

Mr. Issac Ross
Wisconsin Department of Natural Resources
2300 North Dr. Martin Luther King, Jr. Drive
Milwaukee, Wisconsin 53212

**REQUEST FOR MODIFICATION OF THE GROUNDWATER
MONITORING SCHEDULE
FORMER ONE-HOUR VALET DRY CLEANER PROPERTY
1214 WEST WELLS STREET, MILWAUKEE, WISCONSIN
BRRTS NO. 02-41-152248, FID NO. 241086120**

Dear Mr. Ross:

On behalf of Marquette University (Marquette), Ramboll US Corporation (Ramboll) is requesting Wisconsin Department of Natural Resources (WDNR) concurrence regarding modification of the post-remedial action groundwater monitoring schedule for the Former One-Hour Valet Dry Cleaners property located at 1214 West Wells Street in Milwaukee, Wisconsin (Site). This request would change the groundwater sampling frequency from quarterly to semi-annually. The next groundwater sampling event is scheduled for February/March 2020 to comply with the requested semi-annual sampling schedule, unless we are advised otherwise by the WDNR.

Post-remediation quarterly groundwater sampling events were completed in May and August 2019, in accordance with the approved monitoring plan. Tabulated analytical and natural attenuation results are included as Table 1 and Table 2, respectively. A figure showing the monitoring well locations is attached as Figure 1.

The first two post-remediation sampling events revealed increased chlorinated volatile organic compound (CVOC) concentrations in groundwater samples from the monitoring well screened within the soil blending remediation area (PZ-1R). It should be noted, however, that (1) pre-mixing data came from a different well that was abandoned prior to mixing; and (2) the architecture of surrounding soil and contaminant distribution has been disrupted during mixing, such that groundwater samples collected from pre- and post-mixing wells are representative of different systems. Moreover, remaining concentrations of tetrachloroethene (PCE) at PZ-1R are indicative of the presence of dense non-aqueous phase liquid (DNAPL). If present, such DNAPL would represent a source of ongoing PCE mass release to groundwater via dissolution. Notwithstanding the foregoing, the detected concentration of degradation product cis-1,2-dichloroethene (cDCE) exceeded that of parent PCE for the first time in August 2019, vinyl chloride (VC) increased from non-detect in May 2019 to 1,110 micrograms per liter (µg/L) in August 2019, and non-toxic end products ethene and ethane were detected in both of the post-mixing groundwater samples from PZ-1R. These findings indicate that complete dechlorination of CVOCs is occurring within the treatment zone, and the results of the most recent (August 2019) geochemical analyses indicate that dechlorination will continue to occur.

December 4, 2019

Ramboll
175 North Corporate Drive
Suite 160
Brookfield, WI 53045
USA

T +1 262 901 0099
F +1 262 901 0079
www.ramboll.com

Ref. 1690005819

Based on communications with the remediation contractor, the zero-valent iron dosing and blended carbon substrate should provide several years of substantial reductive dechlorination. Given the likely presence of DNAPL within the treatment zone, additional time is required to reduce CVOC concentrations at the Site. As such, collection of groundwater samples on a semi-annual basis is appropriate given the current CVOC concentrations and low permeability site setting. This modification to the groundwater monitoring frequency will also make more effective use of the approved Drycleaner Environmental Response Fund (DERF) monies budgeted for post-remediation groundwater monitoring.

A detailed discussion of the 2019 post-remedial activities including monitoring well re-installation, two groundwater sampling events, soil gas sampling, and environmental activities associated with on-site parking lot construction will be presented in the 2019 Annual Monitoring Report. This report will be submitted to the WDNR in early 2020.

The next groundwater sampling event is scheduled for February/March 2020 to comply with the semi-annual sampling schedule requested herein, unless we are advised otherwise by the WDNR. Should you have any questions or comments, please do not hesitate to contact us.

