

**FLORENCE COPPER INC.
FLORENCE COPPER PROJECT
FOURTH QUARTER 2007 MONITORING REPORT
U.I.C. PERMIT AZ396000001
AND
A.P.P. PERMIT 101704**

JANUARY 28, 2008

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**HUGH NOWELL
CORPORATE COUNSEL**

January 28, 2008

Ms. Nancy Rumrill
U.S. Environmental Protection Agency
Region 9, Ground Water Office, WTR-9
75 Hawthorne Street
San Francisco, California 94105-3901

**RE: MONITORING REPORT FOR UIC PERMIT NUMBER AZ396000001
FOURTH QUARTER 2007 REPORT**

Dear Ms. Rumrill:

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, 2007. 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 UIC Permit No. AZ396000001 issued by the United States Environmental Protection Agency (USEPA) on May 1, 1997, and 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. A report of the results has been provided to the ADEQ and USEPA for review. The pumping wells remain off during the evaluation process. 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.

(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, and remains discontinued for evaluation of results. 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 2007* 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 9 through 11, 2007.

Quarterly parameters were conducted for 29 of the 31 POC monitoring wells. The biennial parameters benzene, ethylbenzene, toluene, and xylene (BTEX) were also collected during this event. 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.

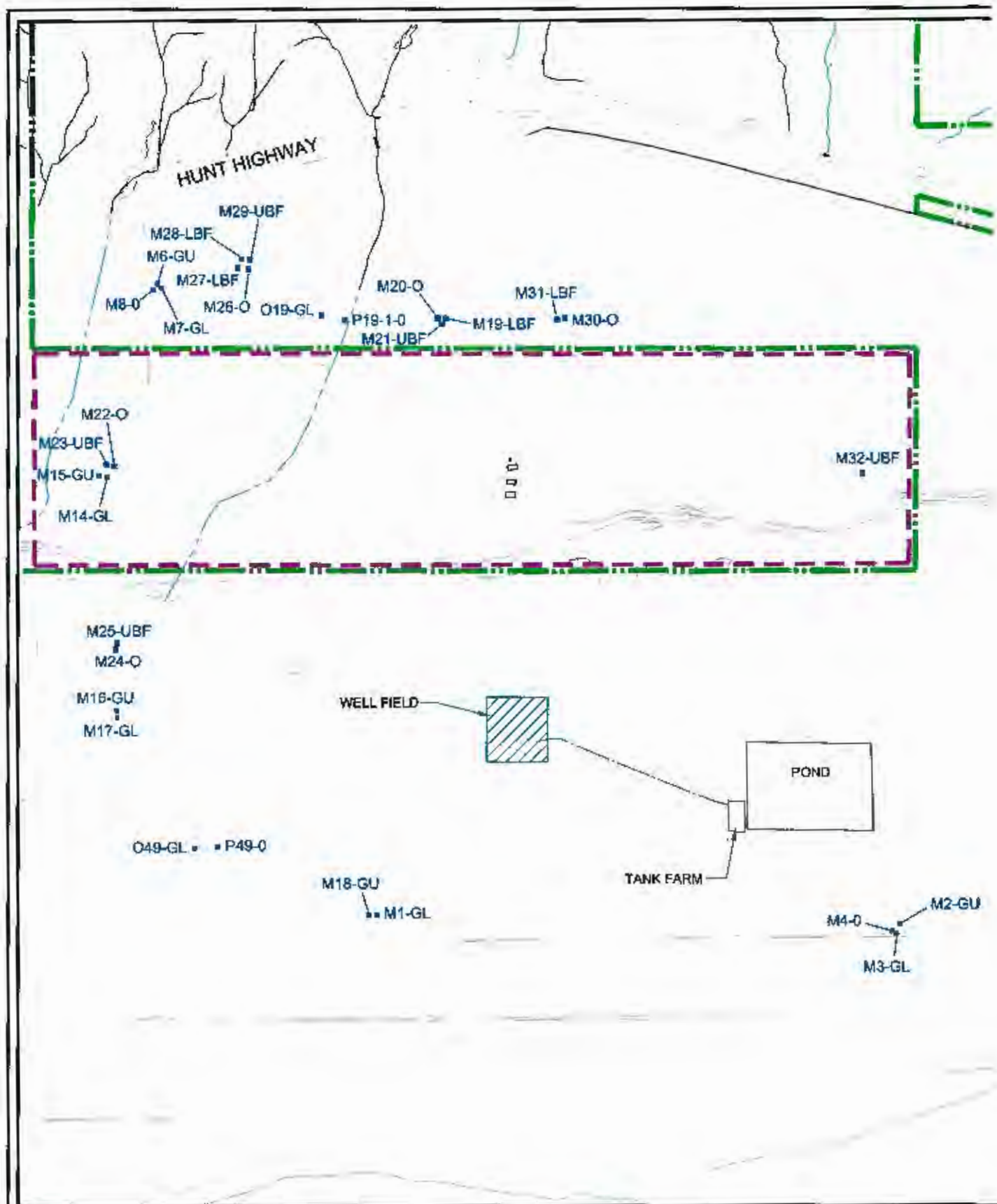
Sincerely,



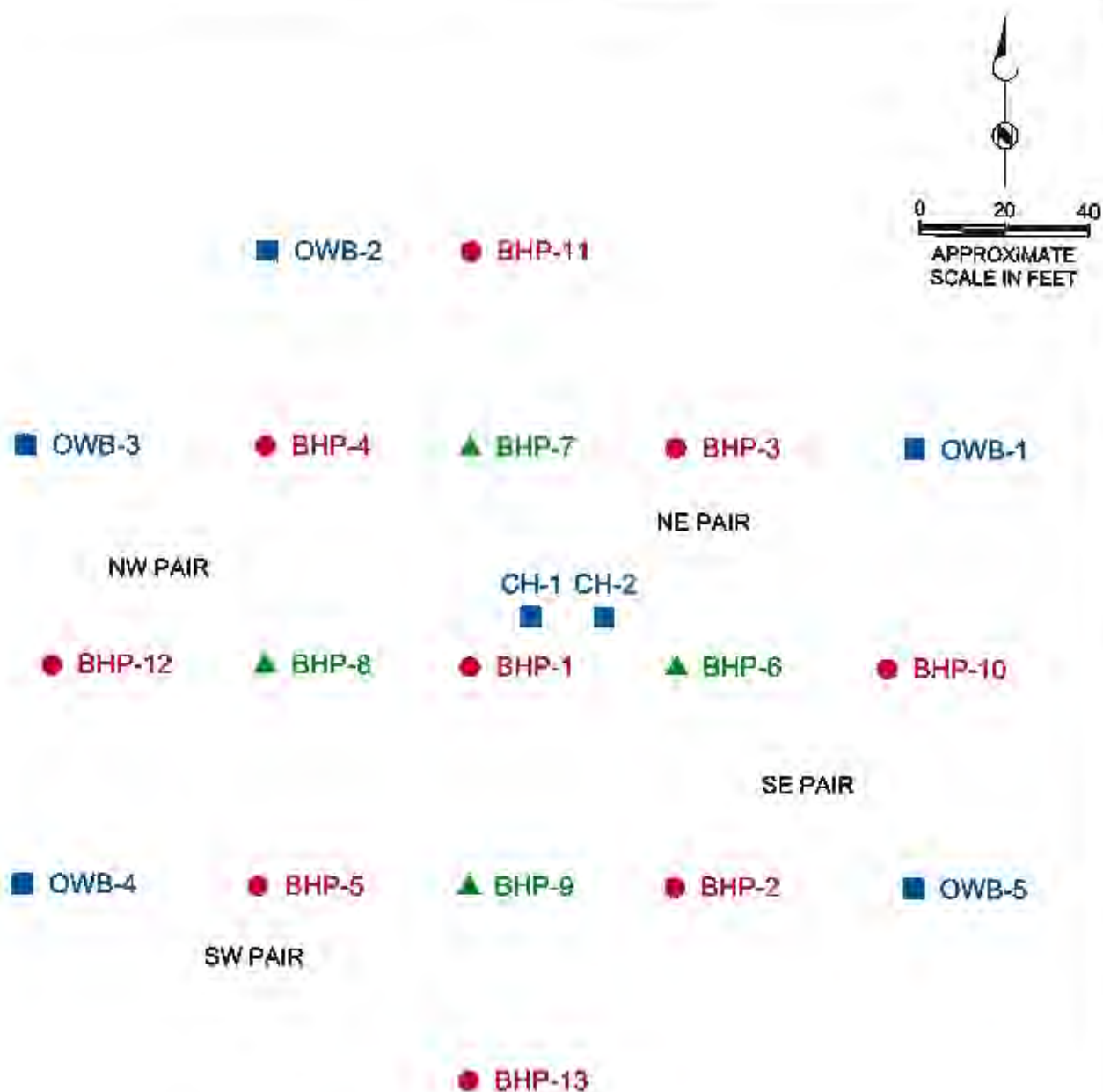
Hugh Nowell
Corporate Counsel

BAS:tc
Attachments

cc: Florence Copper File



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EXPLANATION

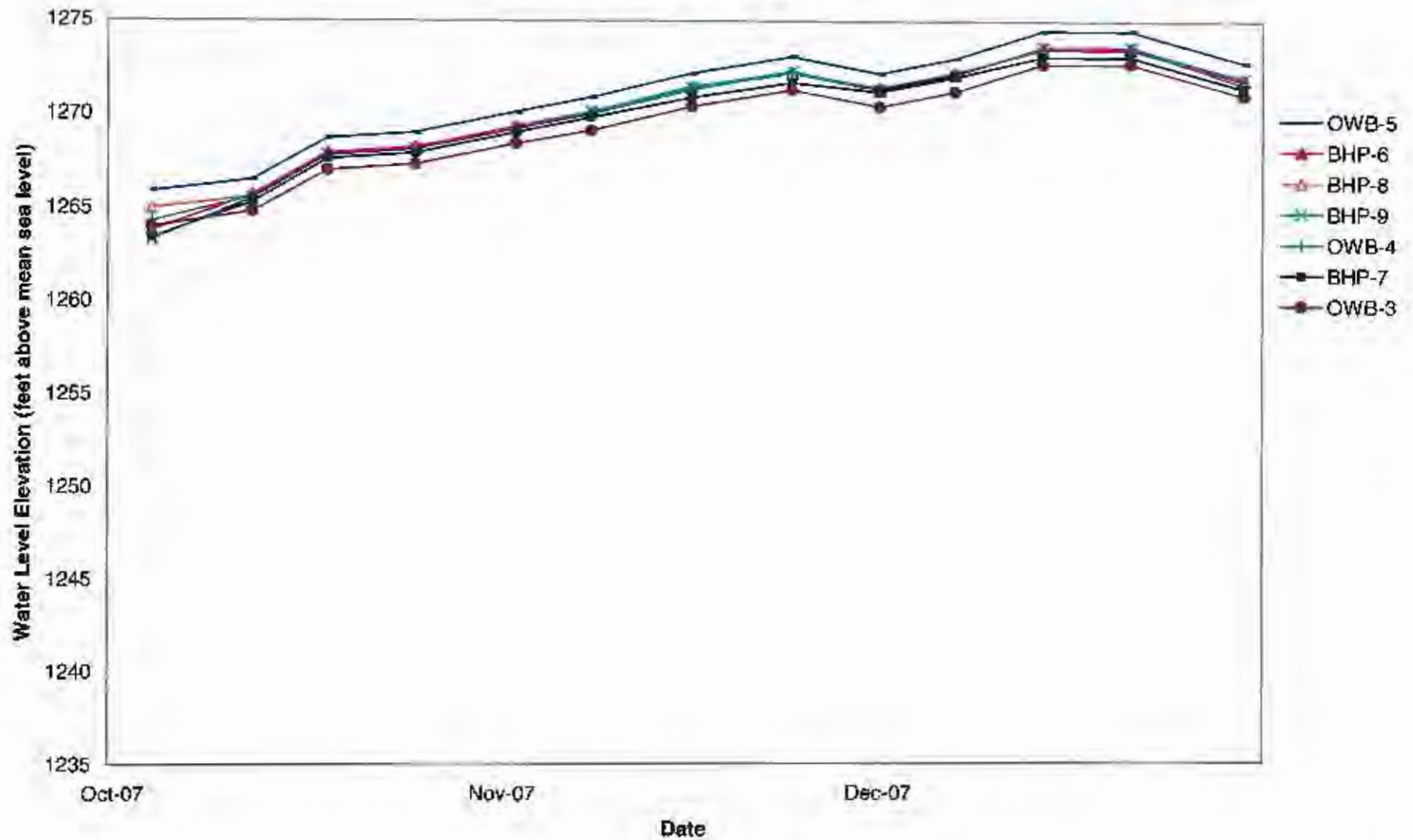
- BHP-10 PUMPING WELL (CURRENTLY INACTIVE)
- OWB-2 OBSERVATION WELL
- ▲ BHP-8 INJECTION / RECOVERY WELL (RECOVERY MODE SINCE 1998)

