

September 2022 (Eighth Assessment) Semi-Annual Sampling Analytical Results
RPL Whitewater Valley Station
Richmond, Indiana

Chemical Name	Location ID:	UPGRADIENT				DOWNGRADIENT											
		MW-AS	MW-FS	MW-F DUP	MW-GSR	MW-BS	MW-CS	MW-DS	MW-ES ^{1,2}	MW-HS	MW-IS	MW-JS	MW-KS ^{2,3,4}	MW-LS ³	MW-MS ³	MW-NS ^{1,2,3}	MW-OS ³
	Sample Date:	9/27/2022	9/28/2022	9/28/2022	9/28/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/28/2022	9/27/2022	9/28/2022	9/27/2022	9/27/2022	9/27/2022	9/28/2022
Unit																	
Antimony, Total ⁵	mg/L	ND	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	ND	ND	ND	NT	ND
Arsenic, Total ⁵	mg/L	0.0013	ND	ND	ND	ND	0.0020	ND	NT	0.0163	0.0016	0.0114	0.0052	0.0023	0.0064	NT	0.0239
Barium, Total ⁵	mg/L	0.112	0.0196	0.0198	0.0143	0.0186	0.0243	0.0250	NT	0.0967	0.0246	0.150	0.0558	0.0417	0.0816	NT	0.249
Beryllium, Total ⁵	mg/L	ND	ND	ND	ND	ND	ND	ND	NT	ND	ND	0.00021	ND	ND	0.00021	NT	0.00063
Boron, Total	mg/L	0.254	11.3	11.2	1.9	4.2	2.99	5.69	NT	1.57	2.47	1.7	11.3	5.09	3.25	NT	2.5
Cadmium, Total ⁵	mg/L	ND	ND	ND	0.00021	ND	ND	ND	NT	0.00038	0.00028	0.00051	ND	ND	ND	NT	0.00061
Calcium, Total	mg/L	110	420	412	543	320	257	407	NT	418	370	393	474	412	319	NT	428
Chloride	mg/L	187	56.4	56.1	65	171	75.2	170	NT	600	739	721	115	136	92.8	NT	79.2
Chromium, Total ⁵	mg/L	ND	ND	ND	ND	ND	ND	ND	NT	ND	ND	0.0070	0.0048	0.0031	0.0087	NT	0.0209
Cobalt, Total ⁵	mg/L	ND	0.0020	0.0021	0.0144	0.0017	0.0017	0.0016	NT	0.0039	0.0184	0.0135	0.0038	0.0030	0.0109	NT	0.0147
Fluoride ⁵	mg/L	0.12	ND	ND	0.16	0.3	0.42	0.12	NT	0.50	0.63	0.22	0.37	0.10	0.15	NT	0.17
Lead, Total ⁵	mg/L	ND	ND	ND	ND	ND	ND	ND	NT	ND	ND	0.0053	0.0051	0.0027	0.0076	NT	0.0255
Lithium, Total ⁵	mg/L	ND	0.265	0.259	0.1	0.0885	0.0702	0.0605	NT	0.0772	0.0409	0.0758	0.245	0.0950	0.0485	NT	0.0543
Mercury, Total ⁵	mg/L	ND	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	ND	ND	ND	NT	ND
Molybdenum, Total ⁵	mg/L	0.0038	0.0564	0.0564	ND	0.118	0.1050	0.0071	NT	0.0554	0.0226	0.0345	0.0383	0.0081	0.0054	NT	0.0158
pH, Lab	s.u.	7.4	7.2	7.0	6.9	7.4	7.6	7.5	NT	6.8	7.4	7.0	7.2	7.0	7.1	NT	7.0
Radium-226 ⁵	pCi/L	0.0926	0.445	0.636	0.133	-0.238	-0.0804	-0.0814	NT	-0.0860	0.000	1.63	NT	0.460	0.0770	NT	2.45
Radium-228 ⁵	pCi/L	1.17	1.16	0.00718	0.494	1.05	0.678	1.06	NT	0.892	0.885	0.480	NT	1.03	1.15	NT	1.41
Total Radium ⁵	pCi/L	1.26	1.61	0.643	0.627	1.05	0.678	1.06	NT	0.892	0.885	2.11	NT	1.49	1.23	NT	3.86
Selenium, Total ⁵	mg/L	ND	ND	ND	ND	ND	0.0042	ND	NT	0.0011	ND	0.0020	ND	ND	ND	NT	0.0015
Sulfate	mg/L	78.1	1140	1250	1920	1050	666	1040	NT	909	1200	1260	1230	980	693	NT	474
Thallium, Total ⁵	mg/L	ND	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	ND	ND	ND	NT	ND
Total Dissolved Solids, Lab	mg/L	664	1920	1960	3300	1990	1370	2070	NT	2370	3200	2820	2520	1960	1520	NT	1170
Field Parameters⁶																	
Temperature	°C	15.05	13.55	13.55	16.05	12.49	14.88	16.01	NT	15.33	15.16	16.32	NT	15.42	16.21	NT	14.04
Conductivity	mS/cm	1.25	2.33	2.33	3.58	2.59	2.02	2.75	NT	3.65	4.56	4.04	NT	2.52	2.02	NT	1.68
pH	s.u.	7.05	6.92	6.92	6.50	7.17	7.18	7.06	~7 ⁶	6.63	7.23	6.76	~7 ⁶	6.99	7.10	~7 ⁶	7.30
Turbidity	NTU	4.49	0.71	0.71	0.88	0.61	1.42	4.61	NT	0.96	11.3	60.5	NT	41.1	185	NT	789
Total Dissolved Solids	g/L	0.798	1.49	1.49	2.29	1.66	1.24	1.71	NT	2.34	2.93	2.59	NT	1.61	1.29	NT	1.07
Dissolved Oxygen	mg/L	0.77	2.60	2.60	1.02	2.70	1.56	5.77	NT	2.07	4.33	5.27	NT	5.91	10.52	NT	3.21
Oxygen-Reduction Potential	mV	7	116	116	168	74	72	11	NT	110	179	126	NT	208	115	NT	145

Notes:

- 1 MW-ES and MW-NS were not sampled due to slow well recharge
- 2 Due to insufficient water in the wells, field samples could not be analyzed. The pH was measured via test strip.
- 3 MW-KS, MW-LS, MW-MS, MW-NS, and MW-OS were installed in July 2020.
- 4 Due to insufficient water in the wells after purging, a partial bottle set was collected, and therefore, some constituents were unable to be analyzed.
- 5 Shading of the chemical name indicates that the parameter is included in "Appendix IV to Part 257-Consituents for Assessment Monitoring" of the CCR Rule.
- 6 Field measurements recorded when the readings stabilized during purging.

mg/L - milligrams per liter
CaCO₃ - calcium carbonate
s.u. - Standard Units
pCi/L - Picocuries per liter
°C - degrees Celsius
NTU - Nephelometric Turbidity Unit
g/L - grams per liter
mV - millivolts