

# Umetco Minerals Corporation



P.O. BOX 1029  
GRAND JUNCTION, COLORADO 81502  
☎ (970) 245-3700

September 30, 2004

Ms. Elaine Brummett, Project Manager  
U. S. Nuclear Regulatory Commission  
Fuel Cycle Licensing Branch, NMSS  
Mail Stop T-8-A-33  
Two White Flint North, 11545 Rockville Pike  
Rockville, Maryland 20852-2738

*Please docket*

*40-0299*

**Subject: Nuclear Regulatory Commission Annual Report  
Gas Hills, Wyoming  
For the report period July 2003 through June 2004**

**Reference: License SUA-648, Docket No. 40-0299**

Dear Ms. Brummett,

Umetco Minerals Corporation hereby submits two copies of the Gas Hills, Wyoming Annual Report prepared in accordance with License SUA-648. This document is submitted in accordance with License Conditions 10, 16, 32, 34, 35, and 39 for the above report period.

If you or your staff have any questions, please call me at (970) 256-8889.

Sincerely,

Thomas E. Gieck  
Reclamation Leader

TEG:ESH

Enclosed: Two copies of the Annual Report for the period July 2003 through June 2004

c : NRC Region IV (Arlington, TX)  
Mark Moxley (Wyoming DEQ)  
Bob Specht (BLM Casper)  
Fred Georgeson (BLM Lander)

**Nuclear Regulatory Commission  
Annual Report  
for  
Gas Hills, Wyoming**

**July 2003 through June 2004**

**License SUA-648  
Docket Number 40-0299**

**Umetco Minerals Corporation  
2754 Compass Drive, Suite 280  
Grand Junction, Colorado 81506**

**September 2004**

## CONTENTS

1.0	INTRODUCTION .....	1
2.0	ORGANIZATIONAL CHART .....	2
3.0	ALARA AUDIT .....	4
4.0	ANNUAL LAND USE SURVEY .....	5
4.1	Private Residences .....	5
4.2	Grazing.....	5
4.3	Private and Public Potable Water and Agricultural Wells.....	5
4.4	Other Operations.....	5
5.0	AIR SAMPLING .....	7
6.0	GROUNDWATER MONITORING REVIEW.....	9
6.1	Annual Sampling .....	9
6.2	Semi-Annual Sampling.....	10
7.0	REFERENCES .....	13

## TABLES

Table 2.1	2004 Organizational Chart.....	3
Table 5.1	Radon-222 Data for July 2003 to June 2004 .....	7
Table 5.2	Gamma Monitoring Data for July 2003 to June 2004 .....	8
Table 6.1	Annual Sampling Results for the Western Flow Regime .....	9
Table 6.2	Annual Sampling Results for the Southwestern Flow Regime.....	10
Table 6.3	Semi-Annual Sampling Results for the Western Flow Regime.....	11
Table 6.4	Semi-Annual Sampling Results for the Southwestern Flow Regime .....	12

## FIGURES

Figure 1 .....	Air, Direct Radiation, and Radon Sample Locations
Figure 2 .....	Groundwater Monitor Wells
Figure 3 .....	Analyte Data for Point of Compliance Wells
Figure 4 .....	Natural Uranium Data for East Gas Hills Monitor Wells
Figures 5 - 12 ...	Concentration Trends in Western Flow Regime POC Wells
Figures 13 - 20 .	Concentration Trends in Southwestern Flow Regime POC Wells
Figure 21 .....	Water Level Elevation Map, June 2004, East Gas Hills Monitor Wells
Figure 22 .....	Phreatic Elevations in Western Flow Regime POC Wells
Figure 23 .....	Phreatic Elevations in Western Flow Regime Monitoring Wells
Figure 24 .....	Phreatic Elevations in Southwestern Flow Regime POC Wells
Figure 25 .....	Phreatic Elevations in Southwestern Flow Regime Monitoring Wells
Figure 26 .....	Chloride Data for East Gas Hills Monitor Wells
Figure 27 .....	Sulfate Data for East Gas Hills Monitor Wells
Figures 28 - 29 .	Chloride and Sulfate Trends in the Western Flow Regime POC Wells
Figures 30 - 31 .	Chloride and Sulfate Trends in the Southwestern Flow Regime POC Wells
Figures 32 - 33 .	Chloride and Sulfate Trends in the Western Flow Regime Monitoring Wells
Figures 34 - 35 .	Natural Uranium Trends in the Western Flow Regime Monitoring Wells
Figures 36 - 37 .	Chloride and Sulfate Trends in the Southwestern Flow Regime Monitoring Wells
Figure 38 .....	Natural Uranium Trends in the Southwestern Flow Regime Monitoring Wells

## APPENDICES

Appendix A	Water Rights Search Documentation
------------	-----------------------------------

## 1.0 INTRODUCTION

This document is submitted in accordance with U. S. Nuclear Regulatory Commission (NRC) License No. SUA-648 Amendment Number 53, Conditions 10B, 16, 32, 34, 35, and 39, Docket Number 40-0299, for the former uranium mill site at Gas Hills, Wyoming. The report includes the Umetco Minerals Corporation (Umetco) organizational structure, environmental monitoring report, land use survey, and groundwater monitoring review for the period between July 1, 2003 and June 30, 2004.

## 2.0 ORGANIZATIONAL CHART

In accordance with License Condition 10B, the authority and responsibilities of each management level for Umetco are presented in Table 2.1 and are described below. Because of the completion of remedial activities, including the final stabilization of the Above Grade Tailings, Heap Leach and A-9 repositories, Umetco has only one on-site employee, the Site Superintendent. The Radiation Safety Officer is a contract employee.

Umetco is a wholly owned subsidiary of Union Carbide Corporation. Union Carbide is a wholly owned subsidiary of the Dow Chemical Company (Dow).

The President of Umetco is responsible for all practices and decisions made by the personnel reporting to him and reports to the Vice President of Environmental, Health and Safety at Dow.

The General Manager is responsible to the President of Umetco for conducting the firm's operations, programs and practices.

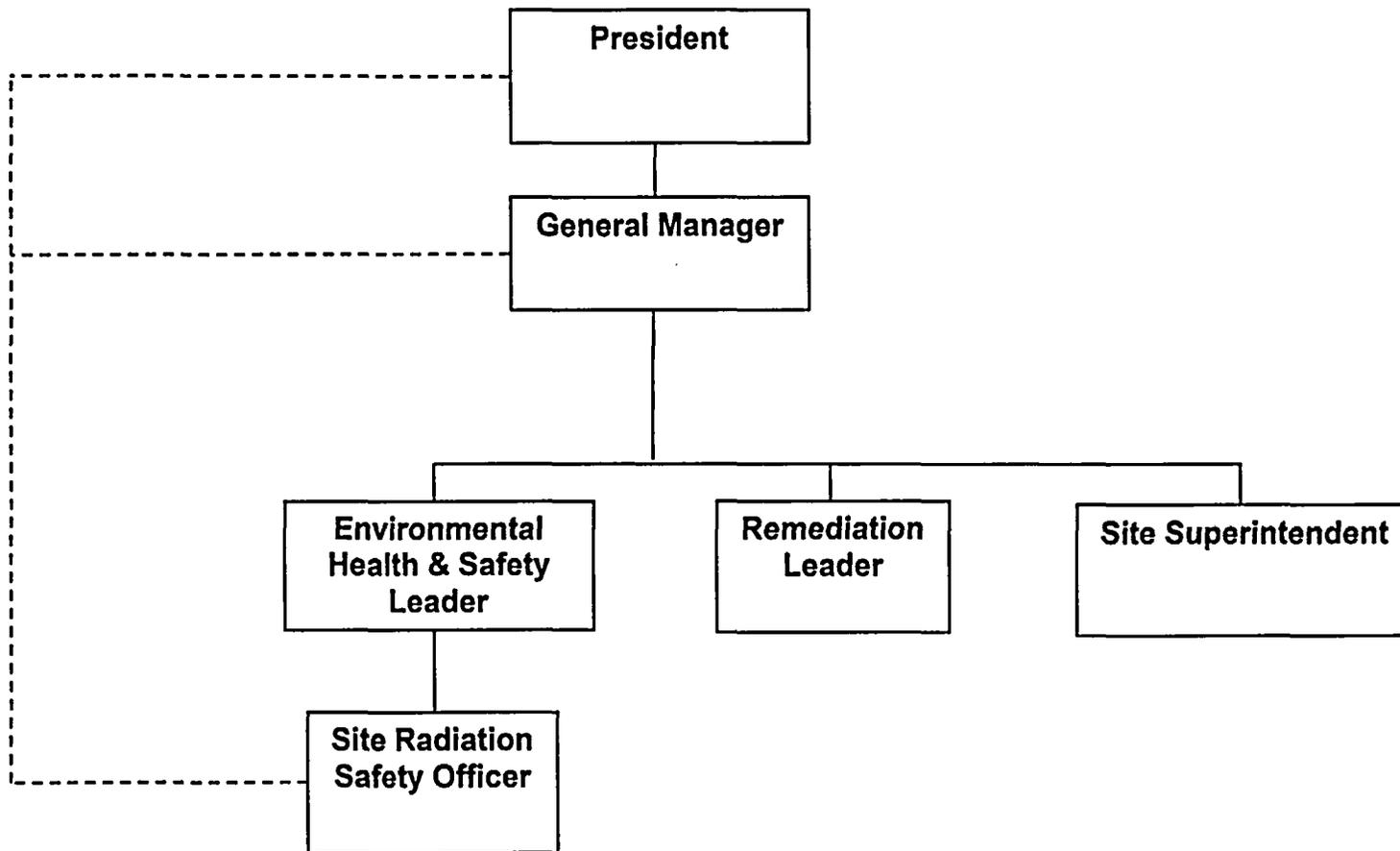
The Environmental Health and Safety Leader reports to the General Manager and provides surveillance and guidance to the reclamation personnel assigned environmental duties. The Environmental Health and Safety Leader is also responsible for occupational health, industrial hygiene and radiological health, and periodically audits the Gas Hills operations to identify potential liabilities and recommend appropriate responses.

The Remediation Leader reports to the General Manager and provides site management.

The Site Superintendent reports directly to the General Manager and is responsible for compliance with the corporation's operational, health, radiation, safety and environmental practices and standards. The Site Superintendent is responsible for the day-to-day operating decisions at the site.

The Radiation Safety Officer is responsible for conducting activities that ensure the site radiation safety program meets applicable standards. This involves monitoring, evaluating personnel exposure and area surveys, overseeing the radiation protection program, providing appropriate training, maintaining monitoring equipment, and reporting. The Radiation Safety Officer develops and coordinates procedure modifications for radiological protection and ALARA policy adherence. The Radiation Safety Officer is authorized to address concerns to the President of Umetco. In routine matters of radiation safety, the Radiation Safety Officer reports directly to the Environmental Health and Safety Leader.

**Table 2.1 2004 Organization Chart for Umetco Minerals Corporation**



### 3.0 ALARA AUDIT

As required by License Condition 16, an ALARA audit was completed on September 7 and 8, 2004. A copy of the annual ALARA audit report is retained at the East Gas Hills site office and is available for NRC review.

The dose assessment for an individual member of the public for the reporting period of July 2003 through June 2004 was calculated to be 88 millirem, which is less than the public dose limit of 100 millirem.

## **4.0 ANNUAL LAND USE SURVEY**

The annual land use survey was prepared in accordance with License Condition 32. Mining, mine reclamation, mineral exploration (for oil and gas), recreational use and seasonal grazing are the primary land uses within the five-mile radius of the Gas Hills site. Three changes in land use have occurred within the survey area since the 2003 annual report was submitted and are listed below:

1. Rock Springs Minerals is applying for a permit to mine bentonite near the Clay Borrow Pit, operated by Umetco. The application is currently under technical review by the Wyoming Department of Environmental Quality, Land Quality Division.
2. Umetco completed placement of erosion protection on the A-9 Repository.
3. Umetco is requesting an Incidental Boundary Revision (IBR) to Wyoming Department of Environmental Quality – Land Quality Division Permit No. 349C. The IBR requests an increase of approximately 82.5 acre in two areas on the western side of the present permit boundary. The northern portion will be used to provide frost protection material for the reclamation of the GHP-2 area. The southern portion is needed for regrading activities associated with the former North and South Evaporation Ponds.

The following sections document current land uses.

### **4.1 Private Residences**

Umetco's Gas Hills site is located in a sparsely populated area within Natrona and Fremont counties in central Wyoming. The majority of the land within five miles of the site is public domain under Bureau of Land Management jurisdiction.

The nearest residence, the JE Ranch, is approximately five miles northeast of the site. It is occupied for one to two weeks per year. The nearest full-time residents are located approximately eight miles to the west-southwest at the Puddle Spring Ranch.

### **4.2 Grazing**

Cattle are the primary livestock in the area and normally graze between April and October. Sheep graze in the early winter months. Native grazing species include antelope, deer, and elk.

### **4.3 Private and Public Potable Water and Agricultural Wells**

The results of the ground water and surface water rights search are given in Appendix A.

### **4.4 Other Operations**

Umetco has three permitted mines in the area. Two of these mines, the Rattlesnake Quarry (active) and the Dutton Limestone Quarry (inactive), produce rock for the reclamation activities at the East Gas Hills site. The third permitted mine, the Clay Borrow Pit (active), produces clay for reclamation use at the site.

As part of this years construction work, Umetco sampled the soil on the Susquehanna haul road. The soil samples are being analyzed for Natural Uranium, Radium-226 and Thorium 230. The results are pending.

Natrona County continued to haul and stockpile waste rock from the Rattlesnake Quarry under a free use permit issued by the Bureau of Land Management.

Kinder Morgan Energy operates a natural gas compressor station approximately two miles north of the East Gas Hills site. Power Resources, Inc. is in the permitting stage of an *in-situ* uranium mining operation, approximately 2.5 miles south of the site. Pathfinder is conducting reclamation activities at the former Lucky Mc uranium mill site, approximately six miles west of the site.

## 5.0 AIR SAMPLING

Radon and direct radiation samples were collected at Air Towers 1, 4, and 6 in accordance with License Condition 34. The air sampling locations are shown on Figure 1 and are described as follows:

- Tower 1 approximately one-sixth mile northeast of the Above Grade Tailings Impoundment (downwind),
- Tower 4 background location approximately three miles west of the site, and
- Tower 6 approximately five miles to the northeast of the site at JE Ranch (nearest residence).

In accordance with License Condition 34A, the Radiation Safety Officer determined that no air particulate sampling was necessary for the reporting period.

As required by License Condition 34B, Radon-222 was monitored at the air sampling locations. The Trak Etch detectors were submitted semi-annually to Landauer, Inc. of Glenwood, Illinois for analyses. Radon-222 data are presented in Table 5.1.

In accordance with License Condition 34C, gamma monitoring was performed quarterly at the tower locations. Results of the gamma monitoring are presented in Table 5.2.

**Table 5.1 Radon-222 Data for July 2003 to June 2004**

Location	Daily Average (microcuries per milliliter, $\mu\text{Ci}/\text{mL}$ )		
	Concentration	Percent Standard Deviation	Detection Limit
<b>Second Half 2003</b>			
Tower 1 (downwind)	1.5 E-9	7.5	0.2 E-9
Tower 4 (background)	1.4 E-9	7.5	0.2 E-9
Tower 6 (nearest residence)	0.4 E-9	11.8	0.2 E-9
<b>First Half 2004</b>			
Tower 1 (downwind)	1.0 E-9	8.7	0.2 E-9
Tower 4 (background)	1.1 E-9	8.3	0.2 E-9
Tower 6 (nearest residence)	0.5 E-9	10.7	0.2 E-9

**Table 5.2 Gamma Monitoring Data for July 2003 to June 2004**

<b>Sample Date</b>	<b>Location</b>	<b>Direct Radiation Result<sup>(1)</sup> (millirem per quarter)</b>
<b>Third Quarter 2003</b> (July to September)	Tower 1 – downwind	75
	Tower 4 – background	53
	Tower 6 – nearest residence	34
<b>Fourth Quarter 2003</b> (October to December)	Tower 1 – downwind	74
	Tower 4 – background	45
	Tower 6 – nearest residence	38
<b>First Quarter 2004</b> (January to March)	Tower 1 – downwind	60
	Tower 4 – background	49
	Tower 6 – nearest residence	41
<b>Second Quarter 2004</b> (April to June)	Tower 1 – downwind	68
	Tower 4 – background	44
	Tower 6 – nearest residence	35

<sup>(1)</sup> Background results have not been subtracted from Tower 1 and Tower 6 data.

## 6.0 GROUNDWATER MONITORING REVIEW

Groundwater monitoring was performed in accordance with the *Groundwater Monitoring Plan, Appendix M*, dated March 2002, and revisions dated October 2002 and January 2004, as required by License Condition 35A.

### 6.1 Annual Sampling

The Point of Compliance (POC) wells (MW1, MW21A, GW7 and GW8) were sampled for the Alternate Concentration Limit (ACL) constituents identified in License Conditions 35B and 35C. The POC wells, shown on Figure 2, were sampled in June 2004. The analytical results are shown in Tables 6.1 and 6.2 and Figure 3. During the report period, the ACLs for lead-210 in the Southwestern Flow Regime were exceeded. The samples were reanalyzed and the results likely indicate laboratory error; the revised results were  $90.5 \pm 2$  pCi/L and  $15.1 \pm 0.79$  pCi/L for GW7 and GW8, respectively. As required by Appendix M of the ACL Application, GW7 and GW8 will be resampled and reanalyzed for lead-210 by October 10, 2004 which is within the three month timeframe to resample. It should also be noted that the detection limits reported for the lead-210 results in MW1 and MW21A were above those required by License Conditions 34D and 35D. Laboratory procedures are being evaluated to determine if the laboratory can attain the detection limits or if the laboratory procedures require revision. No other ACLs were exceeded during this report period.

The isoconcentration map for natural uranium is given in Figure 4. Concentration trend plots for the ACL constituents were developed for the POC wells. Concentration trend plots for MW1 and MW21A (Western Flow Regime) are shown in Figures 5 through 12. The concentration trend plots for GW7 and GW8 (Southwestern Flow Regime) are shown in Figures 13 through 20. The ACL value for each constituent is indicated in the applicable analyzed concentration plots for comparison.

**Table 6.1 Annual Sampling Results for the Western Flow Regime**

Analyte	Units	ACL	MW1	MW21A
Arsenic	mg/L	1.8	0.0014	0.0466
Beryllium	mg/L	1.64	0.0013	0.0187
Lead-210	pCi/L	35.4	$0.29 \pm 1.6^{(1)}$	$0 \pm 1.9^{(1)}$
Nickel	mg/L	13.0	0.92	0.38
Radium-226 + -228	pCi/L	250	$15.56 \pm 0.8$	$26.07 \pm 0.9$
Selenium	mg/L	0.161	0.019	<0.001
Thorium-230	pCi/L	57.4	$0.1 \pm 0.1$	$-0.14 \pm 0.1$
Natural Uranium	mg/L	11.9	7.01	0.00783

<sup>(1)</sup> Sample being reanalyzed.

**Table 6.2 Annual Sampling Results for the Southwestern Flow Regime**

Analyte	Units	ACL	GW7	GW8
Arsenic	mg/L	1.36	0.0114	0.0288
Beryllium	mg/L	1.70	0.0326	0.22
Lead-210	pCi/L	46.7	59.8 ± 2.7 90.5 ± 2 <sup>(1)</sup>	53.4 ± 2.7 15.1 ± 0.79 <sup>(1)</sup>
Nickel	mg/L	9.34	1.23	2.56
Radium-226 + -228	pCi/L	353	144 ± 4.2	101.3 ± 2.2
Selenium	mg/L	0.53	<0.001	<0.001
Thorium-230	pCi/L	44.8	0.07 ± 0.1	0.64 ± 0.2
Natural Uranium	mg/L	34.1	12.5	21.6

(1) Reanalyzed sample result.

## 6.2 Semi-Annual Sampling

POC wells MW21A and GW7 and the non-POC wells listed in Table M-1 of Appendix M (revised October 2002) were sampled semiannually in October 2003 and June 2004 for natural uranium, chloride, sulfate, and measured for water levels. The analytical results are shown in Table 6.3 and Table 6.4. A water level elevation map is provided in Figure 21. Hydrographs for Western Flow Regime POC and non-POC wells are shown in Figures 22 and 23. The Southwestern Flow Regime hydrographs are shown in Figures 24 and 25. Isoconcentration maps for natural uranium, chloride and sulfate are shown in Figures 4, 26 and 27, respectively. Comprehensive isoconcentration maps for each of the ACL constituents developed from data collected prior to ACL monitoring can be found in Appendix G of the Final Application for ACLs for Gas Hills, Wyoming, (Umetco May 2001). The Appendix G isoconcentration maps provide a baseline assessment of the distribution of ACL constituents. Concentration trend plots of chloride and sulfate for the POC wells are shown in Figures 28 through 31. Chloride, sulfate and natural uranium trends for the non-POC wells are shown in Figures 32 through 37.

The chloride and sulfate results of the four groundwater model verification wells (MW71B, MW28, MW72 and MW82) were compared with the target levels for 2004 given in Tables 2 through 5 of Appendix M and its subsequent revisions. The sulfate and chloride target levels were not exceeded in any of the model verification wells.

**Table 6.3 Semi-Annual Sampling Results for the Western Flow Regime**

Monitoring Location	Sampling Date	Analyte (mg/L)		
		Chloride	Sulfate	Natural Uranium <sup>(1)</sup>
MW21A	10-7-03	81	1450	0.0051
	6-11-04	85	1230	0.00783
MW25	10-9-03	118	2790	0.0039
	6-17-04	109	2670	0.009
MW28 <sup>(2)</sup>	10-14-03	36 <sup>(3)</sup>	1040 <sup>(3)</sup>	0.00051
	6-23-04	41 <sup>(3)</sup>	1150 <sup>(3)</sup>	0.00352
MW164	10-15-03	188	5650	7.12
	6-24-04	154	5040	6.78
MW70A	10-7-03	142	2890	3.05
	6-14-04	79	1150	2.24
MW71B <sup>(2)</sup>	10-8-03	25	530	0.0022
	6-18-04	26	520	0.002
MW77	10-13-03	4	600	0.00097
	6-11-04	5	590	0.00317
Iron Spring	10-15-03	12	580	0.01780
	6-22-04	15	820	0.016

- (1) There are no action levels for natural uranium at the non-POC wells.
- (2) MW28 and MW71B are Model Validation Wells for Western Flow Regime.
- (3) Revised target levels given in the January 2004 revision to Appendix M.

**Table 6.4 Semi-Annual Sampling Results for the Southwestern Flow Regime**

Monitoring Location	Sampling Date	Analyte (mg/L)		
		Chloride	Sulfate	Natural Uranium <sup>(1)</sup>
GW7	10-16-03	179	1540	11.5
	6-21-04	207	1320	12.5
PW4	10-21-03	144	1270	0.285
	6-17-04	143	1360	0.444
MW72 <sup>(2)</sup>	10-14-03	105	1070	1.46
	6-21-04	115	1190	1.56
MW82 <sup>(2)</sup>	10-15-03	46	500	0.0434
	6-21-04	49	550	0.0498

(1) There are no action levels for natural uranium in non-POC wells.

(2) MW72 and MW82 are Model Validation Wells for the Southwestern Flow Regime.

