

**U. S. Nuclear Regulatory Commission**

**Annual Report  
for  
Gas Hills, Wyoming**

**July 2006 through June 2007**

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

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

**September 2007**

# Umetco Minerals Corporation



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September 28, 2007

Mr. Robert Lukes, Project Manager  
U.S. Nuclear Regulatory Commission  
Fuel Cycle Facilities Branch  
Division of Fuel Cycle Safety and Safeguards  
Office of Nuclear Material Safety and Safeguards  
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Rockville, Maryland 20852-2738

**Subject: Nuclear Regulatory Commission Annual Report  
Umetco Minerals Corporation Gas Hills, Wyoming Site  
For the report period July 2006 through June 2007**

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

Dear Mr. Lukes,

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,

*for* Thomas E. Gieck  
Reclamation Leader

Enclosures

c : NRC Region IV (Arlington, TX)  
Wyoming Department of Environmental Quality (Lander)  
Bureau of Land Management (Casper Field Office)  
Bureau of Land Management (Lander Field Office)

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## APPENDICES

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## 1.0 INTRODUCTION

This document is submitted in accordance with U.S. Nuclear Regulatory Commission (NRC) License No. SUA-648 Amendment Numbers 58 and 59, Conditions 10B, 16, 32, 34, 35, and 39, Docket Number 40-0299, for the former uranium mill site at Gas Hills, Wyoming. License Condition 34 was deleted by Amendment Number 59 issued on March 16, 2007. 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, 2006 and June 30, 2007.

## 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, A-9, GHP2 and C18 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 her and reports to the Vice President of Environmental, Health and Safety at Dow.

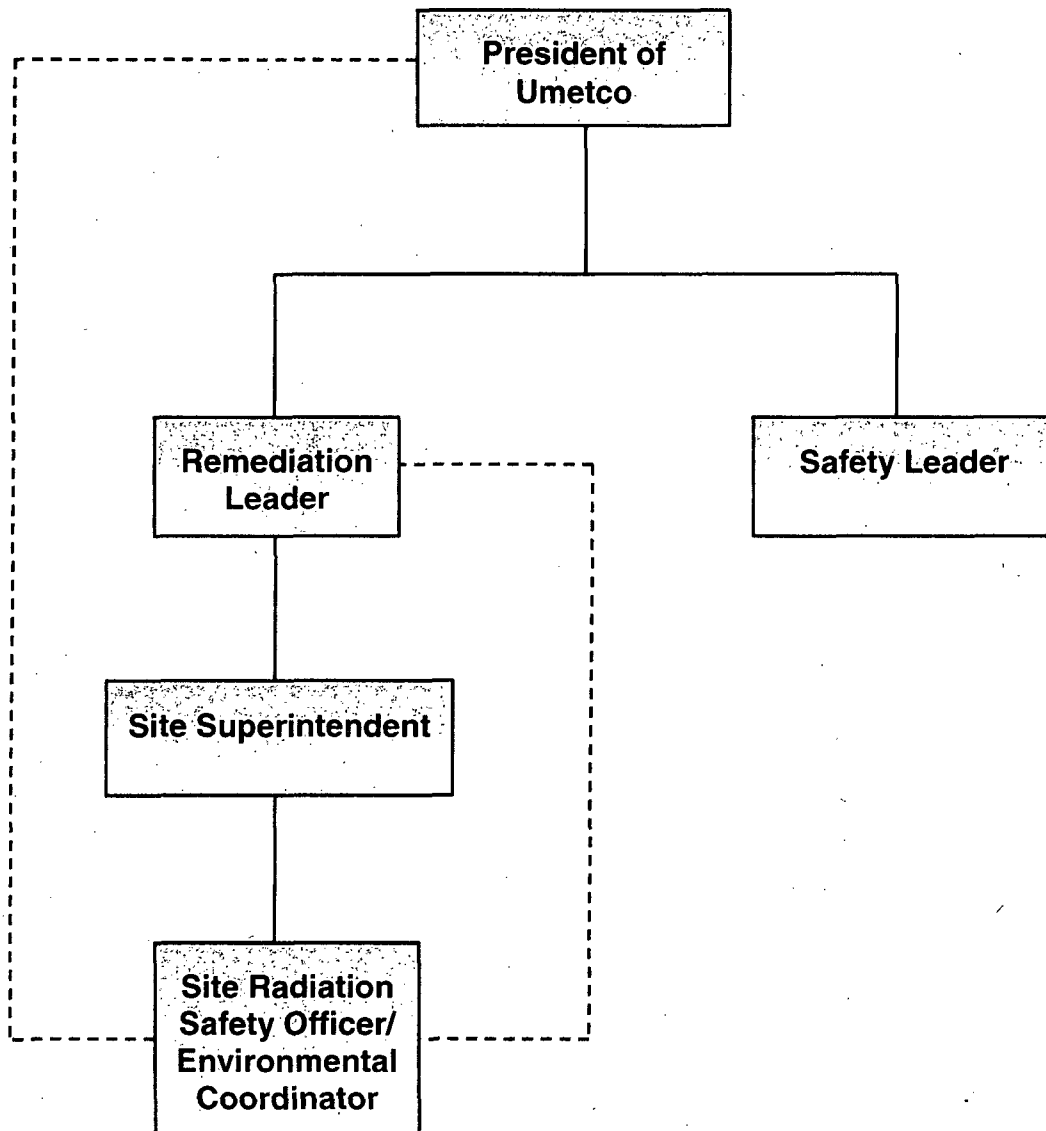
The Safety Leader reports to the President of Umetco and provides surveillance and guidance to the reclamation personnel. The Safety Leader is also responsible for occupational health and periodically audits the Gas Hills operations to identify potential liabilities and recommend appropriate responses.

The Remediation Leader reports to the President of Umetco and provides site management.

The Site Superintendent reports directly to the Remediation Leader 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/Environmental Coordinator 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/Environmental Coordinator develops and coordinates procedure modifications for radiological protection and ALARA policy adherence. The Radiation Safety Officer/Environmental Coordinator is authorized to address concerns to the President of Umetco and the Remediation Leader. In routine matters of radiation safety, the Radiation Safety Officer/Environmental Coordinator reports directly to the Site Superintendent. The Radiation Safety Officer/Environmental Coordinator is also responsible for conducting industrial hygiene activities.

**Table 2.1      2007 Organization Chart for Umetco Minerals Corporation**



### 3.0 ALARA AUDIT

As required by License Condition 16, an ALARA audit was performed on October 31 and November 1, 2006. A copy of the annual ALARA audit report is retained at the Umetco office in Riverton, Wyoming and is available for NRC review.

The radon-222 dose assessment for an individual member of the public for 2006 was calculated as the difference between the total concentration measured downwind of the site (Tower 1) and the total background concentration (Tower 4). The Public Dose was found to be 0 microcuries per milliliter.

The gamma dose to the public for 2006 was determined to be 58 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. Four changes in land use have occurred within the survey area since the 2006 annual report was submitted and are listed below:

1. Umetco completed NRC reclamation activities at its Gas Hills site with the placement of the erosion protection cover on the GHP2 repository and the final cover on the C-18 repository.
2. In September 2006, Umetco completed reclamation of the portions of the Gas Hills site permitted by Wyoming Department of Environmental Quality – Land Quality Division (WDEQ-LQD) Mine Permit No. 349C.
3. Umetco also completed reclamation of the Clay Borrow Site permitted by WDEQ-LQD Mine Permit No. 630s in September 2006.
4. In October 2006, Umetco completed reclamation of the Dutton Limestone Quarry permitted by WDEQ-LQD Mine Permit No. 930ET.

The following sections document current land uses.

### **4.1 Private Residences**

The 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. Three new water rights have been granted within the five-mile radius of the East Gas Hills site. Umetco has applied for surface water rights for its B-Spoils Reservoir located within the proposed Department of Energy Land Transfer Area.

### **4.4 Other Operations**

Umetco has three permitted mines within the five-mile radius of the Gas Hills site. Two of these mines, the Rattlesnake Quarry (inactive) and the Dutton Limestone Quarry (inactive), produced rock for the reclamation activities at the East Gas Hills site. The third permitted mine, the Clay

Borrow Site (inactive), produced clay for reclamation use at the site. As noted above, the Dutton Limestone Quarry and the Clay Borrow Site were reclaimed and seeded in September and October 2006. Umetco hauled stockpiled rock from the Rattlesnake Quarry for placement on the WDEQ-LQD Mine Permit No. 349C reclamation areas.

The Natrona County Road Department has a stockpile of waste rock from Umetco's Rattlesnake Quarry which is authorized under a free use permit issued by the Bureau of Land Management.

Power Resources, Inc. is in the permitting stage of an *in-situ* uranium mining operation, approximately 2.5 miles south of the site. Drilling activities were observed on the property and the water rights search identified the addition of one permitted well.

Pathfinder is finalizing reclamation activities at the former Lucky Mc uranium mill site, approximately six miles west of the site.

Rock Springs Minerals continued to mine bentonite near the Clay Borrow Site located approximately six miles west of the East Gas Hills site.

The Kinder Morgan continued to use its compressor station located approximately 2.5 miles north of the East Gas Hills site.

Oil and gas drilling continues around 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. As noted in Section 1, Amendment Number 59 issued on March 16, 2007 deleted License Condition 34 and as a result no environmental sampling was performed in 2007.

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 during 2006.

As required by License Condition 34B, radon-222 was monitored at the air sampling locations. The Trak Etch detectors were submitted to Landauer, Inc. of Glenwood, Illinois for analyses. Because of the deletion of License Condition 34, no samples were collected in 2007. Radon-222 data are presented in Table 5.1.

**Table 5.1 Radon-222 Concentrations for 2006**

Location	Daily Average (microcuries per milliliter)		
	Concentration	Percent Standard Deviation	Detection Limit
<b>First Half 2006</b>			
Tower 1 (downwind)	1.4 E-9	5.3	0.2 E-9
Tower 4 (background)	1.5 E-9	4.7	0.2 E-9
Tower 6 (nearest residence)	0.8 E-9	6.2	0.2 E-9
<b>Second Half 2006</b>			
Tower 1 (downwind)	1.9 E-9	3.8	0.2 E-9
Tower 4 (background)	1.8 E-9	3.9	0.2 E-9
Tower 6 (nearest residence)	0.6 E-9	6.3	0.2 E-9

The public dose for 2006 was calculated as the difference between the total concentration measured at Tower 1 (downwind) and the total background concentration (Tower 4) and determined to be 0 microcuries per milliliter. With the completion of reclamation activities radon emanation from the site has been reduced to background levels. The 2006 concentrations are consistent with data collected since January 1997. The average radon-222 concentration at each tower for past ten years is shown in Table 5.2.



**Table 5.2 Average Radon-222 Concentrations for January 1997 to December 2006**

Location	Concentration	Average (microcuries per milliliter)	
		Percent Standard Deviation	Detection Limit
Tower 1 (downwind)	1.4 E-9	8.1	0.2 E-9
Tower 4 (background)	1.5 E-9	8.0	0.2 E-9
Tower 6 (nearest residence)	0.7 E-9	10.1	0.2 E-9

Historically, the radon-222 dose to the public over the past ten years has been less than the background concentration.

In accordance with License Condition 34C, gamma monitoring was performed quarterly at the tower locations. No gamma monitoring was performed in 2007 as a result of the license amendment. Results of the gamma monitoring performed during 2006 are presented in Table 5.3.

**Table 5.3 Gamma Monitoring Data for 2006**

Sample Date	Location	Direct Radiation Result <sup>(1)</sup> (millirem per quarter)
<b>First Quarter 2006</b> (January to March)	Tower 1 – downwind	72
	Tower 4 – background	59
	Tower 6 – nearest residence	44
<b>Second Quarter 2006</b> (April to June)	Tower 1 – downwind	58
	Tower 4 – background	42
	Tower 6 – nearest residence	39
<b>Third Quarter 2006</b> (July to September)	Tower 1 – downwind	64
	Tower 4 – background	51
	Tower 6 – nearest residence	36
<b>Fourth Quarter 2006</b> (October to December)	Tower 1 – downwind	79
	Tower 4 – background	63
	Tower 6 – nearest residence	45

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

The gamma dose to the public for 2006 was determined to be 58 millirem, which is less than the public dose limit of 100 millirem.

## 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, January 2004 and June 2005, 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 May 2007. The analytical results are shown in Tables 6.1 and 6.2 and Figure 3.

**Table 6.1 Annual Sampling Results for the Western Flow Regime  
Collected in May 2007**

Analyte	Units	ACL	MW1	MW21A
Arsenic	mg/L	1.8	0.0051	0.052
Beryllium	mg/L	1.64	<0.02	0.0166
Lead-210	pCi/L	35.4	1.2 ± 0.57	1.7 ± 0.11
Nickel	mg/L	13.0	0.54	0.49
Radium-226 + -228	pCi/L	250	13.5 ± 0.6	23 ± 1.0
Selenium	mg/L	0.161	0.0369	0.001
Thorium-230	pCi/L	57.4	-0.02 ± 0.08	-0.1 ± 0.12
Natural Uranium	mg/L	11.9	8.68	0.0096

**Table 6.2 Annual Sampling Results for the Southwestern Flow Regime  
Collected in May 2007**

Analyte	Units	ACL	GW7	GW8
Arsenic	mg/L	1.36	0.0046	0.0123
Beryllium	mg/L	1.70	0.0271	0.21
Lead-210	pCi/L	189	27 ± 0.89	39 ± 2.7
Nickel	mg/L	9.34	1.08	2.7
Radium-226 + -228	pCi/L	353	211.0 ± 2.1	119.2 ± 1.5
Selenium	mg/L	0.53	0.0033	0.0033
Thorium-230	pCi/L	44.8	0.35 ± 0.16	1.4 ± 0.21
Natural Uranium	mg/L	34.1	12.2	15.8

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 concentration plots for comparison. No constituents exceeded the ACL values during the past year.

## 6.2 Semi-Annual Sampling

POC wells MW21A and GW7 and the non-POC wells listed in Table M-1 of Appendix M were sampled semiannually in September of 2006 and May of 2007 for natural uranium, chloride and sulfate and measured for water levels.

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. The analytical results are shown in Table 6.3 and Table 6.4.

**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>
MW1	5-22-07	63	1520	8.68
MW21A	9-12-06	115 J	1590	0.0065
	5-15-07	79	1430	0.0096
MW25	9-13-06	90	2400	0.0085
	5-15-07	88	2670	0.0192
MW28 <sup>(2) (3)</sup>	9-20-06	50	1200	0.0010
	5-16-07	53	1310	0.0025
MW164	9-21-06	160	4010	7.14
	5-23-07	147	4850	7.52
MW70A	9-12-06	150	2600	3.12
	5-15-07	140	2560	3.26
MW71B <sup>(2)</sup>	9-16-06	36	650	0.0019
	5-16-07	37	670	0.0052
MW77	9-13-06	20	640	0.0016
	5-17-07	5	640	0.0185
Iron Springs	9-19-06	15	660	0.0226
	5-23-07	12	780	0.0393

(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.

J notation indicates estimated value

NA notation indicates sampling not required.

**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	9-20-06	210	1090	10.7
	5-17-07	240	1180	12.2
GW8	5-21-07	480	2820	15.8
PW4	9-21-06	240	1400	0.272
	5-21-07	240	1400	0.307
MW72 <sup>(2)</sup>	9-20-06	71	640	0.463
	5-22-07	76	650	0.572
MW82 <sup>(2)</sup>	9-20-06	61	590	0.0716
	5-22-07	65	620	0.062

(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.

J notation indicates estimated value

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 38.

The chloride and sulfate results of the four groundwater model verification wells (MW71B, MW28, MW72 and MW82) were compared with the target levels for June 2007 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.

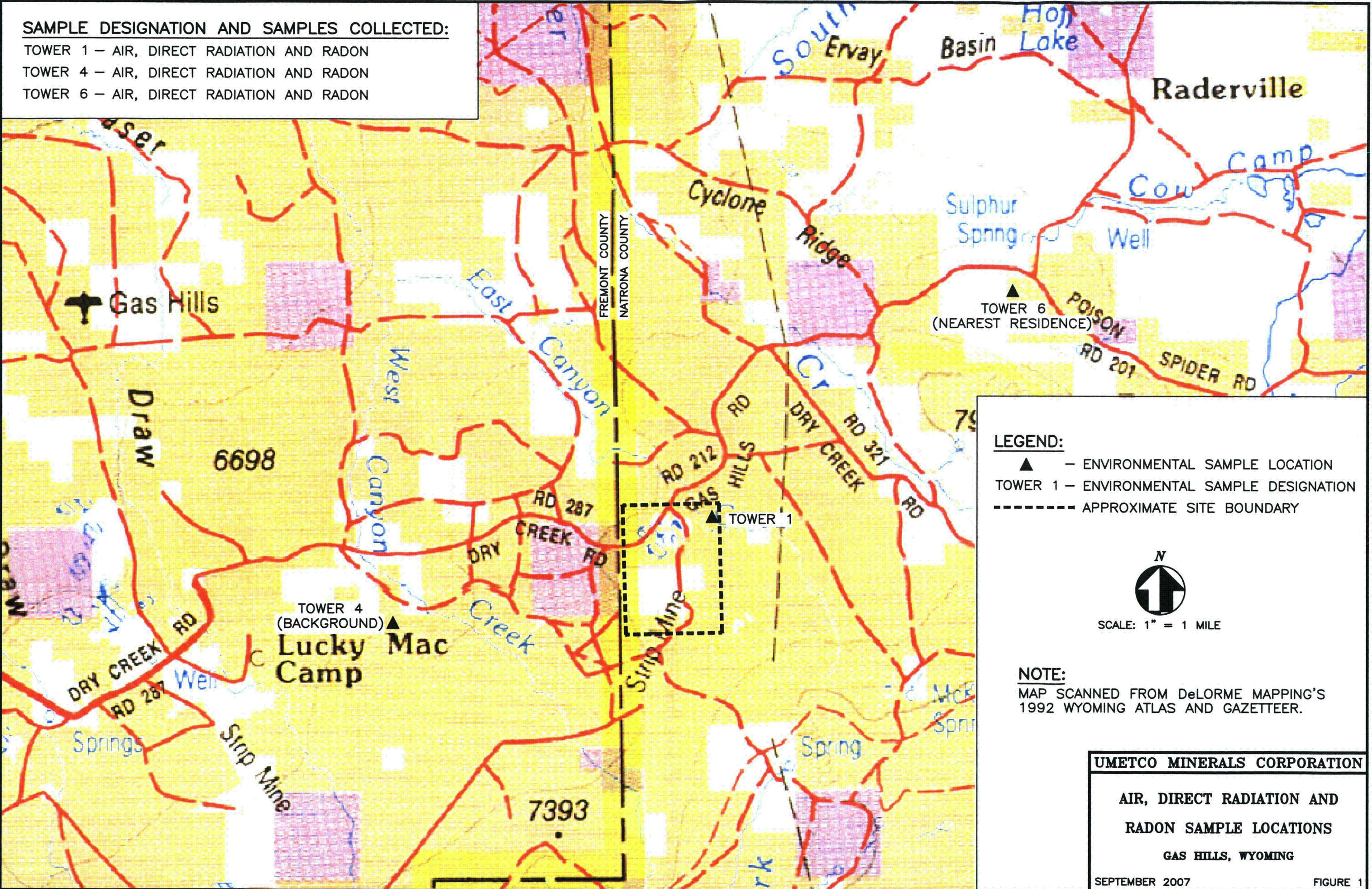
## 7.0 REFERENCES

- 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.
- Umetco Minerals Corporation. June 2005. *Application for Alternate Concentration Limits for Gas Hills, Wyoming, Appendix M – Groundwater Monitoring Plan*; Revised Table M-1.
- U.S. Nuclear Regulatory Commission. November 2006. License Condition Changes for License SUA-648-Amendment No. 58.
- U.S. Nuclear Regulatory Commission. March 2007. License Condition Changes for License SUA-648-Amendment No. 59.



