

For an explanation of table formatting, see end of Table 7.

Auckland Volcanics - Basalt, Scoria & Tuff								
Watson Ave, Sandringham		Count	% Results					
			Censored	Median	IQR	MAD	Minimum	Maximum
General Field Parameters	Temperature (°C)	27	0	17.5	0.4	0.2	16.7	18.6
	Dissolved oxygen (g.m ⁻³)	15	0	5.72	0.77	0.45	4.65	7.46
	Dissolved oxygen (% sat)	15	0	59.8	7.6	4.8	48.6	78.0
	Conductivity at 25°C (µS.cm ⁻²)	21	0	214	33.2	21.6	177	251
General Lab Parameters	pH (pH unit)	30	0	7.2	0.4	0.2	6.6	7.7
	Turbidity (NTU)	29	0	2.2	3.0	1.3	0.6	8.0
	Suspended solid g.m ⁻³	29	3	3.6	3.6	1.8	0.4	21.2
	Total dissolved solid g.m ⁻³	30	0	143	15.8	8.0	115	159
Alkalinity	Total as CaCO ₃ g.m ⁻³	29	0	48.0	3.8	2.2	43.0	57.9
	Bicarbonate g.m ⁻³	30	0	59.0	5.3	3.0	52.0	70.6
	Carbonate g.m ⁻³	30	100	<1	ND	ND	<1	<1
	Hydroxide g.m ⁻³	30	100	<1	ND	ND	<1	<1
Hardness	Total as CaCO ₃ g.m ⁻³	22	0	45.4	3.0	1.7	22.3	51.0
	Calcium as CaCO ₃ g.m ⁻³	28	0	22.8	3.2	1.5	19.9	31.3
	Magnesium as CaCO ₃ g.m ⁻³	29	0	23.5	2.0	1.2	20.0	27.0
Nutrients	Nitrate-N (tot.) g.m ⁻³	30	0	3.968	0.480	0.236	3.258	4.860
	Nitrite-N (tot.) g.m ⁻³	24	100	<0.002	ND	ND	<0.0002	0.012
	Nitrate/Nitrite g.m ⁻³	30	0	3.968	0.480	0.236	3.260	4.860
	Ammoniacal-N (tot.) g.m ⁻³	18	100	<0.01	ND	ND	<0.01	0.210
	Phosphorous (tot.) g.m ⁻³	27	0	0.09	0.02	0.01	0.07	0.16
	Phosphorous (diss.) g.m ⁻³	28	0	0.08	0.02	0.01	<0.01	0.12
	Phosphate (tot.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
Microbiology	Faecal Coliforms (cfu/100ml)	1	0	25	ND	ND	25	25
	Escherichia Coli (cfu/100ml)	1	0	18	ND	ND	18	18
Silicate	Silica as SiO ₂ g.m ⁻³	29	0	24.0	2.2	1.0	21.8	27.7
Major Cations & Anions	Calcium (tot.) g.m ⁻³	23	0	9.0	1.2	0.6	7.9	12.5
	Calcium (diss.) g.m ⁻³	7	0	8.9	0.6	0.3	8.3	10.3
	Magnesium (tot.) g.m ⁻³	25	0	5.7	0.6	0.3	4.9	6.2
	Magnesium (diss.) g.m ⁻³	7	0	5.8	0.2	0.1	5.4	6.6
	Sodium (tot.) g.m ⁻³	21	0	21.7	1.5	0.7	16.0	25.4
	Sodium (diss.) g.m ⁻³	8	0	22.4	1.1	0.7	21.0	23.7
	Potassium (tot.) g.m ⁻³	21	0	5.4	0.7	0.4	2.5	6.3
	Potassium (diss.) g.m ⁻³	7	0	5.7	0.4	0.2	5.6	7.8
	Chloride (tot.) g.m ⁻³	26	0	16.9	1.2	0.6	13.2	21.4
	Sulphate (tot.) g.m ⁻³	29	0	15.0	2.7	1.4	11.5	25.9
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	7	57	0.002	0.001	0.001	<0.003	0.025
	Arsenic (tot.) g.m ⁻³	18	100	<0.0005	ND	ND	<0.0005	0.0006
	Arsenic (diss.) g.m ⁻³	4	100	<0.0005	ND	ND	<0.001	<0.0005
	Boron (tot.) g.m ⁻³	21	0	0.066	0.010	0.004	<0.01	0.100
	Boron (diss.) g.m ⁻³	7	0	0.072	0.004	0.002	0.066	0.076
	Chromium (tot.) g.m ⁻³	16	94	0.0025	ND	ND	ND	0.006
	Chromium (diss.) g.m ⁻³	9	22	0.0006	0.0001	0.0001	<0.0005	0.0009
	Chromium (Hexavalent) g.m ⁻³	5	100	<0.001	ND	ND	<0.001	<0.001
	Copper (tot.) g.m ⁻³	18	72	0.002	0	0	ND	0.017
	Copper (diss.) g.m ⁻³	7	0	0.001	0.0002	0.0001	0.001	0.001
	Fluoride (tot.) g.m ⁻³	29	0	0.130	0.030	0.020	<0.050	0.180
	Iron (tot.) g.m ⁻³	30	0	0.238	0.204	0.104	0.048	0.505
	Iron (diss.) g.m ⁻³	19	100	<0.005	ND	ND	<0.005	0.022
	Lithium (tot.) g.m ⁻³	17	71	0.0004	0	0	ND	0.0010
	Lithium (diss.) g.m ⁻³	4	0	0.0003	0	0	0.0003	0.0005
	Manganese (tot.) g.m ⁻³	27	4	0.010	0.008	0.004	<0.001	5.320
	Manganese (diss.) g.m ⁻³	25	40	0.002	0.002	0.001	<0.001	21.900
	Nickel (tot.) g.m ⁻³	19	74	0.001	0	0	ND	0.030
	Nickel (diss.) g.m ⁻³	6	17	0.001	0.0001	0.0001	<0.0005	0.001
	Lead (tot.) g.m ⁻³	16	100	<0.02	ND	ND	ND	ND
	Lead (diss.) g.m ⁻³	7	100	<0.0001	ND	ND	<0.0001	<0.0001
	Zinc (tot.) g.m ⁻³	19	68	0.003	0.001	0	<0.001	0.056
	Zinc (diss.) g.m ⁻³	6	33	0.002	0.002	0.001	<0.001	0.017
Ion Balance	Total Anion (mEq/L)	29	0	1.9	0.3	0.1	1.6	2.3
	Total Cation (mEq/L)	25	0	2.0	0.1	0.04	1.7	2.2
	Charge Bal. Error (% mEq/L)	29	0	3.2	3.8	2.0	0.2	7.3

For an explanation of table formatting, see end of Table 7.

Auckland Volcanics - Basalt, Scoria & Tuff								
Mount Richmond Domain		Count	% Results					
			Censored	Median	IQR	MAD	Minimum	Maximum
General Field Parameters	Temperature (°C)	19	0	18.3	1.2	0.5	11.6	21.2
	Dissolved oxygen (g.m ⁻³)	15	0	7.88	5.84	2.38	1.19	10.26
	Dissolved oxygen (% sat)	13	0	84.0	50.9	15.2	12.7	99.6
	Conductivity at 25°C (µS.cm ⁻²)	11	0	104	31.9	18.1	60	750
General Lab Parameters	pH (pH unit)	25	0	7.5	0.3	0.2	7.0	8.5
	Turbidity (NTU)	25	0	0.4	0.5	0.2	0.1	6.1
	Suspended solid g.m ⁻³	26	50	0.1	0.3	0.1	<0.1	1.7
	Total dissolved solid g.m ⁻³	15	0	431.0	32.5	16.0	52.5	460.0
Alkalinity	Total as CaCO ₃ g.m ⁻³	20	0	211.5	65.0	16.0	16.1	253.0
	Bicarbonate g.m ⁻³	16	0	269.5	26.0	14.8	19.6	306.0
	Carbonate g.m ⁻³	27	100	<1	ND	ND	<1	5
	Hydroxide g.m ⁻³	27	100	<1	ND	ND	<1	5
Hardness	Total as CaCO ₃ g.m ⁻³	28	0	213.3	206.4	49.8	23.2	270.0
	Calcium as CaCO ₃ g.m ⁻³	27	0	76.5	63.7	20.8	17.0	99.0
	Magnesium as CaCO ₃ g.m ⁻³	16	0	146.3	11.0	6.4	5.2	175.0
Nutrients	Nitrate-N (tot.) g.m ⁻³	20	0	0.123	0.105	0.048	0.052	3.234
	Nitrite-N (tot.) g.m ⁻³	15	100	<0.002	ND	ND	<0.002	0.188
	Nitrate/Nitrite g.m ⁻³	20	0	0.130	0.105	0.052	0.052	3.380
	Ammoniacal-N (tot.) g.m ⁻³	15	100	<0.01	ND	ND	<0.001	ND
	Phosphorous (tot.) g.m ⁻³	27	7	0.14	0.19	0.11	<0.004	0.46
	Phosphorous (diss.) g.m ⁻³	27	11	0.07	0.18	0.07	<0.01	0.21
	Phosphate (tot.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
Microbiology	Faecal Coliforms (cfu/100ml)	1	100	<1	ND	ND	<1	<1
	Escherichia Coli (cfu/100ml)	1	100	<1	ND	ND	<1	<1
Silicate	Silica as SiO ₂ g.m ⁻³	28	0	32.6	20.6	5.2	12.0	38.1
Major Cations & Anions	Calcium (tot.) g.m ⁻³	13	0	8.2	1.1	0.7	6.8	38.9
	Calcium (diss.) g.m ⁻³	5	0	36.0	2.2	1.3	8.9	39.6
	Magnesium (tot.) g.m ⁻³	13	0	1.5	0.2	0.2	1.3	42.5
	Magnesium (diss.) g.m ⁻³	5	0	40.1	4.6	1.8	1.6	41.9
	Sodium (tot.) g.m ⁻³	13	0	10.9	3.3	1.7	7.3	56.7
	Sodium (diss.) g.m ⁻³	5	0	50.0	3.4	3.2	12.2	56.5
	Potassium (tot.) g.m ⁻³	13	0	1.2	0.3	0.2	0.7	18.6
	Potassium (diss.) g.m ⁻³	5	0	17.8	0.3	0.2	1.6	18.9
	Chloride (tot.) g.m ⁻³	28	0	22.1	12.4	6.3	11.7	33.5
Minor Cations & Anions	Sulphate (tot.) g.m ⁻³	28	0	83.0	93.3	44.0	7.1	130.0
	Aluminium (diss.) g.m ⁻³	10	40	0.008	0.010	0.005	<0.003	0.020
	Arsenic (tot.) g.m ⁻³	14	100	<0.0005	ND	ND	<0.0005	0.0012
	Arsenic (diss.) g.m ⁻³	6	50	0.0005	0.0002	0.0001	<0.001	0.0008
	Boron (tot.) g.m ⁻³	24	25	0.047	0.057	0.027	<0.01	0.100
	Boron (diss.) g.m ⁻³	5	0	0.081	0.007	0.005	0.040	0.086
	Chromium (tot.) g.m ⁻³	12	100	<0.0005	ND	ND	ND	ND
	Chromium (diss.) g.m ⁻³	8	100	<0.0005	ND	ND	<0.0005	<0.0005
	Chromium (Hexavalent) g.m ⁻³	4	100	<0.001	ND	ND	<0.001	<0.001
	Copper (tot.) g.m ⁻³	18	67	0.001	0.000	0.000	<0.0003	0.014
	Copper (diss.) g.m ⁻³	5	0	0.001	0.001	0.0003	0.001	0.003
	Fluoride (tot.) g.m ⁻³	24	0	0.850	0.113	0.060	0.580	1.250
	Iron (tot.) g.m ⁻³	25	8	0.067	0.212	0.054	ND	0.830
	Iron (diss.) g.m ⁻³	21	38	0.007	0.006	0.004	<0.005	0.256
	Lithium (tot.) g.m ⁻³	19	32	0.0020	0.0013	0.0013	<0.001	0.0120
	Lithium (diss.) g.m ⁻³	4	0	0.0015	0.00003	0	0.0015	0.0089
	Manganese (tot.) g.m ⁻³	28	4	0.076	0.145	0.072	<0.001	0.213
	Manganese (diss.) g.m ⁻³	18	33	0.001	0.023	0.001	<0.0005	0.203
	Nickel (tot.) g.m ⁻³	18	94	0.002	ND	ND	<0.0005	0.007
	Nickel (diss.) g.m ⁻³	5	20	0.001	0.000	0.000	<0.0005	0.014
	Lead (tot.) g.m ⁻³	15	100	<0.02	ND	ND	<0.0001	ND
	Lead (diss.) g.m ⁻³	4	75	0.0001	ND	ND	<0.0001	0.0004
	Zinc (tot.) g.m ⁻³	22	9	0.041	0.067	0.035	<0.005	0.357
	Zinc (diss.) g.m ⁻³	4	0	0.027	0.002	0.001	0.011	0.042
Ion Balance	Total Anion (mEq/L)	21	0	7.1	5.7	0.6	0.9	8.3
	Total Cation (mEq/L)	28	0	6.6	6.3	1.5	0.8	8.3
	Charge Bal. Error (% mEq/L)	23	0	1.4	0.7	0.4	0.3	5.3

For an explanation of table formatting, see end of Table 7.

Table 3: Groundwater Quality Data Summary – South Auckland Volcanics

South Auckland Volcanics - Basalt, Scoria & Tuff

		% Results						
Fielding Rd – Volcanic		Count	Censored	Median	IQR	MAD	Minimum	Maximum
General Field Parameters	Temperature (°C)	24	0	17.0	0.3	0.2	14.5	18.8
	Dissolved oxygen (g.m ⁻³)	13	0	0.14	0.11	0.07	0.06	1.04
	Dissolved oxygen (% sat)	12	0	1.4	0.9	0.4	0.7	10.9
	Conductivity at 25°C (µS.cm ⁻²)	19	0	307	44.9	18.0	269	330
General Lab Parameters	pH (pH unit)	29	0	8.1	0.1	0.05	7.6	8.3
	Turbidity (NTU)	27	0	2.7	4.0	1.9	0.4	18.1
	Suspended solid g.m ⁻³	29	3	2	1.9	1.0	ND	11
	Total dissolved solid g.m ⁻³	30	0	204	11.0	6.8	181	223
Alkalinity	Total as CaCO ₃ g.m ⁻³	29	0	139.0	7.0	3.0	116.0	149.0
	Bicarbonate g.m ⁻³	29	0	165.0	10.4	6.0	142.0	181.8
	Carbonate g.m ⁻³	28	100	<1	ND	ND	<1	9.8
	Hydroxide g.m ⁻³	30	100	<1	ND	ND	<1	<1
Hardness	Total as CaCO ₃ g.m ⁻³	29	0	106.8	7.9	3.9	95.4	126.0
	Calcium as CaCO ₃ g.m ⁻³	28	0	43.6	2.0	1.1	39.0	64.0
	Magnesium as CaCO ₃ g.m ⁻³	28	0	63.8	5.3	2.6	52.3	83.0
Nutrients	Nitrate-N (tot.) g.m ⁻³	28	14	0.005	0.004	0.002	<0.002	0.030
	Nitrite-N (tot.) g.m ⁻³	24	100	<0.002	ND	ND	<0.002	0.003
	Nitrate/Nitrite g.m ⁻³	29	14	0.006	0.005	0.003	<0.002	0.030
	Ammoniacal-N (tot.) g.m ⁻³	30	0	0.060	0.030	0.020	0.030	0.120
	Phosphorous (tot.) g.m ⁻³	27	0	0.04	0.010	0.003	0.03	0.18
	Phosphorous (diss.) g.m ⁻³	21	0	0.04	0.001	0	0.02	0.18
	Phosphate (tot.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
Microbiology	Faecal Coliforms (cfu/100ml)	1	100	<1	ND	ND	<1	<1
	Escherichia Coli (cfu/100ml)	1	100	<1	ND	ND	<1	<1
Silicate	Silica as SiO ₂ g.m ⁻³	29	0	39.5	3.2	1.6	26.9	44.3
Major Cations & Anions	Calcium (tot.) g.m ⁻³	24	0	17.4	0.7	0.4	15.8	25.6
	Calcium (diss.) g.m ⁻³	6	0	17.8	0.6	0.2	15.5	18.1
	Magnesium (tot.) g.m ⁻³	23	0	15.3	1.1	0.5	12.7	20.2
	Magnesium (diss.) g.m ⁻³	6	0	16.0	0.8	0.5	14.5	20.4
	Sodium (tot.) g.m ⁻³	21	0	25.6	1.2	0.6	19.1	27.6
	Sodium (diss.) g.m ⁻³	7	0	26.2	1.3	0.7	23.4	27.3
	Potassium (tot.) g.m ⁻³	20	0	3.7	0.1	0.1	1.6	4.0
	Potassium (diss.) g.m ⁻³	7	0	3.8	0.2	0.2	3.4	4.2
	Chloride (tot.) g.m ⁻³	30	0	20.6	1.2	0.7	18.9	23.0
Minor Cations & Anions	Sulphate (tot.) g.m ⁻³	27	0	3.1	0.8	0.3	<0.02	3.8
	Aluminium (diss.) g.m ⁻³	9	100	<0.003	ND	ND	<0.003	0.005
	Arsenic (tot.) g.m ⁻³	19	100	<0.0005	ND	ND	<0.0005	0.0006
	Arsenic (diss.) g.m ⁻³	4	100	<0.0005	ND	ND	<0.001	<0.0005
	Boron (tot.) g.m ⁻³	24	25	0.019	0.012	0.008	<0.01	0.120
	Boron (diss.) g.m ⁻³	7	0	0.018	0.002	0.001	0.016	0.021
	Chromium (tot.) g.m ⁻³	19	84	0.0005	0	0	ND	0.006
	Chromium (diss.) g.m ⁻³	10	100	<0.0005	ND	ND	<0.0005	<0.0005
	Chromium (Hexavalent) g.m ⁻³	6	100	<0.001	ND	ND	<0.001	<0.001
	Copper (tot.) g.m ⁻³	15	87	0.001	0.000	0.000	<0.0005	0.012
	Copper (diss.) g.m ⁻³	7	100	<0.0005	ND	ND	<0.0005	<0.0005
	Fluoride (tot.) g.m ⁻³	30	40	0.030	0.042	0.016	<0.020	ND
	Iron (tot.) g.m ⁻³	30	0	0.743	0.647	0.332	0.187	1.550
	Iron (diss.) g.m ⁻³	28	0	0.044	0.021	0.011	0.024	1.120
	Lithium (tot.) g.m ⁻³	24	0	0.0041	0.0010	0.0009	0.0020	0.0050
	Lithium (diss.) g.m ⁻³	7	0	0.0042	0.00025	0.0001	0.0038	0.0044
	Manganese (tot.) g.m ⁻³	27	0	0.029	0.006	0.003	0.023	0.055
	Manganese (diss.) g.m ⁻³	24	0	0.022	0.004	0.002	0.006	0.040
	Nickel (tot.) g.m ⁻³	13	100	<0.005	ND	ND	<0.0005	0.011
	Nickel (diss.) g.m ⁻³	7	100	<0.0005	ND	ND	<0.0005	<0.0005
	Lead (tot.) g.m ⁻³	17	100	<0.02	ND	ND	<0.0001	ND
	Lead (diss.) g.m ⁻³	7	100	<0.0001	ND	ND	<0.0001	<0.0001
	Zinc (tot.) g.m ⁻³	18	83	0.001	0.0001	0.0001	<0.001	0.065
	Zinc (diss.) g.m ⁻³	6	50	0.001	0.0013	0.0004	<0.001	0.005
Ion Balance	Total Anion (mEq/L)	26	0	3.4	0.1	0.04	3.0	3.6
	Total Cation (mEq/L)	26	0	3.4	0.1	0.1	2.9	3.7
	Charge Bal. Error (% mEq/L)	29	0	2.0	1.9	1.2	0.0	5.2

For an explanation of table formatting, see end of Table 7.

