):</b>			<u>60</u>

McCoy A #1A

Date Remediation Started: 2/7/96

Date Completed: 2/12/96

Remediation Method: Excavation ☒ Approx. Cubic Yard 794

(Check all appropriate sections)

Landfarmed ☒

Amount Landfarmed (cubic yds)

Other

Remediation Location:

Onsite

Offsite

Tierra Environmental

(i.e., landfarmed onsite, name and location of offsite facility)

Backfill Material Location:

General Description of Remedial Action:

Excavated contaminated soil to a pit size of 57' x 47' x 8' and hauled contaminated soil to a commercial landfarm. Pit was backfilled with clean fill and graded to surface.

Ground Water Encountered:

No

Yes

Depth

8'

Final Pit Closure Sampling:

Sample Location

Bottom of pit.

(if multiple samples, attach sample result and diagram of sample locations and depths.)

Sample depth

8'

Sample date

2/7/96

Sample time

10:05:00 AM

Sample Results

Benzene (ppm)

0.1935

Total BTEX (ppm)

4.1182

Field headspace (ppm)

TPH

140.00

Method

Vertical Extent (ft)

Risk Assessment form attached

Yes

No

Ground Water Sample:

Yes

No

(If yes, see attached Groundwater Site Summary Report)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND MY BELIEF