Yours sincerely



Paul Lindquist

Senior Consultant
D 262-901-3510
plindquist@ramboll.com



Jeanne Tarvin, PG, CPG

Principal
D 262-901-0085
jtarvin@ramboll.com

cc: Joel Smullen, Marquette

Attachments

TABLES

Table 1
Groundwater Analytical Results - Summary of Detected Constituents
Former One-Hour Valet Dry Cleaners
1214 West Wells Street, Milwaukee, Wisconsin
Ramboll Project No. 1690005819

Analyte ^{1,2}		Benzene	Chloroform	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Ethylbenzene	Methylene chloride	Tetrachloroethene	Toluene	Trichloroethene	1,2,4-Trimethylbenzene ³	Vinyl chloride	Xylenes, total ⁴
CAS		71-43-2	67-66-3	75-35-4	156-59-2	156-60-5	100-41-4	75-09-2	127-18-4	108-88-3	79-01-6	95-63-6	75-01-4	1330-20-7
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140 ES		5	6	7	70	100	700	5	5	800	5	480	0.2	2000
NR 140 PAL		0.5	0.6	0.7	7	20	140	0.5	0.5	160	0.5	96	0.02	400
MW-1	1/14/2002	ND	<0.23	<0.27	<0.21	<0.25	<0.22	<0.24	<0.22	<0.41	0.46 J	<0.15	44	#N/A
	5/8/2002	ND	<0.1	<0.11	<0.11	<0.11	<0.08	<0.24	<0.15	<0.08	<0.13	<0.11	<0.16	#N/A
	8/7/2003	ND	<0.25	<0.5	<0.5	<0.5	<0.5	<1	<0.5	0.9	0.3 J	<0.25	<0.25	<0.5
	10/7/2003	ND	<0.25	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.25	<0.25	<0.25	<0.25	<0.5
	8/25/2009	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5
	11/1/2017	<0.50	<2.5	<0.41	<0.26	<0.26	<0.50	<0.23	<0.50	<0.50	<0.33	<0.50	<0.18	<1.5
MW-2	1/14/2002	ND	<0.23	<0.21	<0.21	<0.25	<0.22	<0.22	<0.22	<0.41	<0.24	<0.26	<0.25	#N/A
	5/8/2002	ND	<0.1	<0.11	<0.11	<0.11	<0.08	<0.24	<0.15	<0.08	<0.13	<0.11	<0.16	#N/A
	8/7/2003	ND	<0.25	<0.5	<0.5	<0.5	<0.5	<1	<0.5	0.32 J	<0.25	<0.25	<0.25	<0.5
	10/7/2003	ND	<0.25	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.25	<0.25	<0.25	<0.25	<0.5
	8/27/2009	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5
	11/1/2017	<0.50	<2.5	<0.41	<0.26	<0.26	<0.50	<0.23	<0.50	<0.50	<0.33	<0.50	<0.18	<1.5
MW-3	1/15/2002	ND	<0.23	<0.27	<0.21	<0.25	<0.22	<0.22	<0.22	<0.41	<0.24	<0.26	<0.25	#N/A
	5/8/2002	ND	<0.1	<0.11	<0.11	<0.11	<0.08	<0.24	<0.15	0.32	0.34 J	<0.11	<0.16	#N/A
	8/7/2003	ND	<0.25	<0.5	<0.5	<0.5	<0.5	<1	<0.5	0.88	0.42 J	<0.25	<0.25	<0.5
	10/7/2003	ND	<0.25	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.25	<0.25	<0.25	<0.25	<0.5
	8/27/2009	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5
	11/1/2017	<0.50	<2.5	<0.41	<0.26	<0.26	<0.50	<0.23	<0.50	<0.50	<0.33	<0.50	<0.18	<1.5
MW-4	8/7/2003	ND	<0.25	<0.5	<0.5	<0.5	<0.5	<1	0.88 J	0.9	0.71 J	0.34 J	<0.25	<0.5
	10/7/2003	ND	<0.25	<0.5	<0.5	<0.5	<0.5	<1	0.57 J	<0.25	<0.25	<0.25	<0.25	<0.5
	8/25/2009	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<1	7	<0.5	<0.2	<0.2	<0.2	<0.5
	11/2/2017	<0.50	<2.5	<0.41	<0.26	<0.26	<0.50	<0.23	7.8	<0.50	<0.33	<0.50	<0.18	<1.5
	5/2/2019	<0.49	<2.5	<0.49	23.0	<2.2	<0.44	<1.2	850	<0.34	5.0	<1.7	<0.35	<3.0
	8/14/2019	<0.25	<1.3	<0.24	0.43 J	<1.1	<0.22	<0.58	79.1	<0.17	0.99 J	<0.84	<0.17	<1.5
MW-5	8/7/2003	ND	<0.25	<0.5	11	<0.5	<0.5	<1	80	0.9	7.9	0.34 J	<0.25	<0.5
	10/7/2003	ND	<0.25	<0.5	150	1.2	<0.5	<1	93	<0.25	6.4	<0.25	<0.25	<0.5
	8/27/2009	<0.2	<0.2	<0.5	110	1.2	<0.5	<1	140	<0.5	<0.2	32	22	<0.5
	11/2/2017	<0.50	<2.5	<0.41	73.6	1.5	<0.50	<0.23	30.3	<0.50	3.2	<0.50	0.45 J	<1.5
	5/2/2019	<0.25	<1.3	<0.24	11.3	<1.1	<0.22	<0.58	20.5	<0.17	3.8	<0.84	2.1	<1.5
	8/14/2019	<0.25	<1.3	<0.24	31.2	<1.1	<0.22	<0.58	29.1	<0.17	5.9	<0.84	0.73 J	<1.5
MW-6	8/25/2009	<0.2	<2	<5	980	<5	<5	<10	<5	<5	18	<2	57	<5
	11/9/2017	<0.50	<2.5	<0.41	4.5	<0.26	<0.50	<0.23	<0.50	<0.50	<0.33	<0.50	1.0	<1.5
	5/2/2019	<0.25	<1.3	<0.24	<0.27	<1.1	<0.22	<0.58	<0.33	<0.17	<0.26	<0.84	<0.17	<1.5
	8/14/2019	<0.25	<1.3	<0.24	14.7 M1	<1.1	<0.22	<0.58	1.3	<0.17	0.37 J	<0.84	1.6	<1.5
MW-7	8/26/2009	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5
	11/9/2017	<0.50	<2.5	<0.41	<0.26	<0.26	<0.50	<0.23	<0.50	<0.50	<0.33	<0.50	<0.18	<1.5
MW-8	8/26/2009	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5
	11/9/2017 ⁵	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-9	8/27/2009	0.28	<0.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	0.64	<0.2	<0.2	<0.2	<0.5
	11/9/2017	<0.50	<2.5	<0.41	<0.26	<0.26	<0.50	<0.23	<0.50	0.59 J	<0.33	<0.50	<0.18	<1.5

Table 1
Groundwater Analytical Results - Summary of Detected Constituents
Former One-Hour Valet Dry Cleaners
1214 West Wells Street, Milwaukee, Wisconsin
Ramboll Project No. 1690005819

Analyte ^{1,2}		Benzene	Chloroform	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Ethylbenzene	Methylene chloride	Tetrachloroethene	Toluene	Trichloroethene	1,2,4-Trimethylbenzene ³	Vinyl chloride	Xylenes, total ⁴
CAS		71-43-2	67-66-3	75-35-4	156-59-2	156-60-5	100-41-4	75-09-2	127-18-4	108-88-3	79-01-6	95-63-6	75-01-4	1330-20-7
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140 ES		5	6	7	70	100	700	5	5	800	5	480	0.2	2000
NR 140 PAL		0.5	0.6	0.7	7	20	140	0.5	0.5	160	0.5	96	0.02	400
PZ-1	1/15/2002	ND	<1.2	<1.4	400	4 J	<1.1	<1.1	<1.1	<2.1	<1.2	<0.75	<1.3	#N/A
	5/8/2003	ND	<5	<5.5	3000	<u>22</u>	<4	23 J	8500	<4	2800	<5.5	22 J	#N/A
	8/8/2003	ND	0.3 J	8.4	2600	18.0	1.8	<1	27000	4.8	2500	<0.25	11	1.2
	10/7/2003	ND	<120	<250	2600	<250	<250	<500	36000	<120	2600	<120	<120	<250
	8/25/2009	<32	<32	<80	2000	<80	<80	<160	61000	<80	1600	<32	<32	<80
	11/2/2017	<125	<625	<103	414	<64.1	<125	<58.1	16200	<125	435	<125	<43.9	<375
PZ-1 abandoned on 1/11/2018. PZ-1R was installed on 4/18/2019.														
PZ-1R	5/2/2019	<123	<637	<122	30000	<545	<109	<290	60300	<86.1	3310	<420	<87.3	<750
	8/14/2019	<123	<637	140 J	108000	<545	<109	<290	83700	<86.1	5450	<420	1110	<750
PZ-2	8/8/2003	ND	<0.25	<0.5	<0.5	<0.5	<0.5	<1	<0.5	0.43 J	<0.25	<0.25	5.8	<0.5
	10/6/2003	ND	<0.25	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.25	<0.25	<0.25	8.9	<0.5
	8/27/2009	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.2	<0.2	14	<0.5
	11/1/2017	<0.50	<2.5	<0.41	4.1	<0.26	<0.50	<0.23	<0.50	<0.50	<0.33	<0.50	11.0	<1.5
	5/2/2019 ⁶	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PZ-2 abandoned on 7/19/2019. PZ-2R was installed on 7/19/2019.														
PZ-2R	8/14/2019	<0.25	<1.3	<0.24	26.9	<1.1	<0.22	<0.58	12.7	<0.17	0.39 J	<0.84	15.5	<1.5
PZ-3	8/26/2004	ND	<2	<5	440	<5	<5	<10	56	<2	<2	<2	<2	<5
	10/7/2004	ND	<1	<2.5	300	<2.5	<2.5	<5	73	<1	<1	<1	<1	<2.5
	8/25/2009	<2	<2	<5	1100	11.0	<5	<10	5.6	<5	7.1	<2	3.9	<5
	11/2/2017	<25.0	<125	<20.5	2060	<u>22.4 J</u>	<25.0	<11.6	<25.0	<25.0	144	<25.0	<8.8	<75.0
PZ-3 abandoned on 1/11/2018.														
PZ-4	8/25/2009	<0.20	<0.2	<0.5	4.4	<0.5	<0.5	<1	<i>0.84</i>	<0.5	<i>0.56</i>	<0.2	<0.2	<0.5
	11/2/2017	<0.50	<2.5	<0.41	<0.26	<0.26	<0.50	<0.23	<0.50	<0.50	<0.33	<0.50	1.3	<1.5
	5/2/2019	<0.49	<2.5	<0.49	<u>20.8</u>	<2.2	<0.44	<1.2	351	<0.34	<u>3</u>	<1.7	1	<3.0
	8/14/2019	<0.25	<1.3	<0.24	<0.27	<1.1	<0.22	<0.58	15.8	<0.17	<0.26	<0.84	1.8	<1.5

Notes:

All results reported in micrograms per Liter (ug/L)

ES = Enforcement Standard

PAL = Preventive Action Limit

Bold value = NR 140 ES Exceedance

Italic Value = NR 140 PAL Exceedance

-- = No NR 140 ES or PAL established.

#N/A = Not analyzed

NS = Not sampled

J = Estimated concentration. Laboratory results reported between the limit of detection and limit of quantification.

¹ Analytical results are displayed for detected parameters only.

² All sampling results prior to 2017 obtained from a Site Investigation Report prepared by GZA GeoEnvironmental, Inc. on February 24, 2012.

³ Standards are for 1,2,4- and 1,3,5-Trimethylbenzene

⁴ Standards are for Total Xylenes (-m, -p, and -o).

⁵ MW-8 not sampled during the November 2017 groundwater sampling event because well did not recharge sufficiently.

⁶ PZ-2 was not sampled during the May 2019 groundwater sampling event because well was damaged during redevelopment activities.

ND = Not detected at or above limit of detection.

M1 = Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Table 2
MNA Parameter Groundwater Sampling Results

Former One-Hour Valet Dry Cleaners
1214 West Wells Street, Milwaukee, Wisconsin
Ramboll Project No. 1690005819

Well ID	Sample Date	Dissolved Oxygen (mg/L)	Ethane (ug/L)	Ethene (ug/L)	Iron* (ug/L)	Iron, Ferric (mg/L)	Iron, Ferrous (mg/L)	Methane (ug/L)	Nitrogen, NO ₂ plus NO ₃ (mg/L)	ORP (mV)	Sulfate* (mg/L)	Total Organic Carbon (mg/L)
MW-1	1/14/2002	10.39	NA	NA	NA	NA	NA	NA	NA	-37.0	NA	NA
	5/8/2002	3.57	NA	NA	NA	NA	NA	NA	NA	287.1	NA	NA
	8/7/2003	0.22	NA	NA	NA	NA	NA	NA	NA	161.3	NA	NA
	10/7/2003	1.05	0.028	0.049	NA	NA	NA	14	NA	396.8	NA	NA
	8/25/2009	0.69	<10	<10	NA	NA	NA	<10	NA	95.0	NA	1.26
	11/1/2017	1.69	<0.58	<0.52	12.6 J	0.0 J	<0.017	<1.4	<0.095	57.7	<100	<0.25
MW-2	1/14/2002	6.42	NA	NA	NA	NA	NA	NA	NA	168.4	NA	NA
	5/8/2002	1.07	NA	NA	NA	NA	NA	NA	NA	256.9	NA	NA
	8/7/2003	0.10	NA	NA	NA	NA	NA	NA	NA	2.3	NA	NA
	10/7/2003	4.43	0.018	0.021	NA	NA	NA	22	NA	364.0	NA	NA
	8/27/2009	0.98	NA	NA	NA	NA	NA	NA	NA	86.0	NA	NA
	11/1/2017	1.71	<0.58	<0.52	1770	0.54	1.2 H3	<1.4	<0.095	-74.3	93.5	<0.25
MW-3 ⁽¹⁾	8/7/2003	0.15	NA	NA	NA	NA	NA	NA	NA	68.0	NA	NA
	10/7/2003	5.74	0.16	0.056	NA	NA	NA	45	NA	327.8	NA	NA
	8/27/2009	1.01	NA	NA	NA	NA	NA	NA	NA	16.0	NA	NA
	11/1/2017	0.73	NA	NA	NA	NA	NA	NA	NA	-125.6	NA	NA
MW-4	8/7/2003	5.83	NA	NA	NA	NA	NA	NA	NA	139.0	NA	NA
	10/7/2003	3.44	0.021	0.033	NA	NA	NA	22	NA	383.4	NA	NA
	8/25/2009	2.55	NA	NA	NA	NA	NA	NA	NA	77.0	NA	NA
	11/2/2017	0.88	NA	NA	NA	NA	NA	NA	NA	-19.8	NA	NA
	5/2/2019	8.40	NA	NA	NA	NA	NA	NA	NA	140.7	NA	NA
	8/14/2019	1.82	NA	NA	NA	NA	NA	NA	NA	79.4	NA	NA
MW-5	8/7/2003	0.86	NA	NA	NA	NA	NA	NA	NA	190.5	NA	NA
	10/7/2003	1.05	0.041	0.0097	NA	NA	NA	0.99	NA	396.8	NA	NA
	8/27/2009	0.99	<10	<10	NA	NA	NA	136	NA	98.0	NA	1.82
	11/2/2017	2.04	NA	NA	NA	NA	NA	NA	NA	18.6	NA	NA
	5/2/2019	2.01	NA	NA	NA	NA	NA	NA	NA	159.1	NA	NA
	8/14/2019	0.18	NA	NA	NA	NA	NA	NA	NA	63.4	NA	NA
MW-6 ⁽¹⁾	8/25/2009	1.0	NA	NA	NA	NA	NA	NA	NA	-50.0	NA	NA
	11/9/2017	0.62	<0.58	<0.52	13600	8.3	5.2 H3	<1.4	<0.095	-112.7	82.4	<0.25
	5/2/2019	11.38	<0.58	<0.52	103000	1030	<0.20	<1.4	0.25 J	94.8	41.8	6.0
	8/14/2019	0.83	<0.58	<0.52	1700	<0.20	2.1 H3	<1.4	<0.0	3.1	95.6	0.57 J
MW-7 ⁽²⁾	8/26/2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/9/2017	7.49	NA	NA	NA	NA	NA	NA	NA	-50.7	NA	NA
MW-8 ⁽³⁾	8/26/2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/9/2017	4.03	NA	NA	NA	NA	NA	NA	NA	-28.7	NA	NA
MW-9	8/27/2009	NA	<10	<10	NA	NA	NA	<10	NA	NA	NA	1.27
	11/9/2017	6.40	NA	NA	NA	NA	NA	NA	NA	-42.6	NA	NA

Table 2
MNA Parameter Groundwater Sampling Results

Former One-Hour Valet Dry Cleaners
1214 West Wells Street, Milwaukee, Wisconsin
Ramboll Project No. 1690005819

Well ID	Sample Date	Dissolved Oxygen (mg/L)	Ethane (ug/L)	Ethene (ug/L)	Iron* (ug/L)	Iron, Ferric (mg/L)	Iron, Ferrous (mg/L)	Methane (ug/L)	Nitrogen, NO ₂ plus NO ₃ (mg/L)	ORP (mV)	Sulfate* (mg/L)	Total Organic Carbon (mg/L)
PZ-1	1/15/2002	0.66	NA	NA	NA	NA	NA	NA	NA	-65.3	NA	NA
	5/8/2003	1.31	NA	NA	NA	NA	NA	NA	NA	-18.3	NA	NA
	8/8/2003	0.12	NA	NA	NA	NA	NA	NA	NA	-93.7	NA	NA
	10/7/2003	0.09	1.7	0.48	NA	NA	NA	7	NA	-97.1	NA	NA
	8/25/2009	0.83	<10	<10	NA	NA	NA	<10	NA	-73.0	NA	2.04
	11/2/2017	0.64	<0.58	<0.52	2290	2.2	0.060 H3	<1.4	0.33	38.5	155	0.50 J
PZ-1 abandoned on 1/11/2018. PZ-1R installed on 4/18/2019.												
PZ-1R	5/2/2019	1.01	337	32.4	5880	<0.20	5.8 H3	23.1	<0.095	-102.6	101	124 J
	8/14/2019	0.21	3060	87.2	5700	<0.20	6.5 H3	129	<0.095	-138.4	93.1	184
PZ-2 ⁽¹⁾	8/8/2003	0.19	NA	NA	NA	NA	NA	NA	NA	-41.3	NA	NA
	10/6/2003	0.15	1.3	0.79	NA	NA	NA	60	NA	-35.1	NA	NA
	8/27/2009	0.78	NA	NA	NA	NA	NA	NA	NA	-16.0	NA	NA
	11/1/2017	2.67	<0.58	<0.52	8820	5.7	3.1	23.1	<0.095	-100.3	178	<0.25
	5/2/2019 ⁴	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PZ-2 abandoned on 7/19/2019. PZ-2R installed on 7/19/2019.												
PZ-2R	8/14/2019	0.13	0.82 J	<0.52	3200	<0.20	3.6 H3	22.0	<0.095	-36.8	164	0.40 J
PZ-3	8/25/2009	0.72	NA	NA	NA	NA	NA	NA	NA	-53.0	NA	NA
	11/2/2017	1.34	NA	NA	NA	NA	NA	NA	NA	-103.8	NA	NA
PZ-3 abandoned on 1/11/2018												
PZ-4	8/25/2009	0.72	NA	NA	NA	NA	NA	NA	NA	-55.0	NA	NA
	11/2/2017	1.47	NA	NA	NA	NA	NA	NA	NA	-111.8	NA	NA
	5/2/2019	2.99	NA	NA	NA	NA	NA	NA	NA	48.2	NA	NA
	8/14/2019	0.24	NA	NA	NA	NA	NA	NA	NA	-40.0	NA	NA

Notes:

J = Estimated concentration at or above the level of detection and below the level of quantification.

mg/L = milligrams per liter

mV = millivolts

NA = Data was not collected or not able to be collected.

NS = Not sampled.

ORP = Oxidation-reduction potential; measured in the field.

ug/L = micrograms per liter

* NR 140 Table 2. Public Welfare Standards exist for sulfate (Enforcement Standard = 250 mg/L; Preventative Action Limit = 125 mg/L) and iron

(Enforcement Standard = 0.3 mg/L; Preventative Action Limit = 0.15 mg/L).

All sampling results prior to 2017 obtained from a Site Investigation Report prepared by GZA GeoEnvironmental, Inc. dated February 24, 2012.

⁽¹⁾ Well cap either missing or not plugged at time of inspection; potential for water and other constituents to have entered the well.

⁽²⁾ Monitoring well purged dry after first stabilization parameter reading. Well sampled later in day without collecting new stabilization parameters.

⁽³⁾ Monitoring well purged dry before water passed completely through flow-through cell. Stabilization parameters collected from flow-through cell approximately 4/5 of the way full.

⁽⁴⁾ Monitoring well was damaged during site redevelopment activities and was not sampled.

H3 = Sample was received or analysis requested beyond the recognized method holding time.

FIGURE