South Auckland Volcanics - Basalt, Scoria & Tuff								
B.P. Bombay		% Results						
		Count	Censored	Median	IQR	MAD	Minimum	Maximum
General Field Parameters	Temperature (°C)	27	0	14.5	0.5	0.2	14.1	15.8
	Dissolved oxygen (g.m ⁻³)	14	0	7.53	0.90	0.52	5.12	8.28
	Dissolved oxygen (% sat)	14	0	73.7	9.0	5.3	51.2	91.8
	Conductivity at 25°C (µS.cm ⁻²)	11	0	269	4.3	2.5	207	273
General Lab Parameters	pH (pH unit)	30	0	7.3	0.4	0.2	6.9	8.1
	Turbidity (NTU)	28	32	0.10	0.06	0.04	ND	2.0
	Suspended solid g.m ⁻³	31	68	0.04	0.13	0.03	ND	0.6
	Total dissolved solid g.m ⁻³	27	0	206	16.0	7.0	154	255
Alkalinity	Total as CaCO ₃ g.m ⁻³	30	0	64.0	2.7	1.4	45.0	74.3
	Bicarbonate g.m ⁻³	27	0	78.0	2.2	1.0	58.6	90.6
	Carbonate g.m ⁻³	31	100	<1	ND	ND	<1	<1
	Hydroxide g.m ⁻³	31	100	<1	ND	ND	<1	<1
Hardness	Total as CaCO ₃ g.m ⁻³	32	0	84.6	5.3	2.7	75.4	95.0
	Calcium as CaCO ₃ g.m ⁻³	30	0	36.8	1.9	1.0	33.0	41.0
	Magnesium as CaCO ₃ g.m ⁻³	31	0	48.6	3.5	1.7	42.4	54.7
Nutrients	Nitrate-N (tot.) g.m ⁻³	32	0	8.430	1.225	0.686	6.848	10.098
	Nitrite-N (tot.) g.m ⁻³	30	100	<0.002	ND	ND	<0.002	0.003
	Nitrate/Nitrite g.m ⁻³	32	0	8.431	1.225	0.687	6.848	10.098
	Ammoniacal-N (tot.) g.m ⁻³	22	100	<0.01	ND	ND	<0.01	0.050
	Phosphorous (tot.) g.m ⁻³	29	0	0.10	0.010	0.004	0.09	0.21
	Phosphorous (diss.) g.m ⁻³	30	0	0.10	0.017	0.009	0.05	0.12
	Phosphate (tot.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
Microbiology	Faecal Coliforms (cfu/100ml)	1	100	<1	ND	ND	<1	<1
	Escherichia Coli (cfu/100ml)	1	100	<1	ND	ND	<1	<1
Silicate	Silica as SiO ₂ g.m ⁻³	32	0	43.4	3.9	2.0	38.2	49.5
Major Cations & Anions	Calcium (tot.) g.m ⁻³	27	0	14.7	0.8	0.4	13.2	15.9
	Calcium (diss.) g.m ⁻³	7	0	15.4	0.5	0.4	14.1	16.2
	Magnesium (tot.) g.m ⁻³	27	0	11.7	0.8	0.4	10.3	13.3
	Magnesium (diss.) g.m ⁻³	8	0	12.3	1.0	0.6	11.4	13.1
	Sodium (tot.) g.m ⁻³	23	0	16.3	0.4	0.3	12.0	18.2
	Sodium (diss.) g.m ⁻³	8	0	17.1	0.8	0.3	15.7	17.4
	Potassium (tot.) g.m ⁻³	25	0	2.1	0.05	0.03	1.0	2.2
	Potassium (diss.) g.m ⁻³	8	0	2.2	0.1	0.1	2.1	2.4
	Chloride (tot.) g.m ⁻³	30	0	20.1	0.9	0.5	18.8	24.1
	Sulphate (tot.) g.m ⁻³	31	0	2.1	0.4	0.2	1.5	2.9
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	9	100	<0.003	ND	ND	<0.003	0.005
	Arsenic (tot.) g.m ⁻³	24	100	<0.0005	ND	ND	<0.0005	0.0005
	Arsenic (diss.) g.m ⁻³	4	100	<0.0005	ND	ND	<0.0005	<0.001
	Boron (tot.) g.m ⁻³	19	68	0.008	0.006	0.002	<0.01	0.030
	Boron (diss.) g.m ⁻³	7	0	0.015	0.001	0.001	0.013	0.018
	Chromium (tot.) g.m ⁻³	17	100	<0.005	ND	ND	<0.0005	ND
	Chromium (diss.) g.m ⁻³	9	100	<0.0005	ND	ND	<0.0005	<0.0005
	Chromium (Hexavalent) g.m ⁻³	5	100	<0.001	ND	ND	<0.001	<0.001
	Copper (tot.) g.m ⁻³	13	100	<0.005	ND	ND	<0.0005	0.008
	Copper (diss.) g.m ⁻³	4	100	<0.0005	ND	ND	<0.0005	0.001
	Fluoride (tot.) g.m ⁻³	31	23	0.040	0.040	0.017	<0.020	0.110
	Iron (tot.) g.m ⁻³	30	83	0.002	0.003	0.001	<0.005	0.030
	Iron (diss.) g.m ⁻³	28	100	<0.005	ND	ND	<0.005	0.011
	Lithium (tot.) g.m ⁻³	15	0	0.001	0	0	<0.001	0.002
	Lithium (diss.) g.m ⁻³	4	0	0.001	0	0	0.001	0.001
	Manganese (tot.) g.m ⁻³	18	100	<0.001	ND	ND	<0.0005	0.001
	Manganese (diss.) g.m ⁻³	17	100	<0.001	ND	ND	<0.0005	0.002
	Nickel (tot.) g.m ⁻³	18	100	<0.005	ND	ND	<0.0005	0.025
	Nickel (diss.) g.m ⁻³	7	100	<0.0005	ND	ND	<0.0005	<0.0005
	Lead (tot.) g.m ⁻³	16	100	<0.02	ND	ND	ND	0.0600
	Lead (diss.) g.m ⁻³	6	0	0.0014	0.0007	0.0002	0.0012	0.0034
	Zinc (tot.) g.m ⁻³	25	0	0.062	0.082	0.037	0.011	0.708
	Zinc (diss.) g.m ⁻³	4	0	0.023	0.001	0.001	0.010	0.034
Ion Balance	Total Anion (mEq/L)	21	0	2.0	0.1	0.0	1.9	2.7
	Total Cation (mEq/L)	30	0	2.5	0.2	0.1	2.1	2.7
	Charge Bal. Error (% mEq/L)	23	0	10.1	1.8	0.9	0.6	14.7

For an explanation of table formatting, see end of Table 7.

South Auckland Volcanics - Basalt, Scoria & Tuff								
Rifle Range Rd – Shallow		Count	% Results					
			Censored	Median	IQR	MAD	Minimum	Maximum
General Field Parameters	Temperature (°C)	26	0	15.2	0.4	0.2	13.1	19.6
	Dissolved oxygen (g.m ⁻³)	15	0	6.52	0.76	0.42	3.89	7.85
	Dissolved oxygen (% sat)	16	0	64.5	9.4	5.7	51.0	78.6
	Conductivity at 25°C (µS.cm ⁻²)	19	0	170	43.7	13.0	157	216
General Lab Parameters	pH (pH unit)	30	0	7.1	0.4	0.2	6.7	8.2
	Turbidity (NTU)	29	0	1.7	2.9	1.1	0.2	17.0
	Suspended solid g.m ⁻³	28	21	2.5	3.2	1.7	<0.1	25
	Total dissolved solid g.m ⁻³	31	0	161	18.5	11.0	135	192
Alkalinity	Total as CaCO ₃ g.m ⁻³	31	0	45.0	2.4	1.1	42.0	52.9
	Bicarbonate g.m ⁻³	30	0	54.4	2.9	1.4	49.5	64.5
	Carbonate g.m ⁻³	31	100	<1	ND	ND	<1	<1
	Hydroxide g.m ⁻³	31	100	<1	ND	ND	<1	<1
Hardness	Total as CaCO ₃ g.m ⁻³	30	0	56.6	4.1	2.2	48.8	70.0
	Calcium as CaCO ₃ g.m ⁻³	31	0	24.4	2.4	1.3	21.3	29.3
	Magnesium as CaCO ₃ g.m ⁻³	28	0	31.6	1.7	0.9	27.6	44.0
Nutrients	Nitrate-N (tot.) g.m ⁻³	32	0	5.599	1.953	0.779	3.538	8.390
	Nitrite-N (tot.) g.m ⁻³	25	100	<0.002	ND	ND	<0.002	0.005
	Nitrate/Nitrite g.m ⁻³	32	0	5.599	1.953	0.779	3.538	8.390
	Ammoniacal-N (tot.) g.m ⁻³	23	100	<0.01	ND	ND	<0.01	0.020
	Phosphorous (tot.) g.m ⁻³	19	0	0.06	0	0	0.05	0.08
	Phosphorous (diss.) g.m ⁻³	16	0	0.06	0	0	0.04	0.08
	Phosphate (tot.) g.m ⁻³	1	0	0.19	ND	ND	0.19	0.19
Microbiology	Faecal Coliforms (cfu/100ml)	1	100	<1	ND	ND	<1	<1
	Escherichia Coli (cfu/100ml)	1	100	<1	ND	ND	<1	<1
Silicate	Silica as SiO ₂ g.m ⁻³	31	0	48.7	3.0	1.7	39.5	54.2
Major Cations & Anions	Calcium (tot.) g.m ⁻³	24	0	9.7	0.8	0.4	8.5	11.7
	Calcium (diss.) g.m ⁻³	8	0	10.2	0.7	0.4	8.9	11.1
	Magnesium (tot.) g.m ⁻³	24	0	7.7	0.4	0.2	6.7	9.9
	Magnesium (diss.) g.m ⁻³	6	0	8.1	0.3	0.2	7.6	10.6
	Sodium (tot.) g.m ⁻³	20	0	15.3	0.4	0.2	11.4	16.6
	Sodium (diss.) g.m ⁻³	6	0	16.2	0.4	0.2	14.4	17.2
	Potassium (tot.) g.m ⁻³	20	0	0.9	0.06	0.03	0.1	9.2
	Potassium (diss.) g.m ⁻³	7	0	1.0	0.04	0.01	0.9	1.4
	Chloride (tot.) g.m ⁻³	31	0	17.4	0.8	0.5	15.8	20.1
Minor Cations & Anions	Sulphate (tot.) g.m ⁻³	30	0	2.6	0.4	0.2	0.6	3.3
	Aluminium (diss.) g.m ⁻³	8	100	<0.003	ND	ND	<0.003	ND
	Arsenic (tot.) g.m ⁻³	22	100	<0.0005	ND	ND	<0.0005	0.0009
	Arsenic (diss.) g.m ⁻³	8	100	<0.001	ND	ND	<0.0005	<0.001
	Boron (tot.) g.m ⁻³	24	33	0.010	0.008	0.004	<0.01	0.040
	Boron (diss.) g.m ⁻³	8	0	0.016	0.002	0.001	0.014	0.018
	Chromium (tot.) g.m ⁻³	15	100	<0.0005	ND	ND	<0.0005	0.0022
	Chromium (diss.) g.m ⁻³	8	100	<0.0005	ND	ND	<0.0005	0.0005
	Chromium (Hexavalent) g.m ⁻³	5	100	<0.001	ND	ND	<0.001	<0.001
	Copper (tot.) g.m ⁻³	23	65	0.001	0.0001	0	<0.0005	0.013
	Copper (diss.) g.m ⁻³	6	33	0.001	0.001	0.0003	<0.0005	0.003
	Fluoride (tot.) g.m ⁻³	22	59	0.016	0.006	0.003	<0.020	0.100
	Iron (tot.) g.m ⁻³	27	0	0.110	0.121	0.060	0.030	0.558
	Iron (diss.) g.m ⁻³	24	100	<0.005	ND	ND	<0.005	0.046
	Lithium (tot.) g.m ⁻³	18	72	0.0005	0	0	ND	0.0030
	Lithium (diss.) g.m ⁻³	4	0	0.0004	0	0	0.0004	0.0005
	Manganese (tot.) g.m ⁻³	26	0	0.002	0.001	0.0003	0.001	0.006
	Manganese (diss.) g.m ⁻³	17	100	<0.001	ND	ND	ND	0.002
	Nickel (tot.) g.m ⁻³	17	100	<0.005	ND	ND	<0.0005	0.008
	Nickel (diss.) g.m ⁻³	5	100	<0.0005	ND	ND	<0.0005	0.001
	Lead (tot.) g.m ⁻³	16	100	<0.02	ND	ND	<0.0001	0.0400
	Lead (diss.) g.m ⁻³	7	100	<0.0001	ND	ND	<0.0001	<0.0001
	Zinc (tot.) g.m ⁻³	19	79	0.001	0.000	0.000	<0.001	0.031
	Zinc (diss.) g.m ⁻³	7	14	0.002	0.003	0.001	<0.001	0.018
Ion Balance	Total Anion (mEq/L)	21	0	1.5	0.1	0.04	1.4	2.0
	Total Cation (mEq/L)	29	0	1.8	0.1	0.1	1.7	2.1
	Charge Bal. Error (% mEq/L)	30	0	7.5	5.1	2.1	0.8	13.6

For an explanation of table formatting, see end of Table 7.

