

**FLORENCE COPPER INC.
FLORENCE COPPER PROJECT
FOURTH QUARTER 2004 MONITORING REPORT
U.I.C. PERMIT AZ396000001
AND
A.P.P. PERMIT 101704**

January 28, 2005

MERRILL MINING, LLC
975 Johnson Ferry Road, Suite 450
Atlanta, Georgia 30342
404-495-9577 Fax: 404-495-9578

HUGH NOWELL
CORPORATE COUNSEL

January 28, 2005

Mr. Martin Zeleznik
Ground Water Office WTR-0
US Environmental Protection Agency Region IX
Water Management Division (WTR-9)
75 Hawthorne Street
San Francisco, California 94105-3901

RE: MONITORING REPORT FOR UIC PERMIT NUMBER AZ396000001
FOURTH QUARTER 2004 REPORT

Dear Mr. Zeleznik,

This report is submitted in accordance with the reporting requirements of Parts II.G.2.(a) through (j) of the referenced permit. It pertains to monitoring activities conducted at the Florence In-Situ Mine Site from October 1 through December 31, 2004. Copies of records required by Part II.G.1 are maintained at the Mine Site along with other information that is summarized below.

Florence Copper is subject to the requirements of Underground Injection Control (UIC) Permit No. AZ396000001 issued by the United States Environmental Protection Agency (USEPA) on May 1, 1997, and Aquifer Protection Permit (APP) No. 101704 issued by the Arizona Department of Environmental Quality (ADEQ) on June 9, 1997, and last amended on July 16, 2004.

As you are aware, Florence Copper discontinued hydraulic control on September 1, 2004, in order to conduct groundwater quality tests in accordance with Part II.H.2 of the APP and Part II.I.2 of the UIC Permit. As a result, no extraction flows are reported under Section (b) below and the water level measurements that are reported in Section (b) reflect natural conditions, not hydraulic control. The groundwater samples were collected in December 2004 and laboratory results are now being evaluated and compiled for review and approval by ADEQ and USEPA. A preliminary evaluation of the data, however, indicates that the groundwater quality meets the criteria specified in Part II.H.2 of the APP and Part II.I.2 of the UIC Permit.

(a) A map showing the current status of the mine.

Figure 1 shows the current monitoring area including the Point of Compliance (POC) wells and the wellfield. Figure 2 shows the approximate layout of the wellfield and denotes the four well pairs. There are four injection/recovery wells and nine pumping wells. Five observation wells were installed to demonstrate net inward hydraulic gradient for the 90 days required by the permit. Solution injection began on October 31, 1997, and ceased on February 8, 1998.

(b) A table and graph showing daily cumulative injection flows and extraction flows in each active mine block over the reporting period.

Hydraulic control was discontinued on September 1, 2004, for purposes of collecting groundwater samples following a 90-day period of no hydraulic control. Accordingly there are no injection or extraction flows to report.

(c) A table and graph comparing average daily head in the four observation wells.

Although hydraulic control was not maintained during this reporting period, water level measurements were continued by manual measurements in the four observation wells and their nearest inward neighbors. Figure 1 of Attachment 1 and the supporting data show the groundwater elevations in the four well pairs.

(d) A table showing POC monitoring wells analytical results and alert levels.

The attached report *Florence Project Quarterly Compliance Monitoring Report – Fourth Quarter 2004* by Brown and Caldwell and sealed by Ms. Barbara Sylvester, Professional Engineer (Attachment 2), contains the POC monitoring records and results. Brown and Caldwell, along with Project personnel, conducted compliance sampling on October 19, October 22, October 28, and November 4, 2004.

Quarterly and biennial parameters were conducted for 29 of the 31 POC monitoring wells. POC monitoring wells M32-UBF and M33-UBF were dry and could not be sampled. All results were below the Alert Levels (ALs) or Aquifer Quality Limits (AQLs). The results are discussed in the report.

(e) Results of the monthly analyses of organic in the injectate

Organic analyses are not required because no solution was injected during the reporting period.

(f) Results of monitoring required by 40 CFR 146.33 (b)(1)

No solution was injected.

(g) Results of the mechanical integrity tests

No mechanical integrity test was required.

(h) Results of the annular conductivity monitoring

Although injection ceased in early 1998, annular conductivity measurements have continued to the present time. A graph showing measurement results for this reporting period is presented in Attachment 1, Figure 2. No unusual conditions were noted.

