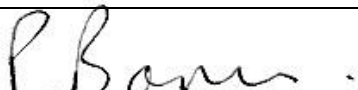


Laboratory Accreditation Programmes

Schedule to CERTIFICATE OF ACCREDITATION																			
Hill Laboratories Christchurch PO Box 16607, Hornby, Christchurch, 8441 101C Waterloo Road, Hornby, Christchurch, 8042 Telephone 0508 445-5522 Fax	Client No. 6706 www.hill-laboratories.com																		
Authorised Representative Mrs Debra McLachlan SI Quality Assurance and Health and Safety Coordinator																			
Programme Biological Testing Laboratory Accreditation Number 685																			
Initial Accreditation Date 1 September 1998																			
Conformance Standard NZS ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories																			
Testing Services Summary <table style="width: 100%; border: none;"> <tr> <td style="width: 10%;">1.11</td> <td style="width: 10%;">Foods</td> </tr> <tr> <td>1.12</td> <td>Waters</td> </tr> <tr> <td>1.71</td> <td>Biological Condition</td> </tr> </table>		1.11	Foods	1.12	Waters	1.71	Biological Condition												
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1.12	Waters																		
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Key Technical Personnel <table style="width: 100%; border: none;"> <tr> <td style="width: 70%;">Mrs Lisa Bullock</td> <td>1.11, 1.12, 1.71</td> </tr> <tr> <td>Mrs Marisa Fonseca</td> <td>1.11, 1.12, 1.71</td> </tr> <tr> <td>Mrs Renee Kellerhals</td> <td>1.12</td> </tr> <tr> <td>Miss Stephanie Lavill</td> <td>1.11, 1.12, 1.71</td> </tr> <tr> <td>Miss Fangqing (Michelle) Liu</td> <td>1.11, 1.12, 1.71</td> </tr> <tr> <td>Miss Jill Martin</td> <td>1.11, 1.12, 1.71</td> </tr> <tr> <td>Ms Barbara Müller</td> <td>1.11; selected, 1.12, 1.71</td> </tr> <tr> <td>Mrs Lucia Olmos</td> <td>1.11, 1.12, 1.71</td> </tr> <tr> <td>Miss Jennifer Vallance</td> <td>1.11, 1.12, 1.71</td> </tr> </table>		Mrs Lisa Bullock	1.11, 1.12, 1.71	Mrs Marisa Fonseca	1.11, 1.12, 1.71	Mrs Renee Kellerhals	1.12	Miss Stephanie Lavill	1.11, 1.12, 1.71	Miss Fangqing (Michelle) Liu	1.11, 1.12, 1.71	Miss Jill Martin	1.11, 1.12, 1.71	Ms Barbara Müller	1.11; selected, 1.12, 1.71	Mrs Lucia Olmos	1.11, 1.12, 1.71	Miss Jennifer Vallance	1.11, 1.12, 1.71
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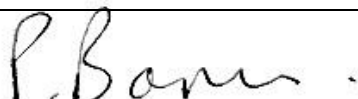
1.11 Foods

- (a) **Cereals and cereal products**
- (b) **Edible oils, fats and derived products**
- (c) **Nuts, fruits, vegetables and derived products**
- (d) **Sauces, herbs, spices and condiments**
- (e) **Sugar and sugar confectionery**
- (f) **Dairy products**
- (g) **Meat, poultry and derived products**
- (h) **Fish and fish products (including shellfish)**
- (i) **Eggs and egg products**
- (k) **Non-alcoholic beverages (fruit juices, bottled water)**
- (n) **Other specified fresh foods (salads, airline meals)**
- (o) **Other specified preserved foods (dried, frozen)**
- (p) **Canned foods**
- (q) **Animal feeds**

In accordance with APHA "Compendium of Methods for the Microbiological Examination of Foods" 5th Edition except where otherwise indicated.

Aerobic plate count	6.523
Aerobic plate count	6.524
Aerobic plate count	8.72
Aerobic plate count	8.73
Aerobic plate count	8.82
Anaerobic plate count	6.7
<i>Bacillus cereus</i>	31.6
<i>Bacillus cereus</i>	31.6 (modified)
Campylobacter	30
<i>Clostridium perfringens</i>	33.7
<i>Cronobacter sakazkii</i> (PCR)	In-house method
<i>E coli</i> - MPN	9.93
<i>E coli</i> - MPN	FDA BAM Ch. 4
<i>E coli</i> - Petrifilm	9.935
<i>E coli</i> O157	Assurance GDS
Enterobacteriaceae	9.62 (modified)
Enterobacteriaceae	9.63 (modified 37°C)
Faecal coliforms - MPN	9.81
Faecal coliforms - MPN	FDA BAM Ch. 4 (modified)
Listeria	APHA 35.5
Listeria (PCR)	In-house method
<i>Listeria monocytogenes</i>	ISO 11290-2:1998
<i>Listeria monocytogenes</i>	35.5
<i>Listeria monocytogenes</i> (PCR)	In-house method
Mesophilic spore formers	23