South Auckland Volcanics - Basalt, Scoria & Tuff								
		% Results						
Rifle Range Rd – Deep		Count	Censored	Median	IQR	MAD	Minimum	Maximum
General Field Parameters	Temperature (°C)	27	0	14.5	0.1	0.1	14.3	18.2
	Dissolved oxygen (g.m ⁻³)	14	0	0.10	0.07	0.04	0.02	1.60
	Dissolved oxygen (% sat)	14	0	1.0	0.9	0.6	0.2	15.7
	Conductivity at 25°C (µS.cm ⁻²)	19	0	236	49.2	33.6	202	284
General Lab Parameters	pH (pH unit)	27	0	8.6	0.2	0.1	6.6	8.8
	Turbidity (NTU)	25	0	0.2	0.1	0.1	0.1	2.9
	Suspended solid g.m ⁻³	22	45	0.1	0.24	0.05	<0.1	10
	Total dissolved solid g.m ⁻³	29	0	174	11.0	5.0	150	191
Alkalinity	Total as CaCO ₃ g.m ⁻³	29	0	106.0	5.0	3.0	91.2	113.0
	Bicarbonate g.m ⁻³	28	0	121.8	8.9	4.6	81.4	134.1
	Carbonate g.m ⁻³	20	70	0.3	0.9	0.2	<1	23.9
	Hydroxide g.m ⁻³	30	100	<1	ND	ND	<1	<1
Hardness	Total as CaCO ₃ g.m ⁻³	28	0	76.0	4.3	2.6	61.0	88.0
	Calcium as CaCO ₃ g.m ⁻³	25	0	43.0	1.5	1.0	40.0	50.8
	Magnesium as CaCO ₃ g.m ⁻³	26	0	32.0	4.0	2.0	21.0	43.0
Nutrients	Nitrate-N (tot.) g.m ⁻³	17	88	0.001	0	0	ND	0.017
	Nitrite-N (tot.) g.m ⁻³	26	100	<0.002	ND	ND	<0.002	0.045
	Nitrate/Nitrite g.m ⁻³	16	94	0.001	ND	ND	ND	0.053
	Ammoniacal-N (tot.) g.m ⁻³	27	0	0.170	0.015	0.010	<0.01	0.230
	Phosphorous (tot.) g.m ⁻³	24	0	0.24	0.02	0.01	0.16	0.57
	Phosphorous (diss.) g.m ⁻³	26	0	0.23	0.02	0.01	0.15	0.26
	Phosphate (tot.) g.m ⁻³	1	0	0.72	ND	ND	0.72	0.72
Microbiology	Faecal Coliforms (cfu/100ml)	1	100	<1	ND	ND	<1	<1
	Escherichia Coli (cfu/100ml)	1	100	<1	ND	ND	<1	<1
Silicate	Silica as SiO ₂ g.m ⁻³	30	0	32.0	5.0	2.4	26.4	36.5
Major Cations & Anions	Calcium (tot.) g.m ⁻³	22	0	17.3	1.0	0.5	16.0	163.0
	Calcium (diss.) g.m ⁻³	7	0	16.9	0.4	0.1	16.8	19.5
	Magnesium (tot.) g.m ⁻³	23	0	7.8	1.0	0.5	5.1	9.9
	Magnesium (diss.) g.m ⁻³	6	0	8.1	0.3	0.2	7.7	10.5
	Sodium (tot.) g.m ⁻³	21	0	26.8	2.1	0.8	19.8	28.6
	Sodium (diss.) g.m ⁻³	7	0	26.5	0.9	0.4	25.7	30.6
	Potassium (tot.) g.m ⁻³	22	0	4.6	0.2	0.1	2.6	5.0
	Potassium (diss.) g.m ⁻³	7	0	4.7	0.3	0.1	4.5	5.8
	Chloride (tot.) g.m ⁻³	29	0	23.9	1.6	0.8	21.4	27.6
	Sulphate (tot.) g.m ⁻³	27	7	0.6	0.5	0.3	<0.02	5.1
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	11	9	0.005	0.002	0.001	<0.002	0.008
	Arsenic (tot.) g.m ⁻³	23	30	0.0008	0.0004	0.0003	<0.0005	0.0032
	Arsenic (diss.) g.m ⁻³	8	100	<0.001	ND	ND	<0.0005	<0.001
	Boron (tot.) g.m ⁻³	24	33	0.010	0.012	0.004	<0.01	0.030
	Boron (diss.) g.m ⁻³	7	0	0.016	0.003	0.001	0.015	0.022
	Chromium (tot.) g.m ⁻³	14	100	<0.0005	ND	ND	<0.0005	ND
	Chromium (diss.) g.m ⁻³	9	100	<0.0005	ND	ND	<0.0005	<0.0005
	Chromium (Hexavalent) g.m ⁻³	5	100	<0.001	ND	ND	<0.001	<0.001
	Copper (tot.) g.m ⁻³	15	87	0.001	0	0	<0.0005	0.014
	Copper (diss.) g.m ⁻³	7	100	<0.0005	ND	ND	<0.0005	<0.0005
	Fluoride (tot.) g.m ⁻³	27	4	0.090	0.025	0.010	<0.050	0.170
	Iron (tot.) g.m ⁻³	26	0	0.037	0.010	0.005	0.020	0.363
	Iron (diss.) g.m ⁻³	30	7	0.021	0.011	0.006	<0.005	0.037
	Lithium (tot.) g.m ⁻³	23	0	0.0040	0.0010	0.0010	0.0010	0.0050
	Lithium (diss.) g.m ⁻³	7	0	0.0039	0.0003	0.0001	0.0035	0.0047
	Manganese (tot.) g.m ⁻³	30	0	0.024	0.004	0.002	0.019	0.030
	Manganese (diss.) g.m ⁻³	28	0	0.022	0.006	0.004	<0.001	0.027
	Nickel (tot.) g.m ⁻³	17	100	<0.0005	ND	ND	<0.0005	0.013
	Nickel (diss.) g.m ⁻³	8	100	<0.0005	ND	ND	<0.0005	<0.0005
	Lead (tot.) g.m ⁻³	16	100	<0.02	ND	ND	<0.0001	ND
	Lead (diss.) g.m ⁻³	6	100	<0.0001	ND	ND	<0.0001	0.0001
	Zinc (tot.) g.m ⁻³	19	95	0.003	ND	ND	<0.002	0.046
	Zinc (diss.) g.m ⁻³	6	0	0.003	0	0	<0.001	0.005
Ion Balance	Total Anion (mEq/L)	28	0	2.8	0.1	0.04	2.3	3.0
	Total Cation (mEq/L)	29	0	2.8	0.1	0.1	2.5	3.2
	Charge Bal. Error (% mEq/L)	29	0	1.7	3.0	1.4	0.1	8.5

For an explanation of table formatting, see end of Table 7.

Table 4: Groundwater Quality Data Summary – Pleistocene Sediments

Pleistocene Sediments - Alluvial Sediments									
Fielding Rd – Sands		Count	% Results		Median	IQR	MAD	Minimum	Maximum
			Censored						
General Field Parameters	Temperature (°C)	12	0	17.6	0.2	0.1	17.3	18.0	
	Dissolved oxygen (g.m ⁻³)	5	0	0.07	0.06	0.00	0.07	2.82	
	Dissolved oxygen (% sat)	5	0	0.8	0.7	0.1	0.7	29.7	
	Conductivity at 25°C (µS.cm ⁻²)	10	0	346	35.4	19.7	303	386	
General Lab Parameters	pH (pH unit)	7	0	7.9	0.0	0.0	7.7	8.2	
	Turbidity (NTU)	11	0	0.4	0.1	0.1	0.3	0.9	
	Suspended solid g.m ⁻³	9	56	0.1	0.4	0.1	ND	1.8	
	Total dissolved solid g.m ⁻³	11	0	251	5.4	3.0	241	286	
Alkalinity	Total as CaCO ₃ g.m ⁻³	11	0	163.0	7.0	4.0	142.0	173.0	
	Bicarbonate g.m ⁻³	11	0	197.0	10.1	6.2	153.2	212.0	
	Carbonate g.m ⁻³	11	100	<1	ND	ND	<1	9.8	
	Hydroxide g.m ⁻³	11	100	<1	ND	ND	<1	9.8	
Hardness	Total as CaCO ₃ g.m ⁻³	11	0	89.0	5.1	2.0	80.8	104.0	
	Calcium as CaCO ₃ g.m ⁻³	12	0	46.5	2.1	1.4	43.8	50.0	
	Magnesium as CaCO ₃ g.m ⁻³	11	0	41.0	3.4	2.0	37.0	57.0	
Nutrients	Nitrate-N (tot.) g.m ⁻³	7	86	0.001	ND	ND	ND	0.007	
	Nitrite-N (tot.) g.m ⁻³	10	100	<0.002	ND	ND	<0.002	0.003	
	Nitrate/Nitrite g.m ⁻³	7	86	0.001	ND	ND	ND	0.007	
	Ammoniacal-N (tot.) g.m ⁻³	10	0	0.690	0.045	0.025	0.510	0.930	
	Phosphorous (tot.) g.m ⁻³	9	0	0.20	0.02	0.01	0.04	0.27	
	Phosphorous (diss.) g.m ⁻³	10	0	0.19	0.02	0.01	0.04	0.22	
	Phosphate (tot.) g.m ⁻³	0	100	ND	ND	ND	ND	ND	
Microbiology	Faecal Coliforms (cfu/100ml)	1	100	<10	ND	ND	<10	<10	
	Escherichia Coli (cfu/100ml)	1	100	<10	ND	ND	<10	<10	
Silicate	Silica as SiO ₂ g.m ⁻³	12	0	62.1	5.1	2.1	56.1	69.1	
Major Cations & Anions	Calcium (tot.) g.m ⁻³	10	0	18.6	0.9	0.6	17.5	20.0	
	Calcium (diss.) g.m ⁻³	4	0	18.8	0.5	0.3	18.1	19.2	
	Magnesium (tot.) g.m ⁻³	9	0	9.8	0.8	0.5	9.0	13.9	
	Magnesium (diss.) g.m ⁻³	3	0	10.4	0.3	0.2	10.0	13.4	
	Sodium (tot.) g.m ⁻³	9	0	41.2	1.1	0.4	40.4	43.7	
	Sodium (diss.) g.m ⁻³	4	0	40.9	1.0	0.5	40.2	41.7	
	Potassium (tot.) g.m ⁻³	9	0	6.0	0.3	0.1	3.3	6.3	
	Potassium (diss.) g.m ⁻³	4	0	6.2	0.3	0.2	5.9	6.7	
	Chloride (tot.) g.m ⁻³	11	0	18.8	0.9	0.7	17.8	22.4	
	Sulphate (tot.) g.m ⁻³	11	91	0.2	ND	ND	<0.02	3.1	
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	4	100	<0.003	ND	ND	<0.003	<0.003	
	Arsenic (tot.) g.m ⁻³	10	100	<0.0005	ND	ND	<0.0005	<0.0005	
	Arsenic (diss.) g.m ⁻³	3	100	<0.0005	ND	ND	<0.0005	<0.001	
	Boron (tot.) g.m ⁻³	9	0	0.048	0.006	0.004	0.040	0.170	
	Boron (diss.) g.m ⁻³	4	0	0.049	0.003	0.002	0.046	0.051	
	Chromium (tot.) g.m ⁻³	6	100	<0.006	ND	ND	<0.0005	ND	
	Chromium (diss.) g.m ⁻³	4	100	<0.0005	ND	ND	<0.0005	0.0006	
	Chromium (Hexavalent) g.m ⁻³	2	100	<0.001	ND	ND	<0.001	<0.001	
	Copper (tot.) g.m ⁻³	9	89	0.001	ND	ND	<0.0005	0.008	
	Copper (diss.) g.m ⁻³	4	100	<0.0005	ND	ND	<0.0005	<0.0005	
	Fluoride (tot.) g.m ⁻³	12	25	0.055	0.058	0.031	ND	0.130	
	Iron (tot.) g.m ⁻³	12	0	0.421	0.104	0.057	0.334	0.584	
	Iron (diss.) g.m ⁻³	11	0	0.211	0.048	0.025	0.107	0.411	
	Lithium (tot.) g.m ⁻³	8	0	0.0150	0.0009	0.0007	0.0080	0.0160	
	Lithium (diss.) g.m ⁻³	4	0	0.0135	0.00123	0.00065	0.0127	0.0146	
	Manganese (tot.) g.m ⁻³	12	0	0.038	0.004	0.002	0.033	0.044	
	Manganese (diss.) g.m ⁻³	11	0	0.035	0.007	0.003	0.025	0.044	
	Nickel (tot.) g.m ⁻³	6	100	<0.006	ND	ND	<0.0005	0.017	
	Nickel (diss.) g.m ⁻³	3	100	<0.0005	ND	ND	<0.0005	0.003	
	Lead (tot.) g.m ⁻³	10	80	0.0000	0.00002	0.0000	<0.0001	0.0200	
	Lead (diss.) g.m ⁻³	4	100	<0.0001	ND	ND	<0.0001	<0.0001	
	Zinc (tot.) g.m ⁻³	8	75	0.001	0.002	0.001	<0.001	0.048	
	Zinc (diss.) g.m ⁻³	3	33	0.001	0.002	0.001	<0.001	0.012	
Ion Balance	Total Anion (mEq/L)	10	0	3.8	0.1	0.1	3.4	4.0	
	Total Cation (mEq/L)	11	0	3.8	0.1	0.05	3.7	4.1	
	Charge Bal. Error (% mEq/L)	12	0	1.9	2.3	1.4	0.1	4.4	

For an explanation of table formatting, see end of Table 7.

Pleistocene Sediments - Alluvial Sediments								
		% Results						
Amelia Earhart Ave		Count	Censored	Median	IQR	MAD	Minimum	Maximum
General Field Parameters	Temperature (°C)	16	0	17.7	0.7	0.4	17.2	18.6
	Dissolved oxygen (g.m ⁻³)	7	0	0.08	0.05	0.02	0.05	0.27
	Dissolved oxygen (% sat)	7	0	0.8	0.6	0.2	0.5	2.8
	Conductivity at 25°C (µS.cm ⁻²)	8	0	609	17.0	11.0	41	622
General Lab Parameters	pH (pH unit)	14	0	7.5	0.2	0.1	7.1	8.6
	Turbidity (NTU)	15	0	2.4	0.3	0.2	1.8	6.5
	Suspended solid g.m ⁻³	11	45	0.4	0.2	0.1	ND	6.2
	Total dissolved solid g.m ⁻³	15	0	420	8.5	4.0	409	469
Alkalinity	Total as CaCO3 g.m ⁻³	16	0	265.5	6.9	4.1	253.0	280.0
	Bicarbonate g.m ⁻³	12	0	321.8	8.65	4.8	240.0	342.0
	Carbonate g.m ⁻³	16	100	<1	ND	ND	<1	<1
	Hydroxide g.m ⁻³	16	100	<1	ND	ND	<1	<1
Hardness	Total as CaCO3 g.m ⁻³	12	0	220.1	4.9	1.8	206.0	239.3
	Calcium as CaCO3 g.m ⁻³	15	0	196.5	9.8	4.5	16.0	215.0
	Magnesium as CaCO3 g.m ⁻³	12	0	24.7	0.821	0.4	19.3	34.0
Nutrients	Nitrate-N (tot.) g.m ⁻³	13	54	0.001	0.002	0.001	<0.002	0.009
	Nitrite-N (tot.) g.m ⁻³	14	100	<0.002	ND	ND	<0.002	0.003
	Nitrate/Nitrite g.m ⁻³	13	38	0.002	0.002	0.001	<0.002	0.009
	Ammoniacal-N (tot.) g.m ⁻³	16	0	0.780	0.06	0.035	0.640	0.850
	Phosphorous (tot.) g.m ⁻³	15	0	0.13	0.02	0.01	0.11	0.16
	Phosphorous (diss.) g.m ⁻³	15	0	0.05	0.02	0.01	0.04	0.07
	Phosphate (tot.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
Microbiology	Faecal Coliforms (cfu/100ml)	1	100	<1	ND	ND	<1	<1
	Eschrichia Coli (cfu/100ml)	1	100	<1	ND	ND	<1	<1
Silicate	Silica as SiO2 g.m ⁻³	15	0	80.1	9.1	5.5	67.7	89.8
Major Cations & Anions	Calcium (tot.) g.m ⁻³	12	0	78.3	3.2	1.6	74.6	86.0
	Calcium (diss.) g.m ⁻³	5	0	78.0	5.8	3.3	72.6	82.8
	Magnesium (tot.) g.m ⁻³	9	0	5.9	0.2	0.2	4.7	8.2
	Magnesium (diss.) g.m ⁻³	4	0	6.2	0.04	0.03	6.0	6.3
	Sodium (tot.) g.m ⁻³	13	0	42.0	1.6	1.0	40.1	44.4
	Sodium (diss.) g.m ⁻³	4	0	44.2	0.9	0.5	40.7	46.3
	Potassium (tot.) g.m ⁻³	12	0	7.7	0.3	0.1	4.4	8.3
	Potassium (diss.) g.m ⁻³	5	0	8.4	0.1	0.1	8.2	8.4
	Chloride (tot.) g.m ⁻³	15	0	42.3	1.6	0.9	37.9	45.2
	Sulphate (tot.) g.m ⁻³	16	63	0.03	0.04	0.01	<0.02	ND
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	7	100	<0.003	ND	ND	<0.003	<0.003
	Arsenic (tot.) g.m ⁻³	13	100	<0.0005	ND	ND	<0.0005	<0.0005
	Arsenic (diss.) g.m ⁻³	4	100	<0.0005	ND	ND	<0.0005	<0.001
	Boron (tot.) g.m ⁻³	7	0	0.060	0.001	0.001	<0.01	0.410
	Boron (diss.) g.m ⁻³	5	0	0.061	0.003	0.003	0.057	0.065
	Chromium (tot.) g.m ⁻³	13	77	0.0004	0.0007	0.0003	ND	0.0060
	Chromium (diss.) g.m ⁻³	6	100	<0.0005	ND	ND	<0.001	<0.0005
	Chromium (Hexavalent) g.m ⁻³	3	100	<0.001	ND	ND	<0.001	<0.001
	Copper (tot.) g.m ⁻³	8	88	0.002	ND	ND	ND	0.008
	Copper (diss.) g.m ⁻³	5	100	<0.0005	ND	ND	<0.0005	<0.0005
	Fluoride (tot.) g.m ⁻³	16	0	0.190	0.063	0.030	0.130	0.260
	Iron (tot.) g.m ⁻³	13	0	1.220	0.090	0.040	0.930	1.430
	Iron (diss.) g.m ⁻³	12	8	0.032	0.047	0.026	<0.005	1.020
	Lithium (tot.) g.m ⁻³	11	0	0.0181	0.002	0.001	0.0110	0.0200
	Lithium (diss.) g.m ⁻³	5	0	0.0177	0.0004	0.0003	0.0173	0.0180
	Manganese (tot.) g.m ⁻³	14	0	0.097	0.015	0.004	0.086	0.246
	Manganese (diss.) g.m ⁻³	14	0	0.094	0.017	0.006	0.070	0.141
	Nickel (tot.) g.m ⁻³	7	100	<0.005	ND	ND	<0.0005	0.006
	Nickel (diss.) g.m ⁻³	5	100	<0.0005	ND	ND	<0.0005	<0.0005
	Lead (tot.) g.m ⁻³	8	100	<0.02	ND	ND	<0.0001	<0.02
	Lead (diss.) g.m ⁻³	5	100	<0.0001	ND	ND	<0.0001	<0.0001
	Zinc (tot.) g.m ⁻³	11	73	0.0001	0.0012	0.0001	<0.0005	ND
		Zinc (diss.) g.m ⁻³	4	50	0.002	0	0	<0.001
Ion Balance	Total Anion (mEq/L)	16	0	6.5	0.2	0.1	6.3	6.7
	Total Cation (mEq/L)	14	0	6.4	0.1	0.1	6.2	6.9
	Charge Bal. Error (% mEq/L)	16	0	1.1	1.0	0.6	0.2	2.8

For an explanation of table formatting, see end of Table 7.

