

3R - 332

# REPORTS

DATE:

Nov. 1, 1999

Public Service Company  
of New Mexico  
603 W. Elm - P.O. Box 4750  
Farmington, NM 87499  
505 950-1997  
Fax 505 325-7365

November 1, 1999

Oil Conservation Division  
Attention: Bill Olson  
2040 South Pacheco  
Santa Fe, NM 87505



Subject: OCD Closure Reports - 3rd Reporting Quarter, 1999

Dear Mr. Olson:

PNM Environmental Services is submitting closure reports to the Oil Conservation Division for the groundwater sites listed below:

1. Florance #32A
2. Jacques #2A
3. Linda #1A
4. Mangum #1E
5. McClanahan #22
6. McCoy Gas Com A #1
7. Reid #16 Drip

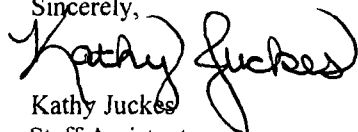
I have provided copies of the closures to Denny Foust for his information.

I have also enclosed copies of closures submitted to Denny Foust for his approval for the sites listed below:

- |                            |                           |                       |                         |
|----------------------------|---------------------------|-----------------------|-------------------------|
| 1. Angel Peak #23E         | 20. Dusenberry #2A        | 39. Grenier #12       | 58. Hanks #12E East     |
| 2. Aztec SRC #8 Drip       | 21. East #10M             | 40. Grenier #13E      | 59. Hanks #12Y          |
| 3. C.M. Morris #3          | 22. East #12              | 41. Grenier #15       | 60. Hanks #17           |
| 4. Crouch Area Drip East   | 23. East #15              | 42. Grenier #15E      | 61. Hare #12            |
| 5. Crouch Area Drip West   | 24. East #16              | 43. Grenier #2A       | 62. Hare #13            |
| 6. Culpepper Martin #10A   | 25. East #22              | 44. Grenier #3        | 63. Hare #15            |
| 7. Culpepper Martin #15A   | 26. East #22A             | 45. Grenier #4 Dehy   | 64. Hare #16            |
| 8. Culpepper Martin #1A GC | 27. East #5               | 46. Grenier #4A Sep   | 65. Hare #17            |
| 9. Culpepper Martin #1A RH | 28. East #8               | 47. Grenier #6A       | 66. Hare #18 East       |
| 10. Culpepper Martin #1E   | 29. East #9A              | 48. Grenier A #1A Sep | 67. Hare #22A           |
| 11. Culpepper Martin #3A   | 30. Eaton Federal #1      | 49. Grenier A #4      | 68. Holder A #1         |
| 12. Culpepper Martin #3M   | 31. EH Pipken #5          | 50. Grenier A #4E     | 69. Horton #1           |
| 13. Culpepper Martin #4A   | 32. EH Pipken #5 Drip     | 51. Grenier A #5      | 70. Horton #1A          |
| 14. Culpepper Martin #4M   | 33. Federal #1E           | 52. Grenier A #6      | 71. Hubbard #1A         |
| 15. Culpepper Martin #8A   | 34. Florance #25          | 53. Grenier A #8      | 72. Jackson #2E         |
| 16. Decker #4A Dehy        | 35. Florance #27A         | 54. Grenier B #3E     | 73. Kutz Government #5J |
| 17. Decker A #3 Drip       | 36. Fred Feasel G #1      | 55. Grenier B #4      | 74. Martinez #1         |
| 18. Decker A #3 Separator  | 37. Fred Feasel G #1 Drip | 56. Gross #1          |                         |
| 19. Dusenberry #1A         | 38. Fred Feasel G #1E     | 57. Gross #1E         |                         |

If you have any questions, please call me at 324-3764.

Sincerely,

  
Kathy Juckes  
Staff Assistant

cc: Denny Foust

<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 Gas Com A #1</u>			
<b>Location:</b>	Unit <u>H</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 type="checkbox"/>	Other <u>No equip on site.</u>
<b>Land Type:</b>	BLM <input type="checkbox"/>	State <input type="checkbox"/>	Fee <input checked="" type="checkbox"/> Other <u></u>
<b>Pit Location:</b> Pit dimensions: length <u></u> width <u></u> depth <u></u>			
(Attach diagram)	Reference:	wellhead <input checked="" type="checkbox"/>	other <u></u>
Footage from reference:		<u>115'</u>	
Direction from reference:		<u>15</u> Degrees <input type="checkbox"/> East	North <input type="checkbox"/>
		<input checked="" type="checkbox"/> West	South <input checked="" type="checkbox"/>
of			
<b>Depth to Ground Water:</b>			
(Vertical distance from contaminants to seasonal high water elevation of ground water)		Less than 50 feet	(20 points)
		50 feet to 99 feet	(10 points)
		Greater than 100 feet	( 0 points)
			<u>20</u>
<b>Wellhead Protection Area:</b>			
(Less than 200 feet from a private domestic water source, or, less than 1,000 feet from all other water sources)		Yes	(20 points)
		No	( 0 points)
			<u>20</u>
<b>Distance to Surface Water:</b>			
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)		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 Gas Com A #1

Date Remediation Started: 05/21/1997

Date Completed: 05/23/1997

Remediation Method: Excavation

X

Approx. Cubic Yard 637

(Check all appropriate sections)

Landfarmed

X

Amount Landfarmed (cubic yds) 325

Other

312 cu yds overburden.

Remediation Location:

Onsite

Offsite

X - 325 cu yds hauled to Tierra  
Environmental.

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

Backfill Material Location:

General Description of Remedial Action:

Former pit covered over - marked by a T-Post. Excavated contaminated soil to a pit size of 37' X 31' X 15' and transported soil to an offsite commercial landfarm.

Ground Water Encountered:

No



Yes



Depth

15'

Final Pit Closure  
Sampling:

Sample Location

Middle of pit.

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

Sample depth

15'

Sample date

05/23/1997

Sample time

8:00:00 AM

Sample Results

Benzene (ppm)

0.875

Total BTEX (ppm)

8.018

Field headspace (ppm)

TPH (ppm)

Method

8020A

Vertical Extent (ft)

Risk Analysis 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 October 28, 1999

SIGNATURE

*Maureen Gannon*

PRINTED NAME Maureen Gannon  
AND TITLE Project Manager

## **Groundwater Site Summary Report**

Quarter/Year: 4<sup>th</sup>/98, 1<sup>st</sup>/99, 2<sup>nd</sup>/99 & 3<sup>rd</sup>/99

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

Operator: Amoco  
Sec: 18 Twn: 31N Rng: 10W Unit: H  
Canyon: Animas River

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

Topo Map: Figure 1

Site Map with Analysis: Figure 2

Groundwater Contour Map: Figure 3 (November 1998), Figure 4 (January 1999), Figure 5 (April 1999) & Figure 6 (August 1999)

Groundwater Hydrograph Figure 7

Full-Suite Groundwater Sampling Results: previously submitted

Analytical Results: attached 2<sup>nd</sup>/99 & 3<sup>rd</sup>/99 only

Well Completion Diagram/Log: TMW-1 only

North Star Water Users Assoc. Analytical Results: attached

### **Site Hydrology:**

The McCoy Gas Com A1 site (Figure 1) lies upon coarse, alluvial floodplain deposits of the Animas River valley, and is located northeast of Aztec, New Mexico. Materials beneath the site are essentially the same as the modern river's bedload, spanning the broad alluvial plains along the major river systems of the San Juan Basin (Stone et al., 1983). The valley floor of the Animas is about one mile wide near the McCoy site. Hydraulic conductivity of these materials is expected to be very high, as they are described as "cobbles" in site excavations and monitor wells.

Irrigation ditches skirt the south and west sides of the site. Recharge to groundwater is likely from drainage of these irrigated lands. The site lies about 100 feet from the river's waterline. The site elevation is about 5775 ft. amsl, while the river is perhaps 10 to 15 feet lower in elevation. Depth to water has ranged from 10 to 14 feet in site monitor wells. Topographic gradient is north to northwest, towards the Animas River.

The local groundwater gradient varies from northeast to southwest depending upon the time of year. During November of 1998 (Figure 3) and August of 1999 (Figure 6), groundwater gradient flows in a northeasterly direction. This may be attributed to low flow on the Animas River and may also be attributed to recharge from Arch Rock Canyon, to the east. It may also be an anomaly of the data representation on the contour map since the groundwater gradient in the fall and the winter is much flatter, and groundwater flow appears to be practically static.

The groundwater gradient during January 1999 (Figure 4) and April 1999 (Figure 5) flows in a southwesterly direction. However, the gradient again is relatively flat indicating a practically static water table surface during wintertime conditions near PNM's former pit area.

The site hydrograph (Figure 7) indicate large fluctuations over time in site water levels (more than three feet over the last two years). Highest water levels were observed during spring of 1998, probably reflecting irrigation leakage, and/or high river stage from spring snowmelt. Lowest water levels are found during the winter months.

### **Activities for Previous Year:**

Since our last reporting in April of 1999, PNM conducted quarterly sampling on April 21, 1999 and again on August 10, 1999. Water level measurements were taken in all of the monitoring wells. PNM conducted groundwater sampling for chemical analyses of benzene, toluene, ethylbenzene, and xylenes (BTEX). All sampling was performed in strict compliance with EPA protocol. PNM delivered the samples to OnSite Technologies,

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### **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

## PNMGS Well Site: McCoy Gas Com A1 (continued)

Farmington, New Mexico. The samples were analyzed for BTEX using EPA Method 8021B. During the April sampling event only monitor wells MW-2 and MW-4 were sampled. Wells MW-1 and MW-3 had already established concentrations below WQCC standards for four consecutive quarters.

On July 28, 1999, PNM installed a temporary monitor well northeast of our former dehydrator pit in line with the North Star water treatment intake. This well was installed to alleviate any potential concerns regarding impacts to the treatment system. Figure 2 shows the exact location of this well. In addition, PNM interviewed the North Star Water Association and requested analytical data for Safe Drinking Water Act (SDWA) Volatiles collected from the treatment system over the last three years. The results are provided as attachment.

On August 10, 1999, PNM performed quarterly monitoring again. All wells were sampled, including the new temporary well, TMW-1.

### **Results:**

Figure 2 presents a site map showing BTEX concentrations for each monitoring well since groundwater contamination was discovered. MW-1, the upgradient well, has shown "non-detect" for BTEX since it's installation. BTEX concentrations in MW-2, -3 and -4 have decreased over time; after secondary source removal in March, 1998 all wells have remained below standards for four consecutive quarters. Resampling of all monitor wells, including temporary monitor well, TMW-1, show that BTEX compounds are below standards at the site.

### **Future Actions:**

Consistent with PNM's San Juan Basin Groundwater Management Plan, PNM requests closure of the McCoy Gas Com A1. This request is based upon the analytical data collected over the last two years at the site. The excavation of source materials appears to have been successful in achieving clean-up at the McCoy Gas Com A1. BTEX concentrations in all wells have been below standards for four consecutive quarters.

Upon approval of the groundwater closure report, PNM will plug and abandon the five groundwater monitoring wells at the site. The concrete pad and metal vault surrounding each well will be removed. The well casing will be cut to ground surface and each well will be plugged to the surface with cement containing 5% bentonite.

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Environmental Services Division - Alvarado Square, MS-0408  
Albuquerque, NM 87158

**Contact: Maureen Gannon**

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Analytical Results: attached 2<sup>nd</sup>/99 & 3<sup>rd</sup>/99 only  
Well Completion Diagram/Log: TMW-1 only  
North Star Water Users Assoc. Analytical Results: attached

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### **Public Service Company of New Mexico - Gas Services**

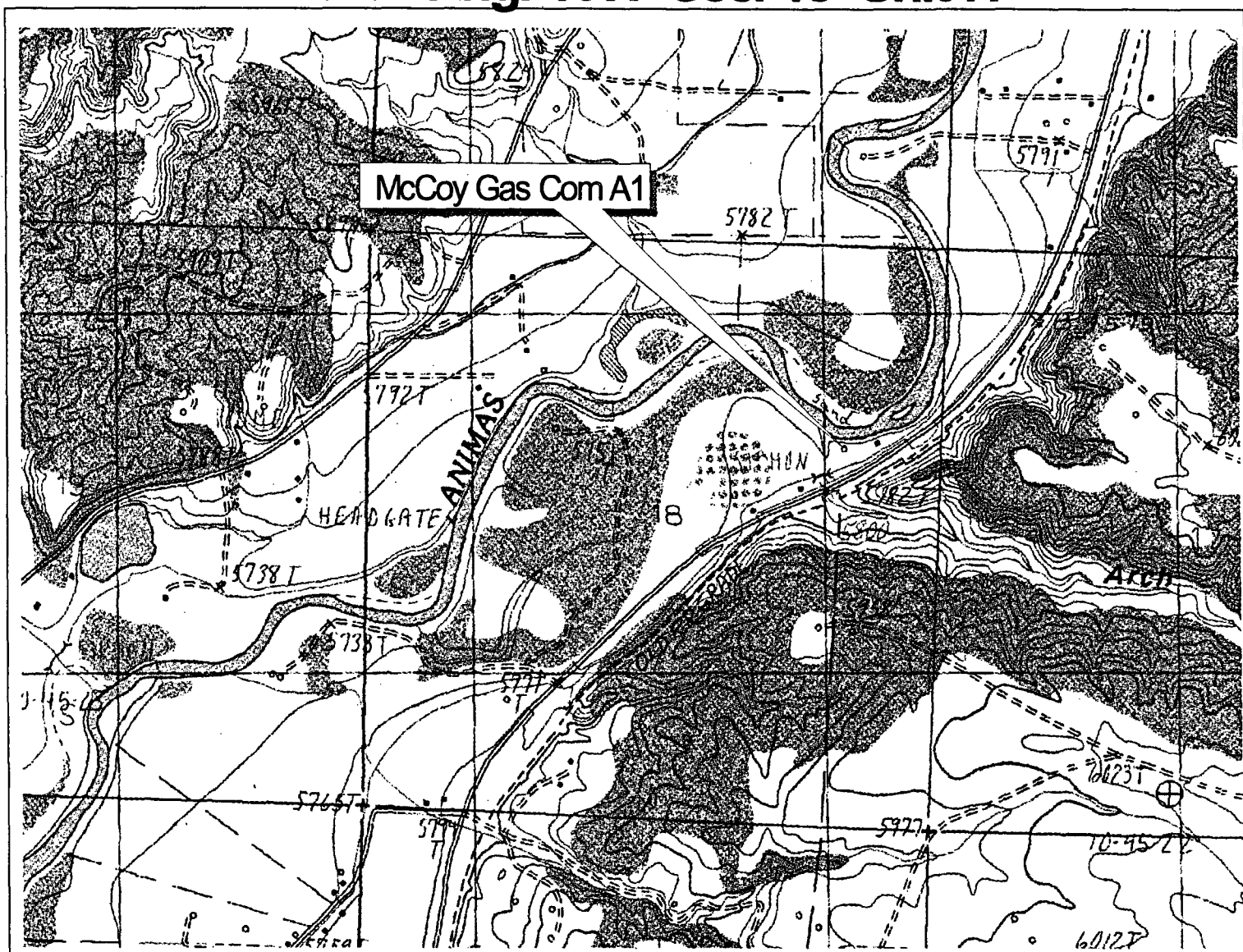
Environmental Services Division - Alvarado Square, MS-0408  
Albuquerque, NM 87158

Contact: Maureen Gannon

Telephone: 505-241-2974



**Figure 1. McCoy Gas Com A1  
Twn. 31N Rng. 10W Sec. 18 Unit H**



**Cedar Hill, NM-Colo Quadrangle**

0 0.2 0.4 0.6 0.8 Miles

A horizontal scale bar with markings at 0, 0.2, 0.4, 0.6, and 0.8 miles.