**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.

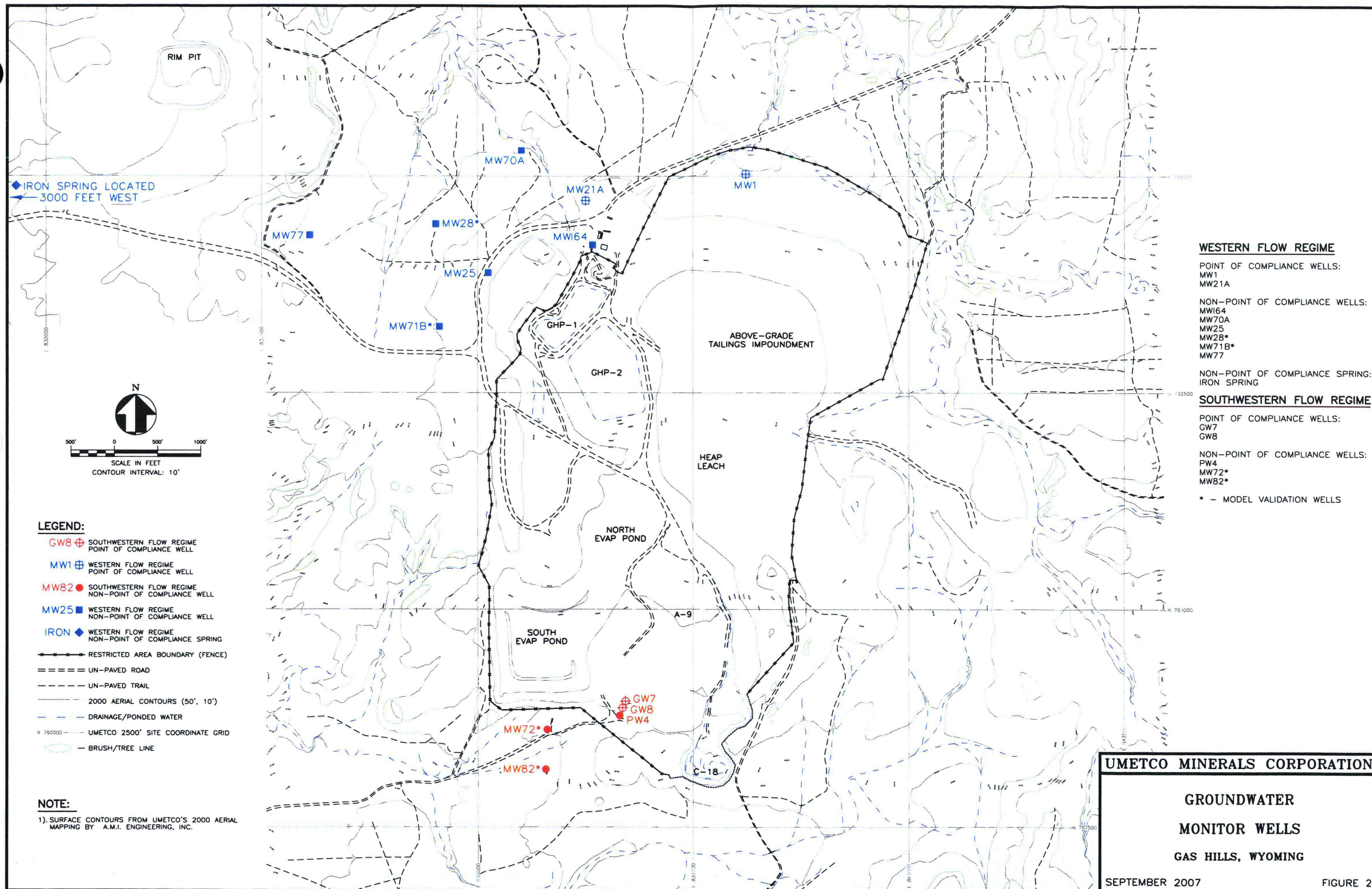
**UMETCO MINERALS CORPORATION**

**AIR, DIRECT RADIATION AND  
RADON SAMPLE LOCATIONS  
GAS HILLS, WYOMING**

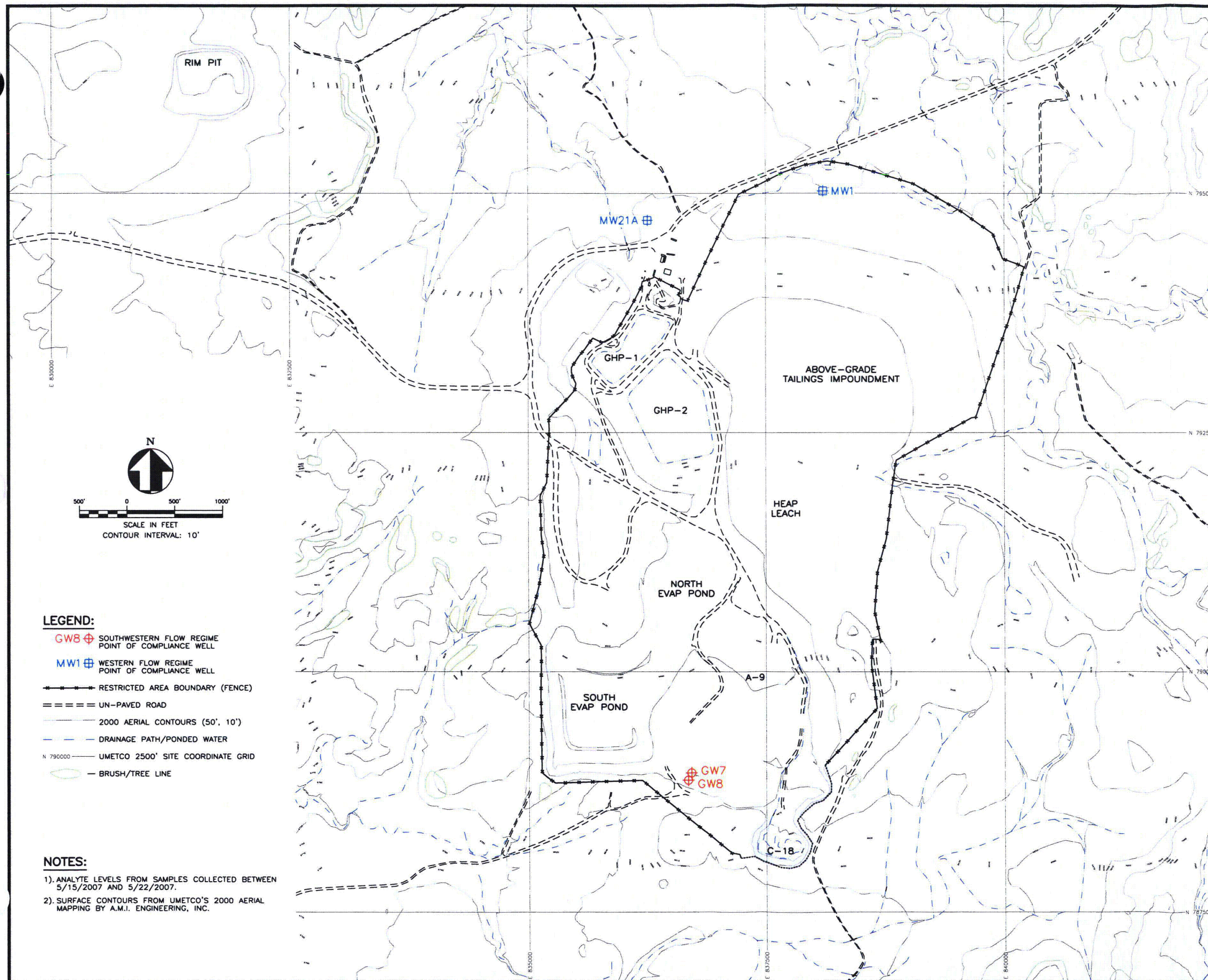
SEPTEMBER 2007

FIGURE 1









WESTERN FLOW REGIME ANALYTE DATA			
WELL ID	ANALYTE	LEVEL/UNIT	DATE
MW1	ARSENIC	0.0051 mg/L	5/22/2007
MW1	BERYLIUM	0.02 mg/L	5/22/2007
MW1	LEAD 210	1.2 pCi/L	5/22/2007
MW1	NAT. URANIUM	8.68 mg/L	5/22/2007
MW1	NICKEL	0.54 mg/L	5/22/2007
MW1	RADIUM 226	10.0 pCi/L	5/22/2007
MW1	RADIUM 228	3.5 pCi/L	5/22/2007
MW1	SELENIUM	0.0369 mg/L	5/22/2007
MW1	THORIUM 230	-0.02 pCi/L	5/22/2007
MW21A	ARSENIC	0.052 mg/L	5/15/2007
MW21A	BERYLIUM	0.0166 mg/L	5/15/2007
MW21A	LEAD 210	1.7 pCi/L	5/15/2007
MW21A	NAT. URANIUM	0.0096 mg/L	5/15/2007
MW21A	NICKEL	0.49 mg/L	5/15/2007
MW21A	RADIUM 226	12.0 pCi/L	5/15/2007
MW21A	RADIUM 228	11.0 pCi/L	5/15/2007
MW21A	SELENIUM	0.001 mg/L	5/15/2007
MW21A	THORIUM 230	-0.1 pCi/L	5/15/2007

SOUTHWESTERN FLOW REGIME ANALYTE DATA			
WELL ID	ANALYTE	LEVEL/UNIT	DATE
GW7	ARSENIC	0.0046 mg/L	5/17/2007
GW7	BERYLIUM	0.0271 mg/L	5/17/2007
GW7	LEAD 210	27.0 pCi/L	5/17/2007
GW7	NAT. URANIUM	12.2 mg/L	5/17/2007
GW7	NICKEL	1.08 mg/L	5/17/2007
GW7	RADIUM 226	200 pCi/L	5/17/2007
GW7	RADIUM 228	11.0 pCi/L	5/17/2007
GW7	SELENIUM	0.0033 mg/L	5/17/2007
GW7	THORIUM 230	0.35 pCi/L	5/17/2007
GW8	ARSENIC	0.0123 mg/L	5/21/2007
GW8	BERYLIUM	0.21 mg/L	5/21/2007
GW8	LEAD 210	39.0 pCi/L	5/21/2007
GW8	NAT. URANIUM	15.8 mg/L	5/21/2007
GW8	NICKEL	2.7 mg/L	5/21/2007
GW8	RADIUM 226	110 pCi/L	5/21/2007
GW8	RADIUM 228	9.2 pCi/L	5/21/2007
GW8	SELENIUM	0.0033 mg/L	5/21/2007
GW8	THORIUM 230	1.4 pCi/L	5/21/2007

UMETCO MINERALS CORPORATION

ANALYTE DATA FOR  
POINT OF COMPLIANCE WELLS  
GAS HILLS, WYOMING

SEPTEMBER 2007

FIGURE 3



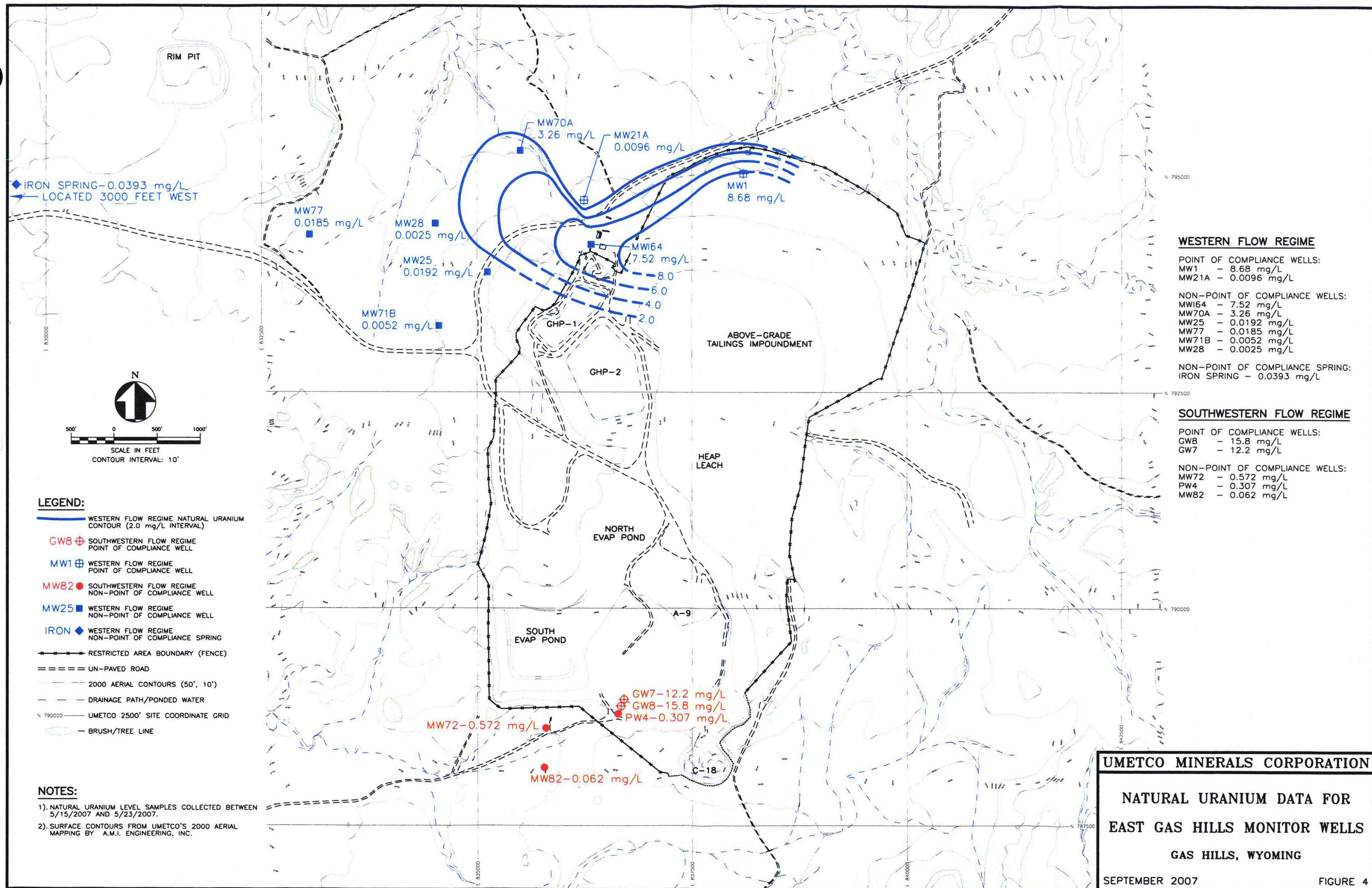




Figure 5 Arsenic Trends in the Western Flow Regime POC Wells

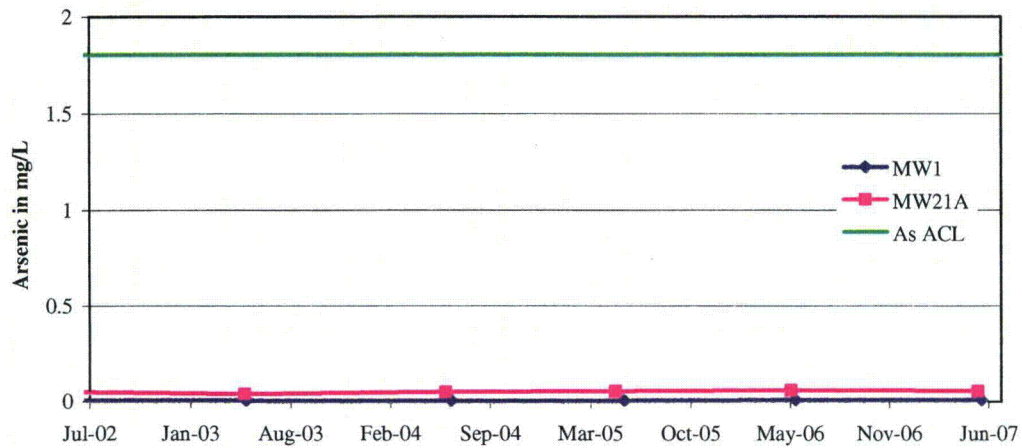


Figure 6 Beryllium Trends in the Western Flow Regime POC Wells

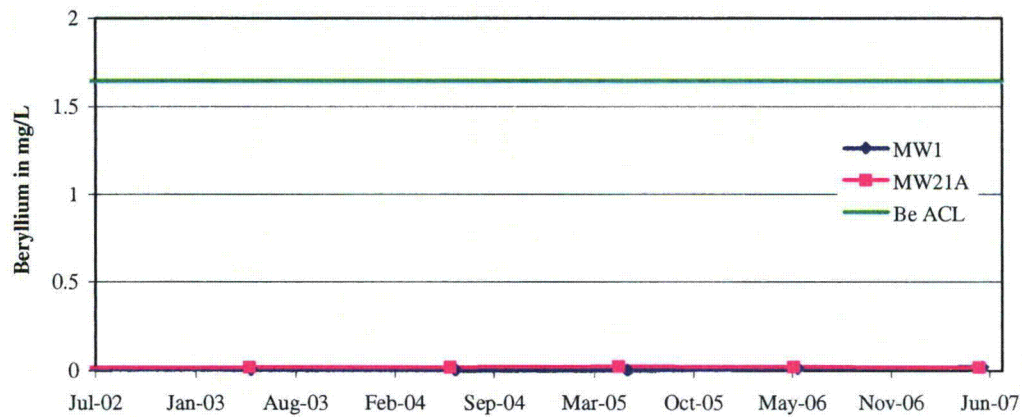
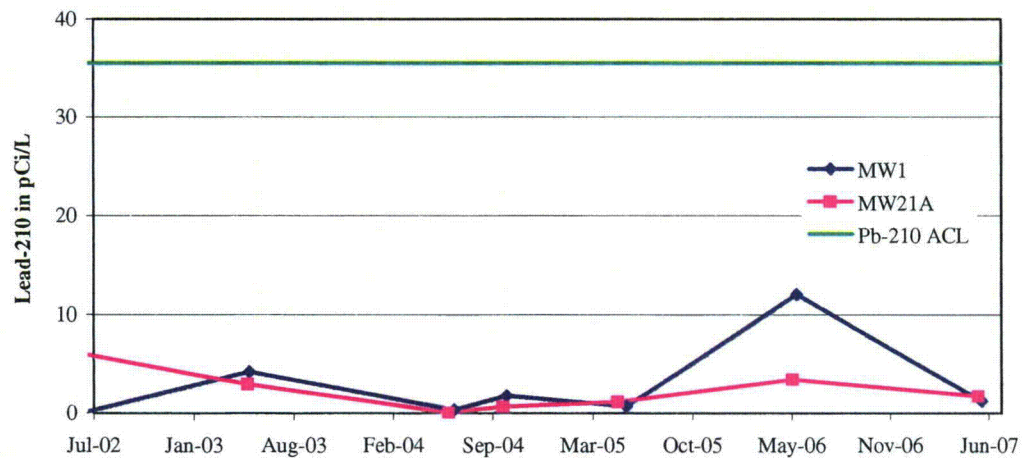
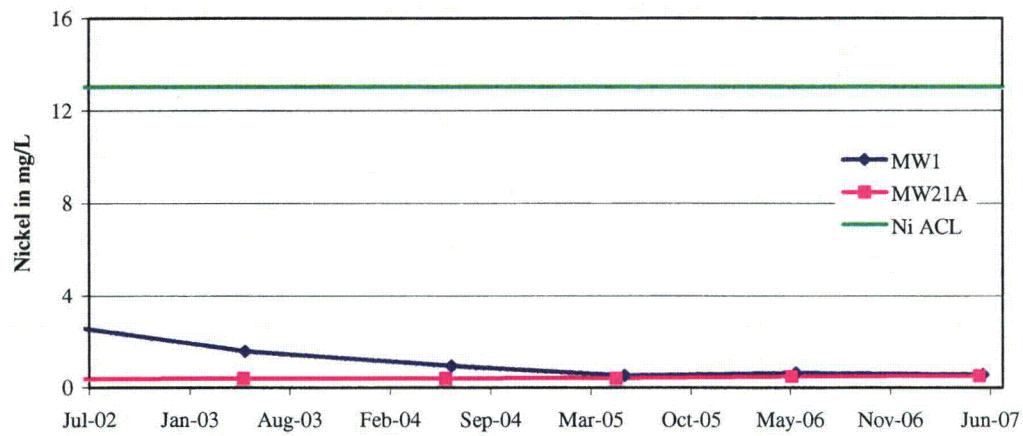


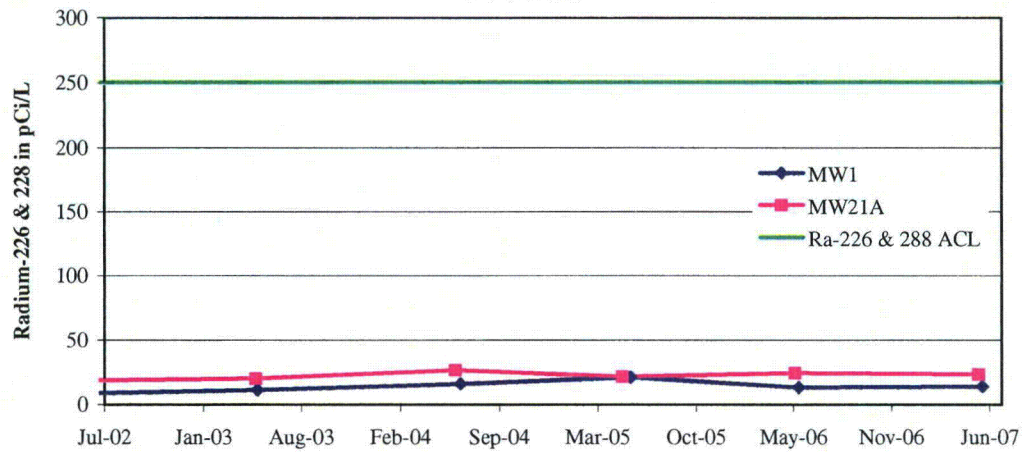
Figure 7 Lead-210 Trends in the Western Flow Regime POC Wells