Pleistocene Sediments - Dune Sands									
Rimmer Rd		Count	% Results		Median	IQR	MAD	Minimum	Maximum
			Censored						
General Field Parameters	Temperature (°C)	13	0	17.4	0.3	0.2	16.8	18.0	
	Dissolved oxygen (g.m ⁻³)	4	0	0.07	0.04	0.03	0.03	1.74	
	Dissolved oxygen (% sat)	4	0	0.7	0.4	0.3	0.3	18.7	
	Conductivity at 25°C (µS.cm ⁻²)	10	0	438	72.0	30.0	244	501	
General Lab Parameters	pH (pH unit)	14	0	6.6	0.2	0.1	6.1	6.9	
	Turbidity (NTU)	13	0	4.9	10.9	2.5	1.9	31.0	
	Suspended solid g.m ⁻³	12	58	0.1	0.3	0.1	<0.1	4.9	
	Total dissolved solid g.m ⁻³	15	0	297	15.5	8.0	276	323	
Alkalinity	Total as CaCO ₃ g.m ⁻³	14	0	86.7	5.3	2.7	79.5	90.8	
	Bicarbonate g.m ⁻³	15	0	105.0	6.1	4.0	97.0	111.0	
	Carbonate g.m ⁻³	14	100	<1	ND	ND	<1	5	
	Hydroxide g.m ⁻³	14	100	<1	ND	ND	<1	5	
Hardness	Total as CaCO ₃ g.m ⁻³	14	0	35.5	2.3	1.2	32.8	43.1	
	Calcium as CaCO ₃ g.m ⁻³	14	0	21.4	1.5	0.9	19.8	32.5	
	Magnesium as CaCO ₃ g.m ⁻³	14	0	14.2	0.7	0.4	10.6	16.0	
Nutrients	Nitrate-N (tot.) g.m ⁻³	12	42	0.002	0.002	0.001	ND	0.014	
	Nitrite-N (tot.) g.m ⁻³	15	33	0.004	0.003	0.001	<0.002	0.007	
	Nitrate/Nitrite g.m ⁻³	15	20	0.006	0.006	0.004	<0.002	0.021	
	Ammoniacal-N (tot.) g.m ⁻³	8	0	0.040	0	0	0.030	0.070	
	Phosphorous (tot.) g.m ⁻³	14	0	0.07	0.01	0.01	0.06	0.09	
	Phosphorous (diss.) g.m ⁻³	14	7	0.03	0.03	0.02	<0.004	0.07	
	Phosphate (tot.) g.m ⁻³	0	100	ND	ND	ND	ND	ND	
Microbiology	Faecal Coliforms (cfu/100ml)	1	100	<10	ND	ND	<10	<10	
	Escherichia Coli (cfu/100ml)	1	100	<10	ND	ND	<10	<10	
Silicate	Silica as SiO ₂ g.m ⁻³	15	0	45.6	3.1	1.6	41.5	51.6	
Major Cations & Anions	Calcium (tot.) g.m ⁻³	12	0	8.5	0.6	0.3	7.9	13.0	
	Calcium (diss.) g.m ⁻³	4	0	8.6	0.1	0.1	8.3	8.8	
	Magnesium (tot.) g.m ⁻³	11	0	3.5	0.2	0.1	2.6	3.9	
	Magnesium (diss.) g.m ⁻³	4	0	3.3	0.1	0.03	3.3	3.5	
	Sodium (tot.) g.m ⁻³	12	0	79.5	5.8	3.3	24.8	83.6	
	Sodium (diss.) g.m ⁻³	4	0	82.8	0.8	0.5	81.6	83.5	
	Potassium (tot.) g.m ⁻³	10	0	2.2	0.05	0.03	0.9	2.3	
	Potassium (diss.) g.m ⁻³	4	0	2.2	0.1	0.1	2.1	2.4	
	Chloride (tot.) g.m ⁻³	12	0	93.7	1.8	1.1	67.4	97.6	
	Sulphate (tot.) g.m ⁻³	15	7	0.9	0.5	0.3	ND	1.8	
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	3	100	<0.003	ND	ND	<0.003	ND	
	Arsenic (tot.) g.m ⁻³	11	100	<0.0005	ND	ND	ND	ND	
	Arsenic (diss.) g.m ⁻³	3	100	<0.0005	ND	ND	<0.0005	<0.001	
	Boron (tot.) g.m ⁻³	12	17	0.040	0.008	0.006	<0.01	0.090	
	Boron (diss.) g.m ⁻³	4	0	0.042	0.002	0.001	0.040	0.043	
	Chromium (tot.) g.m ⁻³	8	100	<0.005	ND	ND	<0.0005	ND	
	Chromium (diss.) g.m ⁻³	4	100	<0.0005	ND	ND	<0.0005	<0.0005	
	Chromium (Hexavalent) g.m ⁻³	0	100	ND	ND	ND	ND	ND	
	Copper (tot.) g.m ⁻³	12	67	0.00004	0.00230	0.00004	<0.0005	0.011	
	Copper (diss.) g.m ⁻³	4	100	<0.0005	ND	ND	<0.0005	<0.0005	
	Fluoride (tot.) g.m ⁻³	13	0	0.130	0.040	0.010	0.080	0.250	
	Iron (tot.) g.m ⁻³	14	0	5.300	0.268	0.205	4.780	7.500	
	Iron (diss.) g.m ⁻³	15	0	4.840	0.520	0.270	4.090	5.690	
	Lithium (tot.) g.m ⁻³	12	0	0.0026	0.0010	0.0006	0.0010	0.0050	
	Lithium (diss.) g.m ⁻³	3	0	0.0026	0.00005	0	0.0023	0.0027	
	Manganese (tot.) g.m ⁻³	12	0	0.122	0.009	0.005	0.105	0.277	
	Manganese (diss.) g.m ⁻³	14	0	0.118	0.018	0.012	0.095	0.165	
	Nickel (tot.) g.m ⁻³	8	100	<0.005	ND	ND	<0.0005	ND	
	Nickel (diss.) g.m ⁻³	3	67	0.001	ND	ND	<0.0005	0.001	
	Lead (tot.) g.m ⁻³	10	100	<0.02	ND	ND	<0.0001	ND	
	Lead (diss.) g.m ⁻³	3	100	<0.0001	ND	ND	<0.0001	0.0001	
	Zinc (tot.) g.m ⁻³	8	75	0.001	0	0	ND	0.036	
	Zinc (diss.) g.m ⁻³	4	25	0.003	0.002	0.001	<0.001	0.006	
Ion Balance	Total Anion (mEq/L)	14	0	4.4	0.2	0.1	2.0	4.5	
	Total Cation (mEq/L)	13	0	4.4	0.1	0.1	2.0	4.5	
	Charge Bal. Error (% mEq/L)	14	0	0.8	1.2	0.5	0.1	2.5	

For an explanation of table formatting, see end of Table 7.

Table 5: Groundwater Quality Data Summary – Kaawa Formation

Kaawa Formation - Shelly & Carbonaceous Sandstones		% Results						
Ostrich Farm Rd Observation # 2		Count	Censored	Median	IQR	MAD	Minimum	Maximum
General Field Parameters	Temperature (°C)	14	0	17.5	0.6	0.3	17.0	18.1
	Dissolved oxygen (g.m ⁻³)	8	0	0.21	0.15	0.09	0.06	0.40
	Dissolved oxygen (% sat)	8	0	2.2	1.6	0.9	0.6	4.3
	Conductivity at 25°C (µS.cm ⁻²)	12	0	277	34.3	17.2	248	312
General Lab Parameters	pH (pH unit)	14	0	7.3	0.4	0.2	6.9	8.0
	Turbidity (NTU)	13	0	31	9.0	5.0	9.2	37
	Suspended solid g.m ⁻³	11	0	6	1.1	0.6	4	18
	Total dissolved solid g.m ⁻³	12	0	215	11.6	5.0	172	257
Alkalinity	Total as CaCO ₃ g.m ⁻³	14	0	118.0	5.0	3.0	112.0	130.0
	Bicarbonate g.m ⁻³	14	0	144.0	6.7	4.0	137.0	158.2
	Carbonate g.m ⁻³	14	100	<1	ND	ND	<1	<1
	Hydroxide g.m ⁻³	14	100	<1	ND	ND	<1	<1
Hardness	Total as CaCO ₃ g.m ⁻³	14	0	97.6	5.0	3.0	87.0	106.2
	Calcium as CaCO ₃ g.m ⁻³	11	0	67.8	2.7	1.2	60.0	77.8
	Magnesium as CaCO ₃ g.m ⁻³	14	0	28.2	3.1	2.0	23.9	35.0
Nutrients	Nitrate-N (tot.) g.m ⁻³	7	100	<0.002	ND	ND	<0.002	0.011
	Nitrite-N (tot.) g.m ⁻³	12	100	<0.002	ND	ND	<0.002	0.002
	Nitrate/Nitrite g.m ⁻³	7	100	<0.002	ND	ND	<0.002	0.011
	Ammoniacal-N (tot.) g.m ⁻³	13	0	0.330	0.270	0.110	0.210	1.000
	Phosphorous (tot.) g.m ⁻³	13	0	0.23	0.04	0.03	0.17	0.30
	Phosphorous (diss.) g.m ⁻³	8	0	0.02	0.005	0.001	<0.01	0.09
	Phosphate (tot.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
Microbiology	Faecal Coliforms (cfu/100ml)	1	100	<1	ND	ND	<1	<1
	Escherichia Coli (cfu/100ml)	1	100	<1	ND	ND	<1	<1
Silicate	Silica as SiO ₂ g.m ⁻³	12	0	66.2	4.0	2.0	38.9	68.6
Major Cations & Anions	Calcium (tot.) g.m ⁻³	9	0	27.1	1.1	0.4	24.0	31.1
	Calcium (diss.) g.m ⁻³	4	0	26.9	0.8	0.5	25.1	27.6
	Magnesium (tot.) g.m ⁻³	11	0	6.8	0.6	0.4	5.8	8.5
	Magnesium (diss.) g.m ⁻³	4	0	6.9	0.6	0.4	6.0	7.7
	Sodium (tot.) g.m ⁻³	11	0	19.8	0.4	0.2	17.1	20.4
	Sodium (diss.) g.m ⁻³	4	0	19.6	0.4	0.2	18.9	19.9
	Potassium (tot.) g.m ⁻³	10	0	3.9	0.2	0.1	1.6	4.1
	Potassium (diss.) g.m ⁻³	4	0	4.0	0.2	0.2	3.7	4.3
	Chloride (tot.) g.m ⁻³	13	0	20.1	1.1	0.6	14.6	22.2
	Sulphate (tot.) g.m ⁻³	14	29	0.5	0.7	0.4	<0.02	1.1
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	3	100	<0.003	ND	ND	<0.003	<0.003
	Arsenic (tot.) g.m ⁻³	11	18	0.0030	0.0012	0.0008	<0.0006	0.0100
	Arsenic (diss.) g.m ⁻³	4	0	0.0020	0.0002	0.0001	0.0018	0.0024
	Boron (tot.) g.m ⁻³	9	0	0.018	0.004	0.002	<0.01	0.030
	Boron (diss.) g.m ⁻³	4	0	0.018	0.001	0.000	0.017	0.020
	Chromium (tot.) g.m ⁻³	9	78	0.0019	0	0	<0.0005	0.006
	Chromium (diss.) g.m ⁻³	5	100	<0.0005	ND	ND	<0.0005	<0.0005
	Chromium (Hexavalent) g.m ⁻³	2	100	<0.001	ND	ND	<0.001	<0.001
	Copper (tot.) g.m ⁻³	11	55	0.001	0.006	0.001	<0.0005	0.026
	Copper (diss.) g.m ⁻³	4	100	<0.0005	ND	ND	<0.0005	<0.0005
	Fluoride (tot.) g.m ⁻³	14	21	0.065	0.028	0.015	ND	0.110
	Iron (tot.) g.m ⁻³	12	0	3.600	0.250	0.110	2.580	4.510
	Iron (diss.) g.m ⁻³	13	8	0.363	1.053	0.350	<0.005	3.300
	Lithium (tot.) g.m ⁻³	9	0	0.0130	0.0004	0.0004	0.0050	0.0140
	Lithium (diss.) g.m ⁻³	3	0	0.0126	0.0002	0.0001	0.0113	0.0130
	Manganese (tot.) g.m ⁻³	11	0	0.173	0.035	0.017	0.060	0.296
	Manganese (diss.) g.m ⁻³	9	0	0.161	0.015	0.009	0.043	0.274
	Nickel (tot.) g.m ⁻³	7	100	<0.006	ND	ND	<0.0005	0.066
	Nickel (diss.) g.m ⁻³	3	100	<0.0005	ND	ND	<0.0005	0.001
	Lead (tot.) g.m ⁻³	8	100	<0.02	ND	ND	<0.0001	<0.02
	Lead (diss.) g.m ⁻³	4	100	<0.0001	ND	ND	<0.0001	<0.0001
	Zinc (tot.) g.m ⁻³	9	33	0.005	0.015	0.004	ND	0.385
	Zinc (diss.) g.m ⁻³	3	33	0.002	0	0	<0.001	0.056
Ion Balance	Total Anion (mEq/L)	14	0	2.9	0.1	0.1	2.7	3.2
	Total Cation (mEq/L)	12	0	3.0	0.1	0.0	2.7	3.0
	Charge Bal. Error (% mEq/L)	13	0	1.2	1.6	0.6	0.3	5.4

For an explanation of table formatting, see end of Table 7.

Kaawa Formation - Shelly & Carbonaceous Sandstones								
Ostrich Farm Rd Observation # 1		Count	% Results					Maximum
			Censored	Median	IQR	MAD	Minimum	
General Field Parameters	Temperature (°C)	13	0	17.6	0.3	0.2	16.5	18.1
	Dissolved oxygen (g.m ⁻³)	4	0	0.11	0	0	0.09	0.36
	Dissolved oxygen (% sat)	5	0	1.1	0	0	1.0	3.8
	Conductivity at 25°C (µS.cm ⁻²)	12	0	302	32.3	13.5	260	322
General Lab Parameters	pH (pH unit)	14	0	8.0	0.10	0.05	7.2	8.1
	Turbidity (NTU)	13	0	0.2	0.09	0.05	0.1	0.7
	Suspended solid g.m ⁻³	15	47	0.1	0.15	0.04	<0.5	0.4
	Total dissolved solid g.m ⁻³	14	0	207	7.8	6.0	185	250
Alkalinity	Total as CaCO ₃ g.m ⁻³	14	0	128.0	3.9	2.2	117.0	135.0
	Bicarbonate g.m ⁻³	15	0	155.0	5.8	3.2	142.3	164.9
	Carbonate g.m ⁻³	13	100	<1	ND	ND	<1	5
	Hydroxide g.m ⁻³	13	100	<1	ND	ND	<1	5
Hardness	Total as CaCO ₃ g.m ⁻³	13	0	107.2	4.2	2.2	100.0	121.0
	Calcium as CaCO ₃ g.m ⁻³	13	0	77.5	2.8	1.5	70.0	85.0
	Magnesium as CaCO ₃ g.m ⁻³	12	0	31.1	1.9	1.0	26.3	41.0
Nutrients	Nitrate-N (tot.) g.m ⁻³	8	100	<0.002	ND	ND	<0.002	0.036
	Nitrite-N (tot.) g.m ⁻³	15	100	<0.002	ND	ND	<0.002	<0.002
	Nitrate/Nitrite g.m ⁻³	8	100	<0.002	ND	ND	<0.002	0.036
	Ammoniacal-N (tot.) g.m ⁻³	9	0	0.190	0	0	0.160	0.200
	Phosphorous (tot.) g.m ⁻³	13	0	0.13	0.004	0.003	0.12	0.15
	Phosphorous (diss.) g.m ⁻³	14	0	0.12	0.012	0.005	0.11	0.14
	Phosphate (tot.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
Microbiology	Faecal Coliforms (cfu/100ml)	1	100	<1	ND	ND	<1	<1
	Escherichia Coli (cfu/100ml)	1	100	<1	ND	ND	<1	<1
Silicate	Silica as SiO ₂ g.m ⁻³	15	0	46.0	3.1	1.7	41.0	48.2
Major Cations & Anions	Calcium (tot.) g.m ⁻³	11	0	31.0	0.6	0.4	28.0	32.7
	Calcium (diss.) g.m ⁻³	4	0	30.8	0.6	0.3	30.4	34.2
	Magnesium (tot.) g.m ⁻³	12	0	7.4	0.5	0.3	6.4	8.1
	Magnesium (diss.) g.m ⁻³	3	0	7.5	0.1	0.1	7.4	9.9
	Sodium (tot.) g.m ⁻³	12	0	21.3	0.6	0.3	20.9	22.4
	Sodium (diss.) g.m ⁻³	5	0	21.9	1.4	1.0	20.6	23.6
	Potassium (tot.) g.m ⁻³	12	0	3.3	0.1	0.1	3.2	3.4
	Potassium (diss.) g.m ⁻³	4	0	3.5	0.04	0.02	3.4	4.1
	Chloride (tot.) g.m ⁻³	12	0	22.0	0.7	0.4	18.5	28.3
	Sulphate (tot.) g.m ⁻³	15	47	0.1	0.03	0	ND	ND
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	3	100	<0.003	ND	ND	<0.003	0.004
	Arsenic (tot.) g.m ⁻³	12	100	<0.0005	ND	ND	<0.0005	<0.0005
	Arsenic (diss.) g.m ⁻³	3	100	<0.0005	ND	ND	<0.0005	<0.001
	Boron (tot.) g.m ⁻³	9	0	0.018	0.003	0.002	<0.01	0.050
	Boron (diss.) g.m ⁻³	5	0	0.019	0.001	0.001	0.017	0.020
	Chromium (tot.) g.m ⁻³	7	100	<0.005	ND	ND	<0.0002	<0.005
	Chromium (diss.) g.m ⁻³	6	100	<0.0005	ND	ND	<0.0005	<0.0005
	Chromium (Hexavalent) g.m ⁻³	3	100	<0.001	ND	ND	<0.001	<0.001
	Copper (tot.) g.m ⁻³	7	100	<0.006	ND	ND	<0.0005	<0.006
	Copper (diss.) g.m ⁻³	5	100	<0.0005	ND	ND	<0.0005	<0.0005
	Fluoride (tot.) g.m ⁻³	15	13	0.060	0.040	0.020	ND	0.110
	Iron (tot.) g.m ⁻³	12	0	0.124	0.010	0.005	0.104	0.159
	Iron (diss.) g.m ⁻³	12	0	0.069	0.019	0.010	0.024	0.122
	Lithium (tot.) g.m ⁻³	6	0	0.0100	0	0	0.0070	0.0110
	Lithium (diss.) g.m ⁻³	5	0	0.0092	0.00030	0.0003	0.0088	0.0102
	Manganese (tot.) g.m ⁻³	14	0	0.057	0.005	0.002	0.051	0.066
	Manganese (diss.) g.m ⁻³	13	0	0.056	0.005	0.003	0.042	0.064
	Nickel (tot.) g.m ⁻³	9	100	<0.005	ND	ND	<0.0005	ND
	Nickel (diss.) g.m ⁻³	5	100	<0.0005	ND	ND	<0.0005	<0.0005
	Lead (tot.) g.m ⁻³	7	100	<0.02	ND	ND	<0.0005	ND
	Lead (diss.) g.m ⁻³	5	100	<0.0001	ND	ND	<0.0001	<0.0001
	Zinc (tot.) g.m ⁻³	10	70	0.001	0.0011	0.0002	<0.002	0.409
	Zinc (diss.) g.m ⁻³	5	20	0.009	0.013	0.007	<0.001	0.024
Ion Balance	Total Anion (mEq/L)	14	0	3.2	0.09	0.04	2.9	3.4
	Total Cation (mEq/L)	14	0	3.2	0.1	0.1	3.0	3.6
	Charge Bal. Error (% mEq/L)	13	0	1.4	1.0	0.9	0.2	7.9

For an explanation of table formatting, see end of Table 7.