(i) Well and core hole plugging and abandonment.

None of the existing wells and core holes were abandoned during the report period.

(j) A summary of closure operations during the reporting period.

There were no closure operations during the reporting period.

Florence Copper, Inc., believes that you will find this report complete and in compliance with all permit conditions. Please contact me at (404) 495-9577 should you have any questions regarding this report.

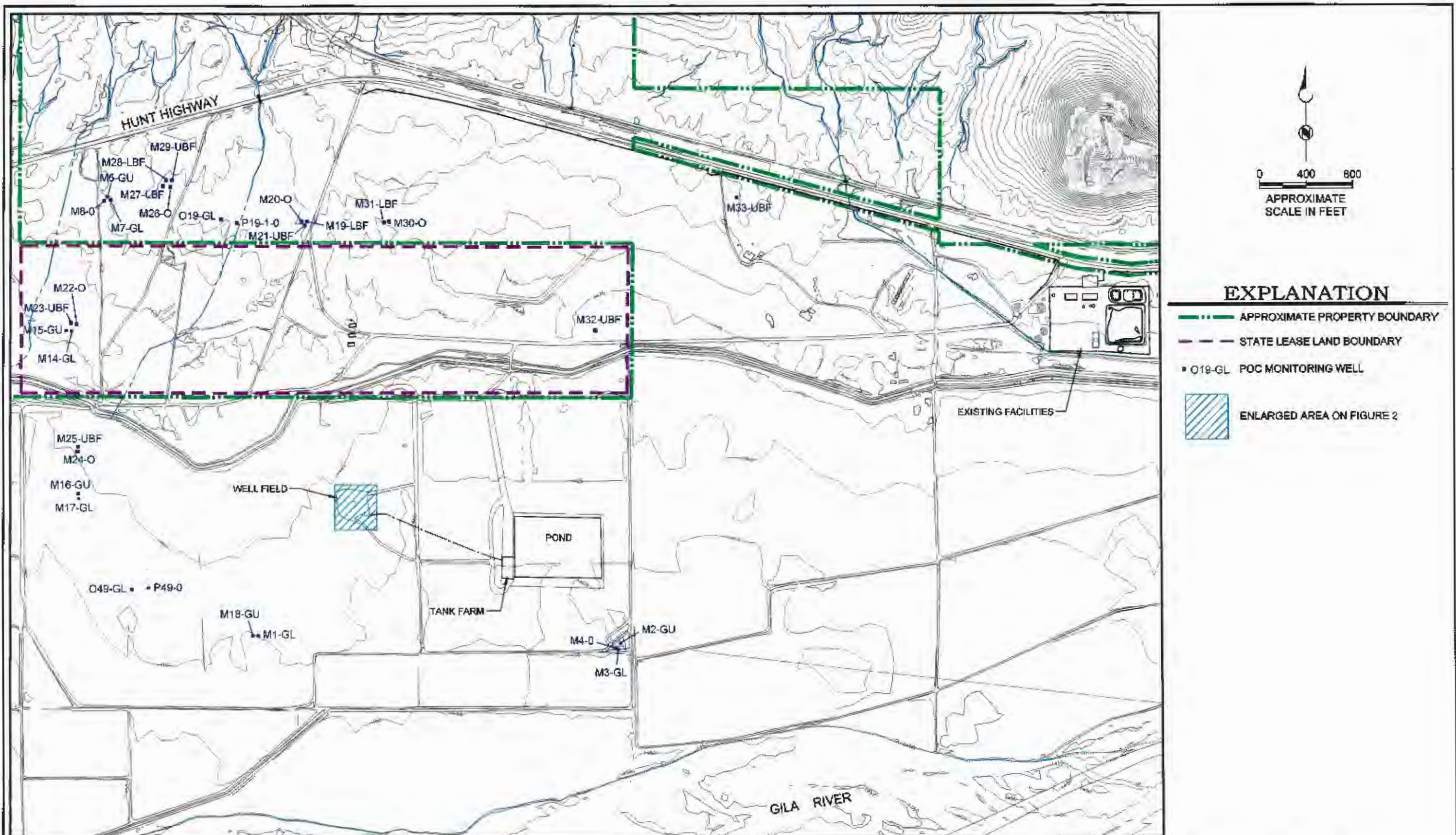
Sincerely,



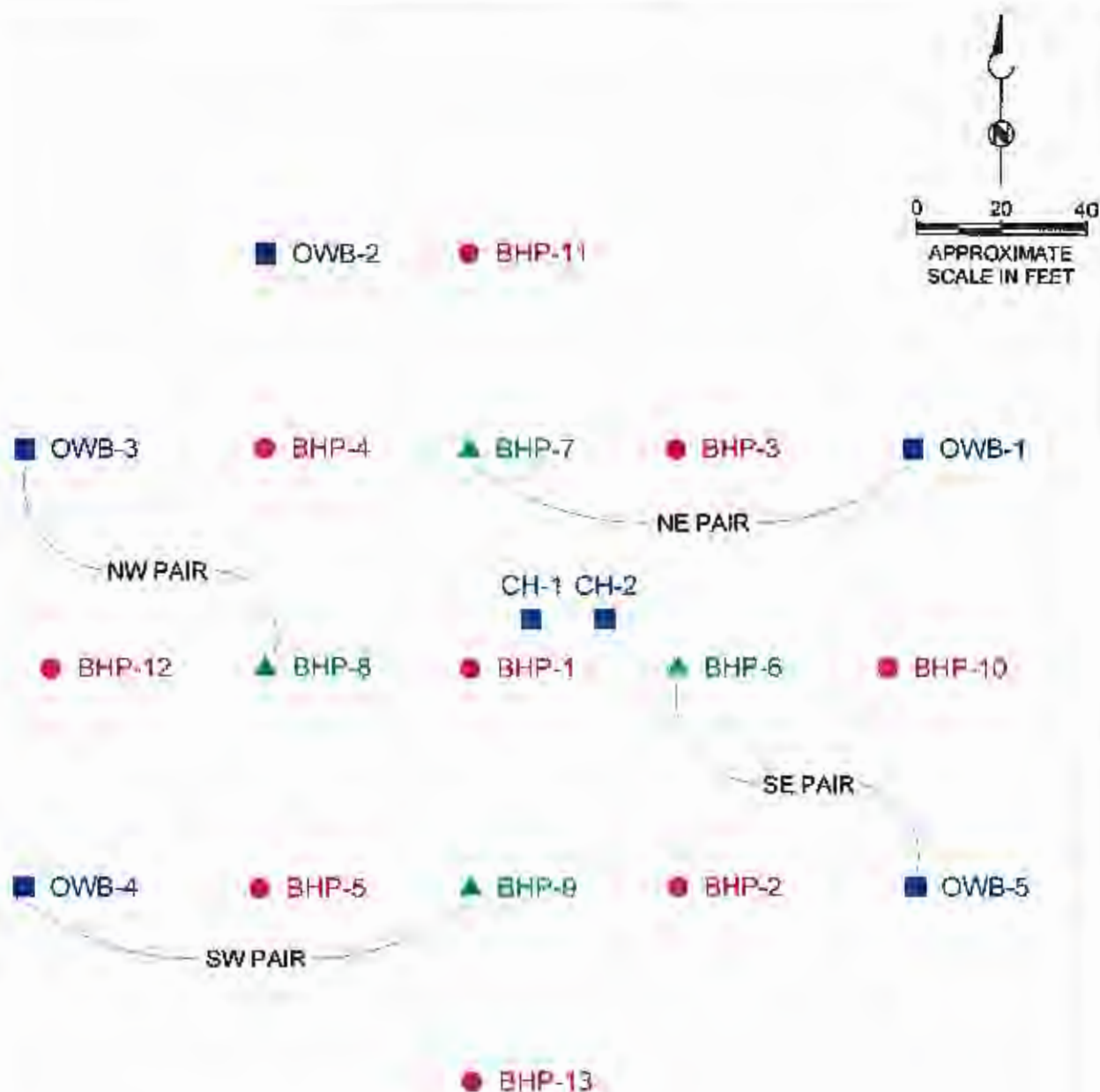