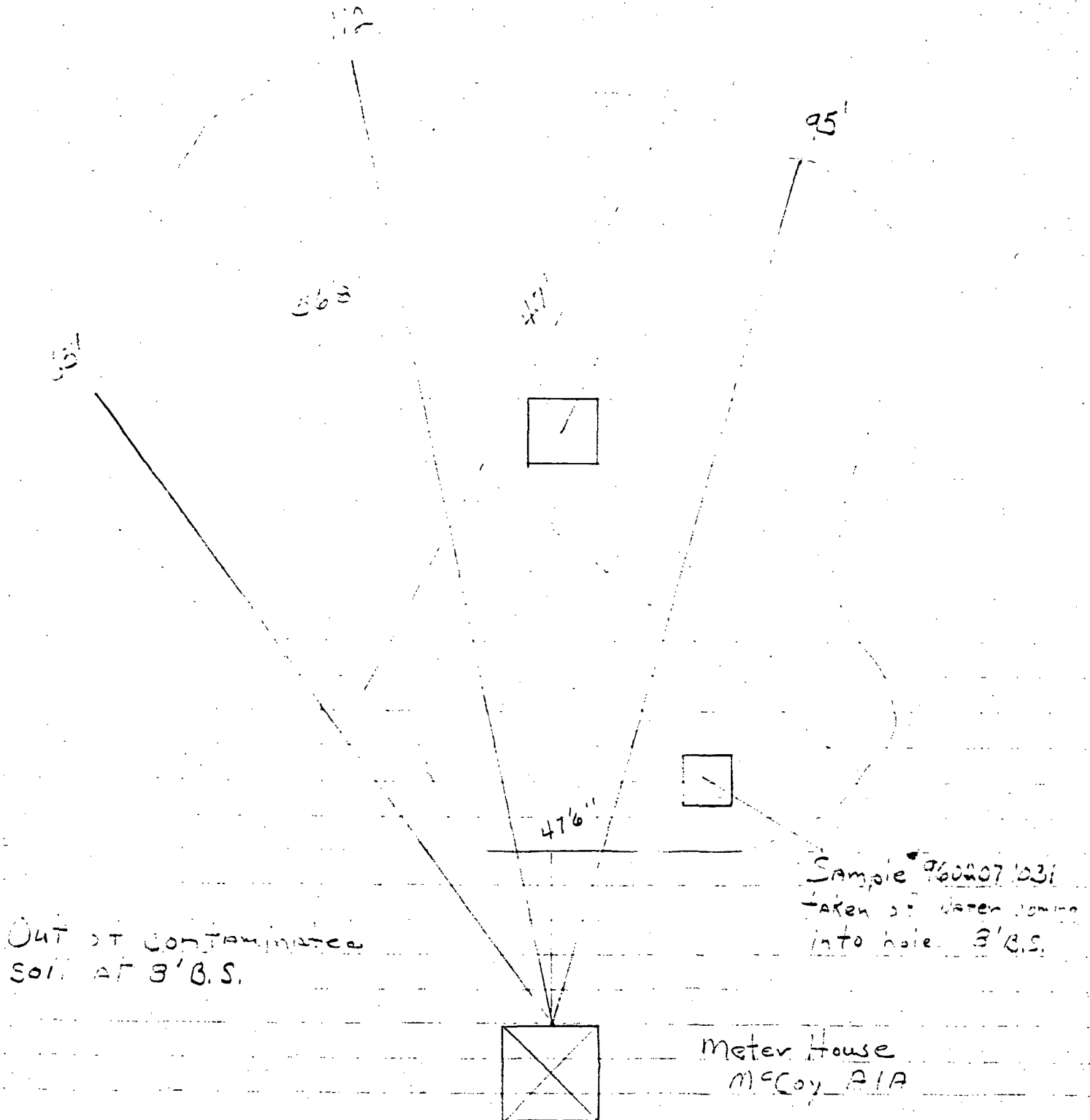
DATE July 28, 1997

SIGNATURE

PRINTED NAME AND TITLE

Denver Bearden  
Administrator III

Soil  
Sample #9602071005  
Taken on bottom of hole  
3' B.S.



OFF: (505) 325-8786

**ON SITE**  
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

**TOTAL PETROLEUM HYDROCARBONS**

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

Date: *8-Feb-96*  
COC No.: *4511*  
Sample No. *10260*  
Job No. *2-1000*

Project Name: *PNM Gas Services - McCoy #A1A*  
Project Location: *9602071005; Center of Pit - 8ft. depth*  
Sampled by: *RB* Date: *7-Feb-96* Time: *10:05*  
Analyzed by: *DC* Date: *8-Feb-96*  
Type of Sample: *Soil*

**Laboratory Analysis**

<b>Laboratory Identification</b>	<b>Sample Identification</b>	<b>Total Petroleum Hydrocarbons</b>
<i>10260-4511</i>	<i>PNM Gas Services - McCoy #A1A</i> <i>9602071005; Center of Pit - 8ft. depth</i>	<i>140 mg/kg</i>

**Quality Assurance Report**

<b>Laboratory Identification</b>	<b>Analyzed Value</b>	<b>Acceptable Range</b>	<b>Units of Measure</b>
<i>Laboratory Fortified Blank Soil - QCBS2</i>	<i>&lt;25</i>	<i>&lt;25</i>	<i>mg/kg</i>
<i>Laboratory Fortified Spike Soil - QCSS1</i>	<i>915</i>	<i>828 - 1024</i>	<i>mg/kg</i>

**Method** - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: *[Signature]*

Date: *2/8/96*

P. O. BOX 2606 • FARMINGTON, NM 87499

— TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT —

OFF: (505) 325-8786



LAB: (505) 325-5667

### AROMATIC VOLATILE ORGANICS

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

Date: *8-Feb-96*  
COC No.: *4511*  
Sample No. *10260*  
Job No. *2-1000*

Project Name: *PNM Gas Services - McCoy #1A1*  
Project Location: *9602071005; Center of Pit - 8ft. depth*  
Sampled by: *RB* Date: *7-Feb-96* Time: *10:00*  
Analyzed by: *DC* Date: *8-Dec-96*  
Type of Sample: *Soil*

#### Aromatic Volatile Organics

Component	Result	Units of Measure	Detection Limit	Units of Measure
Benzene	193.5	ug/kg	0.2	ug/kg
Toluene	1470.6	ug/kg	0.2	ug/kg
Ethylbenzene	181.7	ug/kg	0.2	ug/kg
m,p-Xylene	1945.6	ug/kg	0.2	ug/kg
o-Xylene	326.8	ug/kg	0.2	ug/kg
	<b>TOTAL</b>	<b>4118.2</b>		<b>ug/kg</b>