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

ATTACHMENT 1
MINE OPERATIONS MONITORING

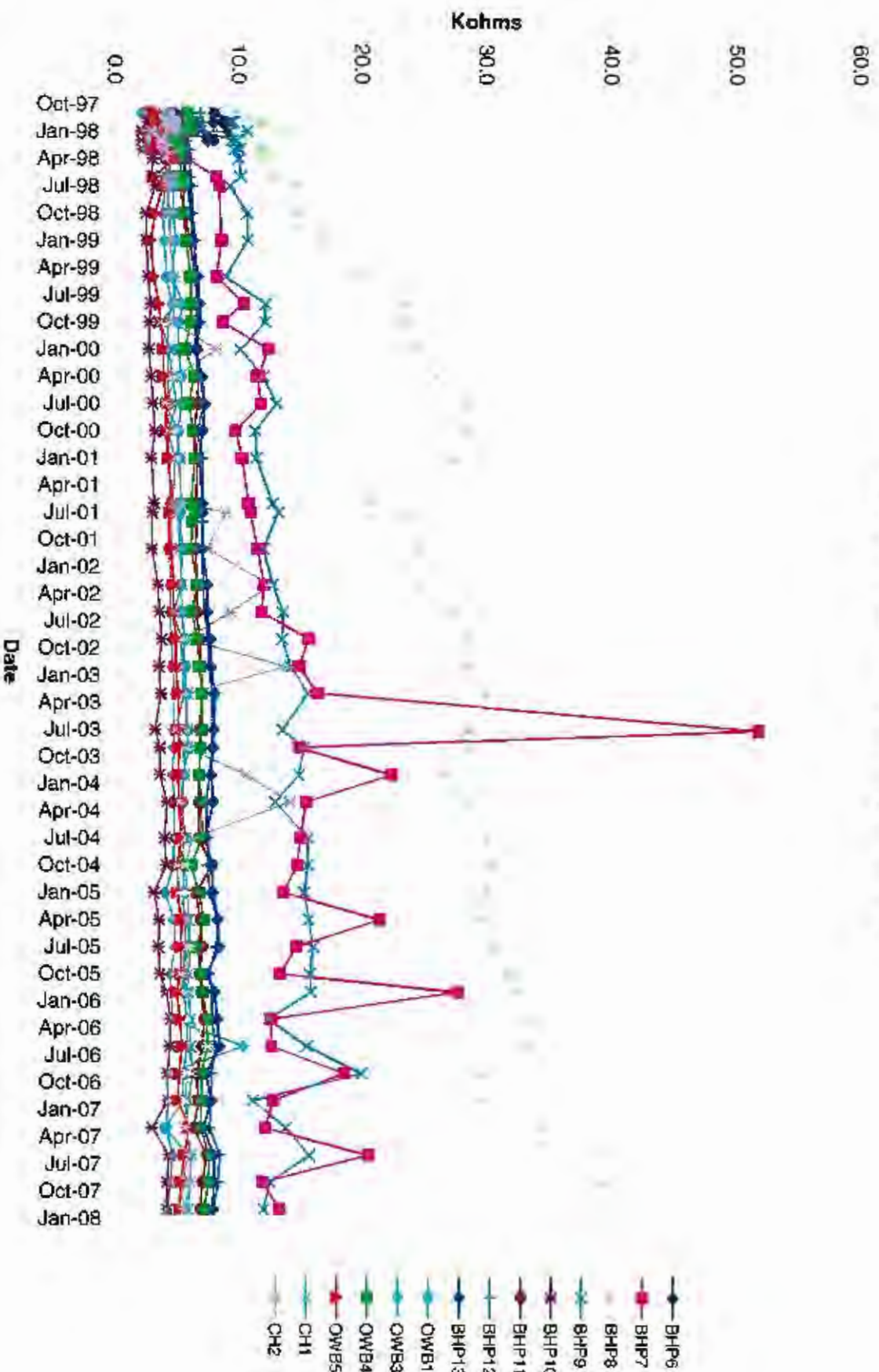
**Figure 1 - Well Field Water Elevations
Fourth Quarter 2007**