Figure 2.  
McCoy Gas Com A1 Site Map & Analytical Results (ppb)

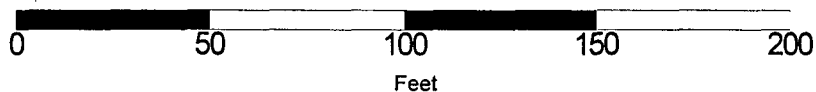
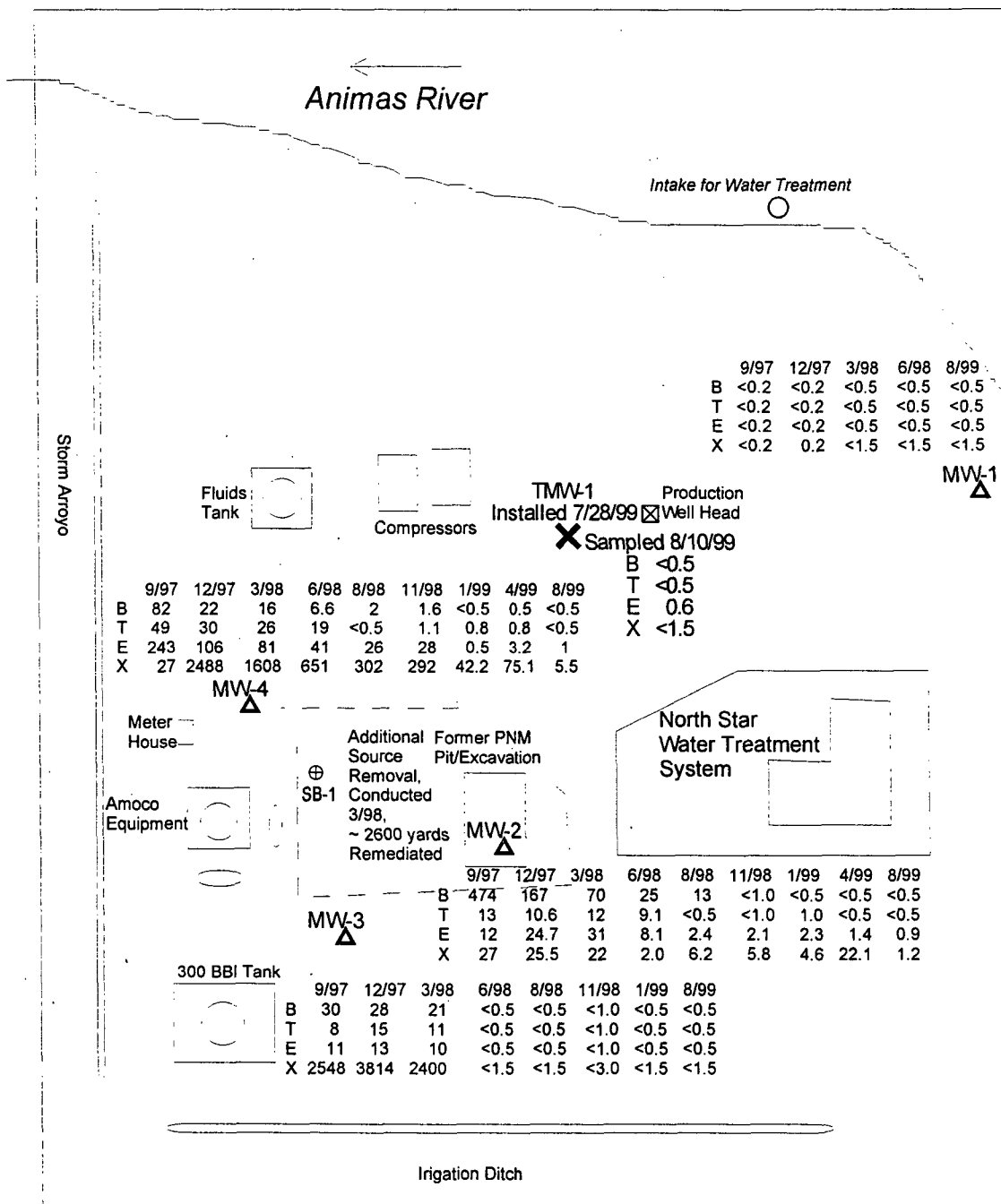


Figure 3.  
McCoy Gas Com A1 Groundwater contour Map  
(November 11, 1998)

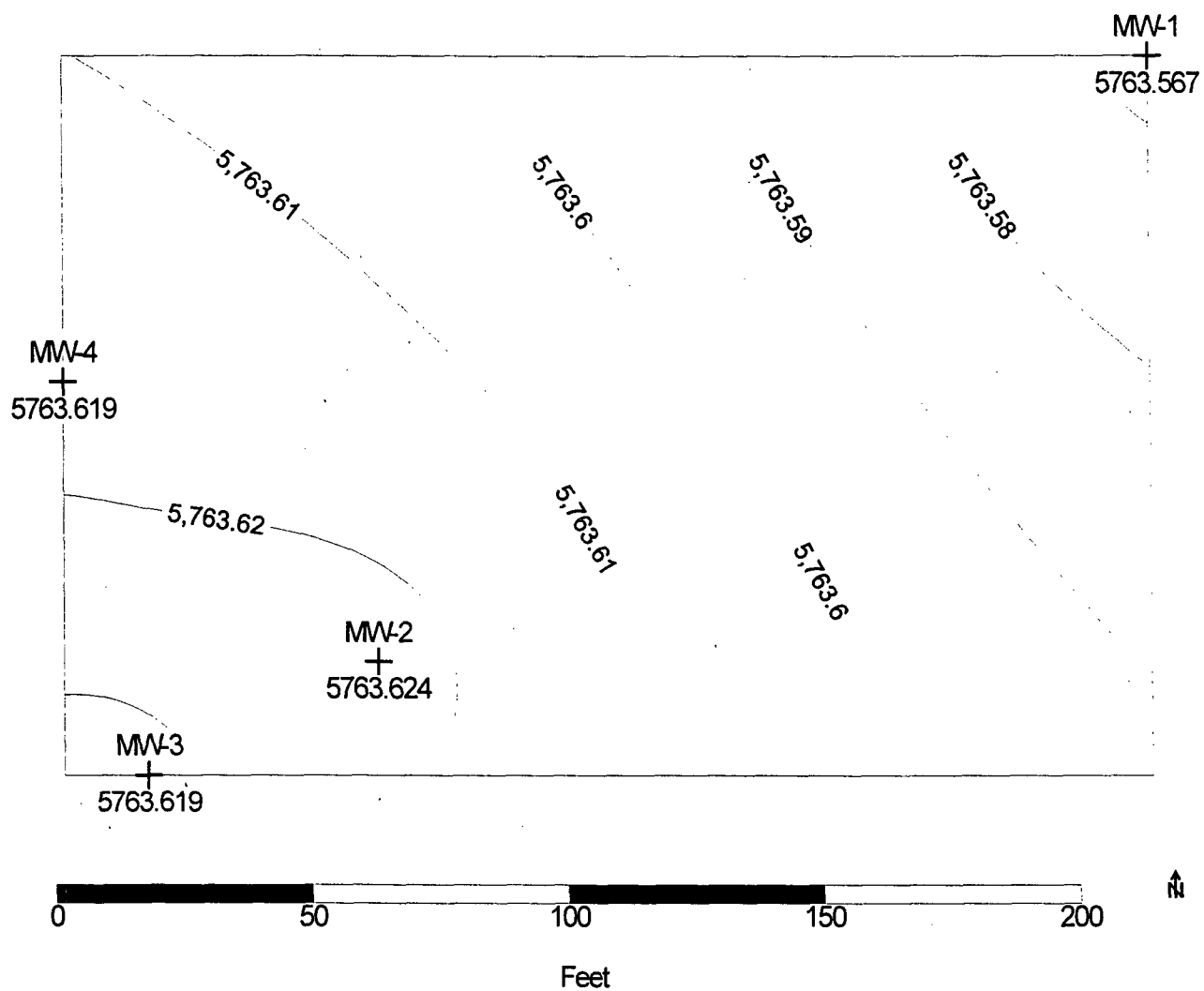


Figure 4.  
McCoy Gas Com A1 Groundwater contour Map  
(January 21, 1999)

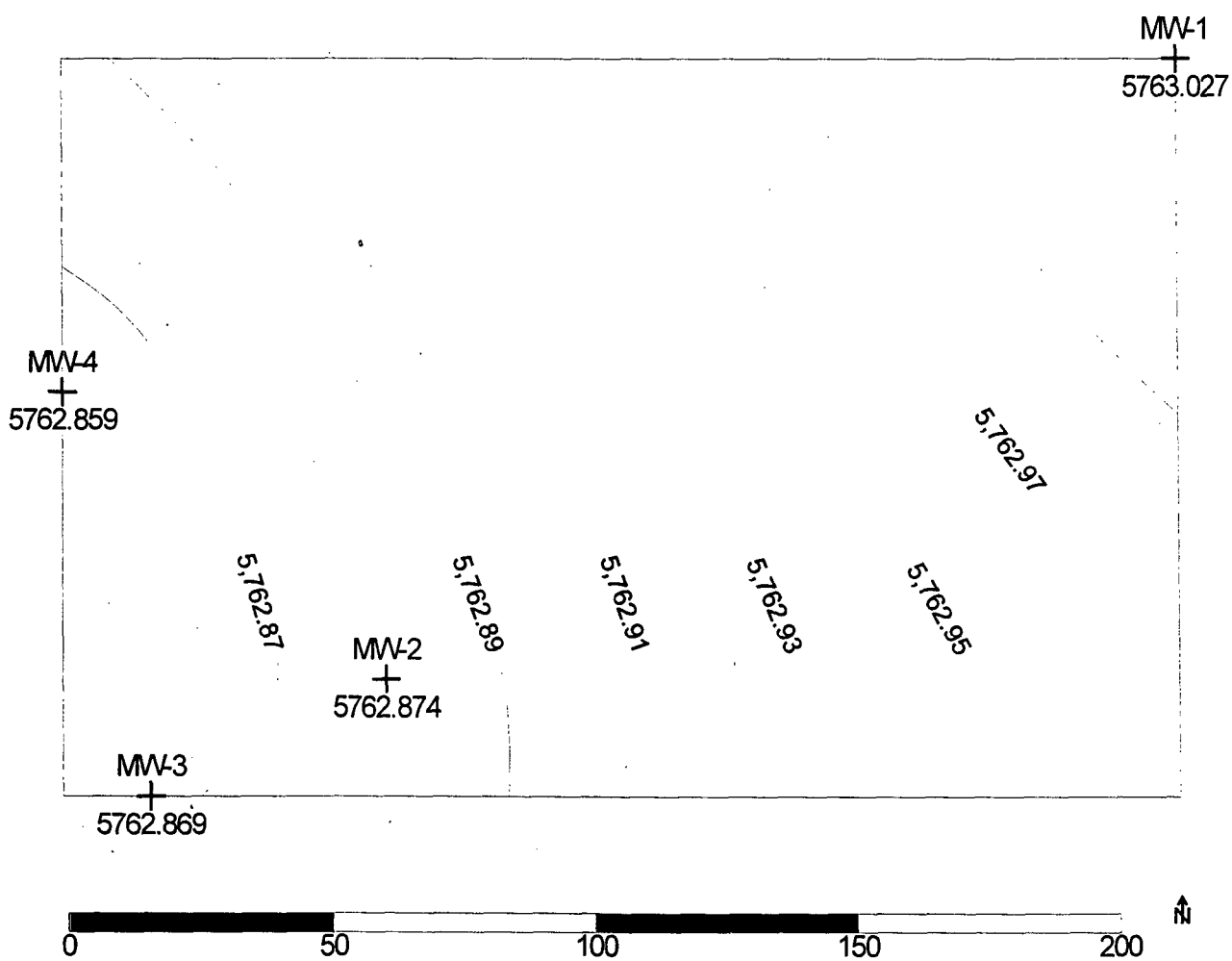


Figure 5.  
McCoy Gas Com A1 Groundwater contour Map  
(April 21, 1999)

