

Winstone Aggregates -
 Otaki/Waikanae/Paraparamu
 Main Road
 Otaki
 Attention: Lawrence Snook

Analytical Report

Report Number: 18/57550

 Issue: 1
 24 December 2018

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
18/57550-01	Bore water		12/12/2018 12:06	12/12/2018 15:40	14236571
Notes: 72 Te Roto site bore- Otaki					
Test	Result	Units	Comments	Signatory	
0001 pH	6.3			Jennifer Mont KTP	
0052 Alkalinity - Total	21	g CaCO3/m ³		Jennifer Mont KTP	
0055 Conductivity at 25°C	8.9	mS/m		Jennifer Mont KTP	
0602 Chloride	7.88	g/m ³		Shanel Kumar KTP	
0605 Nitrate - Nitrogen	0.46	g/m ³		Shanel Kumar KTP	
1642 Total Hardness	25	g CaCO3/m ³		Shanel Kumar KTP	
1800 Aluminium - Dissolved	< 0.005	g/m ³		Shanel Kumar KTP	
1810 Calcium - Dissolved	7.38	g/m ³		Shanel Kumar KTP	
1819 Iron - Dissolved	0.062	g/m ³		Shanel Kumar KTP	
1822 Magnesium - Dissolved	1.47	g/m ³		Shanel Kumar KTP	
1823 Manganese - Dissolved	< 0.005	g/m ³		Shanel Kumar KTP	
5007 TPH C7 - C9	< 0.1	mg/L		Ganesh Ilancko KTP	
5010 TPH C10 - C12	< 0.1	mg/L		Ganesh Ilancko KTP	
5012 TPH C13 - C19	0.3	mg/L		Ganesh Ilancko KTP	
5015 TPH C20 - C26	0.3	mg/L		Ganesh Ilancko KTP	
5021 TPH C27 - C37	0.3	mg/L		Ganesh Ilancko KTP	
5040 Maximum TPH Content	0.9	mg/L		Ganesh Ilancko KTP	
M0408 Faecal Coliforms	< 1	cfu/100mL		Juana Tamayo KTP	
M0409 E. coli	< 1	cfu/100mL		Juana Tamayo KTP	

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
18/57550-02	Bore water		12/12/2018 12:38	12/12/2018 15:43	14236571
Notes: Winstones site bore - Otaki					
Test	Result	Units	Comments	Signatory	
0001 pH	6.4			Jennifer Mont KTP	
0052 Alkalinity - Total	20	g CaCO3/m ³		Jennifer Mont KTP	
0055 Conductivity at 25°C	8.5	mS/m		Jennifer Mont KTP	
0602 Chloride	7.51	g/m ³		Shanel Kumar KTP	
0605 Nitrate - Nitrogen	0.32	g/m ³		Shanel Kumar KTP	
1642 Total Hardness	23	g CaCO3/m ³		Shanel Kumar KTP	
1800 Aluminium - Dissolved	< 0.005	g/m ³		Shanel Kumar KTP	
1810 Calcium - Dissolved	7.06	g/m ³		Shanel Kumar KTP	
1819 Iron - Dissolved	< 0.005	g/m ³		Shanel Kumar KTP	
1822 Magnesium - Dissolved	1.39	g/m ³		Shanel Kumar KTP	
1823 Manganese - Dissolved	< 0.005	g/m ³		Shanel Kumar KTP	
5007 TPH C7 - C9	< 0.1	mg/L		Ganesh Ilancko KTP	
5010 TPH C10 - C12	< 0.1	mg/L		Ganesh Ilancko KTP	
5012 TPH C13 - C19	< 0.1	mg/L		Ganesh Ilancko KTP	
5015 TPH C20 - C26	< 0.1	mg/L		Ganesh Ilancko KTP	
5021 TPH C27 - C37	< 0.1	mg/L		Ganesh Ilancko KTP	
5040 Maximum TPH Content	< 0.5	mg/L		Ganesh Ilancko KTP	
M0408 Faecal Coliforms	< 1	cfu/100mL		Juana Tamayo KTP	
M0409 E. coli	< 1	cfu/100mL		Juana Tamayo KTP	

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
18/57550-03	Bore water		12/12/2018 12:52	12/12/2018 15:46	14236571

Notes: Winstones site Pond - Otaki

Test	Result	Units	Comments	Signatory
0001 pH	7.4			Jennifer Mont KTP
0052 Alkalinity - Total	18	g CaCO3/m ³		Jennifer Mont KTP
0055 Conductivity at 25°C	7.0	mS/m		Jennifer Mont KTP
0602 Chloride	7.13	g/m ³		Shanel Kumar KTP
0605 Nitrate - Nitrogen	0.01	g/m ³		Shanel Kumar KTP
1642 Total Hardness	18	g CaCO3/m ³		Shanel Kumar KTP
1800 Aluminium - Dissolved	0.008	g/m ³		Shanel Kumar KTP
1810 Calcium - Dissolved	5.49	g/m ³		Shanel Kumar KTP
1819 Iron - Dissolved	< 0.005	g/m ³		Shanel Kumar KTP
1822 Magnesium - Dissolved	1.13	g/m ³		Shanel Kumar KTP
1823 Manganese - Dissolved	< 0.005	g/m ³		Shanel Kumar KTP
5007 TPH C7 - C9	< 0.1	mg/L		Ganesh Ilancko KTP
5010 TPH C10 - C12	< 0.1	mg/L		Ganesh Ilancko KTP
5012 TPH C13 - C19	< 0.1	mg/L		Ganesh Ilancko KTP
5015 TPH C20 - C26	< 0.1	mg/L		Ganesh Ilancko KTP
5021 TPH C27 - C37	< 0.1	mg/L		Ganesh Ilancko KTP
5040 Maximum TPH Content	< 0.5	mg/L		Ganesh Ilancko KTP
M0408 Faecal Coliforms	144	cfu/100mL	Above extreme maximum of 1	Sunita Raju KTP
M0409 E. coli	140	cfu/100mL		Sunita Raju KTP

Comments:

Sampled by ELS using approved containers and techniques.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500 H.	0.1
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m ³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chloride	Ion Chromatography following USEPA 300.0 (modified).	0.02 g/m ³
Nitrate - Nitrogen	Ion Chromatography following USEPA 300.0 (modified).	0.01 g/m ³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m ³
Aluminium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m ³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m ³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m ³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m ³
Manganese - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m ³
TPH C7 - C9	Total Petroleum Hydrocarbon performed by GC-FID.	0.1 mg/L
TPH C10 - C12	Total Petroleum Hydrocarbon performed by GC-FID	0.1 mg/L
TPH C13 - C19	Total Petroleum Hydrocarbon performed by GC-FID	0.1 mg/L
TPH C20 - C26	Total Petroleum Hydrocarbon performed by GC-FID	0.1 mg/L
TPH C27 - C37	Total Petroleum Hydrocarbon performed by GC-FID	0.1 mg/L
Maximum TPH Content	Total Petroleum Hydrocarbon performed by GC-FID.	0.5 mg/L
Faecal Coliforms	APHA 9222D:Online Edition	1 cfu/100mL
E. coli	APHA 9222G:Online Edition	1 cfu/100mL



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Unless otherwise stated, all tests are performed in Wellington.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

g/m3 is the equivalent to mg/L and ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.



Report Released By
Rob Deacon

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