## 7.0 REFERENCES

Umetco Minerals Corporation. March 2002. *Application for Alternate Concentration Limits for Gas Hills, Wyoming, Appendix M - Groundwater Monitoring Plan.*

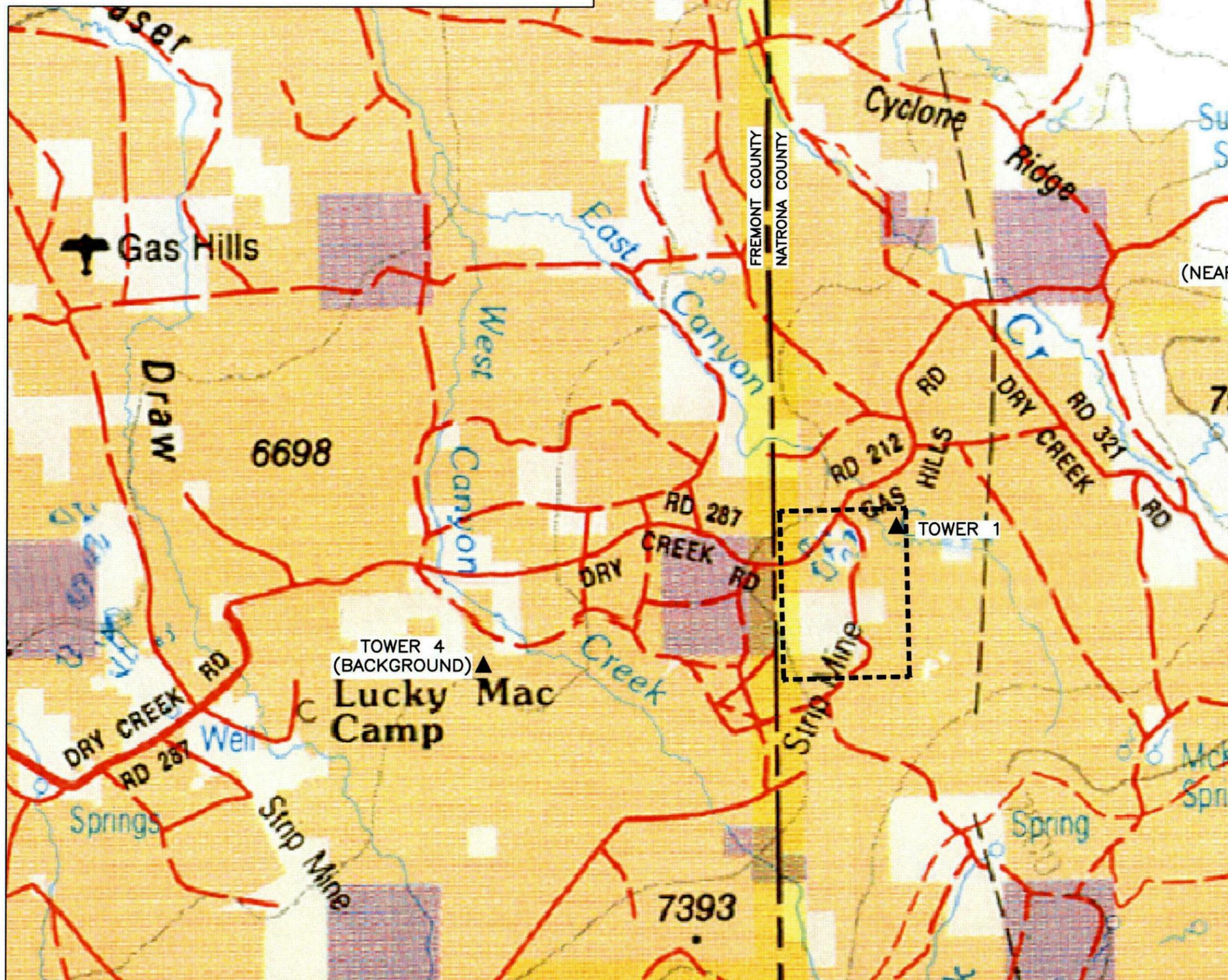
Umetco Minerals Corporation. October 2002. *Application for Alternate Concentration Limits for Gas Hills, Wyoming, Appendix M – Groundwater Monitoring Plan; Revised Table M-1 and Table 5.*

Umetco Minerals Corporation. January 2004. *Application for Alternate Concentration Limits for Gas Hills, Wyoming, Appendix M – Groundwater Monitoring Plan; Revised Table 3.*

U. S. Nuclear Regulatory Commission. February 2004. License Condition Changes for License SUA-648-Amendment #53.

**SAMPLE DESIGNATION AND SAMPLES COLLECTED:**

- TOWER 1 – AIR, DIRECT RADIATION AND RADON
- TOWER 4 – AIR, DIRECT RADIATION AND RADON
- TOWER 6 – AIR, DIRECT RADIATION AND RADON



**LEGEND:**

- ▲ – ENVIRONMENTAL SAMPLE LOCATION
- TOWER 1 – ENVIRONMENTAL SAMPLE DESIGNATION
- APPROXIMATE SITE BOUNDARY



SCALE: 1" = 1 MILE

**NOTE:**

MAP SCANNED FROM DeLORME MAPPING'S 1992 WYOMING ATLAS AND GAZETTEER.

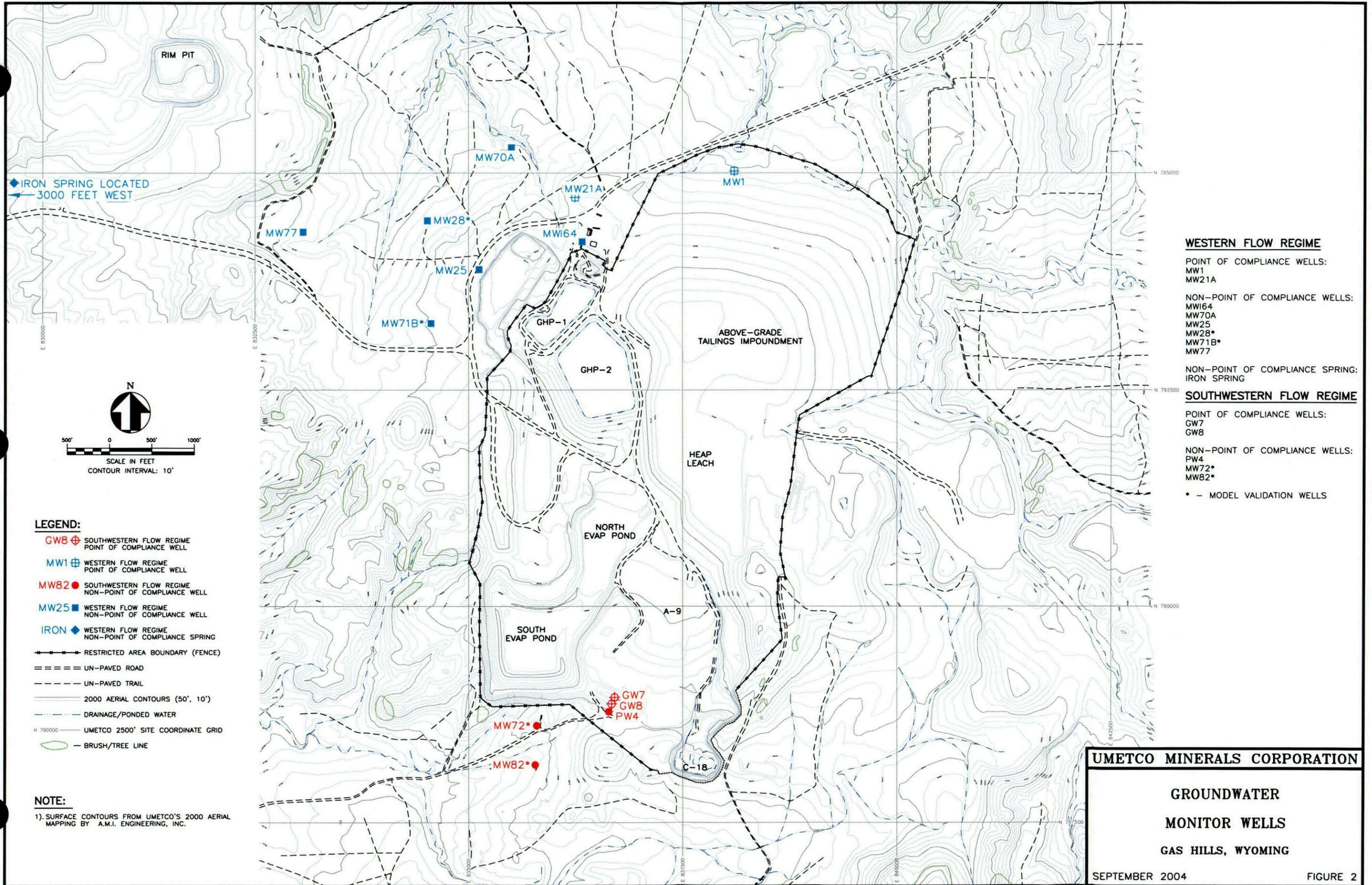
**UMETCO MINERALS CORPORATION**

**AIR, DIRECT RADIATION AND  
RADON SAMPLE LOCATIONS**

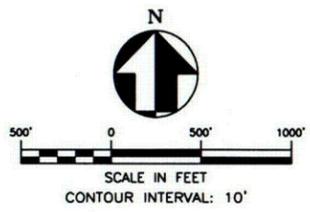
**GAS HILLS, WYOMING**

SEPTEMBER 2004

FIGURE 1



◆ IRON SPRING LOCATED  
← 3000 FEET WEST



- LEGEND:**
- GW8 ⊕ SOUTHWESTERN FLOW REGIME POINT OF COMPLIANCE WELL
  - MW1 ⊕ WESTERN FLOW REGIME POINT OF COMPLIANCE WELL
  - MW82 ● SOUTHWESTERN FLOW REGIME NON-POINT OF COMPLIANCE WELL
  - MW25 ■ WESTERN FLOW REGIME NON-POINT OF COMPLIANCE WELL
  - IRON ◆ WESTERN FLOW REGIME NON-POINT OF COMPLIANCE SPRING
  - +—+—+— RESTRICTED AREA BOUNDARY (FENCE)
  - ==== UN-PAVED ROAD
  - - - - UN-PAVED TRAIL
  - 2000 AERIAL CONTOURS (50', 10')
  - DRAINAGE/PONDED WATER
  - UMETCO 2500' SITE COORDINATE GRID
  - — BRUSH/TREE LINE

**NOTE:**  
1). SURFACE CONTOURS FROM UMETCO'S 2000 AERIAL MAPPING BY A.M.I. ENGINEERING, INC.

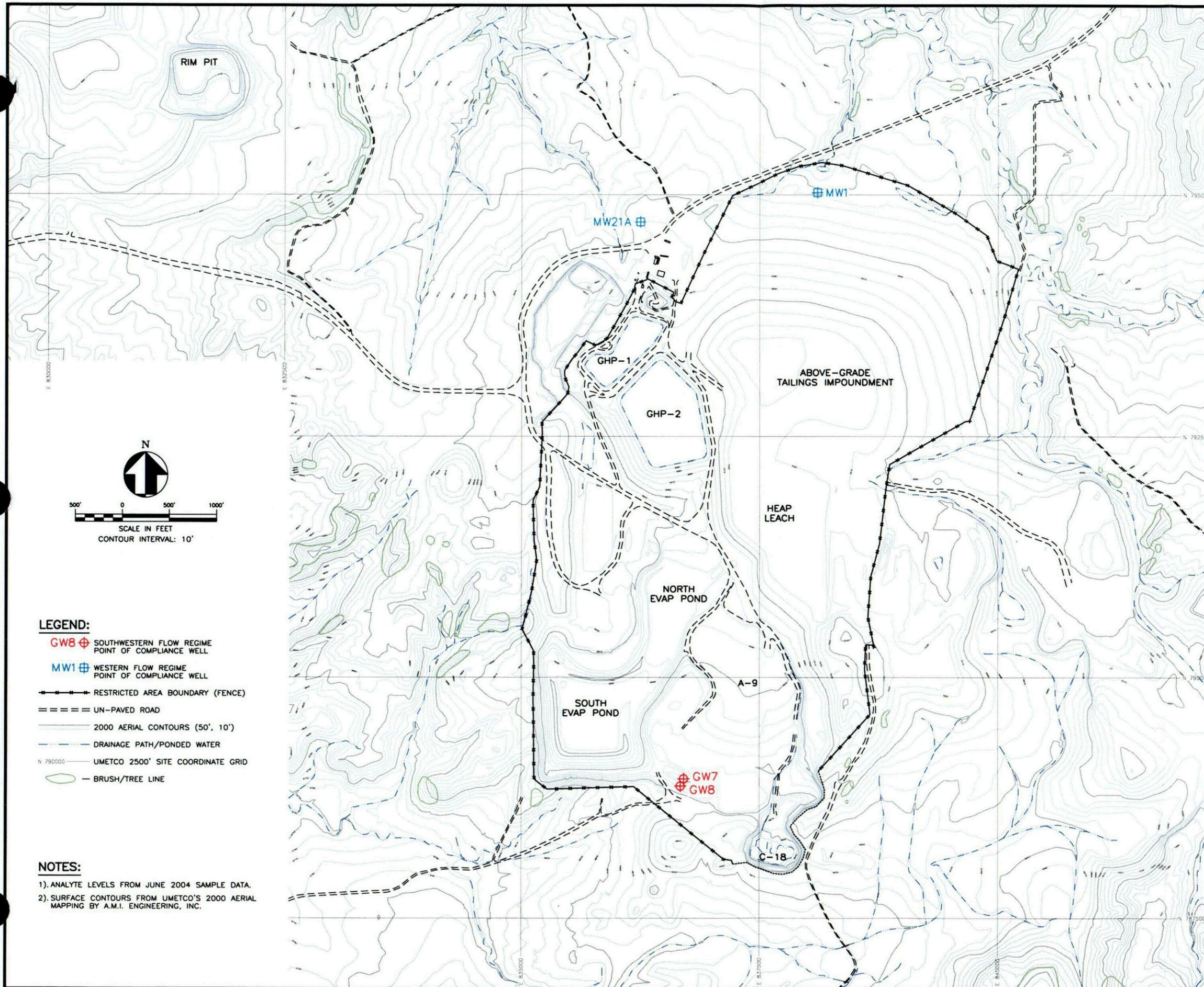
- WESTERN FLOW REGIME**
- POINT OF COMPLIANCE WELLS:  
MW1  
MW21A
- NON-POINT OF COMPLIANCE WELLS:  
MW164  
MW70A  
MW25  
MW28\*  
MW71B\*  
MW77
- NON-POINT OF COMPLIANCE SPRING:  
IRON SPRING
- SOUTHWESTERN FLOW REGIME**
- POINT OF COMPLIANCE WELLS:  
GW7  
GW8
- NON-POINT OF COMPLIANCE WELLS:  
PW4  
MW72\*  
MW82\*
- \* — MODEL VALIDATION WELLS

**UMETCO MINERALS CORPORATION**

**GROUNDWATER  
MONITOR WELLS**

**GAS HILLS, WYOMING**

SEPTEMBER 2004 FIGURE 2



**WESTERN FLOW REGIME ANALYTE DATA**

WELL ID	ANALYTE	LEVEL/UNIT	DATE
MW1	ARSENIC	0.0014 mg/L	6/22/2004
MW1	BERYLIUM	0.0013 mg/L	6/22/2004
MW1	LEAD 210	0.29 pCi/L	6/22/2004
MW1	NAT. URANIUM	7.01 mg/L	6/22/2004
MW1	NICKEL	0.92 mg/L	6/22/2004
MW1	RADIUM 226	8.97 pCi/L	6/22/2004
MW1	RADIUM 228	6.59 pCi/L	6/22/2004
MW1	SELENIUM	0.019 mg/L	6/22/2004
MW1	THORIUM 230	0.1 pCi/L	6/22/2004
MW21A	ARSENIC	0.0466 mg/L	6/11/2004
MW21A	BERYLIUM	0.0187 mg/L	6/11/2004
MW21A	LEAD 210	0.0 pCi/L	6/11/2004
MW21A	NAT. URANIUM	0.00783 mg/L	6/11/2004
MW21A	NICKEL	0.38 mg/L	6/11/2004
MW21A	RADIUM 226	9.67 pCi/L	6/11/2004
MW21A	RADIUM 228	16.4 pCi/L	6/11/2004
MW21A	SELENIUM	<0.001 mg/L	6/11/2004
MW21A	THORIUM 230	-0.14 pCi/L	6/11/2004

**SOUTHWESTERN FLOW REGIME ANALYTE DATA**

WELL ID	ANALYTE	LEVEL/UNIT	DATE
GW7	ARSENIC	0.0114 mg/L	6/21/2004
GW7	BERYLIUM	0.0326 mg/L	6/21/2004
GW7	LEAD 210	59.8 pCi/L	6/21/2004
GW7	NAT. URANIUM	12.5 mg/L	6/21/2004
GW7	NICKEL	1.23 mg/L	6/21/2004
GW7	RADIUM 226	140 pCi/L	6/21/2004
GW7	RADIUM 228	3.61 pCi/L	6/21/2004
GW7	SELENIUM	<0.001 mg/L	6/21/2004
GW7	THORIUM 230	0.07 pCi/L	6/21/2004
GW8	ARSENIC	0.0288 mg/L	6/21/2004
GW8	BERYLIUM	0.22 mg/L	6/21/2004
GW8	LEAD 210	53.4 pCi/L	6/21/2004
GW8	NAT. URANIUM	21.6 mg/L	6/21/2004
GW8	NICKEL	2.56 mg/L	6/21/2004
GW8	RADIUM 226	98.5 pCi/L	6/21/2004
GW8	RADIUM 228	2.75 pCi/L	6/21/2004
GW8	SELENIUM	<0.001 mg/L	6/21/2004
GW8	THORIUM 230	0.64 pCi/L	6/21/2004

**LEGEND:**

- ⊕ **GW8** SOUTHWESTERN FLOW REGIME POINT OF COMPLIANCE WELL
- ⊕ **MW1** WESTERN FLOW REGIME POINT OF COMPLIANCE WELL
- +—+—+— RESTRICTED AREA BOUNDARY (FENCE)
- ==== UN-PAVED ROAD
- 2000 AERIAL CONTOURS (50', 10')
- — — — DRAINAGE PATH/PONDED WATER
- UMETCO 2500' SITE COORDINATE GRID
- BRUSH/TREE LINE

**NOTES:**

- 1). ANALYTE LEVELS FROM JUNE 2004 SAMPLE DATA.
- 2). SURFACE CONTOURS FROM UMETCO'S 2000 AERIAL MAPPING BY A.M.I. ENGINEERING, INC.

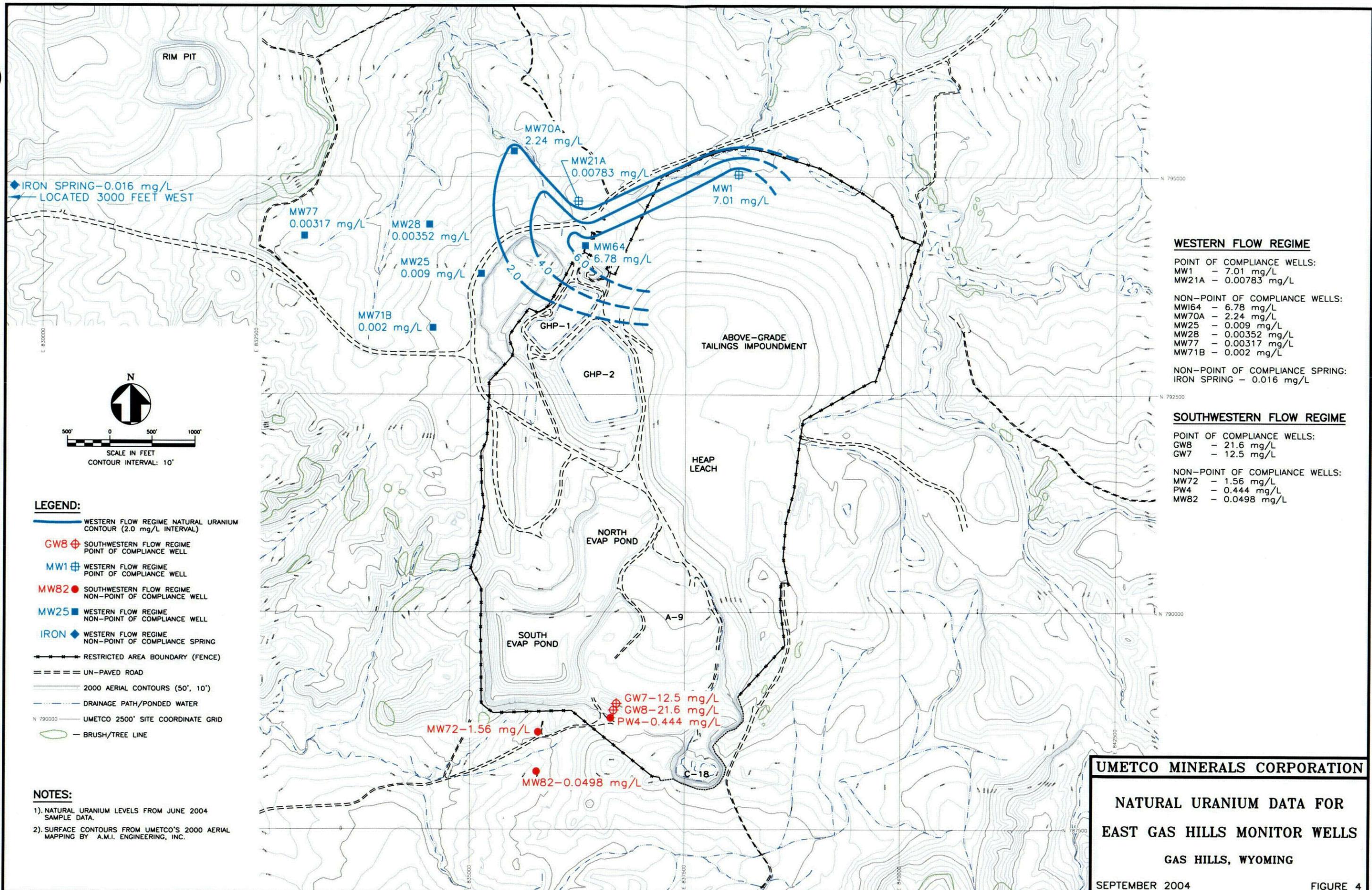
**UMETCO MINERALS CORPORATION**

**ANALYTE DATA FOR  
POINT OF COMPLIANCE WELLS**

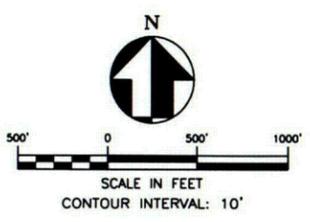
**GAS HILLS, WYOMING**

SEPTEMBER 2004

FIGURE 3



◆ IRON SPRING - 0.016 mg/L  
 LOCATED 3000 FEET WEST



- LEGEND:**
- WESTERN FLOW REGIME NATURAL URANIUM CONTOUR (2.0 mg/L INTERVAL)
  - ⊕ GW8 SOUTHWESTERN FLOW REGIME POINT OF COMPLIANCE WELL
  - ⊕ MW1 WESTERN FLOW REGIME POINT OF COMPLIANCE WELL
  - MW82 SOUTHWESTERN FLOW REGIME NON-POINT OF COMPLIANCE WELL
  - MW25 WESTERN FLOW REGIME NON-POINT OF COMPLIANCE WELL
  - ◆ IRON WESTERN FLOW REGIME NON-POINT OF COMPLIANCE SPRING
  - +—+—+— RESTRICTED AREA BOUNDARY (FENCE)
  - ==== UN-PAVED ROAD
  - 2000 AERIAL CONTOURS (50', 10')
  - - - - DRAINAGE PATH/PONDED WATER
  - N 790000 UMETCO 2500' SITE COORDINATE GRID
  - — BRUSH/TREE LINE

- NOTES:**
- 1). NATURAL URANIUM LEVELS FROM JUNE 2004 SAMPLE DATA.
  - 2). SURFACE CONTOURS FROM UMETCO'S 2000 AERIAL MAPPING BY A.M.I. ENGINEERING, INC.