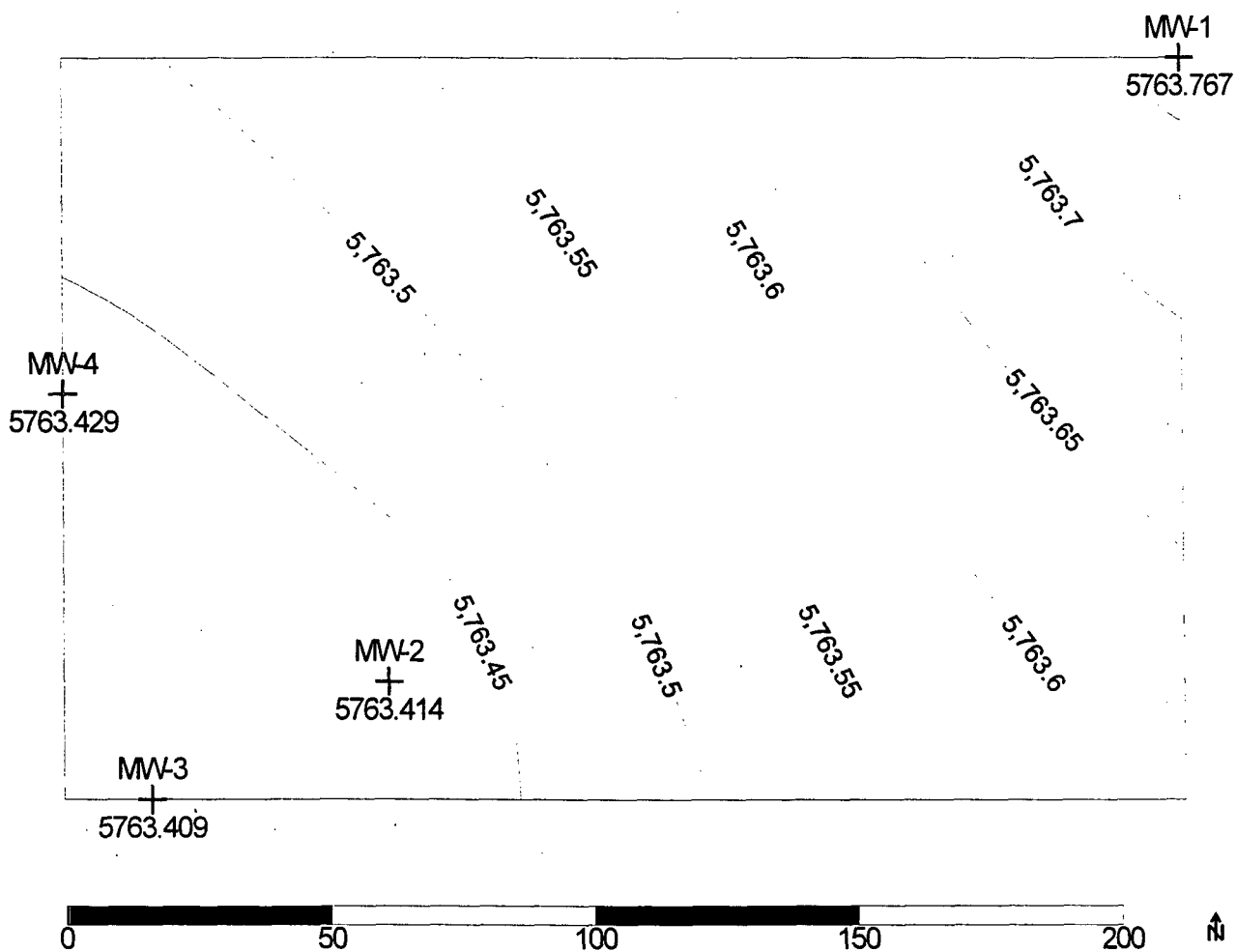
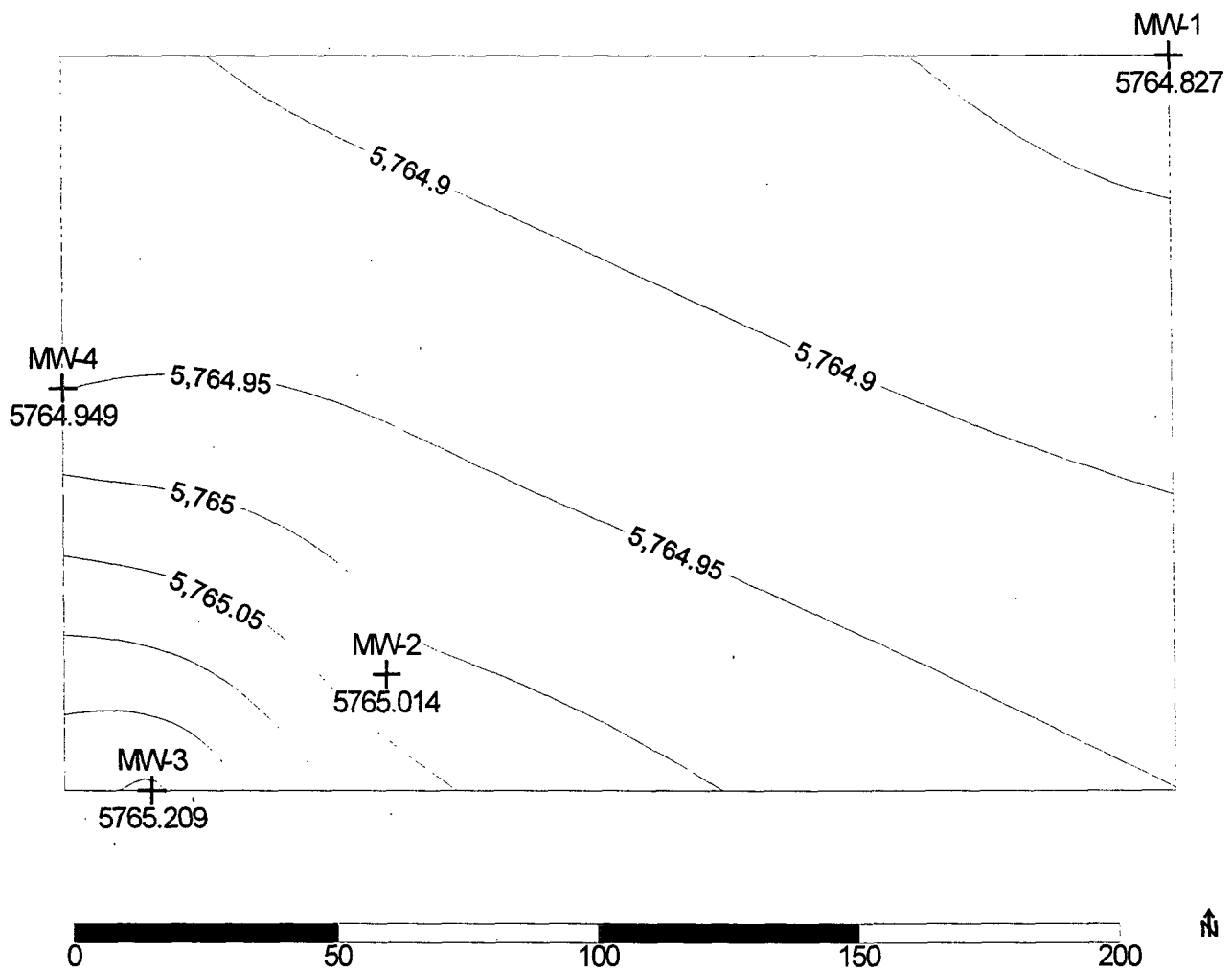
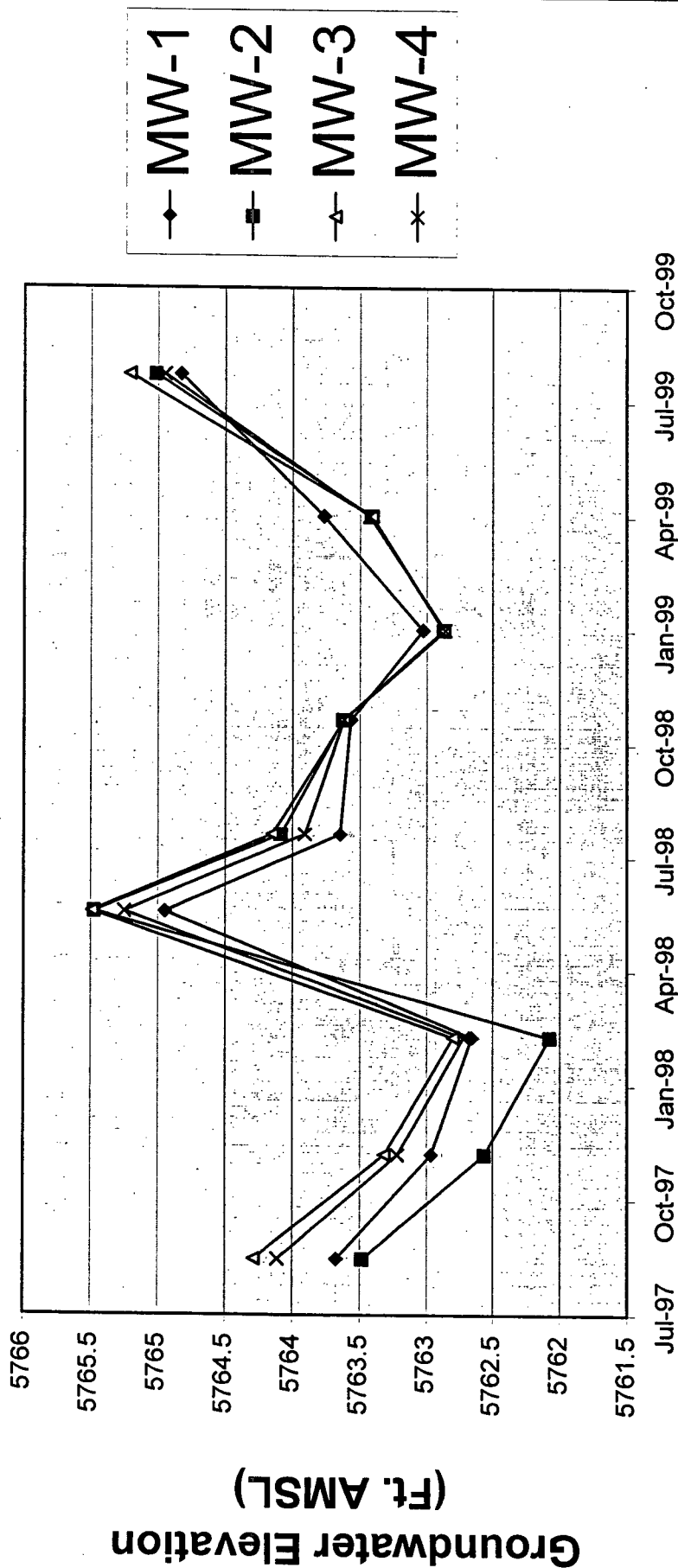


Figure 6.  
McCoy Gas Com A1 Groundwater contour Map  
(August 10, 1999)



# Figure 7. McCoy Gas Com A1 Hydrograph



# RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2282 FAX (505) 326-2388

Borehole #

Well #

Page

1

TEMP #1

1 of 2

Project Name

Project Number

Project Location

PNM WELL INSTALLATION

21300 Phase G001

MCCOY GAS COM AT#1 AMOC

Well Logged By

Personnel On-Site

Contractors On-Site

Client Personnel On-Site

C. CULLICOTT

K. PADILLA D. PADILLA

GARY COOT

Drilling Method

Air Monitoring Method

AUGER

P.O

Elevation

Borehole Location SEC 18 T31N R20W M

GWL Depth 13.72 - TOC 2.9 = 10.82'

Logged By C. CULLICOTT

Drilled By K. PADILLA, D. PADILLA

Date/Time Started 7/28/99 7:40 am

Date/Time Completed 7/28/99 9:00 am

Depth (Feet)	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU			Drilling Conditions & Blow Counts
0			SURFACE: SAND			BZ	BH	S	
5	1		① BROWN SILTY CLAY, CLEAN WITH A SMALL % SAND.						SS = 0 0 BLOWS
10	2		② BROWN CLAY w/minor SILT @ 10', 11 1/2 - 12' INCREASINGLY WET GRAVELS (SANDY GRAVEL).						31 BLOWS
15			HIT COBBLES ~12'						
20			TD 15'						
25									
30									
35									
40									

Comments:

MONITOR WELL #2 NEARBY, 10.8' DTW

SUNNY, COOL. SITE 50' FROM ANIMAS RIVER

Geologist Signature

Cathy Cullcott

# MONITORING WELL INSTALLATION RECORD

Philip Environmental Services Corp.  
4000 Monroe Road  
Farmington, New Mexico 87401  
(505) 326-2262 FAX (505) 326-2388

Borehole # \_\_\_\_\_  
Well # TEMP 1  
Page 2 of 2

Project Name PNM WELL INSTALLATION

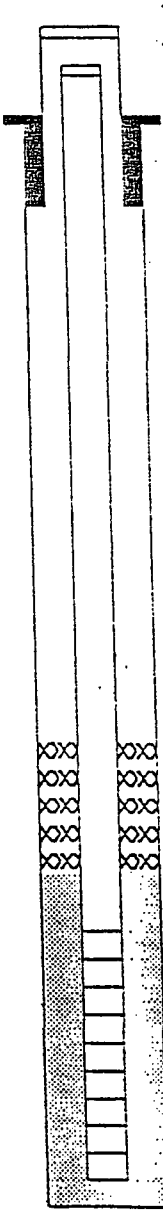
Project Number 21300 Phase GOOL  
Project Location MCCOY GAS COM A#1 AMOCC

On-Site Geologist C. CULLICOTT  
Personnel On-Site K. PADILLA, D. PADILLA  
Contractors On-Site \_\_\_\_\_  
Client Personnel On-Site GARY COOK

Elevation \_\_\_\_\_  
Well Location S 18, T 31 N, R 10 W, H  
GWL Depth 13.72 - TOC 2.9 = 10.82'  
Installed By K. PADILLA, D. PADILLA

Date/Time Started 7/28/99 7:45am  
Date/Time Completed 7/28/99 9:00am

Depths in Reference to Ground Surface		
Item	Material	Depth
Top of Protective Casing		
Bottom of Protective Casing		
Top of Permanent Borehole Casing		
Bottom of Permanent Borehole Casing		
Top of Concrete		
Bottom of Concrete		
Top of Grout		
Bottom of Grout		
Top of Well Riser		GS
Bottom of Well Riser		5'
Top of Well Screen		5'
Bottom of Well Screen		15'
Top of Peltonite Seal		GS
Bottom of Peltonite Seal		3'
Top of Gravel Pack		3'
Bottom of Gravel Pack		15'
Top of Natural Cave-In		
Bottom of Natural Cave-In		
Top of Groundwater		10.82'
Total Depth of Borehole		15'



Top of Protective Casing \_\_\_\_\_

Top of Riser \_\_\_\_\_

Ground Surface \_\_\_\_\_

Top of Seal GS

Top of Gravel Pack 3'

Top of Screen 5'

Bottom of Screen 15'

Bottom of Borehole 15'

Comments: \_\_\_\_\_

Geologist Signature

Cathy Cullicott

## SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700  
Albuquerque, NM 87196-4700700 Camino de Salud, NE  
[505]-841-2500

WATER CHEMISTRY SECTION [505]-841-2555

March 26, 1997

Request  
ID No. 189547**ANALYTICAL REPORT**  
**SLD Accession No. WC-97-0608**Distribution☒ User 55000  
☒ Submitter 67  
☒ Client  
☒ SLD Files

To: North Star Water Users Assoc.  
Box 1120  
Aztec, NM 87410

From: Water Chemistry Section  
Scientific Laboratory Division  
700 Camino de Salud, NE  
P.O. Box 4700  
Albuquerque, NM 87196-4700

Re: A water sample submitted to this laboratory on February 28, 1997

User:

Barbara Giesler  
Drinking Water Bureau  
NM-ED Office; Suite 4  
525 Camino de Los Marquez  
Santa Fe, NM 87502

Submitter:

David Tomko  
ED Field Office, Farmington  
724 W. Animas St.  
Farmington, NM 87401

**DEMOGRAPHIC DATA**

<u>COLLECTION</u>		<u>LOCATION</u>
On: 25-Feb-97	By: Clo...	WSS #: 200-24; Treatment Plant Source ID:2
At: 14:33 hrs.	In/Near:	North Star Water Users Assoc.

