

Annex F8

Groundwater Monitoring Results

Table F8.1 Groundwater Monitoring Results

| Parameters | Units | MWX-1 | MWX-2 | MWX-3 | MWX-4 | MWX-5 | MWX-6 | MWX-7 | MWX-8 | MWX-9 | MWX-10 | MWX-11 | MWX-12 | MWX-13 | MWX-14 |
|---|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| Water Level | mPD | 3.63 | 3.70 | 3.86 | 3.87 | 3.95 | 4.05 | 3.47 | 3.68 | 4.73 | 4.87 | 4.91 | 6.73 | 37.29 | 45.18 |
| Bicarbonate Alkalinity as CaCO ₃ | mg/L | 95 | 192 | 172 | <1 | 52 | <1 | 16 | <1 | 175 | 180 | 123 | 55 | 14 | 8 |
| Carbonate Alkalinity as CaCO ₃ | mg/L | <1 | <1 | <1 | 71 | 14 | 110 | 47 | 79 | <1 | <1 | <1 | <1 | <1 | <1 |
| Total Alkalinity as CaCO ₃ | mg/L | 95 | 192 | 172 | 93 | 66 | 160 | 63 | 106 | 175 | 180 | 123 | 55 | 14 | 8 |
| pH Value | pH Unit | 7.9 | 8.0 | 7.9 | 10.9 | 8.9 | 11.2 | 9.7 | 10.6 | 8.2 | 7.7 | 7.6 | 6.3 | 5.4 | 5.2 |
| Electrical Conductivity | µS/cm | 466 | 6860 | 1140 | 992 | 826 | 1310 | 2280 | 3100 | 14600 | 1440 | 411 | 341 | 100 | 107 |
| Ammonia as N | mg/L | 0.13 | 2.16 | 1.32 | 2.20 | 0.32 | 3.35 | 5.76 | 13.0 | 0.37 | 0.02 | <0.01 | 0.02 | 0.01 | <0.01 |
| Chloride | mg/L | 55 | 2160 | 184 | 180 | 119 | 212 | 714 | 1010 | 5260 | 252 | 33 | 22 | 15 | 19 |
| Nitrite as N | mg/L | <0.01 | 0.02 | <0.01 | 0.16 | 0.43 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Reactive Phosphorus as P | mg/L | 0.01 | <0.01 | 0.03 | <0.01 | <0.01 | <0.01 | 0.02 | 0.01 | 0.06 | 0.02 | <0.01 | 0.05 | 0.01 | <0.01 |
| Sulphate as SO ₄ - Turbidimetric | mg/L | 42 | 269 | 125 | 116 | 131 | 131 | 66 | 37 | 911 | 192 | 36 | 61 | 2 | 2 |
| Sulphide as S ₂ | mg/L | <0.1 | <0.1 | <0.1 | 2.9 | <0.1 | 4.3 | 1.8 | 14.6 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Total Kjeldahl Nitrogen as N | mg/L | 0.2 | 2.2 | 1.8 | 2.5 | 0.8 | 4.1 | 6.4 | 13.8 | 0.5 | 0.1 | 0.2 | <0.1 | <0.1 | <0.1 |
| Nitrate as N | mg/L | 0.01 | 0.14 | 0.02 | 0.02 | 1.02 | 0.13 | <0.01 | <0.01 | 0.01 | <0.01 | 0.31 | <0.01 | 0.12 | 0.11 |
| Total Nitrogen as N | mg/L | 0.2 | 2.4 | 1.8 | 2.7 | 2.2 | 4.2 | 6.4 | 13.8 | 0.5 | 0.1 | 0.5 | <0.1 | 0.2 | 0.1 |
| Boron | µg/L | 80 | 900 | 160 | 190 | 190 | 180 | 470 | 490 | 2940 | 210 | 70 | 20 | 10 | 10 |
| Calcium | mg/L | 32.2 | 97.8 | 86.3 | 39.7 | 18.6 | 31.8 | 27.2 | 63.9 | 94.4 | 101 | 43.7 | 27.7 | 0.88 | 1.01 |
| Mercury | µg/L | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| Magnesium | mg/L | 3.63 | 107 | 5.96 | 0.9 | 0.38 | <0.05 | 1.37 | 0.25 | 233 | 9.66 | 2.69 | 4.21 | 0.94 | 0.94 |
| Sodium | mg/L | 47.3 | 1160 | 109 | 124 | 110 | 158 | 394 | 540 | 2540 | 158 | 26.3 | 27 | 13 | 13.2 |
| Iron | mg/L | 0.05 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | 0.41 | <0.04 | <0.04 |
| Potassium | mg/L | 13.6 | 52.8 | 26.9 | 29.9 | 46.1 | 57.1 | 60.1 | 56.9 | 124 | 13.7 | 6.39 | 2.9 | 3.87 | 3.82 |
| Cadmium | µg/L | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Chromium | µg/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Copper | µg/L | <1 | <1 | <1 | <1 | 2 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | 1 | <1 |
| Lead | µg/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Manganese | µg/L | 419 | 511 | 1000 | 1 | <1 | <1 | <1 | <1 | 238 | 310 | 7 | 791 | 18 | 8 |
| Nickel | µg/L | <1 | <1 | <1 | <1 | <1 | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Zinc | µg/L | <10 | 162 | <10 | <10 | <10 | <10 | 11 | <10 | <10 | <10 | <10 | 609 | <10 | 10 |
| Biochemical Oxygen Demand | mg/L | <2 | 2 | <2 | <2 | <2 | <2 | <2 | 3 | <2 | <2 | <2 | <2 | <2 | <2 |
| Chemical Oxygen Demand | mg/L | 4 | 29 | 19 | 18 | 16 | 29 | 24 | 47 | 68 | 8 | <2 | 3 | 5 | 2 |
| Total Organic Carbon | mg/L | 4 | 7 | 10 | 7 | 7 | 12 | 7 | 11 | 7 | 7 | 4 | 4 | 5 | 4 |