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

Approved by: *[Signature]*  
Date: *2/8/96*

P. O. BOX 2606 • FARMINGTON, NM 87499

— TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT —

OFF: (505) 325-8786

**ON SITE**  
**TECHNOLOGIES, LTD.**

LAB: (505) 325-5667

**AROMATIC VOLATILE ORGANICS**

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

Date: *8-Feb-96*  
COC No.: *4511*  
Sample No. *10261*  
Job No. *2-1000*

Project Name: *PNM Gas Services - McCoy #A1A*  
Project Location: *9602071031; Bottom of Pit - Standing Liquid*  
Sampled by: *RB* Date: *7-Feb-96* Time: *10:31*  
Analyzed by: *DC* Date: *7-Feb-96*  
Type of Sample: *Liquid*

**Aromatic Volatile Organics**

<i>Component</i>	<i>Result</i>	<i>Units of Measure</i>	<i>Detection Limit</i>	<i>Units of Measure</i>
<i>Benzene</i>	<i>1420.8</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i>7997.6</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>724.7</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>8817.3</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>1683.9</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>20644.3</i>	<i>ug/L</i>		

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

Approved by: *[Signature]*  
Date: *2/8/96*

P. O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

PNMGS Well Site: McCoy A1A

## **Groundwater Site Summary Report**

Quarter/Year: 3<sup>rd</sup> 1996 through 2<sup>nd</sup> 1997

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

Operator: Amoco  
Sec: 18 Twn: 31 Rng: 10 Unit: F  
Canyon: Animas River

Vulnerable Class: Original  
OCD Ranking: 40  
Lead Agency: NMOCD

Topo Map: previously submitted  
Well Completion Diagram: previously submitted  
Site Map with Analysis: Figure 1  
Groundwater Contour Map: Figure 2 (May 1996)  
Groundwater Hydrograph: Figure 3  
Analytical Results: attached

### **Activities for Second Quarter (April through June) 1997:**

PNM conducted groundwater sampling for benzene, toluene, ethylbenzene, and xylenes (BTEX) at the McCoy A1A well site on May 20, 1997. Prior to sampling, water level measurements were taken in each of the five monitoring wells. Groundwater sampling was conducted in strict compliance with EPA protocol. PNM delivered the samples to OnSite Technologies, Farmington, New Mexico, for chemical analyses of BTEX using EPA Method 8020.

### **Results:**

Figure 1 is a site map of the McCoy A1A well site and includes the groundwater analytical results for the past four quarters. BTEX has not been detected in groundwater samples taken from each of the wells over four consecutive calendar quarters. Figure 2 is a groundwater contour map of the site for the month of May. The groundwater flow has shifted slightly (approximately 15') from the southwest to a more westerly direction. Figure 3 is the hydrograph (water level versus time) for the site. Water levels rose at the site once again due to an increase in precipitation during the second quarter of this year.

### **Future Actions:**

Consistent with PNM's San Juan Basin Groundwater Management Plan, we request closure of the McCoy A1A well site with the second quarter 1997 filing of the San Juan Pit Closure Reports. This request is based upon the analytical data collected over the last year at the site. BTEX concentrations have been consistently below WQCC standards for four consecutive quarters.

---

### **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. McCoy A1A Site Map With Analytical Results  
(Concentrations in ppb)

