

Certificate of Analysis

Laboratory Reference:170518-142

Attention: CASH SALES
Client: CASH SALES - INVERCARGILL LAB
Address: PO Box 747, Invercargill, 9840
Client Reference: IJ & KM Puller
Purchase Order: ijkmpuller@gmail.com

Final Report: 228082-0
Report Issue Date: 25-May-2017
Received Date: 18-May-2017
Sampled By: Client
Quote Reference : 3998

Sample Details	WATERS	WATERS	WATERS	WATERS
Lab Sample ID:	170518-142-1	170518-142-2	170518-142-3	170518-142-4
Client Sample ID:	A O Hagens creek	B Clement Creek	C Speden Creek	D Talar Creek
Sample Date/Time:	18/05/2017	18/05/2017	18/05/2017	18/05/2017
Description:	Non Potable Water	Non Potable Water	Non Potable Water	Non Potable Water
General Testing				
Ammoniacal Nitrogen (as N)	mg/L	0.04	0.03	0.01
Dissolved Reactive Phosphorus (as P)	mg/L	0.019	0.015	0.020
Microbiology				
Escherichia coli by MPN(Colilert-18)				
Escherichia coli (Colilert-18)	MPN/100 mL	72	75	230
				690

Sample Details	WATERS
Lab Sample ID:	170518-142-5
Client Sample ID:	House
Sample Date/Time:	18/05/2017
Description:	Potable Water
General Testing	
pH (at room temp c. 20 °C)	pH unit
	6.97
Metals	
Total Metals by ICP-MS—Trace (Default Digest)	
Calcium (Total)	mg/L
	7.0
Iron (Total)	mg/L
	0.0045
Magnesium (Total)	mg/L
	2.5
Manganese (Total)	mg/L
	0.00097
Microbiology	
Escherichia coli by Presence/Absence(ColiTag)	
Escherichia coli	(P/A)/100 mL
	Present

Results marked with * are not accredited to International Accreditation New Zealand

Where samples have been supplied by the client they are tested as received. A dash indicates no test performed.

Reference Methods				
The sample(s) referred to in this report were analysed by the following method(s)				
Analyte	Method Reference	MDL	Samples	Location
General Testing				
Ammoniacal Nitrogen (as N) by Colorimetry/Discrete Analyser	ISBN 0117516139 (modified)	0.010 mg/L	1, 2, 3, 4	Invercargill
Dissolved Reactive Phosphorus (as P) by Colorimetry/Discrete Analyser	APHA (online edition) 4500-P E	0.005 mg/L	1, 2, 3, 4	Invercargill
pH (at room temp c. 20 °C) by Electrode	APHA (online edition) 4500-H B	0.1 pH unit	5	Invercargill
Metals				
Total Metals by ICP-MS—Trace (Default Digest)				
Calcium (Total)	In House based on EPA 200.8 by ICPMS	0.010 mg/L	5	Auckland
Iron (Total)	In House based on EPA 200.8 by ICPMS	0.002 mg/L	5	Auckland
Magnesium (Total)	In House based on EPA 200.8 by ICPMS	0.001 mg/L	5	Auckland
Manganese (Total)	In House based on EPA 200.8 by ICPMS	0.0005 mg/L	5	Auckland

Microbiology				
Escherichia coli by MPN(Colilert-18)				
Escherichia coli (Colilert-18)	APHA (online edition) 9223 B Colilert Quantitray	1 MPN/100 mL	1, 2, 3, 4	Invercargill
Escherichia coli by Presence/Absence(ColiTag)				
Escherichia coli	APHA (online edition) 9223 B Colitag		5	Invercargill
Preparations				
Digest for Total Metals in Liquids	APHA (online edition) 3030 E (modified, 4:1 Nitric:Hydrochloric Acid)		5	Auckland
Membrane Filtration (0.45 µm)	APHA (online edition) 4500-P B (preliminary filtration)		1, 2, 3, 4	Invercargill
<p><i>The method detection limit (MDL) listed is the limit attainable in a relatively clean matrix. If dilutions are required for analysis the detection limit may be higher.</i></p> <p><i>For more information please contact the Operations Manager.</i></p>				

Samples, with suitable preservation and stability of analytes, will be held by the laboratory for a period of two weeks after results have been reported, unless otherwise advised by the submitter.

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Report Signatory 25/05/2017

A handwritten signature in black ink, appearing to read "Tonia Bulling", is written over a light grey rectangular background.

Tonia Bulling
KTP Signatory