Kaawa Formation - Shelly & Carbonaceous Sandstones								
		Count	% Results					
Douglas Rd Shell Bed			Censored	Median	IQR	MAD	Minimum	Maximum
General Field Parameters	Temperature (°C)	8	0	17.4	0.4	0.3	15.0	18.2
	Dissolved oxygen (g.m ⁻³)	0	100	ND	ND	ND	ND	ND
	Dissolved oxygen (% sat)	0	100	ND	ND	ND	ND	ND
	Conductivity at 25°C (µS.cm ⁻²)	3	0	246	12.5	10.0	236	261
General Lab Parameters	pH (pH unit)	8	0	8.0	0.05	0.02	7.9	8.3
	Turbidity (NTU)	9	0	7.6	9.9	4.2	3.0	21.0
	Suspended solid g.m ⁻³	7	0	5	5.6	3.5	0.9	43
	Total dissolved solid g.m ⁻³	9	0	185	8.0	5.0	174	190
Alkalinity	Total as CaCO3 g.m ⁻³	8	0	121.8	4.3	1.4	112.0	123.3
	Bicarbonate g.m ⁻³	8	0	145.0	12.1	5.3	124.0	204.1
	Carbonate g.m ⁻³	7	100	<1	ND	ND	<1	12.8
	Hydroxide g.m ⁻³	9	100	<1	ND	ND	<1	<1
Hardness	Total as CaCO3 g.m ⁻³	7	0	90.5	2.7	1.8	88.3	107.7
	Calcium as CaCO3 g.m ⁻³	9	0	50.0	3.3	2.5	45.5	55.0
	Magnesium as CaCO3 g.m ⁻³	8	0	43.6	3.1	1.9	38.1	52.7
Nutrients	Nitrate-N (tot.) g.m ⁻³	7	57	0.003	0	0	<0.002	0.030
	Nitrite-N (tot.) g.m ⁻³	8	100	<0.002	ND	ND	<0.002	0.003
	Nitrate/Nitrite g.m ⁻³	7	57	0.001	0.002	0.001	<0.002	0.030
	Ammoniacal-N (tot.) g.m ⁻³	9	0	0.070	0.020	0.010	0.040	0.090
	Phosphorous (tot.) g.m ⁻³	8	0	0.29	0.02	0.01	0.26	0.33
	Phosphorous (diss.) g.m ⁻³	8	0	0.20	0.03	0.02	0.17	0.22
	Phosphate (tot.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
Microbiology	Faecal Coliforms (cfu/100ml)	0	100	ND	ND	ND	ND	ND
	Eschrichia Coli (cfu/100ml)	0	100	ND	ND	ND	ND	ND
Silicate	Silica as SiO2 g.m ⁻³	9	0	34.7	1.3	0.8	32.4	35.7
Major Cations & Anions	Calcium (tot.) g.m ⁻³	9	0	20.0	1.3	1.0	18.2	22.0
	Calcium (diss.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
	Magnesium (tot.) g.m ⁻³	8	0	10.6	0.8	0.5	9.3	12.8
	Magnesium (diss.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
	Sodium (tot.) g.m ⁻³	7	0	24.1	0.4	0.2	17.7	24.6
	Sodium (diss.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
	Potassium (tot.) g.m ⁻³	8	0	4.2	0.2	0.1	2.0	4.3
	Potassium (diss.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
	Chloride (tot.) g.m ⁻³	9	0	21.9	0.6	0.4	20.7	22.7
	Sulphate (tot.) g.m ⁻³	6	0	1.3	0.0	0.0	0.8	1.8
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
	Arsenic (tot.) g.m ⁻³	7	0	0.0040	0.0006	0.0002	0.0022	0.0049
	Arsenic (diss.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
	Boron (tot.) g.m ⁻³	9	22	0.010	0.010	0.004	<0.01	0.030
	Boron (diss.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
	Chromium (tot.) g.m ⁻³	9	100	<0.005	ND	ND	<0.005	<0.005
	Chromium (diss.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
	Chromium (Hexavalent) g.m ⁻³	0	100	ND	ND	ND	ND	ND
	Copper (tot.) g.m ⁻³	5	100	<0.005	ND	ND	<0.005	0.016
	Copper (diss.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
	Fluoride (tot.) g.m ⁻³	9	0	0.070	0.020	0.010	0.050	0.100
	Iron (tot.) g.m ⁻³	7	0	2.380	1.025	0.750	1.060	9.810
	Iron (diss.) g.m ⁻³	3	33	0.010	0.003	0.003	<0.005	0.013
	Lithium (tot.) g.m ⁻³	7	29	0.0060	0.0013	0.0010	<0.005	0.0510
	Lithium (diss.) g.m ⁻³	3	0	0.0060	0	0	0.0030	0.0060
	Manganese (tot.) g.m ⁻³	9	0	0.045	0.016	0.006	0.033	0.060
	Manganese (diss.) g.m ⁻³	8	0	0.023	0.015	0.008	0.011	0.035
	Nickel (tot.) g.m ⁻³	7	100	<0.005	ND	ND	<0.005	0.013
	Nickel (diss.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
	Lead (tot.) g.m ⁻³	9	100	<0.02	ND	ND	<0.02	<0.02
	Lead (diss.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
	Zinc (tot.) g.m ⁻³	7	14	0.023	0.020	0.014	<0.006	0.504
		Zinc (diss.) g.m ⁻³	0	100	ND	ND	ND	ND
Ion Balance	Total Anion (mEq/L)	3	0	3.0	0.1	0.1	2.9	3.1
	Total Cation (mEq/L)	3	0	3.0	0.0	0.0	2.9	3.0
	Charge Bal. Error (% mEq/L)	3	0	1.9	0.7	0.6	1.0	2.5

For an explanation of table formatting, see end of Table 7.

Table 6: Groundwater Quality Data Summary –Waitemata Group

Waitemata Group - Sandstones & Mudstones									
Quintals Rd Bore 13		Count	% Results		Median	IQR	MAD	Minimum	Maximum
			Censored						
General Field Parameters	Temperature (°C)	12	0	18.0	0.3	0.2	17.0	19.0	
	Dissolved oxygen (g.m ⁻³)	6	0	0.22	0.05	0.03	0.05	3.00	
	Dissolved oxygen (% sat)	6	0	2.4	0.4	0.3	0.6	31.8	
	Conductivity at 25°C (µS.cm ⁻²)	11	0	426	61.5	33.4	392	478	
General Lab Parameters	pH (pH unit)	15	0	7.2	0.3	0.1	6.9	8.1	
	Turbidity (NTU)	15	0	24	8.9	5.2	11	31	
	Suspended solid g.m ⁻³	16	0	4	2.4	1.3	2	6	
	Total dissolved solid g.m ⁻³	12	0	322	15.8	8.0	145	377	
Alkalinity	Total as CaCO ₃ g.m ⁻³	15	0	191.0	2.0	1.0	183.0	193.0	
	Bicarbonate g.m ⁻³	15	0	232.0	3.1	2.0	220.0	235.0	
	Carbonate g.m ⁻³	16	100	<1	ND	ND	<1	<1	
	Hydroxide g.m ⁻³	16	100	<1	ND	ND	<1	<1	
Hardness	Total as CaCO ₃ g.m ⁻³	12	0	178.3	3.5	1.9	164.1	195.9	
	Calcium as CaCO ₃ g.m ⁻³	14	0	130.0	4.8	2.9	122.5	151.5	
	Magnesium as CaCO ₃ g.m ⁻³	16	0	47.2	3.4	2.1	39.1	54.0	
Nutrients	Nitrate-N (tot.) g.m ⁻³	9	89	0.001	ND	ND	ND	0.006	
	Nitrite-N (tot.) g.m ⁻³	14	100	<0.002	ND	ND	<0.002	0.007	
	Nitrate/Nitrite g.m ⁻³	14	50	0.001	0.002	0.001	ND	0.007	
	Ammoniacal-N (tot.) g.m ⁻³	16	0	0.035	0.010	0.005	0.020	0.050	
	Phosphorous (tot.) g.m ⁻³	15	0	0.15	0.03	0.01	0.13	0.19	
	Phosphorous (diss.) g.m ⁻³	14	7	0.02	0.01	0.01	<0.01	0.06	
	Phosphate (tot.) g.m ⁻³	0	100	ND	ND	ND	ND	ND	
Microbiology	Faecal Coliforms (cfu/100ml)	0	100	ND	ND	ND	ND	ND	
	Escherichia Coli (cfu/100ml)	0	100	ND	ND	ND	ND	ND	
Silicate	Silica as SiO ₂ g.m ⁻³	14	0	80.1	3.1	1.7	70.1	84.7	
Major Cations & Anions	Calcium (tot.) g.m ⁻³	13	0	51.9	1.7	1.2	49.0	60.6	
	Calcium (diss.) g.m ⁻³	2	0	51.5	0.2	0.2	51.3	53.4	
	Magnesium (tot.) g.m ⁻³	13	0	11.4	0.8	0.4	9.5	13.1	
	Magnesium (diss.) g.m ⁻³	2	0	12.2	0	0	12.2	12.4	
	Sodium (tot.) g.m ⁻³	12	0	26.8	0.6	0.4	21.3	31.0	
	Sodium (diss.) g.m ⁻³	3	0	28.6	0.1	0.1	28.5	28.7	
	Potassium (tot.) g.m ⁻³	12	0	0.5	0.02	0.01	0.3	0.6	
	Potassium (diss.) g.m ⁻³	3	0	0.5	0.03	0.02	0.5	0.6	
	Chloride (tot.) g.m ⁻³	15	0	29.6	1.5	0.7	28.6	36.5	
	Sulphate (tot.) g.m ⁻³	16	0	6.7	1.0	0.6	5.1	8.0	
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	6	100	<0.003	ND	ND	<0.003	<0.02	
	Arsenic (tot.) g.m ⁻³	13	100	<0.0005	ND	ND	<0.0005	<0.002	
	Arsenic (diss.) g.m ⁻³	2	100	<0.0005	ND	ND	<0.0005	<0.001	
	Boron (tot.) g.m ⁻³	9	0	0.020	0.002	0	<0.01	0.090	
	Boron (diss.) g.m ⁻³	3	0	0.024	0.003	0.001	0.020	0.025	
	Chromium (tot.) g.m ⁻³	15	53	0.0005	0.001301512	0.00040815	<0.0005	0.006	
	Chromium (diss.) g.m ⁻³	6	100	<0.0005	ND	ND	<0.0005	<0.0005	
	Chromium (Hexavalent) g.m ⁻³	4	100	<0.001	ND	ND	<0.001	<0.001	
	Copper (tot.) g.m ⁻³	14	71	0.00003	0.0004	0.00003	<0.0005	0.0150	
	Copper (diss.) g.m ⁻³	3	100	<0.0005	ND	ND	<0.0005	<0.0005	
	Fluoride (tot.) g.m ⁻³	16	31	0.048	0.098	0.044	<0.005	0.130	
	Iron (tot.) g.m ⁻³	16	0	2.265	0.245	0.115	2.120	2.440	
	Iron (diss.) g.m ⁻³	12	8	0.085	0.243	0.076	<0.005	1.990	
	Lithium (tot.) g.m ⁻³	11	0	0.0130	0.0012	0.0001	0.0060	0.0150	
	Lithium (diss.) g.m ⁻³	2	0	0.0116	0.00010	0.0001	0.0115	0.0131	
	Manganese (tot.) g.m ⁻³	16	0	0.232	0.015	0.008	0.206	0.251	
	Manganese (diss.) g.m ⁻³	15	0	0.222	0.024	0.010	0.183	0.238	
	Nickel (tot.) g.m ⁻³	13	62	0.001	0.003	0.001	<0.0005	0.025	
	Nickel (diss.) g.m ⁻³	2	100	<0.0005	ND	ND	<0.0005	0.030	
	Lead (tot.) g.m ⁻³	14	79	0.0000	0.0000	0.0000	<0.0001	0.0200	
	Lead (diss.) g.m ⁻³	3	100	<0.0001	ND	ND	<0.0001	<0.0001	
	Zinc (tot.) g.m ⁻³	13	38	0.003	0.005	0.002	<0.001	0.037	
	Zinc (diss.) g.m ⁻³	3	33	0.003	0.003	0.002	<0.001	0.006	
Ion Balance	Total Anion (mEq/L)	13	0	4.8	0.03	0.02	4.7	5.0	
	Total Cation (mEq/L)	11	0	4.8	0.09	0.04	4.4	5.1	
	Charge Bal. Error (% mEq/L)	13	0	0.5	0.6	0.4	0.02	4.4	

For an explanation of table formatting, see end of Table 7.

Waitemata Group - Sandstones & Mudstones								
Chenery Rd Production		Count	% Results Censored	Median	IQR	MAD	Minimum	Maximum
General Field Parameters	Temperature (°C)	13	0	20.4	2.2	1.3	17.6	22.5
	Dissolved oxygen (g.m ⁻³)	2	0	4.23	5.84	0.31	3.92	4.54
	Dissolved oxygen (% sat)	2	0	47.3	50.9	3.4	43.9	50.7
	Conductivity at 25°C (µS.cm ⁻²)	9	0	342	31.9	26.0	132	390
General Lab Parameters	pH (pH unit)	15	0	9.9	0.3	0.1	9.8	10.1
	Turbidity (NTU)	13	0	4.3	0.5	2.5	1.8	37.9
	Suspended solid g.m ⁻³	14	0	24	0.3	13.4	2	134
	Total dissolved solid g.m ⁻³	14	0	230	32.5	7.0	196	277
Alkalinity	Total as CaCO ₃ g.m ⁻³	15	0	118.0	65.0	11.0	107.0	149.0
	Bicarbonate g.m ⁻³	15	0	70.9	26.0	31.5	11.0	169.7
	Carbonate g.m ⁻³	13	0	47.0	ND	2.7	<1	61.6
	Hydroxide g.m ⁻³	12	100	<1	ND	ND	<1	4
Hardness	Total as CaCO ₃ g.m ⁻³	15	0	11.0	206.4	3.8	2.0	24.5
	Calcium as CaCO ₃ g.m ⁻³	15	0	10.3	63.7	3.5	2.0	21.4
	Magnesium as CaCO ₃ g.m ⁻³	13	23	0.8	11.0	0.3	ND	3.2
Nutrients	Nitrate-N (tot.) g.m ⁻³	13	46	0.002	0.105	0.001	<0.002	0.439
	Nitrite-N (tot.) g.m ⁻³	10	100	<0.002	ND	ND	<0.002	0.004
	Nitrate/Nitrite g.m ⁻³	13	38	0.005	0.105	0.003	<0.002	0.439
	Ammoniacal-N (tot.) g.m ⁻³	15	0	0.350	ND	0.040	0.220	0.410
	Phosphorous (tot.) g.m ⁻³	14	0	0.06	0.19	0.01	0.02	0.10
	Phosphorous (diss.) g.m ⁻³	14	0	0.05	0.18	0.02	0.02	0.07
	Phosphate (tot.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
Microbiology	Faecal Coliforms (cfu/100ml)	0	100	ND	ND	ND	ND	ND
	Escherichia Coli (cfu/100ml)	0	100	ND	ND	ND	ND	ND
Silicate	Silica as SiO ₂ g.m ⁻³	15	0	27.1	20.6	2.3	22.9	35.5
Major Cations & Anions	Calcium (tot.) g.m ⁻³	14	0	4.1	1.1	1.4	2.1	8.6
	Calcium (diss.) g.m ⁻³	2	0	1.1	2.2	0.02	0.7	1.1
	Magnesium (tot.) g.m ⁻³	12	0	0.2	0.2	0.1	0.1	0.8
	Magnesium (diss.) g.m ⁻³	3	100	<0.02	4.6	ND	<0.02	<0.02
	Sodium (tot.) g.m ⁻³	14	0	78.0	3.3	6.1	69.1	86.8
	Sodium (diss.) g.m ⁻³	3	0	85.1	3.4	2.4	75.5	87.5
	Potassium (tot.) g.m ⁻³	12	0	0.2	0.25	0.04	0.1	0.5
	Potassium (diss.) g.m ⁻³	3	0	0.2	0.30	0.01	0.2	0.2
	Chloride (tot.) g.m ⁻³	14	0	32.0	12.4	0.6	30.9	35.5
	Sulphate (tot.) g.m ⁻³	15	0	0.5	93.3	0.2	0.1	0.9
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	4	0	0.027	0.010	0.004	0.022	0.039
	Arsenic (tot.) g.m ⁻³	10	100	<0.0005	ND	ND	<0.0005	0.0006
	Arsenic (diss.) g.m ⁻³	2	100	<0.0005	0.0002	ND	<0.0005	<0.001
	Boron (tot.) g.m ⁻³	13	0	1.210	0.057	0.190	0.860	5.000
	Boron (diss.) g.m ⁻³	2	0	1.030	0.007	0	1.030	1.660
	Chromium (tot.) g.m ⁻³	10	90	0.0016	ND	ND	<0.0005	0.01
	Chromium (diss.) g.m ⁻³	3	100	<0.0005	ND	ND	<0.0005	<0.0005
	Chromium (Hexavalent) g.m ⁻³	0	100	ND	ND	ND	ND	ND
	Copper (tot.) g.m ⁻³	11	73	0.001	0	0	<0.0005	0.007
	Copper (diss.) g.m ⁻³	3	100	<0.0005	0.001	ND	<0.0005	<0.0005
	Fluoride (tot.) g.m ⁻³	15	0	1.090	0.113	0.290	0.710	1.500
	Iron (tot.) g.m ⁻³	12	0	0.410	0.212	0.088	0.140	2.020
	Iron (diss.) g.m ⁻³	14	14	0.008	0.006	0.003	<0.005	0.022
	Lithium (tot.) g.m ⁻³	13	0	0.0080	0.0013	0.0020	0.0050	0.0120
	Lithium (diss.) g.m ⁻³	2	0	0.0098	0.00003	0.00025	0.0045	0.0100
	Manganese (tot.) g.m ⁻³	15	0	0.025	0.145	0.015	0.003	0.068
	Manganese (diss.) g.m ⁻³	12	67	0.001	0.023	0.0001	<0.0005	0.011
	Nickel (tot.) g.m ⁻³	8	100	<0.005	ND	ND	<0.0005	0.018
	Nickel (diss.) g.m ⁻³	3	100	<0.0005	0.000	ND	<0.0005	<0.0005
	Lead (tot.) g.m ⁻³	9	100	<0.02	ND	ND	ND	0.0200
	Lead (diss.) g.m ⁻³	2	100	<0.0001	ND	ND	<0.0001	0.0001
	Zinc (tot.) g.m ⁻³	13	8	0.019	0.067	0.009	<0.005	0.065
	Zinc (diss.) g.m ⁻³	2	0	0.005	0.002	0.001	0.004	0.055
Ion Balance	Total Anion (mEq/L)	15	0	3.3	5.7	0.2	3.1	3.9
	Total Cation (mEq/L)	15	0	3.7	6.3	0.2	3.2	4.1
	Charge Bal. Error (% mEq/L)	14	0	2.4	0.7	1.9	0.1	5.9

For an explanation of table formatting, see end of Table 7.