**WESTERN FLOW REGIME**

POINT OF COMPLIANCE WELLS:  
 MW1 - 7.01 mg/L  
 MW21A - 0.00783 mg/L

NON-POINT OF COMPLIANCE WELLS:  
 MW164 - 6.78 mg/L  
 MW70A - 2.24 mg/L  
 MW25 - 0.009 mg/L  
 MW28 - 0.00352 mg/L  
 MW77 - 0.00317 mg/L  
 MW71B - 0.002 mg/L

NON-POINT OF COMPLIANCE SPRING:  
 IRON SPRING - 0.016 mg/L

**SOUTHWESTERN FLOW REGIME**

POINT OF COMPLIANCE WELLS:  
 GW8 - 21.6 mg/L  
 GW7 - 12.5 mg/L

NON-POINT OF COMPLIANCE WELLS:  
 MW72 - 1.56 mg/L  
 PW4 - 0.444 mg/L  
 MW82 - 0.0498 mg/L

**UMETCO MINERALS CORPORATION**

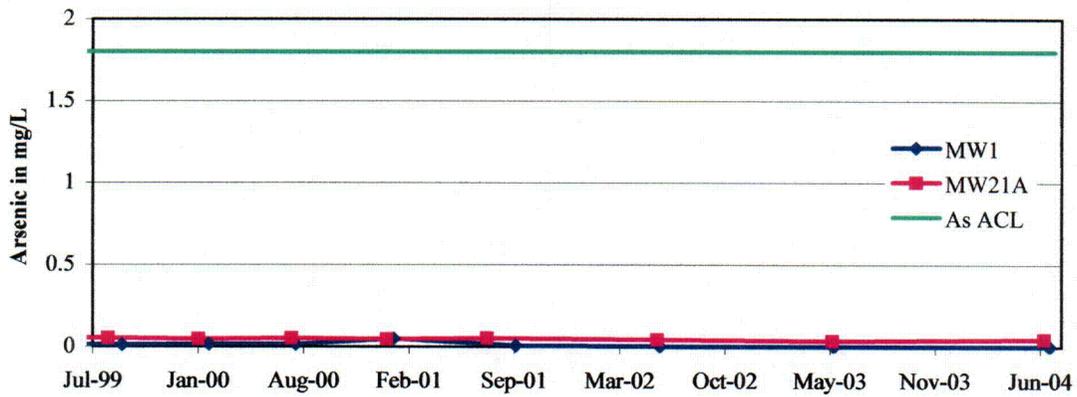
**NATURAL URANIUM DATA FOR  
 EAST GAS HILLS MONITOR WELLS**

**GAS HILLS, WYOMING**

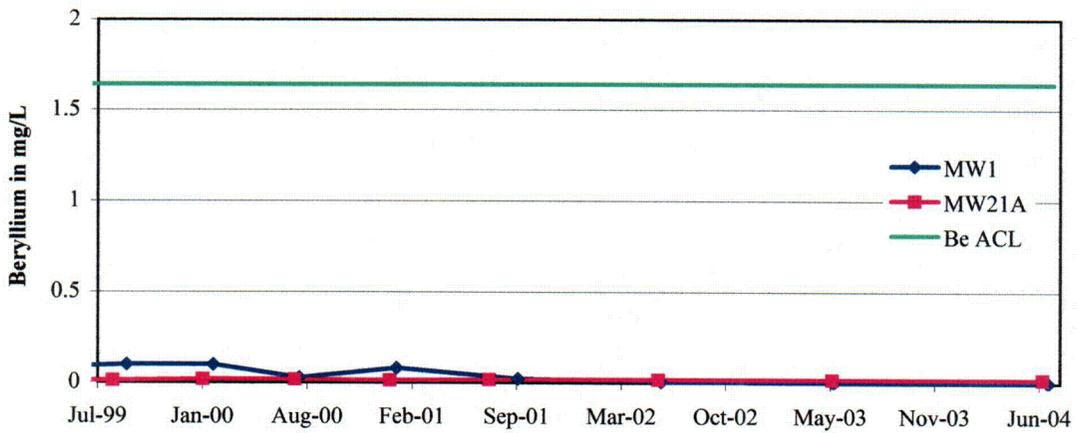
SEPTEMBER 2004

FIGURE 4

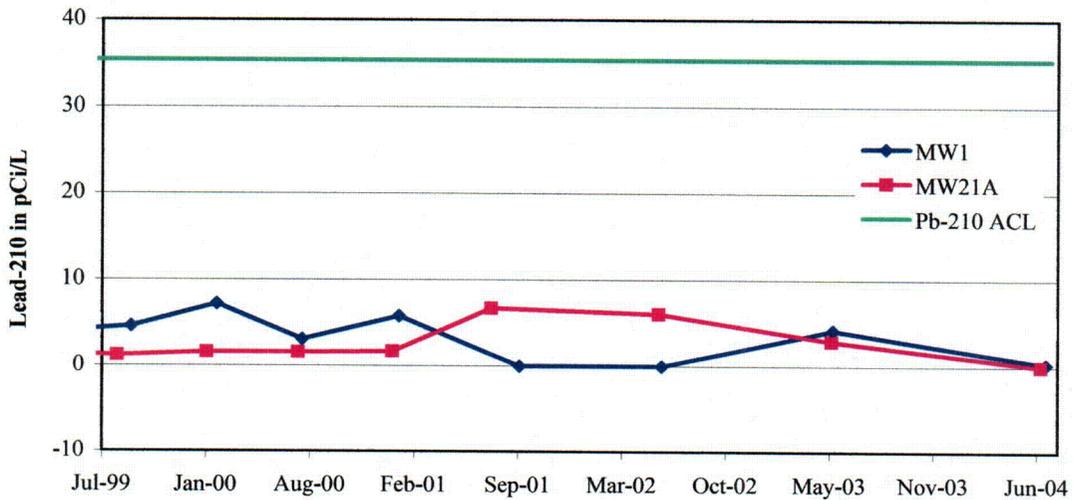
**Figure 5 Arsenic Trends in the Western Flow Regime POC Wells**



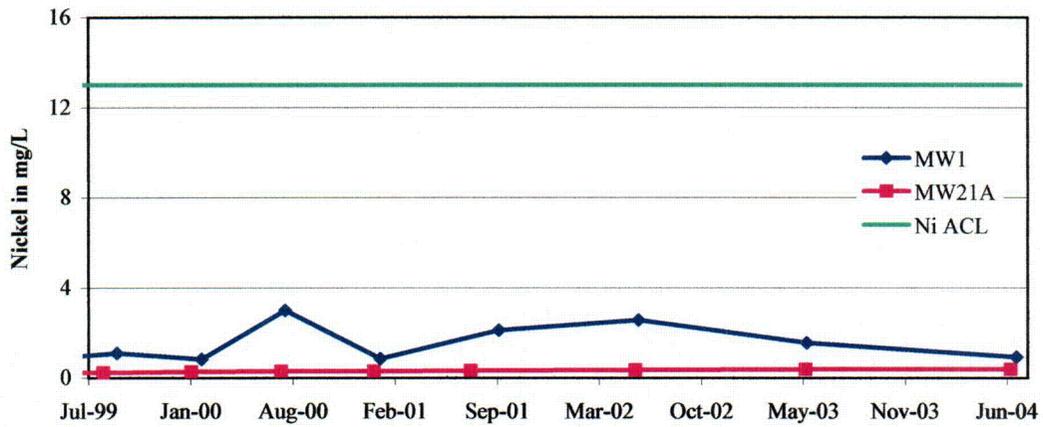
**Figure 6 Beryllium Trends in the Western Flow Regime POC Wells**



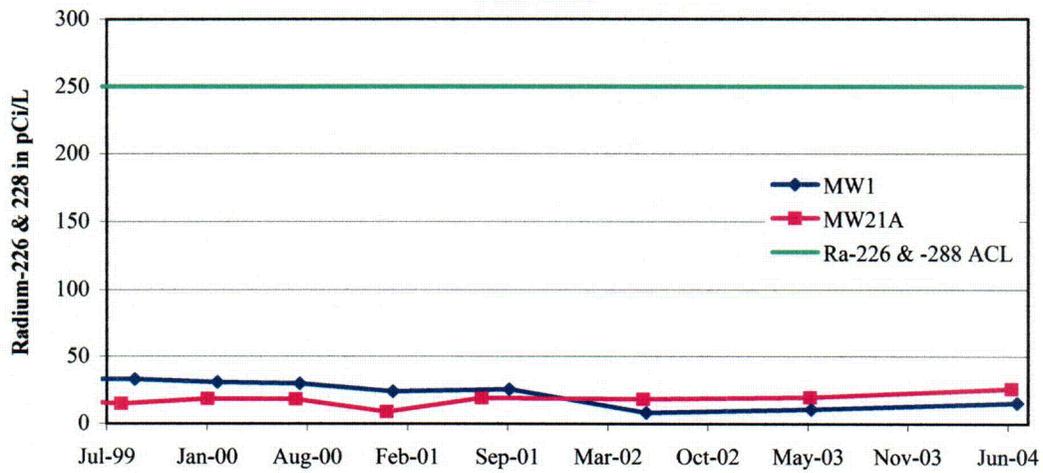
**Figure 7 Lead-210 Trends in the Western Flow Regime POC Wells**



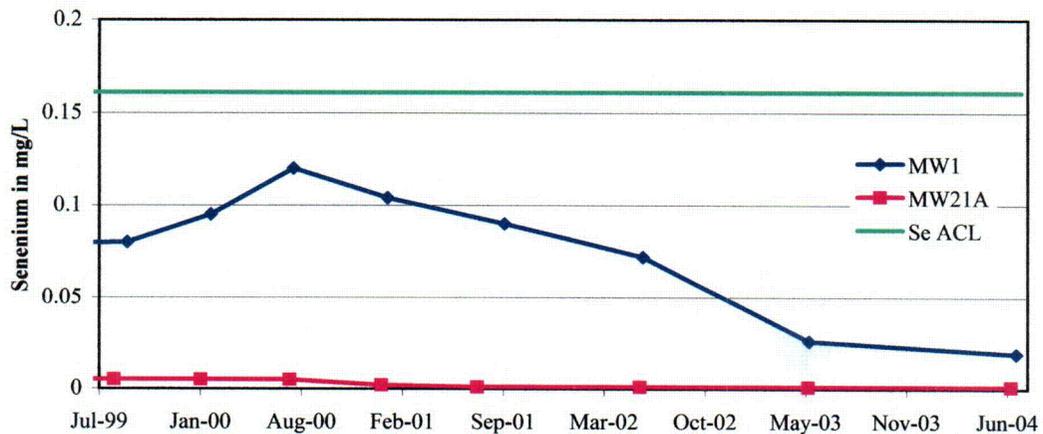
**Figure 8 Nickel Trends in the Western Flow Regime POC Wells**



**Figure 9 Combined Radium-226 & 228 Trends in the Western Flow Regime POC Wells**

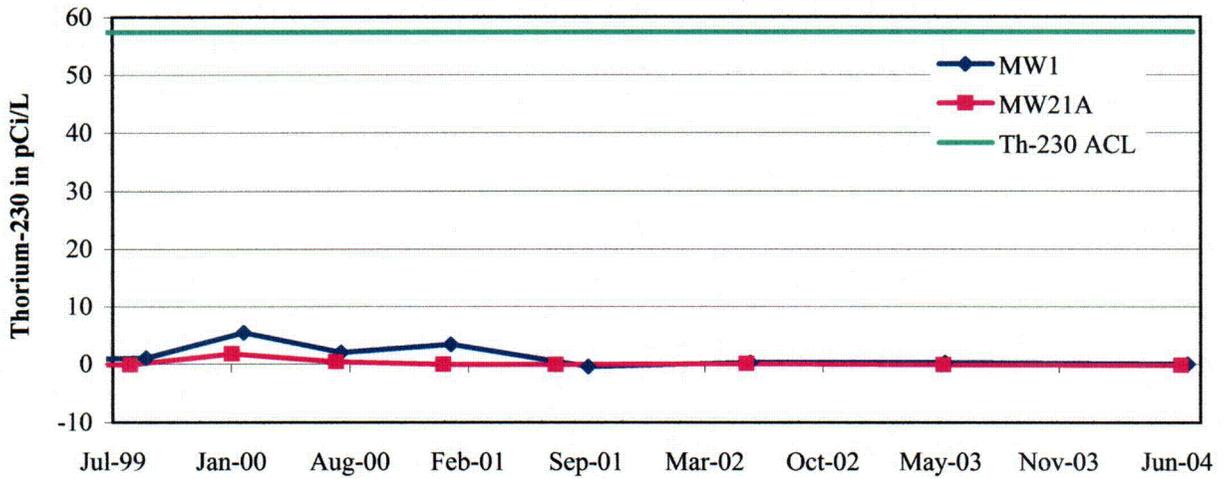


**Figure 10 Selenium Trends in the Western Flow Regime POC Wells**

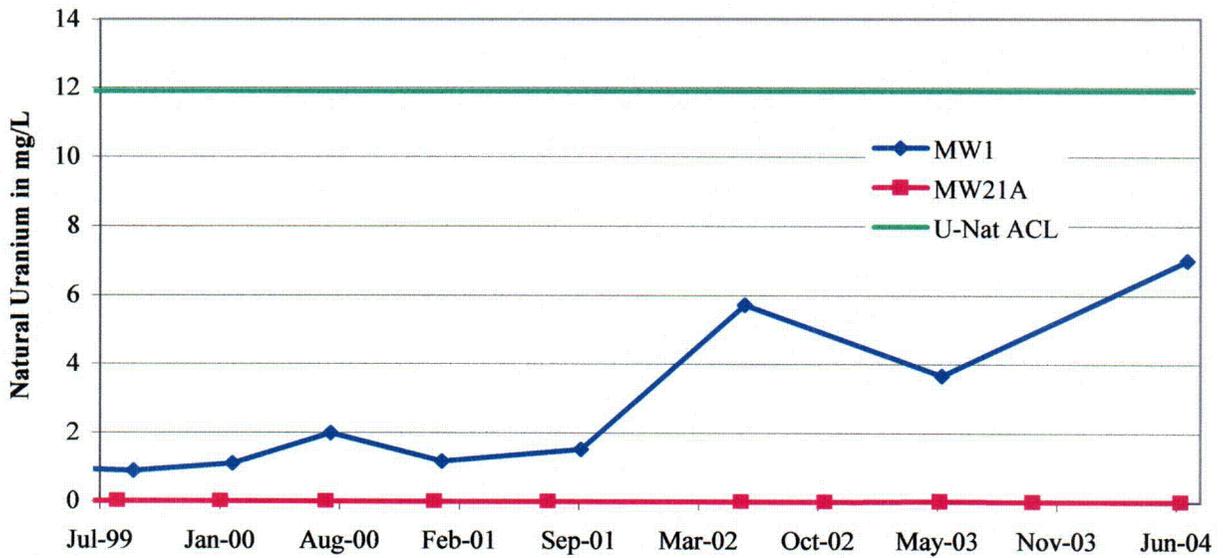


COC

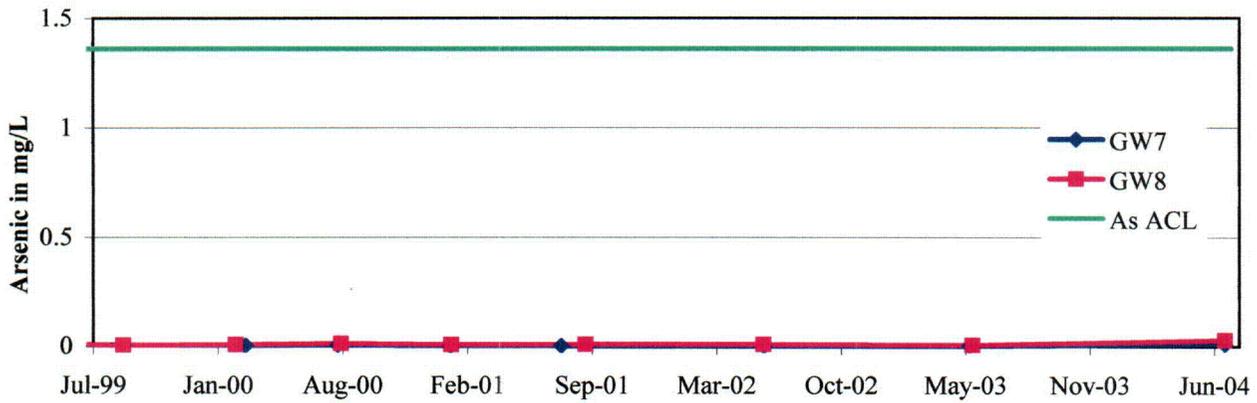
**Figure 11 Thorium-230 Trends in the Western Flow Regime POC Wells**



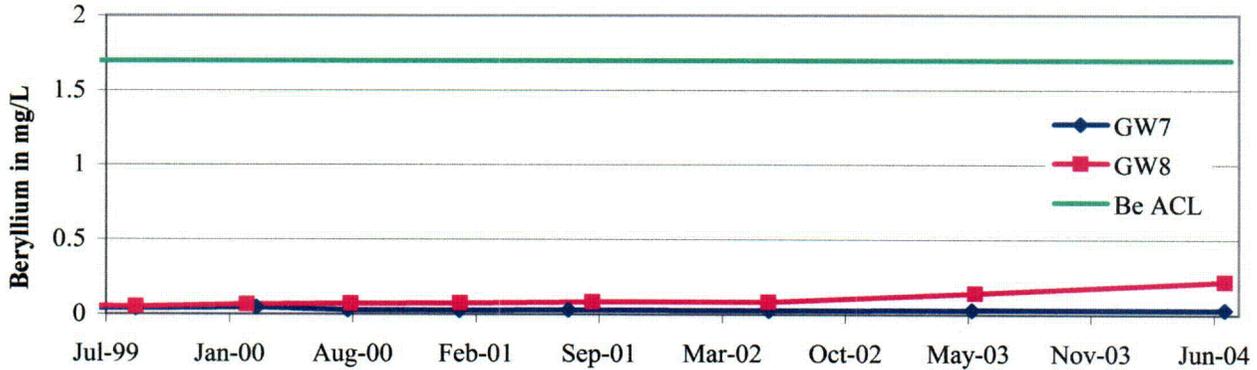
**Figure 12 Natural Uranium Trends in the Western Flow Regime POC Wells**



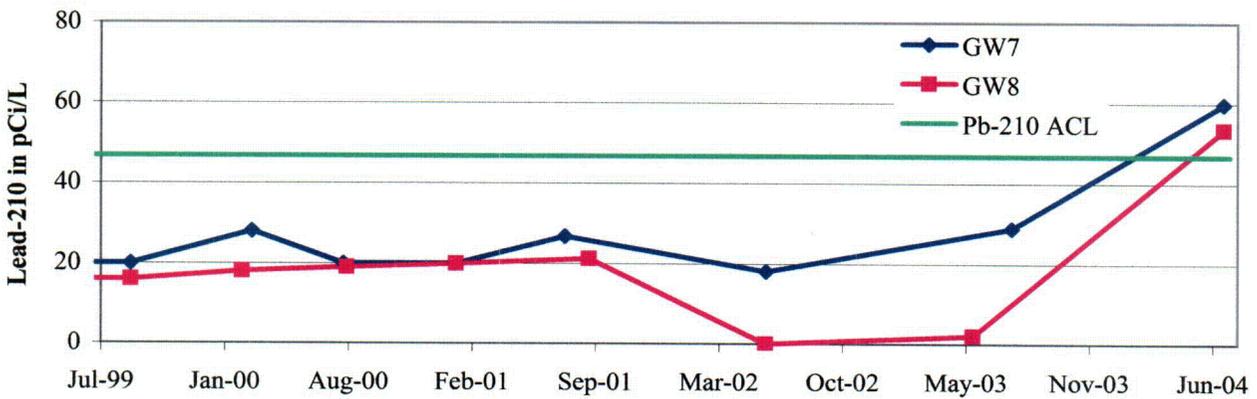
**Figure 13 Arsenic Trends in the Southwestern Flow Regime POC Wells**



**Figure 14 Beryllium Trends in the Southwestern Flow Regime POC Wells**

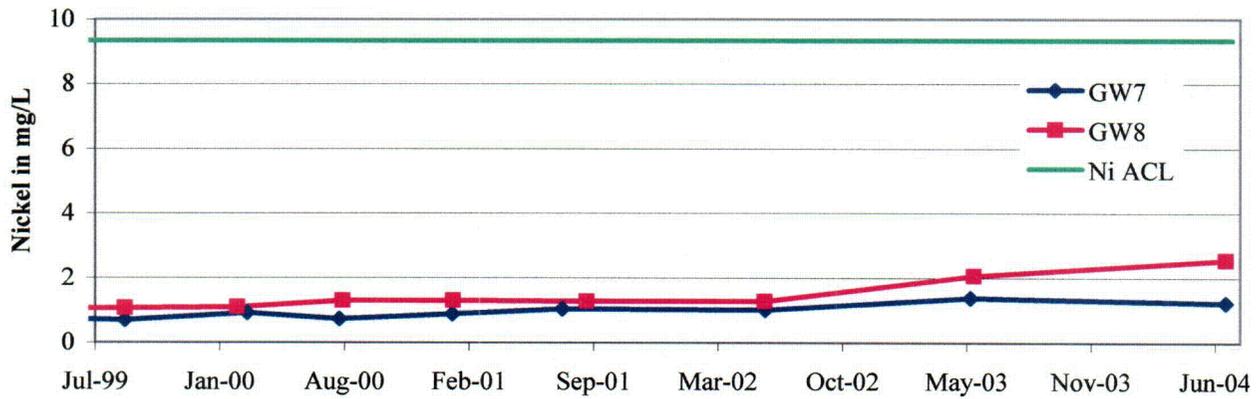


**Figure 15 Lead-210 Trends in the Southwestern Flow Regime POC Wells**

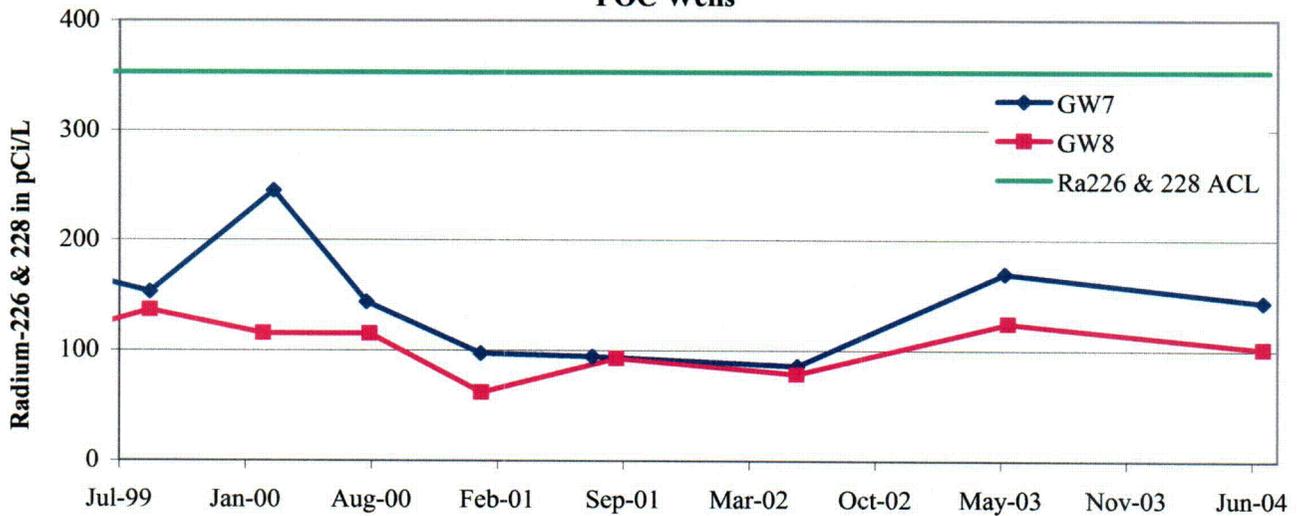


008

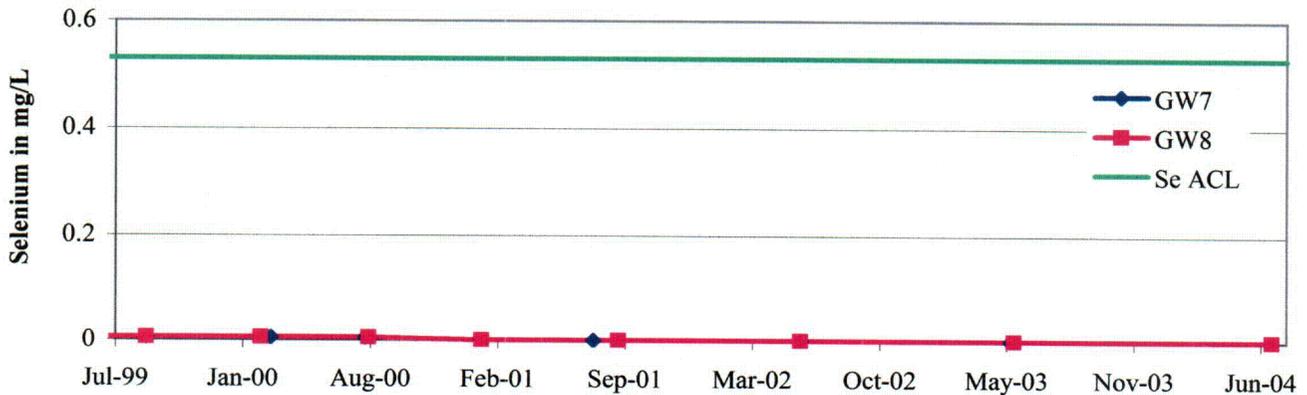
**Figure 16 Nickel Trends in the Southwestern Flow Regime POC Wells**