**ANALYTICAL RESULTS**

<u>Analysis</u>	<u>Value</u>	<u>D. Lmt.</u>	<u>Units</u>
nitrate+ite as N	< 0.10		mg/L

Reviewed By: \_\_\_\_\_

Diana Suvannunt, Ph.D. 03/26/97  
Supervisor, Water Chemistry Section

## SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700

700 Camino de Salud, NE

Albuquerque, NM 87196-4700

[505]-841-2500

WATER CHEMISTRY SECTION [505]-841-2555

March 5, 1997

Request  
ID No. 189540**ANALYTICAL REPORT**  
**SLD Accession No. WC-97-0618**Distribution

- (x) User 55000  
(x) Submitter 67  
(x) Client  
(x) SLD Files

To: North Star Water Users Assoc.  
Box 1120  
Aztec, NM 87410

From: Water Chemistry Section  
Scientific Laboratory Division  
700 Camino de Salud, NE  
P.O. Box 4700  
Albuquerque, NM 87196-4700

Re: A water sample submitted to this laboratory on February 28, 1997

User:

Barbara Giesler  
Drinking Water Bureau  
NM-ED Office; Suite 4  
525 Camino de Los Marquez  
Santa Fe, NM 87502

Submitter:

David Tomko  
ED Field Office, Farmington  
724 W. Animas St.  
Farmington, NM 87401

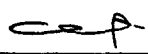
**DEMOGRAPHIC DATA**

<u>COLLECTION</u>		<u>LOCATION</u>
On: 25-Feb-97	By: Clo...	WSS #: 200-24; Treatment Plant Source ID:2
At: 14:32 hrs.	In/Near:	North Star Water Users Assoc.

**ANALYTICAL RESULTS**

<u>Analysis</u>	<u>Value</u>	<u>D. Lmt.</u>	<u>Units</u>
fluoride	0.30		mg/L

Reviewed By:

  
Diana Suvannunt, Ph.D. 03/05/97  
Supervisor, Water Chemistry Section

## SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700  
Albuquerque, NM 87196-4700

700 Camino de Salud, NE  
[505] 841-2500

ORGANIC CHEMISTRY SECTION (505) 841-2570

REPORT TO CLIENT: ☒

North Star Water Users Assoc.

Box 1120

Aztec, NM 87410

ED FIELD OFFICE: ☐

ED Field Office, Farmington

724 W. Animas St.

Farmington, NM 87401

SLD No.: OR- 9700425

REQUEST ID No.: 189542

RECEIVED AT SLD: 2/28/97

☐ SLD COPY

USER

55000

☐ N.M.E.D. DRINKING WATER BUREAU

Barbara Giesler

Drinking Water Bureau

NMED

525 Camino de los Marquez, Suite 4

Santa Fe NM 87502

SAMPLE COLLECTION: DATE: 2/25/97 TIME: 1427 BY: Clo

SAMPLING LOCATION: Treatment Plant Source ID#2

WSS #: 20024

REPORTING UNITS: ug/L

Remarks: Sample marked as: being preserved with Hydrochloric Acid;  
No targeted compounds were detected in this sample.

## EPA METHOD 502.2 SDWA VOLATILES BY GAS CHROMATOGRAPHY (PID/ELCD)

DATE EXTRACTED: N/A

DATE ANALYZED: 3/7/97

10 Days: Within EPA Analysis Time

SAMPLE VOL (ml): 5

0

ANALYSIS No.: OR- 9700425

SLD BATCH No.: 73

DILUTION FACTOR: 1.00

REQUEST ID No.: 189542

SAMPLE PRESERVATION: Sample Temperature when received: 5 Degrees C.; pH = 1

CAS #	ANALYTE NAME	CONC. (ug/L)	QUAL	SDL	MCL
71-43-2	Benzene		U	0.50	5
108-86-1	Bromobenzene		U	0.50	
74-97-5	Bromochloromethane		U	0.50	
75-27-4	Bromodichloromethane*		U	0.50	80
75-25-2	Bromoform*		U	0.50	80
24-83-9	Bromomethane		U	0.50	
78-93-3	2-Butanone (MEK)		U	5.00	
104-51-8	n-Butylbenzene		U	0.50	
135-98-8	sec-Butylbenzene		U	0.50	
98-06-6	tert-Butylbenzene		U	0.50	
1634-04-4	tert-Butyl methyl ether (MTBE)		U	5.00	
56-23-5	Carbon tetrachloride		U	0.50	5
108-90-7	Chlorobenzene (monochlorobenzene)		U	0.50	100
75-00-3	Chloroethane		U	0.50	
67-66-3	Chloroform*		U	0.50	80
74-87-3	Chloromethane		U	0.50	
95-49-8	2-Chlorotoluene		U	0.50	
106-43-4	4-Chlorotoluene		U	0.50	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		U	0.50	0.2
124-48-1	Dibromochloromethane*		U	0.50	80
106-93-4	1,2-Dibromoethane (Ethylene dibromide (EDB))		U	0.50	0.05
74-95-3	Dibromomethane		U	0.50	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)		U	0.50	600
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)		U	0.50	600
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)		U	0.50	75
75-71-8	Dichlorodifluoromethane		U	0.50	
75-34-3	1,1-Dichloroethane		U	0.50	
107-06-2	1,2-Dichloroethane		U	0.50	5

75-35-4	1,1-Dichloroethene		U	0.50	7
156-59-2	cis-1,2-Dichloroethene		U	0.50	70
156-60-5	trans-1,2-Dichloroethene		U	0.50	100
78-87-5	1,2-Dichloropropane		U	0.50	5
142-28-9	1,3-Dichloropropane		U	0.50	
590-20-7	2,2-Dichloropropane		U	0.50	
563-58-6	1,1-Dichloropropene		U	0.50	
1006-01-5	cis-1,3-Dichloropropene		U	0.50	
1006-02-6	trans-1,3-Dichloropropene		U	0.50	
100-41-4	Ethylbenzene		U	0.50	700
87-68-3	Hexachlorobutadiene		U	0.50	
98-82-8	Isopropylbenzene		U	0.50	
99-87-6	4-Isopropyltoluene		U	0.50	
75-09-2	Methylene chloride (Dichloromethane)		U	0.50	5
91-20-3	Naphthalene		U	0.50	
103-65-1	Propylbenzene		U	0.50	
100-42-5	Styrene		U	0.50	100
630-20-6	1,1,1,2-Tetrachloroethane		U	0.50	
79-34-5	1,1,2,2-Tetrachloroethane		U	0.50	
127-18-4	Tetrachloroethene		U	0.50	5
109-99-9	Tetrahydrofuran (THF)		U	5.00	
108-88-3	Toluene		U	0.50	1000
87-61-5	1,2,3-Trichlorobenzene		U	0.50	
120-82-1	1,2,4-Trichlorobenzene		U	0.50	70
71-55-6	1,1,1-Trichloroethane		U	0.50	200
79-00-5	1,1,2-Trichloroethane		U	0.50	5
79-01-6	Trichloroethene		U	0.50	5
75-69-4	Trichlorofluoromethane		U	0.50	
96-18-4	1,2,3-Trichloropropane		U	0.50	
95-63-6	1,2,4-Trimethylbenzene		U	0.50	
108-67-8	1,3,5-Trimethylbenzene		U	0.50	
75-01-4	Vinyl chloride		U	0.50	2
95-47-6	o-Xylene		U	0.50	
N/A	p- & m-Xylene		U	0.50	
N/A	"Total of Xylenes above"	0.0	U	0.50	10000
N/A	"Total of Trihalomethanes above"	0.0	U	0.50	100

LABORATORY BATCH QUALITY CONTROL SUMMARY			
SURROGATE	SURROGATE COMPOUNDS	CONCENTRATION	% RECOVERY
RECOVERIES:	2-Bromochlorobenzene (Photoionization Detector Surrogate)	10.56	105.6%
	2-Bromochlorobenzene (Electrolytic Conductivity Detector Surrogate)	9.36	93.6%
LABORATORY FORTIFIED BLANK RECOVERIES	The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compound(s) listed below: <div> <div>COMPOUND</div> <div>CONCENTRATION (ug/L)</div> <div>% RECOVERY</div> </div> sec-Butylbenzene 10 46		
LABORATORY BLANKS	No target compounds were detected above the sample detection limit in laboratory blank with the exception of the compound(s) listed below: <div> <div>COMPOUND</div> <div>CONCENTRATION (ug/L)</div> </div> No Exceptions		

ANALYST: S. A. Mustafa

QC APPROVED BY: Ken Sherrell

#### DEFINITIONS

CAS#	Concentration Exceeds EPA's allowable Maximum Contamination Level
CONC.	Chemical Abstract Services Number - Unique number to help identify analytes listed by different names
QUAL	Concentration (ug/L) of analyte actually detected in the sample
	Qualifier of analytical results as follows:
	B Analyte was detected in laboratory blank
	J Analyte was detected at a level below which an accurate quantitation can be given ( -5 * SDL)
	U No analyte was detected above the Sample Detection Limit.
MCL	Maximum Contamination Level Allowed by EPA for SDWA regulated analytes
SDL	Sample Detection Limit - The lowest concentration which can be differentiated from Zero with 99% confidence taking sample size (compositing) into account.
ug/L	Concentration Units - micrograms per liter which is approximately equivalent to Parts Per Billion (ppb)

**SCIENTIFIC LABORATORY DIVISION**  
P.O. Box 4700 700 Camino de Salud, NE  
Albuquerque, NM 87196-4700 [505]-841-2500  
WATER CHEMISTRY SECTION [505]-841-2555

April 16, 1997

Request  
ID No. 189560

**ANALYTICAL REPORT**  
**SLD Accession No. WC-97-0614**

Distribution

(x) User 55000  
(x) Submitter 67  
(x) Client  
(x) SLD Files

To: North Star Water Users Assoc.  
Box 1120  
Aztec, NM 87410

From: Water Chemistry Section  
Scientific Laboratory Division  
700 Camino de Salud, NE  
P.O. Box 4700  
Albuquerque, NM 87196-4700

Re: A water sample submitted to this laboratory on February 28, 1997

User:

Barbara Giesler  
Drinking Water Bureau  
NM-ED Office; Suite 4  
525 Camino de Los Marquez  
Santa Fe, NM 87502

Submitter:

David Tomko  
ED Field Office, Farmington  
724 W. Animas St.  
Farmington, NM 87401

**DEMOGRAPHIC DATA**

<u>COLLECTION</u>	<u>LOCATION</u>
On: 25-Feb-97 By: Clo ...	WSS #: 200-24; Treatment Plant Source ID:2
At: 14:15 hrs. In/Near:	North Star Water Users Assoc.

**ANALYTICAL RESULTS**

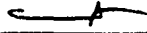
<u>Analysis</u>	<u>Value</u>	<u>D. Lmt.</u>	<u>Units</u>
calcium	64.00		mG/L
magnesium	12.00		mG/L
sodium	18.00		mG/L
potassium	5.10		mG/L
hardness	209.00		mG/L
alkalinity	113.00		mG/L
bicarbonate	138.00		mG/L
carbonate	0.00		mG/L
chloride	15.00		mG/L
sulfate	123.00		mG/L
color test	5.00		Units
conductivity	512.00		uS/cm
odor	0.00		Units
pH	7.88		pH units

Laboratory Remarks:

Iron <0.1 mg/L  
Manganese <0.05 mg/L

(Continued on page 2.)

Surfactants <0.01 mg/L  
Total Dissolved solids 320 mg/L  
Turbidity 58 NTU

Reviewed By:   
Diana Suvannunt, Ph.D. 04/16/97  
*Supervisor, Water Chemistry Section*

## SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700  
Albuquerque, NM 87196-4700700 Camino de Salud, NE  
[505]-841-2500

AIR &amp; HEAVY METALS SECTION [505]-841-2553

March 18, 1997

Request  
ID No. 189543**ANALYTICAL REPORT**  
**SLD Accession No. HM-97-0190**Distribution(x) User 55000  
(x) Submitter 67  
(X) Client  
(x) SLD FilesTo: North Star Water Users Assoc.  
Box 1120  
Aztec, NM 87410From: Air & Heavy Metals Section  
Scientific Laboratory Division  
700 Camino de Salud, NE  
P.O. Box 4700  
Albuquerque, NM 87196-4700

Re: A water sample submitted to this laboratory on February 28, 1997

User:Barbara Giesler  
Drinking Water Bureau  
NM-ED Office; Suite 4  
525 Camino de Los Marquez  
Santa Fe, NM 87502Submitter:David Tomko  
ED Field Office, Farmington  
724 W. Animas St.  
Farmington, NM 87401

## DEMOGRAPHIC DATA

COLLECTION		LOCATION
On: 25-Feb-97	By: Clo . . .	WSS #: 200-24; Treatment Plant Source ID:2
At: 14:31 hrs.	In/Near: none given	North Star Water Users Assoc.

## ANALYTICAL RESULTS

Analysis	Value	Units	Analyst
Mercury	< 0.0002	mg/L	
Selenium	< 0.0050	mg/L	
Beryllium	< 0.0010	mg/L	
Chromium	< 0.0010	mg/L	
Nickel	< 0.0100	mg/L	
Arsenic	< 0.0010	mg/L	
Cadmium	< 0.0010	mg/L	
Antimony	< 0.0010	mg/L	

Laboratory Remarks:Barium = <0.1 mg/L  
Thallium = <0.001 mg/L  
Mercury by method 245.1 on 3/11/97 by KF.  
Selenium by method 200.9 on 3/4/97 by RS.  
ICP-MS by method 200.8 on 3/12/97 by JFA for  
Be, Cr, Ni, As, Cd, Sb, Ba, and Tl.

