

Winstone Aggregates - Otaki
1 State Highway 1
Otaki 5543
Attention: Gary Edwards

Analytical Report

Report Number: 21/11986
Issue: 1
09 April 2021

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
21/11986-01	Bore water		29/03/2021 10:35	29/03/2021 13:41	14295383
Notes: 72 Te Roto site bore - Otaki Sampling delayed from 26/03/21 due to power outage on Te Roto Rd					
Test	Result	Units	Test Date	Signatory	
0001 pH	6.3		30/03/2021	Gordon McArthur KTP	
0052 Alkalinity - Total	21	g CaCO3/m ³	30/03/2021	Gordon McArthur KTP	
0055 Conductivity at 25°C	10.7	mS/m	30/03/2021	Gordon McArthur KTP	
0602 Chloride	10.5	g/m ³	01/04/2021	Shanel Kumar KTP	
0605 Nitrate - Nitrogen	0.43	g/m ³	01/04/2021	Shanel Kumar KTP	
5007 TPH C7 - C9	< 0.1	mg/L	31/03/2021	Joanna Yang KTP	
5010 TPH C10 - C12	< 0.1	mg/L	31/03/2021	Joanna Yang KTP	
5012 TPH C13 - C19	< 0.1	mg/L	31/03/2021	Joanna Yang KTP	
5015 TPH C20 - C26	< 0.1	mg/L	31/03/2021	Joanna Yang KTP	
5021 TPH C27 - C37	< 0.1	mg/L	31/03/2021	Joanna Yang KTP	
5040 Maximum TPH Content	< 0.5 *	mg/L	31/03/2021	Joanna Yang .	
6043 Total Hardness	28	g CaCO3/m ³	08/04/2021	Shuyu Zhao KTP	
6701 Aluminium - Dissolved	< 0.002	g/m ³	03/04/2021	Sharon van Soest KTP	
6710 Calcium - Dissolved	8.4	g/m ³	03/04/2021	Sharon van Soest KTP	
6717 Iron - Dissolved	0.02	g/m ³	03/04/2021	Sharon van Soest KTP	
6720 Magnesium - Dissolved	1.69	g/m ³	03/04/2021	Shuyu Zhao KTP	
6721 Manganese - Dissolved	0.0010	g/m ³	03/04/2021	Sharon van Soest KTP	
M0102 Faecal Coliforms	< 1	cfu/100ml	29/03/2021	Yuemei Yu KTP	
M0104 E. coli	< 1	cfu/100mL	29/03/2021	Yuemei Yu KTP	
P1859 Sample Filtration	Completed		30/03/2021	Harsimran Dhanoa .	

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
21/11986-02	Bore water		29/03/2021 11:00	29/03/2021 13:41	14295383
Notes: Winstone site bore - Otaki Sampling delayed from 26/03/21 due to power outage on Te Roto Rd					
Test	Result	Units	Test Date	Signatory	
0001 pH	6.4		30/03/2021	Gordon McArthur KTP	
0052 Alkalinity - Total	20	g CaCO3/m ³	30/03/2021	Gordon McArthur KTP	
0055 Conductivity at 25°C	9.3	mS/m	30/03/2021	Gordon McArthur KTP	
0602 Chloride	8.34	g/m ³	01/04/2021	Shanel Kumar KTP	
0605 Nitrate - Nitrogen	0.28	g/m ³	01/04/2021	Shanel Kumar KTP	
5007 TPH C7 - C9	< 0.1	mg/L	31/03/2021	Joanna Yang KTP	
5010 TPH C10 - C12	< 0.1	mg/L	31/03/2021	Joanna Yang KTP	
5012 TPH C13 - C19	< 0.1	mg/L	31/03/2021	Joanna Yang KTP	
5015 TPH C20 - C26	< 0.1	mg/L	31/03/2021	Joanna Yang KTP	
5021 TPH C27 - C37	< 0.1	mg/L	31/03/2021	Joanna Yang KTP	
5040 Maximum TPH Content	< 0.5 *	mg/L	31/03/2021	Joanna Yang .	
6043 Total Hardness	25	g CaCO3/m ³	08/04/2021	Shuyu Zhao KTP	
6701 Aluminium - Dissolved	< 0.002	g/m ³	03/04/2021	Sharon van Soest KTP	
6710 Calcium - Dissolved	7.5	g/m ³	03/04/2021	Sharon van Soest KTP	
6717 Iron - Dissolved	< 0.01	g/m ³	03/04/2021	Sharon van Soest KTP	
6720 Magnesium - Dissolved	1.45	g/m ³	03/04/2021	Shuyu Zhao KTP	
6721 Manganese - Dissolved	< 0.0005	g/m ³	03/04/2021	Sharon van Soest KTP	
M0102 Faecal Coliforms	< 1	cfu/100ml	29/03/2021	Yuemei Yu KTP	
M0104 E. coli	< 1	cfu/100mL	29/03/2021	Yuemei Yu KTP	
P1859 Sample Filtration	Completed		30/03/2021	Harsimran Dhanoa .	