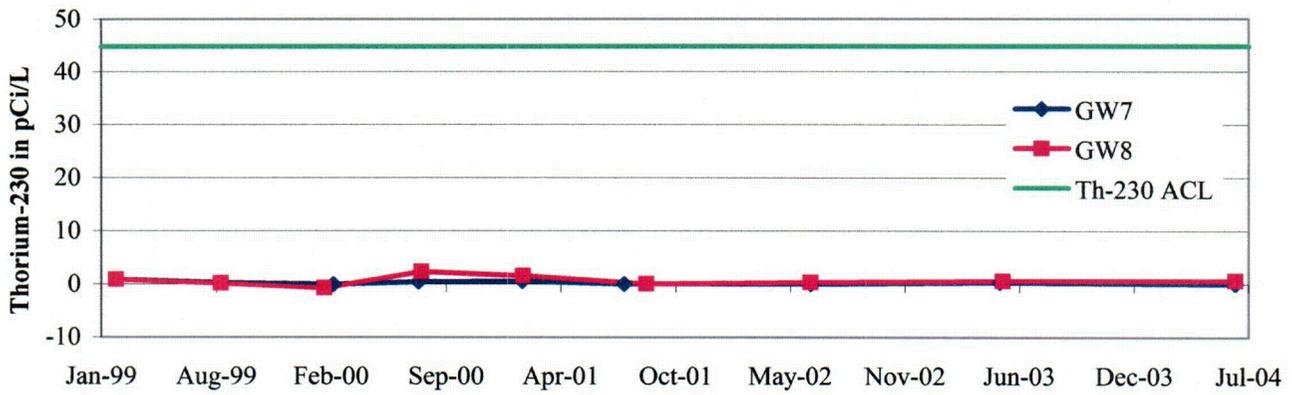
**Figure 17 Combined Radium-226 & 228 Trends in the Southwestern Flow Regime POC Wells**



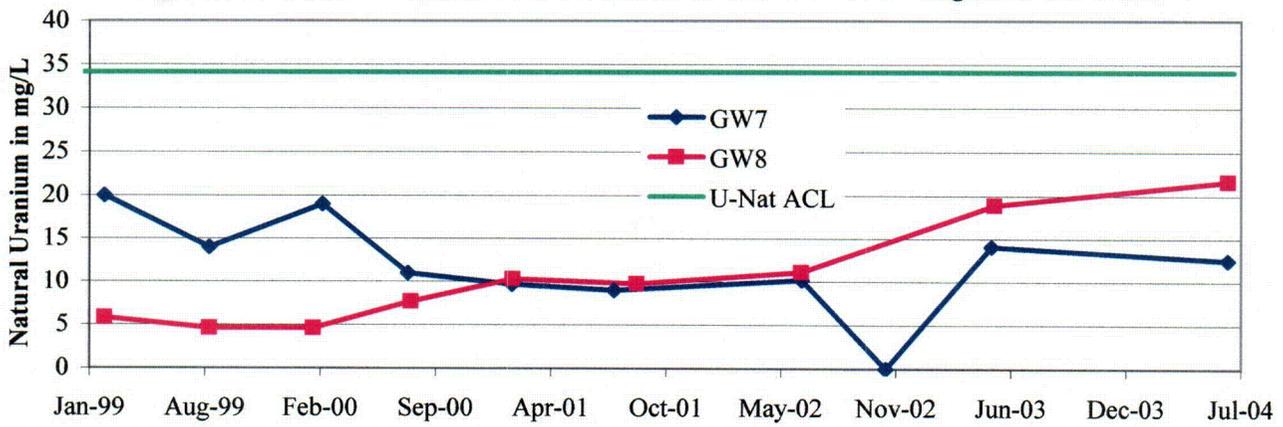
**Figure 18 Selenium Trends in the Southwestern Flow Regime POC Wells**

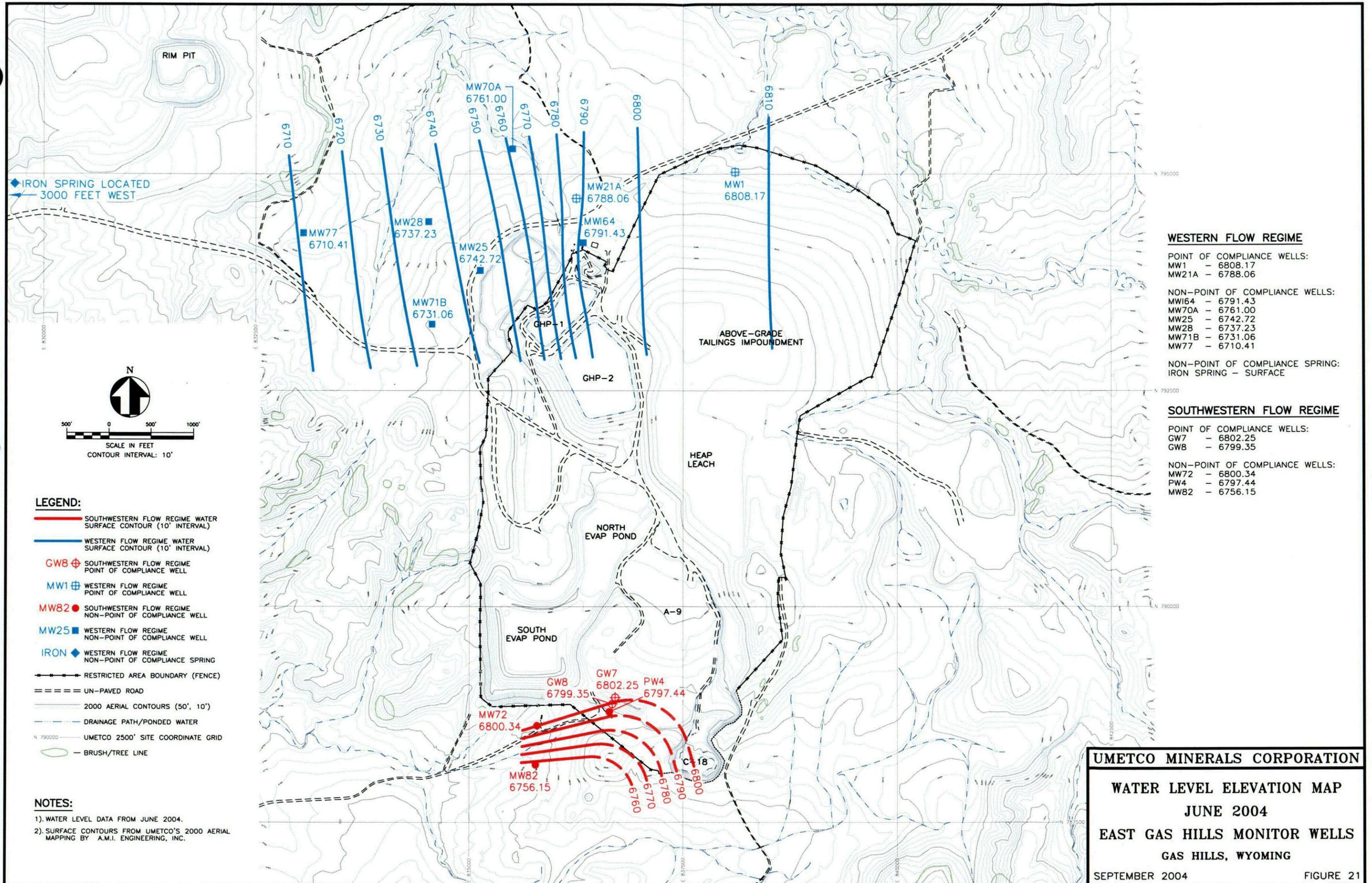


**Figure 19 Thorium-230 Trends in the Southwestern Flow Regime POC Wells**

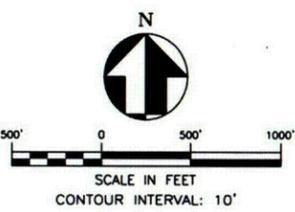


**Figure 20 Natural Uranium Trends in the Southwestern Flow Regime POC Wells**





◆ IRON SPRING LOCATED 3000 FEET WEST



**LEGEND:**

- SOUTHWESTERN FLOW REGIME WATER SURFACE CONTOUR (10' INTERVAL)
- WESTERN FLOW REGIME WATER SURFACE CONTOUR (10' INTERVAL)
- ⊕ GW8 SOUTHWESTERN FLOW REGIME POINT OF COMPLIANCE WELL
- ⊕ MW1 WESTERN FLOW REGIME POINT OF COMPLIANCE WELL
- MW82 SOUTHWESTERN FLOW REGIME NON-POINT OF COMPLIANCE WELL
- MW25 WESTERN FLOW REGIME NON-POINT OF COMPLIANCE WELL
- ◆ IRON WESTERN FLOW REGIME NON-POINT OF COMPLIANCE SPRING
- RESTRICTED AREA BOUNDARY (FENCE)
- UN-PAVED ROAD
- 2000 AERIAL CONTOURS (50', 10')
- DRAINAGE PATH/PONDED WATER
- UMETCO 2500' SITE COORDINATE GRID
- BRUSH/TREE LINE

**NOTES:**

- 1). WATER LEVEL DATA FROM JUNE 2004.
- 2). SURFACE CONTOURS FROM UMETCO'S 2000 AERIAL MAPPING BY A.M.I. ENGINEERING, INC.

**WESTERN FLOW REGIME**

POINT OF COMPLIANCE WELLS:  
 MW1 - 6808.17  
 MW21A - 6788.06

NON-POINT OF COMPLIANCE WELLS:  
 MW164 - 6791.43  
 MW70A - 6761.00  
 MW25 - 6742.72  
 MW28 - 6737.23  
 MW71B - 6731.06  
 MW77 - 6710.41

NON-POINT OF COMPLIANCE SPRING:  
 IRON SPRING - SURFACE

**SOUTHWESTERN FLOW REGIME**

POINT OF COMPLIANCE WELLS:  
 GW7 - 6802.25  
 GW8 - 6799.35

NON-POINT OF COMPLIANCE WELLS:  
 MW72 - 6800.34  
 PW4 - 6797.44  
 MW82 - 6756.15

**UMETCO MINERALS CORPORATION**

**WATER LEVEL ELEVATION MAP**

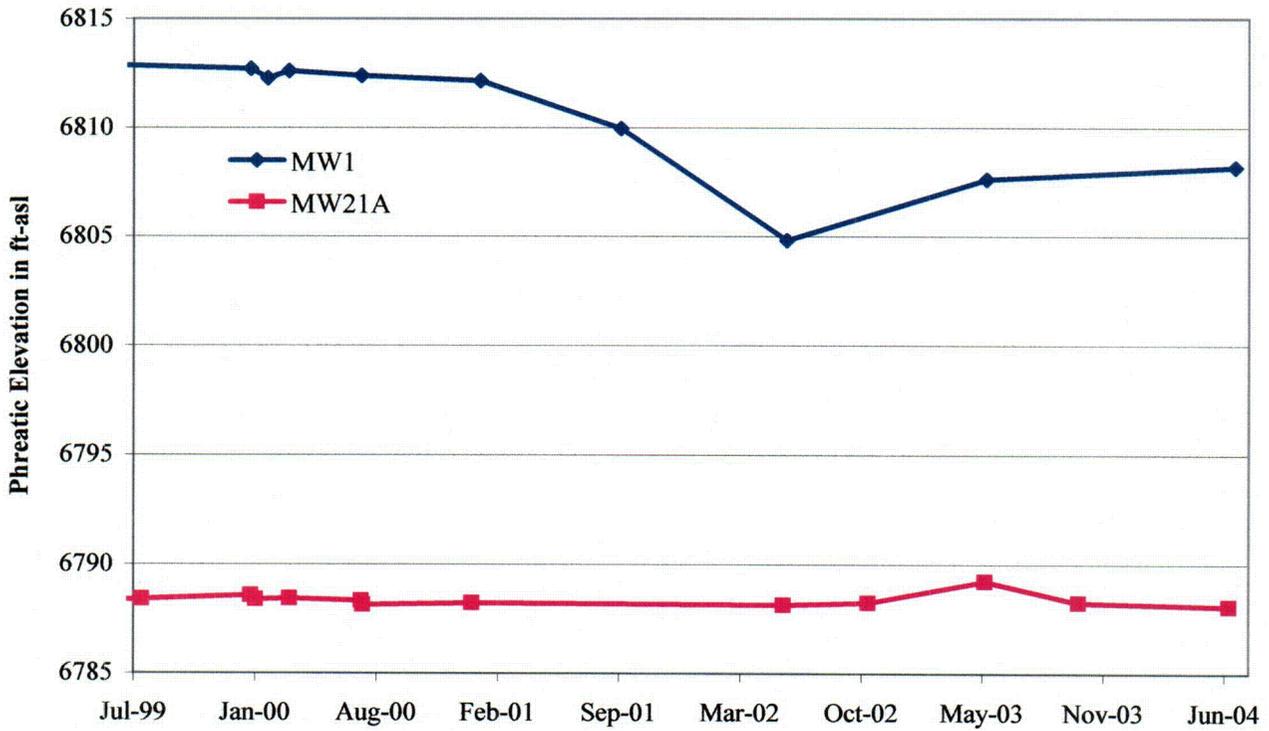
**JUNE 2004**

**EAST GAS HILLS MONITOR WELLS**

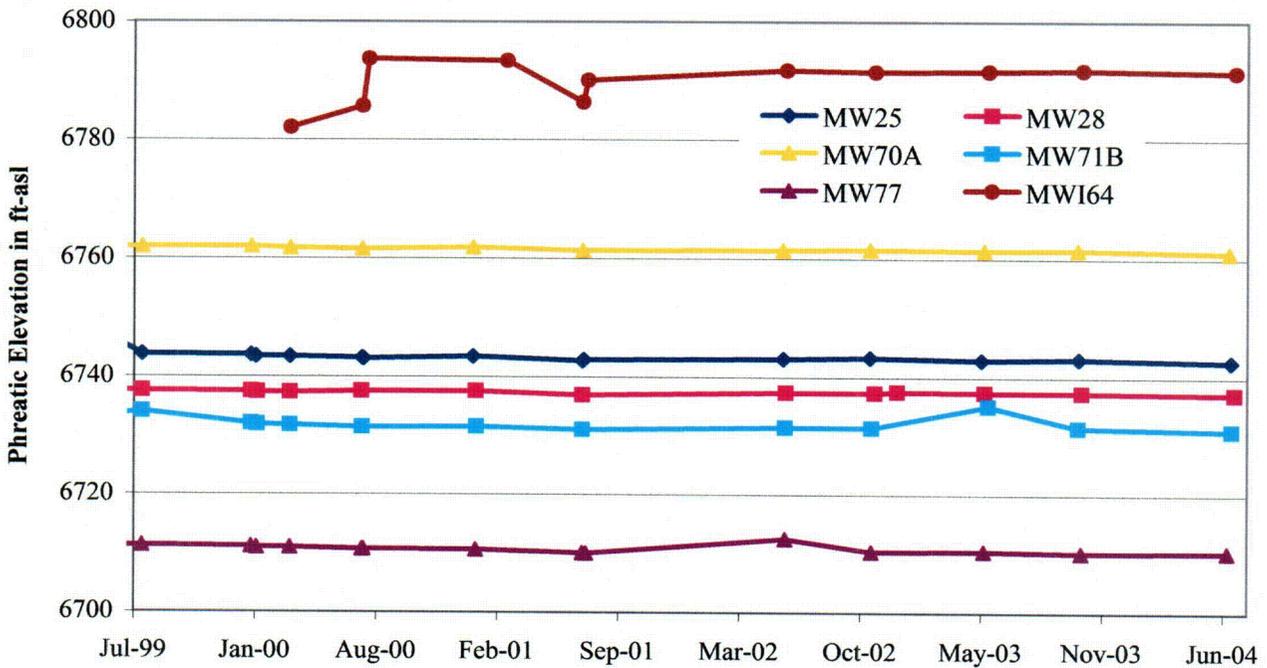
**GAS HILLS, WYOMING**

SEPTEMBER 2004 FIGURE 21

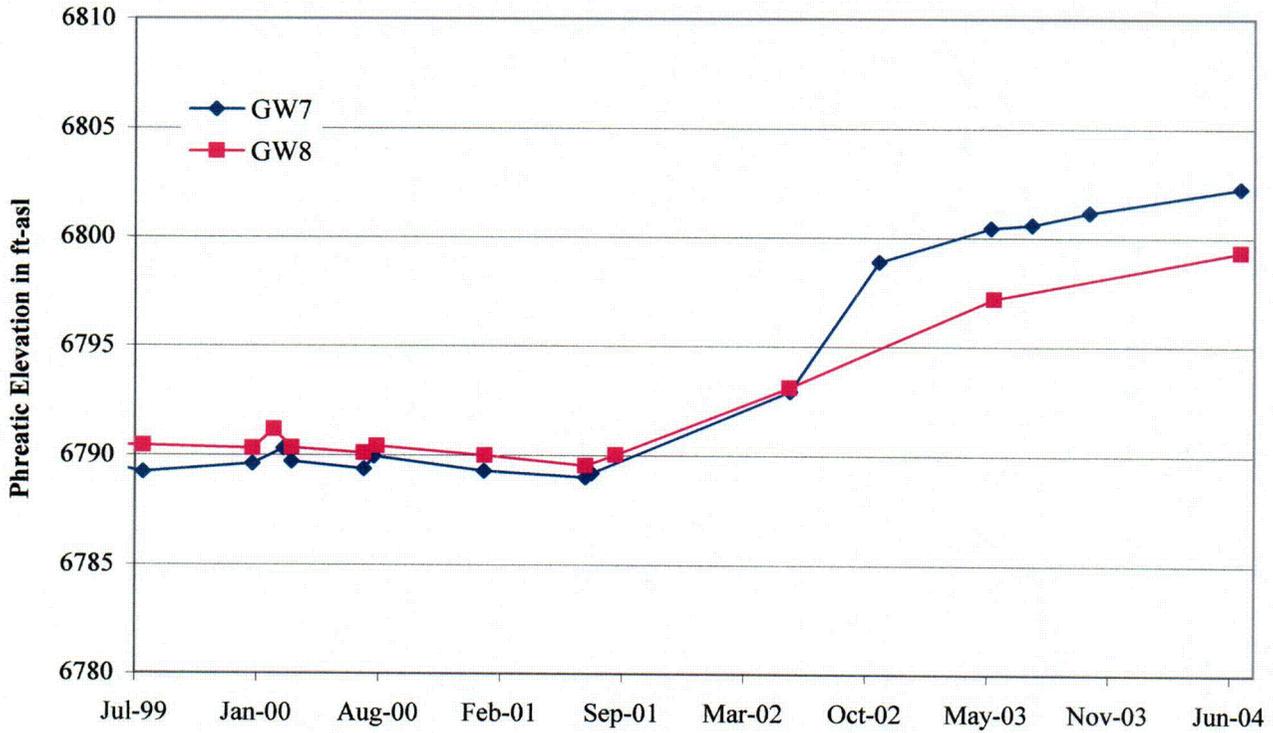
**Figure 22 Phreatic Elevations in the Western Flow Regime POC Wells**



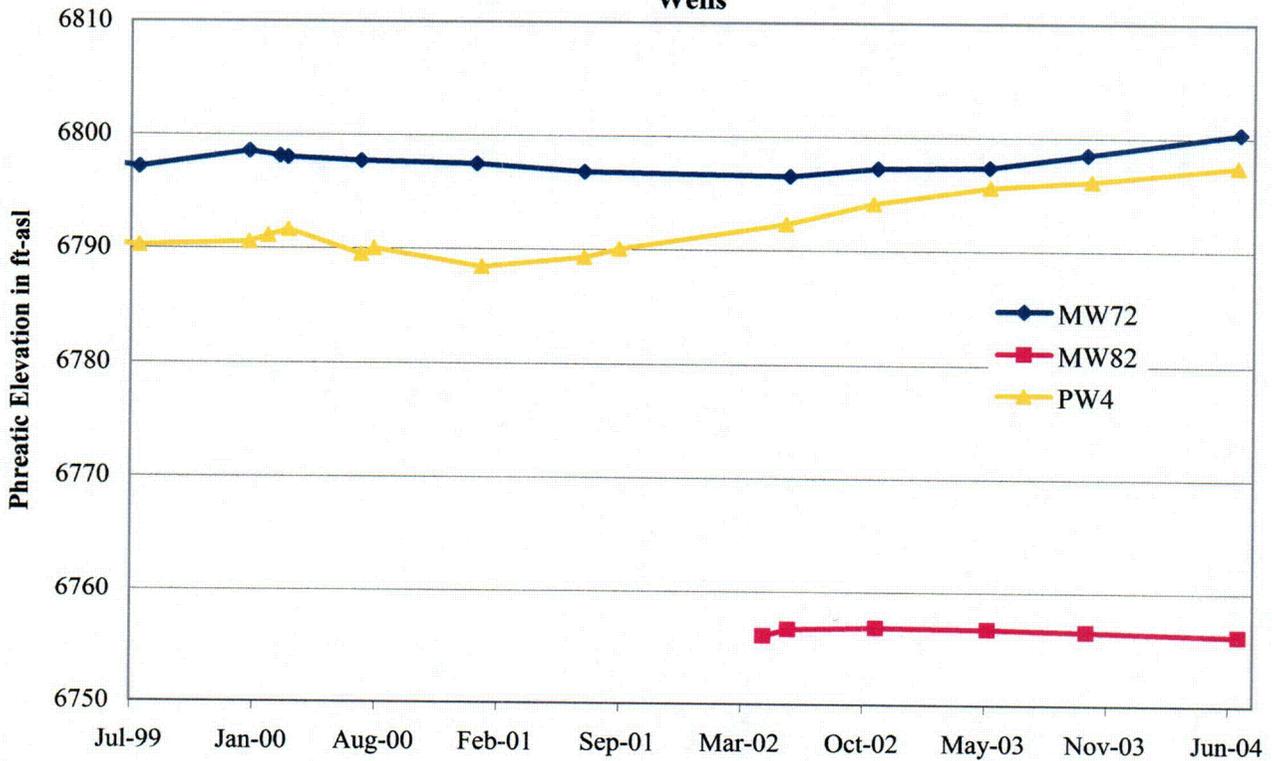
**Figure 23 Phreatic Elevations in the Western Flow Regime Monitoring Wells**