Reviewed By:

Ron Amato 03/18/97  
Supervisor, Air & Heavy Metals Section



## SCIENTIFIC LABORATORY DIVISION

P.O Box 4700  
Albuquerque, NM 87196-4700700 Camino de Salud, NE  
(505) 841-2500

## WATER CHEMISTRY SECTION (505)-841-2555

SAMPLE COLLECTION DATE: 11/2/98

TIME: 0857

BY: Oak

SLD No.: WC-9805116

SAMPLING LOCATION: Plant

SAMPLE MATRIX: wdn

REQUEST ID No.: 2282432

RECEIVED AT SLD: 11/5/98

USER: 55000

SUBMITTER: 60

WSS #: 20024

This Copy of Report for::

North Star Water Users Assoc.  
Box 1120  
Aztec, NM 87410

## DISTRIBUTION TO:

Drinking Water Bureau (U)  
ED Dist #1 Office, Albuquerque (S)  
North Star Water Users Assoc. (C)  
Water Chemistry Section - File Copy

## ANALYTICAL RESULTS

Analyte	Result	Units	Analysis Date	Method	Minimum Level	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Fluoride	<0.4	mG/L	11/18/98	340.2	.1	1.	.1	Jay Finney	

*.35 actual*

## Laboratory Comments:

Reviewed by Paul Ortega  
Supervisor, Water Chemistry Section

Date Printed: 10-Dec-98

## Data Qualifier Codes and Definitions

- U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is the sample detection limit.
- J - The associated value is an estimated quantity.
- R - The data are unusable. (Note: Analyte may or may not be present.
- UJ - The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

Jay - Lab Tech has Requested Chg format for form info.



## SCIENTIFIC LABORATORY DIVISION

P.O Box 4700  
Albuquerque, NM 87196-4700700 Camino de Salud, NE  
(505) 841-2500

## WATER CHEMISTRY SECTION (505)-841-2555

SAMPLE COLLECTION DATE: 11/2/98TIME: 0900BY: OakSLD No.: **WC-9805132**SAMPLING LOCATION: PlantSAMPLE MATRIX: watREQUEST ID No.: 2282433RECEIVED AT SLD: 11/5/98USER: 55000SUBMITTER: 60WSS #: 20024

This Copy of Report for::

North Star Water Users Assoc.  
Box 1120  
Aztec, NM 87410

## DISTRIBUTION TO:

Drinking Water Bureau (U)  
ED Dist #1 Office, Albuquerque (S)  
North Star Water Users Assoc. (C)  
Water Chemistry Section - File Copy

## ANALYTICAL RESULTS

Analyte	Result	Units	Analysis Date	Method	Minimum Level	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Free Cyanide	< 0.1	mg/L	11/6/98	SM4500-CN(F)	.1	1.	.1	Jay Finney	

Laboratory Comments:

Reviewed by Paul Ortega

*Supervisor, Water Chemistry Section*Date Printed: 11-Dec-98

## Data Qualifier Codes and Definitions

- U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is the sample detection limit.
- J - The associated value is an estimated quantity.
- R - The data are unusable. (Note: Analyte may or may not be present.
- UJ - The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.



## SCIENTIFIC LABORATORY DIVISION

P.O Box 4700  
Albuquerque, NM 87196-4700700 Camino de Salud, NE  
(505) 841-2500

## WATER CHEMISTRY SECTION (505)-841-2555

SAMPLE COLLECTION DATE: 11/2/98TIME: 0853BY: OakSLD No.: **WC-9805101**SAMPLING LOCATION: PlantSAMPLE MATRIX: watREQUEST ID No.: 2282431RECEIVED AT SLD: 11/5/98USER: 55000SUBMITTER: 60WSS #: 20024

This Copy of Report for::

North Star Water Users Assoc.  
Box 1120  
Aztec, NM 87410

## DISTRIBUTION TO:

Drinking Water Bureau (U)  
ED Dist #1 Office, Albuquerque (S)  
North Star Water Users Assoc. (C)  
Water Chemistry Section - File Copy

## ANALYTICAL RESULTS

Analyte	Result	Units	Analysis Date	Method	Minimum Level	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Nitrate + Nitrite	<0.1	mg/L	12/4/98	353.2	.1	1.	.1	Staci Morris	

Laboratory Comments:

The date of analysis passed holding time.

Reviewed by Paul Ortega

*Supervisor, Water Chemistry Section*Date Printed: 16-Dec-98

## Data Qualifier Codes and Definitions

- U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is the sample detection limit.  
J - The associated value is an estimated quantity.  
R - The data are unusable. (Note: Analyte may or may not be present.  
UJ - The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

**SCIENTIFIC LABORATORY DIVISION**

P.O Box 4700

700 Camino de Salud, NE

Albuquerque, NM 87196-4700

(505)-841-2500

AIR &amp; HEAVY METALS SECTION

(505)-841-2553

SAMPLE COLLECTION: DATE: 11/2/98

TIME: 0859

SLD No.: HM-9802239

MATRIX: wat

BY: Oak

REQUEST ID No.: 2282434

SAMPLING LOCATION: Plant

RECEIVED AT SLD: 11/5/98

USER: 55000

SUBMITTER: 60

WSS #: 20024

To: Client

North Star Water Users Assoc.

Box 1120

Aztec, NM 87410

North Star Water Users Assoc.

DISTRIBUTION TO:

User

Submitter

Client

SLD Files

Practical Quantitation Limit (PQL) is defined as 10 times the Method Detection Limit (MDL)

**ANALYTICAL RESULTS**

Element	Result	Units	Analysis Date	Method	PQL	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Antimony	<0.001	mg/L	11/30/98	200.8	0.001	1	0.001	SP	
Arsenic	<0.001	mg/L	11/30/98	200.8	0.001	1	0.001	SP	
Barium	0.1	mg/L	11/30/98	200.8	0.1	1	0.1	SP	
Beryllium	<0.001	mg/L	11/30/98	200.8	0.001	1	0.001	SP	
Cadmium	<0.001	mg/L	11/30/98	200.8	0.001	1	0.001	SP	
Chromium	<0.001	mg/L	11/30/98	200.8	0.001	1	0.001	SP	
Mercury	<0.0002	mg/L	11/12/98	245.1	0.0002	1	0.0002	JM / SJO	
Nickel	<0.01	mg/L	11/30/98	200.8	0.01	1	0.01	SP	
Selenium	<0.005	mg/L	12/4/98	200.9	0.005	1	0.005	SJO	
Thallium	<0.001	mg/L	11/30/98	200.8	0.001	1	0.001	SP	

**Laboratory Comments:**

Reviewed by: Ron Amato

Supervisor, Air &amp; Heavy Metals Section

Printed: 12/15/98

NCB

**Data Qualifier Codes and Definitions**

A = Insufficient sample for analysis

B = Laboratory Reagent Blank (RB)

C = Spike recovery between 80-120%

D = Spike recovery &lt;80% or &gt;120%

E = Over Calibration Range

F = Matrix interference suspected

G = Inconsistent results; suggest re-sampling

H = Analyzed in duplicate

I = Analyzed in Triplicate

J = Estimated Quantity, only.

K = Holding time exceeded

L = Equals or exceeds USEPA MCL

M = Equals or exceeds USEPA Action Level

N = Insufficient sample to verify results

O = Internal Standards(ICP/MS) &lt;60% or &gt;125% when sample analyzed straight

R = The data are unusable

T = Total Metals

TR = Total Recoverable Metals

U = Not detected above the PQL or SDL

UJ = Not detected. Estimated value, only.

## SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700  
Albuquerque, NM 87196-4700

700 Camino de Salud, NE  
[505] 841-2500

ORGANIC CHEMISTRY SECTION [505] 841-2570

REPORT TO CLIENT: ☒

North Star Water Users Assoc.

Box 1120

Aztec, NM 87410

SLD No.: OR- 9802836

REQUEST ID No.: 2282631

RECEIVED AT SLD: 11/5/98

☐ SLD COPY

USER

55000

ED FIELD OFFICE: ☐☐ N.M.E.D. DRINKING WATER BUREAU

ED Dist #1 Office, Albuquerque

Drinking Water Bureau

4131 Montgomery Blvd., NE

Albuquerque, NM 87109

Gilbert Salas

Drinking Water Bureau

NMED

525 Camino de los Marquez, Suite 4

Santa Fe NM 87502

SAMPLE COLLECTION: DATE: 11/2/98 TIME: 906 BY: Oak

SAMPLING LOCATION: Plant

WSS #: 20024

REPORTING UNITS: ug/L

Remarks: Sample marked as: being preserved with Hydrochloric Acid;

## EPA METHOD 502.2 SDWA VOLATILES BY GAS CHROMATOGRAPHY (PID/ELCD)

DATE EXTRACTED: N/A

DATE ANALYZED: 11/12/98 10 Days: Within EPA Analysis Time

SAMPLE VOL (ml): 5

0

ANALYSIS No.: OR- 9802836

SLD BATCH No.: 435

DILUTION FACTOR: 1.00

REQUEST ID No.: 2282631

SAMPLE PRESERVATION: Sample Temperature when received: 14 Degrees C.; pH = 2

CAS #	ANALYTE NAME	CONC. (ug/L)	QUAL	SDL	MCL
71-43-2	Benzene		U	0.50	5
108-86-1	Bromobenzene		U	0.50	5
74-97-5	Bromochloromethane		U	0.50	5
75-27-4	Bromodichloromethane*	11.4		0.50	80
75-25-2	Bromoform*		U	0.50	80
24-83-9	Bromomethane		U	0.50	5
78-93-3	2-Butanone (MEK)		U	5.00	5
104-51-8	n-Butylbenzene		U	0.50	5
135-98-8	sec-Butylbenzene		U	0.50	5
98-06-6	tert-Butylbenzene		U	0.50	5
1634-04-4	tert-Butyl methyl ether (MTBE)		U	5.00	5
56-23-5	Carbon tetrachloride		U	0.50	5
108-90-7	Chlorobenzene (monochlorobenzene)		U	0.50	100
75-00-3	Chloroethane		U	0.50	5
67-66-3	Chloroform*	35.1		0.50	80
74-87-3	Chloromethane		U	0.50	5
95-49-8	2-Chlorotoluene		U	0.50	5
106-43-4	4-Chlorotoluene		U	0.50	5
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		U	0.50	0.2
124-48-1	Dibromochloromethane*	4.7		0.50	80
106-93-4	1,2-Dibromoethane (Ethylene dibromide (EDB))		U	0.50	0.05
74-95-3	Dibromomethane		U	0.50	5
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)		U	0.50	600
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)		U	0.50	600
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)		U	0.50	75
75-71-8	Dichlorodifluoromethane		U	0.50	5
75-34-3	1,1-Dichloroethane		U	0.50	5
107-06-2	1,2-Dichloroethane		U	0.50	5

75-35-4	1,1-Dichloroethene		U	0.50	7
156-59-2	cis-1,2-Dichloroethene		U	0.50	70
156-60-5	trans-1,2-Dichloroethene		U	0.50	100
78-87-5	1,2-Dichloropropane		U	0.50	5
142-28-9	1,3-Dichloropropane		U	0.50	
590-20-7	2,2-Dichloropropane		U	0.50	
563-58-6	1,1-Dichloropropene		U	0.50	
1006-01-5	cis-1,3-Dichloropropene		U	0.50	
1006-02-6	trans-1,3-Dichloropropene		U	0.50	
100-41-4	Ethylbenzene		U	0.50	700
87-68-3	Hexachlorobutadiene		U	0.50	
98-82-8	Isopropylbenzene		U	0.50	
99-87-6	4-Isopropyltoluene		U	0.50	
75-09-2	Methylene chloride (Dichloromethane)		U	0.50	5
91-20-3	Naphthalene		U	0.50	
103-65-1	Propylbenzene		U	0.50	
100-42-5	Styrene		U	0.50	100
630-20-6	1,1,1,2-Tetrachloroethane		U	0.50	
79-34-5	1,1,2,2-Tetrachloroethane		U	0.50	
127-18-4	Tetrachloroethene		U	0.50	5
109-99-9	Tetrahydrofuran (THF)		U	5.00	
108-88-3	Toluene		U	0.50	1000
87-61-5	1,2,3-Trichlorobenzene		U	0.50	
120-82-1	1,2,4-Trichlorobenzene		U	0.50	70
71-55-6	1,1,1-Trichloroethane		U	0.50	200
79-00-5	1,1,2-Trichloroethane		U	0.50	5
79-01-6	Trichloroethene		U	0.50	5
75-69-4	Trichlorofluoromethane		U	0.50	
96-18-4	1,2,3-Trichloropropane		U	0.50	
95-63-6	1,2,4-Trimethylbenzene		U	0.50	
108-67-8	1,3,5-Trimethylbenzene		U	0.50	
75-01-4	Vinyl chloride		U	0.50	2
95-47-6	o-Xylene		U	0.50	
N/A	p- & m-Xylene		U	0.50	
N/A	"Total of Xylenes above"	0.0	U	0.50	10000
N/A	"Total of Trihalomethanes above"	51.2		0.50	100

LABORATORY BATCH QUALITY CONTROL SUMMARY				
SURROGATE	SURROGATE COMPOUNDS	CONCENTRATION	% RECOVERY	
RECOVERIES:	2-Bromochlorobenzene (Photoionization Detector Surrogate)	12.5	125.0%	High
	2-Bromochlorobenzene (Electrolytic Conductivity Detector Surrogate)	11.1	111.0%	
LABORATORY FORTIFIED BLANK RECOVERIES	The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compound(s) listed below:			
	<u>COMPOUND</u>	<u>CONCENTRATION (ug/L)</u>	<u>% RECOVERY</u>	
	Vinyl chloride	5.7	57%	
	Chloroethane	6.8	68%	
	1,1-Dichloroethene	6.8	68%	
	Methylene chloride (Dichloromethane)	7.2	72%	
LABORATORY BLANKS	No target compounds were detected above the sample detection limit in laboratory blank with the exception of the compound(s) listed below:			
	<u>COMPOUND</u>	<u>CONCENTRATION (ug/L)</u>		
	No Exceptions			