Hugh Nowell
Corporate Counsel

BAS:ld
Attachments

cc: Florence Copper File



BROWN AND
CALDWELL



EXPLANATION

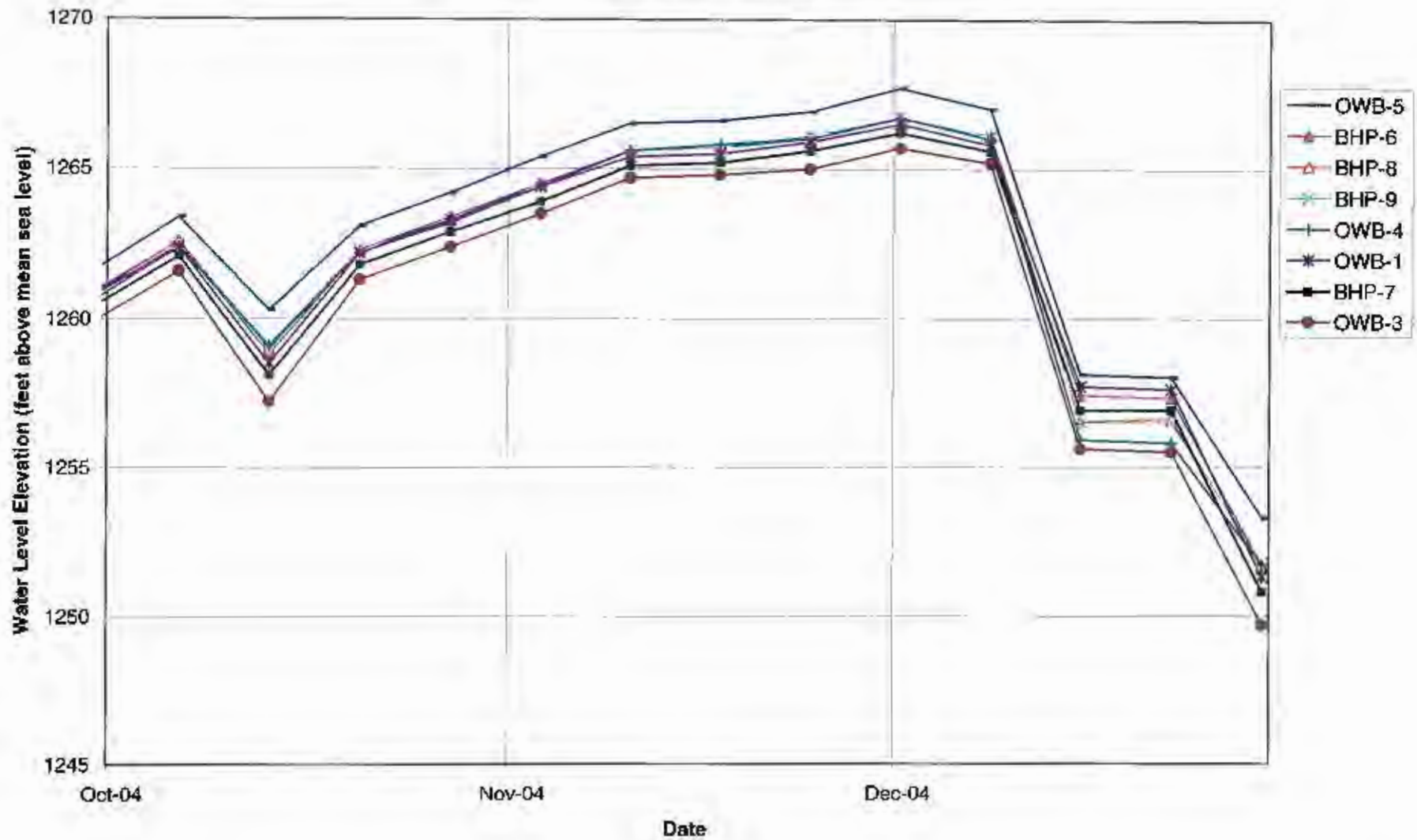
- BHP-10 PUMPING WELL (CURRENTLY INACTIVE)
- OWB-2 OBSERVATION WELL
- ▲ BHP-8 INJECTION / RECOVERY WELL (RECOVERY MODE SINCE 1998)

