

September 2021 (Sixth Assessment) Semi-Annual Sampling Analytical Results  
RPL Whitewater Valley Station  
Richmond, Indiana

Chemical Name	Location ID:	UPGRADIENT						DOWNGRADIENT										
		MW-AS	MW-FS	MW-GSR	MW-BS	MW-CS	MW-CS DUP	MW-DS	MW-ES <sup>1</sup>	MW-HS	MW-IS	MW-JS	MW-KS <sup>2</sup>	MW-LS <sup>2</sup>	MW-MS <sup>2</sup>	MW-NS <sup>1,2</sup>	MW-OS <sup>2</sup>	
		Sample Date:	9/8/2021	9/9/2021	9/9/2021	9/8/2021	9/8/2021	9/8/2021	9/9/2021	9/8/2021	9/8/2021	9/9/2021	9/8/2021	9/9/2021	9/8/2021	9/8/2021	9/8/2021	9/9/2021
		Unit																
Antimony, Total <sup>2</sup>	mg/L	ND	NT	NT	ND	ND	ND	NT	NT	ND	NT	ND	NT	ND	ND	NT	NT	
Arsenic, Total <sup>2</sup>	mg/L	ND	ND	ND	ND	0.0019	0.0019	ND	NT	0.0282	0.0012	0.0086	0.0111	0.0014	0.0055	NT	0.0256	
Barium, Total <sup>2</sup>	mg/L	0.103	0.0196	0.0121	0.0181	0.0230	0.0227	0.0272	NT	0.0526	0.0306	0.170	0.0908	0.0379	0.0697	NT	0.2150	
Beryllium, Total <sup>2</sup>	mg/L	ND	NT	NT	ND	ND	ND	NT	NT	ND	NT	0.00021	NT	ND	ND	NT	NT	
Boron, Total	mg/L	0.202	11.7	1.26	4.11	2.82	2.84	6.06	NT	1.7	2.91	1.62	10.8	4.79	2.93	NT	3.02	
Cadmium, Total <sup>2</sup>	mg/L	ND	ND	0.00021	ND	ND	ND	ND	NT	0.00026	0.00042	0.00057	0.00033	ND	ND	NT	0.00037	
Calcium, Total	mg/L	105	417.0	532	365	260	259	409	NT	369	513	504	515	398	309	NT	378	
Chloride	mg/L	145	76.3	90.3	188	73.8	72.8	168	NT	371	852	555.0	139	130	86.3	NT	105	
Chromium, Total <sup>2</sup>	mg/L	ND	ND	ND	ND	ND	ND	ND	NT	ND	ND	0.0067	0.0131	0.0027	0.0087	NT	0.0196	
Cobalt, Total <sup>2</sup>	mg/L	ND	0.0012	0.0105	0.0012	0.0012	0.0012	ND	NT	0.0037	0.0239	0.0093	0.0061	0.0014	0.0053	NT	0.0129	
Fluoride <sup>2</sup>	mg/L	0.13	ND	0.16	0.25	0.39	0.39	0.11	NT	0.48	0.43	0.16	0.29	ND	0.15	NT	0.14	
Lead, Total <sup>2</sup>	mg/L	ND	ND	ND	ND	ND	ND	ND	NT	ND	ND	0.0040	0.0118	0.0018	0.0060	NT	0.0222	
Lithium, Total <sup>2</sup>	mg/L	ND	0.23	0.0612	0.0666	0.0625	0.0589	0.0431	NT	0.0608	0.0316	0.0636	0.216	0.0720	0.0305	NT	0.0350	
Mercury, Total <sup>2</sup>	mg/L	ND	NT	NT	ND	ND	ND	NT	NT	ND	NT	ND	NT	ND	ND	NT	NT	
Molybdenum, Total <sup>2</sup>	mg/L	0.0040	0.0590	ND	0.116	0.101	0.095	0.0063	NT	0.0606	0.0182	0.0278	0.0428	0.0081	0.0049	NT	0.0147	
pH, Lab	s.u.	7.2	7.0	6.8	7.4	7.3	7.2	7.2	NT	6.9	7.2	7.0	7.0	7.0	7.1	NT	7.1	
Radium-226 <sup>2</sup>	pCi/L	0.524	0.360	0.687	0.129	0.194	0.210	-0.0599	NT	0.779	0.389	0.941	0.473	0.138	0.0742	NT	0.814	
Radium-228 <sup>2</sup>	pCi/L	0.0253	0.596	0.369	0.725	0.0782	0.297	0.511	NT	1.83	0.418	1.11	0.290	0.155	0.190	NT	0.136	
Total Radium <sup>2</sup>	pCi/L	0.549	0.956	1.06	0.854	0.272	0.507	0.511	NT	2.61	0.807	2.05	0.763	0.293	0.264	NT	0.950	
Selenium, Total <sup>2</sup>	mg/L	ND	ND	ND	ND	0.0039	0.0047	ND	NT	ND	ND	0.0021	ND	ND	ND	NT	0.0013	
Sulfate	mg/L	83.9	1110	1740	1030	675	668	1360	NT	891	1660	1060	1380	958	640	NT	647	
Thallium, Total <sup>2</sup>	mg/L	ND	NT	NT	ND	ND	ND	NT	NT	ND	NT	ND	NT	ND	ND	NT	NT	
Total Dissolved Solids, Lab	mg/L	629	2010	3010	2060	1430	1420	2120	NT	2250	4120	3480	2390	2040	1560	NT	1420	
<b>Field Parameters<sup>4</sup></b>																		
Temperature	°C	15.25	14.09	16.50	13.19	15.47	15.47	16.34	NT	15.95	17.05	18.10	NT	17.5	18.61	NT	16.20	
Conductivity	mS/cm	1.14	2.41	3.34	2.67	1.96	1.96	2.77	NT	3.13	5.37	3.83	NT	2.38	1.96	NT	1.96	
pH	s.u.	7.07	7.09	6.77	7.27	7.17	7.17	7.06	~7 <sup>5</sup>	6.84	7.15	7.00	~7 <sup>5</sup>	6.49	6.72	~7 <sup>5</sup>	7.17	
Turbidity	NTU	3.65	0.69	0.91	0.46	0.74	0.74	0.79	NT	0.78	6.35	34.5	NT	49.9	121	NT	581	
Total Dissolved Solids	g/L	0.728	1.54	2.14	1.71	1.26	1.26	1.78	NT	2.00	3.38	2.44	NT	1.52	1.26	NT	1.25	
Dissolved Oxygen	mg/L	0.43	1.54	1.07	1.12	0.93	0.93	5.05	NT	5.21	5.08	3.30	NT	5.70	3.72	NT	2.51	
Oxygen-Reduction Potential	mV	-29	124	208	30	84	84	57	NT	22	222	-5	NT	204	62	NT	95	

Notes:

- MW-ES and MW-NS were not sampled due to slow well recharge.
- MW-KS, MW-LS, MW-MS, MW-NS, and MW-OS were installed in July 2020.
- 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.
- Field measurements recorded when the readings stabilized during purging.
- Due to insufficient water in the wells, field parameters could not be analyzed. The pH was measured via test strip.

mg/L - milligrams per liter

CaCO<sub>3</sub> - 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

NT - Analysis was not performed