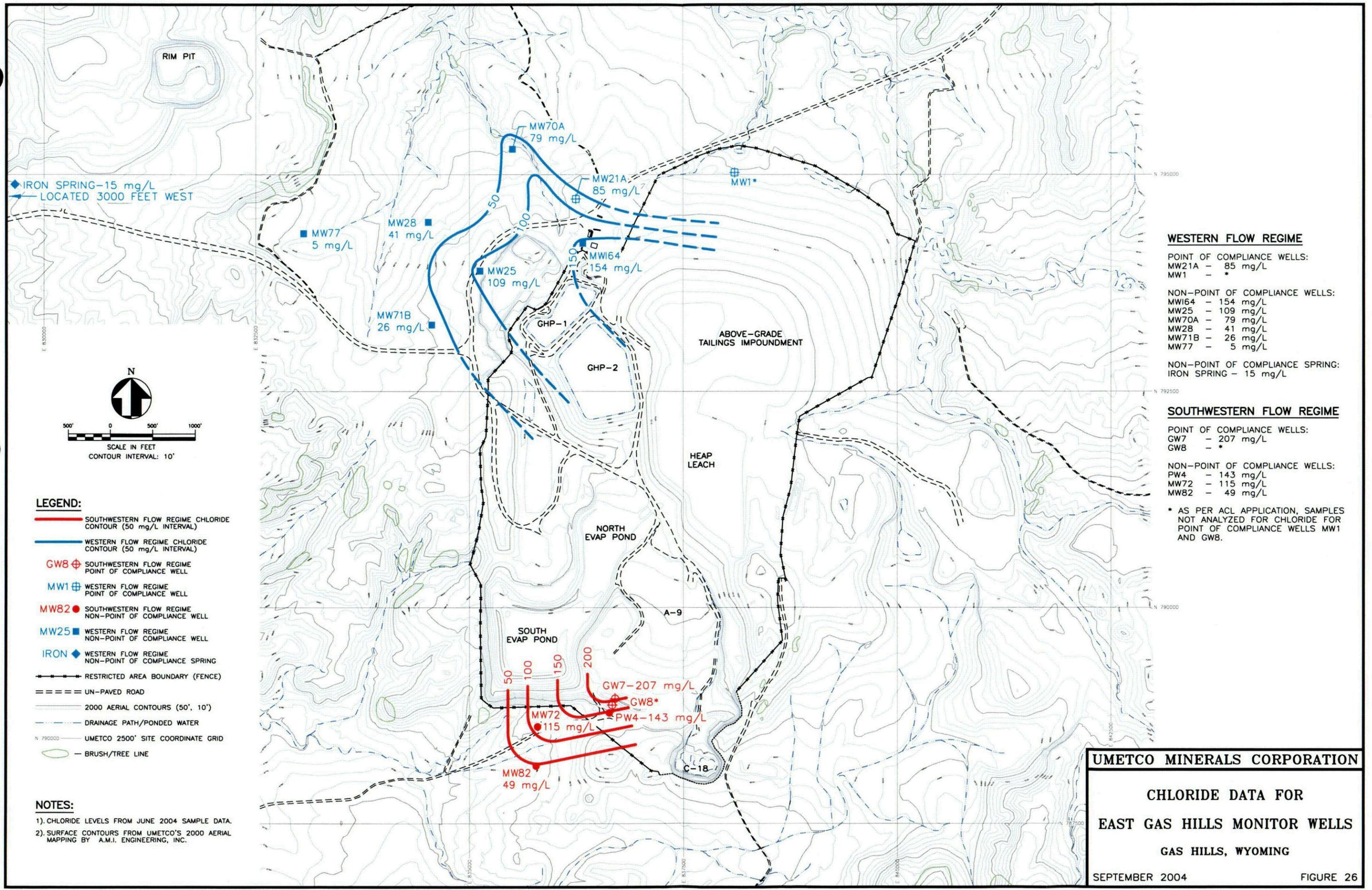


**Figure 24 Phreatic Elevations in the Southwestern Flow Regime POC Wells**

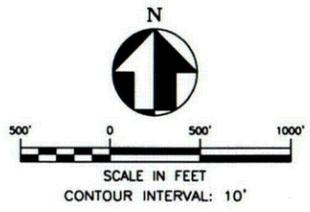


**Figure 25 Phreatic Elevations in the Southwestern Flow Regime Monitoring Wells**





◆ IRON SPRING - 15 mg/L  
 LOCATED 3000 FEET WEST



- LEGEND:**
- SOUTHWESTERN FLOW REGIME CHLORIDE CONTOUR (50 mg/L INTERVAL)
  - WESTERN FLOW REGIME CHLORIDE CONTOUR (50 mg/L INTERVAL)
  - ⊕ SOUTHWESTERN FLOW REGIME POINT OF COMPLIANCE WELL
  - ⊕ WESTERN FLOW REGIME POINT OF COMPLIANCE WELL
  - SOUTHWESTERN FLOW REGIME NON-POINT OF COMPLIANCE WELL
  - WESTERN FLOW REGIME NON-POINT OF COMPLIANCE WELL
  - ◆ WESTERN FLOW REGIME NON-POINT OF COMPLIANCE SPRING
  - RESTRICTED AREA BOUNDARY (FENCE)
  - UN-PAVED ROAD
  - 2000 AERIAL CONTOURS (50', 10')
  - DRAINAGE PATH/PONDED WATER
  - UMETCO 2500' SITE COORDINATE GRID
  - BRUSH/TREE LINE

- NOTES:**
- 1). CHLORIDE LEVELS FROM JUNE 2004 SAMPLE DATA.
  - 2). SURFACE CONTOURS FROM UMETCO'S 2000 AERIAL MAPPING BY A.M.I. ENGINEERING, INC.

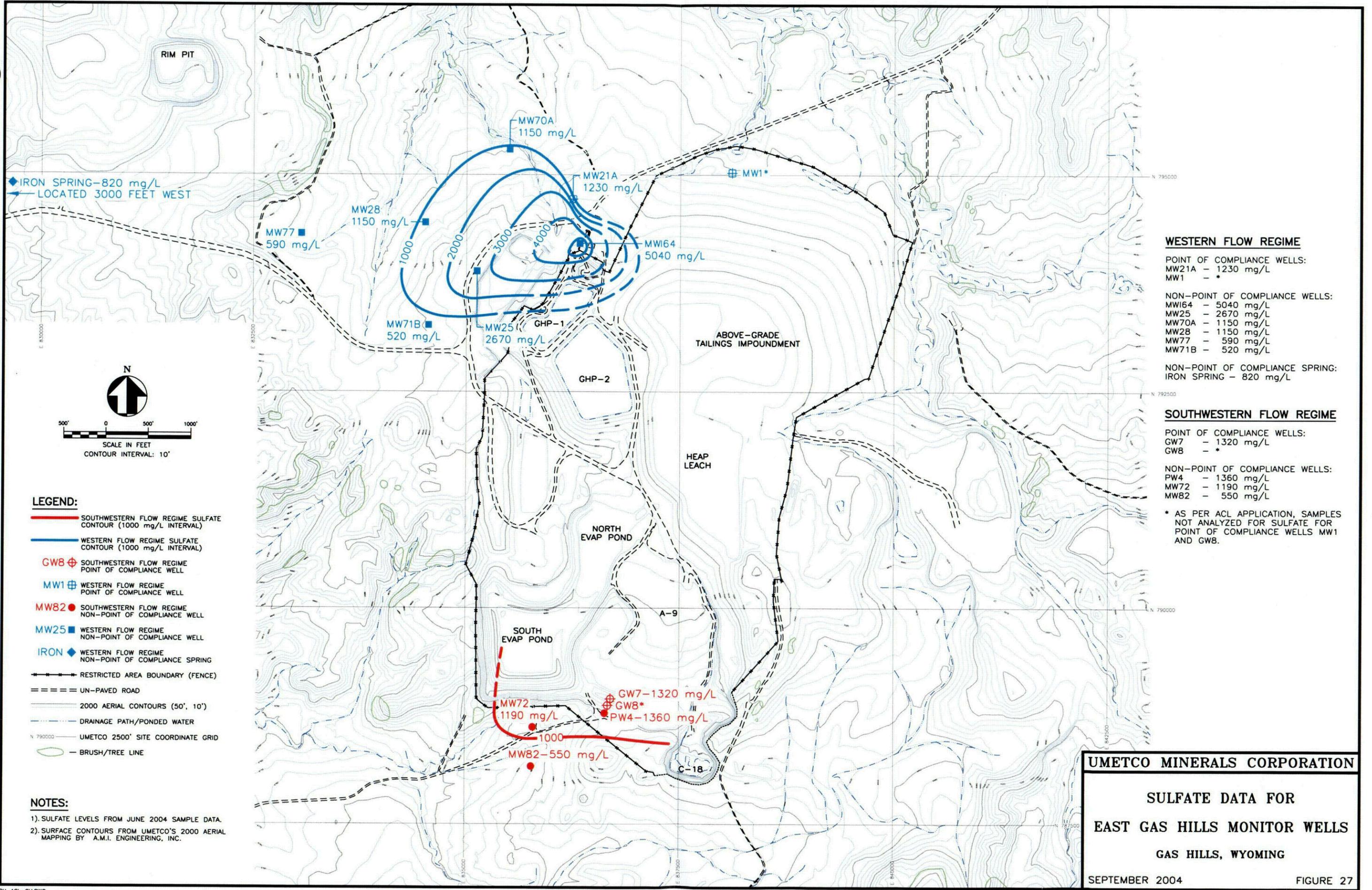
- WESTERN FLOW REGIME**
- POINT OF COMPLIANCE WELLS:  
 MW21A - 85 mg/L  
 MW1 - \*
- NON-POINT OF COMPLIANCE WELLS:  
 MW164 - 154 mg/L  
 MW25 - 109 mg/L  
 MW70A - 79 mg/L  
 MW28 - 41 mg/L  
 MW71B - 26 mg/L  
 MW77 - 5 mg/L
- NON-POINT OF COMPLIANCE SPRING:  
 IRON SPRING - 15 mg/L

- SOUTHWESTERN FLOW REGIME**
- POINT OF COMPLIANCE WELLS:  
 GW7 - 207 mg/L  
 GW8 - \*
- NON-POINT OF COMPLIANCE WELLS:  
 PW4 - 143 mg/L  
 MW72 - 115 mg/L  
 MW82 - 49 mg/L
- \* AS PER ACL APPLICATION, SAMPLES NOT ANALYZED FOR CHLORIDE FOR POINT OF COMPLIANCE WELLS MW1 AND GW8.

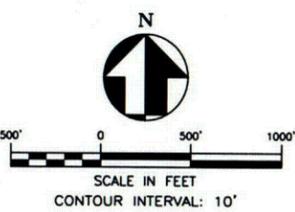
**UMETCO MINERALS CORPORATION**

**CHLORIDE DATA FOR  
 EAST GAS HILLS MONITOR WELLS  
 GAS HILLS, WYOMING**

SEPTEMBER 2004 FIGURE 26



◆ IRON SPRING - 820 mg/L  
 ← LOCATED 3000 FEET WEST



**LEGEND:**

- SOUTHWESTERN FLOW REGIME SULFATE CONTOUR (1000 mg/L INTERVAL)
- WESTERN FLOW REGIME SULFATE CONTOUR (1000 mg/L INTERVAL)
- ⊕ GW8 SOUTHWESTERN FLOW REGIME POINT OF COMPLIANCE WELL
- ⊕ MW1 WESTERN FLOW REGIME POINT OF COMPLIANCE WELL
- MW82 SOUTHWESTERN FLOW REGIME NON-POINT OF COMPLIANCE WELL
- MW25 WESTERN FLOW REGIME NON-POINT OF COMPLIANCE WELL
- ◆ IRON WESTERN FLOW REGIME NON-POINT OF COMPLIANCE SPRING
- RESTRICTED AREA BOUNDARY (FENCE)
- UN-PAVED ROAD
- 2000 AERIAL CONTOURS (50', 10')
- DRAINAGE PATH/PONDED WATER
- UMETCO 2500' SITE COORDINATE GRID
- BRUSH/TREE LINE

- NOTES:**
- 1). SULFATE LEVELS FROM JUNE 2004 SAMPLE DATA.
  - 2). SURFACE CONTOURS FROM UMETCO'S 2000 AERIAL MAPPING BY A.M.I. ENGINEERING, INC.

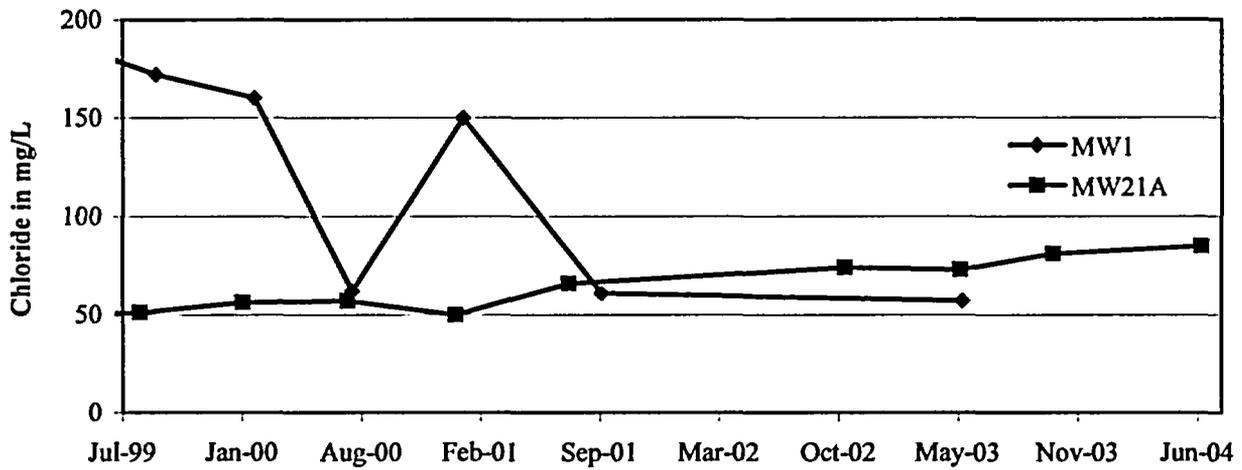
- WESTERN FLOW REGIME**
- POINT OF COMPLIANCE WELLS:  
 MW21A - 1230 mg/L  
 MW1 - \*
- NON-POINT OF COMPLIANCE WELLS:  
 MW64 - 5040 mg/L  
 MW25 - 2670 mg/L  
 MW70A - 1150 mg/L  
 MW28 - 1150 mg/L  
 MW77 - 590 mg/L  
 MW71B - 520 mg/L
- NON-POINT OF COMPLIANCE SPRING:  
 IRON SPRING - 820 mg/L

- SOUTHWESTERN FLOW REGIME**
- POINT OF COMPLIANCE WELLS:  
 GW7 - 1320 mg/L  
 GW8 - \*
- NON-POINT OF COMPLIANCE WELLS:  
 PW4 - 1360 mg/L  
 MW72 - 1190 mg/L  
 MW82 - 550 mg/L
- \* AS PER ACL APPLICATION, SAMPLES NOT ANALYZED FOR SULFATE FOR POINT OF COMPLIANCE WELLS MW1 AND GW8.

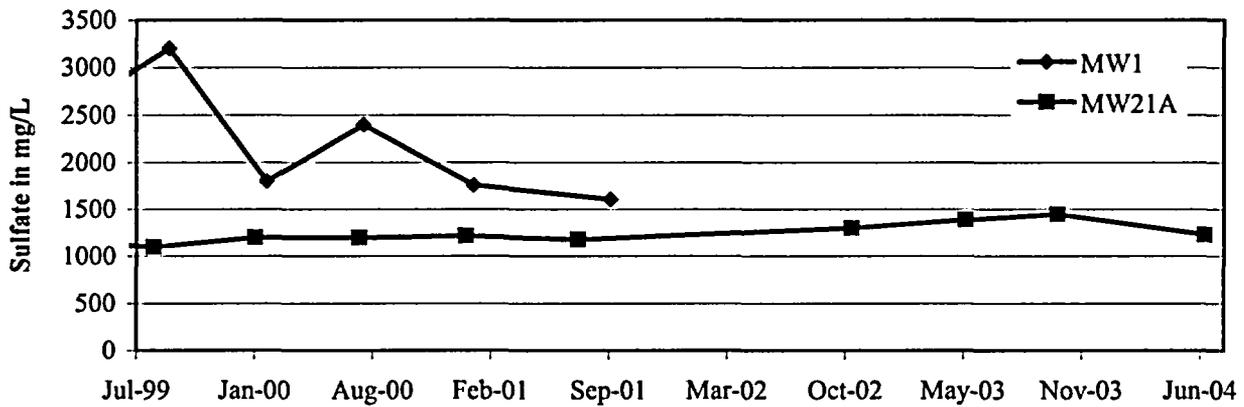
**UMETCO MINERALS CORPORATION**

**SULFATE DATA FOR  
 EAST GAS HILLS MONITOR WELLS  
 GAS HILLS, WYOMING**

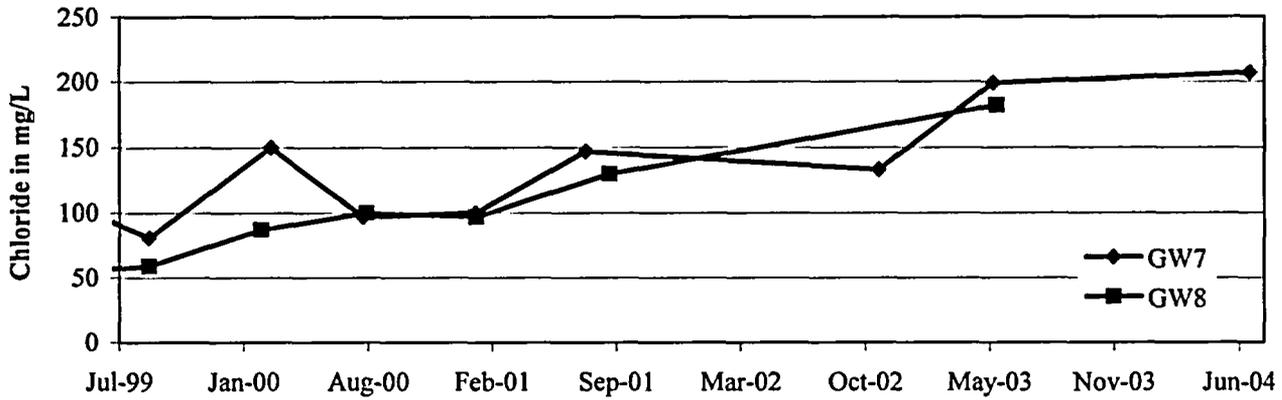
**Figure 28 Chloride Trends in the Western Flow Regime POC Wells**



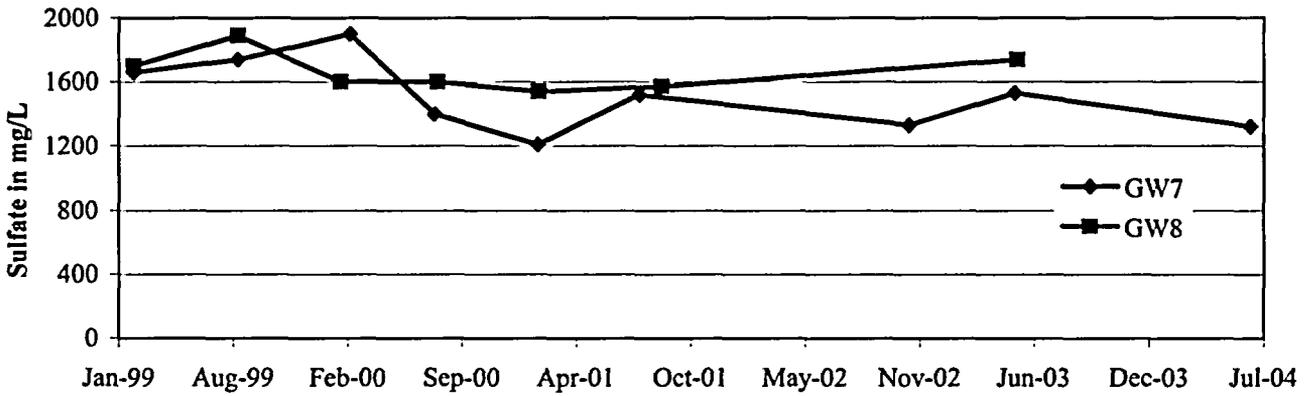
**Figure 29 Sulfate Trends in the Western Flow Regime POC Wells**



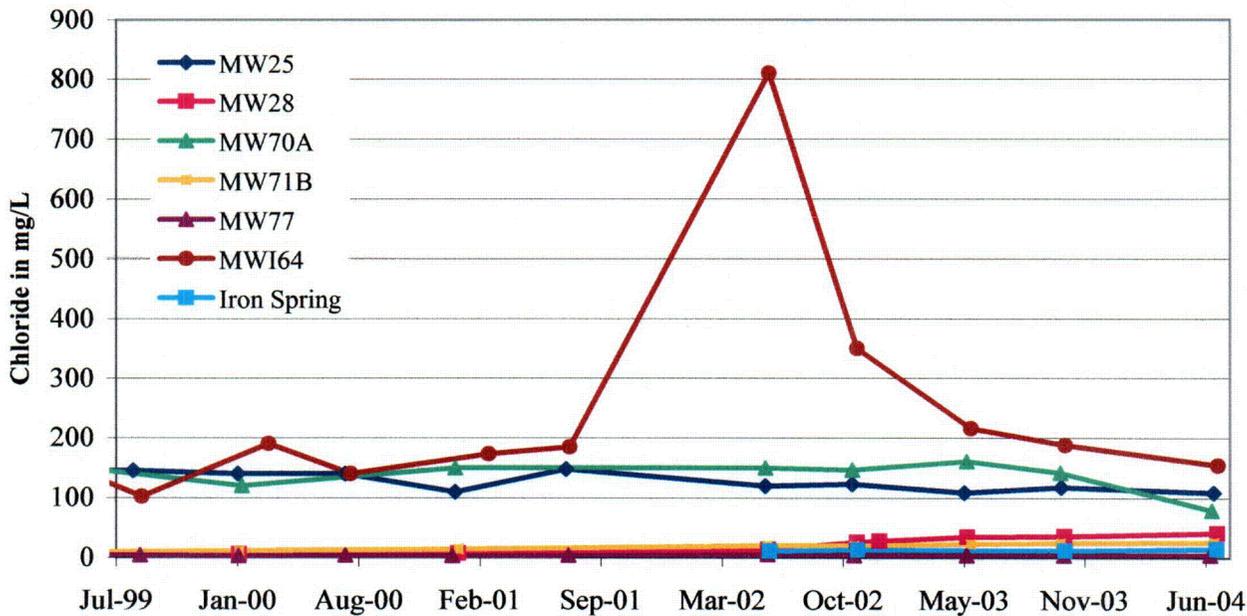
**Figure 30 Chloride Trends in the Southwestern Flow Regime POC Wells**