BROWN AND
CALDWELL

Figure 2
WELLFIELD LAYOUT
MERRILL MINING, L.L.C.
FLORENCE, ARIZONA

ATTACHMENT 1
MINE OPERATIONS MONITORING

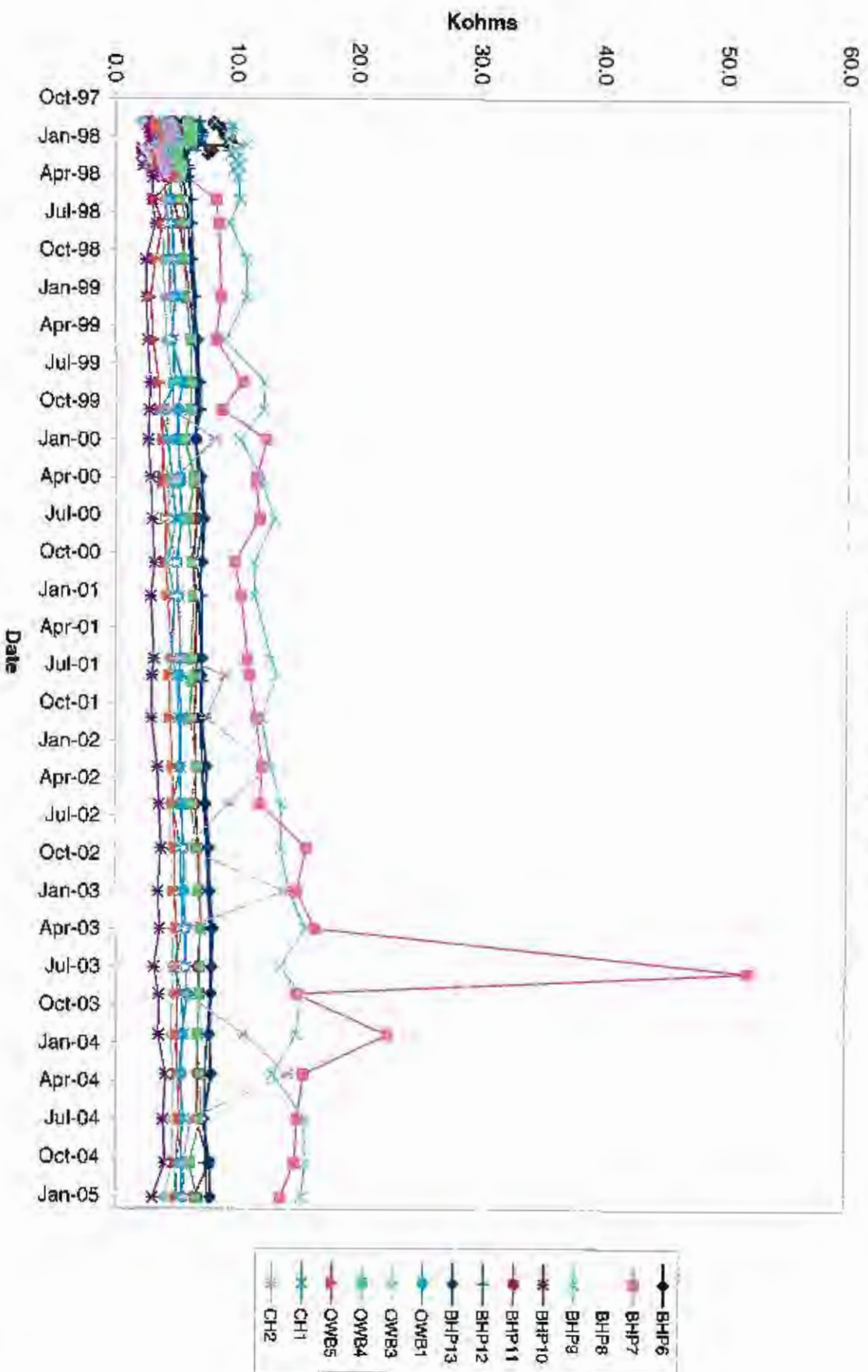
**Figure 1 - Well Field Water Elevations
Fourth Quarter 2004**



**Well Field Water Elevations
Fourth Quarter 2004**

Date	BHP-6	BHP-7	BHP-8	BHP-9	OWB-1	OWB-3	OWB-4	OWB-5
9/29/04	1260.8	1260.3	1260.7	1260.6	1260.7	1259.8	1260.5	1261.5
10/6/04	1262.6	1262.1	1262.6	1262.5	1262.4	1261.6	1262.4	1263.4
10/13/04	1258.8	1258.1	1259	1259.1	1258.5	1257.2	1259.1	1260.3
10/20/04	1262.3	1261.8	1262.3	1262.3	1262.2	1261.3	1262.2	1263.1
10/27/04	1263.4	1262.9	1263.3	1263.3	1263.3	1262.4	1263.2	1264.2
11/3/04	1264.5	1263.9	1264.5	1264.4	1264.4	1263.5	1264.4	1265.4
11/10/04	1265.6	1265.1	1265.6	1265.6	1265.4	1264.7	1265.6	1266.5
11/17/04	1265.7	1265.2	1265.7	1265.7	1265.5	1264.8	1265.8	1266.6
11/24/04	1266	1265.6	1266.1	1266.1	1265.9	1265	1266	1266.9
12/1/04	1266.7	1266.2	1266.7	1266.7	1266.5	1265.7	1266.7	1267.7
12/8/04	1266.1	1265.6	1266.1	1266.1	1265.8	1265.2	1266	1267
12/15/04	1257.4	1256.9	1256.5	1256.5	1257.7	1255.6	1255.9	1258.1
12/22/04	1257.3	1256.9	1256.6	1256.5	1257.6	1255.5	1255.8	1258
12/29/04	1251.7	1250.8	1251.7	1251.8	1251.3	1249.7	1251.7	1253.3
Water Level Elevations (feet AMSL)								