ANALYST: RON DRUVA QC APPROVED BY: Timothy Chapman

#### DEFINITIONS

-- Concentration Exceeds EPA's allowable Maximum Contamination Level  
 CAS# Chemical Abstract Services Number - Unique number to help identify analytes listed by different names  
 CONC. Concentration (ug/L) of analyte actually detected in the sample  
 QUAL Qualifier of analytical results as follows:  
     B Analyte was detected in laboratory blank  
     J Analyte was detected at a level below which an accurate quantitation can be given ( ~5 \* SDL)  
     U No analyte was detected above the Sample Detection Limit.  
 MCL Maximum Contamination Level Allowed by EPA for SDWA regulated analytes  
 SDL Sample Detection Limit - The lowest concentration which can be differentiated from Zero with 99% confidence taking sample size (compositing) into account.  
 ug/L Concentration Units - micrograms per liter which is approximately equivalent to Parts Per Billion (ppb)

PI 2282631

OR

Scientific Laboratory Division  
700 Camino de Salud, NE (P.O. Box 4700)  
Albuquerque, NM 87106 (87196-4700)  
Phone: 505-841-2500/-2570/-2566

OR

OR9802836

3 User Code: 55000 Date & Time of Receipt at SLD: NOV -5 PM 1:06 4 Sample Priority: 3 If 1 or 2 call SLD

5 Submitter Code: 101610 WSS Code: 10101-126 User's Site ID: WSD3016 6 Sample Temp. Receipt @ SLD: 14°C

7 Facility or WSS Name: WARTS

Facility/WSS If No WSS Code Location: Complete 8, 9 & 10 8 County: 9 City: 10 State: or CHANGE NM TO

11 Sampling Location: Plant

12 Sample Collection: On: 11/2/98 By: OAKLEY At: 09:06 Date: MM / DD / YY Time: 24:00 Hour Clock Last Name First Name

13 Sample Info. Contact: Ph: 505-827-7536 If not collector, per box 12, Please print name here:

14 Reports are mailed to the address specified by the Submitter Code and WSS Code (when present). However, if one of the following applies, please check appropriate boxes below and complete address form.  
☐ New Address for:  
☐ Submitter  
☐ WSS / Client  
☐ Send an additional Report to  
Name: Address: City: State: Zip:

15 Field Data: (When appropriate)  
Temperature: °C: pH: SDWA Compositing:  
Chlorinated? ☒ YES or ☐ NO ☐ No Compositing Permitted  
Please Check Box ☐ Within This System Only  
Chlorine Residual: mG/L ☐ Within All Systems  
Sulfate: mG/L

16 Field Remarks: (Optional)

17 Sample Type: ☒ Water ☐ Vapor ☐ Tissue ☐ Other: ☐ Liquid: ☐ Solid:  
(Check only one) ☐ Soil ☐ Plant ☐ Blood

18 Preservation: ☐ No Preservation (Check all that apply) ☒ Stored at 4°C ☒ Preserved with HCl to pH < 2 ☐ Other:

19 Analyses Requested: Please Check the appropriate box(es) below to indicate your analytical request(s); and, please indicate the number of bottles & vials submitted: Bottles Vials

**Volatile Screens:**  
☐ (754) Aromatic & Halogenated Volatiles (EPA 8021)  
☐ (765) Mass Spectrometer Volatiles (EPA 8260)  
☒ (774) Volatile Organic Compounds [VOC's] (EPA 502.2)  
☐ (766) SDWA Total Trihalomethanes (EPA 502.2)

**Other Specific Compounds or Classes:**

☐ ( )  
☐ ( )

Remarks: VOI

**Semivolatile Screens:**  
☐ (789) Drinking Water Semivolatile Screens (Indented list)  
☐ (775) EDB, DBCP & TCP (EPA 504.1)  
☐ (758) Acid Herbicides (EPA 515.2)  
☐ (772) Carbamates (EPA 531.1)  
☐ (781) Glyphosate (EPA 547)  
☐ (782) Endothall (EPA 548.1)  
☐ (783) Diquat (EPA 549.1)  
☐ (788) SOC (EPA 525.2)  
☐ (755) Base/Neutral Semivolatiles (No Acids) (EPA 8270)  
☐ (756) Base/Neutral/Acids Semivolatiles (EPA 625/8270)  
☐ (760) Organochlorine Pesticides / PCB's (EPA 608)  
☐ (751) Hydrocarbon Fuel Screen (Modified EPA 8015)  
☐ (768) Disinfection Byproducts Screen (Indented list)  
☐ (771) Haloacetic Acids (EPA 552.2)  
☐ (769) Haloacetonitriles / THM's (EPA 551.1)  
☐ (770) Chloral Hydrate (EPA 551.1)  
☐ (773) Total Organic Halides [TOX] (EPA 5320b)

## SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700  
Albuquerque, NM 87196-4700

700 Camino de Salud, NE  
[505] 841-2500

ORGANIC CHEMISTRY SECTION [505] 841-2570

REPORT TO CLIENT: ☒

North Star Water Users Assoc.

Box 1120

Aztec, NM 87410

SLD No.: OR- 9901121

REQUEST ID No.: 2287388

RECEIVED AT SLD: 6/17/99

☐ SLD COPY

USER

55000

ED FIELD OFFICE: ☐☐ N.M.E.D. DRINKING WATER BUREAU

ED Dist #1 Office, Albuquerque

Drinking Water Bureau

4131 Montgomery Blvd., NE

Albuquerque, NM 87109

Gilbert Salas

Drinking Water Bureau

NMED

525 Camino de los Marquez, Suite 4

Santa Fe NM 87502

SAMPLE COLLECTION: DATE: 6/15/99 TIME: 1010 BY: Her

SAMPLING LOCATION: Filter Tech Treatment Plant

WSS #: 20024

REPORTING UNITS: ug/L

Remarks:

Sample marked as: being preserved with Hydrochloric Acid;

No targeted compounds were detected in this sample.

## EPA METHOD 502.2 SDWA VOLATILES BY GAS CHROMATOGRAPHY (PID/ELCD)

DATE EXTRACTED: N/A

DATE ANALYZED: 6/18/99 3 Days: Within EPA Analysis Time

SAMPLE VOL (ml): 5

0

ANALYSIS No.: OR- 9901121

SLD BATCH No.: 193

DILUTION FACTOR: 1.00

REQUEST ID No.: 2287388

SAMPLE PRESERVATION: Sample Temperature when received: 10 Degrees C.; pH = 1

CAS #	ANALYTE NAME	CONC. (ug/L)	QUAL.	SDL	MCL
71-43-2	Benzene		U	0.50	5
108-86-1	Bromobenzene		U	0.50	
74-97-5	Bromochloromethane		U	0.50	
75-27-4	Bromodichloromethane*		U	0.50	80
75-25-2	Bromoform*		U	0.50	80
24-83-9	Bromomethane		U	0.50	
78-93-3	2-Butanone (MEK)		U	5.00	
104-51-8	n-Butylbenzene		U	0.50	
135-98-8	sec-Butylbenzene		U	0.50	
98-06-6	tert-Butylbenzene		U	0.50	
1634-04-4	tert-Butyl methyl ether (MTBE)		U	5.00	
56-23-5	Carbon tetrachloride		U	0.50	5
108-90-7	Chlorobenzene (monochlorobenzene)		U	0.50	100
75-00-3	Chloroethane		U	0.50	
67-66-3	Chloroform*		U	0.50	80
74-87-3	Chloromethane		U	0.50	
95-49-8	2-Chlorotoluene		U	0.50	
106-43-4	4-Chlorotoluene		U	0.50	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		U	0.50	0.2
124-48-1	Dibromochloromethane*		U	0.50	80
106-93-4	1,2-Dibromoethane (Ethylene dibromide (EDB))		U	0.50	0.05
74-95-3	Dibromomethane		U	0.50	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)		U	0.50	600
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)		U	0.50	600
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)		U	0.50	75
75-71-8	Dichlorodifluoromethane		U	0.50	
75-34-3	1,1-Dichloroethane		U	0.50	
107-06-2	1,2-Dichloroethane		U	0.50	5

75-35-4	1,1-Dichloroethene		U	0.50	7
156-59-2	cis-1,2-Dichloroethene		U	0.50	70
156-60-5	trans-1,2-Dichloroethene		U	0.50	100
78-87-5	1,2-Dichloropropane		U	0.50	5
142-28-9	1,3-Dichloropropane		U	0.50	
590-20-7	2,2-Dichloropropane		U	0.50	
563-58-6	1,1-Dichloropropene		U	0.50	
1006-01-5	cis-1,3-Dichloropropene		U	0.50	
1006-02-6	trans-1,3-Dichloropropene		U	0.50	
100-41-4	Ethylbenzene		U	0.50	700
87-68-3	Hexachlorobutadiene		U	0.50	
98-82-8	Isopropylbenzene		U	0.50	
99-87-6	4-Isopropyltoluene		U	0.50	
75-09-2	Methylene chloride (Dichloromethane)		U	0.50	5
91-20-3	Naphthalene		U	0.50	
103-65-1	Propylbenzene		U	0.50	
100-42-5	Styrene		U	0.50	100
630-20-6	1,1,1,2-Tetrachloroethane		U	0.50	
79-34-5	1,1,2,2-Tetrachloroethane		U	0.50	
127-18-4	Tetrachloroethene		U	0.50	5
109-99-9	Tetrahydrofuran (THF)		U	5.00	
108-88-3	Toluene		U	0.50	1000
87-61-5	1,2,3-Trichlorobenzene		U	0.50	
120-82-1	1,2,4-Trichlorobenzene		U	0.50	70
71-55-6	1,1,1-Trichloroethane		U	0.50	200
79-00-5	1,1,2-Trichloroethane		U	0.50	5
79-01-6	Trichloroethene		U	0.50	5
75-69-4	Trichlorofluoromethane		U	0.50	
96-18-4	1,2,3-Trichloropropane		U	0.50	
95-63-6	1,2,4-Trimethylbenzene		U	0.50	
108-67-8	1,3,5-Trimethylbenzene		U	0.50	
75-01-4	Vinyl chloride		U	0.50	2
95-47-6	o-Xylene*		U	0.50	
N/A	p- & m-Xylene*		U	0.50	
N/A	*Total of Xylenes above*	0.0	U	0.50	10000
N/A	*Total of Trihalomethanes above*	0.0	U	0.50	100

LABORATORY BATCH QUALITY CONTROL SUMMARY			
SURROGATE	SURROGATE COMPOUNDS	CONCENTRATION	% RECOVERY
RECOVERIES:	2-Bromochlorobenzene (Photoionization Detector Surrogate)	10.88	108.8%
	2-Bromochlorobenzene (Electrolytic Conductivity Detector Surrogate)	9.77	97.7%
LABORATORY FORTIFIED	The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compound(s) listed below:		
BLANK	COMPOUND	CONCENTRATION (ug/L)	% RECOVERY
RECOVERIES	Chloroethane	13.08	113%
	Chloroform*	7.88	79%
LABORATORY BLANKS	No target compounds were detected above the sample detection limit in laboratory blank with the exception of the compound(s) listed below:		
	COMPOUND	CONCENTRATION (ug/L)	
	No Exceptions		
ANALYST: RON DRUVA		QC APPROVED BY: T.H.C. Timothy Chapman	

#### DEFINITIONS

**	Concentration Exceeds EPA's allowable Maximum Contamination Level
CAS#	Chemical Abstract Services Number - Unique number to help identify analytes listed by different names
CONC.	Concentration (ug/L) of analyte actually detected in the sample
QUAL	Qualifier of analytical results as follows:
	B Analyte was detected in laboratory blank
	J Analyte was detected at a level below which an accurate quantitation can be given ( ~5 * SDL)
	U No analyte was detected above the Sample Detection Limit.
MCL	Maximum Contamination Level Allowed by EPA for SDWA regulated analytes
SDL	Sample Detection Limit - The lowest concentration which can be differentiated from Zero with 99% confidence taking sample size (compositing) into account.
ug/L	Concentration Units - micrograms per liter which is approximately equivalent to Parts Per Billion (ppb)

## SCIENTIFIC LABORATORY DIVISION

P.O Box 4700

700 Camino de Salud, NE

Albuquerque, NM 87196-4700

(505)-841-2500

AIR &amp; HEAVY METALS SECTION

(505)-841-2553

SAMPLE COLLECTION: DATE: 06/15/99

TIME: 10:10

SLD No.: HM-199900672

MATRIX: wpn

BY: HERRERA

REQUEST ID No.: 2289083

FACILITY: North Star WUA

RECEIVED AT SLD: 06/17/99

SAMPLING LOCATION: FILTER TECH TREATMENT PLANT

USER: 55000

SUBMITTER: 60

WSS #: NM3520024

To: Client

North Star Water Users Assoc.

Box 1120

Aztec, NM 87410

North Star Water Users Assoc.

DISTRIBUTION TO:

User

Submitter

Client

SLD Files

Practical Quantitation Limit (PQL) is defined as 10 times the Method Detection Limit (MDL)

## ANALYTICAL RESULTS

Element	Result	Units	Analysis Date	Method	PQL	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Antimony	<0.001	mg/L	8/10/99	200.8	0.001	1	0.001	SMP	CH
Arsenic	<0.001	mg/L	8/10/99	200.8	0.001	1	0.001	SMP	CH
Barium	<0.1	mg/L	8/10/99	200.8	0.1	1	0.1	SMP	CH
Beryllium	<0.001	mg/L	8/10/99	200.8	0.001	1	0.001	SMP	H
Cadmium	<0.001	mg/L	8/10/99	200.8	0.001	1	0.001	SMP	CH
Chromium	0.001	mg/L	8/10/99	200.8	0.001	1	0.001	SMP	CH
Mercury	<0.0002	mg/L	6/22/99	245.1	0.0002	1	0.0002	CP	
Nickel	<0.01	mg/L	8/10/99	200.8	0.01	1	0.01	SMP	CH
Selenium	<0.005	mg/L	8/12/99	200.9	0.005	1	0.005	AM	CH
Thallium	<0.001	mg/L	8/10/99	200.8	0.001	1	0.001	SMP	CH

## Laboratory Comments:

Sample digested using SLD Method 41414.

Reviewed by: Ron Amato

Supervisor, Air &amp; Heavy Metals Section

Printed: 8/17/99

## Data Qualifier Codes and Definitions

A = Insufficient sample for analysis

B = Laboratory Reagent Blank (RB)

C = Spike recovery between 80-120%

D = Spike recovery &lt;80% or &gt;120%

E = Over Calibration Range

F = Matrix interference suspected

G = Inconsistent results: suggest re-sampling

H = Analyzed in duplicate

I = Analyzed in Triplicate

J = Estimated Quantity, only.