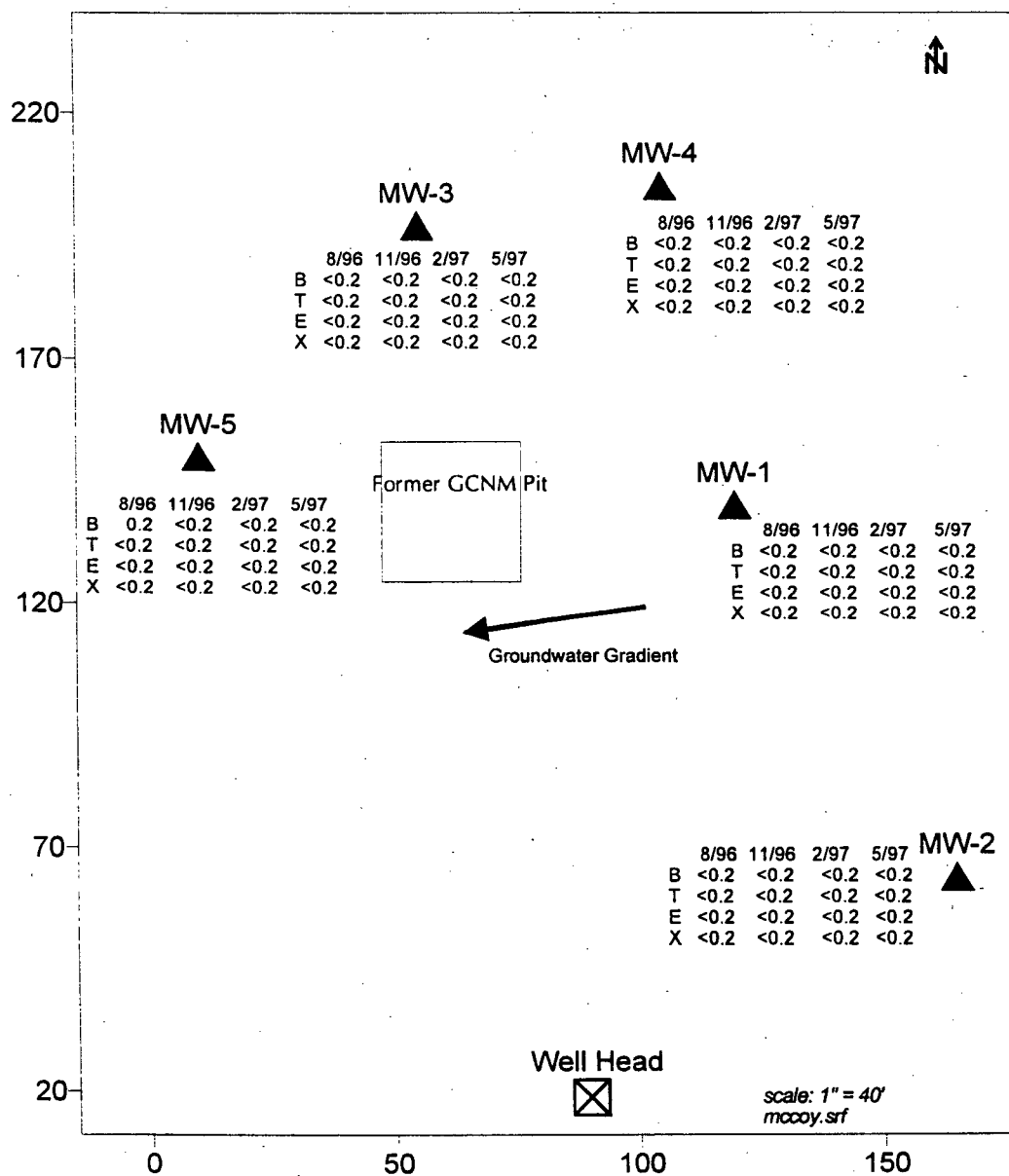


Figure 2. McCoy A1A Groundwater Countour Map (May 1997)

