

1 August 2012



Ecan Laboratory, c/- NIWA 10 Kyle Street, Christchurch

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Paul Roberts

Waimate District Council

Queen Street

WAIMATE 7924

ECAN LABORATORY REPORT

Report No: 1200968

Results for samples received on: 17 July 2012

Sampled By: Steve Bailey

Order No:

Lab. No.	Client ID	Date/Time Sampled	Parameter	Result	Units
1203912	Waituna Intake	17/07/12 0755	% Transmission 254nm	95.87	%
			% Transmission 254nm GF/C	97.95	%
			pH	7.0	
			Total Calcium	7.49	mg/L
			Total Hardness	23	g/m3 CaCO3
			Total Iron	<0.021	mg/L
			Total Magnesium	1.138	mg/L
			Total Manganese	<0.00053	mg/L
			Total Organic Carbon	0.4	mg/L
			Turbidity	0.7	NTU
			Water Temperature	4	°C
1203913	Lower Waihao Intake	17/07/12 0800	% Transmission 254nm	95.71	%
			% Transmission 254nm GF/C	95.65	%
			pH	7.7	
			pH field	6.6	

1203913	Lower Waihao Intake	17/07/12	0800	Total Calcium	13.09	mg/L
				Total Hardness	43	g/m3 CaCO3
				Total Iron	0.037	mg/L
				Total Magnesium	2.53	mg/L
				Total Manganese	0.00055	mg/L
				Total Organic Carbon	0.7	mg/L
				Turbidity	<0.1	NTU
				Water Temperature	10.4	°C

	Method
% Transmission 254nm	NI - In House
% Transmission 254nm GF/C	NI - In House
pH	APHA 4500-H B
pH field	Unknown meter
Total Calcium	*Nitric acid digestion. ICP MS APHA 3125B
Total Hardness	*Calculation from Calcium and Magnesium
Total Iron	*Nitric acid digestion. ICP-MS APHA 3125 B
Total Magnesium	*Nitric acid digestion. ICP MS APHA 3125B
Total Manganese	*Nitric acid digestion. ICP-MS APHA 3125B
Total Organic Carbon	APHA 5310 C uv-persulphate
Turbidity	APHA 2130 B
Water Temperature	Unknown meter

APHA: Standard Methods for the Examination of Water and Wastewater 21st Edition 2005 (Revised 2008).

* = Subcontracted analysis
NI = Not IANZ accredited for this test.

Remarks: % Transmission 254nm GF/C is a filtered analysis.

Comments:

Symbols: < means less than, > means greater than.
Units of mg/L are equivalent to g/m3 and ppm.

G Harvey

Gaynor Harvey
LABORATORY TECHNICIAN

Analytical results relate to sample as received.
Details of methods are available on request.
This report may only be reproduced in full.



All tests reported herein have been performed in accordance with the laboratory's scope of accreditation unless otherwise indicated.

Details of Laboratory Analyses Performed by ECan Laboratory

Waimate District Council

Queen Street

WAIMATE 7924

Attention: **Paul Roberts**
Order Number:

Date completed
01-Aug-2012

Report Number	Date Received	No. of Samples	Cost per Test/Group	Total Cost
1200968	17/07/2012			
Ch-%uvTrans-filtered		2	10.00	20.00
Ch-%uvTrans-unfilt		2	10.00	20.00
Ch-pH		2	9.00	18.00
Ch-TOC		2	28.00	56.00
Ch-Turb (Man-Tech)		2	9.00	18.00
Hill/Chch-Total Calcium		2	9.45	18.90
Hill/Chch-Total Digestion		2	10.35	20.70
Hill/Chch-Total Hardness		2	0.00	0.00
Hill/Chch-Total Iron		2	9.45	18.90
Hill/Chch-Total Magnesium		2	9.45	18.90
Hill/Chch-Total Manganese		2	9.45	18.90
F Unknown meter-pH		1	0.00	0.00
F Unknown meter-Temp		2	0.00	0.00
Ch-Freight		1	7.45	7.45
				\$235.75

Total Cost excl GST

\$235.75

Sample ID	Site Information
1203912	Waituna Intake
1203913	Lower Waihao Intake

**Invoice including GST will follow shortly -
Pay on Invoice only,
NOT on this advice.**

1820 LCHC 000

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