K = Holding time exceeded

L = Equals or exceeds USEPA MCL

M = Equals or exceeds USEPA Action Level

N = Insufficient sample to verify results

O = Internal Standards(ICP/MS) &lt;60% or &gt;125% when sample analyzed straight

R = The data are unusable

T = Total Metals

TR = Total Recoverable Metals

U = Not detected above the PQL or SDL

UJ = Not detected. Estimated value, only.

ron



## SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700  
Albuquerque, NM 87196-4700700 Camino de Salud, NE  
(505) 841-2500

## WATER CHEMISTRY SECTION (505)-841-2555

SAMPLE COLLECTION DATE: 6/15/99 TIME: 1010  
SAMPLING LOCATION: Filter Tech Treatment Plant  
SAMPLE MATRIX: watBY: HerSLD No.: WC-9902030REQUEST ID No.: 2289081  
RECEIVED AT SLD: 6/17/99  
USER: 55000  
SUBMITTER: 60  
WSS #: 20024

This Copy of Report for:

North Star Water Users Assoc.  
Box 1120  
Aztec, NM 87410

## DISTRIBUTION TO:

Drinking Water Bureau (U)  
ED Dist #1 Office, Albuquerque (S)  
North Star Water Users Assoc. (C)  
Water Chemistry Section - File Copy

## ANALYTICAL RESULTS

Analyte	Result	Units	Analysis Date	Method	Minimum Level	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Fluoride	<u>0.166</u>	mGL	6/23/99	340.2	.1	1.	.1	Cliff Kear	

## Laboratory Comments:

Reviewed by Chris Dean *CD*  
Supervisor, Water Chemistry SectionDate Printed: 15-Jul-99

## Data Qualifier Codes and Definitions

U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is the sample detection limit.

J - The associated value is an estimated quantity.

R - The data are unusable. (Note: Analyte may or may not be present.)

UJ - The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.



## SCIENTIFIC LABORATORY DIVISION

P.O Box 4700  
Albuquerque, NM 87196-4700700 Camino de Salud, NE  
(505) 841-2500

## WATER CHEMISTRY SECTION (505)-841-2555

SAMPLE COLLECTION DATE: 6/15/99 TIME: 1010  
SAMPLING LOCATION: Filter Tech Treatment Plant  
SAMPLE MATRIX: watBY: HerSLD No.: WC-9902029REQUEST ID No.: 2289082  
RECEIVED AT SLD: 6/17/99  
USER: 55000  
SUBMITTER: 60  
WSS #: 20024

This Copy of Report for::

North Star Water Users Assoc.  
Box 1120  
Aztec, NM 87410

## DISTRIBUTION TO:

Drinking Water Bureau (U)  
ED Dist #1 Office, Albuquerque (S)  
North Star Water Users Assoc. (C)  
Water Chemistry Section - File Copy

## ANALYTICAL RESULTS

Analyte	Result	Units	Analysis Date	Method	Minimum Level	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Nitrate + Nitrite	<u>&lt;0.1</u>	mGL	6/25/99	353.2	.1	1.	.1	Staci Morris	

Laboratory Comments:Reviewed by Chris Dean *CD*  
Supervisor, Water Chemistry SectionDate Printed: 23-Jul-99**Data Qualifier Codes and Definitions**

- U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is the sample detection limit.  
J - The associated value is an estimated quantity.  
R - The data are unusable. (Note: Analyte may or may not be present.)  
UJ - The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

*Rec'd 8/12/99*  
*@*



## SCIENTIFIC LABORATORY DIVISION

P.O Box 4700  
Albuquerque, NM 87196-4700700 Camino de Salud, NE  
(505) 841-2500

## WATER CHEMISTRY SECTION (505)-841-2555

SAMPLE COLLECTION DATE: 6/15/99 TIME: 1010  
SAMPLING LOCATION: Filter Tech Treatment Plant  
SAMPLE MATRIX: watBY: HerSLD No.: **WC-9902031**REQUEST ID No.: 2289084  
RECEIVED AT SLD: 6/17/99  
USER: 55000  
SUBMITTER: 60  
WSS #: 20024

This Copy of Report for::

North Star Water Users Assoc.  
Box 1120  
Aztec, NM 87410

## DISTRIBUTION TO:

Drinking Water Bureau (U)  
ED Dist #1 Office, Albuquerque (S)  
North Star Water Users Assoc. (C)  
Water Chemistry Section - File Copy

## ANALYTICAL RESULTS

Analyte	Result	Units	Analysis Date	Method	Minimum Level	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Free Cyanide	<0.1	mg/L	6/22/99	SM4500-CN(F)	.1	1.	.1	Cliff Kear	

Laboratory Comments:Reviewed by Chris Dean   
Supervisor, Water Chemistry SectionDate Printed: 23-Jul-99

## Data Qualifier Codes and Definitions

- U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is the sample detection limit.
- J - The associated value is an estimated quantity.
- R - The data are unusable. (Note: Analyte may or may not be present.
- UJ - The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

Rec'd 8/2/99

2287388



Scientific Laboratory Division  
700 Camino de Salud, NE (P.O. Box 4700)  
Albuquerque, NM 87106 (87196-4700)  
Phone: 505-841-2500/-2570/-2566

For  
Of

OR9901121

<b>3 User</b> Code: <u>55000</u>		<b>Date &amp; Time of Receipt at SLD:</b> <u>99 JUN 17 AM 9:30</u>		<b>4 Sample Priority:</b> <u>3</u> <i>If 1 or 2 call SLD</i>	
<b>5 Submitter</b> Code: <u>060</u> <b>WSS</b> Code: <u>NM35-120024</u>		<b>User's</b> Site ID: _____		<b>6 Sample Temp.</b> Receipt @ SLD: <u>10</u> °C	
<b>7 Facility or WSS Name:</b> <u>North Star WUA</u>					
<b>Facility/WSS</b> <i>If No WSS Code</i> Location: <u>Complete 8, 9 &amp; 10</u>		<b>8 County:</b> _____		<b>9 City:</b> _____	
<b>10 State: or CHANGE</b> NM TO _____					
<b>11 Sampling Location:</b> <u>Filter, Tech. Treatment Plant</u>					
<b>12 Sample Collection:</b> On: <u>06/15/99</u> By: <u>Herveyera</u> <small>Date: MM / DD / YY Last Name</small> At: <u>10:10</u> <u>Joe</u> <small>Time: 24:00 Hour Clock First Name</small>					
<b>13 Sample Info.</b> Contact: Ph: <u>505-841-9471</u> <i>If not collector, per box 12, Please print name here: _____</i>					
<b>14 Reports are mailed to the address specified by the Submitter Code and WSS Code (when present). However, if one of the following applies, please check appropriate boxes below and complete address form.</b> <input type="checkbox"/> Send additional Report to: _____ <b>Name:</b> _____ <input type="checkbox"/> New Address for: _____ <b>Address:</b> _____ <input type="checkbox"/> Submitter _____ <b>City:</b> _____ <b>State:</b> _____ <b>Zip:</b> _____ <input type="checkbox"/> WSS / Client					
<b>15 Sampling Documentation: ( Check )</b> <input type="checkbox"/> Confirmation <input type="checkbox"/> NMED Monitoring <input type="checkbox"/> Resample <input type="checkbox"/> Raw Water <input type="checkbox"/> Split w/ Facility <input type="checkbox"/> Finished Water <input checked="" type="checkbox"/> Grab Sample <input checked="" type="checkbox"/> Other: <u>Compliance</u>		<b>16a Field Data: (When appropriate)</b> <input type="checkbox"/> Sample is Chlorinated Chlorine Residual: _____ mG/L Conductivity: _____ uMhos/cm Sulfate: _____ mG/L		<b>16b Field Remarks: (Optional)</b> _____ _____ _____	
<b>17 Sample Type:</b> <input checked="" type="checkbox"/> Water <input type="checkbox"/> Vapor <input type="checkbox"/> Tissue <input type="checkbox"/> Other: <input type="checkbox"/> Liquid: (Check <input checked="" type="checkbox"/> only one) <input type="checkbox"/> Soil <input type="checkbox"/> Plant <input type="checkbox"/> Blood <input type="checkbox"/> Solid: _____					
<b>18 Preservation:</b> <input type="checkbox"/> Preserved with HCl to pH < 2 <input type="checkbox"/> No Preservation (Check <input checked="" type="checkbox"/> all that apply) <input checked="" type="checkbox"/> Stored at 4°C <input type="checkbox"/> Other: _____				<b>Number of Containers Submitted:</b> Bottles: _____ Vials: <u>2</u> Jars: _____	
<b>19 Analyses Requested: Please Check <input checked="" type="checkbox"/> the appropriate box(es) below to indicate your analytical request(s):</b>					
<b>Volatile Screens:</b> <input type="checkbox"/> (754) Aromatic & Halogenated Volatiles (EPA 8021) <input type="checkbox"/> (765) Mass Spectrometer Volatiles (EPA 8260 or 524.2) <input type="checkbox"/> (764) Appendix IX Mass Spectrometer VOCs (EPA 8260) <input checked="" type="checkbox"/> (774) Volatile Organic Compounds [VOC's] (EPA 502.2) <input type="checkbox"/> (766) SDWA Trihalomethanes (EPA 502.2)  <b>Remarks or Other Specific Compounds or Classes:</b> <input type="checkbox"/> (____) _____ <input type="checkbox"/> (____) _____  <b>Special Extractions:</b> <input type="checkbox"/> (784) TCLP Extraction, Volatiles (Method 1311) <input type="checkbox"/> (785) TCLP Extraction, Semivolatiles (Method 1311)			<b>Semivolatile Screens:</b> <input type="checkbox"/> (789) Drinking Water Semivolatile Screens (Indented list) <input type="checkbox"/> (775) EDB, DBCP & TCP (EPA 504.1) <input type="checkbox"/> (758) Acid Herbicides (EPA 515.2) <input type="checkbox"/> (772) Carbamates (EPA 531.1) <input type="checkbox"/> (781) Glyphosate (EPA 547) <input type="checkbox"/> (782) Endothall (EPA 548.1) <input type="checkbox"/> (783) Diquat (EPA 549.1) <input type="checkbox"/> (788) SOC (EPA 525.2) <input type="checkbox"/> (771) Haloacetic Acids in Drinking Water (EPA 552.2) <input type="checkbox"/> (750) Hydrocarbon Fuel Screen, GRO (Modified EPA 8015) <input type="checkbox"/> (751) Hydrocarbon Fuel Screen, GRO/DRO (Mod. EPA 8015) <input type="checkbox"/> (752) Hydrocarbon Fuel Screen, DRO (Mod. EPA 8015) <input type="checkbox"/> (755) Base/Neutral Semivolatiles (No Phenols) (EPA 8270) <input type="checkbox"/> (756) Base/Neutral/Acids Semivolatiles (EPA 625/8270) <input type="checkbox"/> (759) Polychlorinated Biphenyls (PCBs) (EPA 8082) <input type="checkbox"/> (760) Organochlorine Pesticides (EPA 608/8081) <input type="checkbox"/> (786) Explosives Screen (Aberdeen Method)		

OFF: (505) 325-5667



LAB: (505) 325-1556

April 28, 1999

RECEIVED  
MAY 03 1999

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

RE: McCoy Gas Com A 1

Order No.: 9904049

Dear Maureen Gannon,

On Site Technologies, LTD. received 2 samples on 4/21/99 for the analyses presented in the following report.

The Samples were analyzed for the following tests:  
Aromatic Volatiles by GC/PID (SW8021B)

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

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

Sincerely,

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

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

**Date:** 28-Apr-99

---

**CLIENT:** PNM - Public Service Company of NM

**Project:** McCoy Gas Com A 1

**Lab Order:** 9904049

## **CASE NARRATIVE**

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

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

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

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 28-Apr-99

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	McCoy Gas Com A 1
<b>Work Order:</b>	9904049	<b>Client Sample ID:</b>	9904211155; MW 2
<b>Lab ID:</b>	9904049-01A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	McCoy Gas Com A 1	<b>Collection Date:</b>	4/21/99 11:55:00 AM
		<b>COC Record:</b>	7175

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>		<b>SW8021B</b>		Analyst: HR		
Benzene	ND	0.5		µg/L	1	4/23/99
Toluene	ND	0.5		µg/L	1	4/23/99
Ethylbenzene	1.4	0.5		µg/L	1	4/23/99
m,p-Xylene	21	1		µg/L	1	4/23/99
o-Xylene	1.1	0.5		µg/L	1	4/23/99

**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

P.O. BOX 2606 • FARMINGTON, NM 87499

TECHNICAL QUALITY CONTROL SYSTEMS - ENVIRONMENTAL

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 28-Apr-99

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	McCoy Gas Com A 1
<b>Work Order:</b>	9904049	<b>Client Sample ID:</b>	9904211220; MW 4
<b>Lab ID:</b>	9904049-02A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	McCoy Gas Com A 1	<b>Collection Date:</b>	4/21/99 12:20:00 PM
		<b>COC Record:</b>	7175

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: HR
Benzene	0.5	0.5		µg/L	1	4/23/99
Toluene	0.8	0.5		µg/L	1	4/23/99
Ethylbenzene	3.2	0.5		µg/L	1	4/23/99
m,p-Xylene	74	1		µg/L	1	4/23/99
o-Xylene	1.1	0.5		µg/L	1	4/23/99

**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

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



715

Date: 4/2/99

**TECHNOLOGIES, LTD.**

Distribution: White - On Site : Yellow - LAB <sup>cc</sup> Pink - Sampler · Goldenrod · Client

OFF: (505) 325-5667



LAB: (505) 325-1556

August 19, 1999

**RECEIVED**  
**AUG 30 1999**

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

RE: McCoy Gas Com A-1

Order No.: 9908026

Dear Maureen Gannon,

On Site Technologies, LTD. received 6 samples on 08/10/1999 for the analyses presented in the following report.

