

April 2023 (Ninth Assessment) Semi-Annual Sampling Analytical Results
RPL Whitewater Valley Station
Richmond, Indiana

Chemical Name	Location ID: Sample Date: Unit	UPGRADIENT						DOWNGRADIENT										
		MW-AS	MW-FS	MW-GSR	MW-BS	MW-CS	MW-CS DUP	MW-DS	MW-ES	MW-HS	MW-IS	MW-JS	MW-KS ¹	MW-LS ¹	MW-MS ¹	MW-NS ¹	MW-OS ¹	
		4/4/2023	4/5/2023	4/5/2023	4/5/2023	4/4/2023	4/4/2023	4/4/2023	4/4/2023	4/4/2023	4/5/2023	4/5/2023	4/5/2023	4/4/2023	4/4/2023	4/4/2023	4/4/2023	4/5/2023
Antimony, Total ²	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic, Total ²	mg/L	0.0014	ND	ND	ND	0.0016	0.0015	ND	0.0048	0.0337	0.0011	ND	0.0158	0.0010	0.0015	ND	0.0028	0.0028
Barium, Total ²	mg/L	0.108	0.0196	0.0122	0.0198	0.0227	0.0224	0.0228	0.0776	0.0417	0.0350	0.0650	0.0983	0.0349	0.0360	0.0412	0.0618	0.0618
Beryllium, Total ²	mg/L	ND	ND	ND	ND	ND	ND	ND	0.00026	ND	ND	ND	0.00048	ND	ND	ND	ND	ND
Boron, Total	mg/L	0.201	10.6	1.41	4.87	2.87	2.83	5.28	5.59	1.42	2.11	0.441	5.46	4.39	2.31	2	3.31	3.31
Cadmium, Total ²	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00027	ND	0.00028	ND	ND	ND	ND	ND
Calcium, Total	mg/L	111	401	504	347	262	258	390	365	407	495	93.8	341	3.88	282	216	288	288
Chloride	mg/L	172	52.8	99	183	67.1	68.6	172	55.8	538	973	123	57.8	125	75.7	53.4	119	119
Chromium, Total ²	mg/L	ND	ND	ND	ND	ND	ND	ND	0.0072	ND	ND	ND	0.0160	0.0024	0.0037	ND	0.0034	0.0034
Cobalt, Total ²	mg/L	0.0013	0.0013	0.0089	0.0012	ND	ND	ND	0.0034	0.0047	0.0157	0.0016	0.0066	0.0011	0.0014	ND	0.0018	0.0018
Fluoride ²	mg/L	ND	ND	ND	0.20	0.31	0.32	ND	ND	0.29	0.43	0.11	0.11	ND	ND	0.16	0.13	0.13
Lead, Total ²	mg/L	ND	ND	ND	ND	ND	ND	ND	0.0053	ND	ND	ND	0.0167	0.0012	0.0015	ND	0.0024	0.0024
Lithium, Total ²	mg/L	ND	0.249	0.087	0.0766	0.0593	0.0578	0.0375	0.103	0.0736	0.0262	ND	0.0969	0.0684	0.0423	0.0394	0.0293	0.0293
Mercury, Total ²	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Molybdenum, Total ²	mg/L	0.0037	0.0561	ND	0.115	0.0792	0.0789	0.0058	0.0126	0.0449	0.0260	0.0062	0.0325	0.01	0.0055	0.0198	0.0146	0.0146
pH, Lab	s.u.	7.4	7.2	6.9	7.6	7.6	7.5	7.8	6.9	7.2	7.5	7.4	7.3	7.2	7.2	7.5	7.4	7.4
Radium-226 ²	pCi/L	0.909	0.338	-0.139	0.000	-0.0614	0.174	0.597	0.408	0.300	0.486	0.141	0.253	0.165	-0.205	0.0571	0.0000	0.0000
Radium-228 ²	pCi/L	0.128	0.777	0.989	0.807	0.633	0.607	0.112	0.329	0.561	1.25	0.730	0.718	0.894	-0.00116	0.573	0.811	0.811
Total Radium ²	pCi/L	1.04	1.12	0.989	0.807	0.633	0.781	0.709	0.737	0.861	1.74	0.871	0.971	1.06	0.0000	0.630	0.811	0.811
Selenium, Total ²	mg/L	ND	ND	ND	ND	0.0078	0.0074	0.0011	0.0021	0.0061	ND	0.0090	0.0042	ND	0.0013	0.0050	0.0043	0.0043
Sulfate	mg/L	78.6	1050	1620	1070	597	622	1020	1020	965	1450	211	701	824	534	474	748	748
Thallium, Total ²	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Dissolved Solids, Lab	mg/L	606	1930	2890	1960	1360	1360	1980	1900	2680	3950	806	1410	1760	1320	1060	1620	1620
Field Parameters³																		
Temperature	°C	15.40	14.11	15.06	13.10	14.48	14.48	15.27	12.49	14.17	15.09	12.81	11.37	11.63	11.85	11.59	13.50	13.50
Conductivity	mS/cm	1.23	2.27	3.16	2.67	1.85	1.85	2.52	2.41	3.73	5.42	1.08	1.92	2.32	1.87	1.57	1.63	1.63
pH	s.u.	7.08	6.94	6.68	7.14	7.20	7.20	7.19	6.82	6.65	6.98	7.53	6.86	6.71	6.80	6.89	6.89	6.89
Turbidity	NTU	3.88	0.80	0.96	0.76	1.85	1.85	3.22	304	0.77	3.68	16.0	159	53.6	68.9	205	67.0	67.0
Total Dissolved Solids	g/L	0.791	1.45	2.03	1.71	1.18	1.18	1.62	1.55	2.39	3.42	0.69	1.23	1.48	1.19	1.02	1.27	1.27
Dissolved Oxygen	mg/L	0.80	1.66	2.32	0.49	2.55	2.55	4.65	8.50	0.80	2.70	2.97	8.03	4.79	2.67	2.81	3.51	3.51
Oxygen-Reduction Potential	mV	5	173	229	97	238	238	208	195	3	223	199	212	2.38	256	250	230	230

Notes:

- 1 MW-KS, MW-LS, MW-MS, MW-NS, and MW-OS were installed in July 2020.
- 2 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.
- 3 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