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
21/11986-03	Surface Water		29/03/2021 11:10	29/03/2021 13:41	14295383
Notes: Winstone site pond - Otaki Sampling delayed from 26/03/21 due to power outage on Te Roto Rd					
Test	Result	Units	Test Date	Signatory	
0001 pH	7.5		30/03/2021	Gordon McArthur KTP	
0052 Alkalinity - Total	22	g CaCO3/m ³	30/03/2021	Gordon McArthur KTP	
0055 Conductivity at 25°C	7.9	mS/m	30/03/2021	Gordon McArthur KTP	
0602 Chloride	7.37	g/m ³	01/04/2021	Shanel Kumar KTP	
0605 Nitrate - Nitrogen	< 0.01	g/m ³	01/04/2021	Shanel Kumar KTP	



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Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
21/11986-03	Surface Water		29/03/2021 11:10	29/03/2021 13:41	14295383
Notes: Winstone site pond - Otaki Sampling delayed from 26/03/21 due to power outage on Te Roto Rd					
Test	Result	Units	Test Date	Signatory	
5007 TPH C7 - C9	< 0.1	mg/L	31/03/2021	Joanna Yang KTP	
5010 TPH C10 - C12	< 0.1	mg/L	31/03/2021	Joanna Yang KTP	
5012 TPH C13 - C19	< 0.1	mg/L	31/03/2021	Joanna Yang KTP	
5015 TPH C20 - C26	< 0.1	mg/L	31/03/2021	Joanna Yang KTP	
5021 TPH C27 - C37	< 0.1	mg/L	31/03/2021	Joanna Yang KTP	
5040 Maximum TPH Content	< 0.5 *	mg/L	31/03/2021	Joanna Yang .	
6043 Total Hardness	21	g CaCO3/m ³	08/04/2021	Shuyu Zhao KTP	
6701 Aluminium - Dissolved	0.006	g/m ³	03/04/2021	Sharon van Soest KTP	
6710 Calcium - Dissolved	6.4	g/m ³	03/04/2021	Sharon van Soest KTP	
6717 Iron - Dissolved	< 0.01	g/m ³	03/04/2021	Sharon van Soest KTP	
6720 Magnesium - Dissolved	1.24	g/m ³	03/04/2021	Shuyu Zhao KTP	
6721 Manganese - Dissolved	0.0009	g/m ³	03/04/2021	Sharon van Soest KTP	
M0102 Faecal Coliforms	110	cfu/100ml	29/03/2021	Yuemei Yu KTP	
M0104 E. coli	88	cfu/100mL	29/03/2021	Yuemei Yu KTP	
P1859 Sample Filtration	Completed		30/03/2021	Harsimran Dhanoa .	

Comments:

* Not an accredited test.

Sampled by customer using ELS approved containers.

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 B.	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 APHA 4110B.	0.02 g/m ³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 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	Calculation - Sum of Total Petroleum Hydrocarbon performed by GC-FID.	0.5 mg/L
Total Hardness	ICP-MS following APHA Online Edition method 3125 (modified).	1 g CaCO3/m ³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m ³
Calcium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.1 g/m ³
Iron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.01 g/m ³
Magnesium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m ³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m ³
Faecal Coliforms	APHA 9222D:Online Edition	1 cfu/100ml
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" 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.

For liquid samples g/m³ is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

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

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Page 2 of 2

Report Number: 21/11986-1 ELS

09 April 2021 16:00:47