**Well Field Water Elevations
Fourth Quarter 2007**

Date	BHP-6	BHP-7	BHP-8	BHP-9	OWB-1	OWB-3	OWB-4	OWB-5
10/04/07	1263.8	1263.4	1265.0	1263.3	1264.9	1264.0	1264.3	1265.9
10/12/07	1265.7	1265.3	1265.6	1265.5	1265.6	1264.8	1265.6	1266.3
10/18/07	1267.9	1267.6	1267.8	1267.3	1267.9	1267.0	1267.8	1268.7
10/25/07	1268.2	1267.9	1268.1	1268.1	1268.2	1267.3	1268.1	1269.0
11/02/07	1269.3	1269.0	1269.2	1269.2	1269.3	1268.4	1269.2	1270.1
11/08/07	1270.1	1269.8	1270.1	1270.1	1270.0	1269.1	1270.0	1270.9
11/16/07	1271.4	1270.9	1271.5	1271.4	1271.3	1270.4	1271.3	1272.2
11/24/07	1272.2	1271.7	1272.2	1272.3	1272.0	1271.3	1272.3	1273.1
12/01/07	1271.4	1271.2	1271.3	1271.3	1270.9	1270.4	1271.3	1272.2
12/07/07	1272.2	1272.0	1272.1	1272.1	1271.7	1271.2	1272.1	1273.0
12/14/07	1273.5	1273.1	1273.6	1273.6	1273.4	1272.7	1273.6	1274.5
12/21/07	1273.5	1273.1	1273.6	1273.6	1273.4	1272.7	1273.6	1274.5
12/30/07	1271.8	1271.4	1271.9	1271.9	1271.7	1271.0	1271.6	1272.8
Water Level Elevations (feet AMSL)								

Figure 2 - Annular Resistivity in Kohms



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P:\Merrill Mining LLC\Florence Copper\130275 - Qnty Reporting 2006\Deliverables\Reports\AQ07\Annular Resistivity.xls\Chart1

1/28/2008

ATTACHMENT 2

POC QUARTERLY COMPLIANCE MONITORING REPORT

**FLORENCE COPPER PROJECT
QUARTERLY COMPLIANCE MONITORING REPORT
FOURTH QUARTER 2007**

Primary Sampling Activities

Quarterly compliance monitoring was conducted for the Florence Copper project on October 9 through 11 (Fourth Quarter 2007). 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). Additionally, the biennial parameters benzene, ethylbenzene, toluene, and xylene (BTEX) were analyzed.

