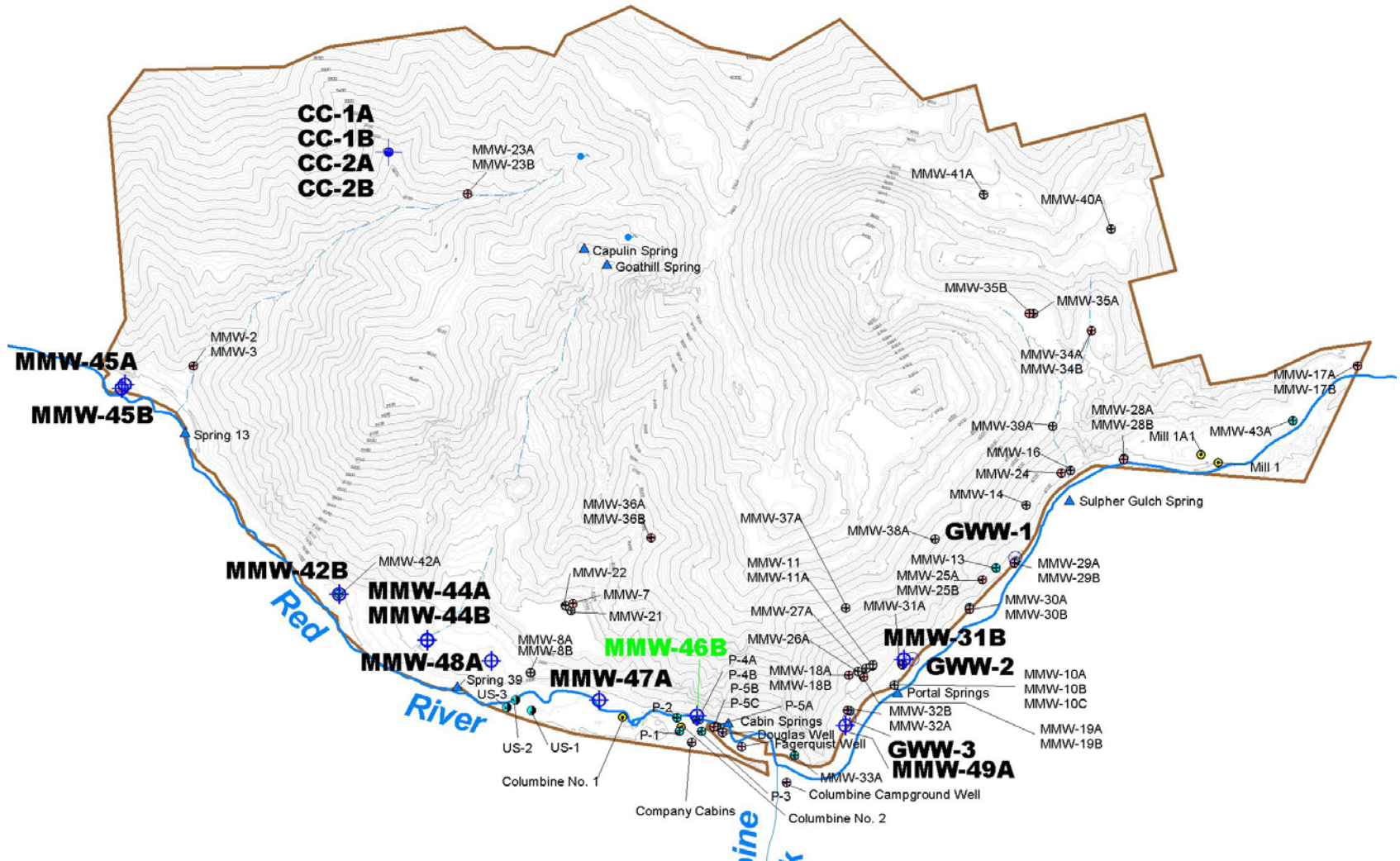




Geology/Hydrogeology Mine Site



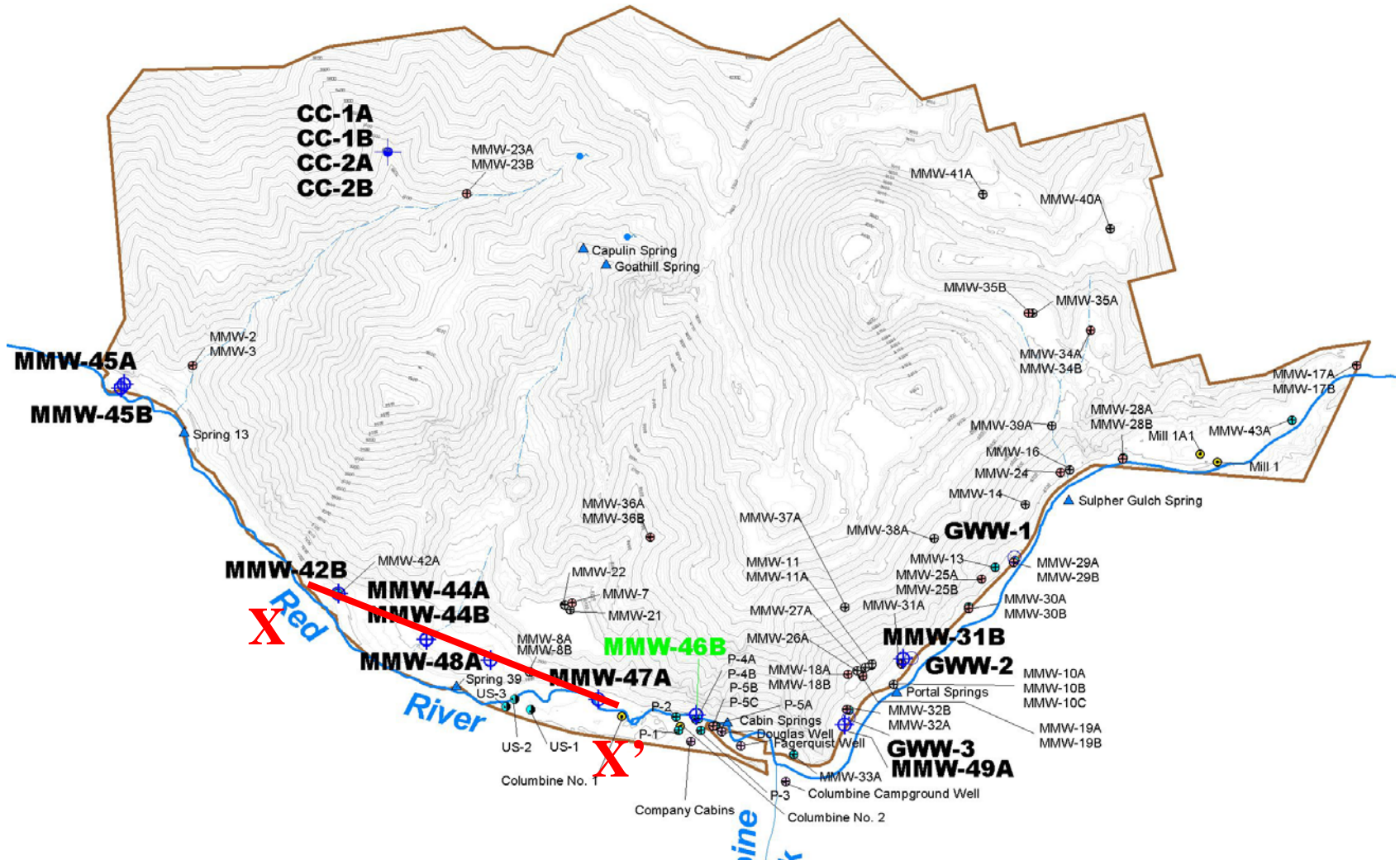
Mine Site Well Location Map



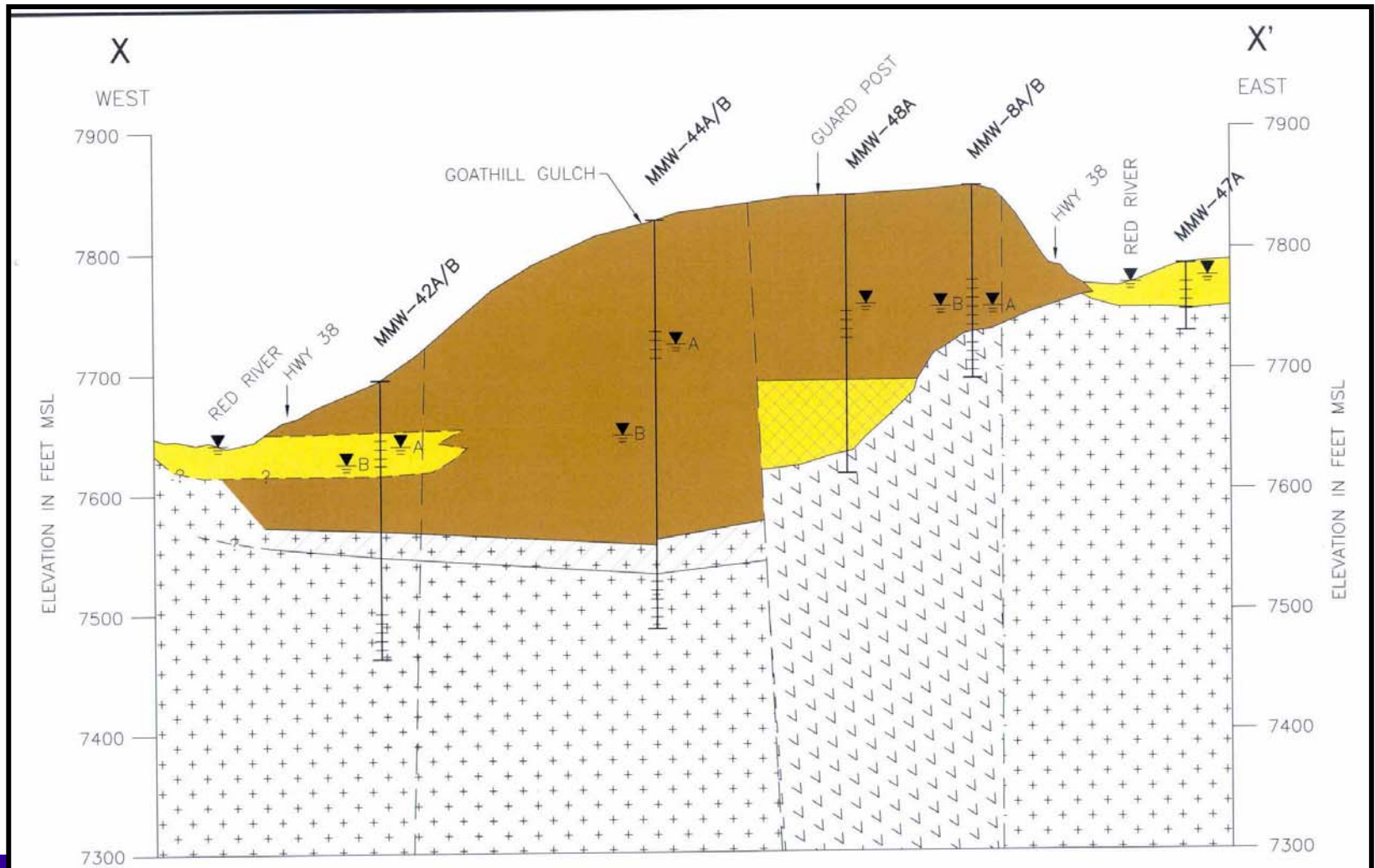
Status of Well Installation

Well ID	Location	Completion Zone	Completion Lithology	Borehole Depth (ft, bgs)	Screened Interval (ft,bgs)
<i>New RI/FS Monitoring Wells</i>					
MMW-31B	Mine core storage area	Bedrock	qtz monzonite	205	180 to 200
MMW-42B	Goathill Gulch drainage	Bedrock	qtz monzonite	230	195 to 225
MMW-44A	Goathill Gulch drainage	Colluvium	sandy gravel	116	90 to 110
MMW-44B	Goathill Gulch drainage	Bedrock	diorite	340	308 to 338
MMW-45A	Capulin Gulch drianage	Alluvium	sandy gravel	30	8 to 28
MMW-45B	Capulin Gulch drainage	Bedrock	quartz monzonite	115	80 to 100
MMW-46B	West of Columbine Campground	Installation Attempted	--	205	--
MMW-47A	East of mine Admin. Bldg.	Alluvium	gravel	51	15 to 35
MMW-48A	300 ft southeast of Guard Post	Colluvium	sandy gravel	228	101 to 121
MMW-49A	Base South Sugar Shack Pile	Alluvium	sandy gravel	90	40 to 70
<i>Water Collection System</i>					
GWW-1	Base of Sulfer Gulch Rock Pile	Alluvium	sandy gravel	160	80 to 149
GWW-2	Base Middle Rock Pile	Alluvium	sandy gravel	130	37 to 114
GWW-3	Base South Sugar Shack Pile	Alluvium	sandy gravel	160	87 to 145

Goathill Gulch Cross Section



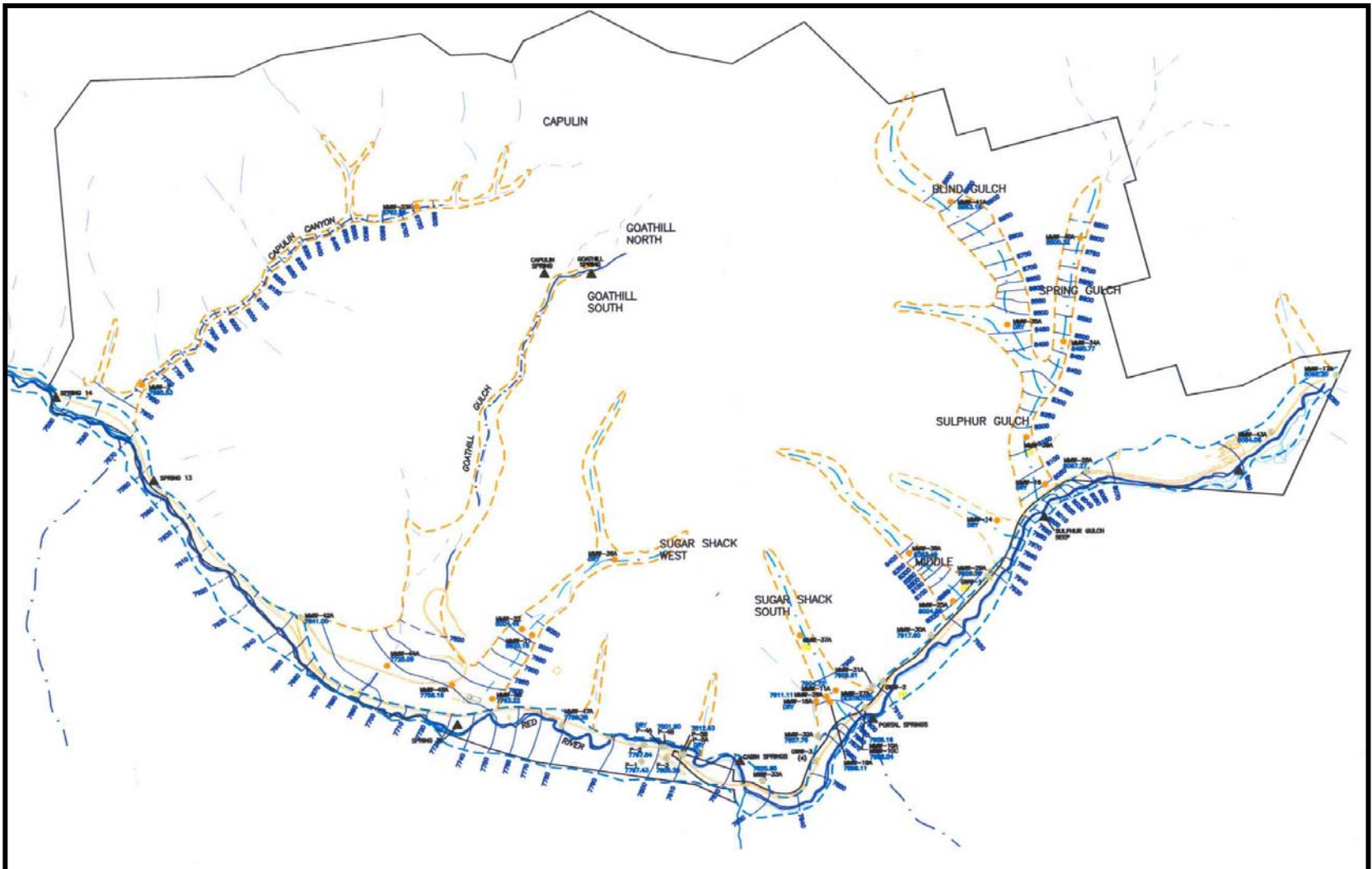
Cross Section X-X'- Mine Site



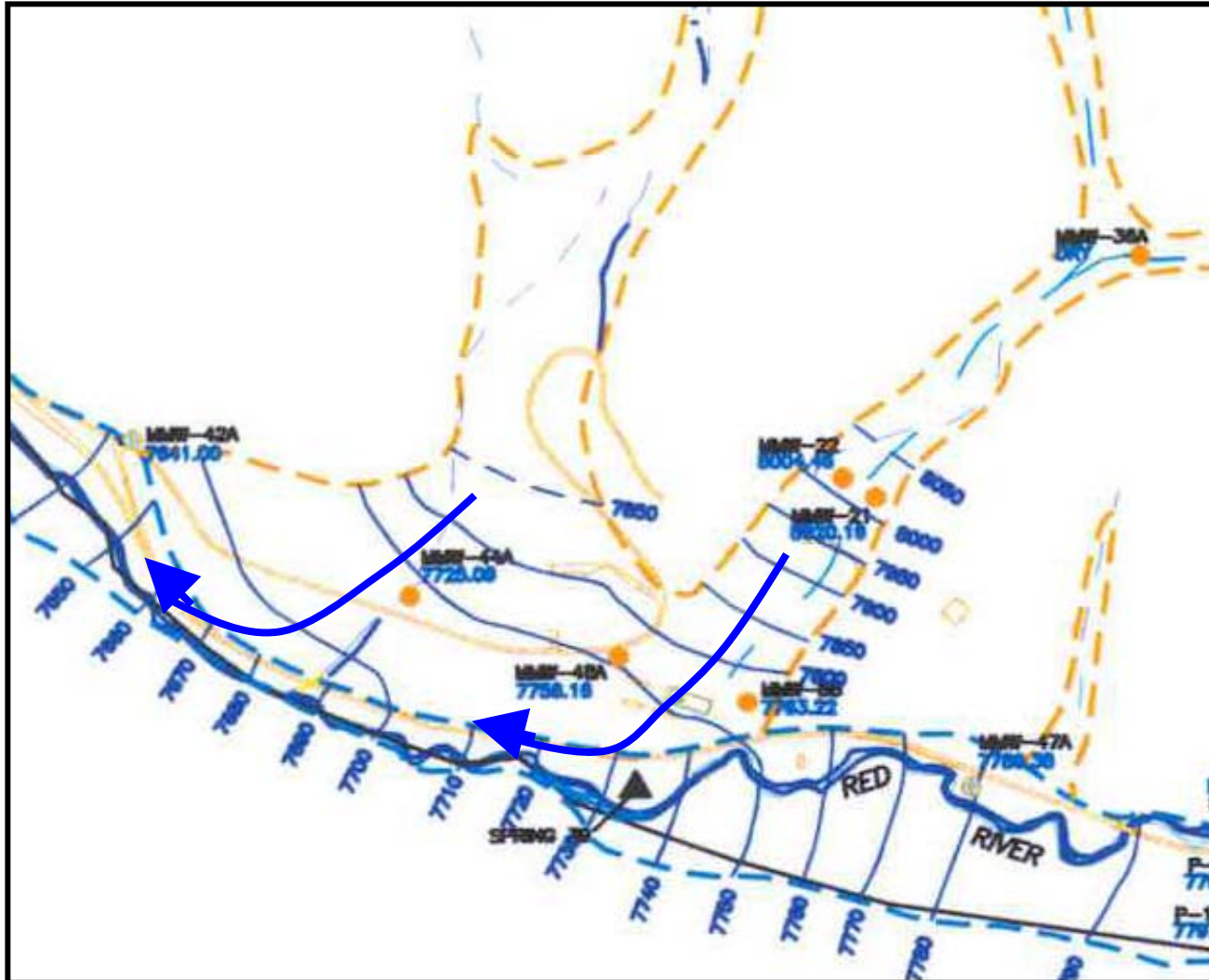
Groundwater Occurrence at the Mine Site

- Alluvial aquifer along Red River
- Bedrock aquifer at mine site and underlying alluvial aquifer
- Colluvium unit has minimal saturated thickness and extent – referred to as water-bearing unit instead of aquifer
- Colluvium is comprised of debris or mud flow materials that are angular - distinctly different than alluvium

Water Table Map of Alluvial Aquifer and Colluvial Unit



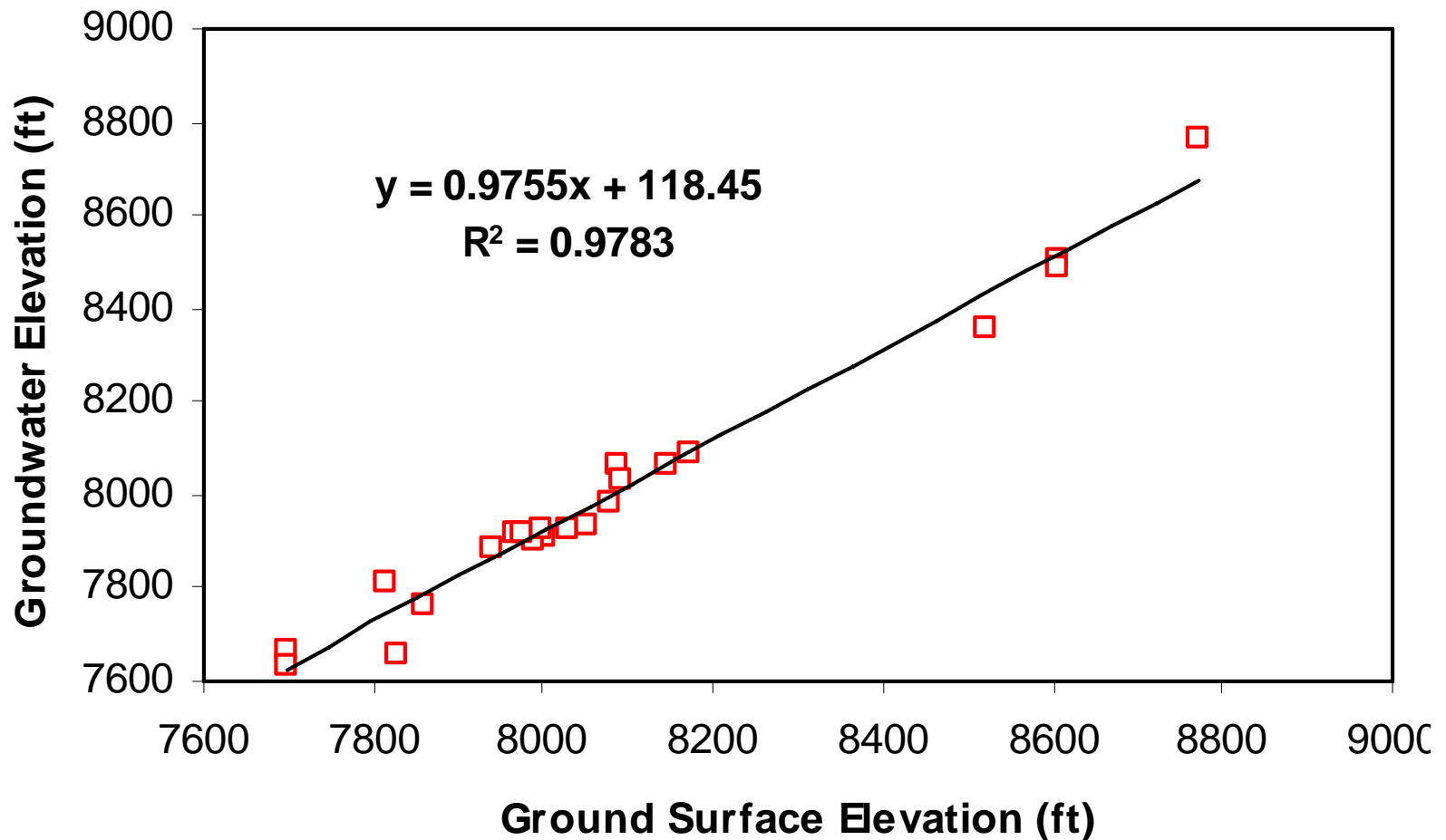
Water Table at Colluvium/Alluvium Interface



Potentiometric Surface Map of the Bedrock Aquifer

- Controlling factors: topography, geology and climate
- High topographical relief amplifies the influence of topography on groundwater flow patterns
- Performed linear regression analysis of ground elevations and groundwater elevations

Regression Analysis for Bedrock Wells



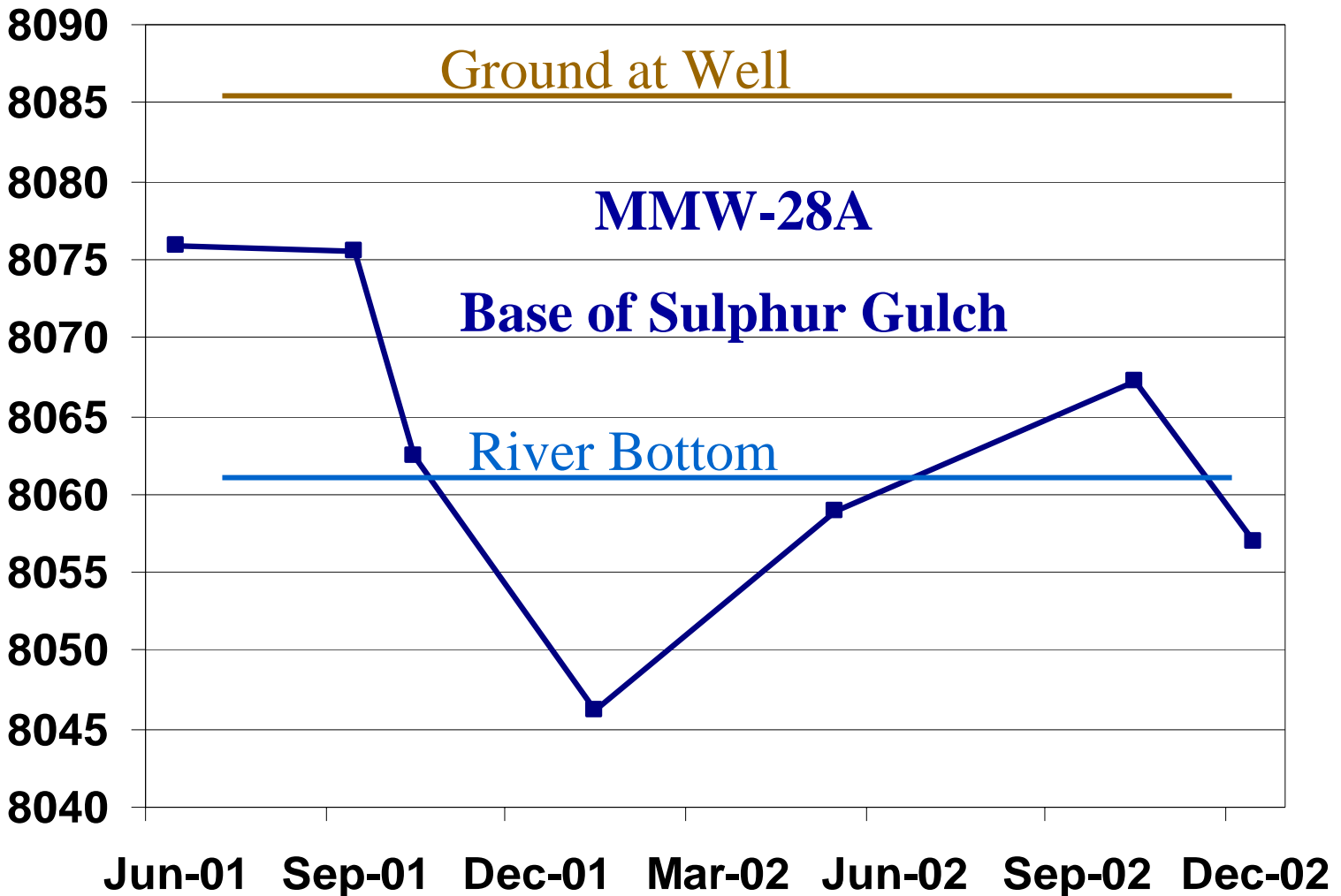
Limitations of Regression Analysis

- Valid only for the range of ground elevations for which groundwater elevations have been measured (i.e., 7,600 to 8,800 ft)
- Valid only for areas where the natural groundwater flow system is relatively undisturbed (i.e., away from dewatered pumping areas)

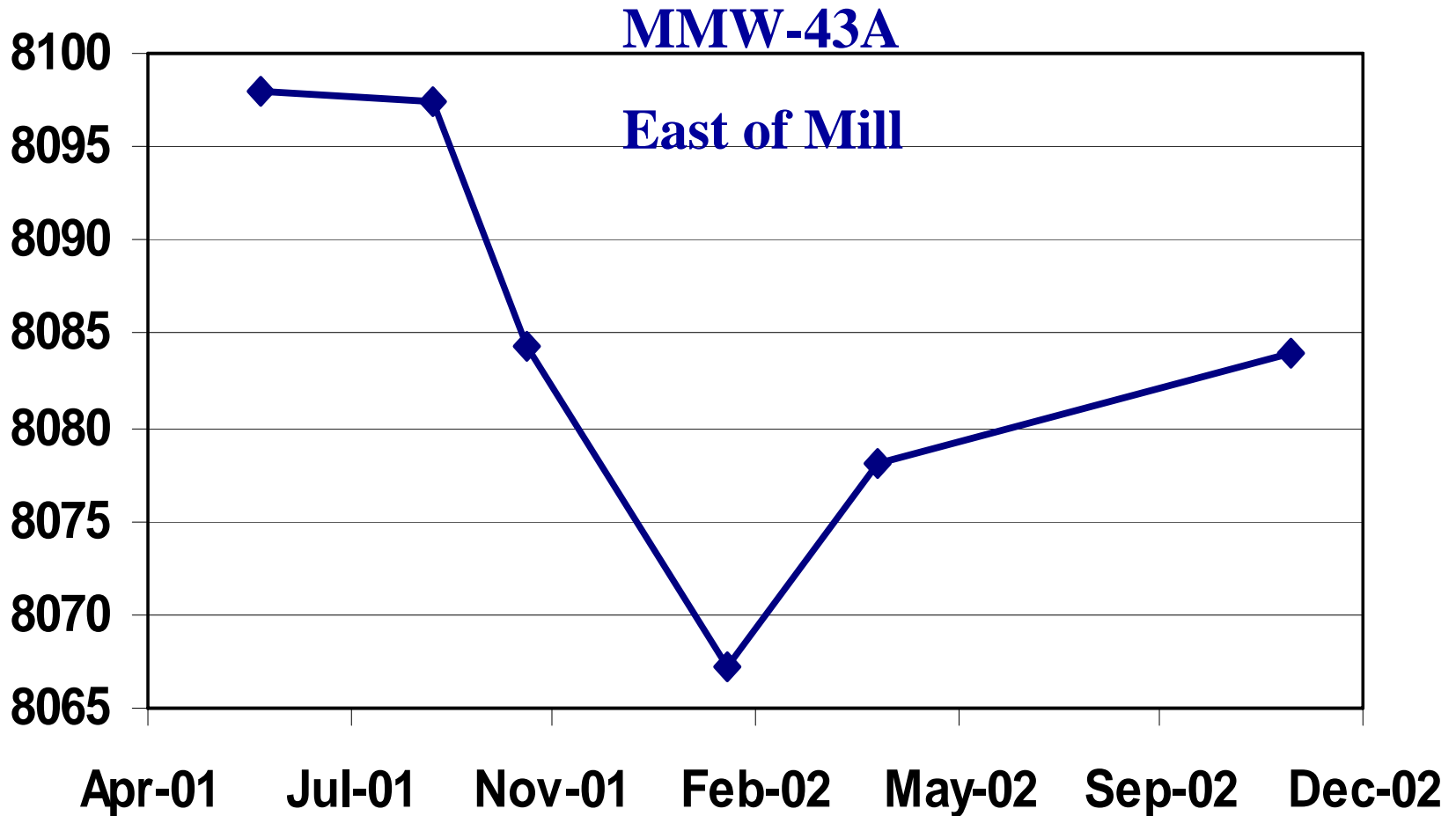
Potentiometric Surface at M&E



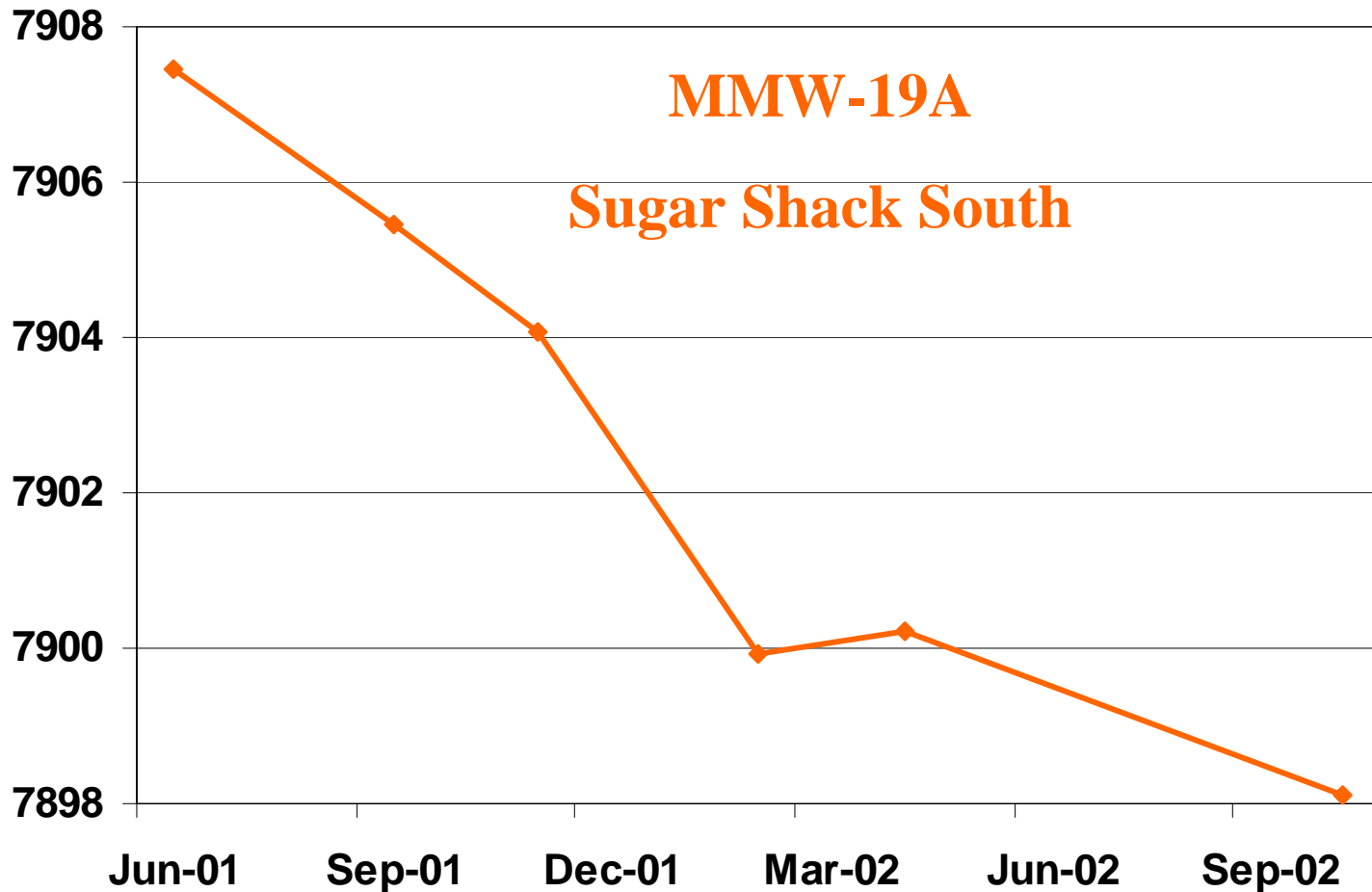
Hydrographs of Alluvial Wells Mine Site



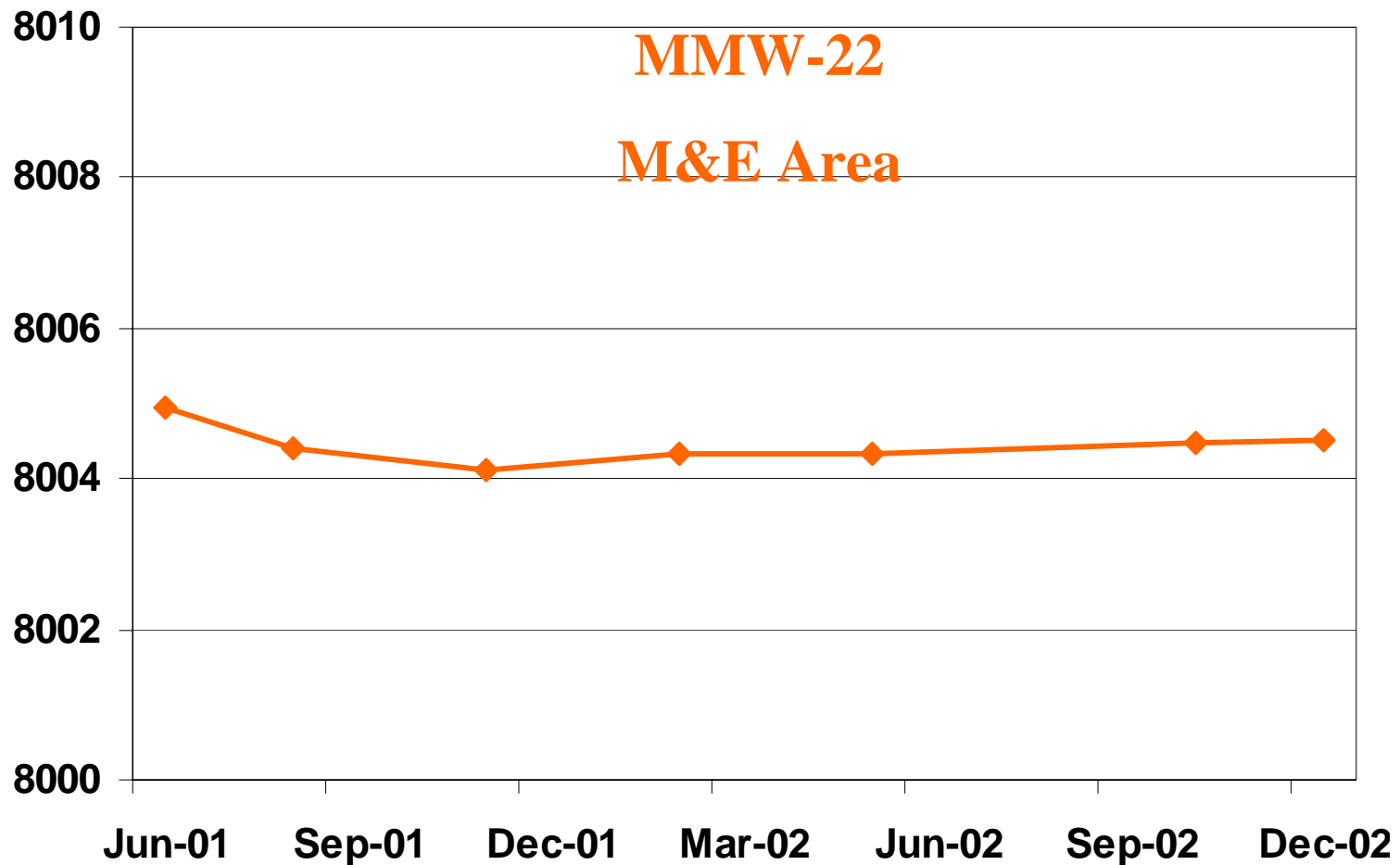
Hydrographs of Alluvial Wells Mine Site



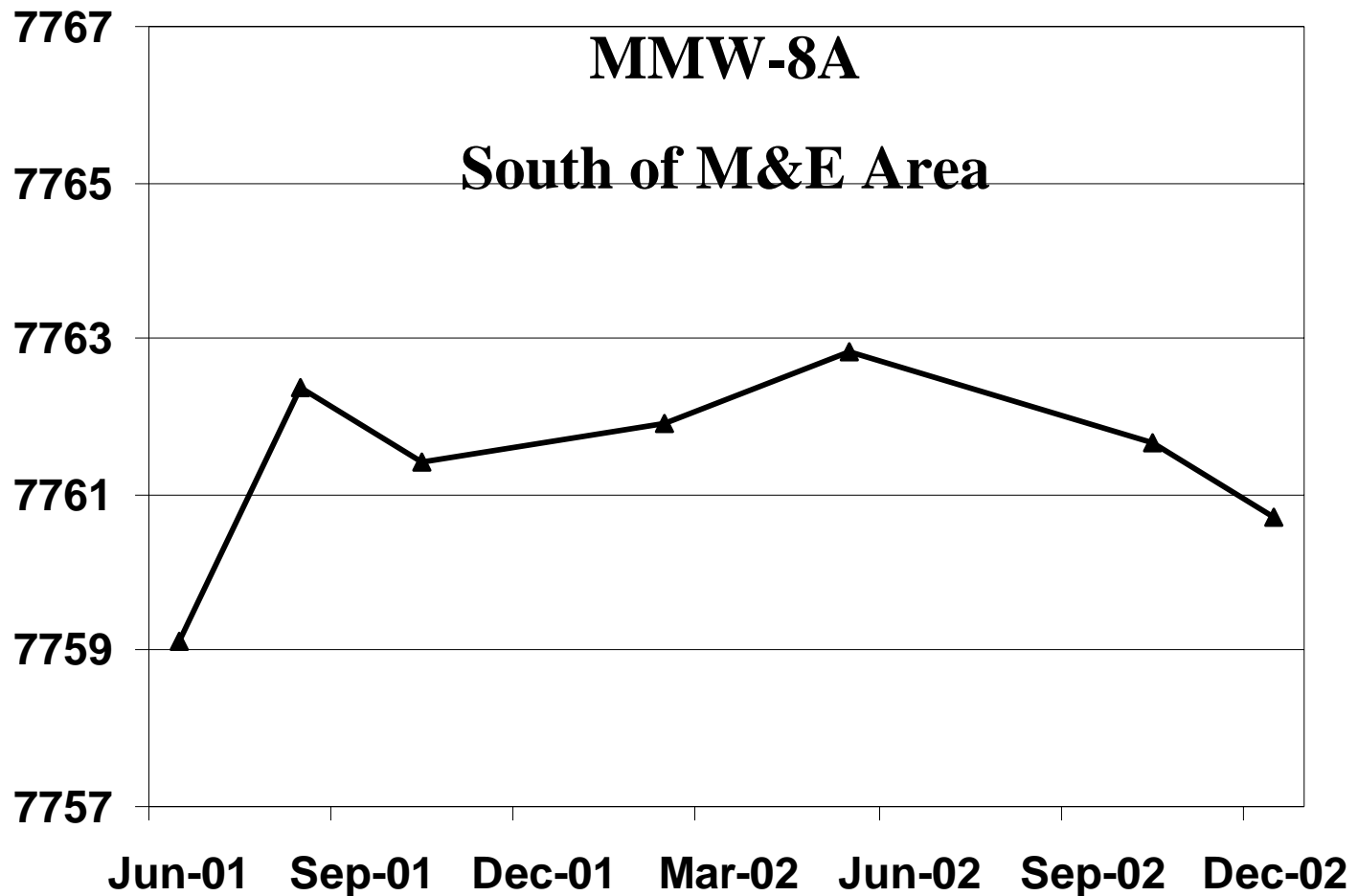
Hydrographs of Colluvial Wells Mine Site



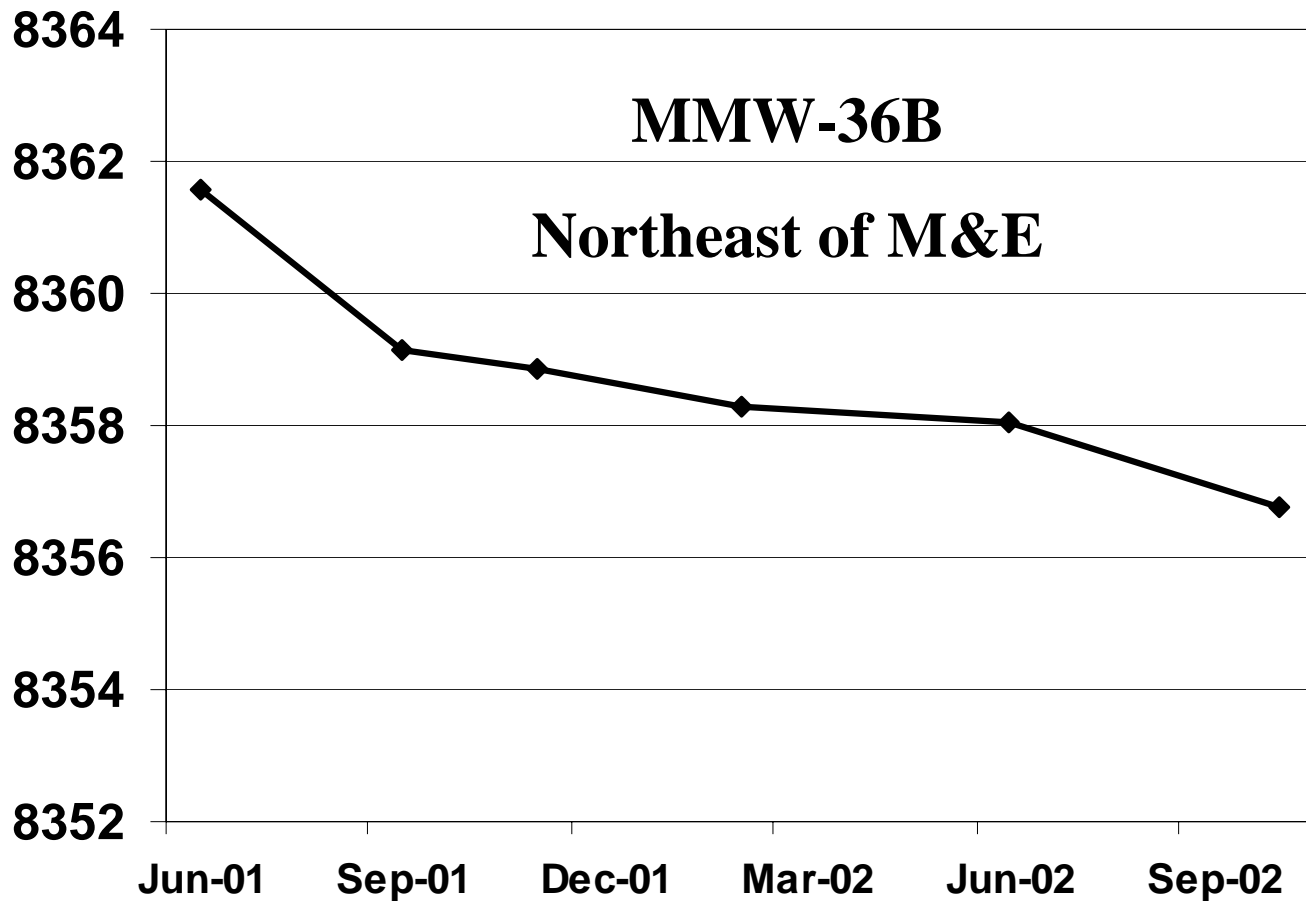
Hydrographs of Colluvial Wells Mine Site



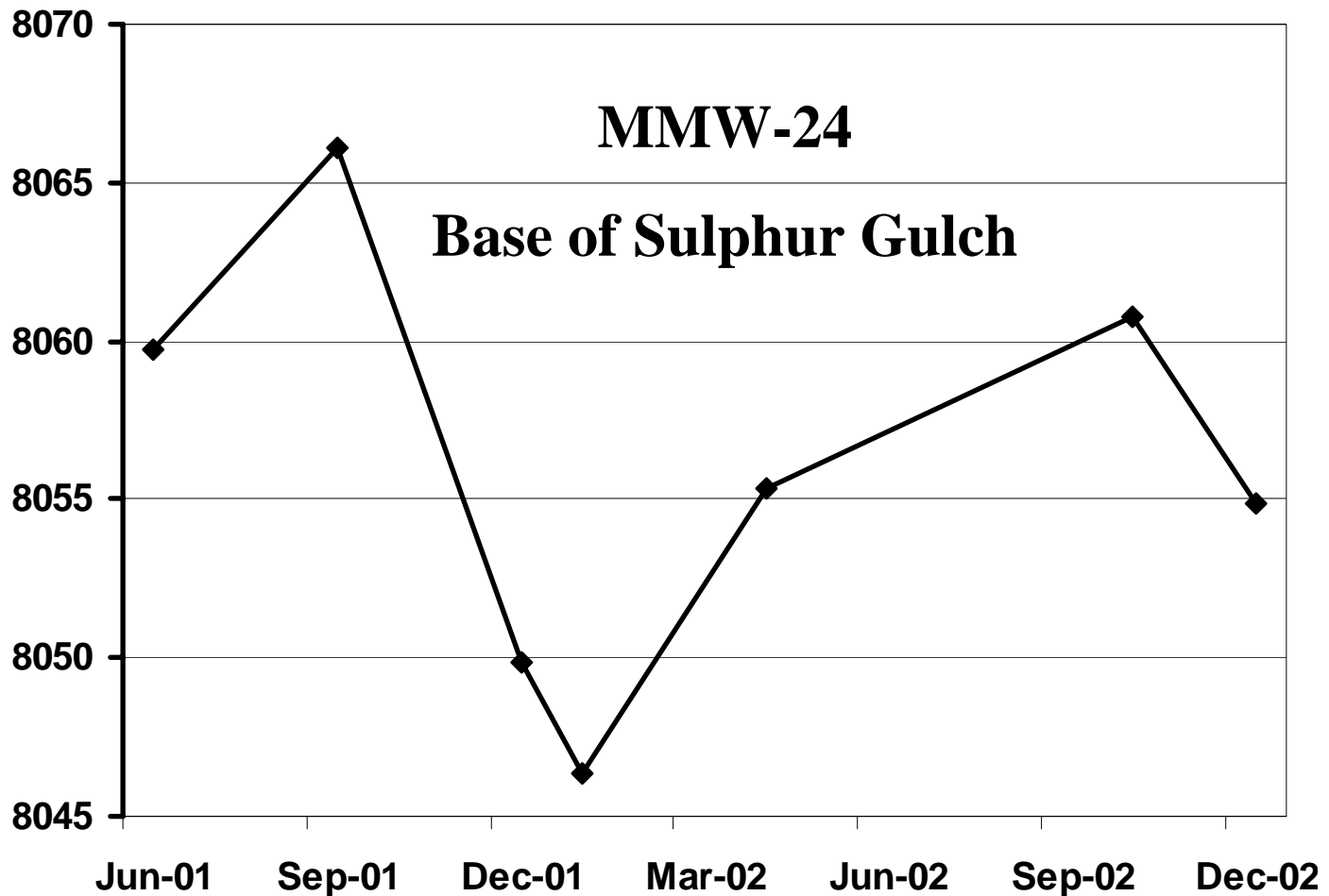
Hydrographs of Bedrock Wells Mine Site



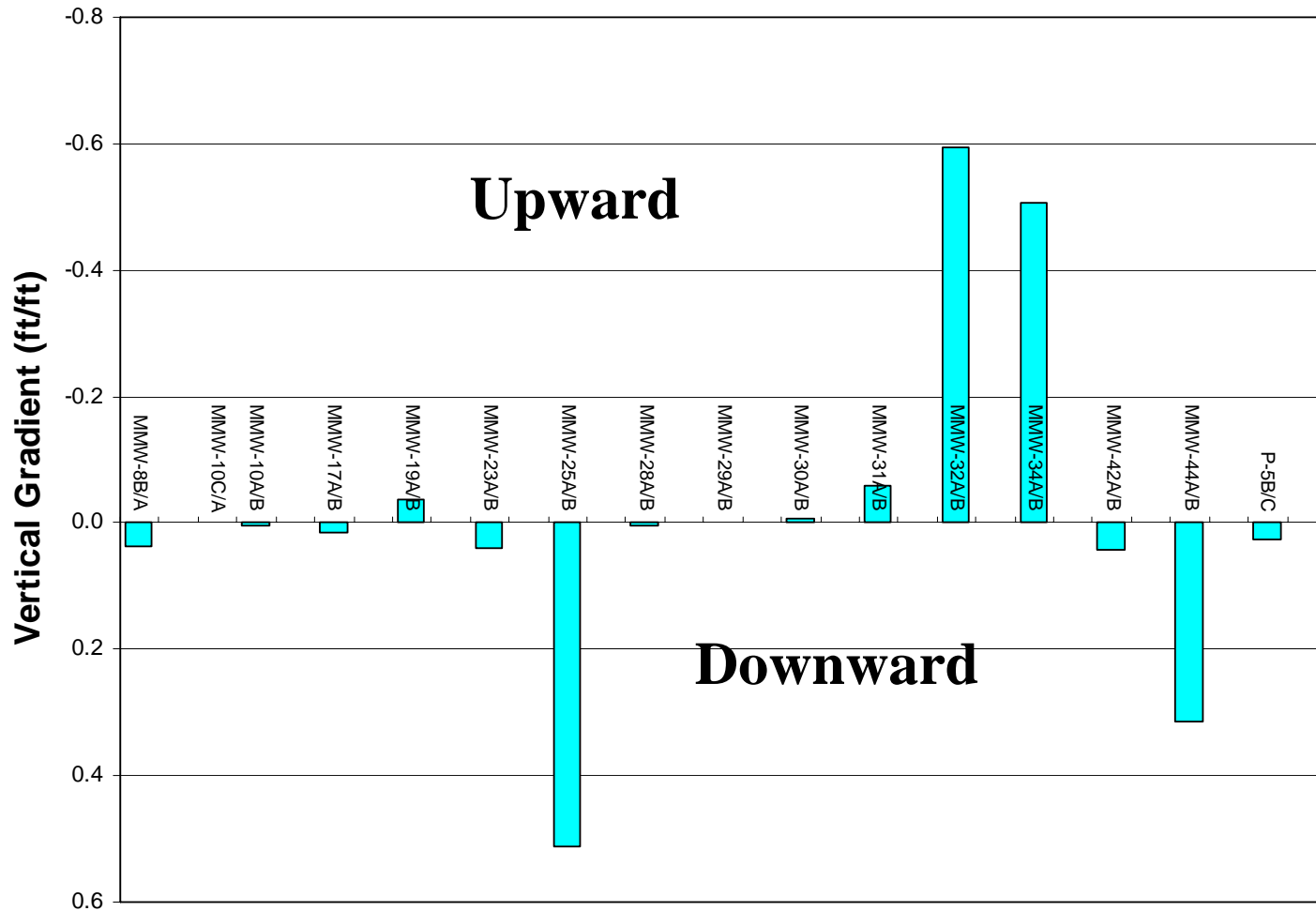
Hydrographs of Bedrock Wells Mine Site



Hydrographs of Bedrock Wells Mine Site



Vertical Groundwater Gradients Between Paired Wells



Horizontal Groundwater Gradients

- Alluvium: .002 to 0.06 (~ slope of river)
- Colluvium: 0.2 to 0.35 (steep drainages)
- Bedrock: 0.2 to to 0.5 (steep slopes)

Hydraulic Conductivity

Well ID	Location	Completion Zone	Screened Lithology	Saturated Thickness (ft)	Hydraulic Conductivity (ft/day)	
					Pumping	Recovery
MMW-17A	upgradient of mill site	Alluvium	sand and boulders	11	1,497	391
Mill Well #1a	Mill	Alluvium	sand and gravel	115	700	860
Old Mill Well	Mill	Alluvium	sand and gravel	115	770	820
Columbine No 2	Columbine Park	Alluvium	sand and gravel	120	280	-
P-2	Columbine Park	Alluvium	sand and gravel	13	2,057	-
GWW-1	base of Sulphur Gulch pile	Alluvium	sandy gravel	78	98	19
GWW-2	base Middle rock pile	Alluvium	sandy gravel	86	116	226
GWW-3	base South Sugar Shack pile	Alluvium	sandy gravel	88	66	122
MMW-2	lower Capulin Canyon	Colluvium	debris flow gravel,sand	24	0.14	0.08
MMW-21	mine facility area	Colluvium	gravel, sand, and silt	10	2.0	0.65
MMW-22	mine facility area	Colluvium	sand, clay, gravel	21	0.30	0.23
MMW-23A	base of Capulin Canyon pile	Colluvium	sand and gravel	4	0.10	-
MMW-3	lower Capulin Canyon	Bedrock	andesite	40	0.077	0.014
MMW-7	mine facility area	Bedrock	andesite	70	0.009	0.001
MMW-23B	base of Capulin Canyon pile	Bedrock	welded tuff	30	0.008	0.008

Summary- Mine Site Hydrogeology

- Debris/mud flow thickness is ~ 290 ft at Goathill Gulch
- Saturated Alluvium is up to ~ 120 ft thick
- Groundwater flow in colluvium and bedrock is strongly influenced by topography and gradients are extremely steep
- Hydraulic Conductivity:
 - Alluvium >>> Colluvium > Bedrock



Groundwater Quality Mine Site



Groundwater Sampling at Mine Site



Groundwater Monitoring Network

- Monitoring wells (some are dry)
- Springs (number flowing varies)
- Underground
- Quarterly sampling for all locations
- Monthly sampling for select locations

Groundwater Measurements and Analytes

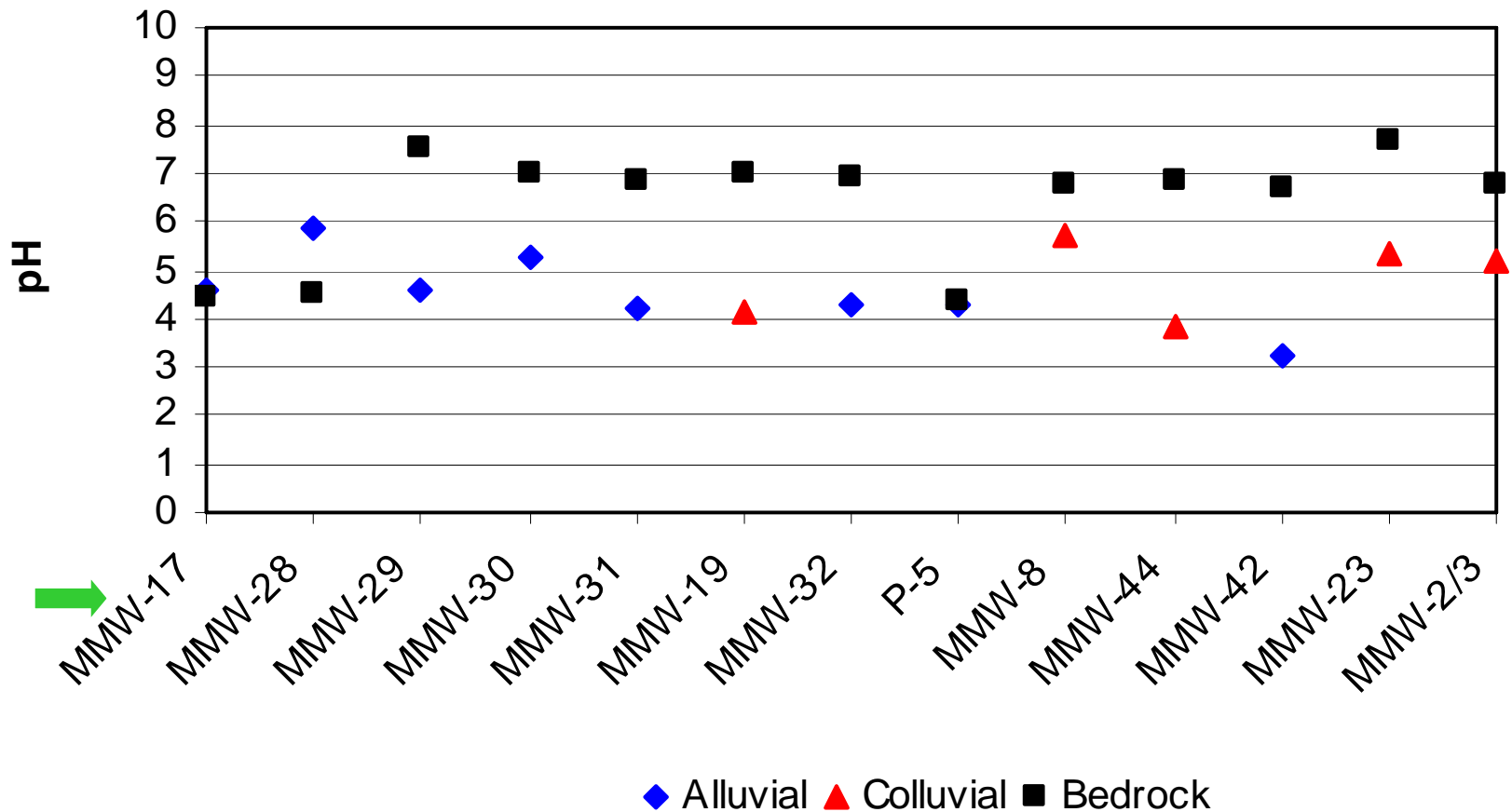
- Water levels
- Field parameters (ph, temperature, SC, DO, Eh, turbidity)
- Metals (total and dissolved)
- Inorganics
- VOCs, SVOCs and Explosives for select locations



Overview of Groundwater Quality



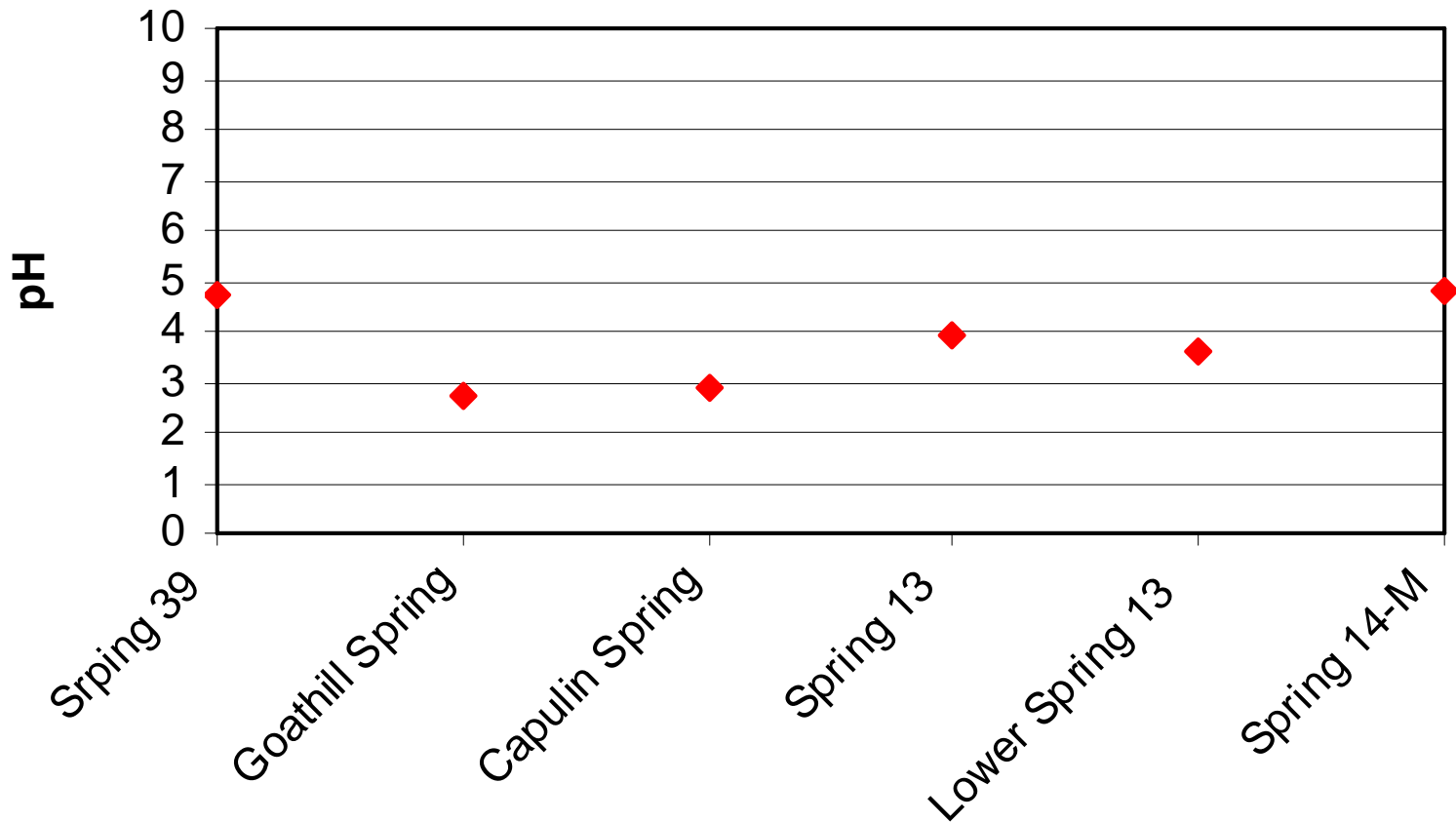
pH in Paired Wells - Fall 2002 (Mine Site)



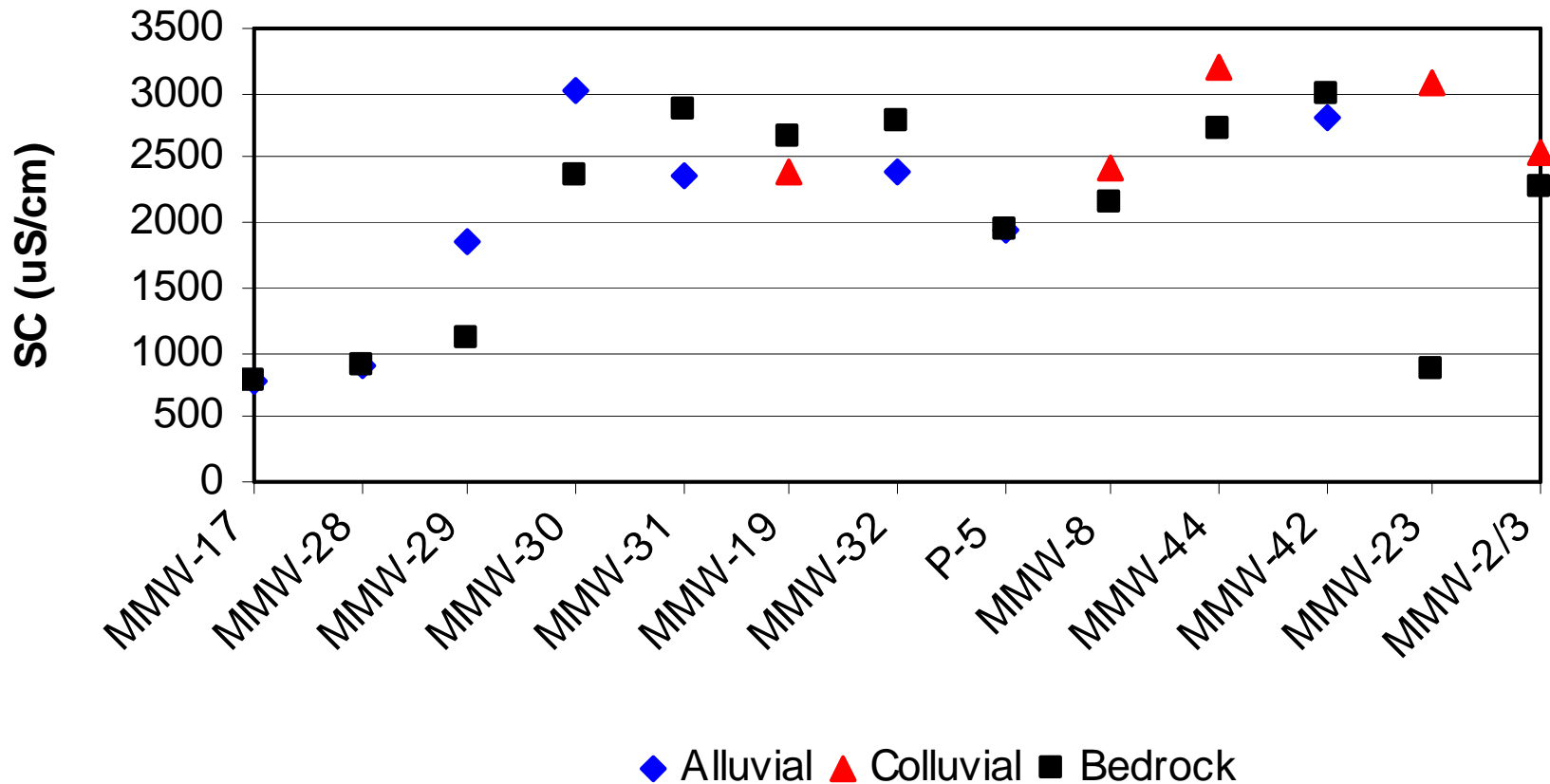
Spring 39 - Water Collection System



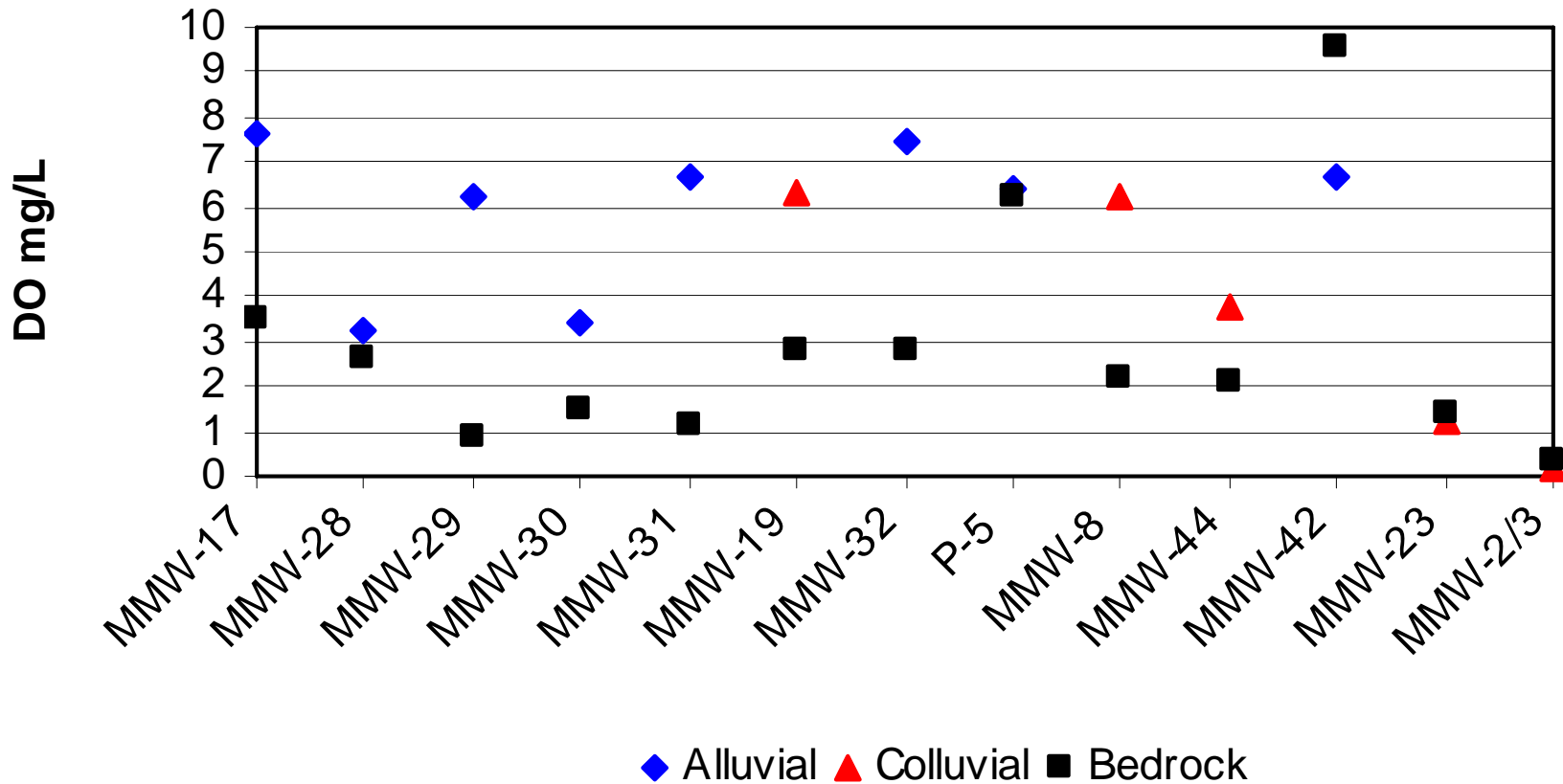
pH in Springs - Fall 2002 (Mine Site)



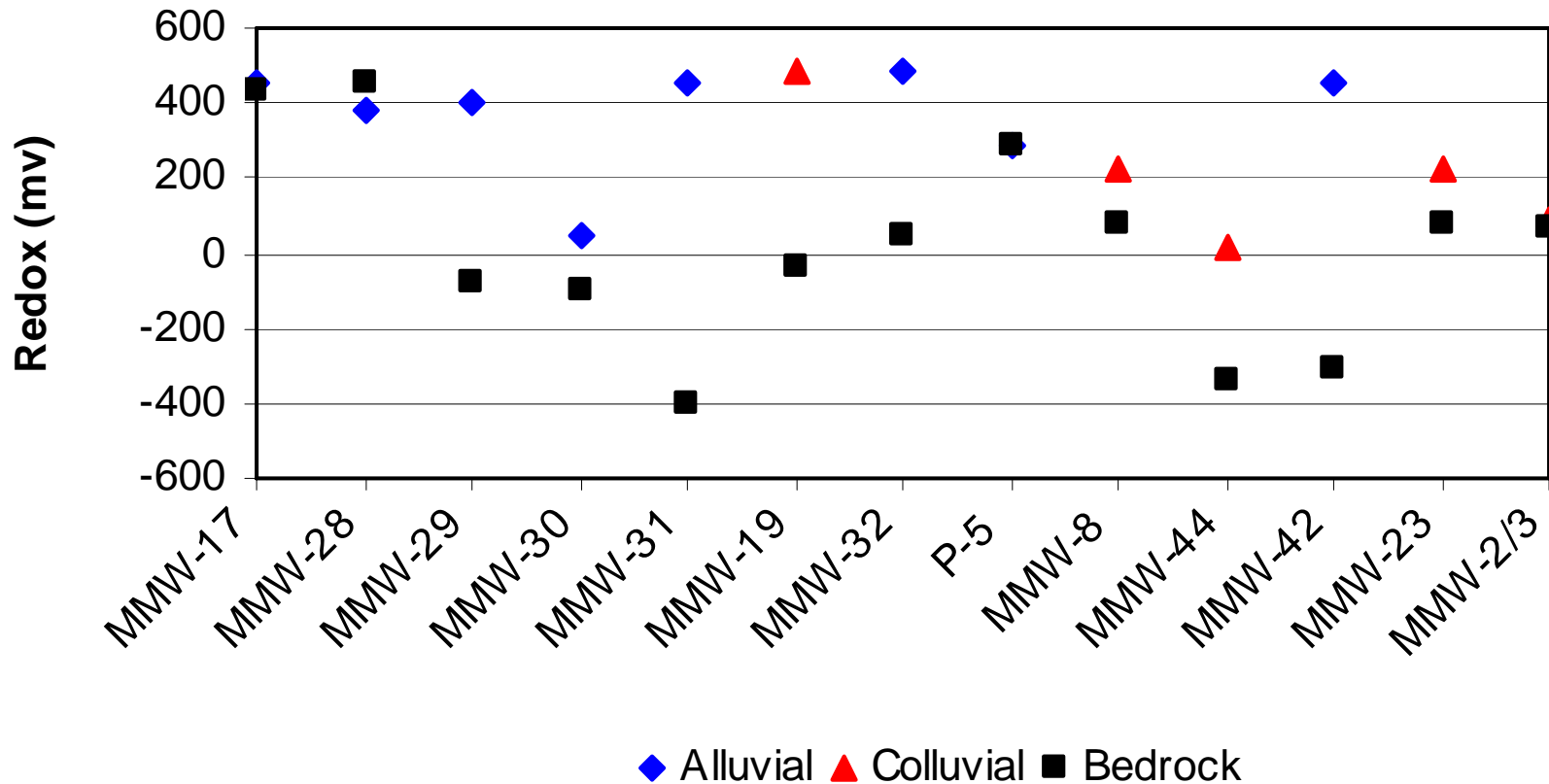
Specific Conductance in Paired Wells Fall 2002 (Mine Site)



Dissolved Oxygen in Paired Wells Fall 2002 (Mine Site)

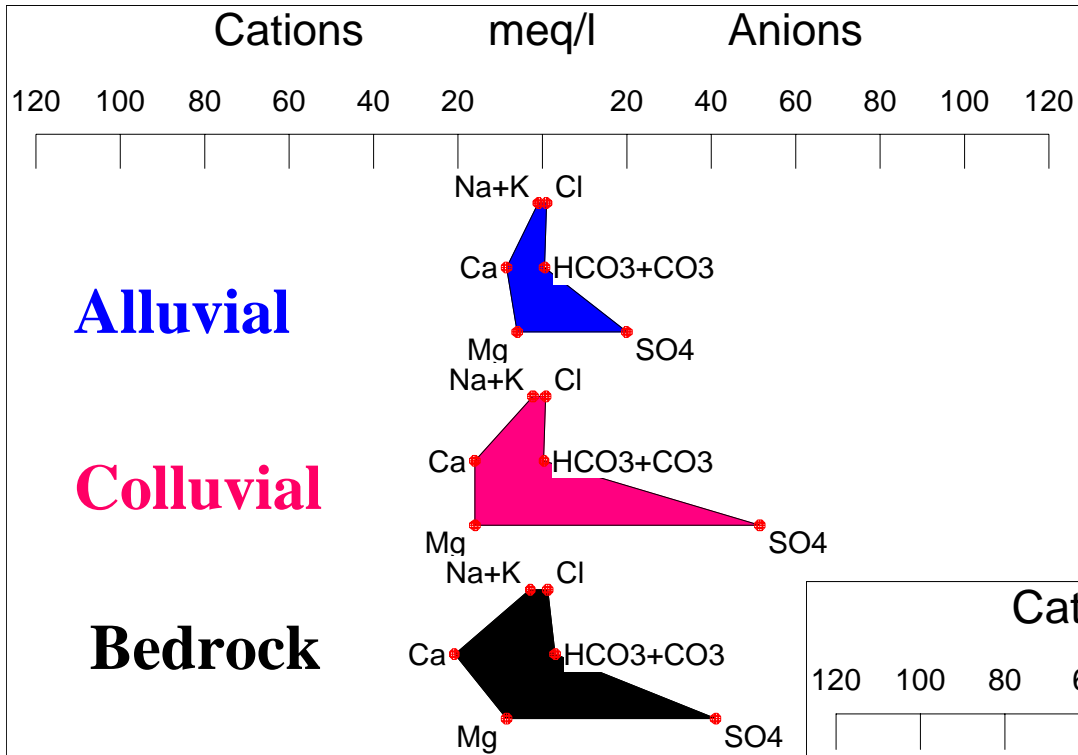


Redox Potential in Paired Wells Fall 2002 (Mine Site)

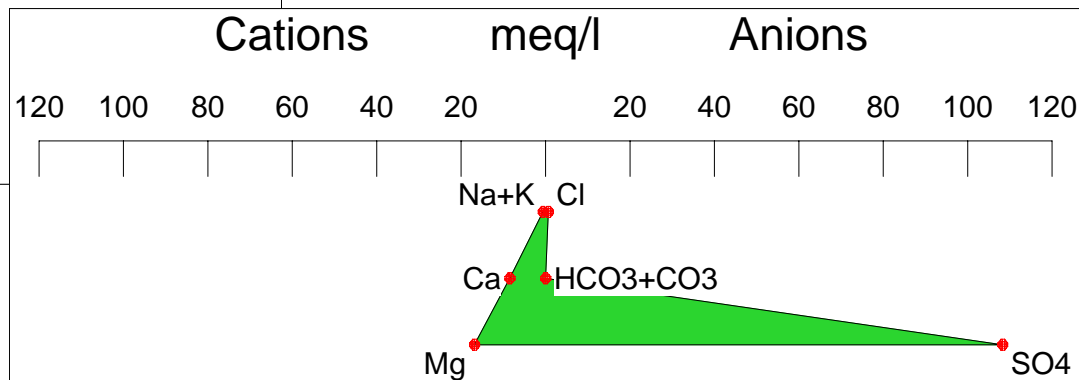


Averaged Major Anion/Cation Data for Mine Site Wells and Springs

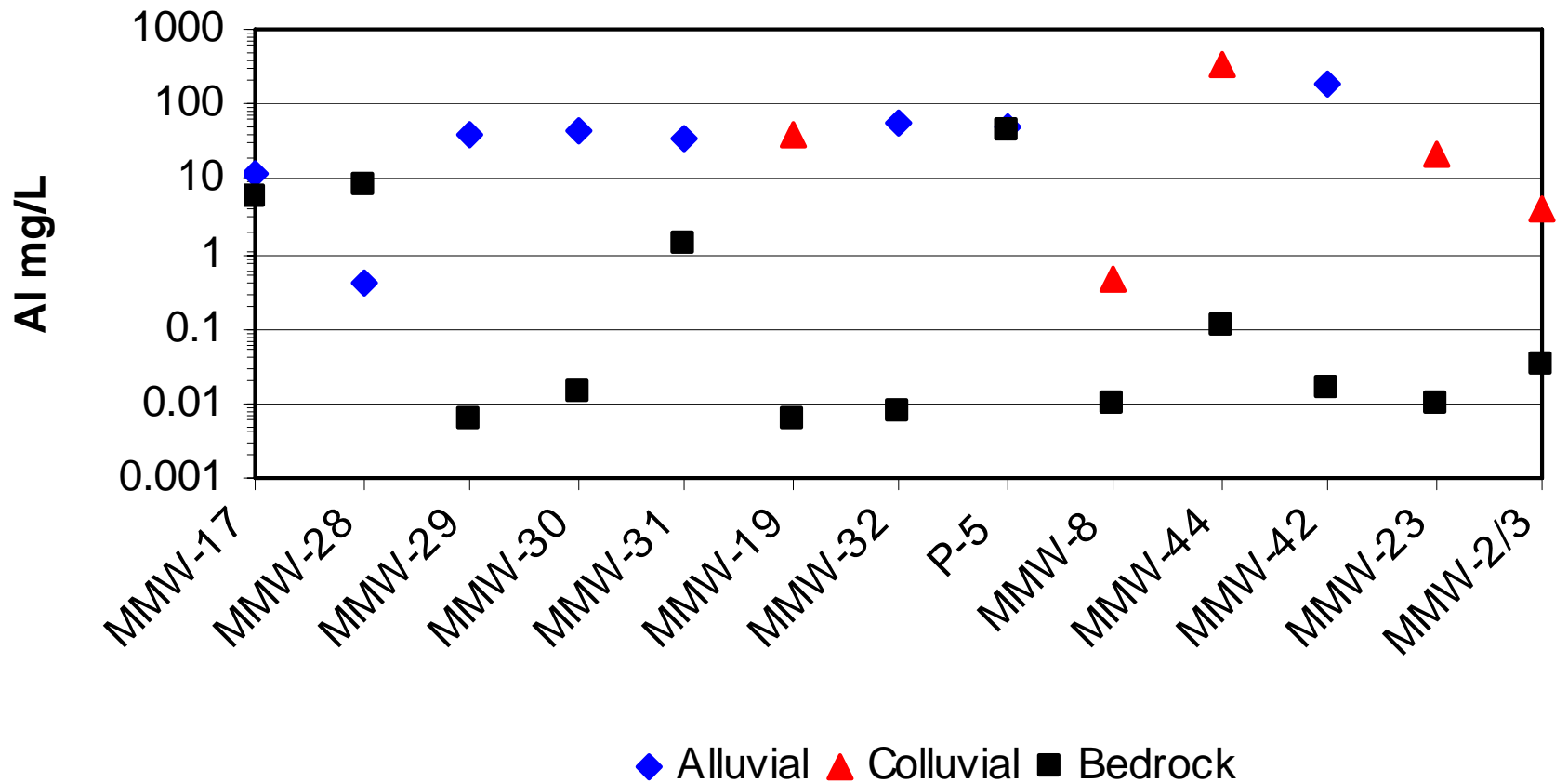
Wells



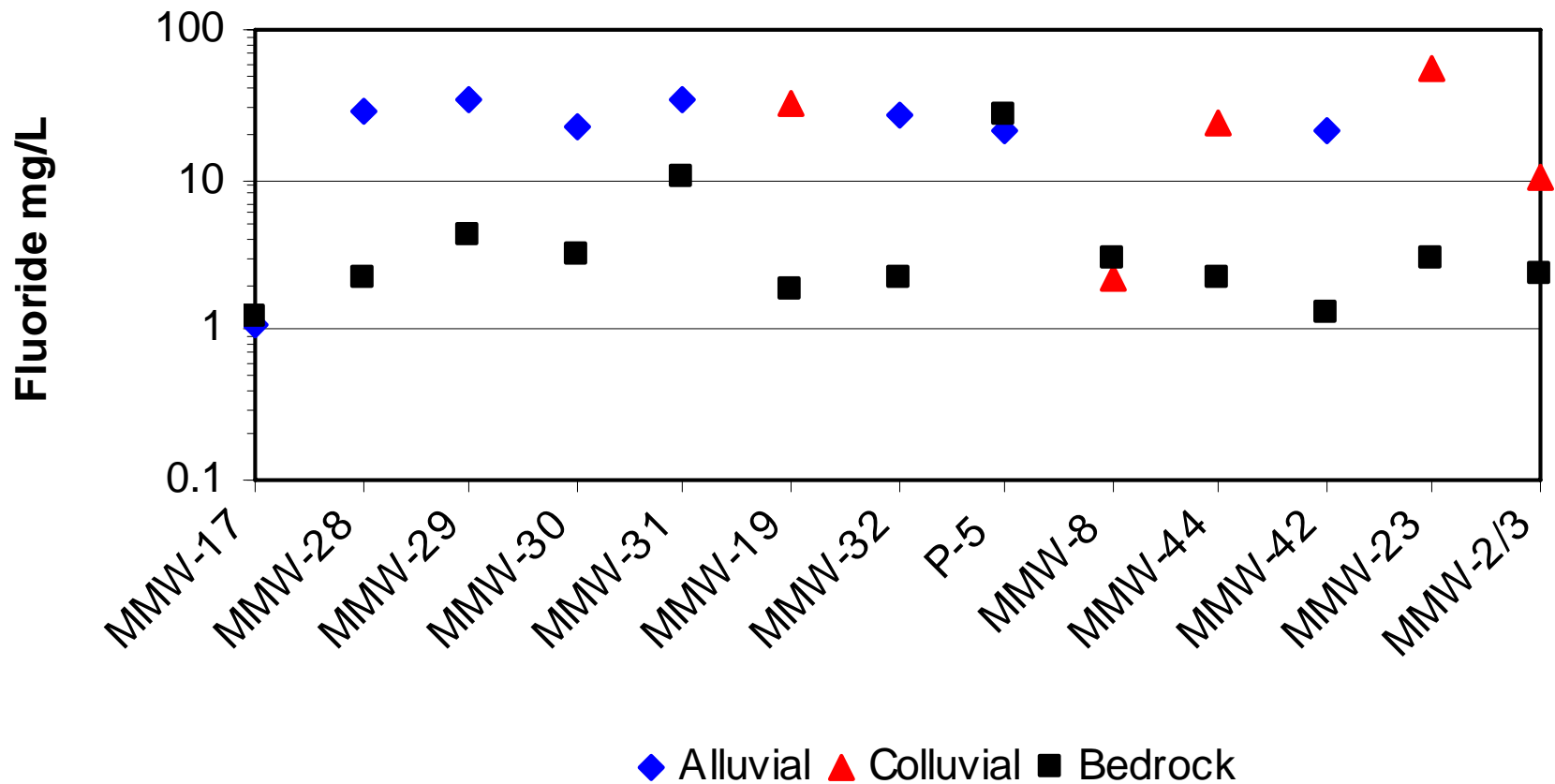
Springs



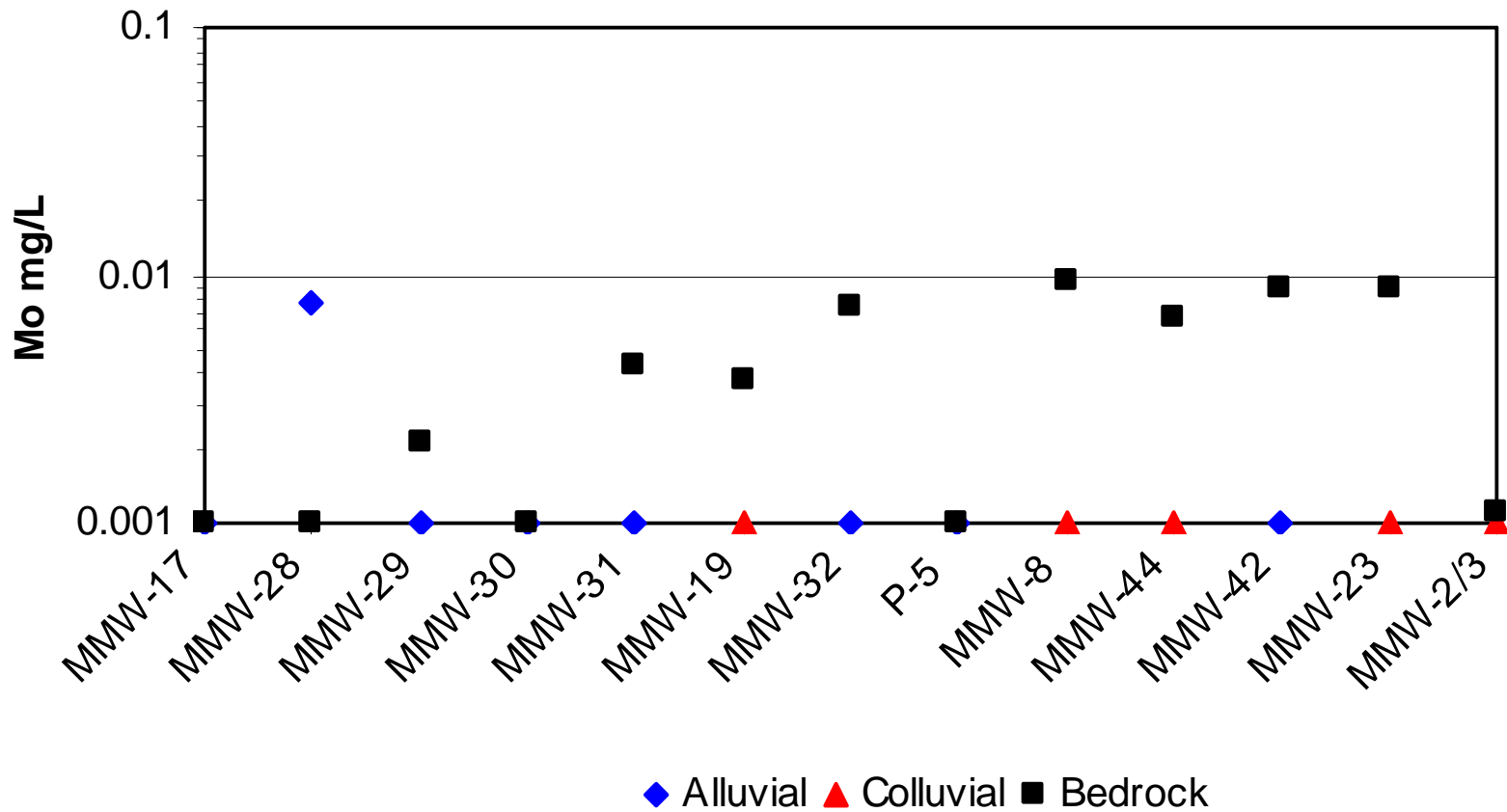
Dissolved Aluminum in Paired Wells Fall 2002 (Mine Site)



Fluoride in Paired Wells Fall 2022 (Mine Site)



Total Molybdenum in Paired Wells Fall 2002 (Mine Site)





Summary Statistics of

Detections by Aquifer Type



Constituents Detected - Alluvium

Metal/Constituent	Min (mg/L)	Max (mg/L)	Ave (mg/L)	Max Well	Number of Detects
Aluminum	0.0815	187	45.8	MMW-42A	15
Arsenic	0.00042	0.0294	0.022	MMW-29A	5
Barium	0.013	0.0372	0.025	MMW-43A	2
Beryllium	0.00025	0.0365	0.0159	MMW-42A	14
Boron	0.0064	0.0319	0.0169	MMW-29A	3
Cadmium	0.0009	0.0612	0.041	MMW-29A	3
Cobalt	0.259	0.332	0.278	MMW-42A	5
Copper	0.0016	3.44	0.849	MMW-42A	12
Iron	--	3.48	--	MMW-43A	1
Lead	--	0.0215	--	MMW-31A	1
Manganese	0.078	37.3	20.0	MMW-31A	15
Mercury	--	0.00024	--	MMW-42A	1
Molybdenum	0.0013	0.0059	0.0036	MMW-28A	2
Nickel	0.0019	0.734	0.494	MMW-30A	13
Selenium	0.0017	0.0097	0.0069	P-1	3
Silver	--	0.0012	--	MMW-42A	1
Zinc	0.107	7.45	4.71	MMW-31A	15
Fluoride	0.65	40	20.22	MMW-29A	15
Nitrate	0.56	5.2	3.63	MMW-31A	12
Sulfate	355	5770	1710	MMW-32A	15
Total Alkalinity	1.3	238	52.3	MMW-43A	6
1,1,1-Trichloroethane	--	0.002	--	MMW-28A	1
1,1-Dichloroethane	--	0.004	--	MMW-43A	1

Constituents Detected - Colluvium


Metal/Constituent	Min (mg/L)	Max (mg/L)	Ave (mg/L)	Max Well	Number of Detects
Aluminum	0.0228	418	118.5	MMW-38A	12
Antimony	--	0.038	--	MMW-22	1
Arsenic	0.00062	0.0277	0.011	MMW-11A	4
Barium	0.0096	0.0474	0.030	MMW-48A	3
Beryllium	0.00067	0.2	0.045	MMW-39A	11
Boron	0.0033	0.0467	0.020	MMW-39A	3
Cadmium	0.00063	0.202	0.051	MMW-39A	5
Chromium	--	0.0018	--	MMW-48A	1
Cobalt	0.228	2.8	0.69	MMW-38A	8
Copper	0.0024	5.9	2.0	MMW-44A	10
Iron	0.0234	179	36.03	MMW-22	7
Lead	0.0055	0.0108	0.0073	MMW-11A	3
Manganese	0.0061	248	49.6	MMW-38A	11
Molybdenum	0.0027	0.0695	0.025	MMW-40A	3
Nickel	0.011	4.87	1.085	MMW-38A	11
Selenium	0.001	0.0552	0.023	MMW-23A	6
Vanadium	0.00011	0.0028	0.0011	MMW-22	5
Zinc	0.109	30.2	8.04	MMW-38A	12
Cyanide	--	0.0234	--	MMW-39A	1
Fluoride	1.8	150	38.5	MMW-39A	12
Nitrate	1.3	87	17.4	MMW-39A	6
Sulfate	550	19200	3571	MMW-44A	12
Total Alkalinity	1.7	113	35.0	MMW-2	6
1,1,1-Trichloroethane	0.001	0.024	0.0087	MMW-8B	3
1,1-Dichloroethene	--	0.005	--	MMW-8B	1
Tetrachloroethene	--	0.001	--	MMW-44A	1
2,4,6-Trinitrotoluene	--	0.00046	--	MMW-44A	1

Constituents Detected - Bedrock

Metal/Constituent	Min (mg/L)	Max (mg/L)	Ave (mg/L)	Max Well	Number of Detects
Aluminum	0.0083	524	51.3	MMW-7	14
Antimony	0.001	0.0308	0.012	MMW-7	3
Arsenic	0.00047	0.0482	0.0085	MMW-7	7
Barium	0.0104	0.0553	0.027	MMW-30B	12
Beryllium	0.00021	0.1	0.027	MMW-34B	15
Boron	0.0054	0.22	0.036	MMW-30B	11
Cadmium	0.00022	0.0722	0.013	MMW-18B	8
Chromium	0.0058	0.008	0.0069	MMW-32B	2
Cobalt	0.0025	2.72	0.26	MMW-7	11
Copper	0.00089	2.27	0.48	MMW-36B	13
Iron	0.0248	279	33.4	MMW-7	13
Lead	0.001	0.02	0.01	MMW-7	7
Manganese	0.0052	38.6	10.5	MMW-7	20
Molybdenum	0.0012	0.112	0.021	MMW-34B	12
Nickel	0.00067	5.85	0.49	MMW-7	14
Selenium	0.00042	0.0221	0.0046	MMW-34B	10
Silver	--	0.00012	--	MMW-34B	1
Thallium	--	0.00049	--	MMW-34B	1
Vanadium	0.00013	0.126	0.024	MMW-7	7
Zinc	0.0099	11.7	2.5	MMW-18B	19
Fluoride	1.3	129	18.5	MMW-34B	20
Nitrate	0.61	74.3	16.6	MMW-24	5
Sulfate	301	16400	2459	MMW-24	20
Total Alkalinity	1.1	1230	296	MMW-30B	14
Toluene	--	0.008	--	MMW-7	1
1,1,1-Trichloroethane	0.001	0.008	0.0045	MMW-8A	2
1,1-Dichloroethene	--	0.001	--	MMW-8A	1
2,4,6-Trinitrotoluene	--	0.0089	--	MMW-30B	1
Cyclotrimethylenetrinitramine	--	0.0038	--	MMW-30B	1

Constituents Detected - Underground Water

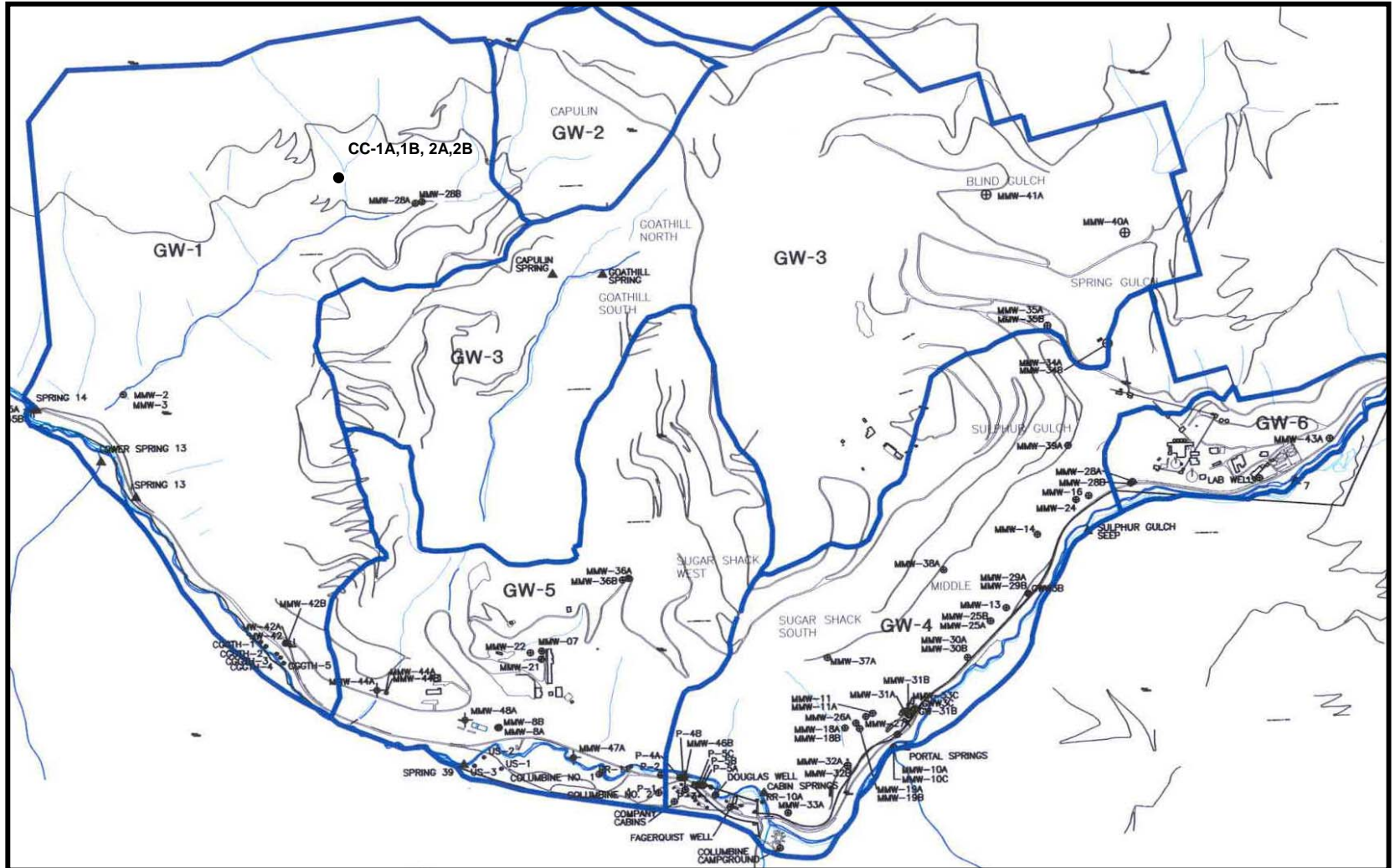
mg/L	Total	Dissolved
Aluminum	7.81	0.21
Arsenic	0.0014	0.0005
Boron	0.0129	0.0137
Cadmium	0.0039	0.0035
Cobalt	0.168	0.069
Copper	0.03	0.02
Iron	8.72	1.2
Lead	0.0034	0.0002
Manganese	40.6	39.6
Molybdenum	5.3	5.3
Nickel	0.263	0.26
Selenium	0.0057	0.0015
Zinc	3.22	2.39
Sulfate	2030	
Alkalinity	170	
Fluoride	10.9	
pH (su)	6.98	



**Comparison of Groundwater
Quality in Exposure Areas
to EPA R6
Screening Level Criteria**



Groundwater Exposure Areas



Groundwater Exposure Area 1 (Western Mine - 6 Wells)

Well Type	Metal/Constituent	Min (mg/L)	Max (mg/L)	Ave (mg/L)	Max Well	SLC (mg/L)	Number of Wells > SLC
ALLUVIUM	Aluminum	--	150	--	MMW-42A	3.7	1
	Arsenic	--	0.001	--	MMW-42A	0.000045	1
	Beryllium	--	0.0308	--	MMW-42A	0.0073	1
	Cadmium	--	0.0268	--	MMW-42A	0.0018	1
	Chromium	--	0.0256	--	MMW-42A	0.011	1
	Cobalt	--	0.249	--	MMW-42A	0.22	1
	Copper	--	2.85	--	MMW-42A	0.14	1
	Fluoride	--	21.8	--	MMW-42A	0.22	1
	Iron	--	1.63	--	MMW-42A	1.1	1
	Manganese	--	20.1	--	MMW-42A	0.17	1
	Nickel	--	0.501	--	MMW-42A	0.073	1
	Zinc	--	4.83	--	MMW-42A	1.1	1
BEDROCK	Arsenic	0.00053	0.0011	0.0008	MMW-23B	0.000045	2
	Fluoride	1.3	3	2.0	MMW-23B	0.22	3
	Iron	--	3.54	--	MMW-42B	1.1	1
	Manganese	1.55	3.46	2.2	MMW-3	0.17	2
COLLUVIUM	Aluminum	11.3	12.1	11.7	MMW-23A	3.7	2
	Arsenic	0.0035	0.172	0.088	MMW-23A	0.000045	2
	Beryllium	0.013	0.189	0.101	MMW-23A	0.0073	2
	Cadmium	0.003	0.0061	0.0045	MMW-2	0.0018	2
	Fluoride	10.6	55.5	33.05	MMW-23A	0.22	2
	Iron	2.62	13.4	8.01	MMW-2	1.1	2
	Manganese	11.4	50	30.7	MMW-23A	0.17	2
	Nickel	0.178	0.455	0.32	MMW-23A	0.073	2
Zinc	2.38	9.23	5.81	MMW-23A	1.1	2	

Groundwater Exposure Area 2 (Upper Capulin Canyon– Capulin Spring)

Metal/Constituent	Min (mg/L)	Max (mg/L)	Ave (mg/L)	SLC (mg/L)
Aluminum	--	131	--	3.7
Arsenic	--	0.0158	--	0.000045
Beryllium	--	0.051	--	0.0073
Cadmium	--	0.0597	--	0.0018
Chromium	--	0.0453	--	0.011
Cobalt	--	0.424	--	0.22
Copper	--	1.24	--	0.14
Fluoride	--	92.4	--	0.22
Iron	--	44.8	--	1.1
Manganese	--	426	--	0.17
Nickel	--	0.928	--	0.073
Zinc	--	93.2	--	1.1

Groundwater Exposure Area 3 (Central Mine – 3 Wells)

Well Type	Metal/Constituent	Min (mg/L)	Max (mg/L)	Ave (mg/L)	Max Well	SLC (mg/L)	Number of Wells > SLC
BEDROCK	Aluminum	--	55.4	--	MMW-34B	3.7	1
	Beryllium	0.0984	0.103	0.1007	MMW-35B	0.0073	2
	Cadmium	--	0.0379	--	MMW-34B	0.0018	1
	Copper	--	0.856	--	MMW-34B	0.14	1
	Fluoride	2.8	129	65.9	MMW-34B	0.22	2
	Lead	--	0.0389	--	MMW-34B	0.015	1
	Manganese	5.5	16.6	11.05	MMW-34B	0.17	2
	Molybdenum	0.0719	0.123	0.097	MMW-34B	0.018	2
	Nickel	--	0.121	--	MMW-34B	0.073	1
	Selenium	--	0.0222	--	MMW-34B	0.018	1
	Thallium	--	0.0005	--	MMW-34B	0.00026	1
	Zinc	--	5.49	--	MMW-34B	1.1	1
COLLUVIUM	Arsenic	--	0.0012	--	MMW-40A	0.000045	1
	Fluoride	--	1.9	--	MMW-40A	0.22	1
	Iron	--	1.78	--	MMW-40A	1.1	1
	Manganese	--	0.18	--	MMW-40A	0.17	1
	Molybdenum	--	0.0441	--	MMW-40A	0.018	1

Groundwater Exposure Area 4 - Alluvium (Sugar Shack/Sulphur Gulch - 10 Wells)

Well Type	Metal/Constituent	Min (mg/L)	Max (mg/L)	Ave (mg/L)	Max Well	SLC (mg/L)	Number of Wells > SLC
ALLUVIUM	Aluminum	18.5	62.5	39.0	MMW-31A	3.7	10
	Arsenic	--	0.0019	--	P-4B	0.000045	1
	Beryllium	0.0096	0.0209	0.0137	P-1	0.0073	10
	Cadmium	0.0246	0.0499	0.035	MMW-29A	0.0018	10
	Cobalt	0.256	0.267	0.262	MMW-31A	0.22	2
	Copper	0.231	1.03	0.558	MMW-31A	0.14	10
	Fluoride	17.8	40	26.0	MMW-29A	0.22	10
	Lead	--	0.023	--	MMW-31A	0.015	1
	Manganese	8.2	39.5	22.26	MMW-31A	0.17	10
	Nickel	0.376	0.743	0.492	MMW-31A	0.073	10
	Selenium	--	0.0256	--	P-4B	0.018	1
	Zinc	3.19	7.98	4.61	MMW-31A	1.1	10

Groundwater Exposure Area 4 - Bedrock (Sugar Shack/Sulphur Gulch - 9 Wells)

Well Type	Metal/Constituent	Min (mg/L)	Max (mg/L)	Ave (mg/L)	Max Well	SLC (mg/L)	Number of Wells > SLC
BEDROCK	Aluminum	33	49.6	41.3	MMW-24	3.7	2
	Arsenic	0.00047	0.0062	0.0016	MMW-30B	0.000045	6
	Beryllium	0.0166	0.0823	0.0407	MMW-31B	0.0073	3
	Cadmium	0.0039	0.0724	0.0277	MMW-18B	0.0018	4
	Copper	0.802	1.31	1.056	MMW-24	0.14	2
	Fluoride	1.7	39.9	10.8	MMW-24	0.22	9
	Iron	1.11	23.5	7.862	MMW-31B	1.1	5
	Lead	0.0174	0.0451	0.033	MMW-31B	0.015	4
	Manganese	2.45	29	13.47	MMW-31B	0.17	8
	Molybdenum	--	0.0336	--	MMW-25B	0.018	1
	Nickel	0.243	0.578	0.36	P-5C	0.073	3
Zinc	1.55	11.9	4.30	MMW-18B	1.1	5	

Groundwater Exposure Area 4 - Colluvium (Sugar Shack/Sulphur Gulch - 4 Wells)

Well Type	Metal/Constituent	Min (mg/L)	Max (mg/L)	Ave (mg/L)	Max Well	SLC (mg/L)	Number of Wells > SLC
COLLUVIUM	Aluminum	63.2	339	159.6	MMW-38A	3.7	4
	Arsenic	0.00043	0.0066	0.0037	MMW-39A	0.000045	3
	Beryllium	0.0139	0.198	0.093	MMW-39A	0.0073	4
	Cadmium	0.0409	0.176	0.098	MMW-39A	0.0018	4
	Chromium	--	0.0191	--	MMW-38A	0.011	1
	Cobalt	0.264	2.29	0.82	MMW-38A	0.22	4
	Copper	0.963	6.86	3.15	MMW-39A	0.14	4
	Fluoride	32.9	150	74.95	MMW-39A	0.22	4
	Iron	--	9.91	--	MMW-38A	1.1	1
	Lead	--	0.244	--	MMW-39A	0.015	1
	Manganese	31.4	234	99.1	MMW-38A	0.17	4
	Nickel	0.625	3.97	1.820	MMW-38A	0.073	4
	Selenium	0.0599	0.0846	0.072	MMW-38A	0.018	2
	Zinc	5.58	24.7	14.92	MMW-38A	1.1	4

Groundwater Exposure Area 5 – Alluvium (Lower Goathill Gulch/M&E – 1 Well)

Well Type	Metal/Constituent	Min (mg/L)	Max (mg/L)	Ave (mg/L)	Max Well	SLC (mg/L)	Number of Wells > SLC
ALLUVIUM	Aluminum	--	14.6	--	MMW-47A	3.7	1
	Arsenic	--	0.0012	--	MMW-47A	0.000045	1
	Cadmium	--	0.0203	--	MMW-47A	0.0018	1
	Copper	--	0.228	--	MMW-47A	0.14	1
	Fluoride	--	17.2	--	MMW-47A	0.22	1
	Manganese	--	6.81	--	MMW-47A	0.17	1
	Nickel	--	0.315	--	MMW-47A	0.073	1
	Zinc	--	2.7	--	MMW-47A	1.1	1

Groundwater Exposure Area 5 – Bedrock (Lower Goathill Gulch/M&E – 4 Wells)

Well Type	Metal/Constituent	Min (mg/L)	Max (mg/L)	Ave (mg/L)	Max Well	SLC (mg/L)	Number of Wells > SLC
BEDROCK	Aluminum	9	292	123.5	MMW-7	3.7	3
	Antimony	--	0.0042	--	MMW-44B	0.0015	1
	Arsenic	0.0033	0.0049	0.0041	MMW-7	0.000045	3
	Beryllium	--	0.0453	--	MMW-7	0.0073	1
	Cadmium	0.0042	0.0331	0.0186	MMW-7	0.0018	2
	Chromium	0.0334	0.0443	0.0389	MMW-7	0.011	2
	Cobalt	0.338	1.51	0.924	MMW-7	0.22	2
	Copper	0.899	2.3	1.6	MMW-36B	0.14	2
	Fluoride	2.2	124	41.0	MMW-7	0.22	4
	Iron	22.6	153	107	MMW-7	1.1	3
	Lead	--	0.0188	--	MMW-7	0.015	1
	Manganese	2.3	23	13.95	MMW-36B	0.17	4
	Nickel	0.619	3.38	2.0	MMW-7	0.073	2
	Thallium	0.00034	0.0004	0.00037	MMW-7	0.00026	3
	Zinc	1.45	10.4	5.12	MMW-44B	1.1	3

Groundwater Exposure Area 5 – Colluvium (Lower Goathill Gulch/M&E – 5 Wells)

Well Type	Metal/Constituent	Min (mg/L)	Max (mg/L)	Ave (mg/L)	Max Well	SLC (mg/L)	Number of Wells > SLC
COLLUVIUM	Aluminum	16.8	232	114.8	MMW-44A	3.7	4
	Arsenic	0.00099	0.0019	0.0013	MMW-44A	0.000045	2
	Beryllium	0.0263	0.0411	0.0319	MMW-44A	0.0073	3
	Cadmium	0.0019	0.0317	0.0141	MMW-44A	0.0018	5
	Chromium	0.0192	0.0589	0.039	MMW-44A	0.011	2
	Cobalt	0.228	0.497	0.362	MMW-21	0.22	4
	Copper	1.01	4.47	2.52	MMW-44A	0.14	3
	Fluoride	1.8	32.5	22.1	MMW-48A	0.22	5
	Iron	3.12	130	42.2	MMW-22	1.1	4
	Manganese	8.14	26.5	14.7	MMW-44A	0.17	4
	Nickel	0.097	0.948	0.65	MMW-21	0.073	5
	Selenium	--	0.0264	--	MMW-44A	0.018	1
	Thallium	--	0.00044	--	MMW-22	0.00026	1
	Zinc	2.25	6.37	3.4	MMW-44A	1.1	4

Groundwater Exposure Area 6 (Mill – 5 Wells)

Well Type	Metal/Constituent	Min (mg/L)	Max (mg/L)	Ave (mg/L)	Max Well	SLC (mg/L)	Number of Wells > SLC
ALLUVIUM	Aluminum	--	10.9	--	MMW-17A	3.7	1
	Arsenic	--	0.0005	--	MMW-43A	0.000045	1
	Cadmium	--	0.0022	--	MMW-17A	0.0018	1
	Fluoride	0.65	2.40	1.58	MMW-43A	0.22	3
	Iron	--	4.61	--	MMW-43A	1.1	1
	Manganese	1.84	3.22	2.53	MMW-43A	0.17	2
	Nickel	--	0.0897	--	MMW-17A	0.073	1
BEDROCK	Aluminum	7.65	10.9	9.275	MMW-17B	3.7	2
	Cadmium	0.0019	0.0044	0.0032	MMW-28B	0.0018	2
	Fluoride	1.6	2.2	1.9	MMW-28B	0.22	2
	Manganese	1.8	2.05	1.93	MMW-28B	0.17	2
	Nickel	0.0764	0.083	0.08	MMW-17B	0.073	2

MMW-17 - Reference Alluvial Well

- Al, Cd, Co, Fluoride, Mn and Ni were greater than EPA SLC

USGS Reference Wells

- Capulin Canyon – CC-1A, 1B, 2A and 2B first sampled in March 2003
- Straight Creek – SC-1A, 1B, 2A, 2B, 3A, 3B, 4A, 5A and 5B first sampled in March 2002