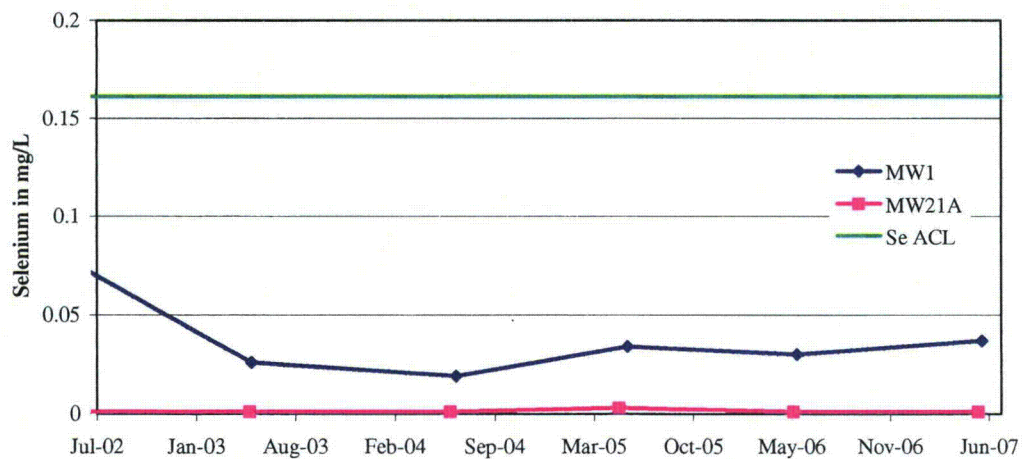
**Figure 8 Nickel Trends in the Western Flow Regime POC Wells**



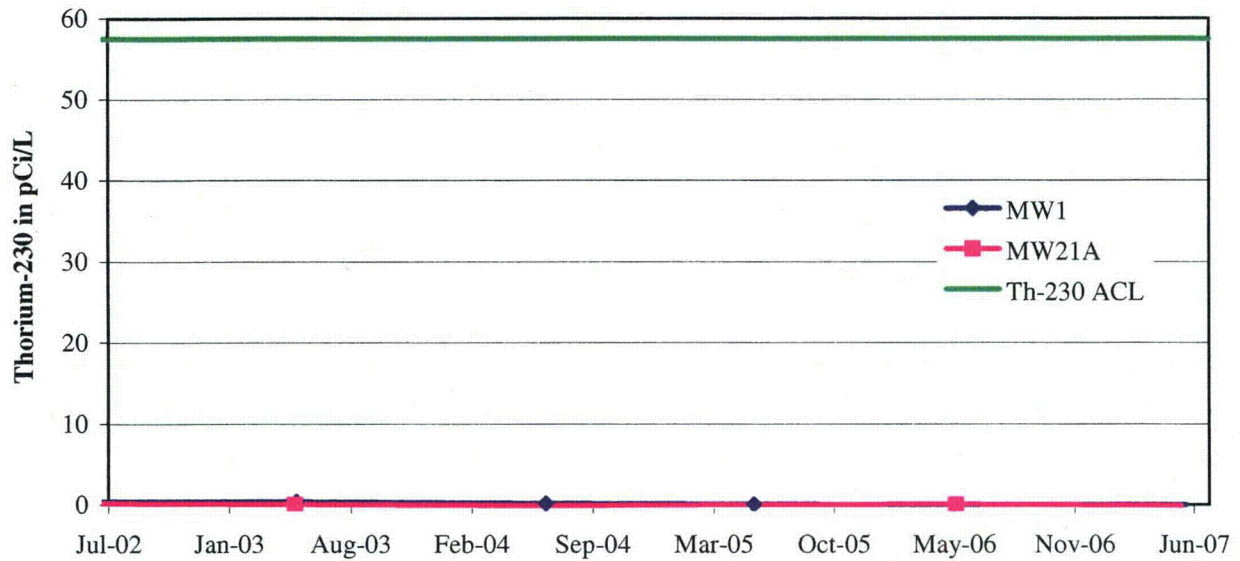
**Figure 9 Combined Radium-226 & 228 Trends in the Western Flow Regime POC Wells**



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



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



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

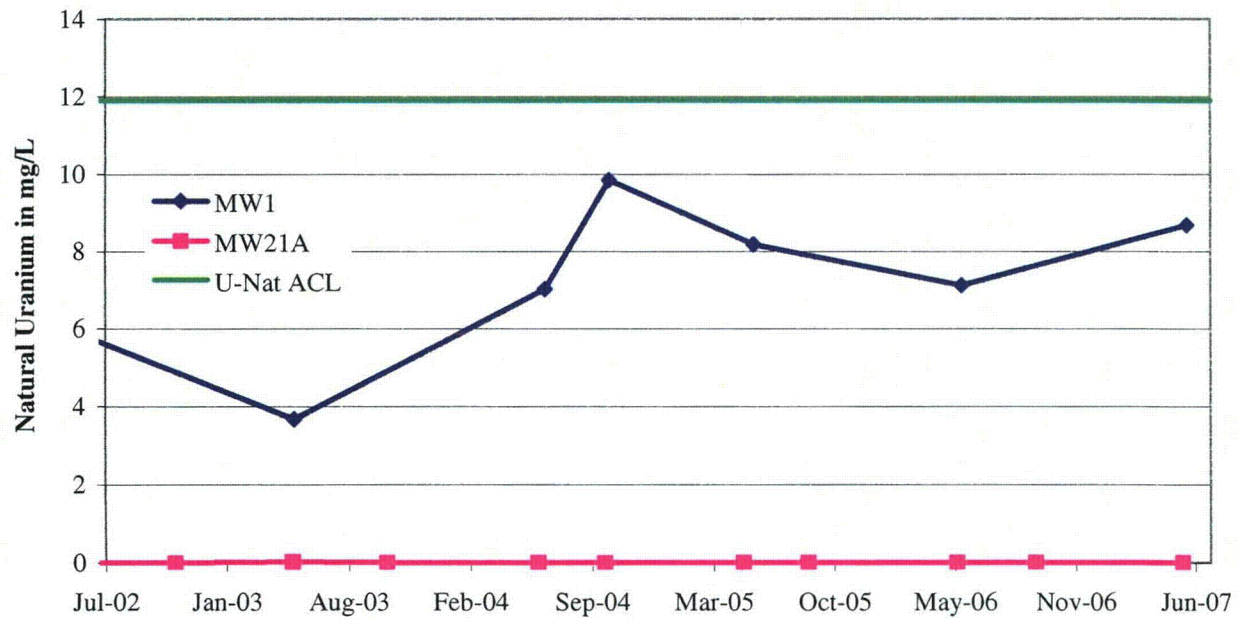


Figure 13 Arsenic Trends in the Southwestern Flow Regime POC Wells

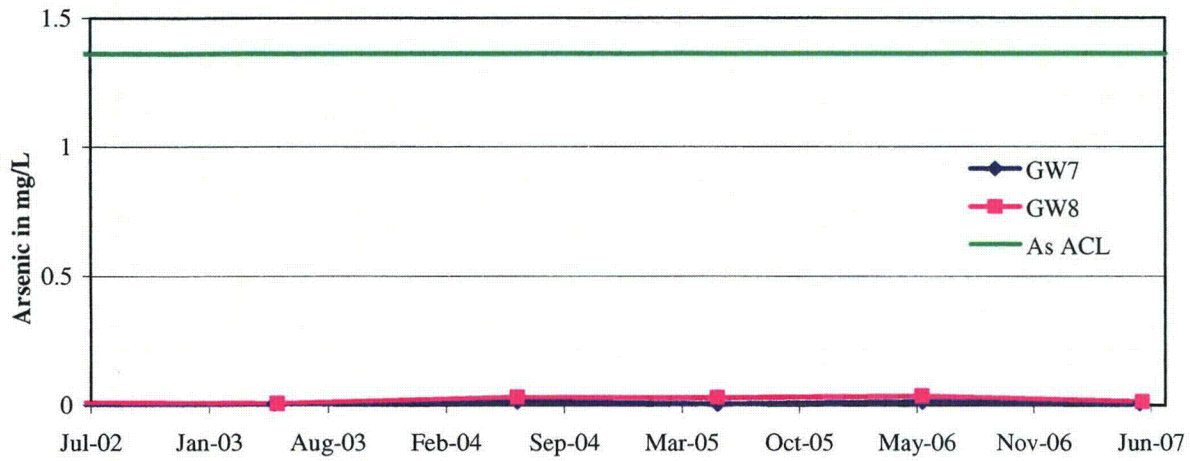


Figure 14 Beryllium Trends in the Southwestern Flow Regime POC Wells

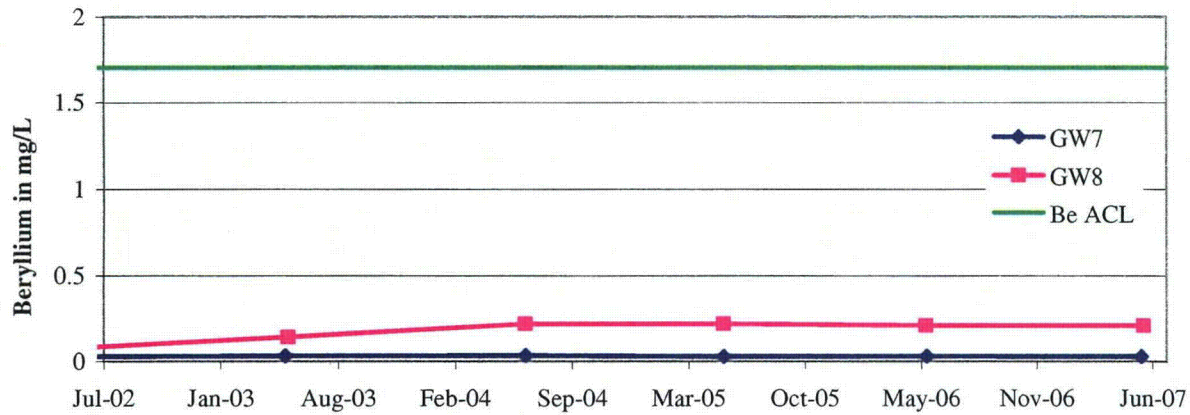
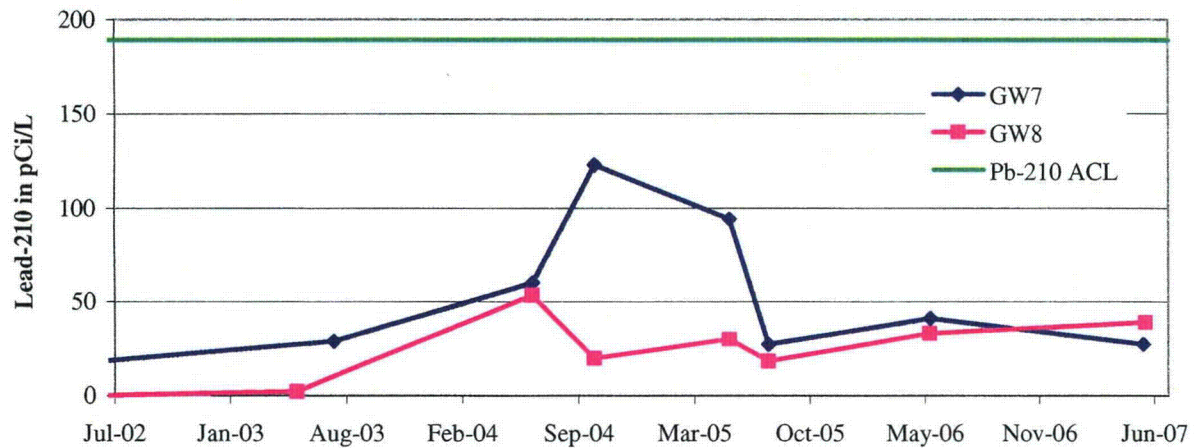
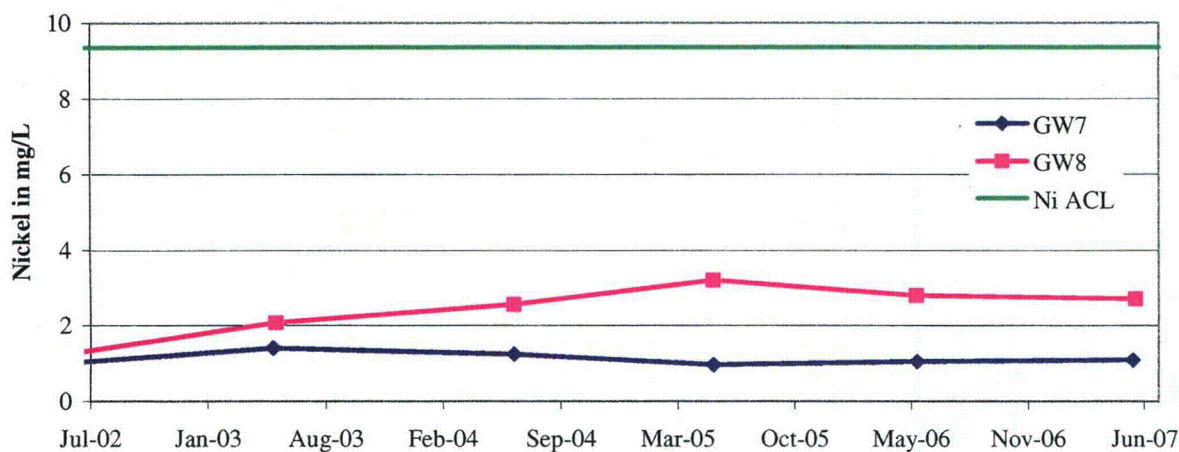


Figure 15 Lead-210 Trends in the Southwestern Flow Regime POC Wells

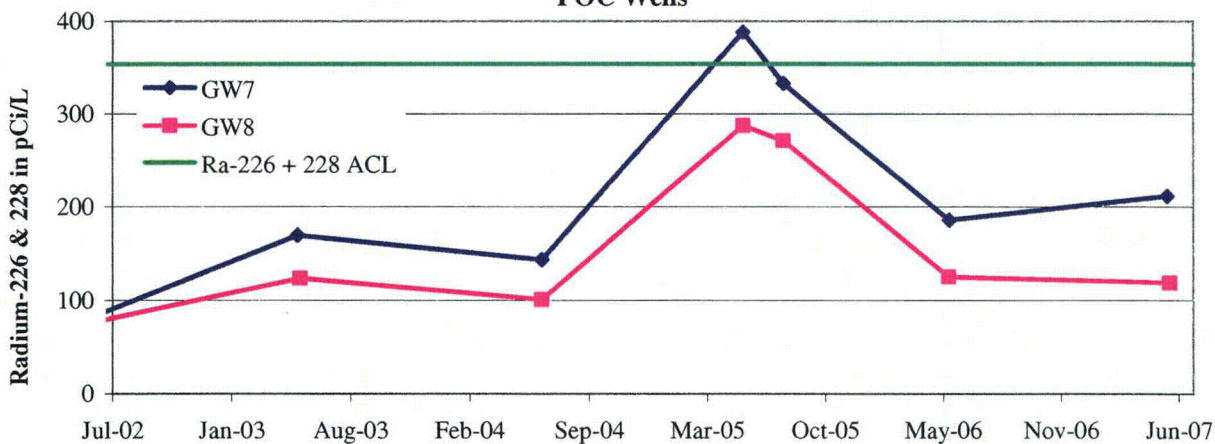




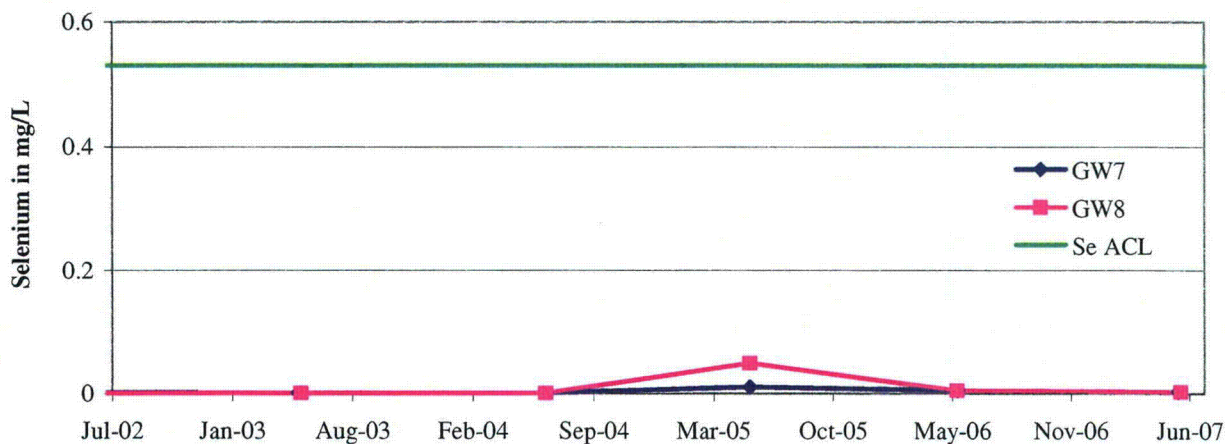
**Figure 16 Nickel Trends in the Southwestern Flow Regime POC Wells**



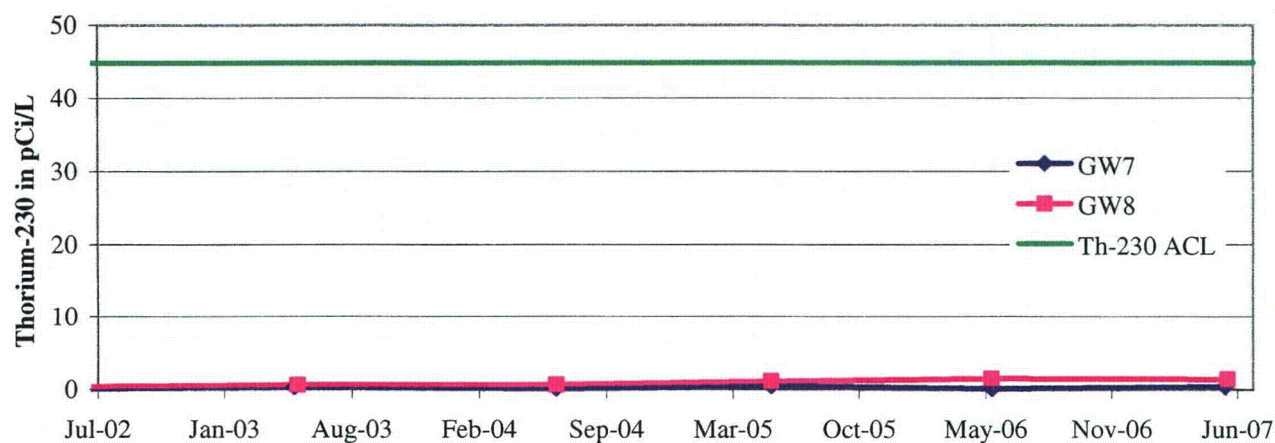
**Figure 17 Combined Radium-226 & 228 Trends in the Southwestern Flow Regime POC Wells**