The Samples were analyzed for the following tests:  
Aromatic Volatiles by GC/PID (SW8021B)

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

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

Sincerely,

A handwritten signature in black ink, appearing to be "David Cox", written over a horizontal line.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

**Date:** 19-Aug-99

---

**CLIENT:** PNM - Public Service Company of NM  
**Project:** McCoy Gas Com A-1  
**Lab Order:** 9908026

---

**CASE NARRATIVE**

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

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

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

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 19-Aug-99

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	McCoy Gas Com A-1
<b>Work Order:</b>	9908026	<b>Client Sample ID:</b>	9908101246; MW-1
<b>Lab ID:</b>	9908026-01A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	McCoy Gas Com A-1	<b>Collection Date:</b>	08/10/1999 12:46:00 PM
		<b>COC Record:</b>	7784

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>		<b>SW8021B</b>		Analyst: DC		
Benzene	ND	0.5		µg/L	1	08/16/1999
Toluene	ND	0.5		µg/L	1	08/16/1999
Ethylbenzene	ND	0.5		µg/L	1	08/16/1999
m,p-Xylene	ND	1		µg/L	1	08/16/1999
o-Xylene	ND	0.5		µg/L	1	08/16/1999

**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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1 of 1

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 19-Aug-99

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	McCoy Gas Com A-1
<b>Work Order:</b>	9908026	<b>Client Sample ID:</b>	9908101303; MW-2
<b>Lab ID:</b>	9908026-02A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	McCoy Gas Com A-1	<b>Collection Date:</b>	08/10/1999 1:03:00 PM
		<b>COC Record:</b>	7784

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>		<b>SW8021B</b>		Analyst: DC		
Benzene	ND	0.5		µg/L	1	08/16/1999
Toluene	ND	0.5		µg/L	1	08/16/1999
Ethylbenzene	0.9	0.5		µg/L	1	08/16/1999
m,p-Xylene	1.2	1		µg/L	1	08/16/1999
o-Xylene	ND	0.5		µg/L	1	08/16/1999

**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

P.O. BOX 2606 • FARMINGTON, NM 87499

TECHNOLOGY BLENDS INDUSTRY WITH THE ENVIRONMENT

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 19-Aug-99

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	McCoy Gas Com A-1
<b>Work Order:</b>	9908026	<b>Client Sample ID:</b>	9908101320; MW-3
<b>Lab ID:</b>	9908026-03A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	McCoy Gas Com A-1	<b>Collection Date:</b>	08/10/1999 1:20:00 PM
		<b>COC Record:</b>	7784

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>		<b>SW8021B</b>		Analyst: DC		
Benzene	ND	0.5		µg/L	1	08/16/1999
Toluene	ND	0.5		µg/L	1	08/16/1999
Ethylbenzene	ND	0.5		µg/L	1	08/16/1999
m,p-Xylene	ND	1		µg/L	1	08/16/1999
o-Xylene	ND	0.5		µg/L	1	08/16/1999

**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

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 19-Aug-99

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	McCoy Gas Com A-1
<b>Work Order:</b>	9908026	<b>Client Sample ID:</b>	9908101333; MW-4
<b>Lab ID:</b>	9908026-04A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	McCoy Gas Com A-1	<b>Collection Date:</b>	08/10/1999 1:33:00 PM
		<b>COC Record:</b>	7784

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>		<b>SW8021B</b>		<b>Analyst: DC</b>		
Benzene	ND	0.5		µg/L	1	08/16/1999
Toluene	ND	0.5		µg/L	1	08/16/1999
Ethylbenzene	1	0.5		µg/L	1	08/16/1999
m,p-Xylene	4.4	1		µg/L	1	08/16/1999
o-Xylene	1	0.5		µg/L	1	08/16/1999

**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

P.O. BOX 2606 • FARMINGTON, NM 87499

TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 19-Aug-99

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	McCoy Gas Com A-1
<b>Work Order:</b>	9908026	<b>Client Sample ID:</b>	9908101350; TW-1
<b>Lab ID:</b>	9908026-05A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	McCoy Gas Com A-1	<b>Collection Date:</b>	08/10/1999 1:50:00 PM
		<b>COC Record:</b>	7784

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>		<b>SW8021B</b>		Analyst: DC		
Benzene	ND	0.5		µg/L	1	08/16/1999
Toluene	ND	0.5		µg/L	1	08/16/1999
Ethylbenzene	0.6	0.5		µg/L	1	08/16/1999
m,p-Xylene	ND	1		µg/L	1	08/16/1999
o-Xylene	ND	0.5		µg/L	1	08/16/1999

**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

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- TEST REPORT IS VALID ONLY WHEN USED WITH THE ANALYST SIGNATURE -

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 19-Aug-99

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	McCoy Gas Com A-1
<b>Work Order:</b>	9908026	<b>Client Sample ID:</b>	9908101420; TW-2
<b>Lab ID:</b>	9908026-06A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	McCoy Gas Com A-1	<b>Collection Date:</b>	08/10/1999 2:20:00 PM
		<b>COC Record:</b>	7784

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>		<b>SW8021B</b>		Analyst: DC		
Benzene	ND	0.5		µg/L	1	08/16/1999
Toluene	ND	0.5		µg/L	1	08/16/1999
Ethylbenzene	0.8	0.5		µg/L	1	08/16/1999
m,p-Xylene	ND	1		µg/L	1	08/16/1999
o-Xylene	ND	0.5		µg/L	1	08/16/1999

**Qualifiers:**

PQL - Practical Quantitation Limit

S - Spike Recovery outside accepted recovery limits

ND - Not Detected at Practical Quantitation Limit

R - RPD outside accepted recovery limits

J - Analyte detected below Practical Quantitation Limit

E - Value above quantitation range

B - Analyte detected in the associated Method Blank

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNICAL SOLUTIONS FOR INDUSTRY WITH THE ENVIRONMENT -

# CHAIN OF CUSTODY RECORD

Date:

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

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

**Sampling Location:**

ANALYSIS REQUESTED

Number of Containers

Number of Containers

## SAMPLE IDENTIFICATION

**MATRIX PRES.**

[illegible]

**MATRIX PRES.**

**MATRIX PRES.**

**LAB ID**

Belinquinished by: <i>Ralph D. Galt</i>	Date/Time <i>5/10/99 17:25</i>	Received by:
---	--------------------------------	--------------

Relinquished by:	Date/Time	Received by:
------------------	-----------	--------------

Relinquished by:	Date/Time	Received by:
------------------	-----------	--------------

Method of Shipment:	Air - delivered	Rush
---------------------	-----------------	------

Authorized by: Kenneth J. Jackson

**(Client Signature Must Accompany Request)**

Rush	24-48 Hours	10 Working Days	Special Instructions:
------	-------------	-----------------	-----------------------

## Rush

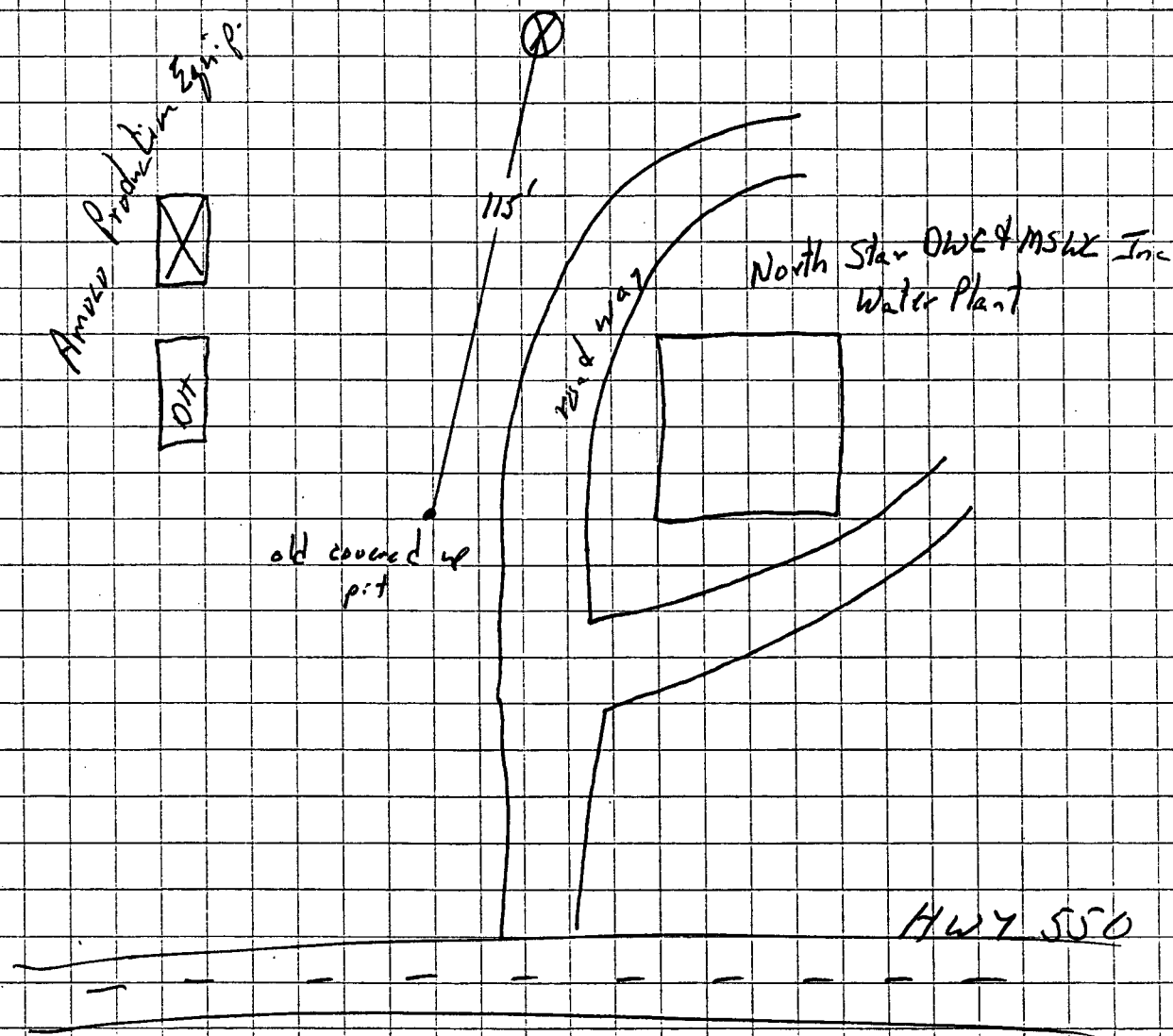
10 Working Days	Special Instructions:

**Special Instructions:**

**Results to be sent to both parties.**

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

McCoy Gas Com "A" #1  
Amoco  
Sec. 18, 31N, 10W, H

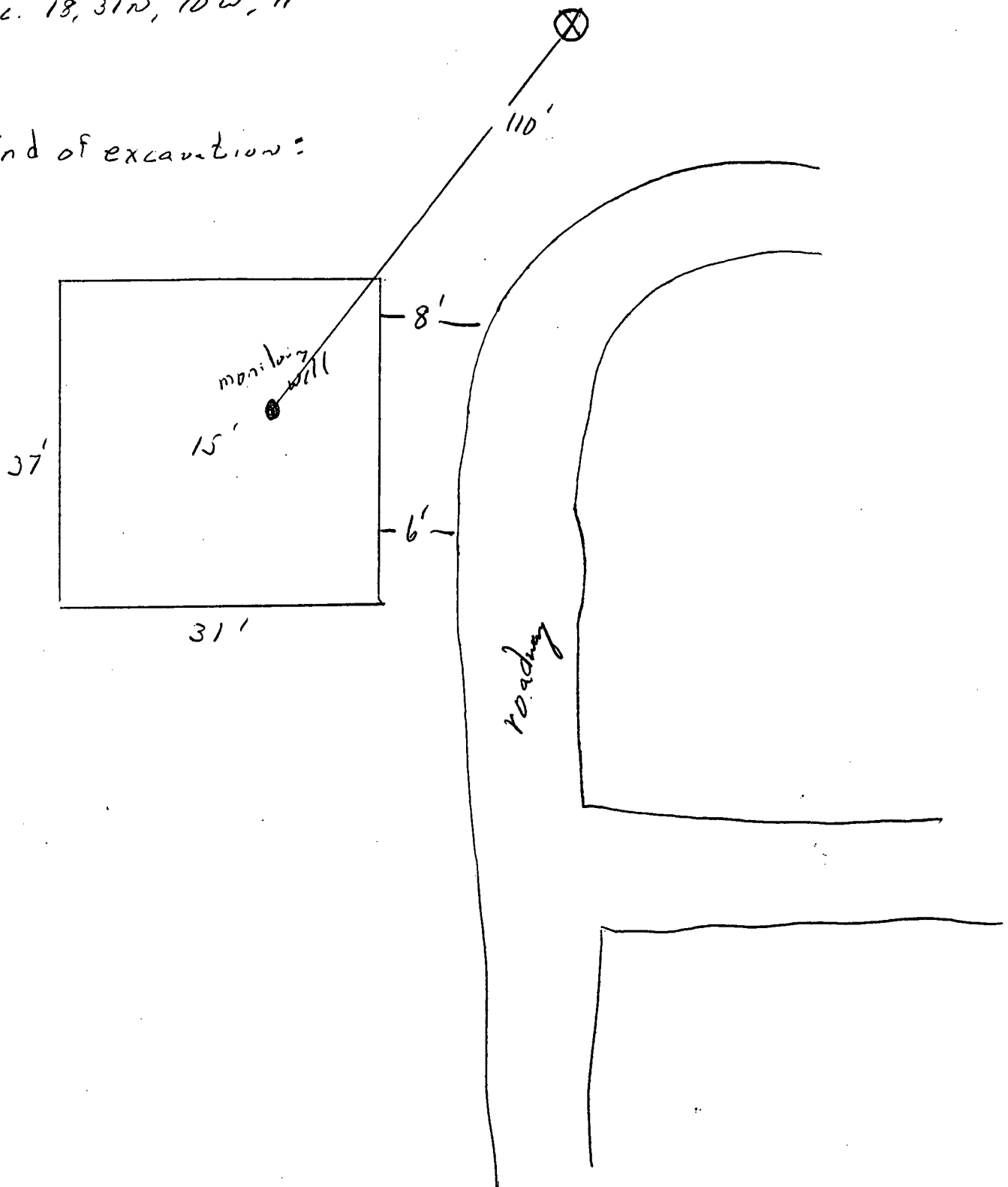


No PNM equipment on location  
pit had been covered up with dirt

McCoy Gas Com "A" #1  
Amoco  
Sec. 18, 31N, 10W, H

5/23/97

End of excavation:



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.: *5887*  
Sample No.: *14699*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - McCoy Gas Com "A" #1*

Project Location: *9705230800; 15' depth*

Sampled by: *GC* Date: *23-May-97* Time: *8:00*

Analyzed by: *DC* Date: *27-May-97*

Sample Matrix: *Liquid*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	<i>875</i>	<i>ug/L</i>	<i>4</i>	<i>ug/L</i>
<i>Toluene</i>	<i>49</i>	<i>ug/L</i>	<i>4</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>359</i>	<i>ug/L</i>	<i>4</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>6726</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>9</i>	<i>ug/L</i>	<i>4</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>8018</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: *5/28/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -