FLORENCE COPPER

FLORENCE COPPER INC.
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florencecopper.com

February 28, 2022

ADEQ Water Quality Compliance Section
Mail Code 5415B-1
1110 West Washington Street
Phoenix, Arizona 85007

Attention: Mr. Tracy Bunch

Subject: Weekly Monitoring Report for Week Ending 2/19/2022
Florence Copper, Production Test Facility
Aquifer Protection Permit No. 101704, LTF 88973

Dear Mr. Bunch:

Florence Copper is submitting this report in accordance with Table 15 of Aquifer Protection Permit (APP) No. 101704.

This report includes In-Situ Best Available Demonstrated Control Technology (BADCT) compliance monitoring that is required to be reported on a weekly basis including:

- Recovered volume to injection volume;
- Inward hydraulic gradient; and
- Maximum injection pressure.

A map showing the location of the PTF injection, recovery, and observation wells is included as Figure 1.

Recovered Volume to Injection Volume

A summary of the injected and recovered volumes for the week of 2/13/2022 to 2/19/2022 is included in Table 1. Observation Wells O-02 and O-03 and Injection Wells I-01, I-02, I-03, and I-04 were pumped as part of the recovered volumes. Recovery Well R-09 was used as an injection well and its flows were included in the injection volumes. The total injected and recovered volumes, as well as the percent recoveries, are presented on Figure 2.

During the reporting period no exceedance of the alert level was measured for recovered volume to injected volume percent recovery.

Inward Hydraulic Gradient

Table 2 includes a summary of water levels in the recovery and observation well pairs, and the difference in head measurements. Recovery Well R-04 was down for redevelopment on 2/13/2022 to 2/15/2022.

Observation Well O-03 was down for redevelopment 2/17/2022 to 2/19/2022. Recovery Well R-03 was down for redevelopment 2/18/2022 to 2/19/2022.

Hydrographs showing the water level elevation comparisons for each recovery well and observation well pair are included in Figure 3.

During the reporting period, there were no exceedances of the alert level for the daily average water level comparisons for the inward hydraulic gradient.

Injection Pressure

A summary of the injection pressures during the reporting period is included in Table 3. During the reporting period no alert levels were exceeded for the daily maximum injection pressure.

Please contact me at 520-374-3984 if you require any additional information.

Sincerely,
Florence Copper Inc.

Brent Berg
General Manager

Attachments:
Tables and Figures

cc: Daniel Reeder, ADEQ
Nancy Rumrill, United States Environmental Protection Agency

TABLES

Table 1. Injected and recovered volumes (gallons) for the week of 2/13/2022 to 2/19/2022

Date	Daily Injection Flow (gal)	Daily Recovery Flow (gal)	% Recovery	AL % Recovery Less than
2/13/2022	140700	338100	240	106
2/14/2022	142500	331100	232	106
2/15/2022	141700	336400	237	106
2/16/2022	140600	339600	242	106
2/17/2022	141100	335200	238	106
2/18/2022	140400	334500	238	106
2/19/2022	141400	333200	236	106
Weekly Average	**141200**	**335443**	238	106
Avg Flow Rate (gpm)	98	233		

Table 2. Average daily water levels in the recovery and observation well pairs (amsl)

Well Pairs Average Daily Elevation & Gradient (feet)														
Well Pairs	2/13/22		2/14/22		2/15/22		2/16/22		2/17/22		2/18/22		2/19/22	
Well	Elev.	Gradient	Elev.	Gradient	Elev.	Gradient	Elev.	Gradient	Elev.	Gradient	Elev.	Gradient	Elev.	Gradient
R-01	1203.59		1203.28		1200.31		1200.50		1203.37		1204.15		1202.52	
O-01	1217.03	13.44	1216.22	12.94	1213.58	13.27	1212.35	11.85	1213.54	10.17	1214.43	10.28	1214.06	11.54
O-07	1223.78	20.19	1223.26	19.98	1221.22	20.91	1219.73	19.22	1220.62	17.26	1221.17	17.02	1220.76	18.24
R-02	1195.05		1184.47		1181.45		1185.72		1181.70		1182.55		1182.97	
O-01	1217.03	21.99	1216.22	31.75	1213.58	32.13	1212.35	26.63	1213.54	31.84	1214.43	31.88	1214.06	31.09
O-02	1203.85	8.81	1203.09	18.61	1194.65	13.20	1192.18	6.46	1194.34	12.64	1195.86	13.31	1196.46	13.49
R-03	1161.71		1161.71		1161.71		1139.85		1133.41					
O-02	1203.85	42.14	1203.09	41.38	1194.65	32.94	1192.18	52.33	1194.34	60.93	1195.86		1196.46	
O-03	1226.54	64.83	1228.04	66.33	1229.60	67.89	1231.65	91.80						
R-04							1131.05		1128.64		1128.70		1128.18	
O-03	1226.54		1228.04		1229.60		1231.65	100.61						
R-05	1173.75		1156.74		1155.21		1162.68		1153.65		1154.56		1154.22	
O-04	1227.04	53.29	1226.51	69.77	1225.16	69.95	1223.97	61.29	1223.80	70.15	1224.11	69.55	1223.68	69.46
R-06	1187.17		1187.09		1185.43		1184.06		1173.78		1175.05		1174.83	
O-04	1227.04	39.87	1226.51	39.42	1225.16	39.74	1223.97	39.91	1223.80	50.01	1224.11	49.06	1223.68	48.85
O-05	1226.32	39.15	1225.60	38.51	1224.10	38.67	1222.97	38.91	1222.82	49.03	1223.04	47.99	1222.63	47.80
R-07	1222.18		1220.54		1218.92		1218.31		1217.98		1217.65		1217.43	
O-05	1226.32	4.14	1225.60	5.06	1224.10	5.18	1222.97	4.66	1222.82	4.83	1223.04	5.39	1222.63	5.20
O-06	1224.59	2.41	1223.76	3.22	1222.02	3.10	1220.90	2.59	1221.13	3.15	1221.45	3.80	1221.07	3.64
R-08	1211.93		1207.86		1211.52		1203.43		1203.96		1203.57		1204.19	
O-06	1224.59	12.66	1223.76	15.90	1222.02	10.50	1220.90	17.47	1221.13	17.17	1221.45	17.88	1221.07	16.88
O-07	1223.78	11.85	1223.26	15.40	1221.22	9.70	1219.73	16.30	1220.62	16.66	1221.17	17.60	1220.76	16.57

Alert level is exceeded if gradient is less than 1 foot.

Recovery Well R-04 was down for redevelopment on 2/13/2022 to 2/15/2022. Observation Well O-03 was down for redevelopment 2/17/22 to 2/19/22.

Recovery Well R-03 was down for redevelopment 2/18/2022 to 2/19/2022.

Table 3. Injection well pressures (psi)

Date	I-01			I-02			I-03			I-04			R-09			AL
	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	Max
2/13/2022													56.22	39.01	60.73	113
2/14/2022													55.32	0.00	67.42	113
2/15/2022													54.25	49.30	60.17	113
2/16/2022													52.31	21.51	53.84	113
2/17/2022													53.10	21.17	60.15	113
2/18/2022													52.46	50.65	53.95	113
2/19/2022													53.49	52.49	54.30	113

FIGURES

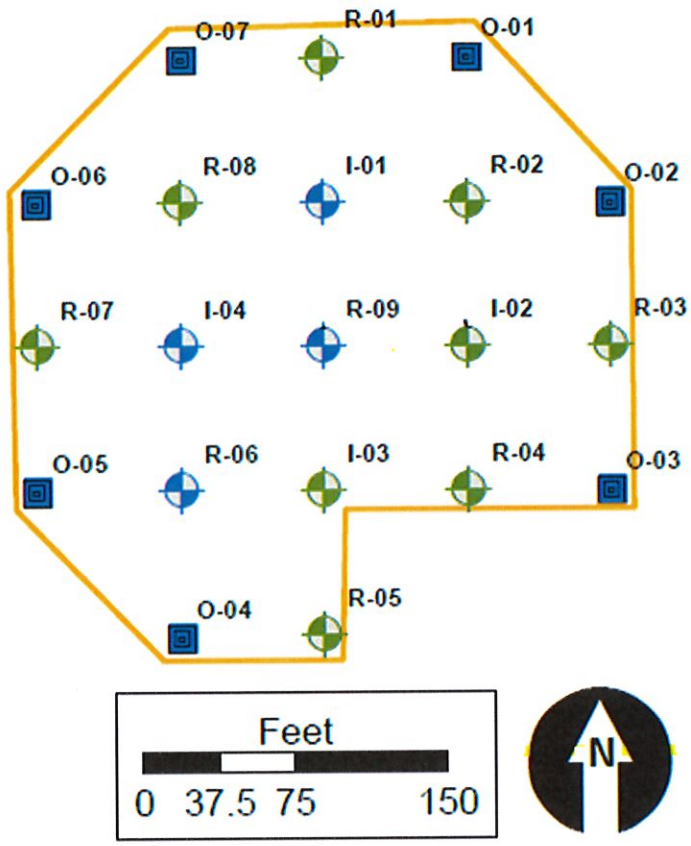

Figure 1. PTF injection, recovery, and observation well locations

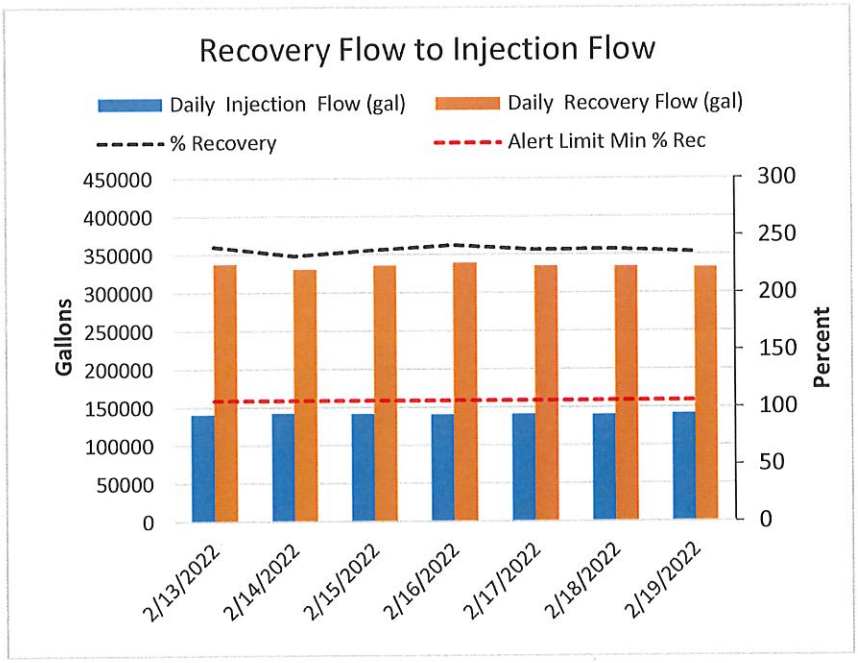

Figure 2. Recovered volume to injected volume

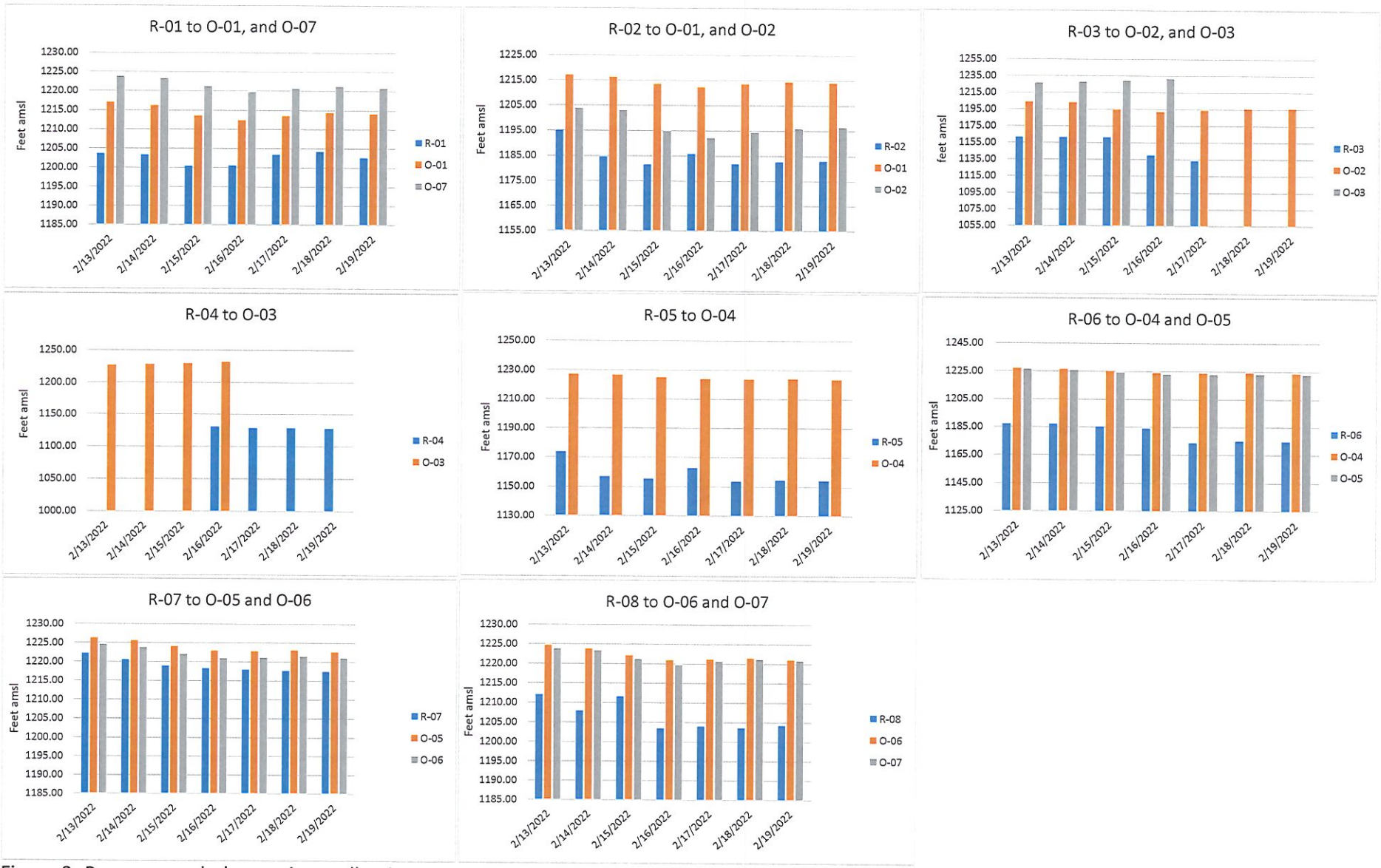

Figure 3. Recovery and observation well pairs. Recovery Well R-04 was down for redevelopment on 2/13/2022 to 2/15/2022. Observation Well O-03 was down for redevelopment 2/17/2022 to 2/19/2022. Recovery Well R-03 was down for redevelopment 2/18/2022 to 2/19/2022.