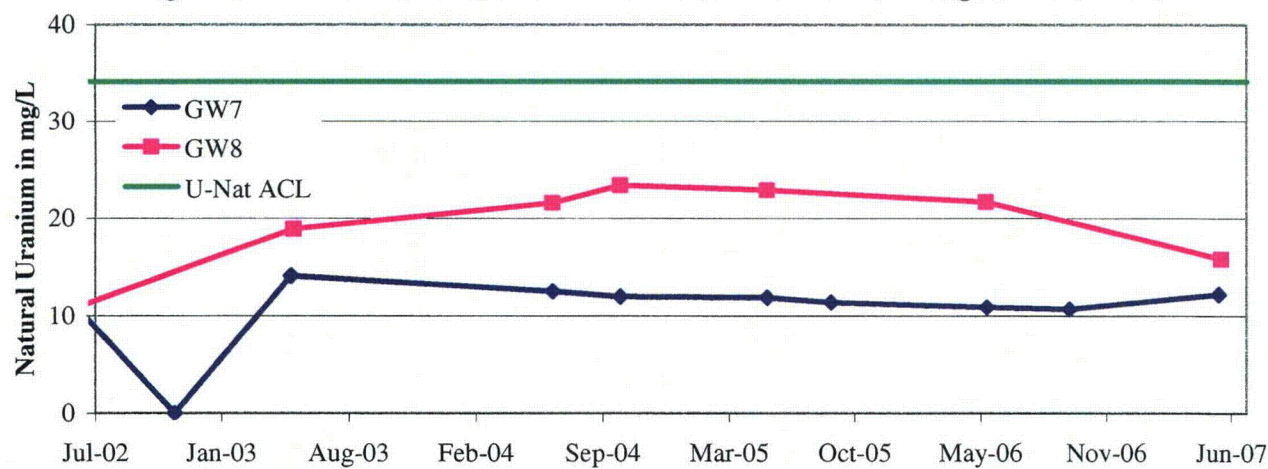
**Figure 18 Selenium Trends in the Southwestern Flow Regime POC Wells**



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



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





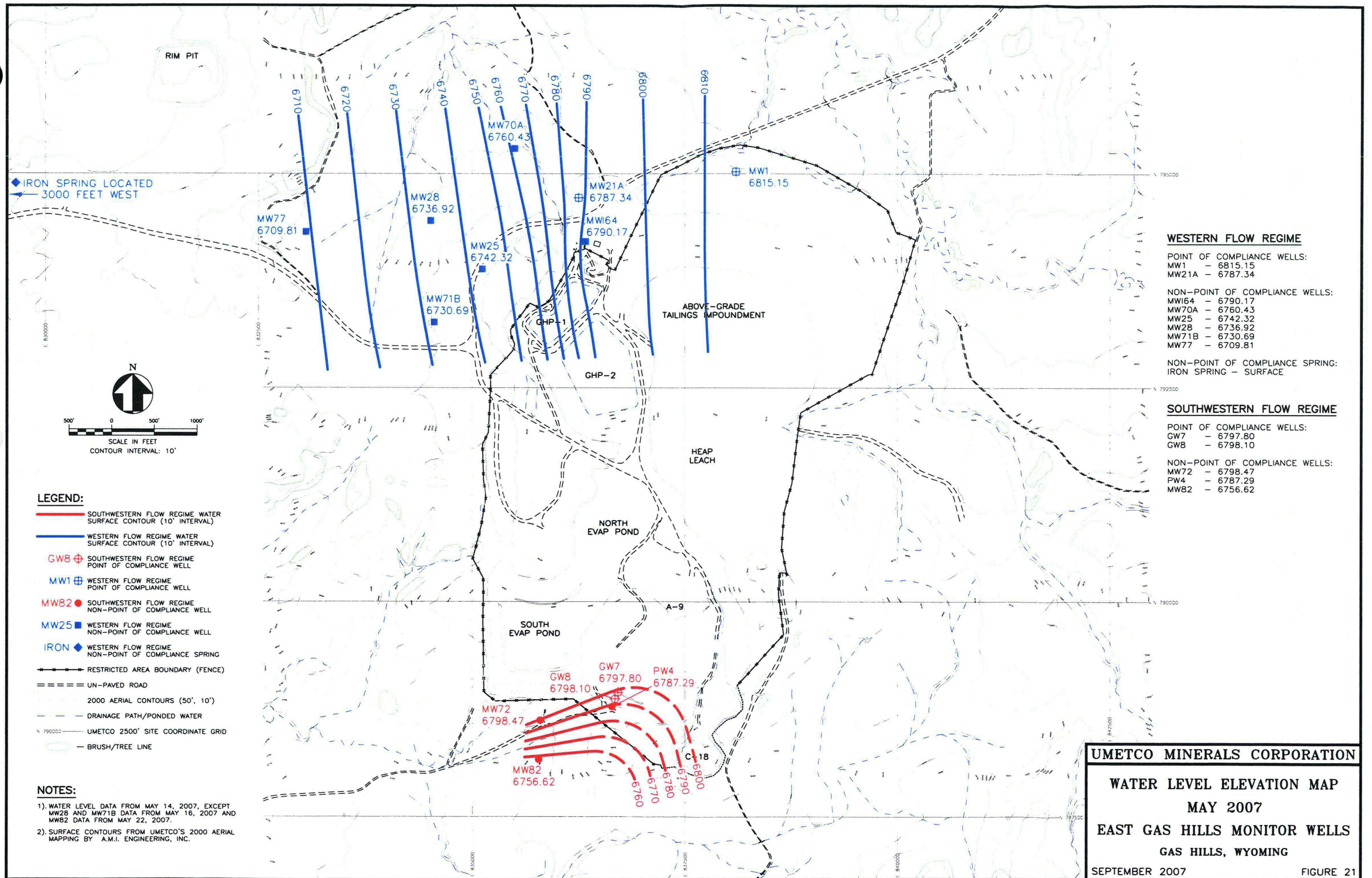




Figure 22 Phreatic Elevations in the Western Flow Regime POC Wells

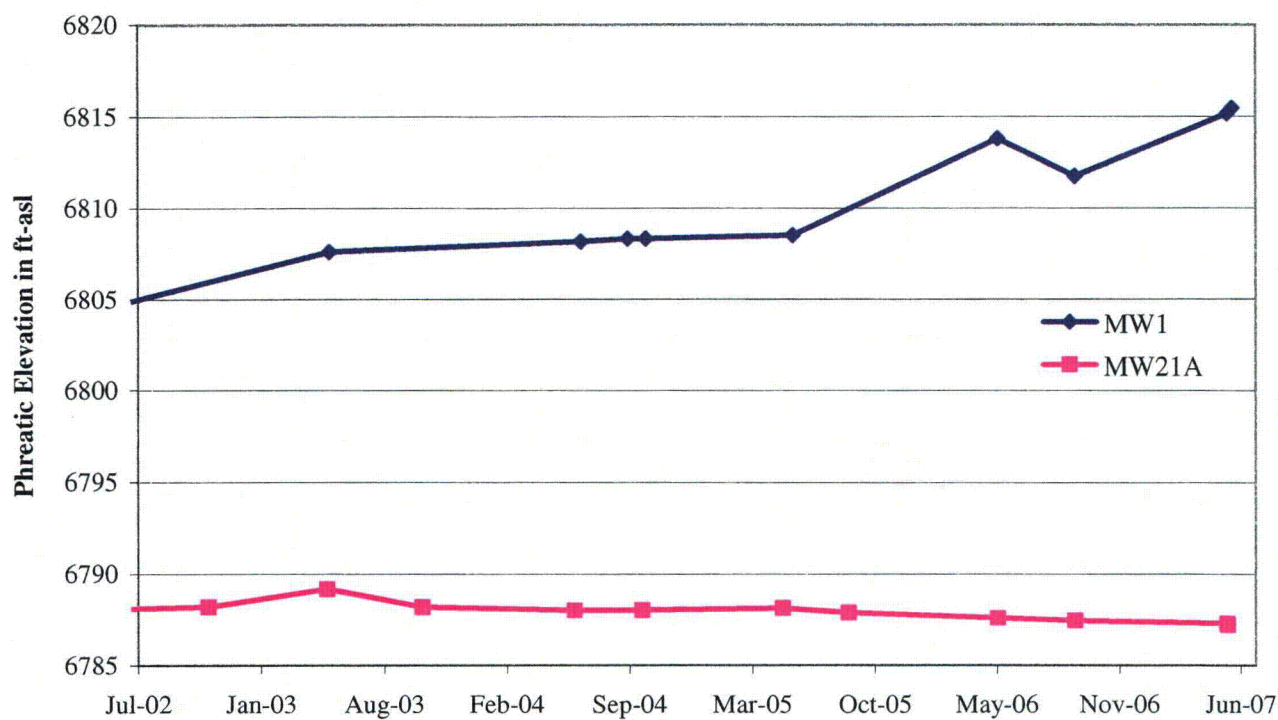
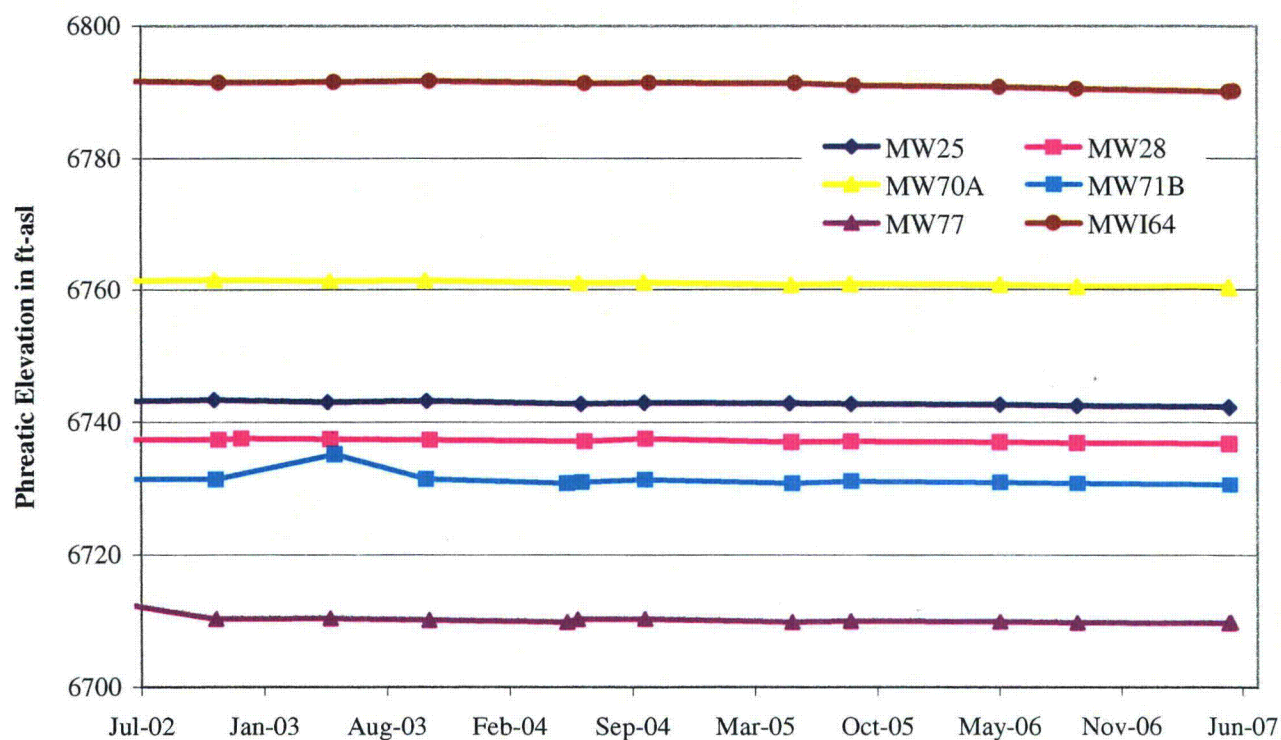
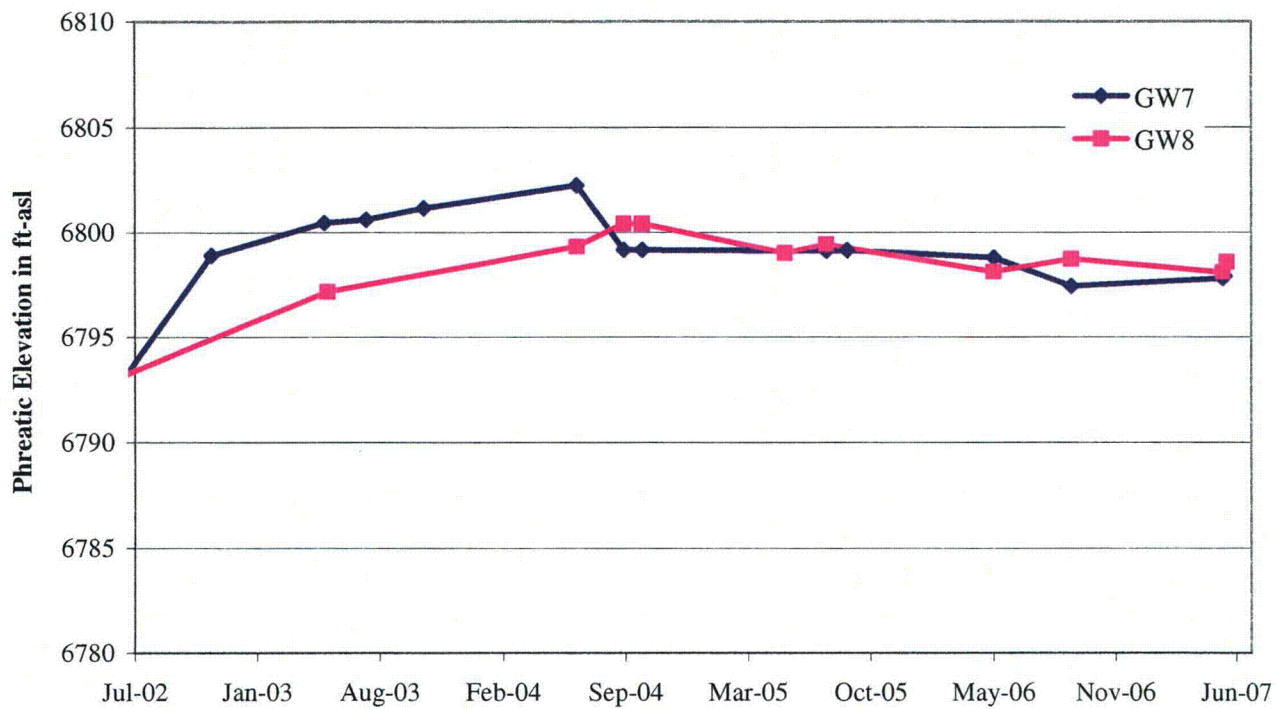


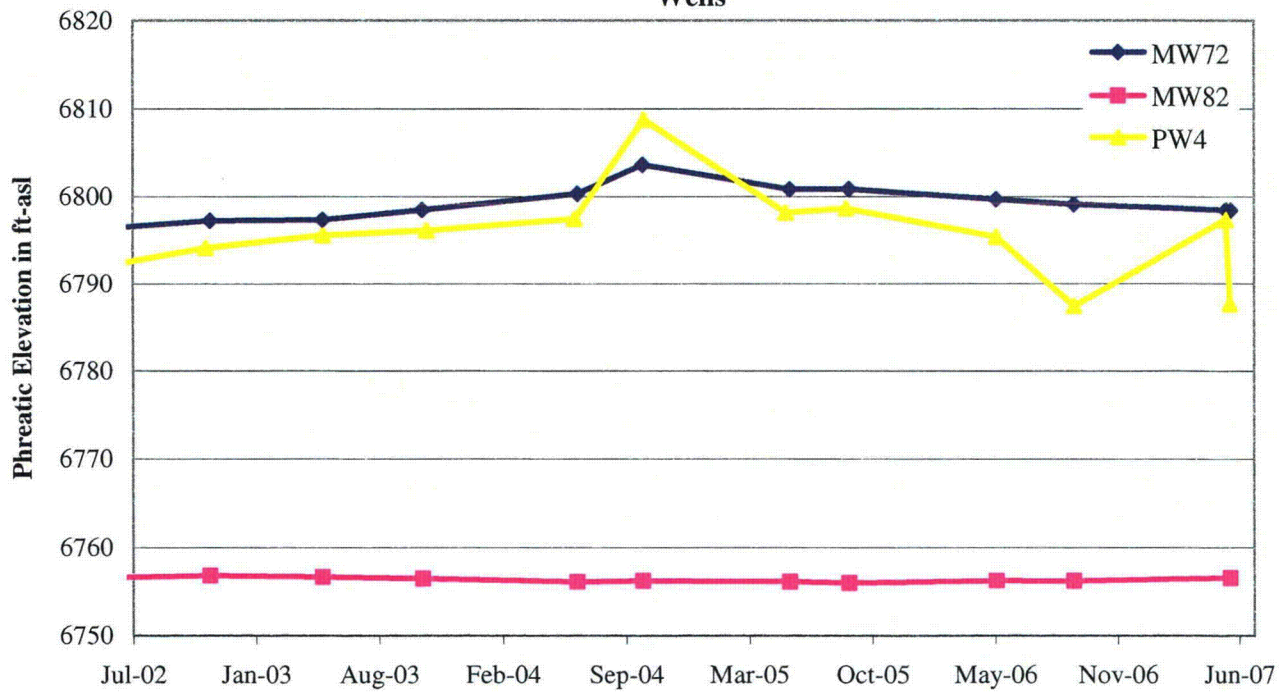
Figure 23 Phreatic Elevations in the Western Flow Regime Monitoring Wells



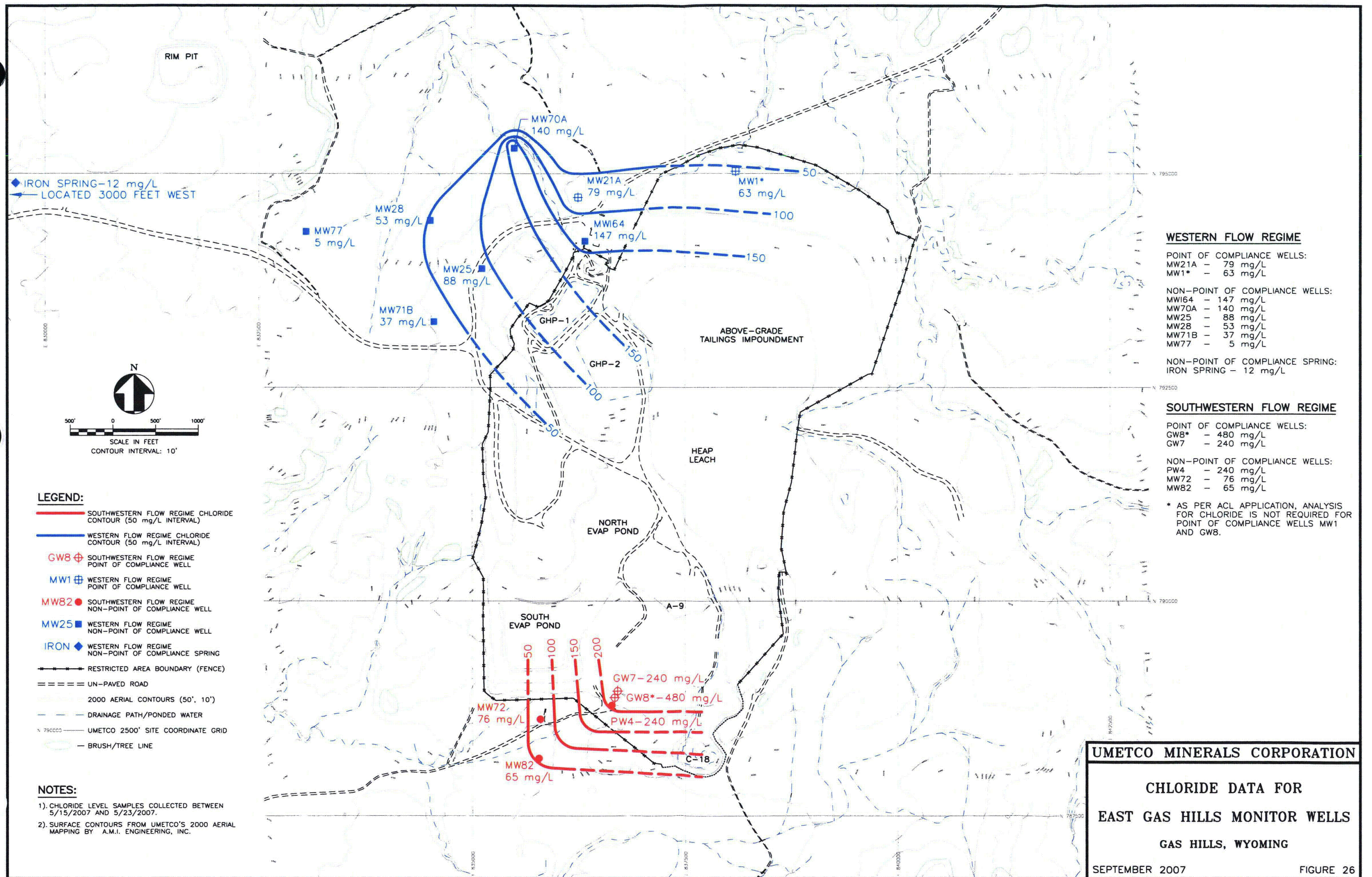
**Figure 24 Phreatic Elevations in the Southwestern Flow Regime POC Wells**



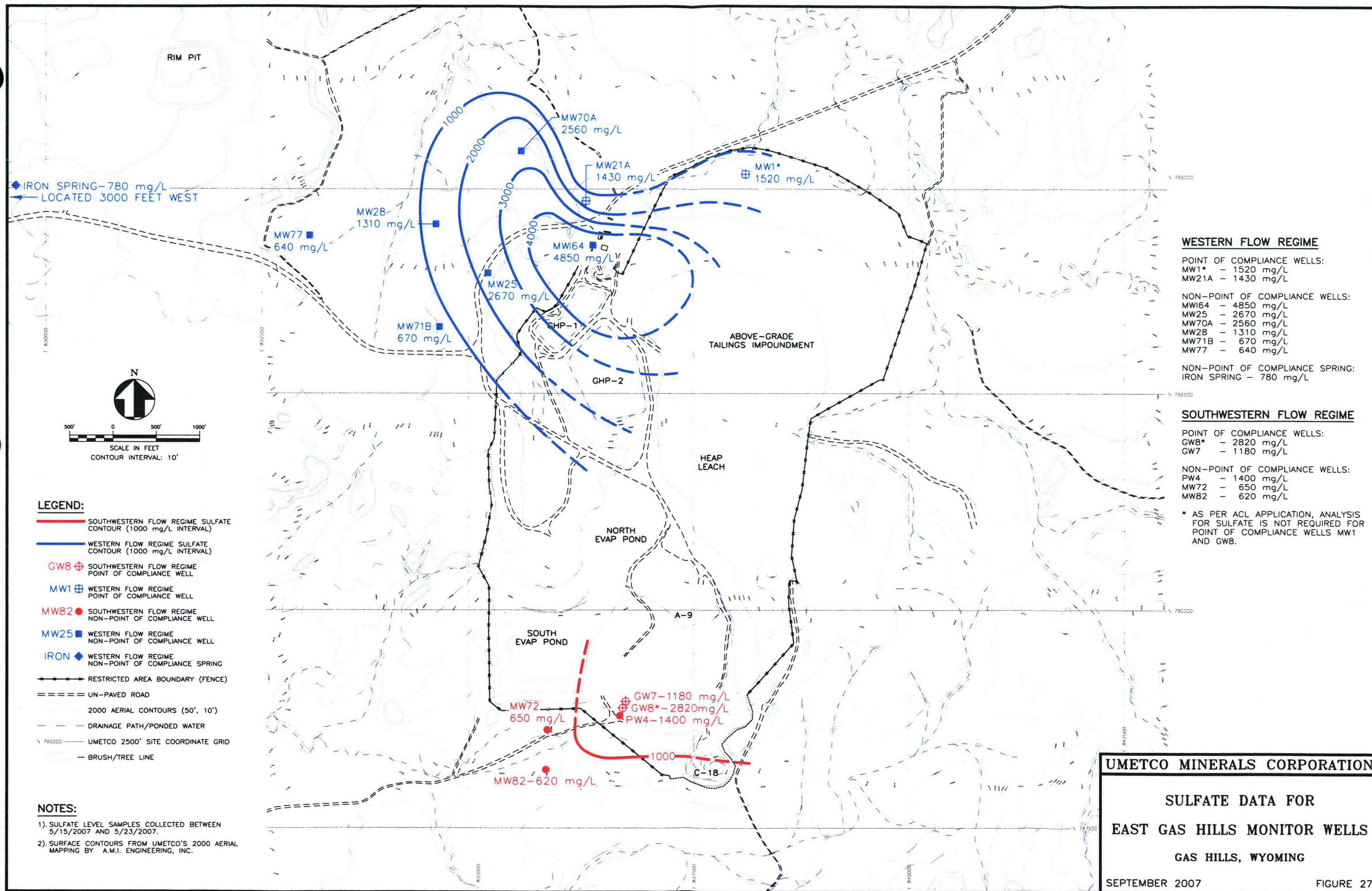
**Figure 25 Phreatic Elevations in the Southwestern Flow Regime Monitoring Wells**





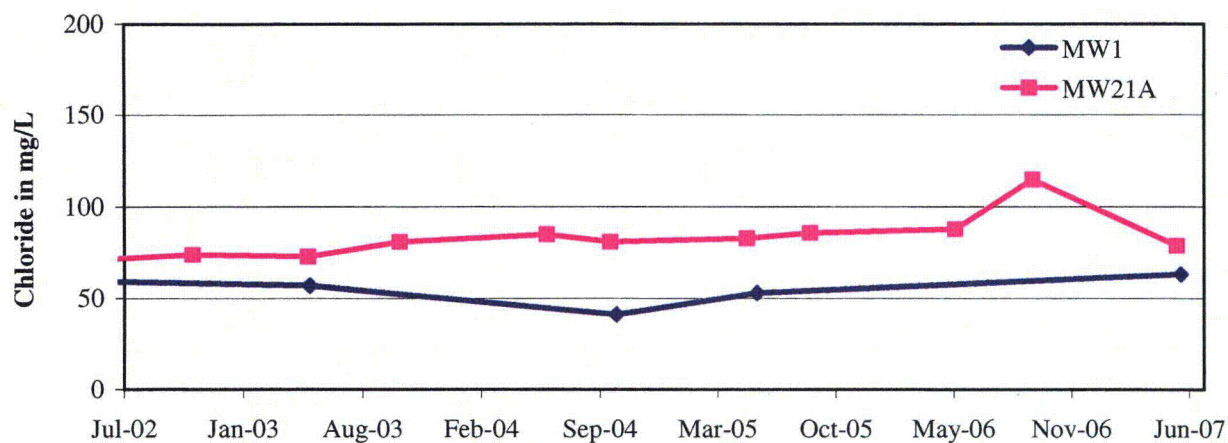




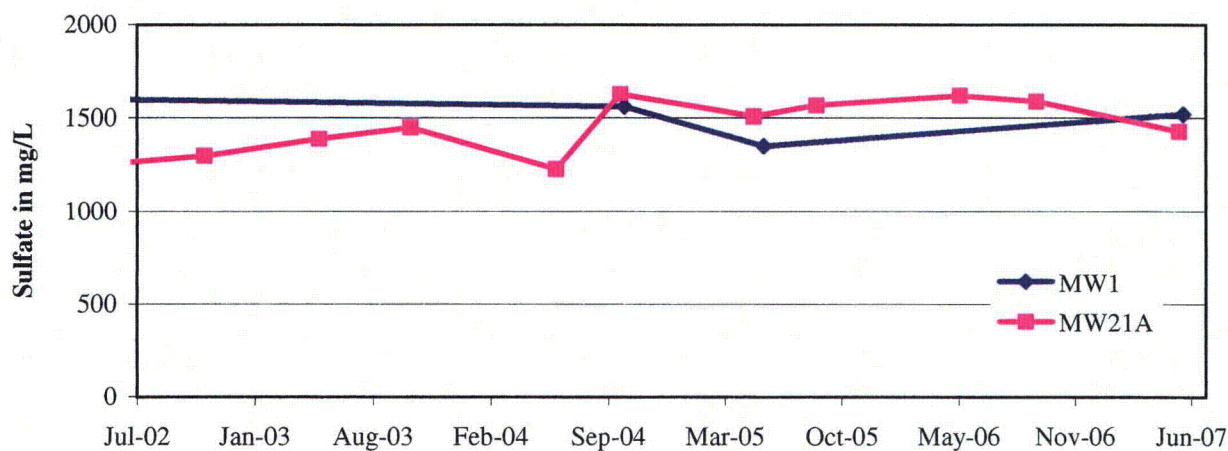




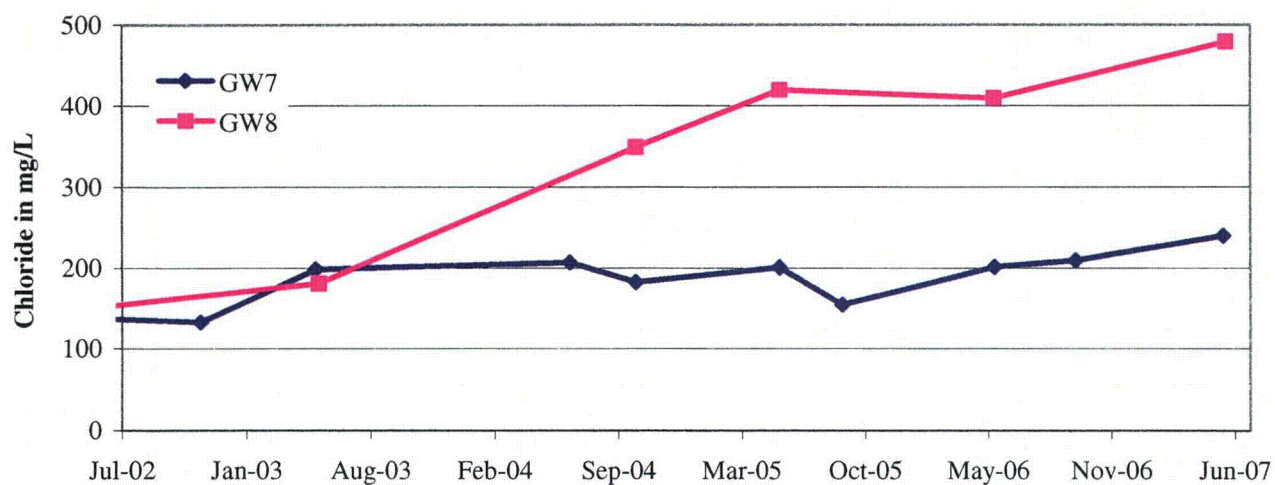
**Figure 28 Chloride Trends in the Western Flow Regime POC Wells**



**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**

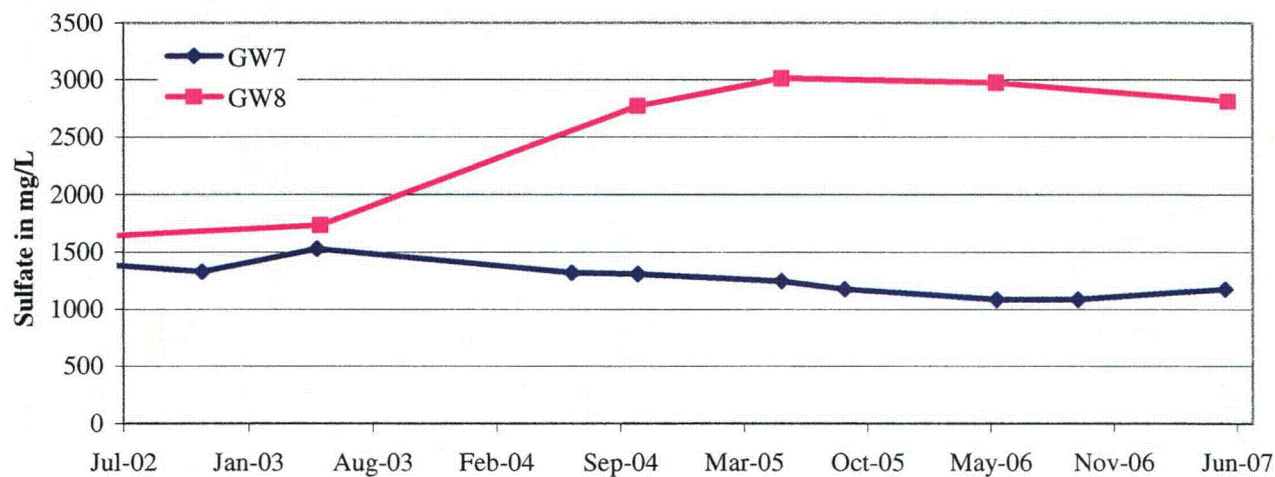


Figure 32 Chloride Trends in the Western Flow Regime Monitoring Wells

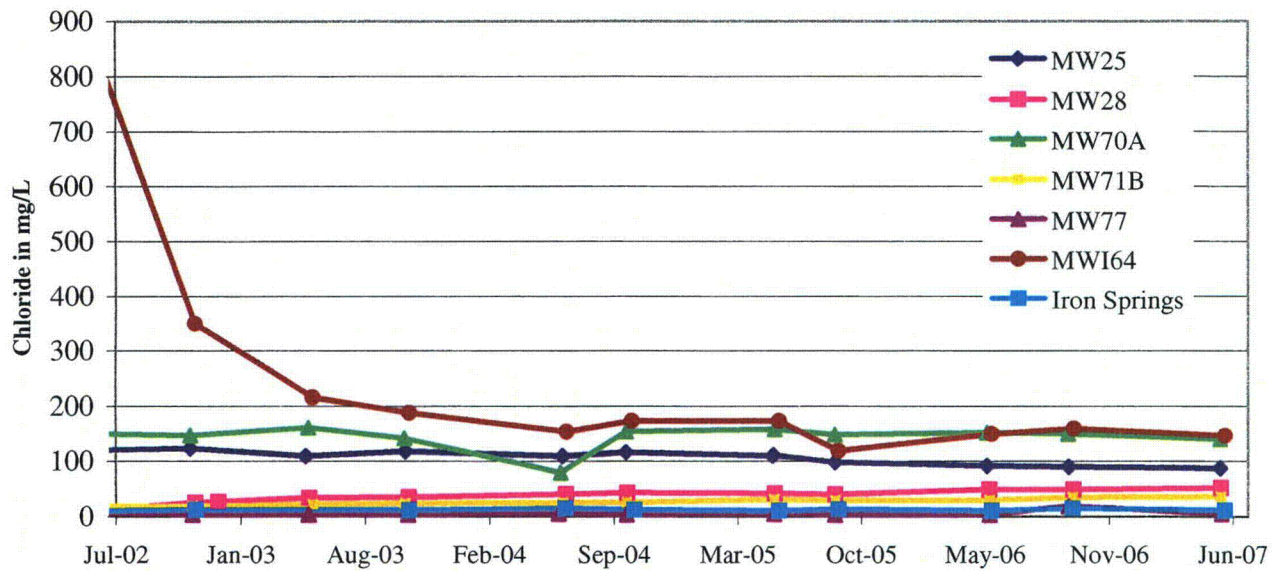
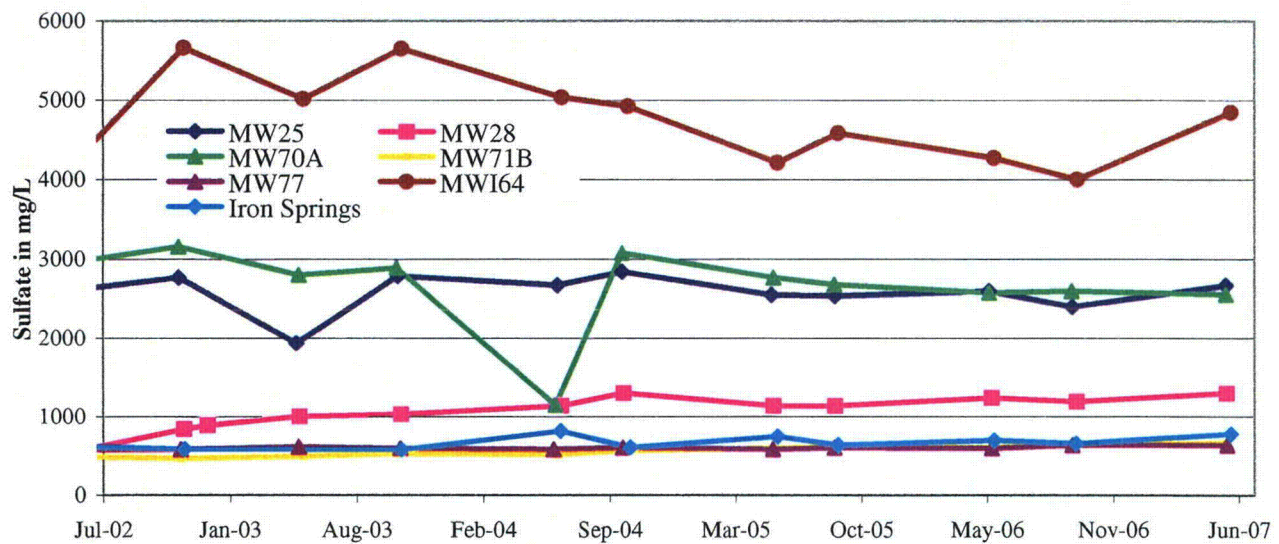
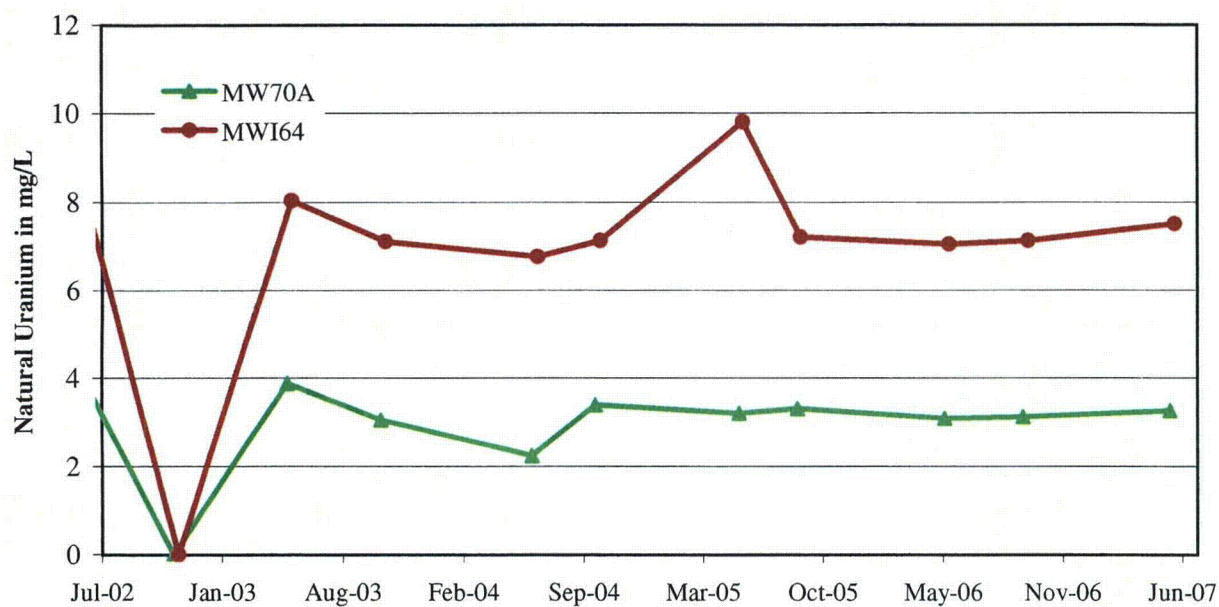