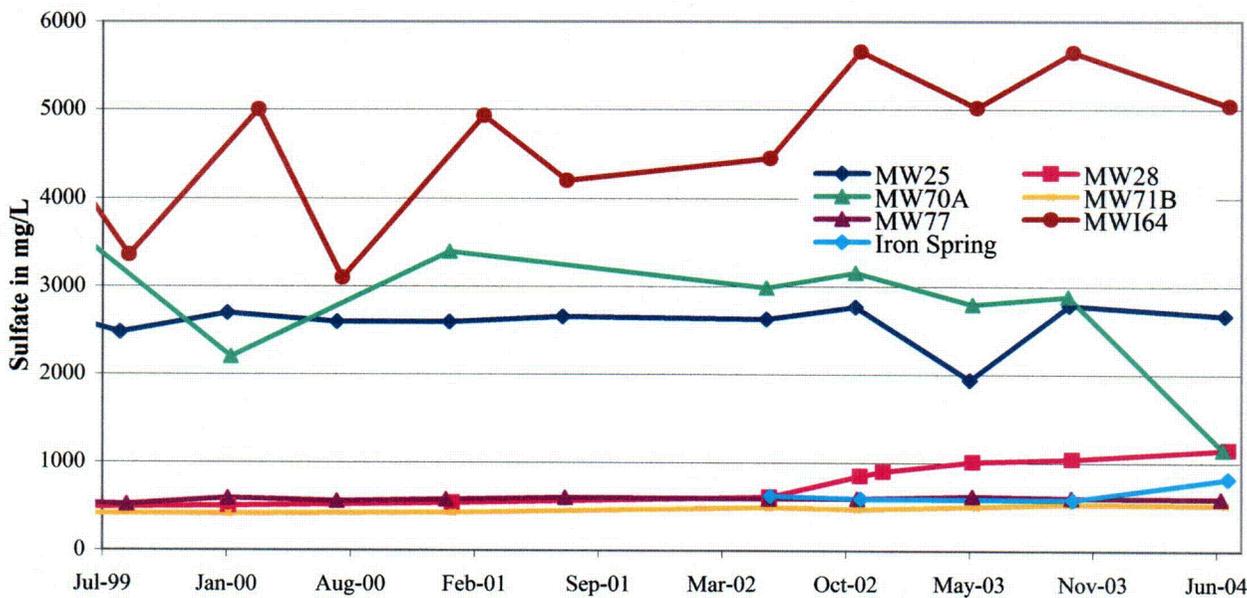
**Figure 31 Sulfate Trends in the Southwestern Flow Regime POC Wells**



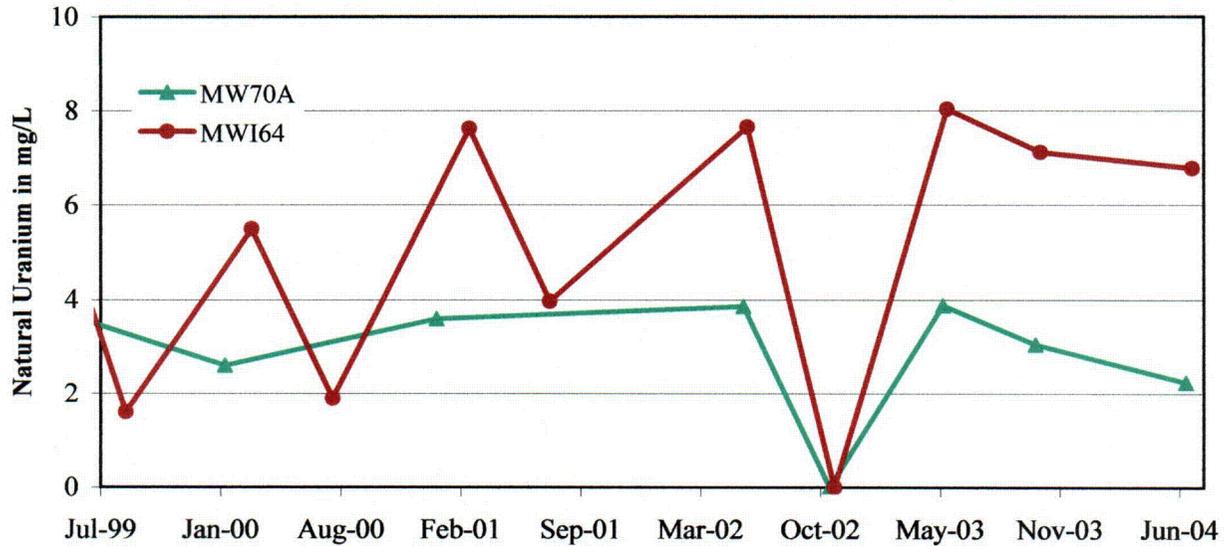
**Figure 32 Chloride Trends in the Western Flow Regime Monitoring Wells**



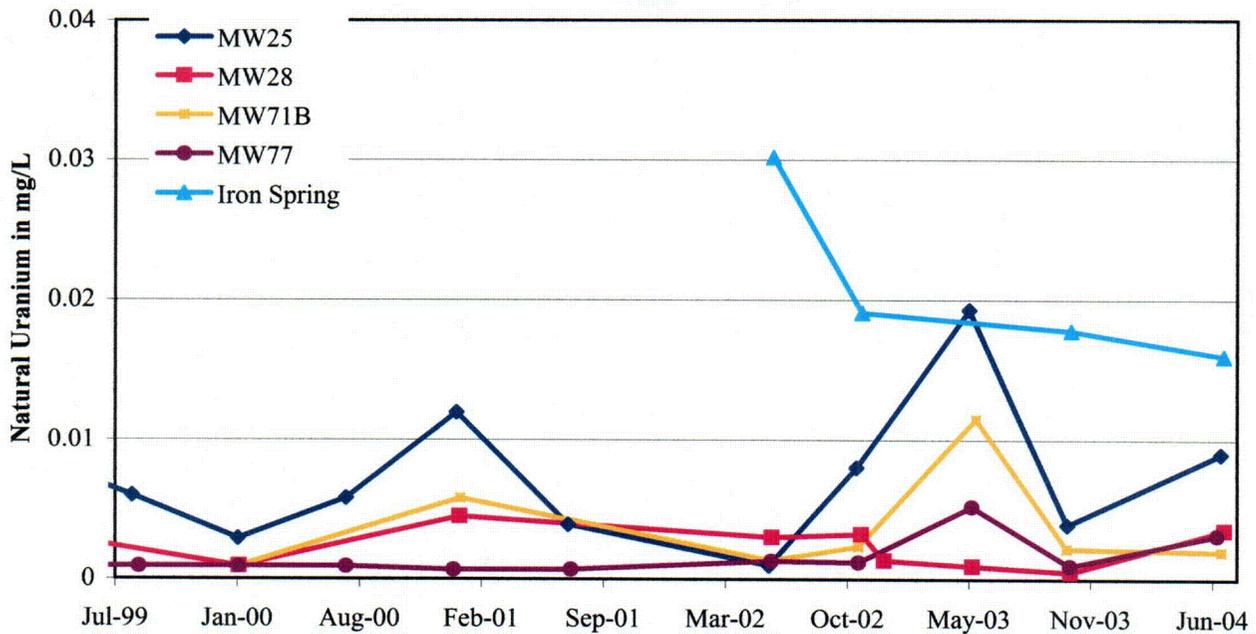
**Figure 33 Sulfate Trends in the Western Flow Regime Monitoring Wells**



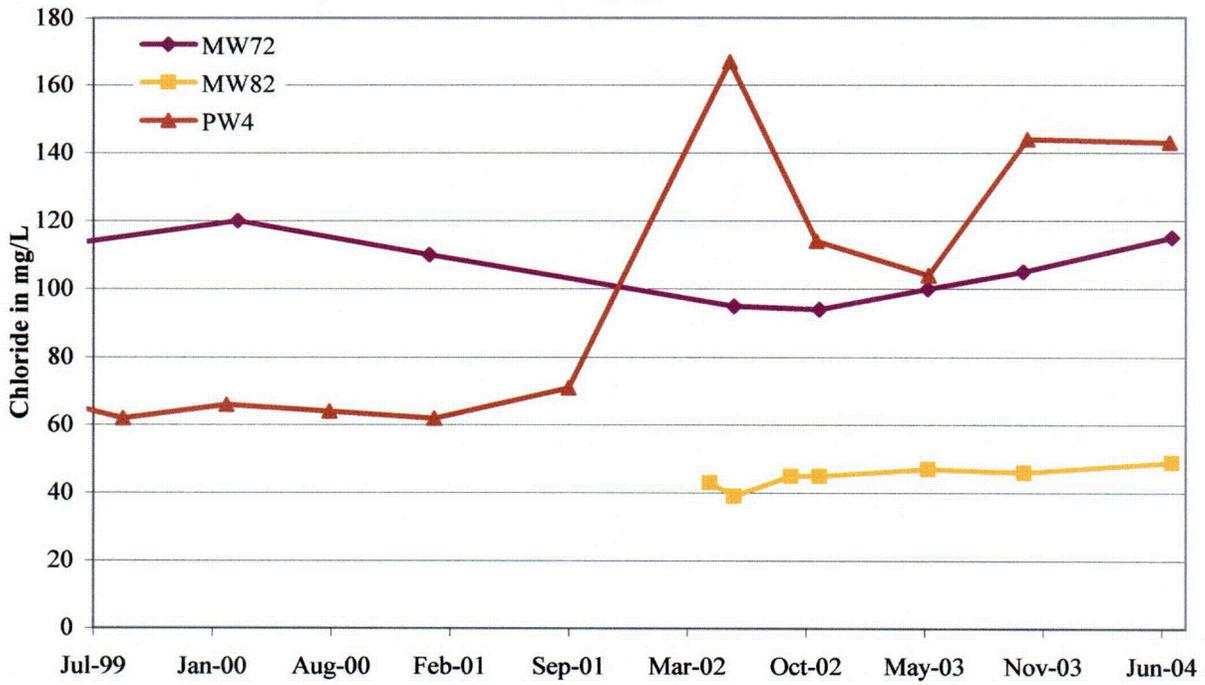
**Figure 34 Natural Uranium Trends in the Western Flow Regime Monitoring Wells**



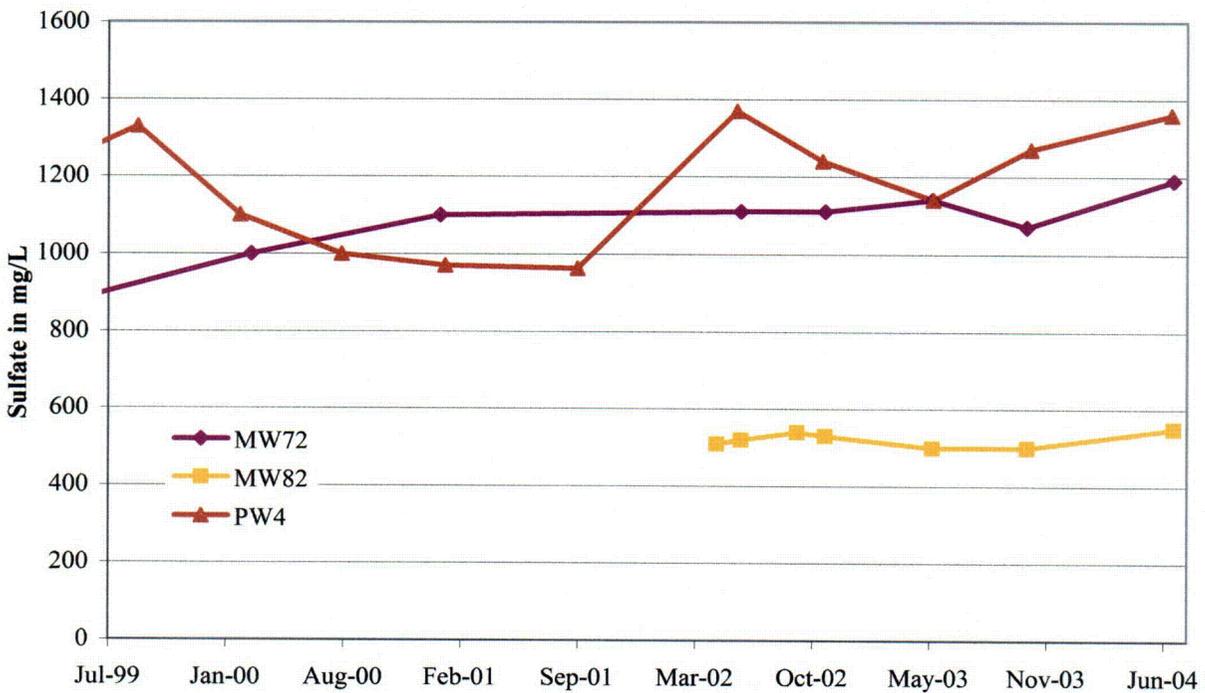
**Figure 35 Natural Uranium Trends in the Western Flow Regime Monitoring Wells**



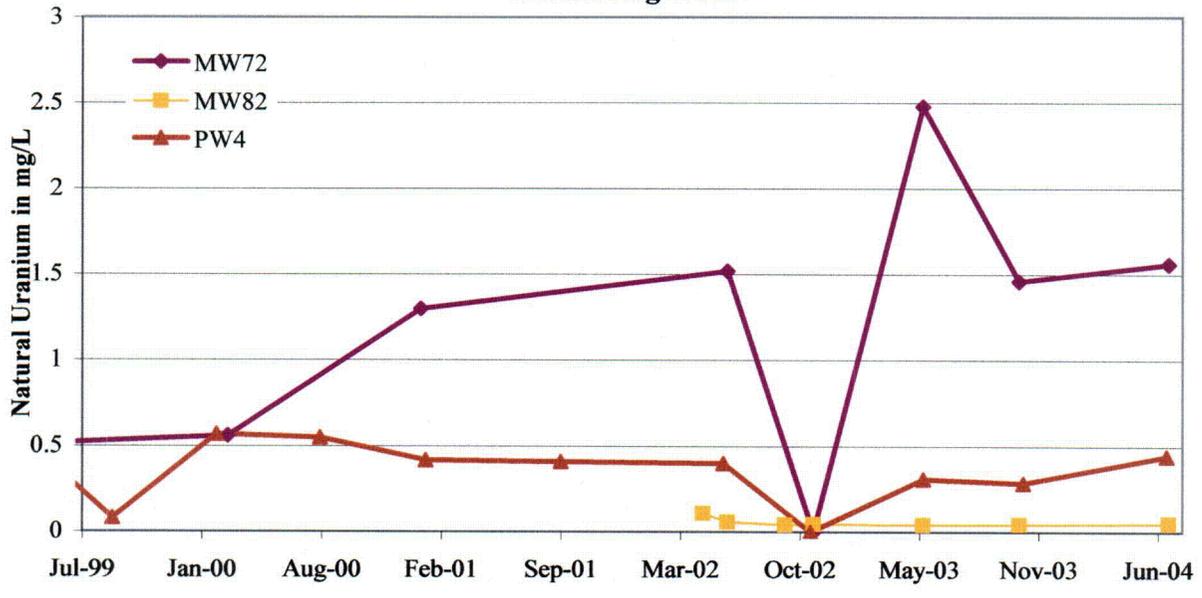
**Figure 36 Chloride Trends in the Southwestern Flow Regime Monitoring Wells**



**Figure 37 Sulfate Trends in the Southwestern Flow Regime Monitoring Wells**



**Figure 38 Natural Uranium Trends in the Southwestern Flow Regime  
Monitoring Wells**



# Appendix A Water Rights Search

Permit Number	Facility Name	Permit Applicant	Tns	Rng	Section	Qtrtr	Lots	Proof	Additional Description	Acres	HeadGate-Outlet-Well	Status	Supply type	Uses	Priority	Amount	Unit	Source	Permit Well Depth	Permit Static Well Depth
21/2/264W			33	N	89	W	15	NWNW	X		X	UNA	ORI							
21/3/264W			33	N	89	W	10	SWSW	X		X	UNA	ORI							
22/6/316W			33	N	89	W	15	NESW			X	UNA	ORI							
25/1/58W			33	N	89	W	32	NENW			X	UNA	ORI							
25/10/102W			33	N	89	W	14	NESW			X	UNA	ORI							
25/10/299W			33	N	89	W	22	NESW			X	UNA	ORI							
25/11/207W			33	N	89	W	10	SWSW			X	UNA	ORI							
25/11/299W			33	N	89	W	22	NESW			X	UNA	ORI							
25/12/57W			33	N	89	W	32	NENW			X	UNA	ORI							
25/2/58W			33	N	89	W	32	NENW			X	UNA	ORI							
25/3/58W			33	N	89	W	32	NENW			X	UNA	ORI							
25/4/58W			33	N	89	W	32	NENW			X	UNA	ORI							
25/5/58W			33	N	89	W	32	NENW			X	UNA	ORI							
25/6/58W			33	N	89	W	32	NENW			X	UNA	ORI							
25/7/207W			33	N	89	W	10	SWSW			X	UNA	ORI							
25/7/299W			33	N	89	W	22	NESW			X	UNA	ORI							
25/8/207W			33	N	89	W	10	SWSW			X	UNA	ORI							
25/8/299W			33	N	89	W	22	NESW			X	UNA	ORI							
25/9/102W			33	N	89	W	14	NESW			X	UNA	ORI							
25/9/207W			33	N	89	W	10	SWSW			X	UNA	ORI							
25/9/299W			33	N	89	W	22	NESW			X	UNA	ORI							
26/4/21W			33	N	89	W	15	SESW			X	UNA	ORI							
27/5/280R			33	N	90	W	36	SWSW			X	UNA	ORI							
28/6/373S	RESERVOIR #7	USDI BLM	33	N	89	W	14	NENW	P		X	REJ	ORI	STO	11/1/1982	1	ACFT			
36/8/552W	PROCESS WATER WELL #6	UMETCO MINERALS CORP	33	N	89	W	18	NESW			0	X	UNA	ORI	IND	8/16/2004				
C33/360A	Holliday Ditch	John J. Holliday	33	N	88	W	7		L5 11692	28		ADJ	ORI	IRR	08/27/1896			Deer Creek		
C44/698A	C. B. C. Ditch	C. B. Cunningham	33	N	89	W	4	NWNW	L4 18903	8		ADJ	ORI	IRR,STO,DOM	8/9/1918			Canyon Creek		
C77/017A	Cross Ell Ditch,, Enlargement No. 3 of the	Clear Creek Cattle Company	33	N	88	W	6		L12 34969	2		ADJ	ORI	IRR	3/18/1926			Deer Creek		
C77/025A	Cross Ell Ditch	Clear Creek Cattle Company	33	N	88	W	6		L12 34977	POINT 1 12		ADJ	ORI	IRR	10/11/1909			Deer Creek		
C77/041A	Diamond Ring Ditch No. 5	Wyoming State Board of Land Commissioners (Owners); Clear Creek Cattle Company (Lessee)	33	N	89	W	1	SENE	34998		X	PUD	ORI	IRR	3/18/1926			Deer Creek		
CR15/077A	Buss I Reservoir		33	N	89	W	27	NESW	37599	0				STO	3/31/1994	1026	ACFT	Buss Draw (A closed Basin) drainage of		
CR15/079A	Cap Pit Reservoir		33	N	89	W	27	SENW	37601	0				STO	3/31/1994	50.86	ACFT	CH. 4 Draw		
CR15/374A	Area 4 Reclamation Reservoir	Pathfinder Mines Corporation; State Lands and Investments	33	N	90	W	0		M610 38228	MS610 0		ADJ	STR	STO,WIL	12/24/1991	6787.5	ACFT	Fraser Draw		
CR15/375A	2R Reclamation Reservoir	Pathfinder Mines Corporation	33	N	90	W	36		M610 38229	MS610 0		ADJ	STR	STO,WIL	11/23/1988	987.45	ACFT	Dry Coyote Creek		
CU10/160A	LUCKY MC #11	Pathfinder Mines Corporation; State Board of Land Commissioners; USDI Bureau of Reclamation	33	N	90	W	0		3811	X M.S. 649		ADJ	ORI	IND	12/6/1968					
CU10/187A	LUCKY MC #8	Pathfinder Mines Corporation; Wyoming State Board of Land Commissioners; USDI, Bureau of Land Management	33	N	90	W	0		3838	X M.S. 645 (NWSE SEC 22 OS)	X	ADJ	ORI	IND	3/14/1958					
CU10/404A	BUSS I RESERVOIR	1) Power Resources, Incorporated; 2) USDI, Bureau of Land Management	33	N	89	W	27	SENW	4041		0	X	ADJ	MIS	4/26/1994	-0.0001	GPM			
P10039R	Buss I Reservoir	POWER RESOURCES INC.**USDI BLM	33	N	89	W	27	NWSW	P			UNA	ORI	STO	3/31/1994	1026	ACFT	Buss Draw (A closed Basin) drainage of		
P10040R	Buss III Reservoir	POWER RESOURCES INC.**USDI BLM	33	N	89	W	27	NESW	P		X	UNA	ORI	STO	3/31/1994	14.9	ACFT	Buss Draw (A closed Basin) drainage of		
P10041R	Cap Pit Reservoir	POWER RESOURCES INC.**USDI BLM	33	N	89	W	27	NWNE	P		X	UNA	ORI	STO	3/31/1994	50.86	ACFT	CH. 4 Draw		
P10075S	Rim Stock Reservoir	USDI BLM CASPER DISTRICT	33	N	89	W	35	NESW	0	P	X	GST	ORI	STO	1/27/1987	6.78	ACFT	Middle Sage Hen Creek		
P10166D	Crane Ditch	J. J. HOLLIDAY	33	N	88	W	7	NWSE			X	PUD	ORI	IRR	9/26/1910	0.36	CFS	Deer Creek		