During the Fourth Quarter 2007 sampling event, 29 POC wells were sampled and a total of 116 quarterly constituents and another 116 biennial constituents were analyzed. Two POC wells, M32-UBF and M33-UBF, were dry and could not be sampled. Of the 323 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. Biennial BTEX results are shown in Table 3.

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 2008

There were no AL exceedances verified during this quarterly sampling. No contingency sampling plan is required during the First Quarter of 2008.

Results of Contingency Sampling Plan Implemented from Third Quarter 2007

There were no AL exceedances during the Third Quarter 2007. Therefore, no contingency sampling plan was implemented.

Issues

There were no other issues to report during the Fourth Quarter 2007.



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 11 2007	21.0	31	97	109	0.59	1.3	620	1028
M2-GU	Oct 11 2007	30.0	39	160	275	0.61	1.4	900	1496
M3-GL	Oct 11 2007	20.0	36	130	187	0.59	1.3	620	1157
M4-O	Oct 11 2007	4.5	15	56	405	2.3	5.1	330	1072
M6-GU	Oct 10 2007	2.6	5.1	51	86	0.67	1.3	370	620
M6-GU (Dup)	Oct 10 2007	2.7	5.1	50	86	0.67	1.3	370	620
M7-GL	Oct 10 2007	0.25	1	37	82	0.85	1.7	290	464
M8-O	Oct 10 2007	0.25	1	71	122	1.9	3.6	380	609
M14-GL	Oct 10 2007	2.3	23	56	144	0.58	1.4	420	874
M15-GU	Oct 10 2007	25.0	44	74	126	0.41	1.2	750	1359
M16-GU	Oct 11 2007	31.0	52	170	248	0.44	1.1	940	1635
M17-GL	Oct 11 2007	5.8	9.3	110	209	0.68	1.6	450	831
M18-GU	Oct 11 2007	26.0	36	190	288	0.66	1.6	920	1323
M19-LBF	Oct 09 2007	12.0	21	51	89	0.43	1	450	794
M20-O	Oct 09 2007	8.4	14	66	112	0.71	1.7	440	809
M21-UBF	Oct 09 2007	19.0	87	130	487	0.74	1.1	680	2867
M22-O	Oct 10 2007	6.1	8.6	49	86	0.65	1.3	410	1094
M23-UBF	Oct 10 2007	39.0	69	220	411	0.51	1.3	1300	2392
M24-O	Oct 11 2007	11.0	19	700	1364	0.9	2.5	1200	2363
M25-UBF	Oct 11 2007	28.0	76	200	387	0.59	1.6	920	2683
M25-UBF (Dup)	Oct 11 2007	27.0	76	210	387	0.59	1.6	890	2683
M26-O	Oct 09 2007	0.25	1	61	105	1.5	3.4	320	556
M27-LBF	Oct 09 2007	34.0	51	130	179	0.3	1	980	1745
M28-LBF	Oct 09 2007	1.7	2.6	48	81	0.71	1.6	350	610
M28-LBF (Dup)	Oct 09 2007	1.7	2.6	47	81	0.71	1.6	360	610
M29-UBF	Oct 09 2007	34.0	84	240	465	0.52	1.1	2200	2751
M30-O	Oct 09 2007	11.0	18	59	102	0.66	1.6	500	824
M31-LBF	Oct 09 2007	16.0	46	130	330	0.82	1.3	590	1665
Q19-GL	Oct 10 2007	8.9	17	57	99	0.54	1.4	460	770
Q49-GL	Oct 09 2007	10.0	18	68	159	0.48	1	500	849
P19-1-O	Oct 10 2007	6.3	12	63	107	1.3	2.8	440	767
P49-O	Oct 09 2007	3.7	6.2	110	181	0.91	2	450	801
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 11 2007	21.9	71.4	7.52	1058
M2-GU	Oct 11 2007	19.6	67.3	7.34	1388
M3-GL	Oct 11 2007	21.6	70.9	7.54	1019
M4-O	Oct 11 2007	23.5	74.3	7.38	642
M6-GU	Oct 10 2007	24.5	76.1	8.69	672
M7-GL	Oct 10 2007	24.0	75.2	9.49	485
M8-O	Oct 10 2007	28.9	84.0	8.97	659
M14-GL	Oct 10 2007	27.2	81.0	8.61	797
M15-GU	Oct 10 2007	25.0	77.0	7.57	1273
M16-GU	Oct 11 2007	23.6	74.5	7.48	1527
M17-GL	Oct 10 2007	28.0	82.4	8.37	825
M18-GU	Oct 11 2007	20.0	68.0	7.36	1363
M19-LBF	Oct 09 2007	23.5	74.3	7.80	777
M20-O	Oct 09 2007	24.0	75.2	7.73	748
M21-UBF	Oct 09 2007	22.8	73.0	7.52	1055
M22-O	Oct 10 2007	28.6	83.5	8.17	777
M23-UBF	Oct 10 2007	22.0	71.6	7.28	1979
M24-O	Oct 11 2007	30.2	86.4	7.79	1918
M25-UBF	Oct 11 2007	21.0	69.8	7.22	1435
M26-O	Oct 09 2007	28.9	84.0	8.66	586
M27-LBF	Oct 09 2007	23.2	73.8	7.57	1582
M28-LBF	Oct 09 2007	26.2	79.2	8.44	665
M29-UBF	Oct 09 2007	22.5	72.5	7.27	1672
M30-O	Oct 09 2007	24.3	75.7	7.56	787
M31-LBF	Oct 09 2007	22.9	73.2	7.62	953
Q19-GL	Oct 10 2007	23.7	74.7	7.89	763
Q49-GL	Oct 09 2007	25.4	77.7	7.78	896
P19-T-O	Oct 10 2007	24.3	75.7	7.63	724
P49-O	Oct 09 2007	27.4	81.3	7.78	774