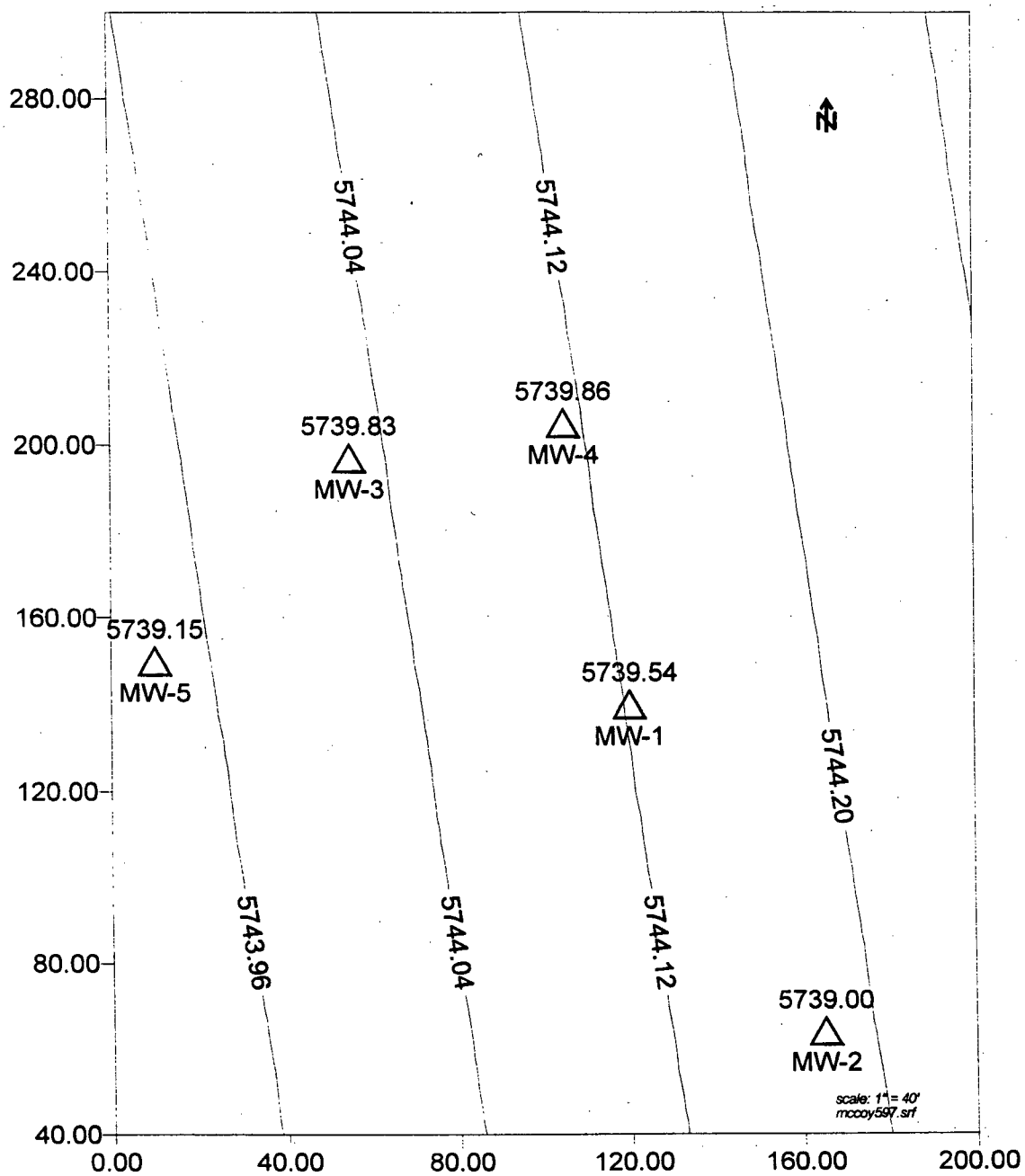