# Appendix A Water Rights Search

Permit Number	Facility Name	Permit Applicant	Tns	Rng	Section	Qtrtr	Lots	Proof	Additional Description	Acres	HeadGate-Outlet-Well	Status	Supply type	Uses	Priority	Amount	Unit	Source	Permit Well Depth	Permit Static Well Depth	
P102340W	PHILPS #1	PHILP'S SHEEP CO	33	N	89	W	4	NESE	S		X	ABA	ORI	STO	5/13/1996	25	GPM				
P103584W	BS 96 M-1	POWER RESOURCES INC.	33	N	89	W	32	NENW			X	UNA	ORI	MON	8/29/1996	0	GPM		305	194.1	
P103586W	WSL96M-1	POWER RESOURCES INC.	33	N	89	W	28	NESE			X	UNA	ORI	MON	8/29/1996	0	GPM		365	175.25	
P103587W	MU 96 M-2	POWER RESOURCES INC.	33	N	89	W	31	NESW			X	UNA	ORI	MON	8/29/1996	0	GPM		475	256.7	
P103588W	MU 96 M-1	POWER RESOURCES INC.	33	N	89	W	31	NESW			X	UNA	ORI	MON	8/29/1996	0	GPM		465	244.5	
P103591W	WSL96MP1	POWER RESOURCES INC.	33	N	89	W	28	NWSE			X	UNA	ORI	MON	8/29/1996	0	GPM		275	148.25	
P103982W	LUCKY MC #14	USDI, BLM**BARNHART DRILLING COMPANY, INC	33	N	90	W	24	SWNE			X	UNA	ORI	MIS	9/17/1996	400	GPM		1505	70	
P103983W	LUCKY MC #12	USDI, BLM**BARNHART DRILLING COMPANY, INC	33	N	90	W	24	SENE			X	UNA	ORI	MIS	9/17/1996	310	GPM		1451	64	
P104183W	MW 75	UMETCO MINERALS CORPORATION	33	N	89	W	14	NESW			X	UNA	ORI	MON	10/15/1996	0	GPM		205	120.93	
P104184W	MW 76	UMETCO MINERALS CORPORATION	33	N	89	W	8	NESE			X	UNA	ORI	MON	10/15/1996	0	GPM		142	95.55	
P104185W	MW 77	UMETCO MINERALS CORPORATION	33	N	89	W	9	SWSE			X	UNA	ORI	MON	10/15/1996	0	GPM		279	231.01	
P10444R	GHP No. 2 Evaporation Reservoir	UMETCO MINERALS CORPORATION	33	N	89	W	15	SENE	P			UNA	ORI	IND,TEM	11/21/1996	199.36	ACFT	Canyon Creek			
P104718W	C-18 PIT	UMETCO MINERALS CORPORATION	33	N	89	W	15	NENW	X			UNA	RES	MIS,DEW,RES	11/21/1996	500	GPM		85	80	
P104730W	ALJOB #2	USDI, BLM**UMETCO MINERALS CORPORATION	33	N	89	W	15	SESW	X			UNA	ORI	MIS	11/25/1996	45	GPM		537	270	
P105283W	A-8 PIT WELL	USDI, BLM**UMETCO MINERALS CORP	33	N	89	W	15	NESW	X (SURGE POND)			UNA	ORI	MIS	3/17/1997	80	GPM		219	64	
P105492W	MW 70A	UMETCO MINERALS CORP	33	N	89	W	10	SWSW			X	UNA	ORI	MON	4/11/1997	0	GPM		151	141	
P105493W	MW 70B	UMETCO MINERALS CORP	33	N	89	W	10	SWSW			X	UNA	ORI	MON	4/11/1997	0	GPM		265	138	
P105494W	MW 71A	UMETCO MINERALS CORP	33	N	89	W	16	NENE			X	UNA	ORI	MON	4/11/1997	0	GPM		237	224	
P105495W	MW 71B	UMETCO MINERALS CORP	33	N	89	W	16	NENE			X	UNA	ORI	MON	4/11/1997	0	GPM		329	223	
P105496W	MW 72	UMETCO MINERALS CORP	33	N	89	W	22	NWNW			X	UNA	ORI	MON	4/11/1997	0	GPM		85	56	
P105497W	MW 73	UMETCO MINERALS CORP	33	N	89	W	10	SWSW			X	UNA	ORI	MON	4/11/1997	0	GPM		153	104	
P105498W	MW 74	UMETCO MINERALS CORP	33	N	89	W	22	NWNW			X	UNA	ORI	MON	4/11/1997	0	GPM		60	21	
P106684W	PIX MO 97-1	POWER RESOURCES INC.	33	N	89	W	22	NESW			X	UNA	ORI	MON	7/1/1997	0	GPM		185	90	
P106685W	PIX MU 97-1	POWER RESOURCES INC.	33	N	89	W	22	NESW			X	UNA	ORI	MON	7/1/1997	0	GPM		310	90	
P106686W	PIX MU 97-1	POWER RESOURCES INC.	33	N	89	W	22	NESW			X	UNA	ORI	MON	7/1/1997	0	GPM		245	90	
P106687W	BUMP 97-1	POWER RESOURCES INC.	33	N	89	W	34	NENW			X	UNA	ORI	MON	7/1/1997	0	GPM		620	352	
P106688W	BUMO 97-1	POWER RESOURCES INC.	33	N	89	W	34	NENW			X	UNA	ORI	MON	7/1/1997	0	GPM		370	314	
P106689W	BUMU 97-1	POWER RESOURCES INC.	33	N	89	W	34	NENW			X	UNA	ORI	MON	7/1/1997	0	GPM		720	354	
P106690W	GW 10	POWER RESOURCES INC.	33	N	89	W	21	SESE			X	UNA	ORI	MON	7/1/1997	0	GPM		312	200	
P107839W	MUMP 97-1	POWER RESOURCES INC.	33	N	89	W	31	NESE			X	UNA	ORI	MON	10/6/1997	0	GPM		440	237	
P108001W	MW78	UMETCO MINERALS CORP	33	N	89	W	15	SESW			X	UNA	ORI	MON	11/4/1997	0	GPM		150	111.45	
P108002W	MW79	UMETCO MINERALS CORP	33	N	89	W	15	SESW			X	UNA	ORI	MON	11/4/1997	0	GPM		150	118.83	
P108003W	MW80	UMETCO MINERALS CORP	33	N	89	W	15	SESW			X	UNA	ORI	MON	11/4/1997	0	GPM		155	117.48	
P108004W	MW81	UMETCO MINERALS CORP	33	N	89	W	10	SWSW			X	UNA	ORI	MON	11/4/1997	0	GPM		240	171	
P108233W	GH97WW-1	POWER RESOURCES INC.	32	N	89	W	2	NESW	± X			UNA	ORI	MIS	11/17/1997	100	GPM		1325	425	
P10858D	Dew Drop Ditch	THE DIAMOND RING CO.	33	N	89	W	7	SENE			X	PUD	ORI	STO,IRR	7/17/1911	0.07	CFS	DEW DROP SPRING			
P10859D	Iron Spring Ditch	THE DIAMOND RING CO.	33	N	89	W	8	SESW			X	PUD	ORI	STO,IRR	7/17/1911	0.28	CFS	IRON SPRING			
P10860D	Medicine Spring Ditch	THE DIAMOND RING CO.	33	N	89	W	7	NWNW			X	PUD	ORI	STO,IRR	7/17/1911	0.06	CFS	MEDICINE SPRING			
P10861D	Pine Tree Ditch	THE DIAMOND RING CO.	33	N	89	W	8	SWNW			X	PUD	ORI	STO,IRR	7/17/1911	0.07	CFS	PINE TREE SPRING			
P112329W	BSPW-1	POWER RESOURCES INC.	33	N	89	W	32	SENE			0	X		MON	10/8/1998	0			425	257.4	
P112330W	BSMU-1	POWER RESOURCES INC.	33	N	89	W	32	NENW			0	X		MON	10/8/1998	0			485	266.9	
P112331W	BSMP-1	POWER RESOURCES INC.	33	N	89	W	32	NENW			0	X		MON	10/8/1998	0			376	212	
P112332W	BSMP-2	POWER RESOURCES INC.	33	N	89	W	32	NENW			0	X		MON	10/8/1998	0			410	230	
P112333W	BSMP-3	POWER RESOURCES INC.	33	N	89	W	32	NENW			0	X		MON	10/8/1998	0			372	221	
P114511W	MW10D	UMETCO MINERALS CORP.	33	N	89	W	15	SWNE			0	X	A&C	ORI	MON	3/10/1999	0			265	214.41
P114512W	MW24D	UMETCO MINERALS CORP.	33	N	89	W	15	SESW			0	X	A&C	ORI	MON	3/10/1999	0			210	131.51
P114513W	MW7D	UMETCO MINERALS CORP.	33	N	89	W	15	NESW			0	X	A&C	ORI	MON	3/10/1999	0			266	185.87
P114514W	MW6D	UMETCO MINERALS CORP.	33	N	89	W	15	NWSE			0	X	A&C	ORI	MON	3/10/1999	0			270	231.7

# Appendix A Water Rights Search

Permit Number	Facility Name	Permit Applicant	Tns	Rng	Section	Qtrtr	Lots	Proof	Additional Description	Acres	HeadGate-Outlet-Well	Status	Supply type	Uses	Priority	Amount	Unit	Source	Permit Well Depth	Permit Static Well Depth	
P1209D	Ervay Nos. 1 & 2	MRS. M. E. ERVAY	33	N	88	W	6	SESW	X			PU	ORI	IRR	05/11/1896	1.78	CFS	Deer Creek			
P1226D	O. K. Ditch	JOSIE P. BIGGS	33	N	88	W	17	NWNW			X	PUD	ORI	IRR	05/11/1896	1.14	CFS	Deer Creek			
P130987W	HW4EX	UMETCO MINERALS CORP.	33	N	89	W	15	SWNW			0	X	UNA	ORI	MIS	11/28/2000	0				
P1314D	Holliday Ditch	JOHN J. HOLLIDAY	33	N	88	W	7			28		ADJ	ORI	STO,IRR,DOM	08/27/1896	0.57	CFS	Deer Creek			
P133012W	HW4AEX	UMETCO MINERALS CORP.	33	N	89	W	15	SWNW			0	X	UNA	ORI	MIS	3/12/2001	0				
P13527S	Lilly Pad Stock Reservoir	USDI, Bureau of Land Management	34	N	89	W	19	NWSW	L3	0	0	X	ADJ	ORI	STO	11/1/1982	3.8		Imaginary Draw		
P13528S	East Canyon Stock Reservoir	USDI, Bureau of Land Management	34	N	89	W	29	NESW		0	0	X	ADJ	ORI	STO	11/1/1982	1.5		Jackrabbit Draw		
P144110W	MW82	UMETCO MINERALS CORPORATION** USDI, BUREAU OF LAND MANAGEMENT	33	N	89	W	22	NWNW			0	X	GST	ORI	MON	4/26/2002			115	86	
P14468D	Dulton Pipe Line No. 1 Ditch	BEN M. & B. B. WOOD	33	N	90	W	2	NWSW				PU	ORI	STO,MIN,DOM, DRI	10/16/1916				Spring		
P15179D	C. B. C. Ditch	CHARLES B. CUNNINGHAM	33	N	89	W	4	NWNW	L4		8		ADJ	ORI	STO,IRR,DOM	8/9/1918	0.17	CFS	Canyon Creek		
P1626R	Asbell Reservoir	STARLING P. ASBELL	32	N	89	W	10	SESW				PU	ORI	STO,IRR,DOM	9/24/1909	49.1	ACFT	Sage Hen Creek			
P17093D	Diamond Ring Ditch No. 5	DIAMOND RING CO.	33	N	89	W	1	SENE			X	PUD	ORI	IRR	3/18/1926	0.21	CFS	Deer Creek			
P215W	WATER WELL #3	GLOBE MINING CO.	33	N	89	W	15	SENE				UNA	ORI	IND	8/24/1959	250	GPM		1668	20	
P2395W	LUCKY MC #11	PATHFINDER MINES CORPORATION	33	N	90	W	0		X MS 645			ADJ	ORI	IND	12/6/1968	100	GPM		2140	186	
P24172P	JE RANCH #12-5	MATADOR CATTLE COMPANY	34	N	88	W	32	NENW				PU	ORI	DOM,STO	8/13/1973	5	GPM		175	35	
P25540D	Hydrostatic Test - North Pipeline Pump Point	COLORADO INTERSTATE GAS COMPANY	33	N	89	W	0		X			PU	ORI	TEM,IND	10/19/1977	2.23	CFS	Sweetwater River			
P2575D	Merriam Ditch	FRANK A. MERRIAM	33	N	89	W	8	SWNW			X	PUD	ORI	IRR	3/30/1900	0.11	CFS	IRON SPRING			
P26230D	Coyote Water Hole #1	D. H. BRANSON	33	N	90	W	11	SWSE				PU	ORI	TEM,IND,MIN, DRI	6/26/1979	0.28	CFS	Coyote Creek			
P2754E	Cross Eil Ditch - Permit 9431 {Enl. of}	GRIEVE BROTHERS	33	N	88	W	7	NWNW			X	PUD	ORI	IRR	2/5/1913				Deer Creek		
P30310D	AML 16-C-2 Water Haul	ROTH TRUCKING	33	N	89	W	32	NWNW				UNA	ORI	IND,TEM	11/6/1989	0.166	CFS	Lucky Mac Draw			
P30542W	BS 12 1024W	INC. WESTERN NUCLEAR	33	N	89	W	32	SWNE				PU	ORI	DEW,MIS	7/25/1975	0	GPM		751	360	
P30698W	UPZ WELL #1	FEDERAL-AMERICAN PARTNERS	33	N	89	W	33	NWNW				PU	ORI	MON	7/30/1975	-1	GPM		925	470	
P30735W	LUCKY MC WELL #12	PATHFINDER MINES CORPORATION	33	N	90	W	24	SENE			X	UNA	ORI	IND	8/8/1975	310	GPM		1451	64	
P31252W	UPZ WELL #2	FEDERAL-AMERICAN PARTNERS	33	N	89	W	32	SENE				PU	ORI	MON	9/22/1975	0	GPM		806	440	
P31496W	BS12-1025P	FEDERAL-AMERICAN PARTNERS	33	N	89	W	32	SWNE			X	PUW	ORI	MON	11/12/1975	0	GPM		777	345	
P31497W	BS12-1026P	FEDERAL-AMERICAN PARTNERS	33	N	89	W	32	SWNE				PU	ORI	MON	11/12/1975	0	GPM		640	345	
P31498W	BS12-1027P	FEDERAL-AMERICAN PARTNERS	33	N	89	W	32	SWNE				PU	ORI	MON	11/12/1975	0	GPM		565	325	
P31499W	BS12-1028P	FEDERAL-AMERICAN PARTNERS	33	N	89	W	32	NWSE				PU	ORI	MON	11/12/1975	0	GPM		827	440	
P31500W	BS12-1029P	FEDERAL-AMERICAN PARTNERS	33	N	89	W	32	NWSE				PU	ORI	MON	11/12/1975	0	GPM		735	440	
P31501W	BS12-1030P	FEDERAL-AMERICAN PARTNERS	33	N	89	W	32	NWSE				PU	ORI	MON	11/12/1975	0	GPM		640	435	
P31504W	UPZ 417P	FEDERAL-AMERICAN PARTNERS	33	N	89	W	33	SWNW				PU	ORI	MIS	11/12/1975	0	GPM		650	460	
P31919W	ENL BS12-1024W	FEDERAL AMERICAN PARTNERS	33	N	89	W	32	SWNE				PU	ORI	MIS	11/19/1975	0	GPM		751	360	
P32404W	ENL UPZ #1	FEDERAL-AMERICAN PARTNERS	33	N	89	W	32	SENE				PU	ORI	MIS	1/26/1976	-1	GPM		925	470	
P33517W	CAYIAS #1	INC. HILLS GAS	33	N	89	W	18	NWSW				PU	ORI	IND	4/9/1976	0	GPM				
P33518W	CAYIAS #2	INC. HILLS GAS	33	N	89	W	18	SESW				PU	ORI	IND	4/9/1976	0	GPM				
P3369R	Dutton Reservoir	BEN M. WOOD**B. B. WARD	33	N	90	W	2	SWSE	P			PU	ORI	STO,DOM,DRI	10/16/1916	0.86	ACFT	Spring			
P34361W	BLACKSTONE #1	WESTERN NUCLEAR INC.	33	N	89	W	32	SWNE			X	PUW	ORI	MON	7/22/1976	0	GPM				
P3W	LUCKY MC #8	PATHFINDER MINES CORPORATION	33	N	90	W	0		X MS 644			ADJ	ORI	IND	3/14/1958	80	GPM		1500	392	
P40467W	RHW-1	MULLEN MINING COMPANY	33	N	89	W	9	SESW				PU	ORI	MON	8/5/1977	0	GPM		160	154	
P40468W	RHW-2	MULLEN MINING COMPANY	33	N	89	W	9	NESW				PU	ORI	MON	8/5/1977	0	GPM		134	-7	
P41021W	RHW-4	MULLEN MINING COMPANY	33	N	89	W	9	SWNE				PU	ORI	MON	11/16/1977	0	GPM		280	0	
P41022W	RHW-3	MULLEN MINING COMPANY	33	N	89	W	9	SESE				PU	ORI	MON	11/16/1977	0	GPM		310	257	
P41023W	RHW-5	MULLEN MINING COMPANY	33	N	89	W	9	SWSW			X	PUW	ORI	MON	11/16/1977	0	GPM		180	0	

# Appendix A Water Rights Search

Permit Number	Facility Name	Permit Applicant	Tns	Rng	Section	Qtrtr	Lots	Proof	Additional Description	Acres	HeadGate-Outlet-Well	Status	Supply type	Uses	Priority	Amount	Unit	Source	Permit Well Depth	Permit Static Well Depth	
P43111W	CEE #1	UNION CARBIDE CORPORATION	33	N	89	W	8	NWSE	X			PU	ORI	MIS	3/10/1978	500	GPM		130	55	
P43159W	LUCKY MC #14	PATHFINDER MINES CORPORATION	33	N	90	W	24	NESW			X	UNA	ORI	IND	3/31/1978	500	GPM		1505	70	
P43745W	ADOBE #1	USDI, BLM** MULLEN ENGINEERING	33	N	89	W	9	SESE	X			PU	ORI	IND,MIS	6/9/1978	50	GPM				
P438G	LUCKY MC 1	PATHFINDER MINES CORPORATION	33	N	90	W	23	NWSE	D		X	UNA	ORI	DOM	5/1/1956	10	GPM		90	30	
P439G	LUCKY MC 2	PATHFINDER MINES CORPORATION	33	N	90	W	26	NENW	D		X	UNA	ORI	DOM	5/1/1956	350	GPM		110	20	
P44612W	CAROL WELL #1	POWER RESOURCES INC.	33	N	89	W	28	NESW	X		X	UNA	ORI	MIS	11/25/1977	50	GPM		400	200	
P44796W	RATTLESNAKE #1	MATADOR CATTLE COMPANY	33	N	88	W	7	NENE	0	S		PU	ORI	STO	9/1/1978	1	GPM		2	-4	
P44797W	RATTLESNAKE #2	MATADOR CATTLE COMPANY	33	N	88	W	8	SENE	0	S		PU	ORI	STO	9/1/1978	0.5	GPM		4	-4	
P44798W	RATTLESNAKE #3	MATADOR CATTLE COMPANY	33	N	88	W	8	SWNE	0	S		PU	ORI	STO	9/1/1978	25	GPM		5	-4	
P44799W	RATTLESNAKE #4	MATADOR CATTLE COMPANY	33	N	88	W	8	SWSW	0	S		PU	ORI	STO	9/1/1978	4	GPM		5	-4	
P44800W	RATTLESNAKE #5	MATADOR CATTLE COMPANY	33	N	88	W	17	NENE	0	S		PU	ORI	STO	9/1/1978	2	GPM		3	-4	
P4483E	Cross Eil Ditch,, Enlargement No. 3 of the	DIAMOND RING CO.	33	N	88	W	6			L12	2	ADJ	ORI	IRR	3/18/1926	0.19	CFS				
P45368W	MONITOR WELL GW 7	POWER RESOURCES INC.	33	N	89	W	27	NESE	X		X	UNA	ORI	MON	9/26/1978	0	GPM		660	82	
P45369W	MONITOR WELL GW 8	SILVER KING MINES, INC.	33	N	89	W	27	NENE			X	UNA	ORI	MON	9/26/1978	0	GPM		360	98	
P45370W	MONITOR WELL GW 9	SILVER KING MINES, INC.	33	N	89	W	28	NESE			X	UNA	ORI	MON	9/26/1978	0	GPM		325	111	
P45371W	MONITOR WELL GW 10	POWER RESOURCES INC.	33	N	89	W	21	SESE			X	A&C	ORI	MON	9/26/1978	0	GPM		475	153	
P45502W	BARREL SPRINGS #1	USDI, BLM	32	N	89	W	8	NWSW		±		PU	ORI	STO	10/20/1978	25	GPM				
P46378W	SAGE HEN #1	MATADOR CATTLE COMPANY	33	N	89	W	26	SESE		S		PU	ORI	STO	8/14/1978	1	GPM		5	-4	
P46384W	HOLIDAY #1	MATADOR CATTLE COMPANY	33	N	88	W	19	SWSW	0	S		PU	ORI	STO	8/14/1978	10.5	GPM		5	-4	
P46385W	COLE #80	MATADOR CATTLE COMPANY	33	N	89	W	18	SWNW		S		PU	ORI	STO	8/14/1978	0.75	GPM		2	-4	
P46387W	LITTLE X-L #1	MATADOR CATTLE COMPANY	33	N	88	W	6	NWSW	0		X	PUW	ORI	STO	8/14/1978	3	GPM		2	-4	
P46388W	MEDICINE SPRINGS #1	MATADOR CATTLE COMPANY	33	N	89	W	7	NWNW	0			ADJ	ORI	STO	8/14/1978	4	GPM		6	-4	
P46389W	IRON SPRING #1	MATADOR CATTLE COMPANY	33	N	89	W	8	SESW	0	S		PU	ORI	STO	8/14/1978	3	GPM		3	-4	
P46771W	BS 1051	AMERICAN NUCLEAR CORPORATION	32	N	89	W	5	NWSE		±		PU	ORI	MIS	1/13/1978	110	GPM				
P46772W	MUSKRAT WELL #1	AMERICAN NUCLEAR CORPORATION	32	N	89	W	5	SWSE		±		PU	ORI	DEW,MIS	2/22/1978	120	GPM				
P46773W	MUSKRAT P 3	SILVER KING MINES, INC.	33	N	89	W	31	SESW			X	UNA	ORI	MON	2/22/1978	0	GPM		515	194	
P46774W	MUSKRAT P 4	SILVER KING MINES, INC.	33	N	89	W	31	NESW			X	UNA	ORI	MON	2/22/1978	0	GPM		530	244	
P46775W	MUSKRAT P 2	SILVER KING MINES, INC.	33	N	89	W	31	SWSE			X	UNA	ORI	MON	2/22/1978	0	GPM		530	134	
P46776W	MUSKRAT P 1	SILVER KING MINES, INC.	33	N	89	W	31	NWSE	X		X	UNA	ORI	MON	2/22/1978	0	GPM		440	201	
P47060W	ENL LUCKY MC #8	PATHFINDER MINES CORP. LUCKY MC MINE	33	N	90	W	23	NWSE	X			UNA	RES	RES,IND,MIS	9/18/1979	80	GPM		1500	392	
P47061W	ENL LUCKY MC #11	PATHFINDER MINES CORP. LUCKY MC MINE	33	N	90	W	23	NWSE	X			PU	RES	RES,IND,MIS	9/18/1978	0	GPM		2140	186	
P49121W	LINCOLN SPRINGS #1	MATADOR CATTLE COMPANY	33	N	89	W	7	SENE	0	S		PU	ORI	STO	7/11/1979	3	GPM		5	-4	
P49333W	BARREL SPRINGS #1	MATADOR CATTLE COMPANY	32	N	89	W	8	SWSW		±		PU	ORI	STO	8/6/1979	1	GPM		4	-4	
P501G	LUCKY MC #3	PATHFINDER MINES CORPORATION	33	N	90	W	0		DX			UNA	ORI	IND,DOM	12/3/1956	300	GPM		218	95	
P502G	LUCKY MC #4	PATHFINDER MINES CORPORATION	33	N	90	W	0		DX			UNA	ORI	IND,DOM	12/3/1956	150	GPM		112	28	
P530G	JAY #1	VITRO MINERALS CORPORATION	33	N	90	W	26	SWNE	X		X	UNA	ORI	IND	1/29/1957	100	GPM		206	80	
P53366W	BATES SPRINGS #1	THE MATADOR CATTLE COMPANY	33	N	89	W	8	SWSW	S			PU	ORI	STO	8/8/1980						
P53837W	AREA 6 MINE SUMP	WY BOARD OF LAND COMMISSIONERS**PATHFINDER MINES CORPORATION	33	N	90	W	13	SESW	X			PU	RES	DEW,RES,IND, MIS	7/7/1980	200	GPM		200	120	
P56W	ALJOB #1	GLOBE MINING CO.	33	N	89	W	15	NENW	X			ABA	ORI	IND,DOM	8/29/1958	45	GPM		484	256	
P57999W	PAY #1	UNION CARBIDE CORPORATION	33	N	89	W	15	SWSE	X			PU	ORI	MIS	5/4/1981	1200	GPM		200	97	
P60146W	BENGAL WELL #1	USDI, BLM** FEDERAL-AMERICAN PARTNERS	33	N	89	W	27	NENE	X			PU	RES	RES,MIS	11/25/1977	0	GPM		-1	0	
P60147W	BENGAL WELL #2	USDI, BLM** FEDERAL-AMERICAN PARTNERS	33	N	89	W	27	NENE	X			PU	RES	MIS	11/25/1977	0	GPM		-1	0	
P64404W	ALLEGRETTI #1	USDI, BLM** ADOBE OIL & GAS CORPORATION	32	N	89	W	5	NESE	X			PU	ORI	MIS	6/2/1983	20	GPM				
P66157W	GUARD WELL 3A	USDI, BLM** UNION CARBIDE CORPORATION	33	N	89	W	15	SESW			0	X	GST	ORI	MON	4/1/1983	10	GPM		158	101
P67075W	GUARD WELL 3B	USDI, BLM** UNION CARBIDE CORP.	33	N	89	W	15	NWNW	X	MILL SITE		A&C	ORI	RES,IND,MIS	2/16/1984	7	GPM		159	114.1	
P67076W	GUARD WELL 3C	USDI, BLM** UNION CARBIDE CORP.	33	N	89	W	15	SWSW	X			A&C	RES	RES,IND,MIS	2/16/1984	10	GPM		159	105	
P67077W	HDW-1	UNION CARBIDE CORPORATION	33	N	89	W	15	SWSE	X			PU	RES	RES,IND,MIS	2/8/1984	1	GPM		35	-4	
P67146W	MW1	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSE	X			PU	ORI	MON	4/23/1984	0	GPM		79	58.24	
P67147W	MW2	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW	X			PU	ORI	MON	4/23/1984	0	GPM		170	125	