Waitemata Group - Sandstones & Mudstones								
Waitakere Rd		Count	% Results Censored	Median	IQR	MAD	Minimum	Maximum
General Field Parameters	Temperature (°C)	8	0	17.0	0.2	0.1	16.3	18.0
	Dissolved oxygen (g.m ⁻³)	6	0	0.25	0.36	0.17	0.06	0.54
	Dissolved oxygen (% sat)	6	0	2.6	3.8	1.8	0.6	5.6
	Conductivity at 25°C (µS.cm ⁻²)	6	0	296	39.7	5.6	109	302
General Lab Parameters	pH (pH unit)	10	0	6.8	0.2	0.2	5.6	7.1
	Turbidity (NTU)	11	0	41	23.2	15.6	13	61
	Suspended solid g.m ⁻³	10	0	11	6.7	3.5	5	26
	Total dissolved solid g.m ⁻³	10	0	205	15.0	7.0	170	245
Alkalinity	Total as CaCO ₃ g.m ⁻³	9	0	108.0	2.0	1.0	106.3	132.0
	Bicarbonate g.m ⁻³	9	0	132.0	1.9	1.0	130.0	161.0
	Carbonate g.m ⁻³	11	100	<1	ND	ND	<1	<1
	Hydroxide g.m ⁻³	11	100	<1	ND	ND	<1	<1
Hardness	Total as CaCO ₃ g.m ⁻³	10	0	87.7	4.5	2.5	79.2	103.0
	Calcium as CaCO ₃ g.m ⁻³	9	0	48.0	2.5	1.5	45.8	56.0
	Magnesium as CaCO ₃ g.m ⁻³	8	0	39.7	2.9	1.5	31.7	47.0
Nutrients	Nitrate-N (tot.) g.m ⁻³	6	100	<0.002	ND	ND	<0.002	0.034
	Nitrite-N (tot.) g.m ⁻³	11	27	0.003	0.004	0.002	<0.002	0.008
	Nitrate/Nitrite g.m ⁻³	10	30	0.006	0.006	0.003	<0.002	0.037
	Ammoniacal-N (tot.) g.m ⁻³	11	0	0.130	0.025	0.010	0.090	0.140
	Phosphorous (tot.) g.m ⁻³	10	0	0.19	0.03	0.01	0.17	0.22
	Phosphorous (diss.) g.m ⁻³	6	0	0.01	0	0	<0.004	0.02
	Phosphate (tot.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
Microbiology	Faecal Coliforms (cfu/100ml)	1	100	<1	ND	ND	<1	<1
	Escherichia Coli (cfu/100ml)	1	100	<1	ND	ND	<1	<1
Silicate	Silica as SiO ₂ g.m ⁻³	10	0	59.6	3.1	1.2	20.8	61.9
Major Cations & Anions	Calcium (tot.) g.m ⁻³	8	0	19.1	0.7	0.4	18.3	20.2
	Calcium (diss.) g.m ⁻³	3	0	20.2	0.2	0	19.9	22.3
	Magnesium (tot.) g.m ⁻³	7	0	9.5	0.6	0.3	7.7	10.3
	Magnesium (diss.) g.m ⁻³	4	0	9.8	0.2	0.1	9.7	11.4
	Sodium (tot.) g.m ⁻³	6	0	21.6	0.3	0.2	17.8	23.1
	Sodium (diss.) g.m ⁻³	5	0	23.2	1.2	0.7	21.9	25.6
	Potassium (tot.) g.m ⁻³	7	0	2.2	0.03	0.02	1.3	2.3
	Potassium (diss.) g.m ⁻³	4	0	2.3	0.08	0.04	2.2	2.7
	Chloride (tot.) g.m ⁻³	10	0	23.5	0.9	0.6	21.9	27.7
	Sulphate (tot.) g.m ⁻³	11	64	0.015	0.022	0.003	<0.02	ND
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
	Arsenic (tot.) g.m ⁻³	9	0	0.0066	0.0121	0.0036	0.0030	0.0184
	Arsenic (diss.) g.m ⁻³	4	0	0.0068	0.0031	0.0021	0.0036	0.0101
	Boron (tot.) g.m ⁻³	5	0	0.020	0.001	0.000	<0.01	0.040
	Boron (diss.) g.m ⁻³	4	0	0.023	0.008	0.005	0.017	0.029
	Chromium (tot.) g.m ⁻³	5	100	<0.006	ND	ND	<0.0005	0.006
	Chromium (diss.) g.m ⁻³	3	100	<0.0005	ND	ND	<0.0005	<0.0005
	Chromium (Hexavalent) g.m ⁻³	0	100	ND	ND	ND	ND	ND
	Copper (tot.) g.m ⁻³	5	100	<0.006	ND	ND	<0.0005	0.015
	Copper (diss.) g.m ⁻³	4	100	<0.0005	ND	ND	<0.0005	<0.0005
	Fluoride (tot.) g.m ⁻³	11	9	0.080	0.055	0.030	ND	0.200
	Iron (tot.) g.m ⁻³	11	0	6.260	0.560	0.280	5.620	6.710
	Iron (diss.) g.m ⁻³	11	0	3.710	1.760	1.180	0.178	6.280
	Lithium (tot.) g.m ⁻³	8	0	0.0149	0.0019	0.0010	0.0136	0.0170
	Lithium (diss.) g.m ⁻³	4	0	0.0153	0.00140	0.0007	0.0138	0.0161
	Manganese (tot.) g.m ⁻³	11	0	0.187	0.067	0.034	0.145	0.250
	Manganese (diss.) g.m ⁻³	10	10	0.173	0.049	0.027	ND	0.250
	Nickel (tot.) g.m ⁻³	7	57	0.000	0.0004	0.0002	ND	0.058
	Nickel (diss.) g.m ⁻³	3	100	<0.0005	ND	ND	<0.0005	0.001
	Lead (tot.) g.m ⁻³	6	100	<0.02	ND	ND	<0.0001	ND
	Lead (diss.) g.m ⁻³	4	100	<0.0001	ND	ND	<0.0001	<0.0001
	Zinc (tot.) g.m ⁻³	7	14	0.004	0.003	0.002	ND	0.016
	Zinc (diss.) g.m ⁻³	5	0	0.005	0.003	0.002	0.001	0.012
Ion Balance	Total Anion (mEq/L)	10	0	2.8	0.1	0.05	2.8	3.3
	Total Cation (mEq/L)	11	0	2.9	0.2	0.1	2.7	3.3
	Charge Bal. Error (% mEq/L)	11	0	1.6	1.0	0.4	0.5	2.7

For an explanation of table formatting, see end of Table 7.

Waitemata Group - Sandstones & Mudstones								
		% Results						
Waitakere Rd # 2		Count	Censored	Median	IQR	MAD	Minimum	Maximum
General Field Parameters	Temperature (°C)	8	0	18.9	0.3	0.2	14.5	19.5
	Dissolved oxygen (g.m ⁻³)	5	0	0.12	0.12	0.06	0.06	0.22
	Dissolved oxygen (% sat)	5	0	1.2	1.4	0.5	0.7	2.3
	Conductivity at 25°C (µS.cm ⁻²)	9	0	687	89.0	40.0	647	758
General Lab Parameters	pH (pH unit)	11	0	7.6	0.2	0.1	7.4	7.8
	Turbidity (NTU)	11	0	11.0	3.4	2.0	8.4	14.6
	Suspended solid g.m ⁻³	9	11	2.5	1.2	0.7	ND	11.0
	Total dissolved solid g.m ⁻³	10	0	435	17.0	9.5	410	493
Alkalinity	Total as CaCO3 g.m ⁻³	11	0	282.8	4.6	2.3	278.1	290.0
	Bicarbonate g.m ⁻³	11	0	344.5	9.3	3.5	339.3	354.0
	Carbonate g.m ⁻³	11	100	<1	ND	ND	<1	<1
	Hydroxide g.m ⁻³	11	100	<1	ND	ND	<1	<1
Hardness	Total as CaCO3 g.m ⁻³	11	0	308.9	21.6	11.5	280.2	328.0
	Calcium as CaCO3 g.m ⁻³	8	0	190.4	2.3	1.0	165.0	202.8
	Magnesium as CaCO3 g.m ⁻³	10	0	117.5	15.0	8.4	94.7	138.0
Nutrients	Nitrate-N (tot.) g.m ⁻³	5	100	<0.002	ND	ND	<0.002	0.056
	Nitrite-N (tot.) g.m ⁻³	11	100	<0.002	ND	ND	<0.002	<0.002
	Nitrate/Nitrite g.m ⁻³	5	100	<0.002	ND	ND	<0.002	0.056
	Ammoniacal-N (tot.) g.m ⁻³	11	0	0.270	0.015	0.010	0.250	0.280
	Phosphorous (tot.) g.m ⁻³	7	0	0.02	0	0	0.02	0.03
	Phosphorous (diss.) g.m ⁻³	8	13	0.01	0.003	0.001	ND	0.02
	Phosphate (tot.) g.m ⁻³	1	0	0.07	ND	ND	0.07	0.07
Microbiology	Faecal Coliforms (cfu/100ml)	1	100	<1	ND	ND	<1	<1
	Eschrichia Coli (cfu/100ml)	1	100	<1	ND	ND	<1	<1
Silicate	Silica as SiO2 g.m ⁻³	11	0	23.5	1.7	1.0	21.5	24.7
Major Cations & Anions	Calcium (tot.) g.m ⁻³	8	0	76.4	2.1	1.0	66.0	81.1
	Calcium (diss.) g.m ⁻³	3	0	75.5	0.7	0.2	72.3	76.7
	Magnesium (tot.) g.m ⁻³	9	0	28.3	2.5	1.7	23.0	33.4
	Magnesium (diss.) g.m ⁻³	3	0	31.3	0.3	0.0	30.8	32.7
	Sodium (tot.) g.m ⁻³	8	0	35.4	1.6	0.8	29.0	38.1
	Sodium (diss.) g.m ⁻³	4	0	37.7	1.6	0.8	36.9	38.7
	Potassium (tot.) g.m ⁻³	8	0	1.7	0.08	0.04	1.0	1.8
	Potassium (diss.) g.m ⁻³	4	0	1.8	0.1	0.1	1.7	1.9
	Chloride (tot.) g.m ⁻³	10	0	74.6	2.8	1.3	70.6	79.9
	Sulphate (tot.) g.m ⁻³	6	33	0.02	0.006	0.004	<0.02	ND
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	2	100	<0.003	ND	ND	<0.003	0.013
	Arsenic (tot.) g.m ⁻³	9	100	<0.0005	ND	ND	<0.0005	<0.0005
	Arsenic (diss.) g.m ⁻³	3	100	<0.0005	ND	ND	<0.0005	<0.001
	Boron (tot.) g.m ⁻³	9	44	0.016	0.005	0.002	<0.01	0.020
	Boron (diss.) g.m ⁻³	4	0	0.018	0.003	0.002	0.014	0.023
	Chromium (tot.) g.m ⁻³	6	100	<0.005	ND	ND	<0.0005	<0.006
	Chromium (diss.) g.m ⁻³	3	100	<0.0005	ND	ND	<0.0005	<0.0005
	Chromium (Hexavalent) g.m ⁻³	0	100	ND	ND	ND	ND	ND
	Copper (tot.) g.m ⁻³	10	70	0.002	0.004	0.001	<0.0005	0.011
	Copper (diss.) g.m ⁻³	3	100	<0.0005	ND	ND	<0.0005	<0.0005
	Fluoride (tot.) g.m ⁻³	11	18	0.050	0.043	0.020	ND	0.130
	Iron (tot.) g.m ⁻³	11	0	1.230	0.275	0.160	0.773	1.780
	Iron (diss.) g.m ⁻³	10	40	0.005	0.004	0.002	<0.005	1.010
	Lithium (tot.) g.m ⁻³	9	0	0.0300	0.0032	0.0013	0.0267	0.0330
	Lithium (diss.) g.m ⁻³	3	0	0.0294	0.00115	0.0009	0.0285	0.0308
	Manganese (tot.) g.m ⁻³	10	0	0.054	0.008	0.003	0.036	0.057
	Manganese (diss.) g.m ⁻³	10	0	0.049	0.009	0.005	0.038	0.055
	Nickel (tot.) g.m ⁻³	6	100	<0.005	ND	ND	<0.0005	0.016
	Nickel (diss.) g.m ⁻³	4	100	<0.0005	ND	ND	<0.0005	<0.0005
	Lead (tot.) g.m ⁻³	10	90	0.0001	ND	ND	<0.0001	ND
	Lead (diss.) g.m ⁻³	3	100	<0.0001	ND	ND	<0.0001	<0.0001
	Zinc (tot.) g.m ⁻³	9	22	0.010	0.010	0.007	ND	0.027
		Zinc (diss.) g.m ⁻³	3	67	0.004	ND	ND	<0.001
Ion Balance	Total Anion (mEq/L)	11	0	7.7	0.1	0.1	7.6	7.9
	Total Cation (mEq/L)	11	0	7.8	0.5	0.3	7.3	8.3
	Charge Bal. Error (% mEq/L)	11	0	1.9	1.3	0.6	0.6	3.2

For an explanation of table formatting, see end of Table 7.

Waitemata Group - Sandstones & Mudstones								
Bullens Rd		Count	% Results Censored	Median	IQR	MAD	Minimum	Maximum
General Field Parameters	Temperature (°C)	15	0	17.8	0.8	0.5	16.4	18.5
	Dissolved oxygen (g.m ⁻³)	5	0	0.07	0.04	0.02	0.05	1.66
	Dissolved oxygen (% sat)	5	0	0.8	0.3	0.2	0.5	17.7
	Conductivity at 25°C (µS.cm ⁻²)	10	0	447	35.9	28.0	401	488
General Lab Parameters	pH (pH unit)	14	0	7.6	0.2	0.1	7.0	8.0
	Turbidity (NTU)	14	0	1.5	1.4	0.8	0.6	5.6
	Suspended solid g.m ⁻³	14	36	0.7	0.7	0.4	ND	ND
	Total dissolved solid g.m ⁻³	15	0	312	17.0	9.0	298	334
Alkalinity	Total as CaCO ₃ g.m ⁻³	14	0	221.5	12.0	5.5	195.0	227.0
	Bicarbonate g.m ⁻³	13	0	270.9	11.1	4.1	237.7	277.0
	Carbonate g.m ⁻³	15	100	<1	ND	ND	<1	<1
	Hydroxide g.m ⁻³	15	100	<1	ND	ND	<1	<1
Hardness	Total as CaCO ₃ g.m ⁻³	13	0	172.8	19.0	13.2	105.5	195.1
	Calcium as CaCO ₃ g.m ⁻³	14	0	125.8	34.1	14.0	79.8	152.8
	Magnesium as CaCO ₃ g.m ⁻³	14	0	42.2	8.8	5.0	25.5	51.0
Nutrients	Nitrate-N (tot.) g.m ⁻³	8	75	0.001	0	0	ND	0.072
	Nitrite-N (tot.) g.m ⁻³	12	100	<0.002	ND	ND	<0.002	0.047
	Nitrate/Nitrite g.m ⁻³	12	42	0.001	0.002	0.001	ND	0.072
	Ammoniacal-N (tot.) g.m ⁻³	15	0	0.550	0.105	0.060	0.410	0.720
	Phosphorous (tot.) g.m ⁻³	14	0	0.16	0.06	0.02	0.08	0.18
	Phosphorous (diss.) g.m ⁻³	13	0	0.09	0.005	0.002	0.08	0.13
	Phosphate (tot.) g.m ⁻³	1	0	0.56	ND	ND	0.56	0.56
Microbiology	Faecal Coliforms (cfu/100ml)	1	100	<1	ND	ND	<1	<1
	Escherichia Coli (cfu/100ml)	1	100	<1	ND	ND	<1	<1
Silicate	Silica as SiO ₂ g.m ⁻³	15	0	58.8	9.5	4.3	49.9	73.3
Major Cations & Anions	Calcium (tot.) g.m ⁻³	11	0	51.0	14.6	4.8	31.9	61.1
	Calcium (diss.) g.m ⁻³	6	0	51.2	13.4	5.4	33.3	57.3
	Magnesium (tot.) g.m ⁻³	11	0	10.1	2.0	1.2	6.2	11.8
	Magnesium (diss.) g.m ⁻³	5	0	11.9	1.0	0.5	7.7	12.5
	Sodium (tot.) g.m ⁻³	8	0	29.9	1.6	0.9	23.1	54.4
	Sodium (diss.) g.m ⁻³	4	0	29.7	1.2	0.7	28.8	56.7
	Potassium (tot.) g.m ⁻³	8	0	3.7	0.2	0.1	2.2	3.9
	Potassium (diss.) g.m ⁻³	6	0	3.7	0.6	0.3	3.1	4.3
	Chloride (tot.) g.m ⁻³	11	0	21.0	0.2	0.1	18.1	23.8
	Sulphate (tot.) g.m ⁻³	13	31	0.1	0.2	0.1	ND	1.8
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	5	100	<0.003	ND	ND	<0.003	<0.003
	Arsenic (tot.) g.m ⁻³	11	100	<0.0005	ND	ND	<0.0005	<0.0005
	Arsenic (diss.) g.m ⁻³	6	100	<0.001	ND	ND	<0.0005	<0.001
	Boron (tot.) g.m ⁻³	10	0	0.28	0.13	0.07	0.14	0.64
	Boron (diss.) g.m ⁻³	4	0	0.20	0.02	0.01	0.18	0.49
	Chromium (tot.) g.m ⁻³	8	100	<0.005	ND	ND	<0.0005	<0.005
	Chromium (diss.) g.m ⁻³	5	100	<0.0005	ND	ND	<0.0005	<0.0005
	Chromium (Hexavalent) g.m ⁻³	0	100	ND	ND	ND	0	0
	Copper (tot.) g.m ⁻³	7	100	<0.006	ND	ND	<0.0005	0.006
	Copper (diss.) g.m ⁻³	5	100	<0.0005	ND	ND	<0.0005	<0.0005
	Fluoride (tot.) g.m ⁻³	15	0	0.160	0.060	0.030	0.080	0.280
	Iron (tot.) g.m ⁻³	15	0	0.571	0.215	0.139	0.290	0.875
	Iron (diss.) g.m ⁻³	13	8	0.053	0.129	0.045	<0.005	0.699
	Lithium (tot.) g.m ⁻³	9	0	0.084	0.0130	0.0070	0.064	0.140
	Lithium (diss.) g.m ⁻³	3	0	0.069	0.0011	0.0003	0.069	0.134
	Manganese (tot.) g.m ⁻³	15	0	0.105	0.040	0.015	0.048	0.123
	Manganese (diss.) g.m ⁻³	14	0	0.085	0.037	0.023	0.047	0.123
	Nickel (tot.) g.m ⁻³	7	100	<0.005	ND	ND	<0.0005	0.011
	Nickel (diss.) g.m ⁻³	6	100	<0.0005	ND	ND	<0.0005	<0.0005
	Lead (tot.) g.m ⁻³	8	100	<0.02	ND	ND	<0.0001	<0.02
	Lead (diss.) g.m ⁻³	5	100	<0.0001	ND	ND	<0.0001	<0.0001
	Zinc (tot.) g.m ⁻³	7	100	<0.005	ND	ND	<0.001	0.039
	Zinc (diss.) g.m ⁻³	5	20	0.002	0.004	0.002	<0.001	0.041
Ion Balance	Total Anion (mEq/L)	15	0	5.0	0.2	0.1	4.5	5.2
	Total Cation (mEq/L)	15	0	4.9	0.3	0.2	4.3	5.3
	Charge Bal. Error (% mEq/L)	14	0	1.0	1.1	0.5	0.3	4.9

For an explanation of table formatting, see end of Table 7.