Figure 33 Sulfate Trends in the Western Flow Regime Monitoring Wells





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



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

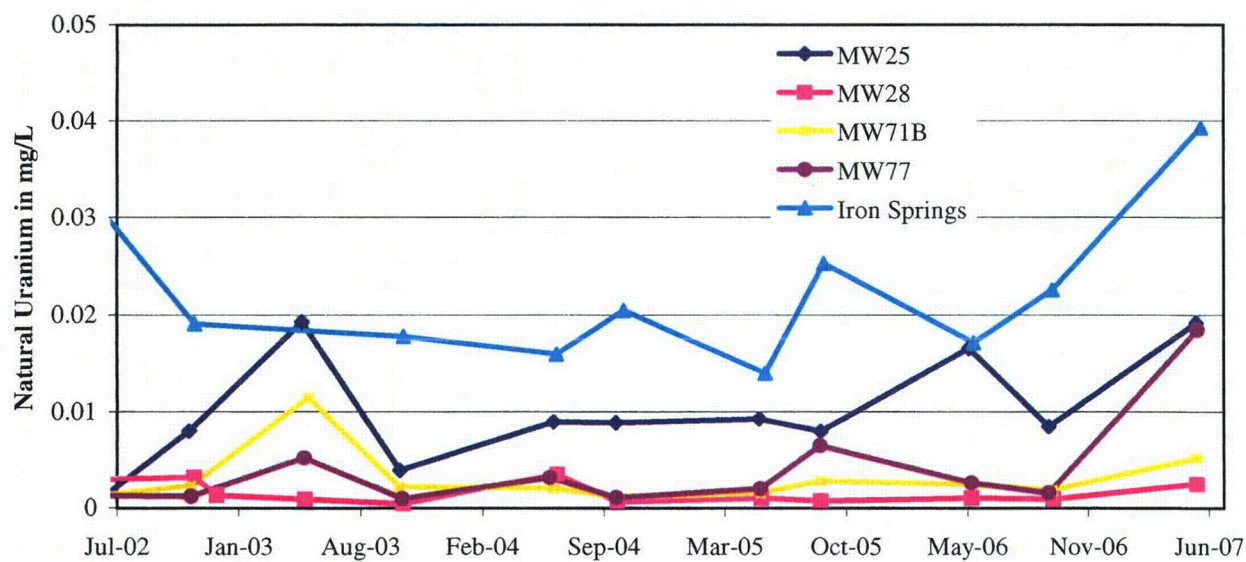


Figure 36 Chloride Trends in the Southwestern Flow Regime Monitoring Wells

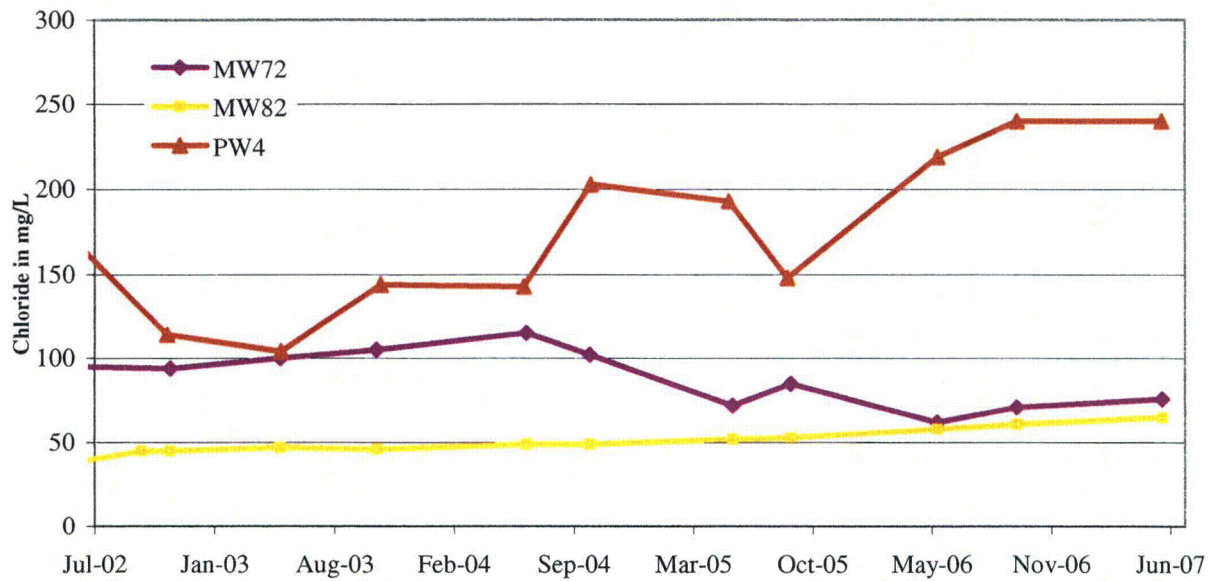
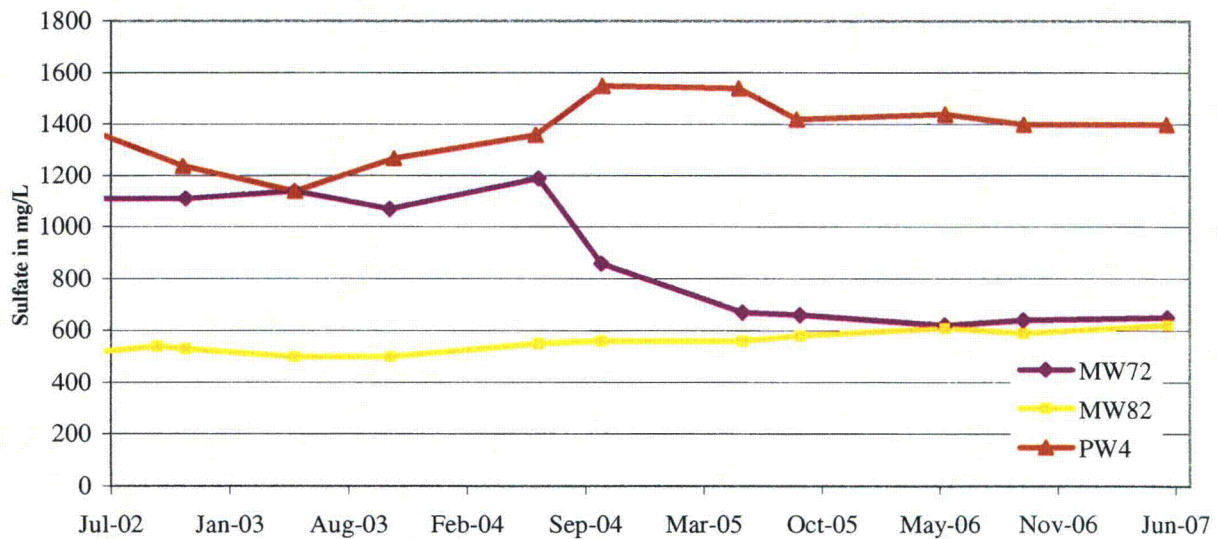
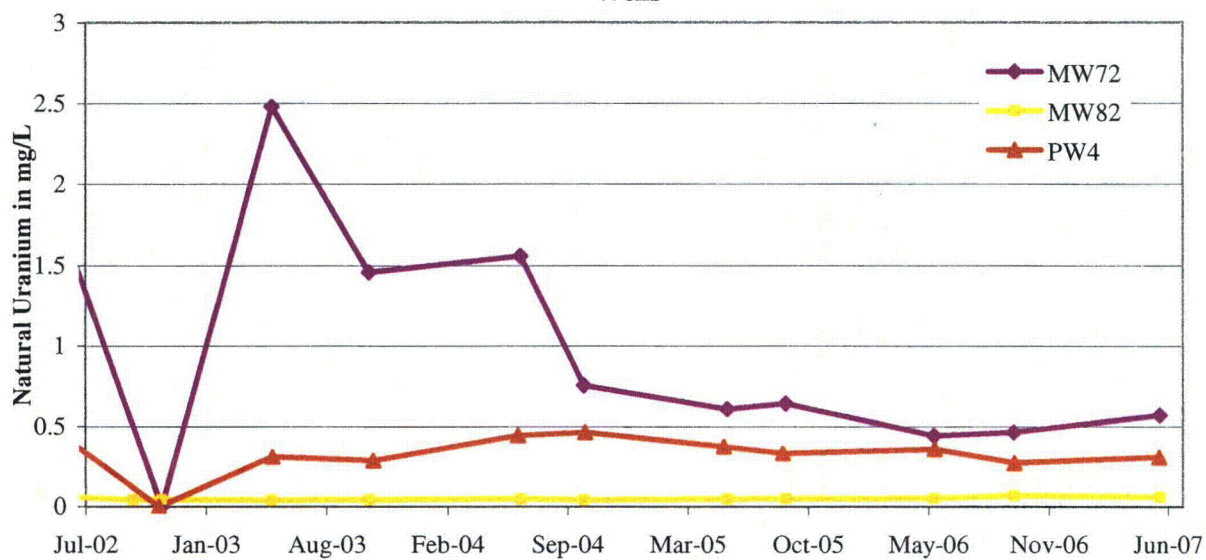


Figure 37 Sulfate Trends in the Southwestern Flow Regime Monitoring Wells



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



Appendix A  
Water Rights Within Five-Mile Radius of East Gas Hills Site

Permit Number (Appropriation)	Facility Name	Permit Applicant	Tns	Rng	Section	Qtrqtr	Lots	Additional Description	Acres	Head Gate- 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			
39/2/542W	Gas Hills Water Well-1	Power Resources Inc.	33	N	89	W	32	SENW		X	UNA	ORI	MIS	2/14/2007					
40/8/304W	Lucky MC14	Barnhart Drilling Company, Inc.	33	N	90	W	24	NESW		X	UNA	ORI	MIS	8/15/2007					
40/9/247W	Cross Meadows 12-1	Clear Creek Cattle Company	33	N	89	W	12	SWSW		X	UNA	ORI	STO	7/9/2007					
C33/360A	Holliday Ditch	John J. Holliday	33	N	88	W	7		L5	Proof P11692/1314D	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	Proof P 18903/15179D	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	89	W	1	SENE		Proof P34969/4483E	7.8		ADJ	ORI	IRR	3/18/1926		Deer Creek	
C77/025A	Cross Ell Ditch	Clear Creek Cattle Company	33	N	89	W	1	SESE		Proof P34977/9431D			DSC	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		Proof P34998/17093D	X		PUD	ORI	IRR	3/18/1926		Deer Creek	
CR15/077A	Buss I Reservoir		33	N	89	W	27	NWSW		Proof P37599/10039R	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		Proof P37601/10041R	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	Proof P38228/9722R MS610	0		ADJ	STR	STO,WIL	12/24/1991	6787.5	ACFT	Fraser Draw
CR15/375A	2R Reclamation Reservoir	Pathfinder Mines Corporation	32	N	90	W	0		M654	Proof P38229/9442R 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	32	N	90	W	0			Proof P3811/2395W X M.S. 610			ADJ	ORI	IND	12/6/1968			



Appendix A  
Water Rights Within Five-Mile Radius of East Gas Hills Site

Permit Number (Appropriation)	Facility Name	Permit Applicant	Tns	Rng	Section	Qtrqtr	Lots	Additional Description	Acres	Head Gate- 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			
39/2/542W	Gas Hills Water Well-1	Power Resources Inc.	33	N	89	W	32	SENW		X	UNA	ORI	MIS	2/14/2007					
40/8/304W	Lucky MC14	Barnhart Drilling Company, Inc.	33	N	90	W	24	NESW		X	UNA	ORI	MIS	8/15/2007					
40/9/247W	Cross Meadows 12-1	Clear Creek Cattle Company	33	N	89	W	12	SWSW		X	UNA	ORI	STO	7/9/2007					
C33/360A	Holliday Ditch	John J. Holliday	33	N	88	W	7		L5	Proof P11692/1314D	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	Proof P 18903/15179D	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	89	W	1	SENE		Proof P34969/4483E	7.8		ADJ	ORI	IRR	3/18/1926		Deer Creek	
C77/025A	Cross Ell Ditch	Clear Creek Cattle Company	33	N	89	W	1	SESE		Proof P34977/9431D			DSC	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		Proof P34998/17093D	X		PUD	ORI	IRR	3/18/1926		Deer Creek	
CR15/077A	Buss I Reservoir		33	N	89	W	27	NWSW		Proof P37599/10039R	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		Proof P37601/10041R	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	Proof P38228/9722R MS610	0		ADJ	STR	STO,WIL	12/24/1991	6787.5	ACFT	Fraser Draw
CR15/375A	2R Reclamation Reservoir	Pathfinder Mines Corporation	32	N	90	W	0		M654	Proof P38229/9442R 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	32	N	90	W	0			Proof P3811/2395W X M.S. 610			ADJ	ORI	IND	12/6/1968			

Appendix A  
Water Rights Within Five-Mile Radius of East Gas Hills Site

Permit Number (Appropriation)	Facility Name	Permit Applicant	Tns	Rng	Section	Qtrqtr	Lots	Additional Description	Acres	Head Gate- Outlet-Well	Status	Supply type	Uses	Priority	Amount	Unit	Source	Permit Well Depth	Permit Static Well Depth
CU10/187A	Lucky Mc #8	Pathfinder Mines Corporation; Wyoming State Board of Land Commissioners; USDI, Bureau of Land Management	32	N	90	W	0	Proof P3838/3W X M.S. 610			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	SWNW	0		ADJ	RES	MIS	4/26/1994	-0.0001	GPM			
P10039R	Buss I Reservoir	Power Resources Inc.**USDI BLM	33	N	89	W	27	SWNW		X	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		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	SWNE			UNA	ORI	STO	3/31/1994	50.86	ACFT	CH. 4 Draw		
P10075S	Rim Stock Reservoir	USDI, Bureau of Land Management Casper District	33	N	89	W	35	NESW		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		
P102340W	Philps #1	Philp's Sheep Co.	33	N	89	W	4	NESE		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	SWSW		X	UNA	ORI	MIS	9/17/1996	310	GPM		1451	64
P104183W	MW 75	Umetco Minerals Corporation	33	N	89	W	14	NESW		X	A&C	ORI	MON	10/15/1996	0	GPM		205	120.93
P104184W	MW 76	Umetco Minerals Corporation	33	N	89	W	8	NESE		X	A&C	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	SENW			UNA	ORI	IND,TEM	11/21/1996	199.36	ACFT	Canyon Creek		
P104718W	C-18 Pit	Umetco Minerals Corporation	33	N	89	W	22	NENW		X	UNA	ORI	MIS,DEW,RES	11/21/1996	500	GPM		85	80
P104730W	ALJOB #2	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	NESW		X	UNA	ORI	MIS	11/25/1996	45	GPM		537	270
P105492W	MW 70A	Umetco Minerals Corporation	33	N	89	W	10	SWSW		X	UNA	ORI	MON	4/11/1997	0	GPM		151	141
P105493W	MW 70B	Umetco Minerals Corporation	33	N	89	W	10	SWSW		X	A&C	ORI	MON	4/11/1997	0	GPM		265	138
P105494W	MW 71A	Umetco Minerals Corporation	33	N	89	W	16	NENE		X	A&C	ORI	MON	4/11/1997	0	GPM		237	224
P105495W	MW 71B	Umetco Minerals Corporation	33	N	89	W	16	NENE		X	UNA	ORI	MON	4/11/1997	0	GPM		329	223
P105496W	MW 72	Umetco Minerals Corporation	33	N	89	W	22	NWNW		X	UNA	ORI	MON	4/11/1997	0	GPM		85	56
P105497W	MW 73	Umetco Minerals Corporation	33	N	89	W	22	NENW		X	A&C	ORI	MON	4/11/1997	0	GPM		153	104
P105498W	MW 74	Umetco Minerals Corporation	33	N	89	W	22	NWNW		X	A&C	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 Corporation	33	N	89	W	15	SESW		X	A&C	ORI	MON	11/4/1997	0	GPM		150	111.45
P108002W	MW79	Umetco Minerals Corporation	33	N	89	W	15	SESW		X	A&C	ORI	MON	11/4/1997	0	GPM		150	118.83
P108003W	MW80	Umetco Minerals Corporation	33	N	89	W	15	SESW		X	A&C	ORI	MON	11/4/1997	0	GPM		155	117.48
P108004W	MW81	Umetco Minerals Corporation	33	N	89	W	10	SWSW		X	A&C	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		

Appendix A  
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Permit Number (Appropriation)	Facility Name	Permit Applicant	Tns		Rng		Section	Qtrqtr	Lots	Additional Description	Acres	Head Gate- Outlet-Well	Status	Supply type	Uses	Priority	Amount	Unit	Source	Permit Well Depth	Permit Static Well Depth
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	SENW			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 Corporation	33	N	89	W	15	SWNE			0	X	A&C	ORI	MON	3/10/1999	0			265	214.41
P114512W	MW24D	Umetco Minerals Corporation	33	N	89	W	15	SESW			0	X	A&C	ORI	MON	3/10/1999	0			210	131.51
P114513W	MW7D	Umetco Minerals Corporation	33	N	89	W	15	NESW			0	X	A&C	ORI	MON	3/10/1999	0			266	185.87
P114514W	MW6D	Umetco Minerals Corporation	33	N	89	W	15	NWSE			0	X	A&C	ORI	MON	3/10/1999	0			270	231.7
P1209D	Ervey Nos. 1 & 2	Mrs. M. E. Ervey	33	N	89	W	1	SWNE		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 Corporation	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		L5		7		ELI	ORI	STO,IRR,DOM	08/27/1896	0.57	CFS	Deer Creek		
P13527S	Lilly Pad Stock Reservoir	USDI, Bureau of Land Management	34	N	89	W	19	NWSW	L3	Proof P0/13527S	0	X	ADJ	ORI	STO	11/1/1982	3.8	ACFT	Imaginary Draw		
P13528S	Lilly Pad Stock Reservoir / East Canyon Stock Reservoir	USDI, Bureau of Land Management	34	N	89	W	29	NESW		Proof P0/13528S	0	X	ADJ	ORI	STO	11/1/1982	1.5	ACFT	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				X	PUD	ORI	STO,MIN,DOM, DRI	10/16/1916	0.06	CFS	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		
P162305W	Process Water Well #6	Umetco Minerals Corporation	33	N	89	W	15	NENW			0		GST	ORI	IND	8/16/2004				1685	90
P1626R	Asbell Reservoir	Starling P. Asbell	32	N	89	W	10	SESW		P			PU	ORI	STO,IRR,DOM	9/24/1909	49.1	ACFT	Sage Hen Creek		
P169586W	Liam	Glenn H. Burgett	34	N	90	W	36	NENE			0	X	GSI	ORI	STO	8/25/2005					
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		
P174546W	Burgett #1	Glenn H. Burgett	34	N	89	W	31	SENE			0		UNA	ORI	STO	5/4/2006					
P175221W	Gunnel #1	BRS Inc.	33	N	90	W	25	NENW			0		UNA	ORI	MIS	6/26/2006					
P215W	Water Well #3	Globe Mining Co.	33	N	89	W	15	NENW		X			UNA	ORI	IND	8/24/1959	250	GPM		1668	20
P23192D	Lucky Mac Sump No. 2 Pipeline	Wyoming State Highway Department	33	N	90	W	35	SESW				X	PUD	ORI	TEM,IND	10/14/1969	1.11	CFS	Lucky Mac Sump No. 2 (in drainage of)		
P2395W	Lucky Mc #11	Pathfinder Mines Corporation	32	N	90	W	0			X MS 610			ADJ	ORI	IND	12/6/1968	100	GPM		2140	186
P24172P	JE Ranch #12-5	Matador Cattle Company	34	N	88	W	32	NENW		SD			PU	ORI	DOM,STO	8/13/1973	5	GPM		175	35
P25540D	Hydrostatic Test - North Pipeline Pump Point	Colorado Interstate Gas Company	32	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	NWNE		X			PU	ORI	TEM,IND,MIN, D RI	6/26/1979	0.28	CFS	Coyote Creek		
P2754E	Cross Ell Ditch - Permit 9431 {Enl. of}	Grieve Brothers	33	N	89	W	1		L2				DSC	ORI	IRR	2/5/1913			Deer Creek		
P30310D	AML 16-C-2 Water Haul	Roth Trucking	33	N	89	W	32	NWNW		X			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		X			PU	ORI	DEW,MIS	7/25/1975	0	GPM		751	360
P30698W	UPZ Well #1	Federal-American Partners	33	N	89	W	33	NWNW		X			PU	ORI	MON	7/30/1975	-1	GPM		925	470
P30735W	Lucky Mc Well #12	Pathfinder Mines Corporation	33	N	90	W	24	SENW			0	X	POW, CAN	ORI	IND	8/8/1975	310	GPM		1451	64
P31252W	UPZ Well #2	Federal-American Partners	33	N	89	W	32	SENE		X			PU	ORI	MON	9/22/1975	0	GPM		806	440
P31496W	BS12-1025P	Federal-American Partners	33	N	89	W	32	SWNE		X			PU	ORI	MON	11/12/1975	0	GPM		777	345
P31497W	BS12-1026P	Federal-American Partners	33	N	89	W	32	SWNE		X			PU	ORI	MON	11/12/1975	0	GPM		640	345
P31498W	BS12-1027P	Federal-American Partners	33	N	89	W	32	SWNE				X	PUW	ORI	MON	11/12/1975	0	GPM		565	325
P31499W	BS12-1028P	Federal-American Partners	33	N	89	W	32	NWSE		X			PU	ORI	MON	11/12/1975	0	GPM		827	440
P31500W	BS12-1029P	Federal-American Partners	33	N	89	W	32	NWSE		X			PU	ORI	MON	11/12/1975	0	GPM		735	440



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P31501W	BS12-1030P	Federal-American Partners	33	N	89	W	32	NWSE		X		PU	ORI	MON	11/12/1975	0	GPM		640	435
P31504W	UPZ 417P	Federal-American Partners	33	N	89	W	33	SWNW		X		PU	ORI	MIS	11/12/1975	0	GPM		650	460
P31919W	ENL BS12-1024W	Federal-American Partners	33	N	89	W	32	SWNE		X		PU	ORI	MIS	11/19/1975	0	GPM		751	360
P32404W	ENL UPZ #1	Federal-American Partners	33	N	89	W	33	SWNW		X		PUW	ORI	MIS	1/26/1976	-1	GPM		925	470
P33517W	Cayias #1	Inc. Hills Gas	33	N	89	W	18	NWSW		X		PU	ORI	IND	4/9/1976	0	GPM			
P33518W	Cayias #2	Inc. Hills Gas	33	N	89	W	18	SESW		X		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		PU	ORI	MON	7/22/1976	0	GPM			
P3W	Lucky Mc #8	Pathfinder Mines Corporation	32	N	90	W	0			X MS 610		ADJ	ORI	IND	3/14/1958	80	GPM		1500	392
P40467W	RHW-1	Mullen Mining Company	33	N	89	W	9	SESW		X		PU	ORI	MON	8/5/1977	0	GPM		160	154
P40468W	RHW-2	Mullen Mining Company	33	N	89	W	9	NESW		X		PU	ORI	MON	8/5/1977	0	GPM		134	-7
P41021W	RHW-4	Mullen Mining Company	33	N	89	W	9	SWNE		X		PU	ORI	MON	11/16/1977	0	GPM		280	0
P41022W	RHW-3	Mullen Mining Company	33	N	89	W	9	SESE		X		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
P43111W	CEE #1	Union Carbide Corporation	33	N	89	W	17	NWNE		X		PU	ORI	MIS	3/10/1978	500	GPM		130	55
P43159W	Lucky Mc #14	Pathfinder Mines Corporation	33	N	90	W	24	NESW	0	X		POW, CAN	ORI	IND	3/31/1978	500	GPM		1505	70
P43745W	ADOBE #1	USDI, BLM** Mullen Engineering	33	N	89	W	9	SWSW		X		PU	ORI	IND,MIS	6/9/1978	50	GPM			
P438G	Lucky Mc 1	Pathfinder Mines Corporation	33	N	90	W	23	NWSE		X		UNA	ORI	DOM	5/1/1956	10	GPM		90	30
P439G	Lucky Mc 2	Pathfinder Mines Corporation	33	N	90	W	26	NENW		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		UNA	ORI	MIS	11/25/1977	50	GPM		400	200
P44796W	Rattlesnake #1	The Matador Cattle Company	33	N	88	W	7	NENE		Proof P0/44796W	X	PUW	ORI	STO	9/1/1978	1	GPM		2	-4
P44797W	Rattlesnake #2	The Matador Cattle Company	33	N	88	W	8	SENE		Proof P0/44797W S		PU	ORI	STO	9/1/1978	0.5	GPM		4	-4
P44798W	Rattlesnake #3	The Matador Cattle Company	33	N	88	W	8	SWNE		Proof P0/44798W S		PU	ORI	STO	9/1/1978	25	GPM		5	-4
P44799W	Rattlesnake #4	The Matador Cattle Company	33	N	88	W	8	SWSW		Proof P0/44799W S		PU	ORI	STO	9/1/1978	4	GPM		5	-4
P44800W	Rattlesnake #5	The Matador Cattle Company	33	N	88	W	17	NENE		Proof P0/44800W S		PU	ORI	STO	9/1/1978	2	GPM		3	-4
P4483E	Cross Ell Ditch, Enlargement No. 3 of the	Diamond Ring Co.	33	N	89	W	1	SENE	7.8			ADJ	ORI	IRR	3/18/1926	0.19	CFS	Deer Creek		
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		S		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	The Matador Cattle Company	33	N	88	W	19	SWSW		Proof P0/446384W 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		ADJ	ORI	STO	8/14/1978	0.75	GPM		2	-4
P46387W	Little X-L #1	The Matador Cattle Company	33	N	88	W	6	NWSW		Proof P0/46387W S		PU	ORI	STO	8/14/1978	3	GPM		2	-4
P46388W	Medicine Springs #1	The Matador Cattle Company	33	N	89	W	7	NWNW		Proof P0/46388W	X	ADJ	ORI	STO	8/14/1978	4	GPM		6	-4
P46389W	Iron Spring #1	The Matador Cattle Company	33	N	89	W	8	SESW		Proof P0/46389W S		PU	ORI	STO	8/14/1978	3	GPM		3	-4
P46771W	BS 1051	American Nuclear Corporation	32	N	90	W	1	SESE		X		PU	ORI	MIS	1/13/1978	110	GPM			
P46772W	Muskrat Well #1	American Nuclear Corporation	32	N	90	W	1	SESE		X		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



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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			MS582			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			MS582			DSC	ORI	RES,IND,MIS	9/18/1978	0	GPM		2140	186
P49121W	Lincoln Springs #1	The Matador Cattle Company	33	N	89	W	7	SENE		Proof P0/49121W S			PU	ORI	STO	7/11/1979	3	GPM		5	-4
P49333W	Barrel Springs #1	Matador Cattle Company	32	N	89	W	8	SWSW		S			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					
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	22	NENE	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		PUW	RES	MIS	11/25/1977	0	GPM		-1	0
P64404W	ALLEGRETTI #1	USDI, BLM** Adobe Oil & Gas Corporation	32	N	89	W	5	NWSE	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 Corporation	33	N	89	W	15	SWSW	X				A&C	RES	RES,IND,MIS	2/16/1984	7	GPM		159	114.1
P67076W	Guard Well 3C	USDI, BLM** Union Carbide Corporation	33	N	89	W	15	NWNW	X				A&C	ORI	RES,IND,MIS	2/16/1984	10	GPM		159	105
P67077W	HDW-1	Union Carbide Corporation	33	N	89	W	15	NWSW	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		A&C	ORI	MON	4/23/1984	0	GPM		170	125
P67148W	MW4	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	10	SWSE			X		A&C	ORI	MON	4/23/1984	0	GPM		140	82
P67149W	MW6	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	NWSE			0	X	A&C	ORI	MON	4/23/1984	0	GPM		220	162
P67150W	MW7	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	NESW			0	X	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		A&C	ORI	MON	4/23/1984	0	GPM		159	57.15
P67152W	MW10	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SWNE			0	X	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		A&C	ORI	MON	4/23/1984	0	GPM		80	53
P67156W	MW19	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	10	SESE			X		A&C	ORI	MON	4/23/1984	0	GPM		110	67
P67157W	MW20	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	NENE			X		A&C	ORI	MON	4/23/1984	0	GPM		90	65
P67158W	MW21	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	10	SWSW			0	X	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		A&C	ORI	MON	4/23/1984	0	GPM		140	80
P67160W	GW1	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SESW			X		A&C	ORI	MON	4/23/1984	0	GPM		160	105
P67161W	GW2	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SESW			X		A&C	ORI	MON	4/23/1984	0	GPM		158	114
P67162W	GW3	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SESW			0	X	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		A&C	ORI	MON	4/23/1984	0	GPM		165	112.42
P67164W	GW5	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SWSE			X		A&C	ORI	MON	4/23/1984	0	GPM		160	100
P67165W	GW6	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	22	NWNE			X		A&C	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		A&C	ORI	MON	4/23/1984	0	GPM		220	168
P67169W	PW2	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SWSW			X		A&C	ORI	MON	4/23/1984	0	GPM		220	192
P67170W	PW3	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SWSW			X		A&C	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		A&C		MON	4/23/1984	0	GPM		160	120.72
P67173W	PW6	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	22	NENW			X		A&C	ORI	MON	4/23/1984	0	GPM		136	122.39
P67174W	PW7	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SWSE			X		A&C	ORI	MON	4/23/1984	0	GPM		260	-7

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Permit Number (Appropriation)	Facility Name	Permit Applicant	Tns	Rng	Section	Qtrqtr	Lots	Additional Description	Acres	Head Gate- Outlet-Well	Status	Supply type	Uses	Priority	Amount	Unit	Source	Permit Well Depth	Permit Static Well Depth
P67175W	EPW1	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	16	SESE		X	A&C	ORI	MON	4/23/1984	0	GPM		155	110
P67176W	EPW2	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	22	NWNW		X	A&C	ORI	MON	4/23/1984	0	GPM		115	89
P67177W	EPW3	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	22	NWNW		X	A&C	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	A&C	ORI	MON	4/23/1984	0	GPM		228	210
P67180W	MW30026	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	22	NWNW		X	A&C	ORI	MON	4/23/1984	0	GPM		193	77
P67181W	RW1	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	22	NWNW	0	X	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	A&C	ORI	MON	4/23/1984	0	GPM		120	76
P67183W	HW1	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SWSW	0	X	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	A&C	ORI	MON	4/23/1984	0	GPM		117	104.72
P67185W	HW3	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SWNW		X	A&C	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	A&C	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	X	ABA	ORI	MON	4/23/1984	0	GPM		300	179
P67188W	RIM 2	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	9	SENW	X	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	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	Proof P0/71755W	X	PUW	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 Proof P0/71757W S		PU	ORI	STO	9/13/1984	10	GPM		4	-4
P71758W	McKenzie Spring	Clear Creek Cattle Co.	33	N	88	W	19	SWSW	L7 Proof P0/71758W S		PU	ORI	STO	9/13/1984	20	GPM		5	-4
P71762W	Roberts Spring	Clear Creek Cattle Co.	34	N	88	W	31	NWNE	Proof P0/71762W S		PU	ORI	STO	9/13/1984	10	GPM		5	-4
P71764W	Government #1 West (Rattlesnake)	Clear Creek Cattle Co. and BLM Casper District	33	N	88	W	6	SESE	Proof P0/71764W S		PU	ORI	STO	10/9/1984	4	GPM		5	-4
P71766W	Beaver Rim #2	USDI BLM Casper District**Clear Creek Cattle Co.	33	N	89	W	27	NENE	S		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 Minerals Corporation	33	N	89	W	15	NWNW	X		PU	ORI	MON	2/19/1988	0	GPM		256	227.5
P76333W	MW26	Umetco Minerals Corporation	33	N	89	W	10	NWSW		X	A&C	ORI	MON	2/19/1988	0	GPM		160	90
P76334W	MW27	Umetco Minerals Corporation	33	N	89	W	11	SWSW		X	A&C	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
P78994W	2R Reservoir	Pathfinder Mines Corporation	32	N	90	W	0				POU, POW, ADJ	ORI	RES,STO,MIS	11/23/1988	60	GPM		250	200
P7951R	Lagoon 1 Reservoir	Pathfinder Mines Corporation	33	N	90	W	23	NWSE	MINERAL SURVEY 582		DSC	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	A&C	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



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Permit Number (Appropriation)	Facility Name	Permit Applicant	Tns	Rng	Section	Qtrqtr	Lots	Additional Description	Acres	Head Gate- Outlet-Well	Status	Supply type	Uses	Priority	Amount	Unit	Source	Permit Well Depth	Permit Static Well Depth	
P80488W	LA 5	Lidstone & Anderson Inc.	33	N	89	W	22	NWNE		X		UNA	ORI	MON	8/14/1989	0	GPM		128	115
P80489W	LA 6	Lidstone & Anderson Inc.	33	N	89	W	22	NENE		X		UNA	ORI	MON	8/14/1989	0	GPM			
P80490W	LA 7	Lidstone & Anderson Inc.	33	N	89	W	23	NWNW		X		UNA	ORI	MON	8/14/1989	0	GPM		105	71.5
P8108R	Lucky MC Reclamation Reservoir	Pathfinder Mines Corporation	33	N	90	W	2, 35	NWNW, NESE, SESE		L4	P, MS610	POS, PU, PUO, DSC	ORI	WIL,STO	2/26/1980	1940.45	ACFT	Fraser Draw		
P8122R	A-9 Pit Subgrade Tailings Disposal Reservoir	Union Carbide Corporation	33	N	89	W	15	SWSE		P		PU	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	NESE		X		PUO	ORI	IND,MIS	3/2/1979	25.82	ACFT	East Draw		
P82562W	MWC-33	Umetco Minerals Corporation	33	N	89	W	15	NENW		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	15	NENW		X		ABA	ORI	MIS	4/27/1990	5	GPM		190	148.03
P82565W	MWC-36	Umetco Minerals Corporation	33	N	89	W	15	NENW		X		ABA	ORI	MIS	4/27/1990	12	GPM		200	143.41
P82566W	MWI-37	Umetco Minerals Corporation	33	N	89	W	10, 15	SWSW, NWNW		X		POW, ABA, UNA	ORI	MON	4/27/1990	0	GPM		240	222.9
P82567W	MWI-38	Umetco Minerals Corporation	33	N	89	W	10	SWSW		X		POW, 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		UNA	ORI	MON	6/28/1990	0	GPM		381	198
P82824W	Muskrat Pump	Power Resources Inc.	33	N	89	W	31	NWSE		X		UNA	ORI	MON	6/28/1990	0	GPM		455	266
P82825W	Muskrat MP	Power Resources Inc.	33	N	89	W	31	NWSE		X		UNA	ORI	MON	6/28/1990	0	GPM		453	249
P83055W	MW-21A	Umetco Minerals Corporation	33	N	89	W	10	NWSW		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		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		P		PU	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		A&C	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	15	NENW		X		ABA	ORI	MIS	3/18/1991	15	GPM		240	195.24
P84753W	MWC-47	Umetco Minerals Corporation	33	N	89	W	15	NWNW		X		ABA	ORI	MIS	3/18/1991	15	GPM		255	188
P84754W	MWC-48	Umetco Minerals Corporation	33	N	89	W	15	NWNE		X		ABA	ORI	MIS	3/18/1991	15	GPM		245	177.92
P84755W	MWC-49	Umetco Minerals Corporation	33	N	89	W	15	NENE		X		ABA	ORI	MIS	3/18/1991	15	GPM		240	156.35
P85776W	ENL MWC-42	Umetco Minerals Corporation	33	N	89	W	15	NENW				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		P		PU	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	NESW		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	35	SWNE		X		UNA	ORI	MIS	12/24/1991	12	GPM		460	270
P87215W	Area 5 Reclamation Reservoir	Pathfinder Mines Corp.	33	N	90	W	26	NWNW				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	15	NWNW		X		ABA	ORI	MIS	3/19/1993	7	GPM		171.78	112.5
P91278W	MWC 56	Umetco Minerals Corporation	33	N	89	W	15	NENW		X		ABA	ORI	MIS	3/19/1993	5	GPM		261	171
P91279W	MWC 57	Umetco Minerals Corporation	33	N	89	W	15	NENE		X		ABA	ORI	MIS	3/19/1993	6	GPM		252	165
P91280W	MWC 58	Umetco Minerals Corporation	33	N	89	W	15	NWNW				A&C	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



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P91282W	MWC 60	Umetco Minerals Corporation	33	N	89	W	15	NENW			A&C	ORI	MIS	3/19/1993	4	GPM		160	111
P91283W	MWC 61	Umetco Minerals Corporation	33	N	89	W	15	NENW			A&C	ORI	MIS	3/19/1993	3.5	GPM		150	116
P91284W	MWC 62	Umetco Minerals Corporation	33	N	89	W	15	NWNW			A&C	ORI	MIS	3/19/1993	4	GPM		165	107
P92098W	MWC-66	Umetco Minerals Corporation	33	N	89	W	15	NENE	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	Proof P0/94133W	ADJ	ORI	STO	4/17/1926	1	GPM		-1	-1
P94134W	Spring #7	USDI, BLM	33	N	88	W	19	NWSW	L3	Proof P0/94134W S	ADJ	ORI	STO	4/17/1926	5	GPM		-1	-1
P94135W	Spring #8	USDI, BLM	33	N	88	W	19	SWSW	L4	Proof P0/94135W S	ADJ	ORI	STO	4/17/1926	5	GPM		-1	-1
P9431D	Cross Ell Ditch	Leonidas Clayton	33	N	89	W	1		L2	5	ELI	ORI	IRR	10/11/1909	1.21	CFS	Deer Creek		
P9442R	2R Reclamation Reservoir	Pathfinder Mines Corp. Lucky Mc Mine	32	N	90	W	0		M654	MS654	POS, POI, ADJ	STR	WIL,STO	11/23/1988	987.45	ACFT	Dry Coyote Creek		
P95290W	Buss I Reservoir	USDI, BLM** Power Resources Inc.	33	N	89	W	27	SESE	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	23	NENW	P		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	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

## **Appendix A**

### **Water Rights Within Five-Mile Radius of East Gas Hills Site**

#### **Abbreviations**

##### **Additional Description:**

D	Ditch or Pipeline Permit
E	Enlargement of a Ditch or Pipeline Permit
P	Stock and Domestic Use Wells completed prior to May 24, 1969 and registered with the State Engineer's Office prior to December 31, 1972
R	Reservoir Permit
S	Stock Reservoir Permit
W	Permits are for wells with a priority date for the date of filing with the State Engineer

##### **For Status:**

A&C	Abandoned and Cancelled
ABA	Abandoned
ADJ	Adjudicated
DSC	Description
ELI	Eliminated
GST	Good Standing
PU	Point of Use Non Irrigation (Not Actual Status)
PUD	Point of Diversion (Not Actual Status)
PUO	Point of Reservoir Outlet (Not Actual Status)
PUW	Location of Well (Not Actual Status)
REJ	Rejected by the State Engineer
UNA	Un-adjudicated

##### **For Supply Type:**

ORI	Original Supply
STR	Storage Supply (for Reservoir and Stock Reservoir Permits – May not appear on older permits)

##### **For Uses:**

DEW	Dewatering
DOM	Domestic
DRI	Drilling
IND	Industrial
IRR	Irrigation
MIN	Mining
MIS	Miscellaneous
MON	Monitoring
RES	Reservoir Supply
STO	Stock
TEM	Temporary Use
WIL	Wildlife

Appendix B  
Water Rights Within Proposed Land Transfer Boundary

Appropriation	Permit Facility Name	Permit Applicant	Tns	Rng	Section	Quarter	Status	Current Status from Umetco Documents	Supply type	Permit Uses	Permit Priority	Permit Amount	Unit	Permit Source	Permit Well Depth	Permit Static Well Depth
P43745W	ADOBE #1	USDI, BLM** Mullen Engineering	33	N	89	W	9	SE Point of Use Non Irrigation, Location of Well		Original Supply	Miscellaneous, Industrial	6/9/1978	50	GPM		
P8208R	Adobe Oil & Gas Corporation Evaporation Pond Reservoir	Adobe Oil & Gas Corporation	33	N	89	W	9	NESE, NWSE Point of Use Non Irrigation, Point of Reservoir Outlet		Original Supply	Industrial, Miscellaneous	3/2/1979	25.82	ACFT	East Draw	
P77793W	MW 28	Umetco Minerals Corporation	33	N	89	W	9	SESE Unadjudicated	POC/ACL Well	Original Supply	Monitoring	8/3/1988	0	GPM		282 178.4
P104185W	MW 77	Umetco Minerals Corporation	33	N	89	W	9	SWSE Unadjudicated	POC/ACL Well	Original Supply	Monitoring	10/15/1996	0	GPM		279 231.01
P41022W	RHW-3	Mullen Mining Company	33	N	89	W	9	SESE Point of Use Non Irrigation, Location of Well		Original Supply	Monitoring	11/16/1977	0	GPM		310 257
P105492W	MW 70A	Umetco Minerals Corporation	33	N	89	W	10	SWSW Unadjudicated	POC/ACL Well	Original Supply	Monitoring	4/11/1997	0	GPM		151 141
P105493W	MW 70B	Umetco Minerals Corporation	33	N	89	W	10	SWSW Abandoned & Cancelled	Abandoned 8-5-03, Acknowledged 9-21-04	Original Supply	Monitoring	4/11/1997	0	GPM		265 138
P67146W	MW1, Aka MW-1A, MW-1B	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	10	SWSE Point of Use Non Irrigation, Location of Well	POC/ACL Well	Original Supply	Monitoring	4/23/1984	0	GPM		79 58.24
P67153W	MW16, Aka MW16A	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	10	SWSW Abandoned	Abandonment approved 4-2-93	Original Supply	Monitoring	4/23/1984	0	GPM		200 -7
P67154W	MW17, Aka MW17A	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	10	NESW Abandoned & Cancelled	Abandoned 5-18-99 and again 8-5-03!!	Original Supply	Monitoring	4/23/1984	0	GPM		160 105
P67155W	MW18	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	10	NWSE Abandoned & Cancelled	Abandoned 8-6-03, Acknowledged 9-21-04	Original Supply	Monitoring	4/23/1984	0	GPM		80 53
P67156W	MW19	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	10	SESE Abandoned & Cancelled	Abandoned 8-8-03, Acknowledged 9-21-04	Original Supply	Monitoring	4/23/1984	0	GPM		110 67
P67147W	MW2	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	10	SWSW Abandoned & Cancelled	Abandoned 8-5-03, Acknowledged 9-21-04	Original Supply	Monitoring	4/23/1984	0	GPM		170 125
P67158W	MW21	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	10	SWSW Abandoned & Cancelled	Abandoned 5-17-99	Original Supply	Monitoring	4/23/1984	0	GPM		159 -7
P83055W	MW-21A	Umetco Minerals Corporation	33	N	89	W	10	NWSW Unadjudicated	POC/ACL Well	Original Supply	Monitoring	7/23/1990	0	GPM		200 165.87
P67159W	MW23	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	10	NWSE Abandoned & Cancelled	Abandoned 8-6-03, Acknowledged 9-21-04	Original Supply	Monitoring	4/23/1984	0	GPM		140 80
P76333W	MW26	Umetco Minerals Corporation	33	N	89	W	10	NWSW Abandoned & Cancelled	Abandoned 8-7-03, Acknowledged 9-21-04	Original Supply	Monitoring	2/19/1988	0	GPM		160 90
P67148W	MW4	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	10	SWSE Abandoned & Cancelled	Abandoned 7-10-02, Acknowledged 9-28-04	Original Supply	Monitoring	4/23/1984	0	GPM		140 82
P91082W	MW-64, Aka MWI64	Umetco Minerals Corporation	33	N	89	W	10	SWSW Unadjudicated	POC/ACL Well	Original Supply	Monitoring	3/19/1993	0	GPM		260 160
P108004W	MW81	Umetco Minerals Corporation	33	N	89	W	10	SWSW Abandoned & Cancelled	Abandoned 8-13-03, Acknowledged 9-21-04	Original Supply	Monitoring	11/4/1997	0	GPM		240 171
P83269W	MWC-42	Umetco Minerals Corporation	33	N	89	W	10	SESW Abandoned	Abandoned 9-20-96	Original Supply	Miscellaneous	8/15/1990	10	GPM		240 138
P82567W	MWI-38	Umetco Minerals Corporation	33	N	89	W	10	SWSW Abandoned	Abandoned 10-9-96	Original Supply	Monitoring	4/27/1990	0	GPM		230 195.88
P82568W	MWI-39	Umetco Minerals Corporation	33	N	89	W	10	SWSW Abandoned	Abandoned 10-8-97	Original Supply	Monitoring	4/27/1990	0	GPM		253 222
21/3/264W			33	N	89	W	10	SWSW Unadjudicated		Original Supply						
25/11/207W			33	N	89	W	10	SWSW Unadjudicated		Original Supply						
25/7/207W			33	N	89	W	10	SWSW Unadjudicated		Original Supply						
25/8/207W			33	N	89	W	10	SWSW Unadjudicated		Original Supply						
25/9/207W			33	N	89	W	10	SWSW Unadjudicated		Original Supply						
P8122R	A-9 Pit Subgrade Tailings Disposal Reservoir	Union Carbide Corporation	33	N	89	W	15	NESW, SESW, SWSE Point of Use Non Irrigation, Point of Reservoir Outlet	Letter dated 12-15-00. Permit associated with project where mill tailings were placed in an approved open pit repository. The project is complete and a cover has been placed over the tailings in accordance with an approved plan.	Original Supply	Industrial	4/3/1980	1107.73	ACFT	Union Draw	
P8641R	A-9 Pit Tailings Disposal Reservoir	Umetco Minerals Corporation	33	N	89	W	15	NESW, SESW, SWSE Point of Use Non Irrigation, Point of Reservoir Outlet		Original Supply	Temporary, Industrial	7/27/1983	966.77	ACFT	Union Draw	
P56W	ALJOB #1	Globe Mining Co.	33	N	89	W	15	NENW, NWNW, SWNW Abandoned	Abandoned 11-11-80	Original Supply	Industrial, Domestic	8/29/1958	45	GPM		484 256
P104730W	ALJOB #2	USDI, BLM**Umetco Minerals Corporation	33	N	89	W	15	SENE,SW Unadjudicated		Original Supply	Miscellaneous	11/25/1996	45	GPM		537 270
P104718W	C-18 Pit	Umetco Minerals Corporation	33	N	89	W	15	NENW Unadjudicated		Reservoir, Original Supply	Miscellaneous, Dewatering, Reservoir	11/21/1996	500	GPM		85 80
P67178W	DW2	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SESW Abandoned	Abandoned 6-22-92	Original Supply	Monitoring	4/23/1984	0	GPM		260 140
P67179W	DW3	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SWNW Abandoned & Cancelled	Abandoned 7-12-02, Aknownledged 9-28-04	Original Supply	Monitoring	4/23/1984	0	GPM		228 210
P10444R	GHP No. 2 Evaporation Reservoir	Umetco Minerals Corporation	33	N	89	W	15	NW Unadjudicated		Original Supply	Industrial, Temporary	11/21/1996	199.36	ACFT	Canyon Creek	



Appendix B  
Water Rights Within Proposed Land Transfer Boundary

Appropriation	Permit Facility Name	Permit Applicant	Tns	Rng	Section	Quarter	Status	Current Status from Umetco Documents	Supply type	Permit Uses	Permit Priority	Permit Amount	Unit	Permit Source	Permit Well Depth	Permit Static Well Depth
P66157W	GUARD WELL 3A, Aka GW-3A	USDI, BLM** Union Carbide Corporation	33	N	89	W	15	SESW	Good Standing						158	101
P67075W	GUARD WELL 3B, Aka GW-3B	USDI, BLM** Union Carbide Corporation	33	N	89	W	15	NENW, NWNW, SW, SWSE	Abandoned & Cancelled	Abandoned 5-27-99					159	114.1
P67076W	GUARD WELL 3C, Aka GW-3C	USDI, BLM** Union Carbide Corporation	33	N	89	W	15	NENW, NWNW, SW, SWSE	Abandoned & Cancelled	Abandoned 5-26-99					159	105
P67160W	GW1	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SESW	Abandoned & Cancelled	Abandoned 5-12-02, Acknowledged 9-28-04					160	105
P67161W	GW2	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SESW	Abandoned & Cancelled	Abandoned 5-6-02, Acknowledged 9-28-04					158	114
P67162W	GW3	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SESW	Abandoned & Cancelled	Abandoned 6-12-02					160	107
P67164W	GW5	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SWSE	Abandoned & Cancelled	Abandoned 5-24-02, Acknowledged 9-28-04					160	100
P67166W	GW7	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SESW	Point of Use Non Irrigation, Location of Well	POC/ACL Well					190	0.3
P67077W	HDW-1	Union Carbide Corporation	33	N	89	W	15	NENE, NENW, NWNW, SW, SWSE	Point of Use Non Irrigation, Location of Well							
P67183W	HW1, Aka Heap Well	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SWSW	Abandoned & Cancelled	Abandoned 7-25-99 (see letter 12-18-00)					267.6	152.35
P67185W	HW3	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SWNW	Abandoned & Cancelled	Abandoned 8-14-03, Acknowledged 9-21-04					135.5	113.34
P67186W	HW4	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SWNW	Abandoned & Cancelled	Abandoned 7-13-02, Acknowledged 9-28-04					155.4	123.85
P130987W	HW4EX	Umetco Minerals Corporation	33	N	89	W	15	SWMW, SENW	Unadjudicated							
P80486W	LA 3	Lidstone & Anderson Inc.	33	N	89	W	15	SESE	Unadjudicated						195	183
P80432W	MW 29, Aka MWI-29	Umetco Minerals Corporation	33	N	89	W	15	NESW	Abandoned	Abandoned 9-25-96					195	188
P80433W	MW 31, Aka MWI-31	Umetco Minerals Corporation	33	N	89	W	15	NESW	Abandoned	Abandoned 10-3-96					180	130.77
P80434W	MW 32	Umetco Minerals Corporation	33	N	89	W	15	SESW	Abandoned & Cancelled	Abandoned 5-8-02, Acknowledged 9-28-04					160	102
P67152W	MW10, Aka MW10A, MW10B	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SWNE	Abandoned & Cancelled	Abandoned 6-6-99					160	95
P114511W	MW10D	Umetco Minerals Corporation	33	N	89	W	15	SWNE	Abandoned & Cancelled	Abandoned 6-24-02					265	214.41
P67157W	MW20	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	NENE	Abandoned & Cancelled	Abandoned 5-9-02, Acknowledged 9-28-04					90	65
P114512W	MW24D	Umetco Minerals Corporation	33	N	89	W	15	SESW	Abandoned & Cancelled	Abandoned 6-4-02					210	131.51
P76332W	MW25	Umetco Minerals Corporation	33	N	89	W	15	NWNW	Point of Use Non Irrigation, Location of Well	POC/ACL Well					256	227.5
P67149W	MW6, Aka MW6A	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	NWSE	Abandoned & Cancelled	Abandoned 6-4-99					220	162
P91081W	MW-63, Aka MWI63	Umetco Minerals Corporation	33	N	89	W	15	NESW	Unadjudicated	Abandoned 10-3-96					180	120
P91083W	MW-65, Aka MWI65	Umetco Minerals Corporation	33	N	89	W	15	SWNW	Unadjudicated	Abandoned 10-7-96					180	120
P114514W	MW6D	Umetco Minerals Corporation	33	N	89	W	15	NWSE	Abandoned & Cancelled	Abandoned 6-20-02					270	231.7
P67150W	MW7, Aka MW7A, MW7B	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	NESW	Abandoned & Cancelled	Abandoned 6-4-99					220	145
P108001W	MW78	Umetco Minerals Corporation	33	N	89	W	15	SESW	Abandoned & Cancelled	Abandoned 6-11-02, Acknowledged 9-28-04					150	111.45
P108002W	MW79	Umetco Minerals Corporation	33	N	89	W	15	SESW	Abandoned & Cancelled	Abandoned 6-10-02, Acknowledged 9-28-04					150	118.83
P114513W	MW7D	Umetco Minerals Corporation	33	N	89	W	15	NESW	Abandoned & Cancelled	Abandoned 5-20-02					266	185.87
P67151W	MW8	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SWNE	Abandoned & Cancelled	Abandoned 6-28-02, Acknowledged 9-28-04					159	57.15
P108003W	MW80	Umetco Minerals Corporation	33	N	89	W	15	SESW	Abandoned & Cancelled	Abandoned 5-30-02, Acknowledged 9-28-04					155	117.48
P84648W	MWI 43	Umetco Minerals Corporation	33	N	89	W	15	NWNW	Abandoned & Cancelled	Abandoned 7-11-02, Acknowledged 9-28-04					240	194.8
P84650W	MWI-50	Umetco Minerals Corporation	33	N	89	W	15	NENE	Abandoned	Abandoned 9-25-96					240	171
P84651W	MWI-51	Umetco Minerals Corporation	33	N	89	W	15	NENE	Abandoned	Abandoned 9-26-96					240	159
P84652W	MWI-52	Umetco Minerals Corporation	33	N	89	W	15	NENE	Abandoned	Abandoned 9-27-96					245	144
P67168W	PW1	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	NESW	Abandoned & Cancelled	Abandoned 5-12-02, Acknowledged 9-28-04					220	168
P67169W	PW2, Aka PW2A	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SWSW	Abandoned & Cancelled	Abandoned May-02, Acknowledged 9-28-04					220	192

**Appendix B**  
**Water Rights Within Proposed Land Transfer Boundary**

Appropriation	Permit Facility Name	Permit Applicant	Tns	Rng	Section	Quarter	Status	Current Status from Umetco Documents	Supply type	Permit Uses	Permit Priority	Permit Amount	Unit	Permit Source	Permit Well Depth	Permit Static Well Depth
P67170W	PW3, Aka PW3A	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SWSW	Abandoned & Cancelled	Abandoned 5-16-02, Acknowledged 9-28-04					220	148
P67174W	PW7	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	15	SWSE	Abandoned & Cancelled	Abandoned 7-8-02, Acknowledged 9-28-04					260	-7
P215W	Water Well #3	Globe Mining Co.	33	N	89	W	15	NW	Unadjudicated			8/24/1959	250	GPM	1668	20
21/2/264W			33	N	89	W	15	NWNW	Unadjudicated							
22/6/316W			33	N	89	W	15	NESW	Unadjudicated							
26/4/21W			33	N	89	W	15	SESW	Unadjudicated							
P67175W	EPW1, Aka EW-1	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	16	SESE	Abandoned & Cancelled	Abandoned 8-14-03, Acknowledged 9-21-04					155	110
P67184W	HW2	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	16	NESE	Abandoned & Cancelled	Abandoned 8-14-03, Acknowledged 9-21-04					117	104.72
P105494W	MW 71A	Umetco Minerals Corporation	33	N	89	W	16	NENE	Abandoned & Cancelled	Abandoned 5-8-01, Acknowledged 9-21-04					237	224
P105495W	MW 71B	Umetco Minerals Corporation	33	N	89	W	16	NENE	Unadjudicated	POC/ACL Well					329	223
P46771W	BS 1051	American Nuclear Corporation	33	N	89	W	21	NE	Point of Use Non Irrigation				110	GPM		
P106690W	GW 10	Power Resources Inc.	33	N	89	W	21	SESE	Unadjudicated						312	200
P45371W	MONITOR WELL GW 10	Power Resources Inc.	33	N	89	W	21	SESE	Abandoned & Cancelled						475	153
P46772W	MUSKRAT WELL #1	American Nuclear Corporation	33	N	89	W	21	NE	Point of Use Non Irrigation							
P67176W	EPW2, Aka EW-2	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	22	NWNW	Abandoned & Cancelled	Abandoned 8-11-03, Acknowledged 9-21-04					115	89
P67177W	EPW3, Aka EW-3	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	22	NWNW	Abandoned & Cancelled	Abandoned 8-12-03, Acknowledged 9-21-04					110	70
P108233W	GH97WW-1	Power Resources Inc.	33	N	89	W	22	N1/2	Unadjudicated				100	GPM	1325	425
P67163W	GW4, Aka GW-4A, GW-4B	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	22	NENW	Abandoned & Cancelled	Abandoned 6-14-02, Acknowledged 9-28-04					165	112.42
P67165W	GW6	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	22	NWNE	Abandoned & Cancelled	Abandoned 5-24-02, Acknowledged 9-28-04					121	86.18
P67167W	GW8	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	22	NENW	Point of Use Non Irrigation, Location of Well	POC/ACL Well					172	125
P80488W	LA 5	Lidstone & Anderson Inc.	33	N	89	W	22	NWNE	Unadjudicated						128	115
P80489W	LA 6	Lidstone & Anderson Inc.	33	N	89	W	22	NENE	Unadjudicated							
P93567W	LA-8	Lidstone & Anderson Inc.	33	N	89	W	22	NENE	Unadjudicated						163	72.9
P105496W	MW 72	Umetco Minerals Corporation	33	N	89	W	22	NWNW	Unadjudicated	POC/ACL Well					85	56
P105497W	MW 73	Umetco Minerals Corporation	33	N	89	W	22	NENW	Abandoned & Cancelled	Abandoned 6-26-02, Acknowledged 9-28-04					153	104
P105498W	MW 74	Umetco Minerals Corporation	33	N	89	W	22	NWNW	Abandoned & Cancelled	Abandoned 8-11-03, Acknowledged 9-21-04					60	21
P67180W	MW30026, Aka MW30	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	22	NWNW	Abandoned & Cancelled	Abandoned 8-7-03, Acknowledged 9-21-04					193	77
P144110W	MW82	Umetco Minerals Corporation** USDI, Bureau of Land Management	33	N	89	W	22	NWNW	Good Standing	POC/ACL Well					115	86
P67171W	PW4	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	22	NENW	Point of Use Non Irrigation, Location of Well	POC/ACL Well					230	100
P67172W	PW5, Aka PW5A	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	22	NENW	Abandoned & Cancelled	Abandoned 6-27-02, Acknowledged 9-28-04					160	120.72
P67173W	PW6, Aka PW6A	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	22	NENW	Abandoned & Cancelled	Abandoned 8-14-03, Acknowledged 9-21-04					136	122.39
P67181W	RW1	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	22	NWNW	Abandoned & Cancelled	Abandoned 6-2-99					130	87.04
P67182W	RW2	USDI, BLM** Umetco Minerals Corporation	33	N	89	W	22	NWNW	Abandoned & Cancelled	Abandoned 8-11-03, Acknowledged 9-21-04					120	76
P89541W	DW-4	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, (NENE, NWNW, SESW)	Unadjudicated	Abandoned 5-31-02					260	135
P85776W	ENL MWC-42, Aka MW-42	Umetco Minerals Corporation	33	N	89	W	10, (15)	NESW, SWSW, (NENW, NWNW)	Abandoned & Cancelled	Letter, dated 12-18-00, shows permit expired but backup information shows different permit numbers.					240	180.58
P91277W	MWC 55	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, NESE, (NENE, NENW, NWNW)	Abandoned	Abandoned 10-1-96					171.78	112.5
P91278W	MWC 56	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, (NENE, NENW, NWNW)	Abandoned	Abandoned 9-20-96					261	171

Appendix B  
Water Rights Within Proposed Land Transfer Boundary

Appropriation	Permit Facility Name	Permit Applicant	Tns	Rng		Section	Quarter	Status	Current Status from Umetco Documents	Supply type	Permit Uses	Permit Priority	Permit Amount	Unit	Permit Source	Permit Well Depth	Permit Static Well Depth
P91279W	MWC 57	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, (NENE, NENW, NWNW)	Abandoned	Abandoned 9-20-96	Miscellaneous	3/19/1993	6	GPM		252	165
P91280W	MWC 58	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW,SESW, (NENE, NENW, NWNW)	Abandoned & Cancelled	Abandoned 5-25-02, Acknowledged 9-28-04	Miscellaneous	3/19/1993	6	GPM		250	154
P91281W	MWC 59	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW,SESW, (NENE, NENW, NWNW)	Abandoned	Abandoned 9-23-04	Miscellaneous	3/19/1993	6	GPM		250	147
P91282W	MWC 60	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, (NENE, NENW, NWNW, SESW)	Abandoned & Cancelled	Abandoned 6-13-02, Acknowledged 9-28-04	Miscellaneous	3/19/1993	4	GPM		160	111
P91283W	MWC 61	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, (NENE, NENW, NWNW, SESW)	Abandoned & Cancelled	Abandoned 6-7-02, Acknowledged 9-28-04	Miscellaneous	3/19/1993	3.5	GPM		150	116
P91284W	MWC 62	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, (NENE, NENW, NWNW, SESW)	Abandoned & Cancelled	Abandoned 5-8-02, Acknowledged 9-28-04	Miscellaneous	3/19/1993	4	GPM		165	107
P82562W	MWC-33	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, (NENW, NWNW)	Abandoned	Dry hole, Abandoned 8-25-93, Acknowledged 4-28-94	Miscellaneous	4/27/1990	2	GPM		210	121.81
P82563W	MWC-34	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, (NENW, NWNW)	Abandoned	Dry hole, Abandoned 8-25-93, Acknowledged 4-28-94	Miscellaneous	4/27/1990	3	GPM		200	157.06
P82564W	MWC-35	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, SESW, (NENW, NWNW)	Abandoned	Dry hole, Abandoned 8-24-93, Acknowledged 4-28-94	Miscellaneous	4/27/1990	5	GPM		190	148.03
P82565W	MWC-36	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, SESW, (NENW, NWNW)	Abandoned	Dry hole, Abandoned 8-25-93, Acknowledged 4-28-94	Miscellaneous	4/27/1990	12	GPM		200	143.41
P84751W	MWC-45	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, (NENE, NWNE, NENW, NWNW)	Abandoned	Abandoned 9-26-96	Miscellaneous	3/18/1991	15	GPM		240	195.24
P84753W	MWC-47	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, (NENE, NWNE, NENW, NWNW)	Abandoned	Abandoned 10-1-96	Miscellaneous	3/18/1991	15	GPM		255	188
P84754W	MWC-48	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, (NENE, NWNE, NENW, NWNW)	Abandoned	Abandoned 9-24-96	Miscellaneous	3/18/1991	15	GPM		245	177.92
P84755W	MWC-49	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, (NENE, NWNE, NENW, NWNW)	Abandoned	Abandoned 9-24-96	Miscellaneous	3/18/1991	15	GPM		240	156.35
P92098W	MWC-66	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, (NENE, NWNE, NENW, NWNW)	Unadjudicated	Abandoned 9-25-96	Miscellaneous	6/18/1993	15	GPM		190	120
P82566W	MWI-37	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, (NWNW)	Abandoned, Unadjudicated	Abandoned 10-10-96	Monitoring	4/27/1990	0	GPM		240	222.9
P162305W	Process Water Well #6	Umetco Minerals Corporation	33	N	89	W	10, (15)	SWSW, SESW, (NENW)	Good Standing		Industrial	8/16/2004				1685	90
P57999W	PAY #1	Union Carbide Corporation	33	N	89	W	15, (22)	All, (NENE, NWNE, NENW, NWNW)	Point of Use Non Irrigation, Location of Well	Expired 12-31-85	Miscellaneous	5/4/1981	1200	GPM		200	97
P43111W	CEE #1	Union Carbide Corporation	33	N	89	W	9, (10), (15), (21), (22)	NWSE, SWSE, SESE, (S1/2), (NENE, SWNE, SENE, NW, NESW, NWSW, SESW, SE), (NE), (N1/2)	Point of Use Non Irrigation	Abandoned	Miscellaneous	3/10/1978	500	GPM		130	55