# Appendix A Water Rights Search

Permit Number	Facility Name	Permit Applicant	Tns	Rng	Section	Qtrtr	Lots	Proof	Additional Description	Acres	HeadGate-Outlet-Well	Status	Supply type	Uses	Priority	Amount	Unit	Source	Permit Well Depth	Permit Static Well Depth
P67148W	MW4	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSE			X	PUW	ORI	MON	4/23/1984	0	GPM		140	82
P67149W	MW6	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	NWSE			0X	A&C	ORI	MON	4/23/1984	0	GPM		220	162
P67150W	MW7	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	NESW			0X	A&C	ORI	MON	4/23/1984	0	GPM		220	145
P67151W	MW8	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	SWNE			X	PUW	ORI	MON	4/23/1984	0	GPM		159	57.15
P67152W	MW10	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	SWNE			0X	A&C	ORI	MON	4/23/1984	0	GPM		160	95
P67153W	MW16	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW			X	ABA	ORI	MON	4/23/1984	0	GPM		200	-7
P67154W	MW17	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	10	NESW			X	A&C	ORI	MON	4/23/1984	0	GPM		160	105
P67155W	MW18	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	10	NWSE			X	PU	ORI	MON	4/23/1984	0	GPM		80	53
P67156W	MW19	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSE			X	DSC	ORI	MON	4/23/1984	0	GPM		110	67
P67157W	MW20	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	NENE			X	PU	ORI	MON	4/23/1984	0	GPM		90	65
P67158W	MW21	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW			0X	A&C	ORI	MON	4/23/1984	0	GPM		159	-7
P67159W	MW23	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	10	NWSE			X	PU	ORI	MON	4/23/1984	0	GPM		140	80
P67160W	GW1	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	SESW			X	PU	ORI	MON	4/23/1984	0	GPM		160	105
P67161W	GW2	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	SESW			X	PUW	ORI	MON	4/23/1984	0	GPM		158	114
P67162W	GW3	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	SESW			0X	A&C	ORI	MON	4/23/1984	0	GPM		160	107
P67163W	GW4	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	22	NENW			X	PU	ORI	MON	4/23/1984	0	GPM		165	112.42
P67164W	GW5	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	SWSE			X	PUW	ORI	MON	4/23/1984	0	GPM		160	100
P67165W	GW6	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	22	NWNE			X	PU	ORI	MON	4/23/1984	0	GPM		121	86.18
P67166W	GW7	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	SESW			X	PU	ORI	MON	4/23/1984	0	GPM		190	0.3
P67167W	GW8	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	22	NENW			X	PU	ORI	MON	4/23/1984	0	GPM		172	125
P67168W	PW1	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	NESW			X	PU	ORI	MON	4/23/1984	0	GPM		220	168
P67169W	PW2	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	SWSW			X	PU	ORI	MON	4/23/1984	0	GPM		220	192
P67170W	PW3	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	SWSW			X	PU	ORI	MON	4/23/1984	0	GPM		220	148
P67171W	PW4	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	22	NENW			X	PU	ORI	MON	4/23/1984	0	GPM		230	100
P67172W	PW5	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	22	NENW			X	PU	ORI	MON	4/23/1984	0	GPM		160	120.72
P67173W	PW6	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	22	NENW			X	PU	ORI	MON	4/23/1984	0	GPM		136	122.39
P67174W	PW7	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	SWSE			X	PU	ORI	MON	4/23/1984	0	GPM		260	-7
P67175W	EPW1	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	16	SESE			X	PU	ORI	MON	4/23/1984	0	GPM		155	110
P67176W	EPW2	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	22	NWNW			X	PU	ORI	MON	4/23/1984	0	GPM		115	89
P67177W	EPW3	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	22	NWNW			X	PU	ORI	MON	4/23/1984	0	GPM		110	70
P67178W	DW2	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	SESW			X	ABA	ORI	MON	4/23/1984	0	GPM		260	140
P67179W	DW3	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	SWNW			X	PU	ORI	MON	4/23/1984	0	GPM		228	210
P67180W	MW30026	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	22	NWNW			X	PU	ORI	MON	4/23/1984	0	GPM		193	77
P67181W	RW1	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	22	NWNW			0X	A&C	ORI	MON	4/23/1984	0	GPM		130	87.04
P67182W	RW2	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	22	NWNW			X	PU	ORI	MON	4/23/1984	0	GPM		120	76
P67183W	HW1	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	SWSW			0X	A&C	ORI	MON	4/23/1984	0	GPM		267.6	152.35
P67184W	HW2	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	16	NESE			X	PU	ORI	MON	4/23/1984	0	GPM		117	104.72
P67185W	HW3	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	SWNW			X	PU	ORI	MON	4/23/1984	0	GPM		135.5	113.34
P67186W	HW4	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	15	SWNW			X	PU	ORI	MON	4/23/1984	0	GPM		155.4	123.85
P67187W	RIM 1	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	9	SWSW			X	ABA	ORI	MON	4/23/1984	0	GPM		300	179
P67188W	RIM 2	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	9	SESW			X	ABA	ORI	MON	4/23/1984	0	GPM		260	78
P67189W	RIM 3	USDI, BLM** UMETCO MINERALS CORPORATION	33	N	89	W	8	NESE			X	ABA	ORI	MON	4/23/1984	0	GPM		196	87
P682G	LUCKY MC #5	PATHFINDER MINES CORPORATION	33	N	90	W	23				X	UNA	ORI	IND,DOM	7/2/1957	200	GPM		995	100
P716G	LUCKY MC #6	PATHFINDER MINES CORPORATION	33	N	90	W	23				DX	UNA	ORI	IND,DOM	11/21/1957	350	GPM		1340	53
P71755W	CROSS L #2 SPRING	CLEAR CREEK CATTLE CO.	33	N	88	W	7	NWNE			0SD	PU	ORI	DOM,STO	9/13/1984	5	GPM		3	-4
P71757W	LITTLE CROSS L #1 SPRING	CLEAR CREEK CATTLE CO.	33	N	88	W	6	NWSW	L11		0S	PU	ORI	STO	9/13/1984	10	GPM		4	-4
P71758W	MCKENZIE SPRING	CLEAR CREEK CATTLE CO.	33	N	88	W	19	SWSW	L7		0S	PU	ORI	STO	9/13/1984	20	GPM		5	-4
P71762W	ROBERTS SPRING	CLEAR CREEK CATTLE CO.	34	N	88	W	31	NWNE			0S	PU	ORI	STO	9/13/1984	10	GPM		5	-4
P71764W	GOVERNMENT #1 WEST (RATTLESNAKE)	USDI BLM CASPER DISTRICT**CLEAR CREEK CATTLE CO.	33	N	88	W	6	SESE			0S	PU	ORI	STO	10/9/1984	4	GPM		5	-4

# Appendix A Water Rights Search

Permit Number	Facility Name	Permit Applicant	Tns	Rng	Section	Qtrqtr	Lots	Proof	Additional Description	Acres	HeadGate-Outlet-Well	Status	Supply type	Uses	Priority	Amount	Unit	Source	Permit Well Depth	Permit Static Well Depth
P71766W	BEAVER RIM #2	USDI BLM CASPER DISTRICT**CLEAR CREEK CATTLE CO.	33	N	89	W	27	NENE				PU	ORI	STO	1/17/1986	15	GPM		10	-4
P717G	LUCKY MC #7	PATHFINDER MINES CORPORATION	33	N	90	W	23		DX			UNA	ORI	IND,DOM	11/21/1957	150	GPM		1720	28
P76332W	MW25	UMETCO MINERAL CORPORATION	33	N	89	W	15	NWNW	X			PU	ORI	MON	2/19/1988	0	GPM		256	227.5
P76333W	MW26	UMETCO MINERAL CORPORATION	33	N	89	W	10	NWSW	X			PU	ORI	MON	2/19/1988	0	GPM		160	90
P76334W	MW27	UMETCO MINERAL CORPORATION	33	N	89	W	11	SWSW	X			PU	ORI	MON	2/19/1988	0	GPM		121	41
P76996W	JGW 1	WYDEQ	33	N	90	W	26	SENE			X	PUW	ORI	MON	5/23/1988	0	GPM		300	136.9
P76997W	4WW 1	WYDEQ	33	N	90	W	26	NWSE	X			PU	ORI	MON	5/23/1988	0	GPM		300	206.07
P76998W	JGW 3	WYDEQ	33	N	90	W	26	SWSE	X			PU	ORI	MON	5/23/1988	0	GPM		200	175.75
P77793W	MW 28	UMETCO MINERALS CORPORATION	33	N	89	W	9	SESE	X		X	UNA	ORI	MON	8/3/1988	0	GPM		282	178.4
P7951R	Lagoon 1 Reservoir	PATHFINDER MINES CORPORATION	33	N	90	W	23	NWSE	P			PU	ORI	IND	5/17/1978	6.6	ACFT	Fraser Draw		
P7952R	Lagoon 2 Reservoir	PATHFINDER MINES CORPORATION	33	N	90	W	23	NWSE	MINERAL SURVEY 582			DSC	ORI	IND	5/17/1978	0.22	ACFT	Fraser Draw		
P7964R	Area 7 Settling Reservoir	PATHFINDER MINES CORPORATION	33	N	90	W	25	NESW	P			PU	ORI	IND	9/14/1978	23.25	ACFT	Fraser Draw		
P80432W	MW 29	UMETCO MINERALS CORPORATION	33	N	89	W	15	NESW			X	ABA	ORI	MON	8/4/1989	0	GPM		195	188
P80433W	MW 31	UMETCO MINERALS CORPORATION	33	N	89	W	15	NESW			X	ABA	ORI	MON	8/4/1989	3	GPM		180	130.77
P80434W	MW 32	UMETCO MINERALS CORPORATION	33	N	89	W	15	SESW	X		X	UNA	ORI	MON	8/4/1989	0	GPM		160	102
P80484W	LA 1	LIDSTONE & ANDERSON INC.	33	N	89	W	14	SWNW	X		X	UNA	ORI	MON	8/14/1989	0	GPM		60	43
P80485W	LA 2	LIDSTONE & ANDERSON INC.	33	N	89	W	14	SWSW	X		X	UNA	ORI	MON	8/14/1989	0	GPM		165	128.5
P80486W	LA 3	LIDSTONE & ANDERSON INC.	33	N	89	W	15	SESE	X		X	UNA	ORI	MON	8/14/1989	0	GPM		195	183
P80487W	LA 4	LIDSTONE & ANDERSON INC.	33	N	89	W	14	SWSW	X		X	A&C	ORI	MON	8/14/1989	0	GPM		184.5	145
P80488W	LA 5	LIDSTONE & ANDERSON INC.	33	N	89	W	22	NWNE	X		X	UNA	ORI	MON	8/14/1989	0	GPM		128	115
P80489W	LA 6	LIDSTONE & ANDERSON INC.	33	N	89	W	22	NENE	X		X	UNA	ORI	MON	8/14/1989	0	GPM			
P80490W	LA 7	LIDSTONE & ANDERSON INC.	33	N	89	W	23	NWNW	X		X	UNA	ORI	MON	8/14/1989	0	GPM		105	71.5
P8122R	A-9 Pit Subgrade Tailings Disposal Reservoir	UNION CARBIDE CORPORATION	33	N	89	W	15	SESW			X	PUO	ORI	IND	4/3/1980	1107.73	ACFT	Union Draw		
P8208R	Adobe Oil & Gas Corporation Evaporation Pond Reservoir	ADOBE OIL & GAS CORPORATION	33	N	89	W	9	NWSE	P			PU	ORI	IND,MIS	3/2/1979	25.82	ACFT	East Draw		
P82562W	MWC-33	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW	X			ABA	ORI	MIS	4/27/1990	2	GPM		210	121.81
P82563W	MWC-34	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW	X			ABA		MIS	4/27/1990	3	GPM		200	157.06
P82564W	MWC-35	UMETCO MINERALS CORPORATION	33	N	89	W	10	SESW	X		X	ABA		MIS	4/27/1990	5	GPM		190	148.03
P82565W	MWC-36	UMETCO MINERALS CORPORATION	33	N	89	W	10	SESW			X	ABA	ORI	MIS	4/27/1990	12	GPM		200	143.41
P82566W	MWI-37	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW			X	ABA	ORI	MON	4/27/1990	0	GPM		240	222.9
P82567W	MWI-38	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW			X	ABA	ORI	MON	4/27/1990	0	GPM		230	195.88
P82568W	MWI-39	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW			X	ABA	ORI	MON	4/27/1990	0	GPM		253	222
P82823W	MUSKRAT-MO	POWER RESOURCES INC.	33	N	89	W	31	NESW	X		X	UNA	ORI	MON	6/28/1990	0	GPM		381	198
P82824W	MUSKRAT PUMP	POWER RESOURCES INC.	33	N	89	W	31	NWSE	X		X	UNA	ORI	MON	6/28/1990	0	GPM		455	266
P82825W	MUSKRAT MP	POWER RESOURCES INC.	33	N	89	W	31	NWSE	X		X	UNA	ORI	MON	6/28/1990	0	GPM		453	249
P83055W	MW-21A	UMETCO MINERALS CORPORATION	33	N	89	W	10	NWSW	X		X	UNA	ORI	MON	7/23/1990	0	GPM		200	165.87
P83269W	MWC-42	UMETCO MINERALS CORPORATION	33	N	89	W	10	SESW	X		X	ABA	ORI	MIS	8/15/1990	10	GPM		240	138
P8461R	Rim #1 Settling Reservoir	UMETCO MINERALS CORPORATION	33	N	89	W	9	NWSW	P			PU	ORI	TEM,IND	9/14/1981	15.63	ACFT	Rim Draw		
P8462R	Rim #2 Settling Reservoir	UMETCO MINERALS CORPORATION	33	N	89	W	8	NESE			X	PUO	ORI	TEM,IND	9/14/1981	1.14	ACFT	Iron Springs Draw		
P8463R	Rim #3 Settling Reservoir	UMETCO MINERALS CORPORATION	33	N	89	W	8	NESE	P			PU	ORI	TEM,IND	9/14/1981	13.48	ACFT	Iron Springs Draw		
P84648W	MWI 43	UMETCO MINERALS CORPORATION	33	N	89	W	15	NWNW			X	UNA	ORI	MON	3/18/1991	0	GPM		240	194.8
P84650W	MWI-50	UMETCO MINERALS CORPORATION	33	N	89	W	15	NENE			X	ABA	ORI	MON	3/18/1991	0	GPM		240	171
P84651W	MWI-51	UMETCO MINERALS CORPORATION	33	N	89	W	15	NENE			X	ABA	ORI	MON	3/18/1991	0	GPM		240	159
P84652W	MWI-52	UMETCO MINERALS CORPORATION	33	N	89	W	15	NENE			X	ABA	ORI	MON	3/18/1991	0	GPM		245	144
P84751W	MWC-45	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW	X			ABA	ORI	MIS	3/18/1991	15	GPM		240	195.24
P84753W	MWC-47	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW	X			ABA	ORI	MIS	3/18/1991	15	GPM		255	188
P84754W	MWC-48	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW	X			ABA	ORI	MIS	3/18/1991	15	GPM		245	177.92
P84755W	MWC-49	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW	X			ABA	ORI	MIS	3/18/1991	15	GPM		240	156.35

# Appendix A Water Rights Search

Permit Number	Facility Name	Permit Applicant	Tns	Rng	Section	Qtr	Lots	Proof	Additional Description	Acres	HeadGate-Outlet-Well	Status	Supply type	Uses	Priority	Amount	Unit	Source	Permit Well Depth	Permit Static Well Depth	
P85776W	ENL MWC-42	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW				A&C	ORI	MIS	7/24/1991	8	GPM		240	180.58	
P8599S	Canyon Creek #1 Stock Reservoir	MATADOR CATTLE COMPANY	33	N	89	W	9	NENE			X	PUO	ORI	STO	8/6/1979	0.13	ACFT	Canyon Creek			
P8641R	A-9 Pit Tailings Disposal Reservoir	UMETCO MINERALS CORPORATION	33	N	89	W	15	SWSE	P			PU	ORI	TEM,IND	7/27/1983	966.77	ACFT	Union Draw			
P87214W	AREA 4 RECLAMATION RESERVOIR	PATHFINDER MINES CORP.	33	N	90	W	36		P MS610		X	UNA	RES	MIS	12/24/1991	12	GPM		460	270	
P87215W	AREA 5 RECLAMATION RESERVOIR	PATHFINDER MINES CORP.	33	N	90	W	26	SEW				UNA	ORI	MIS	12/24/1991	66	GPM		250	95	
P89541W	DW-4	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW	X			UNA	ORI	MIS	9/3/1992	8	GPM		260	135	
P91081W	MW-63	UMETCO MINERALS CORPORATION	33	N	89	W	15	NESW			X	UNA	ORI	MON	3/19/1993	0	GPM		180	120	
P91082W	MW-64	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW			X	UNA	ORI	MON	3/19/1993	0	GPM		260	160	
P91083W	MW-65	UMETCO MINERALS CORPORATION	33	N	89	W	15	SWNW			X	UNA	ORI	MON	3/19/1993	0	GPM		180	120	
P91277W	MWC 55	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW	X			ABA	ORI	MIS	3/19/1993	7	GPM		171.78	112.5	
P91278W	MWC 56	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW	X			ABA	ORI	MIS	3/19/1993	5	GPM		261	171	
P91279W	MWC 57	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW	X			ABA	ORI	MIS	3/19/1993	6	GPM		252	165	
P91280W	MWC 58	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW	X			UNA	ORI	MIS	3/19/1993	6	GPM		250	154	
P91281W	MWC 59	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW	X			ABA	ORI	MIS	3/19/1993	6	GPM		250	147	
P91282W	MWC 60	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW	X			UNA	ORI	MIS	3/19/1993	4	GPM		160	111	
P91283W	MWC 61	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW	X			UNA	ORI	MIS	3/19/1993	3.5	GPM		150	116	
P91284W	MWC 62	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW	X			UNA	ORI	MIS	3/19/1993	4	GPM		165	107	
P92098W	MWC-66	UMETCO MINERALS CORPORATION	33	N	89	W	10	SWSW	X			UNA	ORI	MIS	6/18/1993	15	GPM		190	120	
P92914W	PRI #1	PRI ENVIRONMENTAL INC.	33	N	89	W	28	SENE			X	UNA	ORI	MON	10/1/1993	0	GPM		275	153.58	
P93567W	LA-8	LIDSTONE & ANDERSON INC.	33	N	89	W	22	NENE			X	UNA	ORI	MON	12/10/1993	0	GPM		163	72.9	
P93801W	PWR #107 SPRING (77)	USDI, BLM	33	N	89	W	18	NESW	S		X	ADJ	ORI	STO	4/17/1926	10	GPM		-1	-1	
P94133W	UPPER MAC SPRING	USDI, BLM	33	N	88	W	30	NWNW	L1	0	X	ADJ	ORI	STO	4/17/1926	1	GPM		-1	-1	
P94134W	SPRING #7	USDI, BLM	33	N	88	W	19	NWSW	L3	0	X	ADJ	ORI	STO	4/17/1926	5	GPM		-1	-1	
P94135W	SPRING #8	USDI, BLM	33	N	88	W	19	SWSW	L4	0	X	ADJ	ORI	STO	4/17/1926	5	GPM		-1	-1	
P9431D	Cross Eil Ditch	LEONIDAS CLAYTON	33	N	88	W	6		L11	6.4		ADJ	ORI	IRR	10/11/1909	1.21	CFS	Deer Creek			
P95290W	BUSS I RESERVOIR	USDI, BLM** POWER RESOURCES INC.	33	N	89	W	22	NESW	X	0		UNA	ORI	MIS,DEW,RES	4/26/1994	2000	GPM		210	171	
P9573R	Veca Pond Reservoir	BUREAU OF LAND MANAGEMENT	33	N	89	W	22	NWSW	P		X	UNA	ORI	STO,WIL	1/23/1990	55.55	ACFT	Veca Draw			
P96884W	HERBST ERVAY BASIN #1	HERBST LAZY TY LAND CO.	34	N	89	W	23	SWSW	S		X	UNA	ORI	STO	8/25/1994	5	GPM		75	30	
P9722R	Area 4 Reclamation Reservoir	PATHFINDER MINES CORP.**STATE LAND AND FARM LOAN OFFICE	33	N	90	W	36		M610	MS610	0	X	ADJ	STR	STO,WIL	12/24/1991	6787.5	ACFT	Fraser Draw		
P9723R	Area 5 Reclamation Reservoir	PATHFINDER MINES CORPORATION	33	N	90	W	26		P MS 589		X	UNA	ORI	STO,WIL	12/24/1991	3202.22	ACFT	Fraser Draw			
P98996W	HERBST ERVAY BASIN #2	HERBST LAZY TY LAND CO.	34	N	89	W	23	NESW	S		X	UNA	ORI	STO	4/20/1995	4	GPM		3378	-6	