



Certificate of Analysis

Client:	Waireka Beverages Limited	Lab No:	1986775	SPV1
Contact:	C/- Waireka Beverages Limited PO Box 12110 Palmerston North 4444	Date Received:	22-May-2018	
		Date Reported:	28-May-2018	
		Quote No:	80230	
		Order No:		
		Client Reference:		

Sample Type: Aqueous

Sample Name:	Waireka Water				
Lab Number:	1986775.1				
Heterotrophic Plate Count 22°C (72 hrs)	cfu / mL	< 1 #1	-	-	-
Heterotrophic Plate Count 35°C (48 hrs)	cfu / mL	< 1 #1	-	-	-
Clostridium perfringens (incl spores)	cfu / 50mL	< 1	-	-	-
Total Coliforms	cfu / 250mL	< 1	-	-	-
Faecal Coliforms	cfu / 250mL	< 1	-	-	-
Escherichia coli	cfu / 250mL	< 1	-	-	-
Faecal Streptococcus	cfu / 250mL	< 1	-	-	-
Pseudomonas aeruginosa*	cfu / 250mL	< 1 #1	-	-	-
Salmonella*	per 250mL	Not Detected	-	-	-
Shigella*	per 1L	Not Detected	-	-	-

Analyst's Comments

#1 Statistically estimated count based on the theoretical countable range for the stated method.

Appendix No.1 - Cawthron subcontracting report

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis.

Sample Type: Aqueous

Test	Method Description	Default Detection Limit	Sample No
Heterotrophic Plate Count 22°C (72 hrs)	Count on Plate count agar, Incubated at 22°C for 72 hours. Analysed at Hill Laboratories - Microbiology; 101C Waterloo Road, Christchurch. APHA 9215 B, 22 nd ed. 2012.	1 cfu / mL	1
Heterotrophic Plate Count 35°C (48 hrs)	Count on Plate count agar, Incubated at 35°C for 48 hours. Analysed at Hill Laboratories - Microbiology; 101C Waterloo Road, Christchurch. APHA 9215 B, 22 nd ed. 2012.	1 cfu / mL	1
Clostridium perfringens (incl spores)	Membrane filtration, Count on TSC fluorocult agar, Incubated anaerobically at 44°C for 18-24 hours. Analysed at Hill Laboratories - Microbiology; 101c Waterloo Road, Hornby, Christchurch. MIMM 11.A3.	1 cfu / 50mL	1
Total Coliforms	Membrane Filtration, Resuscitation then count on mLS agar, Incubation at 37°C for 14-16 hours, Confirmation. Analysed at Hill Laboratories - Microbiology; 101C Waterloo Road, Christchurch. AS 4276.5.	1 cfu / 250mL	1
Faecal Coliforms	Membrane Filtration, Resuscitation then count on mLS agar, Incubation at 44-44.5°C for 14-16 hours, Confirmation. Analysed at Hill Laboratories - Microbiology; 101C Waterloo Road, Christchurch. AS4276.7.	1 cfu / 250mL	1
Escherichia coli	Membrane Filtration, Resuscitation then count on mLS agar, Incubation at 44-44.5°C for 14-16 hours, Confirmation. Analysed at Hill Laboratories - Microbiology; 101C Waterloo Road, Christchurch. AS 4276.7.	1 cfu / 250mL	1



This Laboratory is accredited by International Accreditation New Zealand (IANZ), which represents New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA) this accreditation is internationally recognised. The tests reported herein have been performed in accordance with the terms of accreditation, with the exception of tests marked *, which are not accredited.

Sample Type: Aqueous			
Test	Method Description	Default Detection Limit	Sample No
Faecal Streptococcus	Membrane filtration, Count on mEnterococcus agar, Incubated at 35°C for 48 hours, Confirmation. Analysed at Hill Laboratories - Microbiology; 101C Waterloo Road, Christchurch. MIMM 11.7.	1 cfu / 250mL	1
Pseudomonas aeruginosa*	Membrane filtration, Count on mPAC agar, Incubated at 41.5°C for 72 hours, Confirmation. Analysed at Hill Laboratories - Microbiology; 101C Waterloo Road, Christchurch. APHA 9213 E, 22 nd ed. 2012.	1 cfu / 250mL	1
Salmonella*	Detection of Salmonella by qualitative real-time PCR. Analysis performed at Hill Laboratories - Microbiology, 101C Waterloo Road, Christchurch.	-	1
Shigella*	Subcontracted to Cawthron Institute, Nelson. Compendium 4th Ed. 2001 (modified).	-	1

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Samples are held at the laboratory after reporting for a length of time depending on the preservation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the client.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.



Yu (Dominique) Gao BASc
Laboratory Technician - Microbiology



Cawthron Analytical Services:
Ensuring Integrity Through Analytical Excellence.

Certificate of Analysis: Final

Cawthron Contract Number: 13069

Project Number: V18557

Hill Laboratories
P.O. Box 16607
Hornby
CHRISTCHURCH 8441

Attention: Hills Christchurch

Customer Order No: 1986775
Customer Ref: 1986775
Email Recipients: Hills Christchurch
Date Project Started: 24/05/2018 16:08

Sample Details

Laboratory ID: V18557-1 Sample Type: Bottled Water
Description: Waireka Water Date Received: 24/05/2018 07:30
Customer ID: 198 6775.1

Analysis	Result	Units	Method
<i>Shigella*</i>	Not Detected	per Litre	Compendium 5th Edn 2015 Ch 37 (Mod)

Results apply to samples as received

Our routine detection limits for chemical testing relate to samples with a clean matrix.
Reported detection limits may be higher for individual samples if there is insufficient sample or the matrix is complex.

< means less than, > means greater than

Date Generated: 26/5/18

Authorised by: Krishna Harris
Position: Technician, Microbiology Laboratory

Signature: 



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* Indicates an analysis that is not IANZ accredited

Report Number: 718226

Project Number: V18557
V18.28

SL:M