Figure 2 - Annular Resistivity in Kohms



ATTACHMENT 2

POC QUARTERLY COMPLIANCE MONITORING REPORT

**FLORENCE COPPER PROJECT
QUARTERLY COMPLIANCE MONITORING REPORT
FOURTH QUARTER 2004**

Primary Sampling Activities

Quarterly compliance monitoring was conducted for the Florence Copper project on October 19, 22, 28, and November 3, 2004 (Fourth Quarter 2004). Groundwater sampling and analysis was conducted in accordance with the requirements of Aquifer Protection Permit (APP) Permit Number 101704, Part IIE.3.d (Compliance Monitoring). Quarterly parameters, as listed in Part IV Table III.B of the APP were analyzed from the designated Point of Compliance (POC) wells. The quarterly parameters are magnesium, sulfate, fluoride, and total dissolved solids (TDS).

During the Fourth Quarter 2004 sampling event, 29 POC wells were sampled and a total of 116 constituents were analyzed. Two POC wells, M32-UBF and M33-UBF, were dry and could not be sampled. Of the 116 constituents analyzed, none had reported concentrations exceeding the approved alert levels (ALs).

Analyses of the samples were conducted by Aerotech Environmental Laboratories (Aerotech). Analytical results for the POC wells for the quarterly parameters are provided in Table 1 and field parameters measured during sampling are indicated in Table 2.

AL Exceedances and Verification Sampling

Part II.F.4 of the APP (AL, Aquifer Quality Limit [AQL], and Discharge Limit [DL] Contingencies) requires verification sampling for an AL exceedance. There were no AL exceedances during this quarterly sampling. No verification sampling was required.

Contingency Sampling Plan to be Implemented During First Quarter 2005

There were no AL exceedances verified during this quarterly sampling. No contingency sampling plan is required during the First Quarter of 2005.

Results of Contingency Sampling Plan Implemented from Third Quarter 2004

There were no AL exceedances during the Third Quarter 2004. Therefore, no contingency sampling plan was implemented.

Issues

There were no other issues to report during the Fourth Quarter 2004.



TABLE 1. SUMMARY OF ANALYTICAL RESULTS, QUARTERLY PARAMETERS

Well ID	Sample Date	Magnesium		Sulfate		Fluoride		Total Dissolved Solids	
		Concentration	Alert Level	Concentration	Alert Level	Concentration	Alert Level	Concentration	Alert Level
M1-GL	Oct 28 2004	20.0	31	90	109	0.76	1.3	640	1028
M2-GU	Oct 28 2004	23.0	39	120	275	0.88	1.4	770	1496
M3-GL	Oct 28 2004	20.0	36	120	187	0.72	1.3	630	1157
M4-O	Oct 28 2004	4.2	15	54	405	2.4	5.1	420	1072
M6-GU	Oct 22 2004	2.8	5.1	49	86	0.72	1.3	360	620
M7-GL	Oct 22 2004	<0.25	1	35	82	0.9	1.7	290	464
M8-O	Oct 22 2004	<0.25	1	72	122	2.0	3.6	440	609
M14-GL	Oct 22 2004	2.0	23	55	144	0.66	1.4	410	874
M15-GU	Oct 22 2004	24.0	44	73	126	0.56	1.2	720	1359
M16-GU	Oct 28 2004	30.0	52	170	248	0.63	1.1	900	1635
M17-GL	Oct 28 2004	5.7	9.3	110	209	0.78	1.6	450	831
M18-GU	Oct 28 2004	17.0	36	140	288	1.0	1.6	680	1323
M19-LBF	Oct 19 2004	13.0	21	53	89	0.54	1	460	794
M20-O	Oct 19 2004	9.4	14	66	112	0.84	1.7	480	809
M21-UBF	Oct 19 2004	30.0	87	220	487	0.77	1.1	930	2867
M22-O	Oct 22 2004	5.8	8.6	50	86	0.75	1.3	400	1094
M23-UBF	Oct 22 2004	40.0	69	250	411	0.73	1.3	1200	2392
M24-O	Oct 28 2004	11.0	19	700	1364	1.1	2.5	1300	2363
M24-O (Dup)	Oct 28 2004	10.0	19	690	1364	1.1	2.5	1300	2363
M25-UBF	Oct 28 2004	37.0	76	240	387	0.73	1.6	1200	2683
M26-O	Oct 19 2004	0.4	1	60	105	1.6	3.4	320	556
M27-LBF	Oct 19 2004	33.0	51	120	179	0.44	1	1000	1745
M28-LBF	Oct 19 2004	1.7	2.6	47	81	0.8	1.6	360	610
M29-UBF	Nov 04 2004	42.0	84	280	465	0.68	1.1	1300	2751
M30-O	Oct 19 2004	12.0	18	57	102	0.78	1.6	460	824
M31-LBF	Oct 19 2004	28.0	46	220	330	0.78	1.3	860	1665
O19-GL	Oct 22 2004	10.0	17	55	99	0.65	1.4	430	770
O49-GL	Oct 19 2004	12.0	18	83	159	0.6	1	580	849
P19-I-O	Oct 22 2004	6.0	12	63	107	1.5	2.8	440	767
P19-I-O (Dup)	Oct 22 2004	5.9	12	63	107	1.5	2.8	450	767
P49-O	Oct 19 2004	3.8	6.2	100	181	0.99	2	460	801
P49-O (Dup)	Oct 19 2004	3.8	6.2	99	181	0.99	2	440	801
Laboratory Detection Limit		0.25		2		0.4		10	
Arizona Aquifer Water Quality Standard		-		-		4		-	

All results in milligrams per liter (mg/l)
< = less than the laboratory practical quantitation limit

TABLE 2. SUMMARY OF QUARTERLY FIELD PARAMETERS

Well ID	Sample Date	Temperature (°C)	Temperature (°F)	pH	Conductivity (µmhos/cm)
M1-GL	Oct 28 2004	21.3	70.3	7.40	1035
M2-GU	Oct 28 2004	19.1	66.4	7.41	1167
M3-GL	Oct 28 2004	21.2	70.2	7.41	1013
M4-O	Oct 28 2004	22.9	73.2	7.49	624
M6-GU	Oct 22 2004	25.0	77.0	8.41	675
M7-GL	Oct 22 2004	24.3	75.7	9.24	490
M8-O	Oct 22 2004	28.7	83.7	8.76	656
M14-GL	Oct 22 2004	27.2	81.0	8.18	790
M15-GU	Oct 22 2004	25.3	77.5	7.16	1275
M16-GU	Oct 28 2004	23.9	75.0	7.63	1550
M17-GL	Oct 28 2004	28.0	82.4	8.42	819
M18-GU	Oct 28 2004	19.0	66.2	7.31	989
M19-LBF	Oct 19 2004	22.9	73.2	7.68	765
M20-O	Oct 19 2004	23.6	74.5	7.57	742
M21-UBF	Oct 19 2004	22.2	72.0	7.57	1382
M22-O	Oct 22 2004	28.8	83.8	7.62	775
M23-UBF	Oct 22 2004	23.7	74.7	6.95	2141
M24-O	Oct 28 2004	29.8	85.6	7.67	1931
M25-UBF	Oct 28 2004	20.4	68.7	7.28	1802
M26-O	Oct 19 2004	28.8	83.8	8.58	582
M27-LBF	Oct 19 2004	23.1	73.6	7.61	1535
M28-LBF	Oct 19 2004	26.1	79.0	8.13	667
M29-UBF	Nov 03 2004	22.3	72.1	7.33	1953
M30-O	Oct 19 2004	24.0	75.2	7.44	777
M31-LBF	Oct 19 2004	22.3	72.1	7.35	1332
O19-GL	Oct 22 2004	33.6	92.5	7.67	749
O49-GL	Oct 19 2004	26.3	79.3	8.07	985
P19-I-O	Oct 22 2004	24.5	76.1	7.65	NA
P49-O	Oct 19 2004	27.8	82.0	7.79	787