



FIRST QUARTER 2014 MONITORING REPORT
UIC PERMIT AZ396000001 AND APP PERMIT 101704
FLORENCE COPPER PROJECT, FLORENCE, ARIZONA

Curis Resources (Arizona) Inc.
1575 W. Hunt Highway
Florence, AZ 85132

July 30, 2014



FLORENCE COPPER INC.

1575 W. Hunt Highway, Florence, Arizona 85132 USA

florencecopper.com

July 30, 2014

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

Sent U.S. Certified Mail
#7002 0860 0005 5148 1168
Return Receipt Requested

Subject: Second Quarter 2014 Monitoring Report
Underground Injection Control (UIC) Permit Number AZ396000001

Dear Ms. Rumrill:

Florence Copper Inc. (formerly Curis Resources (Arizona) Inc.) is submitting this report in accordance with the reporting requirements of Parts II.G.2.(a) through (j) of the UIC Permit No. AZ396000001 issued by the United States Environmental Protection Agency (USEPA) on May 1, 1997. The Florence Copper project is also subject to the requirements of Aquifer Protection Permit (APP) No. 101704 issued by the Arizona Department of Environmental Quality (ADEQ) on June 9, 1997, and last amended on February 14, 2014.

This report pertains to monitoring activities conducted at the Florence Copper project from April 1 through June 30, 2014. Copies of records required by Part II.G.1 are maintained at the mine site, along with other information that is summarized below.

As you are aware, Florence Copper discontinued hydraulic control of the original pilot test facility on September 1, 2004 in order to conduct groundwater quality tests in accordance with the APP and Part II.I.2 of the UIC Permit. A report of the results has been provided to ADEQ and USEPA for review. The recovery wells have remained off until a plan for further activity can be approved. As a result, no extraction flows or water levels are reported under Sections (b) and (c) below.

(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 well field. Figure 2 shows the approximate layout of the well field and denotes the four well observation well/recovery well pairs.

There are four injection/recovery wells and nine original recovery wells. The four injection wells were later used as recovery wells during the rising of the mine block. 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.

There are currently no active mine blocks. Hydraulic control for the test block 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 surrounding each active mine block with that of the four adjacent extraction wells.

There are currently no active mine blocks. Hydraulic control was not required during this reporting period for the test block and water level measurements are not required.

(d) A table showing POC monitoring wells analytical results and Alert Levels.

The POC Quarterly Compliance Monitoring Report is included as Attachment 1. The report summarizes the results of groundwater monitoring activities and includes tables of the field parameters and analytical results for the quarterly and biennial monitoring parameters. Brown and Caldwell, along with Project personnel, conducted quarterly compliance sampling on April 28 through May 5, and May 13, 2014, 2014.

Quarterly and biennial parameters were analyzed for 29 of the 31 POC monitoring wells. POC monitoring wells M32-UBF and M33-UBF were dry and could not be sampled. The biennial parameters listed in Table 1 of Attachment 1, include trace metals, organics, inorganics, and radionuclides.

There were no exceedances of alert levels (ALs) in the monitoring network, for quarterly or biennial parameters during the Second Quarter 2014 sampling event, with the exception of sulfate in upgradient well M1-GL at 116 mg/L, above the AL of 109 mg/L.

Sulfate has exceeded the AL in M1-GL since the Third Quarter of 2011. No AQL has been set for sulfate and there is no established AWQS. A report has been submitted demonstrating that the AL exceedance is not related to the permitted mining activities and routine quarterly monitoring for the well resumed during the Third Quarter 2012 event.

During the previous quarter well O49-GL was determined to be damaged and was replaced with well O49-GL(R). No significant changes in water quality have been observed and all results for quarterly and biennial parameters were below the ALs.

(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 conducted.

(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 on Figure 3. No unusual conditions were noted.

(i) Well and core hole plugging and abandonment.

None of the existing wells or 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 believes that you will find this report complete and in compliance with all permit conditions. Please contact me at (520) 374-3984 should you have any questions regarding this report.

Sincerely,

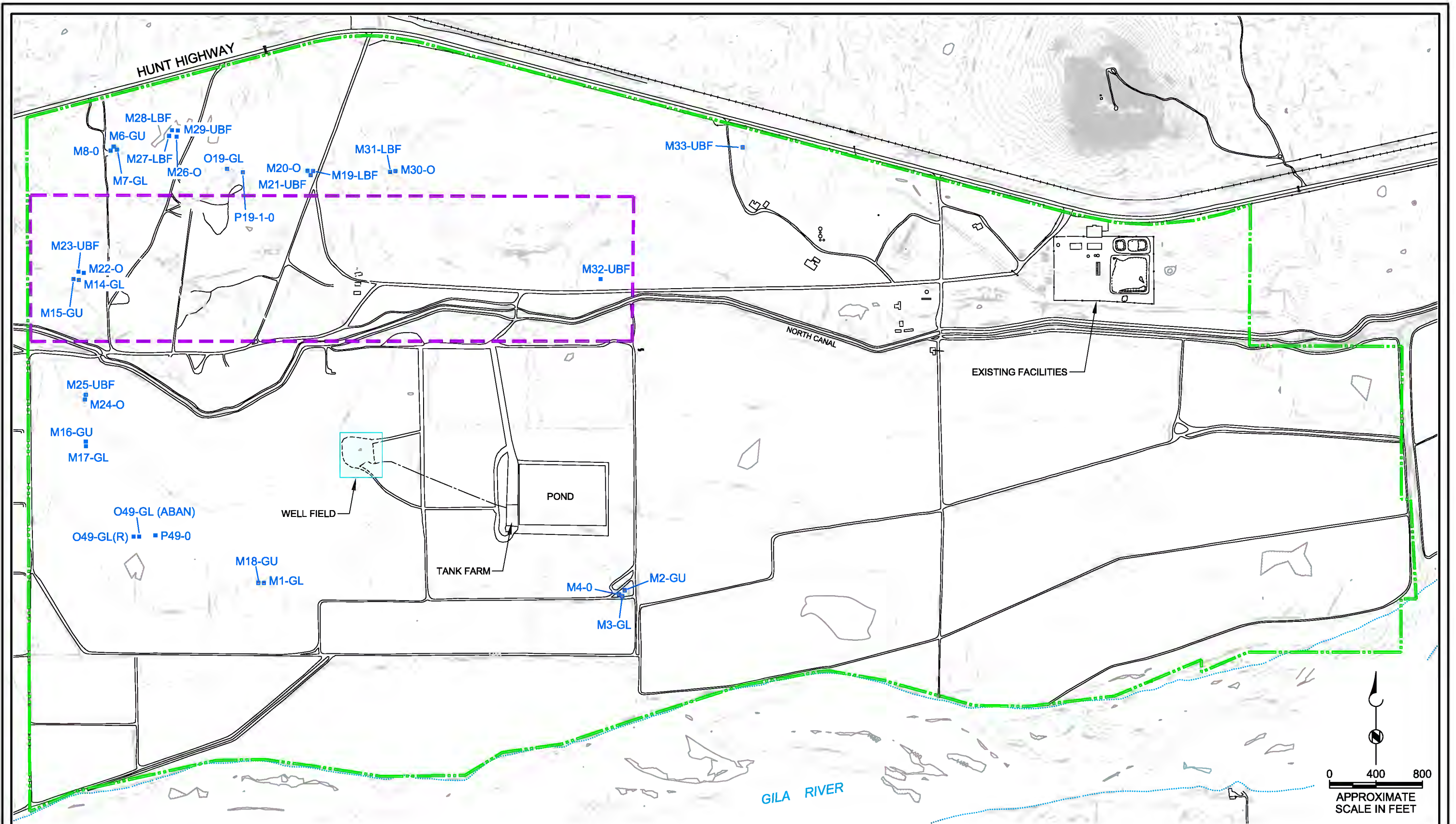
Florence Copper Inc.

A handwritten signature in blue ink, appearing to read 'Daniel Johnson', with a stylized flourish at the end.

Daniel Johnson
Vice President Environment and Technical Services

BAS:cr

Attachments
cc: Florence Copper File

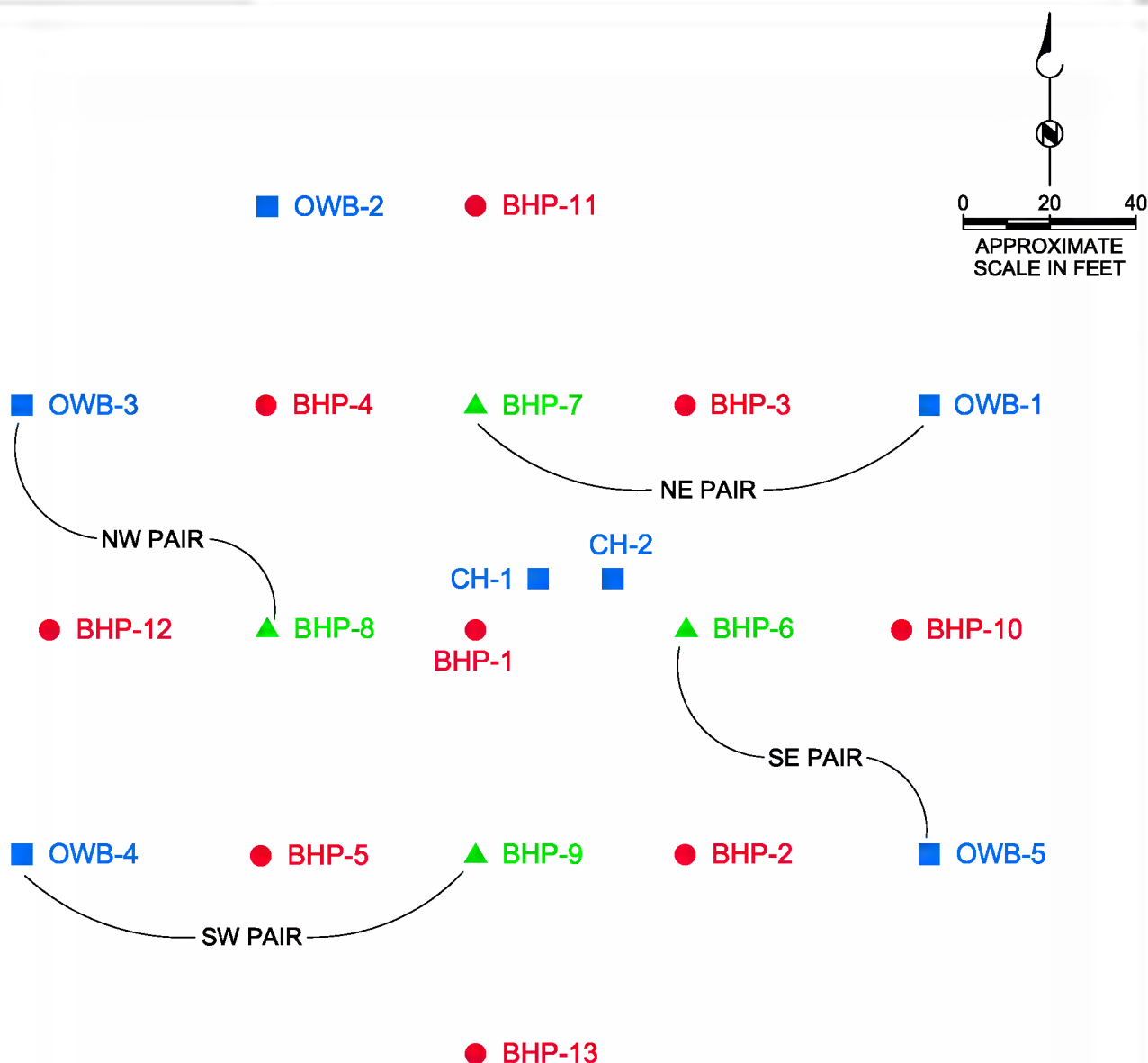


EXPLANATION

- APPROXIMATE PROPERTY BOUNDARY
- STATE LEASE LAND BOUNDARY
- M3-GL POC MONITORING WELL
- WELL FIELD DETAIL, FIGURE 2

**Brown AND
Caldwell**

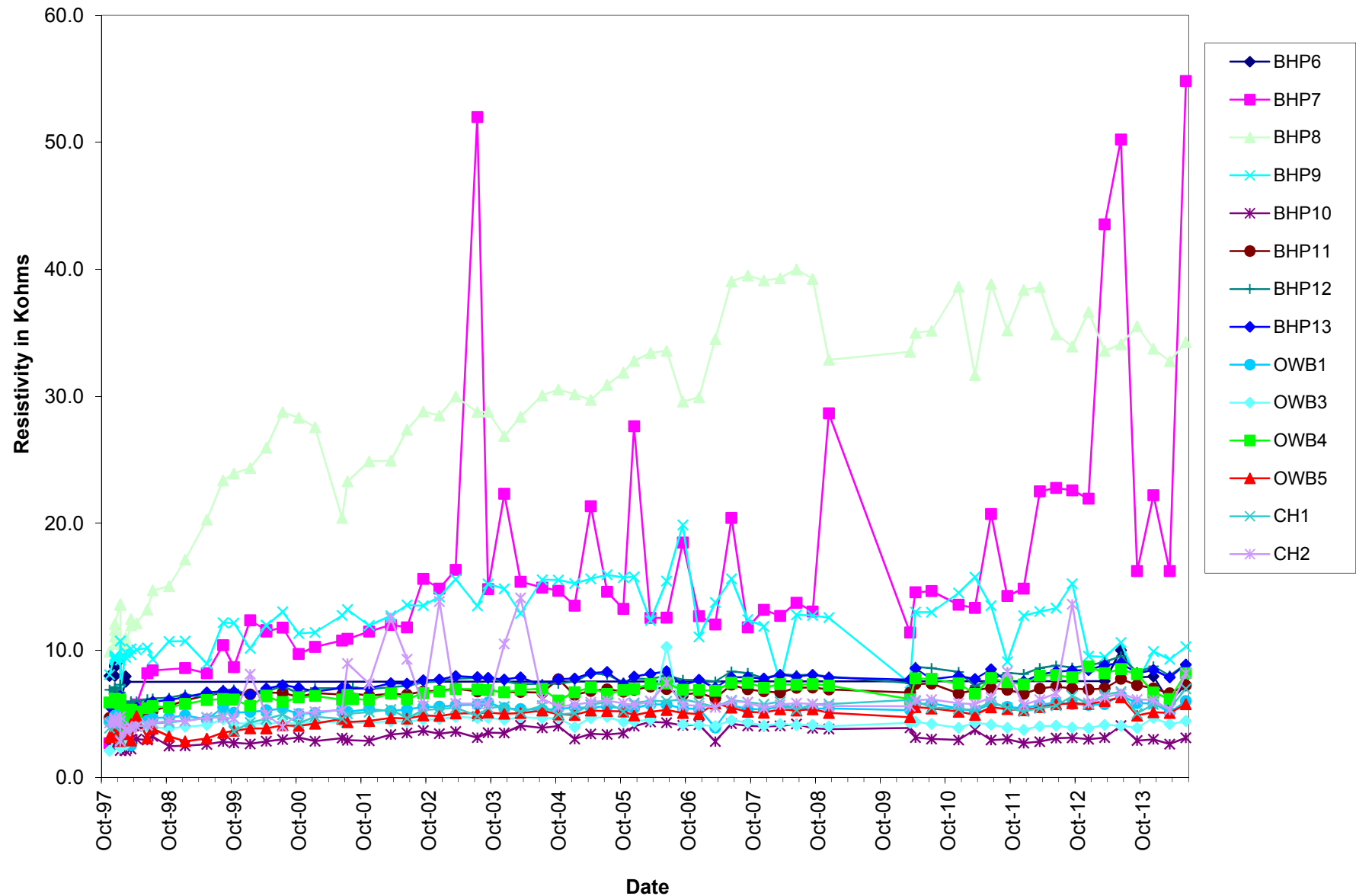
Figure 1
MONITORING AREA
FLORENCE COPPER PROJECT
FLORENCE, ARIZONA



EXPLANATION

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

Figure 3 - Well Field Annular Resistivity



ATTACHMENT 1

POC Quarterly Compliance Monitoring Report

FLORENCE COPPER PROJECT
QUARTERLY COMPLIANCE MONITORING REPORT
SECOND QUARTER 2014



Sampling Activities

Groundwater sampling at the Florence Copper Project site took place on April 28 through May 5, and May 13, 2014 (Second Quarter 2014). Groundwater sampling and analysis was conducted in accordance with the requirements of Aquifer Protection Permit (APP) No. 101704, Section 2.5.3 (Groundwater Monitoring and Sampling Protocols) and Underground Injection Control (UIC) Permit No. AZ396000001 Part II.F.

Quarterly parameters, as listed in Section 4.0 Table 4.5 of the APP, were analyzed from the designated Point of Compliance (POC) wells. The quarterly analytical parameters are magnesium, sulfate, fluoride, and total dissolved solids (TDS) in addition to field pH, temperature, and specific conductance. The field parameters of dissolved oxygen (DO) and turbidity are also monitored to determine stabilization of wells sampled using low-flow purging methods, but are not reported.

During this quarter, biennial parameters were also analyzed which include trace metals, organics, inorganics and radionuclides. The biennial parameters, listed in Section 4.0 Table 4.6 of the APP, are shown in Table 1 of this report. Total uranium is only analyzed if gross alpha exceeds 15.0 picocuries per liter (pCi/L).

During the Second Quarter 2014 sampling event, 29 POC wells were sampled. Two POC wells (M32-UBF and M33-UBF) were dry and could not be sampled. Analyses of the samples were conducted by TestAmerica Laboratories - Phoenix (TestAmerica). Radiochemical analyses were provided by Radiation Safety Engineering. Analytical results for the quarterly parameters are provided in Table 2 and field parameters measured during sampling are indicated in Table 3. Common ions are presented in Table 4, formation-related radiochemicals are presented in Table 5, process-related organics are presented in Table 6, and trace inorganics (metals) are presented in Table 7.

The majority of the monitoring well network is equipped with low-flow bladder pumps. Low-flow sampling was conducted in accordance with Section 2.5.3 (Groundwater Monitoring and Sampling Protocols). Wells M20-O, M22-O, M24-O, 049-GL(R) and P49-O are equipped with stainless-steel electric pumps, and during the Second Quarter 2014, the bladder pump in M16-GU was replaced with a stainless-steel submersible pump. The wells were sampled by purging a minimum of three borehole volumes, except for M20-O which is purged dry for two consecutive days and allowed to recharge prior to sampling. No reduced pumping volumes occurred, and there were no other modified sampling procedures noted.

There were no exceedances of alert levels (ALs) in the monitoring network, for quarterly or biennial parameters during the Second Quarter 2014 sampling event, with the exception of sulfate in upgradient well M1-GL at 116 mg/L, above the AL of 109 mg/L.

Sulfate has exceeded the AL in M1-GL since the Third Quarter of 2011. No AQL has been set for sulfate and there is no established AWQS. A report has been submitted demonstrating that the AL exceedance is not related to the permitted mining activities and routine quarterly monitoring for the well resumed during the Third Quarter 2012 event.

It should be noted that during the previous quarter well O49-GL was determined to be damaged and was replaced with well O49-GL(R). No significant changes in water quality have been observed and all the results for quarterly and biennial parameters were below the ALs.

As described above, a general increase in sulfate concentrations in M1-GL has been observed since 2000. A similar general increase has been observed in sulfate concentrations in M27-LBF since 2000; however there is no sulfate increase in nearby wells M28-LBF which is screened below M27-LBF, or M29-UBF which is screened above M27-LBF. Recently, concentrations of magnesium, sulfate, and TDS appear to be increasing in upgradient wells M2-GU, M3-GL, and M4-O. In the upper aquifer, a decreasing trend for magnesium concentrations and an increasing trend for fluoride concentrations were observed from 2000 to 2008, stabilizing since 2008. Rising concentrations were also observed in upgradient wells M2-GU and M18-GU for magnesium, sulfate, and TDS from 2005 to 2007, declining somewhat since 2008. Site-wide water levels have declined more than 50 feet in all three aquifer zones since the start of monitoring in 1996, and have been relatively stable or have recovered slightly since 2004.

Of the 23 wells with low-flow pumps, some changes in water quality have been observed, since these pumps were installed between the Third Quarter 2011 and the First Quarter of 2012. Concentrations of the indicator parameters in M26-O, and M28-LFB have decreased on an average basis from 5 percent to 60 percent. Concentrations in M4-O have increased on an average basis from 20 percent to 80 percent. The changes of concentrations are likely related to the change of sampling methodology.

Contingency Sampling Plans

No contingency sampling plan was required during the Second Quarter 2014. No contingency sampling plan is required for the Third Quarter of 2014.

Table 1. Summary of Sampling Analyses		
Analysis	Method	Preservative
Quarterly "Level I" Indicator Parameters		
Fluoride (Level I)	EPA 300.0	None
Sulfate (Level I)	EPA 300.0	None
Total Dissolved Solids (Level I)	SM 2540C	None
Magnesium (Level I)	EPA 200.7	HNO3
Biennial "Level II" Parameters		
Common Ions		
pH	SM 4500H+	None
Bicarbonate Alkalinity	SM 2320B	None
Carbonate Alkalinity	SM 2320B	None
Calcium	EPA 200.7	HNO3
Chloride	EPA 300.0	None
Fluoride (Level I)	EPA 300.0	None
Nitrate as N	EPA 300.0	None
Potassium	EPA 200.7	HNO3
Sodium	EPA 200.7	HNO3
Sulfate (Level I)	EPA 300.0	None
Total Dissolved Solids (Level I)	SM 2540C	None
Cation/Anion Balance	Calculation	-
Formation-Related Radiochemicals		
Gross Alpha	600/00-02	None
Radium 226	903	None
Radium 228	904	None
Total Uranium (if G. Alpha >15.0)	999	None
Process-Related Organics		
Extractable Fuel Hydrocarbons (Diesel Range Organics)	EPA 8015D	None
Benzene	EPA 8260B	HCl
Ethylbenzene	EPA 8260B	HCl
Toluene	EPA 8260B	HCl
Total Xylene	EPA 8260B	HCl
Trace Metals (Dissolved)		
Aluminum	EPA 200.7	HNO3
Antimony	EPA 200.8	HNO3
Arsenic	EPA 200.8	HNO3
Barium	EPA 200.8	HNO3
Beryllium	EPA 200.7	HNO3
Cadmium	EPA 200.7	HNO3
Chromium	EPA 200.8	HNO3
Cobalt	EPA 200.8	HNO3
Copper	EPA 200.8	HNO3
Iron	EPA 200.7	HNO3
Lead	EPA 200.8	HNO3

Table 1. Summary of Sampling Analyses

Analysis	Method	Preservative
Magnesium (Level I)	EPA 200.7	HNO3
Manganese	EPA 200.8	HNO3
Mercury	EPA 245.1	HNO3
Nickel	EPA 200.8	HNO3
Selenium	EPA 200.8	HNO3
Thallium	EPA 200.8	HNO3
Zinc	EPA 200.8	HNO3

Table 2. 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	May 05 2014	19	31	116	109	0.59	1.3	695	1028
M1-GL (Dup)	May 05 2014	19	31	114	109	0.61	1.3	700	1028
M2-GU	May 05 2014	24	39	185	275	0.75	1.4	928	1496
M3-GL	May 05 2014	20	36	155	187	0.61	1.3	744	1157
M4-O	May 06 2014	6.2	15	73.3	405	2.51	5.1	507	1072
M6-GU	Apr 28 2014	2.4	5.1	53.1	86	0.57	1.3	374	620
M7-GL	Apr 29 2014	<0.2	1	20.2	82	0.8	1.7	280	464
M8-O	Apr 29 2014	<0.2	1	57.3	122	2.16	3.6	377	609
M14-GL	Apr 28 2014	2.1	23	59.9	144	0.54	1.4	418	874
M15-GU	Apr 28 2014	20	44	62.9	126	0.42	1.2	629	1359
M16-GU	May 13 2014	35	52	220	248	0.55	1.1	1240	1635
M17-GL	May 02 2014	4.6	9.3	63.9	209	0.63	1.6	376	831
M18-GU	May 05 2014	20	36	161	288	0.84	1.6	850	1323
M19-LBF	May 02 2014	11	21	48.5	89	<0.4	1	465	794
M20-O	May 02 2014	8.5	14	67.6	112	0.67	1.7	480	809
M21-UBF	May 02 2014	26	87	182	487	0.68	1.1	955	2867
M22-O	Apr 30 2014	6.2	8.6	53.9	86	0.61	1.3	413	1094
M22-O (Dup)	Apr 30 2014	6.0	8.6	53.9	86	0.61	1.3	429	1094
M23-UBF	Apr 28 2014	32	69	244	411	0.66	1.3	1190	2392
M24-O	Apr 29 2014	10	19	738	1364	1.01	2.5	1270	2363
M25-UBF	Apr 29 2014	39	76	257	387	0.56	1.6	1370	2683
M25-UBF (Dup)	Apr 29 2014	41	76	261	387	0.57	1.6	1370	2683
M26-O	Apr 30 2014	<0.2	1	57.8	105	1.46	3.4	320	556
M27-LBF	Apr 30 2014	34	51	159	179	<0.4	1	1110	1745
M28-LBF	Apr 30 2014	0.79	2.6	8.26	81	0.67	1.6	333	610
M29-UBF	Apr 30 2014	33	84	244	465	0.62	1.1	1120	2751
M30-O	May 06 2014	10	18	59.6	102	0.59	1.6	516	824
M31-LBF	May 06 2014	20	46	185	330	0.78	1.3	884	1665
O19-GL	May 06 2014	10	17	58.8	99	0.51	1.4	493	770
O49-GL(R)	Apr 28 2014	11	18	72.3	159	<0.4	1	601	849
P19-1-O	May 06 2014	4.9	12	65.5	107	1.53	2.8	457	767
P49-O	Apr 30 2014	3.5	6.2	107	181	0.85	2	468	801
Arizona Aquifer Water Quality Standard		-		-		4		-	

All Results in Milligrams per Liter (mg/l)

< = Less than the Laboratory Practical Quantitation Limit



Table 3. Summary of Quarterly Field Parameters

Well ID	Sample Date	Temperature (°C)	Temperature (°F)	pH	Conductivity (µmhos/cm)
M1-GL	May 05 2014	21.3	70.3	7.45	1162
M2-GU	May 05 2014	20.9	69.6	7.26	1473
M3-GL	May 05 2014	27.6	81.7	7.38	1156
M4-O	May 06 2014	21.8	71.2	7.44	743
M6-GU	Apr 28 2014	22.6	72.7	8.10	608
M7-GL	Apr 29 2014	22.2	72.0	9.13	468
M8-O	Apr 29 2014	24.1	75.4	8.93	747
M14-GL	Apr 28 2014	22.5	72.5	8.23	718
M15-GU	Apr 28 2014	21.8	71.2	7.40	1300
M16-GU	May 13 2014	23.3	74.0	7.23	1937
M17-GL	May 02 2014	22.2	72.0	8.58	678
M18-GU	May 05 2014	20.9	69.6	7.30	1450
M19-LBF	May 02 2014	22.8	73.0	7.48	800
M20-O	May 02 2014	22.8	73.0	7.55	780
M21-UBF	May 02 2014	23.0	73.4	7.20	1535
M22-O	Apr 30 2014	26.8	80.2	8.10	726
M23-UBF	Apr 28 2014	21.6	70.9	7.10	1934
M24-O	Apr 29 2014	29.3	84.7	7.74	1730
M25-UBF	Apr 29 2014	21.4	70.5	6.96	2338
M26-O	Apr 30 2014	22.7	72.9	8.77	517
M27-LBF	Apr 30 2014	22.4	72.3	7.35	1626
M28-LBF	Apr 30 2014	23.2	73.8	9.03	579
M29-UBF	Apr 30 2014	23.4	74.1	7.12	1881
M30-O	May 06 2014	23.1	73.6	7.34	784
M31-LBF	May 06 2014	23.1	73.6	7.28	1316
O19-GL	May 06 2014	23.0	73.4	7.55	755
O49-GL(R)	Apr 28 2014	25.2	77.4	7.70	1114
P19-1-O	May 06 2014	22.4	72.3	7.36	698
P49-O	Apr 30 2014	27.7	81.9	7.52	744

°C = Degrees Celcius

°F = Degrees Fahrenheit

µmhos/cm = Micromhos per Centimeter



Table 4. Summary of Common Inorganic Analytical Results, Biennial Parameters

Well ID	Sample Date	Bicarbonate Alkalinity	Carbonate Alkalinity	Calcium	Chloride	Nitrate as N	Potassium	Sodium	pH (Lab)	Ion Balance
M1-GL	May 05 2014	142	<6.	89.9	185	4.12	4.54	104	7.7	<0.86
M1-GL (Dup)	May 05 2014	142	<6.	88.3	196	4.26	4.51	103	7.74	1.41
M2-GU	May 05 2014	194	<6.	113.	228	10.	4.38	149	7.64	<0.17
M3-GL	May 05 2014	154	<6.	92.3	183	4.2	4.88	113	7.72	<1.72
M4-O	May 06 2014	126	<6.	31.5	116	<0.1	3.93	116	7.7	0.28
M6-GU	Apr 28 2014	46	<6.	16.4	139	0.33	3.17	111	8.22	<4.54
M7-GL	Apr 29 2014	88	9.6	2.82	73	<0.1	1.28	98	9.25	<2.41
M8-O	Apr 29 2014	166	13.8	2.51	46	<0.1	1.02	134	9.09	<2.27
M14-GL	Apr 28 2014	58	<6.	17.8	159	0.96	2.95	131	8.32	<4.58
M15-GU	Apr 28 2014	130	<6.	73.9	226	2.58	4.95	112	7.59	<3.68
M16-GU	May 13 2014	170	<6.	147.	376	13.7	6.98	212	6.68	<1.97
M17-GL	May 02 2014	74	<6.	15.5	117	<0.1	4.48	113	8.66	1.99
M18-GU	May 05 2014	198	<6.	101.	187	8.19	4.34	145	7.64	<1.22
M19-LBF	May 02 2014	119	<6.	53.1	146	0.41	3.86	84	7.64	3.55
M20-O	May 02 2014	105	<6.	44.9	129	<0.1	5.28	98	7.6	<0.14
M21-UBF	May 02 2014	194	<6.	116.	243	10.2	4.93	158	7.41	0.04
M22-O	Apr 30 2014	89	<6.	34.4	132	0.45	4.06	105	8.11	0.97
M22-O (Dup)	Apr 30 2014	89	<6.	33.9	131	0.45	3.84	104	8.19	<0.19
M23-UBF	Apr 28 2014	187	<6.	156.	347	8.87	5.69	186	7.34	<4.93
M24-O	Apr 29 2014	74	<6.	128.	59	0.42	4.58	243	7.88	<1.92
M25-UBF	Apr 29 2014	207	<6.	184.	399	16.3	6.11	202	7.26	<2.51
M25-UBF (Dup)	Apr 29 2014	207	<6.	191.	403	16.4	6.33	215	7.26	<4.69
M26-O	Apr 30 2014	127	<6.	3.15	40	0.77	1.13	112	8.79	<1.73
M27-LBF	Apr 30 2014	101	<6.	146.	377	10.7	6.06	138	7.67	<3.69
M28-LBF	Apr 30 2014	80	<6.	7.24	126	<0.1	2.86	109	9.02	<1.46
M29-UBF	Apr 30 2014	207	<6.	148.	304	11.3	5.63	177	7.47	<3.28
M30-O	May 06 2014	122	<6.	54.7	144	0.57	4.87	91	7.63	3.7
M31-LBF	May 06 2014	167	<6.	107.	212	10.2	4.9	147	7.54	0.99
O19-GL	May 06 2014	112	<6.	51.5	142	0.47	4.3	88	7.78	0.74
O49-GL(R)	Apr 28 2014	104	<6.	63.8	200	4.86	5.34	120	7.78	<4.11
P19-1-O	May 06 2014	105	<6.	27.2	114	0.2	3.93	115	7.64	0.78
P49-O	Apr 30 2014	100	<6.	30.	95	0.22	3.54	119	7.76	<0.03
Alert Level		-	-	-	-	-	-	-	-	-
AWQS		-	-	-	-	10	-	-	-	-

All results in milligrams per liter (mg/L), except pH in pH units, and Ion Balance, a calculation

< = less than detection limit

AWQS = Arizona Aquifer Water Quality Standard



Table 5. Summary of Radiochemical Analytical Results, Biennial Parameters

Well ID	Sample Date	Gross Alpha	Radium 226	Radium 228	Total Radium
M1-GL	May 05 2014	3.6 ± 0.9	<0.3	<0.6	<0.6
M1-GL (Dup)	May 05 2014	4.7 ± 1	<0.3	<0.6	<0.6
M2-GU	May 05 2014	4.7 ± 1	<0.3	<0.6	<0.6
M3-GL	May 05 2014	4.2 ± 1	<0.3	<0.6	<0.6
M4-O	May 06 2014	1.9 ± 0.6	<0.3	<0.6	<0.6
M6-GU	Apr 28 2014	0.6 ± 0.4	<0.2	<0.6	<0.6
M7-GL	Apr 29 2014	0.5 ± 0.4	<0.2	<0.6	<0.6
M8-O	Apr 29 2014	3.9 ± 0.9	<0.3	<0.7	<0.7
M14-GL	Apr 28 2014	1.1 ± 0.5	<0.2	<0.6	<0.6
M15-GU	Apr 28 2014	3.1 ± 0.8	<0.2	<0.6	<0.6
M16-GU	May 13 2014	8.2 ± 1.4	<0.3	<0.6	<0.6
M17-GL	May 02 2014	0.5 ± 0.3	<0.3	<0.6	<0.6
M18-GU	May 05 2014	4.5 ± 1	<0.3	<0.6	<0.6
M19-LBF	May 02 2014	3.6 ± 0.9	<0.4	<0.6	<0.6
M20-O	May 02 2014	3 ± 0.8	<0.4	0.8 ± 0.3	0.8 ± 0.3
M21-UBF	May 02 2014	2.3 ± 0.7	<0.3	<0.6	<0.6
M22-O	Apr 30 2014	1.9 ± 0.6	<0.4	<0.6	<0.6
M22-O (Dup)	Apr 30 2014	2.2 ± 0.7	<0.4	0.9 ± 0.3	0.9 ± 0.3
M23-UBF	Apr 28 2014	5.9 ± 1.2	<0.2	<0.6	<0.6
M24-O	Apr 29 2014	5.7 ± 1.1	0.9 ± 0.1	1.3 ± 0.7	2.2 ± 0.7
M25-UBF	Apr 29 2014	6.8 ± 1.3	0.2 ± 0.1	<0.6	0.2 ± 0.1
M25-UBF (Dup)	Apr 29 2014	7.3 ± 1.3	<0.2	<0.6	<0.6
M26-O	Apr 30 2014	5.8 ± 1.1	0.6 ± 0.2	<0.6	0.6 ± 0.2
M27-LBF	Apr 30 2014	6.3 ± 1.2	<0.4	0.9 ± 0.3	0.9 ± 0.3
M28-LBF	Apr 30 2014	0.5 ± 0.3	<0.4	<0.6	<0.6
M29-UBF	Apr 30 2014	6.2 ± 1.2	<0.4	<0.6	<0.6
M30-O	May 06 2014	5.8 ± 1.2	<0.3	0.9 ± 0.3	0.9 ± 0.3
M31-LBF	May 06 2014	1.6 ± 0.6	<0.3	<0.6	<0.6
O19-GL	May 06 2014	3.3 ± 0.9	<0.3	<0.6	<0.6
O49-GL(R)	Apr 28 2014	3.9 ± 1	<0.2	<0.6	<0.6
P19-1-O	May 06 2014	2.1 ± 0.7	0.3 ± 0.1	<0.6	0.3 ± 0.1
P49-O	Apr 30 2014	1.5 ± 0.6	<0.4	<0.6	<0.6
Alert Level		15	-	-	4
Arizona Aquifer Water Quality Standard		-	-	-	5

All results in pico-curies per liter +/- a standard deviation of two (pCu/L +/- 2σ)

< = less than detection limit

Radium 226 and Radium 228 are analyzed when Gross Alpha exceeds 5.0

Total Radium = Radium 226 + Radium 228



Table 6. Summary of Organic Analytical Results, Biennial Parameters

Well ID	Sample Date	Benzene	Ethylbenzene	Toluene	Total Xylene	Total Petroleum Hydrocarbons
M1-GL	May 05 2014	<0.002	<0.002	<0.002	<0.01	<0.3
M1-GL (Dup)	May 05 2014	<0.002	<0.002	<0.002	<0.01	<0.309
M2-GU	May 05 2014	<0.002	<0.002	<0.002	<0.01	<0.306
M3-GL	May 05 2014	<0.002	<0.002	<0.002	<0.01	<0.316
M4-O	May 06 2014	<0.002	<0.002	<0.002	<0.01	<0.337
M6-GU	Apr 28 2014	<0.002	<0.002	<0.002	<0.01	<0.337
M7-GL	Apr 29 2014	<0.002	<0.002	<0.002	<0.01	<0.319
M8-O	Apr 29 2014	<0.002	<0.002	<0.002	<0.01	<0.319
M14-GL	Apr 28 2014	<0.002	<0.002	<0.002	<0.01	<0.323
M15-GU	Apr 28 2014	<0.002	<0.002	<0.002	<0.01	<0.333
M16-GU	May 13 2014	<0.002	<0.002	<0.002	<0.01	<0.323
M17-GL	May 02 2014	<0.002	<0.002	<0.002	<0.01	<0.333
M18-GU	May 05 2014	<0.002	<0.002	<0.002	<0.01	<0.309
M19-LBF	May 02 2014	<0.002	<0.002	<0.002	<0.01	<0.333
M20-O	May 02 2014	<0.002	<0.002	<0.002	<0.01	<0.333
M21-UBF	May 02 2014	<0.002	<0.002	<0.002	<0.01	<0.312
M22-O	Apr 30 2014	<0.002	<0.002	<0.002	<0.01	<0.319
M22-O (Dup)	Apr 30 2014	<0.002	<0.002	<0.002	<0.01	<0.319
M23-UBF	Apr 28 2014	<0.002	<0.002	<0.002	<0.01	<0.337
M24-O	Apr 29 2014	<0.002	<0.002	<0.002	<0.01	<0.333
M25-UBF	Apr 29 2014	<0.002	<0.002	<0.002	<0.01	<0.333
M25-UBF (Dup)	Apr 29 2014	<0.002	<0.002	<0.002	<0.01	<0.319
M26-O	Apr 30 2014	<0.002	<0.002	<0.002	<0.01	<0.337
M27-LBF	Apr 30 2014	<0.002	<0.002	<0.002	<0.01	<0.333
M28-LBF	Apr 30 2014	<0.002	<0.002	<0.002	<0.01	<0.333
M29-UBF	Apr 30 2014	<0.002	<0.002	<0.002	<0.01	0.352
M30-O	May 06 2014	<0.002	<0.002	<0.002	<0.01	<0.349
M31-LBF	May 06 2014	<0.002	<0.002	<0.002	<0.01	0.586
O19-GL	May 06 2014	<0.002	<0.002	<0.002	<0.01	<0.395
O49-GL(R)	Apr 28 2014	<0.002	<0.002	0.0034	<0.01	<0.319
P19-1-O	May 06 2014	<0.002	<0.002	<0.002	<0.01	<0.405
P49-O	Apr 30 2014	<0.002	<0.002	<0.002	<0.01	<0.333
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

