

September 2023 (Tenth 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-DS	MW-ES ¹	MW-HS	MW-IS	MW-JS	MW-KS ^{1,2}	MW-LS ²	MW-MS ²	MW-NS ^{1,2}	MW-OS ²
	Sample Date:	9/12/2023	9/12/2023	9/12/2023	9/12/2023	9/13/2023	9/13/2023	9/12/2023	9/12/2023	9/13/2023	9/12/2023	9/12/2023	9/12/2023	9/12/2023	9/12/2023	9/13/2023
Unit																
Antimony, Total ³	mg/L	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	NT	ND
Arsenic, Total ³	mg/L	0.0010	ND	ND	ND	0.0018	ND	NT	0.0130	0.0013	0.0028	NT	ND	0.0012	NT	0.0314
Barium, Total ³	mg/L	0.104	0.0181	0.0143	0.0189	0.0275	0.0222	NT	0.0450	0.0342	0.0784	NT	0.0284	0.0362	NT	0.303
Beryllium, Total ³	mg/L	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	NT	ND
Boron, Total	mg/L	0.208	10.2	2.41	4.63	3.31	6.13	NT	1.59	2.02	1.51	NT	4.92	3.13	NT	2.16
Cadmium, Total ³	mg/L	ND	ND	0.00028	ND	ND	ND	NT	ND	0.00024	0.00041	NT	ND	ND	NT	ND
Calcium, Total	mg/L	105	359	553	314	288	399	NT	322	463	383	NT	367	299	NT	269
Chloride	mg/L	184	38.8	45.0	190	88.9	189	NT	523	989	792	NT	152	94.2	NT	82.8
Chromium, Total ³	mg/L	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	NT	0.0208
Cobalt, Total ³	mg/L	ND	0.0012	0.0147	0.0011	0.0012	ND	NT	0.0033	0.0175	0.0081	NT	ND	0.0030	NT	0.0119
Fluoride ³	mg/L	ND	ND	0.135	0.236	0.33	ND	NT	ND	0.67	0.261	NT	ND	0.133	NT	0.14
Lead, Total ³	mg/L	ND	ND	ND	ND	ND	ND	NT	ND	ND	0.0014	NT	ND	0.0012	NT	0.0209
Lithium, Total ³	mg/L	ND	0.216	0.1430	0.0736	0.0766	0.0530	NT	0.0589	0.0393	0.0450	NT	0.0721	0.0405	NT	0.0364
Mercury, Total ³	mg/L	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	NT	ND
Molybdenum, Total ³	mg/L	0.0043	0.0558	ND	0.119	0.0795	0.0084	NT	0.0608	0.0285	0.0370	NT	0.0094	0.0041	NT	0.0186
pH, Lab	s.u.	7.6	7.0	6.7	7.4	6.5	7.2	NT	7.3	7.3	7.5	NT	7.3	7.4	NT	7.2
Radium-226 ³	pCi/L	0.635	0.112	0.302	0.562	0.275	-0.0948	NT	0.432	0.435	0.425	NT	-0.115	0.235	NT	0.566
Radium-228 ³	pCi/L	0.480	0.669	0.212	0.454	0.791	0.530	NT	0.751	1.01	0.623	NT	0.483	0.284	NT	1.00
Total Radium ³	pCi/L	1.12	0.781	0.514	1.02	1.07	0.530	NT	1.19	1.45	1.05	NT	0.483	0.519	NT	1.57
Selenium, Total ³	mg/L	ND	ND	ND	ND	0.0014	ND	NT	ND	ND	0.0022	NT	ND	ND	NT	ND
Sulfate	mg/L	72.2	954	1910	957	709	935	NT	958	1590	1200	NT	1110	642	NT	468
Thallium, Total ³	mg/L	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	NT	ND
Total Dissolved Solids, Lab	mg/L	644	1850	3670	2060	1590	2020	NT	5400	4260	7030	NT	1980	1540	NT	1140
Field Parameters⁴																
Temperature	°C	15.39	14.10	15.76	12.77	14.78	15.81	NT	15.52	15.35	15.91	NT	15.40	16.14	NT	15.02
Conductivity	mS/cm	1.24	2.31	3.05	2.62	2.44	2.55	NT	3.21	4.91	4.12	NT	2.51	2.32	NT	1.57
pH	s.u.	7.17	6.92	6.52	7.20	7.16	7.07	~7 ¹⁶	6.62	7.2	6.79	~7 ¹⁶	6.99	7.10	~7 ¹⁶	7.29
Turbidity	NTU	2.98	0.63	1.86	0.61	1.40	2.00	NT	0.99	20.10	51.1	NT	38.1	166	NT	665
Total Dissolved Solids	g/L	0.798	1.44	2.24	1.56	1.17	1.71	NT	2.32	8.24	2.53	NT	1.66	1.22	NT	1.17
Dissolved Oxygen	mg/L	1.05	2.72	1.08	1.19	0.98	4.90	NT	1.90	4.89	4.90	NT	5.22	8.75	NT	3.98
Oxygen-Reduction Potential	mV	11	118	118	36	71	17	NT	110	177	111	NT	212	112	NT	168

Notes:

- MW-ES, MW-KS, and MW-NS were not sampled due to slow well recharge. Field parameters could not be analyzed, therefore pH was measured via test strip.
- 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-Constituents for Assessment Monitoring" of the CCR Rule.
- 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