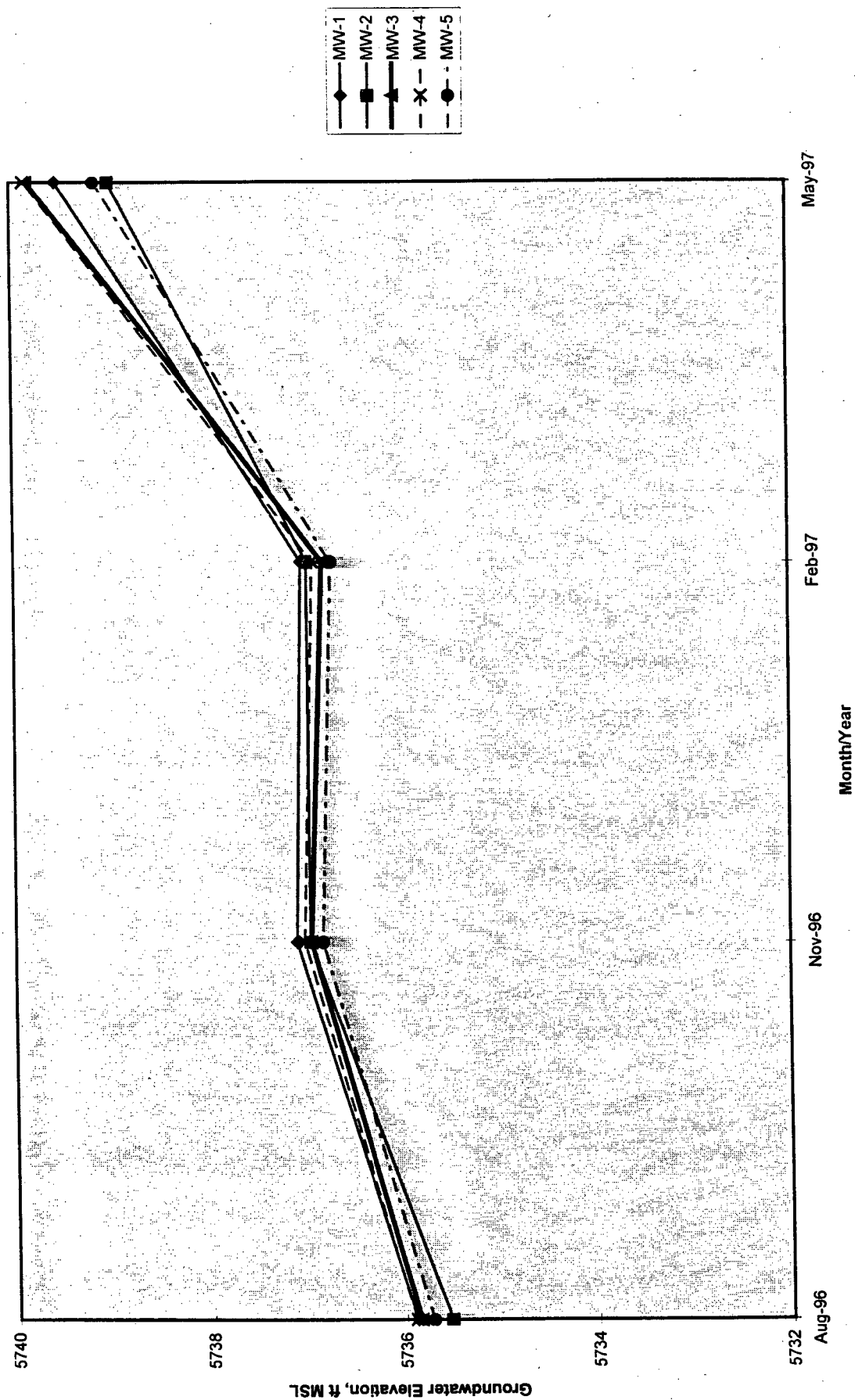


