

Appendix 21: Diamond Drill Hole (DDH) Water Samples Results

DDH	Sample date	1/24/2022	1/25/2022	2/26/2022	5/7/2022	5/15/2022	5/21/2022	10/8/2022
	Name	DDH 375-157-U1	DDH 300-174-D1	DDH-300-179-D1	DDH 450-120-U1	ML-425-9732-D9	DDH M375-9664-D11	DDH-ML425-9736-D13
Parameter	Unit	C225972	C225970	C256444	C2D2657	C2D7865	C2E2303	C2T7539
Conventional Parameters								
pH	pH units	7.29	7.23	7.08	8.45	6.95	6.88	7.07
Turbidity	NTU	29	58	98	0.7	42	78	26
Specific conductivity	umhos/cm	-	-	-	66000	79000	66000	78000
Specific conductivity	umhos/cm	74000	77000	76000	-	-	-	-
Hardness, as CaCO3	mg/L	11600	12900	11900	10900	15500	9800	14100
Hardness, as CaCO3 (dissolved)	mg/L	12000	13200	12500	10400	13600	9950	12500
Total alkalinity, as CaCO3	mg/L	64	66	67	71	34	50	57
Carbonate, as CaCO3	mg/L	< 1.0	< 1.0	< 1.0	1.8	< 1.0	< 1.0	< 1.0
Bicarbonate, as CaCO3	mg/L	64	66	66	69	34	50	57
TDS	mg/L	48900	50200	50000	49900	58800	46400	52500
TSS	mg/L	45	200	17	35	23	15	18
Total organic carbon	mg/L	3.4	2.0	1.9	22	1.5	2.5	1.9
Dissolved organic carbon	mg/L	3.4	1.9	1.9	22	1.4	2.4	1.5
Major Ions								
Chloride	mg/L	31000	33000	33000	28000	34000	27000	29000
Fluoride	mg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.11	< 0.10
Silica	mg/L	3.4	4.3	5.3	2.4	7.0	5.1	7.4
Sulfate	mg/L	2900	3200	3300	2900	3100	2700	81
Nutrients and Chlorophyll a								
Ammonia Nitrogen (as N)	mg/L	8.2	4.0	4.0	88	3.2	4.4	3.7
Nitrate (as N)	mg/L	2.91	< 0.50	< 1.0	67.3	< 0.10	0.49	< 0.10
Nitrite (as N)	mg/L	0.109	< 0.050	< 0.10	1.72	0.025	0.020	< 0.010
Nitrate + nitrite (as N)	mg/L	3.02	< 0.50	< 1.0	69.0	< 0.10	0.51	< 0.10
Total Kjeldahl nitrogen	mg/L	14	6.3	5.4	100	4.8	6.1	5.4
Total phosphorus	mg/L	0.081	0.076	0.045	0.063	0.071	0.078	0.060
Orthophosphate (P)	mg/L	< 0.010	< 0.010	< 0.010	0.14	< 0.010	< 0.010	< 0.010
Total Metals								
Aluminum	mg/L	2.86	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15
Antimony	mg/L	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Arsenic	mg/L	0.0400	< 0.0050	< 0.0050	0.546	< 0.0050	< 0.0050	< 0.0050
Barium	mg/L	0.058	< 0.050	< 0.050	0.094	< 0.050	< 0.050	< 0.050
Beryllium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Bismuth	mg/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Boron	mg/L	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
Cadmium	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	0.00078
Calcium (total)	mg/L	1550	1520	1500	1820	2390	1210	1950
Chromium	mg/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cobalt	mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Copper	mg/L	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Iron	mg/L	9.11	6.65	5.84	< 0.50	4.51	3.61	6.39
Lead	mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Lithium	mg/L	0.64	0.31	0.31	0.56	0.30	0.27	0.36
Magnesium (total)	mg/L	1870	2210	1980	1550	2320	1650	2250
Manganese	mg/L	0.895	1.12	1.02	0.317	1.80	0.553	1.12
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00010	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	< 0.050	< 0.050	0.099	< 0.050	< 0.050	< 0.050

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Parameter	Unit	C225972	C225970	C256444	C2D2657	C2D7865	C2E2303	C2T7539
Nickel	mg/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Potassium (total)	mg/L	406	444	410	495	299	338	397
Selenium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Silicon	mg/L	5.9	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Silver	mg/L	0.0023	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Sodium (total)	mg/L	13000	15000	14000	12900	16600	11600	16200
Strontium	mg/L	41.2	39.7	41.0	48.7	71.8	35.4	56.6
Sulphur	mg/L	1020	1160	1130	1050	1180	861	1160
Thallium	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Tin	mg/L	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Titanium	mg/L	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Uranium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Vanadium	mg/L	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Zinc	mg/L	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Zirconium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Dissolved Metals								
Aluminum	mg/L	< 0.15	< 0.15	< 0.15	< 0.15	< 0.30	0.0338	< 0.15
Antimony	mg/L	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	0.00233	< 0.025
Arsenic	mg/L	< 0.0050	< 0.0050	< 0.0050	0.484	< 0.010	0.00083	< 0.0050
Barium	mg/L	0.053	< 0.050	< 0.050	0.089	< 0.10	0.0304	< 0.050
Beryllium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010	0.00013	< 0.0050
Bismuth	mg/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	< 0.0010	< 0.050
Boron	mg/L	< 2.5	< 2.5	< 2.5	< 2.5	< 5.0	1.53	< 2.5
Cadmium	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.0010	0.000104	< 0.00050
Calcium (Dissolved)	mg/L	1650	1590	1570	1730	2160	1250	1590
Chromium	mg/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	< 0.0010	< 0.050
Cobalt	mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.020	0.00088	< 0.010
Copper	mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.020	0.00058	< 0.010
Iron	mg/L	< 0.25	3.93	4.11	< 0.25	3.61	2.13	3.46
Lead	mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.020	< 0.00020	< 0.010
Lithium	mg/L	0.60	0.29	0.31	0.49	0.27	0.290	0.34
Magnesium (Dissolved)	mg/L	1910	2240	2070	1470	1990	1660	2070
Manganese	mg/L	0.857	1.08	1.00	0.385	1.55	0.580	0.950
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00010	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	< 0.050	< 0.050	0.070	< 0.10	0.0035	< 0.050
Nickel	mg/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	0.0028	< 0.050
Potassium (Dissolved)	mg/L	420	451	428	483	259	346	352
Selenium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010	0.00018	< 0.0050
Silicon	mg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 10	1.85	< 5.0
Silver	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020	0.000199	< 0.0010
Sodium (Dissolved)	mg/L	14000	15400	14700	12300	14600	11800	13600
Strontium	mg/L	46.1	42.1	40.5	46.0	62.2	36.8	48.3
Sulphur	mg/L	1050	1140	1110	982	969	915	1040
Thallium	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.0010	< 0.000010	< 0.00050
Tin	mg/L	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.0050	< 0.25
Titanium	mg/L	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.0050	< 0.25
Uranium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010	0.00091	< 0.0050

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Parameter	Unit	C225972	C225970	C256444	C2D2657	C2D7865	C2E2303	C2T7539
Vanadium	mg/L	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.0050	< 0.25
Zinc	mg/L	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.0050	< 0.25
Zirconium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.00010	< 0.0050
Radionuclides								
Radium-226	Bq/l	1.8	1.3	1.2	1.2	3.0	0.33	1.4