**TABLE 3. SUMMARY OF ORGANIC ANALYTICAL
RESULTS, BIENNIAL PARAMETERS**

Well ID	Sample Date	Benzene	Ethylbenzene	Toluene	Total Xylene	Total Petroleum Hydrocarbons-Diesel
M1-GL	Oct 11 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M2-GU	Oct 11 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M3-GL	Oct 11 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M4-O	Oct 11 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M6-GU	Oct 10 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M6-GU (Dup)	Oct 10 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M7-GL	Oct 10 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M8-O	Oct 10 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M14-GL	Oct 10 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M15-GU	Oct 10 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M16-GU	Oct 11 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M17-GL	Oct 11 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M18-GU	Oct 11 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M19-LBF	Oct 09 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M20-O	Oct 09 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M21-UBF	Oct 09 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M22-O	Oct 10 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M23-UBF	Oct 10 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M24-O	Oct 11 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M25-UBF	Oct 11 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M25-UBF (Dup)	Oct 11 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M26-O	Oct 09 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M27-LBF	Oct 09 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M28-LBF	Oct 09 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M28-LBF (Dup)	Oct 09 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M29-UBF	Oct 09 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M30-O	Oct 09 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
M31-LBF	Oct 09 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
O19-GL	Oct 10 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
O49-GL	Oct 09 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
P19-1-O	Oct 10 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
P49-O	Oct 09 2007	<0.0005	<0.0005	<0.0005	<0.0015	-
Alert Level		0.0025	0.35	0.5	5	R
AWQS		0.005	0.7	1	10	-
All results are in milligrams per liter (mg/L) < = less than detection limit AWQS = Arizona Aquifer Water Quality Standard R = Reserved						