Waitemata Group - Sandstones & Mudstones								
		% Results						
Burnsides Rd		Count	Censored	Median	IQR	MAD	Minimum	Maximum
General Field Parameters	Temperature (°C)	15	0	16.2	0.3	0.2	15.6	17.8
	Dissolved oxygen (g.m ⁻³)	6	0	0.23	0.10	0.06	0.16	1.34
	Dissolved oxygen (% sat)	6	0	2.4	0.9	0.6	1.6	13.7
	Conductivity at 25°C (µS.cm ⁻²)	12	0	526	57.4	25.5	438	595
General Lab Parameters	pH (pH unit)	15	0	7.4	0.1	0.1	7.1	7.9
	Turbidity (NTU)	15	0	16	5.7	3.5	7	39
	Suspended solid g.m ⁻³	13	0	3	0.6	0.3	0.1	12
	Total dissolved solid g.m ⁻³	15	0	329	20.5	6.0	310	370
Alkalinity	Total as CaCO3 g.m ⁻³	16	0	242.6	11.3	6.0	223.0	254.0
	Bicarbonate g.m ⁻³	15	0	295.4	14.9	7.4	166.2	309.7
	Carbonate g.m ⁻³	16	100	<1	ND	ND	<1	<1
	Hydroxide g.m ⁻³	16	100	<1	ND	ND	<1	<1
Hardness	Total as CaCO3 g.m ⁻³	16	0	240.2	17.5	9.8	205.0	255.2
	Calcium as CaCO3 g.m ⁻³	15	0	204.0	14.6	9.0	173.0	223.3
	Magnesium as CaCO3 g.m ⁻³	14	0	34.3	2.7	1.5	28.3	47.0
Nutrients	Nitrate-N (tot.) g.m ⁻³	16	0	0.068	0.044	0.019	0.030	0.087
	Nitrite-N (tot.) g.m ⁻³	12	100	<0.002	ND	ND	<0.002	0.082
	Nitrate/Nitrite g.m ⁻³	15	0	0.065	0.042	0.022	0.030	0.164
	Ammoniacal-N (tot.) g.m ⁻³	12	100	<0.01	ND	ND	<0.01	0.020
	Phosphorous (tot.) g.m ⁻³	14	0	0.06	0.02	0.01	0.04	0.11
	Phosphorous (diss.) g.m ⁻³	15	60	0.01	0.004	0.001	<0.004	0.01
	Phosphate (tot.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
Microbiology	Faecal Coliforms (cfu/100ml)	1	100	<1	ND	ND	<1	<1
	Eschrichia Coli (cfu/100ml)	1	100	<1	ND	ND	<1	<1
Silicate	Silica as SiO2 g.m ⁻³	12	0	31.6	0.9	0.6	26.2	35.2
Major Cations & Anions	Calcium (tot.) g.m ⁻³	8	0	213.5	11.7	6.6	78.0	223.3
	Calcium (diss.) g.m ⁻³	6	0	80.3	2.3	1.5	69.1	85.7
	Magnesium (tot.) g.m ⁻³	12	0	29.7	24.1	5.9	8.1	37.9
	Magnesium (diss.) g.m ⁻³	7	0	8.5	0.5	0.3	8.0	9.1
	Sodium (tot.) g.m ⁻³	11	0	23.5	1.4	0.7	19.5	25.4
	Sodium (diss.) g.m ⁻³	5	0	25.5	0.1	0.1	23.4	25.7
	Potassium (tot.) g.m ⁻³	9	0	1.7	0.0	0.0	0.9	1.7
	Potassium (diss.) g.m ⁻³	7	0	1.7	0.1	0.1	1.5	1.9
	Chloride (tot.) g.m ⁻³	15	0	23.9	1.1	0.5	22.2	27.0
	Sulphate (tot.) g.m ⁻³	16	0	19.6	4.6	2.3	15.3	23.0
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	4	100	<0.003	ND	ND	<0.003	0.006
	Arsenic (tot.) g.m ⁻³	7	100	<0.0005	ND	ND	<0.0005	0.0010
	Arsenic (diss.) g.m ⁻³	3	100	<0.0005	ND	ND	<0.0005	<0.001
	Boron (tot.) g.m ⁻³	10	0	0.055	0.011	0.005	0.010	0.130
	Boron (diss.) g.m ⁻³	5	0	0.063	0.004	0.003	0.060	0.072
	Chromium (tot.) g.m ⁻³	8	100	<0.005	ND	ND	<0.0005	ND
	Chromium (diss.) g.m ⁻³	5	100	<0.0005	ND	ND	<0.0005	<0.0005
	Chromium (Hexavalent) g.m ⁻³	0	100	ND	ND	ND	0	0
	Copper (tot.) g.m ⁻³	11	91	0.007	ND	ND	<0.0005	0.009
	Copper (diss.) g.m ⁻³	5	100	<0.0005	ND	ND	<0.0005	<0.0005
	Fluoride (tot.) g.m ⁻³	12	0	0.085	0.030	0.005	<0.050	0.160
	Iron (tot.) g.m ⁻³	15	0	1.270	0.440	0.230	0.933	4.640
	Iron (diss.) g.m ⁻³	10	80	0.002	0.003	0.001	<0.005	1.530
	Lithium (tot.) g.m ⁻³	10	0	0.0370	0.0012	0.0008	0.0348	0.0420
	Lithium (diss.) g.m ⁻³	5	0	0.0345	0.00300	0.0026	0.0318	0.0408
	Manganese (tot.) g.m ⁻³	15	0	0.010	0.002	0.001	0.007	0.033
	Manganese (diss.) g.m ⁻³	14	0	0.010	0.004	0.002	0.001	0.012
	Nickel (tot.) g.m ⁻³	7	86	0.003	ND	ND	ND	0.486
	Nickel (diss.) g.m ⁻³	4	100	<0.0005	ND	ND	<0.0005	0.002
	Lead (tot.) g.m ⁻³	8	100	<0.02	ND	ND	<0.0001	<0.02
	Lead (diss.) g.m ⁻³	5	100	<0.0001	ND	ND	<0.0001	<0.0001
	Zinc (tot.) g.m ⁻³	10	80	0.001	0.000	0.000	<0.001	0.013
	Zinc (diss.) g.m ⁻³	5	20	0.006	0.009	0.004	<0.006	0.011
Ion Balance	Total Anion (mEq/L)	16	0	5.9	0.3	0.2	5.5	6.2
	Total Cation (mEq/L)	15	0	6.0	0.3	0.1	5.2	6.2
	Charge Bal. Error (% mEq/L)	16	0	1.4	1.6	0.8	0.3	4.0

For an explanation of table formatting, see end of Table 7.

Waitemata Group - Sandstones & Mudstones								
Lambie Drive, Puhinui		Count	% Results					
			Censored	Median	IQR	MAD	Minimum	Maximum
General Field Parameters	Temperature (°C)	14	0	16.8	0.6	0.3	15.5	18.1
	Dissolved oxygen (g.m ⁻³)	5	0	0.23	0.48	0.07	0.16	4.04
	Dissolved oxygen (% sat)	5	0	6.9	7.8	4.5	1.6	41.0
	Conductivity at 25°C (µS.cm ⁻²)	9	0	387	16.0	7.8	211	407
General Lab Parameters	pH (pH unit)	14	0	9.7	0.1	0.1	9.2	9.9
	Turbidity (NTU)	13	0	0.3	0.1	0.0	0.2	5.5
	Suspended solid g.m ⁻³	13	77	0.03	0.11	0.02	<0.1	22
	Total dissolved solid g.m ⁻³	15	0	229	15.5	7.0	205	268
Alkalinity	Total as CaCO ₃ g.m ⁻³	16	0	148.0	4.6	2.0	140.8	151.0
	Bicarbonate g.m ⁻³	16	0	122.0	36.4	19.1	70.6	152.0
	Carbonate g.m ⁻³	16	0	34.3	10.325	6.45	20	53.5
	Hydroxide g.m ⁻³	11	100	<1	ND	ND	<1	2
Hardness	Total as CaCO ₃ g.m ⁻³	14	0	3.0	0.2	0.1	2.8	7.2
	Calcium as CaCO ₃ g.m ⁻³	13	0	3.0	0.3	0	2.0	6.0
	Magnesium as CaCO ₃ g.m ⁻³	11	64	0.4	0	0	ND	4.4
Nutrients	Nitrate-N (tot.) g.m ⁻³	14	43	0.003	0.005	0.002	<0.002	0.136
	Nitrite-N (tot.) g.m ⁻³	14	100	<0.002	ND	ND	<0.002	0.005
	Nitrate/Nitrite g.m ⁻³	15	40	0.003	0.007	0.002	<0.002	0.136
	Ammoniacal-N (tot.) g.m ⁻³	16	0	0.205	0.025	0.015	0.170	0.260
	Phosphorous (tot.) g.m ⁻³	14	0	0.07	0.007	0.002	0.06	0.08
	Phosphorous (diss.) g.m ⁻³	10	0	0.07	0.001	0.001	0.04	0.09
	Phosphate (tot.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
Microbiology	Faecal Coliforms (cfu/100ml)	1	100	<1	ND	ND	<1	<1
	Escherichia Coli (cfu/100ml)	1	100	<1	ND	ND	<1	<1
Silicate	Silica as SiO ₂ g.m ⁻³	16	0	16.8	1.63	0.95	15.2	18.5
Major Cations & Anions	Calcium (tot.) g.m ⁻³	11	0	1.1	0.07	0.04	1.0	2.4
	Calcium (diss.) g.m ⁻³	6	0	1.0	0.17	0.05	1.0	1.2
	Magnesium (tot.) g.m ⁻³	10	0	0.1	0.03	0.02	0.1	1.1
	Magnesium (diss.) g.m ⁻³	5	0	0.1	0.01	0.01	0.1	0.2
	Sodium (tot.) g.m ⁻³	12	0	83.7	3.65	1.85	80.2	87.6
	Sodium (diss.) g.m ⁻³	5	0	89.1	0.80	0.50	83.8	90.4
	Potassium (tot.) g.m ⁻³	11	0	0.5	0.08	0.04	0.2	0.6
	Potassium (diss.) g.m ⁻³	5	0	0.5	0.05	0.02	0.5	0.7
	Chloride (tot.) g.m ⁻³	16	0	27.1	1.15	0.55	25.0	28.4
	Sulphate (tot.) g.m ⁻³	12	0	2.9	0.05	0.04	2.2	3.5
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	7	0	0.018	0.003	0.002	0.015	0.020
	Arsenic (tot.) g.m ⁻³	11	100	<0.0005	ND	ND	<0.0005	0.0010
	Arsenic (diss.) g.m ⁻³	6	100	<0.001	ND	ND	<0.0005	<0.001
	Boron (tot.) g.m ⁻³	11	0	0.380	0.031	0.020	<0.02	0.400
	Boron (diss.) g.m ⁻³	5	0	0.375	0.010	0.007	0.367	0.415
	Chromium (tot.) g.m ⁻³	7	100	<0.006	ND	ND	<0.0003	ND
	Chromium (diss.) g.m ⁻³	7	100	<0.0005	ND	ND	<0.0005	<0.0005
	Chromium (Hexavalent) g.m ⁻³	4	100	<0.001	ND	ND	<0.001	<0.001
	Copper (tot.) g.m ⁻³	11	91	0.007	ND	ND	<0.005	0.013
	Copper (diss.) g.m ⁻³	4	100	<0.0005	ND	ND	<0.0005	0.001
	Fluoride (tot.) g.m ⁻³	16	0	0.305	0.060	0.030	0.240	0.380
	Iron (tot.) g.m ⁻³	14	71	0.003	0.009	0.002	<0.005	0.511
	Iron (diss.) g.m ⁻³	12	100	<0.005	ND	ND	<0.005	0.027
	Lithium (tot.) g.m ⁻³	8	0	0.0050	0.0001	0	0.0020	0.0060
	Lithium (diss.) g.m ⁻³	6	0	0.0054	0.00030	0.0002	0.0051	0.0057
	Manganese (tot.) g.m ⁻³	13	69	0.001	0	0	<0.0005	0.011
	Manganese (diss.) g.m ⁻³	11	73	0.001	0	0	<0.0005	0.001
	Nickel (tot.) g.m ⁻³	7	100	<0.005	ND	ND	<0.0005	0.007
	Nickel (diss.) g.m ⁻³	4	100	<0.0005	ND	ND	<0.0005	0.001
	Lead (tot.) g.m ⁻³	8	100	<0.02	ND	ND	<0.0001	<0.02
	Lead (diss.) g.m ⁻³	4	100	<0.0001	ND	ND	<0.0001	0.0008
	Zinc (tot.) g.m ⁻³	8	88	0.002	ND	ND	<0.001	0.005
	Zinc (diss.) g.m ⁻³	5	60	0.001	0.003	0.001	<0.001	0.042
Ion Balance	Total Anion (mEq/L)	16	0	3.8	0.1	0.1	3.6	3.9
	Total Cation (mEq/L)	16	0	3.8	0.1	0.1	3.6	4.0
	Charge Bal. Error (% mEq/L)	15	0	1.1	1.4	0.6	0.3	4.7

For an explanation of table formatting, see end of Table 7.