' - ' = Not Analyzed

AWQS = Arizona Aquifer Water Quality Standard

R = Reserved



Table 7. Summary of Trace Metal Analytical Results, Biennial Parameters																		
Well ID	Sample Date	Aluminium	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Thallium	Zinc
M1-GL	May 05 2014	<0.1	<0.003	<0.003	0.0241	<0.001	<0.001	<0.002	<0.001	<0.003	<0.1	<0.001	<0.001	<0.0002	0.0025	<0.002	<0.001	<0.01
M1-GL (Dup)	May 05 2014	<0.1	<0.003	<0.003	0.0241	<0.001	<0.001	<0.002	<0.001	<0.003	<0.1	<0.001	0.0026	<0.0002	0.0022	<0.002	<0.001	<0.01
M2-GU	May 05 2014	<0.1	<0.003	<0.003	0.0455	<0.001	<0.001	<0.002	<0.001	<0.003	<0.1	<0.001	0.0079	<0.0002	0.0029	<0.002	<0.001	<0.01
M3-GL	May 05 2014	<0.1	<0.003	<0.003	0.0233	<0.001	<0.001	<0.002	<0.001	<0.003	<0.1	<0.001	0.0425	<0.0002	0.003	<0.002	<0.001	<0.01
M4-O	May 06 2014	<0.1	<0.003	<0.003	0.0149	<0.001	<0.001	<0.002	<0.001	0.0031	<0.1	<0.001	0.0084	<0.0002	0.0027	<0.002	<0.001	<0.01
M6-GU	Apr 28 2014	<0.1	<0.003	<0.003	0.0061	<0.001	<0.001	0.0066	<0.001	<0.003	<0.1	<0.001	0.0011	<0.0002	0.0058	<0.002	<0.001	<0.01
M7-GL	Apr 29 2014	<0.1	<0.003	<0.003	0.0039	<0.001	<0.001	<0.002	<0.001	<0.003	<0.1	<0.001	0.0112	<0.0002	<0.001	<0.002	<0.001	<0.01
M8-O	Apr 29 2014	<0.1	<0.003	<0.003	0.0018	<0.001	<0.001	0.0023	<0.001	<0.003	<0.1	<0.001	0.0079	<0.0002	<0.001	<0.002	<0.001	0.0106
M14-GL	Apr 28 2014	<0.1	<0.003	<0.003	0.0183	<0.001	<0.001	0.0066	<0.001	<0.003	<0.1	<0.001	0.0011	<0.0002	0.0063	<0.002	<0.001	<0.01
M15-GU	Apr 28 2014	<0.1	<0.003	<0.003	0.0041	<0.001	<0.001	0.0041	<0.001	<0.003	<0.1	<0.001	<0.001	<0.0002	0.0149	<0.002	<0.001	<0.01
M16-GU	May 13 2014	<0.1	<0.003	<0.003	0.0175	<0.001	<0.001	0.0023	<0.001	0.006	<0.1	<0.001	0.0136	<0.0002	0.0044	<0.002	<0.001	0.0202
M17-GL	May 02 2014	<0.1	<0.003	<0.003	0.0152	<0.001	<0.001	<0.002	<0.001	<0.003	<0.1	<0.001	0.018	<0.0002	<0.001	<0.002	<0.001	<0.01
M18-GU	May 05 2014	<0.1	<0.003	<0.003	0.046	<0.001	<0.001	<0.002	<0.001	<0.003	<0.1	<0.001	0.0012	<0.0002	0.0025	<0.002	<0.001	<0.01
M19-LBF	May 02 2014	<0.1	<0.003	<0.003	0.0328	<0.001	<0.001	<0.002	<0.001	<0.003	0.115	<0.001	0.0798	<0.0002	0.001	<0.002	<0.001	<0.01
M20-O	May 02 2014	<0.1	<0.003	<0.003	0.0122	<0.001	<0.001	<0.002	<0.001	<0.003	0.674	<0.001	0.214	<0.0002	<0.001	<0.002	<0.001	<0.01
M21-UBF	May 02 2014	<0.1	<0.003	<0.003	0.0546	<0.001	<0.001	<0.002	<0.001	<0.003	<0.1	<0.001	<0.001	<0.0002	0.0031	<0.002	<0.001	<0.01
M22-O	Apr 30 2014	<0.1	<0.003	<0.003	0.0033	<0.001	<0.001	<0.002	<0.001	<0.003	0.155	<0.001	0.015	<0.0002	<0.001	<0.002	<0.001	<0.01
M22-O (Dup)	Apr 30 2014	<0.1	<0.003	<0.003	0.0032	<0.001	<0.001	0.0023	<0.001	<0.003	0.167	<0.001	0.0153	<0.0002	<0.001	<0.002	<0.001	<0.01
M23-UBF	Apr 28 2014	<0.1	<0.003	<0.003	0.0746	<0.001	<0.001	<0.002	<0.001	<0.003	<0.1	<0.001	0.0018	<0.0002	0.0043	<0.002	<0.001	<0.01
M24-O	Apr 29 2014	<0.1	<0.003	<0.003	0.0075	<0.001	<0.001	0.0058	<0.001	0.0035	<0.1	<0.001	0.0032	<0.0002	0.0041	0.0103	<0.001	0.0162
M25-UBF	Apr 29 2014	<0.1	<0.003	<0.003	0.0901	<0.001	<0.001	0.0023	<0.001	<0.003	<0.1	<0.001	<0.001	<0.0002	0.005	<0.002	<0.001	<0.01
M25-UBF (Dup)	Apr 29 2014	<0.1	<0.003	<0.003	0.0895	<0.001	<0.001	<0.002	<0.001	<0.003	<0.1	<0.001	<0.001	<0.0002	0.0047	<0.002	<0.001	0.0113
M26-O	Apr 30 2014	<0.1	<0.003	<0.003	0.0014	<0.001	<0.001	0.0053	<0.001	<0.003	<0.1	<0.001	0.0012	<0.0002	0.0027	0.003	<0.001	<0.01
M27-LBF	Apr 30 2014	<0.1	<0.003	<0.003	0.0314	<0.001	<0.001	<0.002	<0.001	<0.003	<0.1	<0.001	<0.001	<0.0002	0.0055	<0.002	<0.001	<0.01
M28-LBF	Apr 30 2014	<0.1	<0.003	<0.003	0.0062	<0.001	<0.001	<0.002	<0.001	<0.003	<0.1	<0.001	0.0168	<0.0002	<0.001	<0.002	<0.001	<0.01
M29-UBF	Apr 30 2014	<0.1	<0.003	<0.003	0.0657	<0.001	<0.001	<0.002	<0.001	<0.003	<0.1	<0.001	0.0016	<0.0002	0.0042	<0.002	<0.001	<0.01
M30-O	May 06 2014	<0.1	<0.003	<0.003	0.0164	<0.001	<0.001	<0.002	<0.001	<0.003	<0.1	<0.001	0.0015	<0.0002	0.0082	<0.002	<0.001	<0.01
M31-LBF	May 06 2014	<0.1	<0.003	<0.003	0.0477	<0.001	<0.001	<0.002	<0.001	<0.003	<0.1	<0.001	0.0044	<0.0002	0.0027	<0.002	<0.001	<0.01
O19-GL	May 06 2014	<0.1	<0.003	<0.003	0.0358	<0.001	<0.001	<0.002	<0.001	<0.003	<0.1	<0.001	0.0049	<0.0002	0.0109	<0.002	<0.001	<0.01
O49-GL(R)	Apr 28 2014	<0.1	<0.003	<0.003	0.0075	<0.001	<0.001	0.0041	<0.001	<0.003	<0.1	<0.001	0.0057	<0.0002	0.0023	<0.002	<0.001	0.0107
P19-1-O	May 06 2014	<0.1	<0.003	<0.003	0.0024	<0.001	<0.001	<0.002	<0.001	<0.003	<0.1	<0.001	0.0013	<0.0002	0.0055	0.003	<0.001	<0.01
P49-O	Apr 30 2014	<0.1	<0.003	<0.003	0.003	<0.001	<0.001	0.003	<0.001	0.0095	<0.1	<0.001	0.002	<0.0002	<0.001	0.0021	<0.001	<0.01
Lowest Alert Level		0.71	0.005	0.026	1	0.0032	-	0.061	0.005	0.51	2.2	0.026	0.22	0.0011	0.08	0.027	-	2.5
Lowest Aquifer Quality Limit		-	0.006	0.05	2	0.004	0.005	0.1	-	-	-	0.05	-	0.002	0.1	0.05	0.002	-
Arizona Aquifer Water Quality Standard		-	0.006	0.05	2	0.004	0.005	0.1	-	-	-	0.05	-	0.002	0.1	0.05	0.002	-

All results in milligrams per liter (mg/L)
< = less than detection limit
Lowest Alert Level = Lowest alert level set for an individual metal for all wells; a higher value may apply to results from individual wells.
Lowest Aquifer Quality Limit = Lowest Aquifer Quality Limit set for an individual metal for all wells; a higher value may apply to results from individual wells.
R = Reserved
"-" = Not Analyzed