Figure 3. McCoy A 1A Hydrograph  
(time vs water level)



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: *28-May-97*  
COC No.: *5557*  
Sample No.: *14661*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - McCoy A1A*  
Project Location: *9705201330; MW-1*  
Sampled by: *MS/MG* Date: *20-May-97* Time: *13:30*  
Analyzed by: *DC* Date: *22-May-97*  
Sample Matrix: *Liquid*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/L	0.2	ug/L
<i>Toluene</i>	ND	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	ND	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	ND	ug/L	0.2	ug/L
<i>o-Xylene</i>	ND	ug/L	0.2	ug/L
<i>TOTAL</i>	ND	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: *5/20/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

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: *28-May-97*  
COC No.: *5557*  
Sample No.: *14662*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - McCoy A1A*  
Project Location: *9705201400; MW-2*  
Sampled by: *MS/MG*  
Analyzed by: *DC*  
Sample Matrix: *Liquid*

Date: *20-May-97* Time: *14:00*  
Date: *22-May-97*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/L	0.2	ug/L
<i>Toluene</i>	ND	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	ND	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	ND	ug/L	0.2	ug/L
<i>o-Xylene</i>	ND	ug/L	0.2	ug/L
<i>TOTAL</i>	ND	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: *5-28-97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

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: *28-May-97*  
COC No.: *5557*  
Sample No.: *14663*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - McCoy A1A*

Project Location: *9705201430; MW-3*

Sampled by: *MS/MG*

Date: *20-May-97*

Time: *14:30*

Analyzed by: *DC*

Date: *22-May-97*

Sample Matrix: *Liquid*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/L	0.2	ug/L
<i>Toluene</i>	ND	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	ND	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	ND	ug/L	0.2	ug/L
<i>o-Xylene</i>	ND	ug/L	0.2	ug/L
<i>TOTAL</i>	ND	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: *5/28/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY-BLENDING INDUSTRY WITH THE ENVIRONMENT -

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: *28-May-97*  
COC No.: *5557*  
Sample No.: *14664*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - McCoy A1A*

Project Location: *9705201500; MW-4*

Sampled by: *MS/MG*

Date: *20-May-97* Time: *15:00*

Analyzed by: *DC*

Date: *22-May-97*

Sample Matrix: *Liquid*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/L	0.2	ug/L
<i>Toluene</i>	ND	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	ND	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	ND	ug/L	0.2	ug/L
<i>o-Xylene</i>	ND	ug/L	0.2	ug/L
<i>TOTAL</i>	ND	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: *5/28/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667

# ON SITE

TECHNOLOGIES, LTD.

LAB: (505) 325-1556

## ANALYTICAL REPORT

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

Date: *28-May-97*  
COC No.: *5557*  
Sample No.: *14665*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - McCoy A1A*  
Project Location: *9705201530; MW-5*  
Sampled by: *MS/MG*  
Analyzed by: *DC*  
Sample Matrix: *Liquid*

Date: *20-May-97* Time: *15:30*  
Date: *22-May-97*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/L	0.2	ug/L
<i>Toluene</i>	ND	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	ND	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	ND	ug/L	0.2	ug/L
<i>o-Xylene</i>	ND	ug/L	0.2	ug/L
<i>TOTAL</i>	ND	ug/L		

ND - Not Detected at Limit of Quantitation

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

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_

P.O. BOX 2606 • FARMINGTON, NM 87499

TECHNOLOGY BLENDING WITH THE ENVIRONMENT



OFF: (505) 325-5667

# ON SITE

TECHNOLOGIES, LTD.

LAB: (505) 325-1556

## ANALYTICAL REPORT

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

Date: *28-May-97*  
COC No.: *5557*  
Sample No.: *14666*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - McCoy A1A*  
Project Location: *9705201600; MW-6*  
Sampled by: *MS/MG* Date: *20-May-97* Time: *16:00*  
Analyzed by: *DC* Date: *22-May-97*  
Sample Matrix: *Liquid*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/L	0.2	ug/L
<i>Toluene</i>	ND	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	ND	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	ND	ug/L	0.2	ug/L
<i>o-Xylene</i>	ND	ug/L	0.2	ug/L
<i>TOTAL</i>	ND	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: *5-28-97*

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667



LAB: (505) 325-1556

### QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 22-May-97

Internal QC No.: 0527-STD

Surrogate QC No.: 0528-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

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	17.7	11	15%
Toluene	ppb	20.0	18.1	9	15%
Ethylbenzene	ppb	20.0	18.3	9	15%
m,p-Xylene	ppb	40.0	35.0	13	15%
o-Xylene	ppb	20.0	18.2	9	15%

#### Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	96	80	(39-150)	7	20%
Toluene	97	85	(46-148)	7	20%
Ethylbenzene	95	83	(32-160)	6	20%
m,p-Xylene	94	81	(35-145)	6	20%
o-Xylene	95	83	(35-145)	6	20%

#### Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
14661-5557	87				
14662-5557	95				
14663-5557	95				
14664-5557	102				
14665-5557	95				(12)
14666-5557	95				52010-

S1: Fluorobenzene

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

**TECHNOLOGIES. LTD.**

Distribution:	White – On Site	Yellow – LAB	Pink – Sampler	Goldenrod – Client
---------------	-----------------	--------------	----------------	--------------------