Waitemata Group - Sandstones & Mudstones								
Seagrove Rd Observation		Count	% Results					
			Censored	Median	IQR	MAD	Minimum	Maximum
General Field Parameters	Temperature (°C)	12	0	18.3	0.3	0.1	18.0	19.3
	Dissolved oxygen (g.m ⁻³)	7	0	0.14	0.13	0.07	0.07	0.28
	Dissolved oxygen (% sat)	7	0	1.5	1.4	0.8	0.7	3.0
	Conductivity at 25°C (µS.cm ⁻²)	11	0	419	44.5	20.6	369	440
General Lab Parameters	pH (pH unit)	13	0	8.9	0.1	0.1	8.6	9.0
	Turbidity (NTU)	12	0	0.2	0.08	0.04	0.1	0.4
	Suspended solid g.m ⁻³	12	50	0.1	0.07	0.03	<0.05	1.0
	Total dissolved solid g.m ⁻³	13	0	253	11.0	5.0	235	280
Alkalinity	Total as CaCO ₃ g.m ⁻³	14	0	169.0	4.8	2.9	159.0	178.0
	Bicarbonate g.m ⁻³	13	0	192.0	10.0	5.0	137.0	210.5
	Carbonate g.m ⁻³	9	0	9.0	0.7	0.3	<1	36
	Hydroxide g.m ⁻³	14	100	<1	ND	ND	<1	<1
Hardness	Total as CaCO ₃ g.m ⁻³	14	0	9.0	0.9	0.6	8.0	10.2
	Calcium as CaCO ₃ g.m ⁻³	10	0	6.0	0.18	0.05	5.0	6.3
	Magnesium as CaCO ₃ g.m ⁻³	12	0	3.8	0.7	0.2	2.9	4.0
Nutrients	Nitrate-N (tot.) g.m ⁻³	8	88	0.001	ND	ND	ND	0.011
	Nitrite-N (tot.) g.m ⁻³	12	100	<0.002	ND	ND	<0.002	0.002
	Nitrate/Nitrite g.m ⁻³	8	88	0.001	ND	ND	ND	0.011
	Ammoniacal-N (tot.) g.m ⁻³	14	0	0.250	0.028	0.015	0.210	0.300
	Phosphorous (tot.) g.m ⁻³	9	0	0.04	0.001	0.001	0.04	0.05
	Phosphorous (diss.) g.m ⁻³	9	0	0.04	0	0	0.04	0.05
	Phosphate (tot.) g.m ⁻³	1	0	0.11	ND	ND	0.11	0.11
Microbiology	Faecal Coliforms (cfu/100ml)	1	100	<1	ND	ND	<1	<1
	Escherichia Coli (cfu/100ml)	1	100	<1	ND	ND	<1	<1
Silicate	Silica as SiO ₂ g.m ⁻³	12	0	11.1	0.5	0.2	9.2	11.9
Major Cations & Anions	Calcium (tot.) g.m ⁻³	11	0	2.3	0.1	0.1	2.0	2.5
	Calcium (diss.) g.m ⁻³	4	0	2.2	0.03	0.02	2.1	2.3
	Magnesium (tot.) g.m ⁻³	10	0	0.9	0.11	0.05	0.7	1.1
	Magnesium (diss.) g.m ⁻³	4	0	0.8	0.02	0.02	0.8	1.0
	Sodium (tot.) g.m ⁻³	11	0	90.2	5.5	2.8	86.5	100.0
	Sodium (diss.) g.m ⁻³	5	0	93.6	2.1	2.0	89.5	98.4
	Potassium (tot.) g.m ⁻³	10	0	4.1	0.1	0.1	3.9	4.5
	Potassium (diss.) g.m ⁻³	5	0	4.2	0.2	0.2	4.0	4.7
	Chloride (tot.) g.m ⁻³	11	0	33.4	0.5	0.3	31.5	38.5
	Sulphate (tot.) g.m ⁻³	13	8	1.3	0.7	0.5	ND	5.0
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	6	0	0.005	0.001	0.001	0.004	0.005
	Arsenic (tot.) g.m ⁻³	11	100	<0.0005	ND	ND	<0.0005	<0.0005
	Arsenic (diss.) g.m ⁻³	3	100	<0.0005	ND	ND	<0.0005	<0.001
	Boron (tot.) g.m ⁻³	11	0	0.110	0.005	0.003	0.100	0.120
	Boron (diss.) g.m ⁻³	5	0	0.110	0.008	0.005	0.103	0.123
	Chromium (tot.) g.m ⁻³	7	100	<0.0005	ND	ND	<0.0003	<0.005
	Chromium (diss.) g.m ⁻³	5	100	<0.0005	ND	ND	<0.0005	<0.0005
	Chromium (Hexavalent) g.m ⁻³	2	100	<0.001	ND	ND	<0.001	<0.001
	Copper (tot.) g.m ⁻³	12	92	0.007	ND	ND	<0.0005	0.007
	Copper (diss.) g.m ⁻³	4	100	<0.0005	ND	ND	<0.0005	<0.0005
	Fluoride (tot.) g.m ⁻³	14	0	0.11	0.02	0.01	0.08	0.12
	Iron (tot.) g.m ⁻³	14	7	0.026	0.009	0.004	ND	0.040
	Iron (diss.) g.m ⁻³	14	14	0.009	0.007	0.004	ND	0.021
	Lithium (tot.) g.m ⁻³	8	0	0.0070	0.0001	0.0000	0.0040	0.0090
	Lithium (diss.) g.m ⁻³	3	0	0.0068	0	0	0.0061	0.0068
	Manganese (tot.) g.m ⁻³	13	0	0.003	0.0010	0.0004	<0.001	0.003
	Manganese (diss.) g.m ⁻³	10	0	0.002	0.0004	0.0003	<0.001	0.003
	Nickel (tot.) g.m ⁻³	8	100	<0.0005	ND	ND	<0.0005	<0.005
	Nickel (diss.) g.m ⁻³	5	100	<0.0005	ND	ND	<0.0005	<0.0005
	Lead (tot.) g.m ⁻³	12	83	0.0000	0.0001	0	<0.0001	0.0200
	Lead (diss.) g.m ⁻³	3	100	<0.0001	ND	ND	<0.0001	0.0005
	Zinc (tot.) g.m ⁻³	9	67	0.000	0.0018	0.0004	<0.001	0.026
	Zinc (diss.) g.m ⁻³	4	100	<0.001	ND	ND	<0.001	0.001
Ion Balance	Total Anion (mEq/L)	14	0	4.4	0.07	0.04	4.2	4.5
	Total Cation (mEq/L)	14	0	4.3	0.3	0.1	4.1	4.7
	Charge Bal. Error (% mEq/L)	14	0	1.6	2.0	0.9	0.2	5.0

For an explanation of table formatting, see end of Table 7.

Table 7: Groundwater Quality Data Summary – Geothermal

Geothermal Waitemata Group - Sandstones & Mudstones								
		% Results						
Waiwera Thermal		Count	Censored	Median	IQR	MAD	Minimum	Maximum
General Field Parameters	Temperature (°C)	8	0	52.5	2.2	1.0	18.3	54.4
	Dissolved oxygen (g.m ⁻³)	0	100	ND	ND	ND	ND	ND
	Dissolved oxygen (% sat)	0	100	ND	ND	ND	ND	ND
	Conductivity at 25°C (µS.cm ⁻²)	3	0	3560	35.0	10.0	3110	3570
General Lab Parameters	pH (pH unit)	10	0	8.6	0.1	0.1	7.8	8.7
	Turbidity (NTU)	9	11	0.1	0.02	0.01	ND	3.0
	Suspended solid g.m ⁻³	9	56	0.1	0.2	0.1	<0.1	2.1
	Total dissolved solid g.m ⁻³	11	0	2057	47.5	37.0	2000	2293
Alkalinity	Total as CaCO3 g.m ⁻³	10	0	31.8	4.4	1.7	21.2	90.5
	Bicarbonate g.m ⁻³	12	0	37.0	34.6	18.6	4.0	110.4
	Carbonate g.m ⁻³	8	75	0.9	1.4	0.6	<1	14.8
	Hydroxide g.m ⁻³	12	100	<1	ND	ND	<1	<1
Hardness	Total as CaCO3 g.m ⁻³	12	0	106.5	8.3	4.5	97.9	113.0
	Calcium as CaCO3 g.m ⁻³	12	0	106.0	8.8	5.0	97.5	112.3
	Magnesium as CaCO3 g.m ⁻³	11	55	0.3	0.1	0	ND	ND
Nutrients	Nitrate-N (tot.) g.m ⁻³	7	100	<0.002	ND	ND	<0.002	0.067
	Nitrite-N (tot.) g.m ⁻³	10	100	<0.002	ND	ND	<0.002	0.005
	Nitrate/Nitrite g.m ⁻³	7	100	<0.002	ND	ND	<0.002	0.067
	Ammoniacal-N (tot.) g.m ⁻³	9	0	1.270	0.060	0.030	0.130	1.300
	Phosphorous (tot.) g.m ⁻³	12	58	0.01	0.016	0.004	<0.004	0.02
	Phosphorous (diss.) g.m ⁻³	10	20	0.01	0.005	0.003	ND	0.02
	Phosphate (tot.) g.m ⁻³	0	100	ND	ND	ND	ND	ND
Microbiology	Faecal Coliforms (cfu/100ml)	0	100	ND	ND	ND	ND	ND
	Escherichia Coli (cfu/100ml)	0	100	ND	ND	ND	ND	ND
Silicate	Silica as SiO2 g.m ⁻³	12	0	30.2	5.1	2.7	26.6	33.9
Major Cations & Anions	Calcium (tot.) g.m ⁻³	11	0	42.0	3.3	1.9	39.0	44.9
	Calcium (diss.) g.m ⁻³	2	0	44.1	0.9	0.9	43.2	45.0
	Magnesium (tot.) g.m ⁻³	9	0	0.1	0.01	0.01	0.1	0.2
	Magnesium (diss.) g.m ⁻³	2	0	0.2	0.1	0.1	0.1	0.2
	Sodium (tot.) g.m ⁻³	9	0	684.0	16.0	7.0	644.0	811.0
	Sodium (diss.) g.m ⁻³	2	0	706.0	6.0	6.0	700.0	712.0
	Potassium (tot.) g.m ⁻³	9	0	8.1	0.4	0.2	7.2	16.1
	Potassium (diss.) g.m ⁻³	2	0	8.6	0.4	0.4	8.2	8.9
	Chloride (tot.) g.m ⁻³	12	0	1120.0	73.8	41.5	1010.0	1240.0
Minor Cations & Anions	Sulphate (tot.) g.m ⁻³	11	0	2.8	0.7	0.4	1.7	5.8
	Aluminium (diss.) g.m ⁻³	4	0	0.011	0	0	0.010	0.030
	Arsenic (tot.) g.m ⁻³	6	100	<0.0005	ND	ND	<0.0005	ND
	Arsenic (diss.) g.m ⁻³	2	100	<0.002	ND	ND	<0.001	<0.002
	Boron (tot.) g.m ⁻³	11	0	9.510	0.680	0.410	8.690	10.600
	Boron (diss.) g.m ⁻³	2	0	9.530	0.450	0.450	9.080	9.980
	Chromium (tot.) g.m ⁻³	6	67	0.0005	0	0	<0.0005	ND
	Chromium (diss.) g.m ⁻³	5	100	<0.001	ND	ND	<0.0005	<0.001
	Chromium (Hexavalent) g.m ⁻³	4	100	<0.001	ND	ND	<0.001	<0.001
	Copper (tot.) g.m ⁻³	6	67	0.001	0	0	<0.0005	ND
	Copper (diss.) g.m ⁻³	2	100	<0.001	ND	ND	<0.001	<0.001
	Fluoride (tot.) g.m ⁻³	9	0	1.600	0.150	0.080	0.590	1.800
	Iron (tot.) g.m ⁻³	11	73	0.004	0.015	0.002	<0.005	0.215
	Iron (diss.) g.m ⁻³	7	100	<0.005	ND	ND	<0.005	0.030
	Lithium (tot.) g.m ⁻³	7	0	0.6500	0.0095	0.0050	0.6450	0.7600
	Lithium (diss.) g.m ⁻³	2	0	0.6340	0.0280	0.028	0.6060	0.6620
	Manganese (tot.) g.m ⁻³	11	9	0.002	0.001	0.001	<0.001	0.108
	Manganese (diss.) g.m ⁻³	11	0	0.002	0.001	0.001	0.001	0.098
	Nickel (tot.) g.m ⁻³	9	67	0.005	0.005	0.002	<0.0005	0.021
	Nickel (diss.) g.m ⁻³	2	100	<0.001	ND	ND	<0.001	<0.001
	Lead (tot.) g.m ⁻³	6	50	0.0001	0	0	ND	ND
	Lead (diss.) g.m ⁻³	2	100	<0.0002	ND	ND	<0.0002	<0.0002
	Zinc (tot.) g.m ⁻³	9	67	0.002	0.003	0.001	<0.002	0.035
	Zinc (diss.) g.m ⁻³	2	100	<0.002	ND	ND	<0.002	<0.002
Ion Balance	Total Anion (mEq/L)	12	0	32.4	2.5	1.1	29.4	35.8
	Total Cation (mEq/L)	11	0	32.3	1.2	0.6	30.4	37.8
	Charge Bal. Error (% mEq/L)	12	0	1.8	3.2	1.6	0.0	5.1

For an explanation of table formatting, see end of Table 7.

Geothermal Waitemata Group - Sandstones & Mudstones									
		Count	% Results		Median	IQR	MAD	Minimum	Maximum
Aquatic Park, Parakai			Censored						
General Field Parameters	Temperature (°C)	8	0	63.0	2.8	1.4	58.4	65.0	
	Dissolved oxygen (g.m ⁻³)	0	100	ND	ND	ND	ND	ND	
	Dissolved oxygen (% sat)	0	100	ND	ND	ND	ND	ND	
	Conductivity at 25°C (µS.cm ⁻²)	0	100	ND	ND	ND	ND	ND	
General Lab Parameters	pH (pH unit)	8	0	7.9	0.05	0.02	7.7	8.1	
	Turbidity (NTU)	8	13	0.1	0.04	0.03	<0.1	0.6	
	Suspended solid g.m ⁻³	9	33	0.3	0.5	0.2	<0.1	1.9	
	Total dissolved solid g.m ⁻³	9	0	1930	47.0	27.0	1815	2062	
Alkalinity	Total as CaCO ₃ g.m ⁻³	9	0	53.0	3.9	2.0	49.6	78.0	
	Bicarbonate g.m ⁻³	9	0	62.4	5.4	2.2	55.1	95.0	
	Carbonate g.m ⁻³	7	100	<1	ND	ND	<1	5	
	Hydroxide g.m ⁻³	8	100	<1	ND	ND	<1	5	
Hardness	Total as CaCO ₃ g.m ⁻³	9	0	122.0	12.7	6.8	102.9	210.0	
	Calcium as CaCO ₃ g.m ⁻³	9	0	120.0	12.0	7.3	100.9	206.0	
	Magnesium as CaCO ₃ g.m ⁻³	9	0	2.5	0.7	0.5	1.6	5.0	
Nutrients	Nitrate-N (tot.) g.m ⁻³	7	57	0.001	0.0018	0.0004	<0.002	0.027	
	Nitrite-N (tot.) g.m ⁻³	10	100	<0.002	ND	ND	<0.002	<0.002	
	Nitrate/Nitrite g.m ⁻³	7	57	0.001	0.0018	0.0004	<0.002	0.027	
	Ammoniacal-N (tot.) g.m ⁻³	9	0	1.500	0.220	0.100	1.200	2.800	
	Phosphorous (tot.) g.m ⁻³	10	40	0.02	0.01	0.01	<0.004	0.03	
	Phosphorous (diss.) g.m ⁻³	8	63	0.01	0	0	<0.004	0.03	
	Phosphate (tot.) g.m ⁻³	0	100	ND	ND	ND	ND	ND	
Microbiology	Faecal Coliforms (cfu/100ml)	0	100	ND	ND	ND	ND	ND	
	Escherichia Coli (cfu/100ml)	0	100	ND	ND	ND	ND	ND	
Silicate	Silica as SiO ₂ g.m ⁻³	10	0	70.1	6.0	4.4	59.5	78.1	
Major Cations & Anions	Calcium (tot.) g.m ⁻³	8	0	47.1	4.7	2.4	40.4	60.7	
	Calcium (diss.) g.m ⁻³	2	0	48.8	1.3	1.4	47.4	82.4	
	Magnesium (tot.) g.m ⁻³	8	0	0.6	0.07	0.04	0.4	0.8	
	Magnesium (diss.) g.m ⁻³	2	0	0.6	0.02	0.02	0.6	1.1	
	Sodium (tot.) g.m ⁻³	6	0	612.5	7.0	1.5	568.0	652.0	
	Sodium (diss.) g.m ⁻³	3	0	637.0	23.5	11.0	601.0	648.0	
	Potassium (tot.) g.m ⁻³	8	0	17.9	0.9	0.4	14.0	19.4	
	Potassium (diss.) g.m ⁻³	2	0	19.3	1.2	1.2	18.1	33.7	
	Chloride (tot.) g.m ⁻³	9	0	1057.0	54.0	26.0	995.0	1083.0	
	Sulphate (tot.) g.m ⁻³	10	0	3.6	0.8	0.5	2.8	4.8	
Minor Cations & Anions	Aluminium (diss.) g.m ⁻³	4	50	0.005	0.002	0	ND	ND	
	Arsenic (tot.) g.m ⁻³	5	100	<0.0005	ND	ND	<0.0005	ND	
	Arsenic (diss.) g.m ⁻³	2	100	<0.0005	ND	ND	<0.0005	<0.002	
	Boron (tot.) g.m ⁻³	8	0	13.450	0.743	0.300	12.400	15.500	
	Boron (diss.) g.m ⁻³	2	0	12.950	0.950	0.950	12.000	23.700	
	Chromium (tot.) g.m ⁻³	9	89	0.0005	ND	ND	ND	ND	
	Chromium (diss.) g.m ⁻³	2	100	<0.001	ND	ND	<0.0005	<0.001	
	Chromium (Hexavalent) g.m ⁻³	0	100	ND	ND	ND	ND	ND	
	Copper (tot.) g.m ⁻³	9	89	0.001	ND	ND	<0.001	ND	
	Copper (diss.) g.m ⁻³	3	100	<0.001	ND	ND	<0.001	<0.001	
	Fluoride (tot.) g.m ⁻³	8	0	2.175	0.228	0.135	0.380	2.510	
	Iron (tot.) g.m ⁻³	9	44	0.005	0.009	0.003	ND	0.063	
	Iron (diss.) g.m ⁻³	9	67	0.003	0.003	0.002	<0.005	0.024	
	Lithium (tot.) g.m ⁻³	8	0	0.8250	0.0293	0.0200	0.8000	1.2900	
	Lithium (diss.) g.m ⁻³	3	0	0.8350	0.39650	0.168	0.6670	1.4600	
	Manganese (tot.) g.m ⁻³	10	0	0.014	0.002	0.001	0.012	0.018	
	Manganese (diss.) g.m ⁻³	7	14	0.014	0.003	0.001	<0.001	0.029	
	Nickel (tot.) g.m ⁻³	9	56	0.003	0.008	0.002	<0.001	0.022	
	Nickel (diss.) g.m ⁻³	3	100	<0.001	ND	ND	<0.001	<0.001	
	Lead (tot.) g.m ⁻³	6	100	<0.02	ND	ND	ND	ND	
	Lead (diss.) g.m ⁻³	3	33	0.0002	0.0001	0.0001	<0.0002	0.0003	
	Zinc (tot.) g.m ⁻³	6	50	0.004	0.005	0.002	<0.005	0.042	
	Zinc (diss.) g.m ⁻³	3	33	0.004	0.003	0.003	<0.002	0.008	
Ion Balance	Total Anion (mEq/L)	10	0	30.6	1.6	0.9	29.2	31.8	
	Total Cation (mEq/L)	10	0	29.8	1.3	0.8	27.9	31.4	
	Charge Bal. Error (% mEq/L)	9	0	1.2	0.9	0.5	0.6	3.4	

For an explanation of table formatting, see end of Table 7.

Table formatting (Tables 2-7):

- Where % Results Censored is greater than 70, the Median, IQR and MAD are displayed in italics to show the lowered reliability of the log-normal regression method. Where % Results censored is between 50 and 70, and the Pearson Correlation coefficient for the calculation was <0.8 , the Median, IQR and MAD are displayed in italics. Below 50%, calculation of the Median does not rely on the log-normal regression, thus only the IQR and MAD is italicized.
- In the tables, ND represents a non-determinable value.
- Note that outliers were excluded from Count, % Results Censored, and from calculation of the Median, IQR and MAD. Outliers were included in Minimum and Maximum calculations.
- See section 2.6 for further explanation of the methods used in data analysis.