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pH	In-house method
Salmonella (PCR)	In-house method
<i>Staphylococcus aureus</i>	39.6
<i>Staphylococcus aureus</i>	FDA BAM Ch. 12
Sulphite reducing anaerobes	33.7 (modified)
Total coliforms - MPN	9.72
Total coliforms - MPN	FDA BAM Ch. 4
Total coliforms - MPN (presumptive)	9.71
Total coliforms - MPN (presumptive)	FDA BAM Ch. 4
Total coliforms - Petrifilm	9.935
<i>Vibrio cholerae</i> (P/A)	FDA BAM Ch. 9 (modified)
<i>Vibrio cholerae</i> (P/A)	APHA Ch. 40 (modified)
<i>Vibrio parahaemolyticus</i> (P/A)	FDA BAM Ch. 9 (modified)
<i>Vibrio parahaemolyticus</i> (P/A)	APHA Ch. 40 (modified)
Yeasts and moulds	21.5

(l) Food additives and supplements

Salmonella (PCR)	In-house method
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1.11(a)-(i)(k)(n)(o)(p)(q)

The following testing by the TEMPO automated MPN system:

Aerobic plate count	TEMPO AC
<i>Bacillus cereus</i> (count)	TEMPO BC
Coliform (count)	TEMPO CC
<i>E coli</i> (count)	TEMPO EC
Enterobacteriaceae (count)	TEMPO EB
<i>Staphylococcus aureus</i> (count)	TEMPO STA

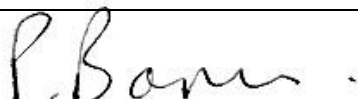
1.12 Waters

In accordance with APHA "Standard Methods for the Examination of Water and Wastewater" 22nd Edition except where otherwise indicated.

- (a) Potable waters**
- (b) Non-potable waters**
- (c) Sewage**
- (d) Effluent and trade wastes**
- (g) Marine waters**

<i>E coli</i> - MF	9222 G
<i>E coli</i> - MF	9222 B (modified)
<i>E coli</i> - MF	9222 D
<i>E coli</i> - MF	9222 D (modified)

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<i>E coli</i> - MF	9221 F (modified)
<i>E coli</i> - MPN	9221 F
<i>E coli</i> - MPN	9223 B
<i>E coli</i> - P/A	9221 F (modified)
<i>E coli</i> - P/A	9223 B
Enterococci	9230 C
Enterococci	USEPA 1106.1
Enterococci (excluding sewage)	MIMM 12.4
Faecal coliforms - MF	9222 D
Faecal coliforms - MF	9222 D (modified)
Faecal coliforms - MF	9221 E
Faecal coliforms - MPN	9221 B
Faecal coliforms - MPN	9221 E
Faecal coliforms - P/A	9221 E
Heterotrophic plate count	9215 B
Heterotrophic plate count	MIMM 11.6
Total coliforms - MPN	9221 B
Total coliforms - MPN	9223 B
Total coliforms - P/A	9223 B
Total coliforms (presumptive) - MPN	9221 B
Total coliforms (presumptive) - MPN	9223 B

(a) Potable Waters

<i>E coli</i>	AS 4276.7
Faecal coliforms	AS 4276.7
Faecal streptococci	MIMM 11.7
Heterotrophic plate count	AS 4276.3.1: 2007
<i>Pseudomonas aeruginosa</i>	AS 4276.13
<i>Pseudomonas aeruginosa</i>	APHA 9213 E
Sulphite reducing clostridia	EA Micro Drinking Water 2010 (Part 6)
Sulphite reducing clostridia	MIMM 11.8
Total coliforms	AS 4276.5

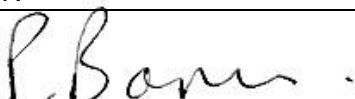
(e) Cooling tower and industrial waters

Heterotrophic plate count (22°C, 35°C)	9215 B
Heterotrophic plate count	AS 4276.3.1: 2007
<i>Legionella pneumophila</i>	AS/NZS 3896:2008
Legionella species	AS/NZS 3896:2008

(f) Swimming and spa pools

Faecal coliforms - MF	9222 B
Faecal coliforms - MF	9222 D
Faecal coliforms - MF	9222 D (modified)
Faecal coliforms - MF	9221 E
Faecal coliforms - MPN	9221 B

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Faecal coliforms - MPN	9221 E
Heterotrophic plate count (22°C, 35°C)	9215 B
<i>Pseudomonas aeruginosa</i> (MF)	9213 E
<i>Staphylococcus aureus</i> (MF)	9213 B
<i>Staphylococcus aureus</i> (MPN)	9213 B
Total coliforms (presumptive) - MPN	9221 B
Total coliforms (presumptive) - MPN	9221 E

1.71 Biological Condition

(b) Plant hygiene evaluation (environmental swabs)

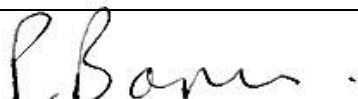
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Aerobic plate count	8.72
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Aerobic plate count	8.82
<i>Cronobacter sakazkii</i> (PCR)	In-house method
<i>E coli</i>	9.93 (modified)
<i>E coli</i>	9.935
Enterobacteriaceae	9.63 (modified)
Faecal coliforms	9.81
Hygiene evaluation	NZTM 2.120 (modified)
<i>Listeria monocytogenes</i>	35.5
<i>Listeria monocytogenes</i> (PCR)	In-house method
Listeria species	35.5
Listeria species (PCR)	In-house method
Salmonella (PCR)	In-house method
Total coliforms	9.935
Total coliforms	9.72
Total coliforms (presumptive)	9.71
Yeasts and moulds	21.5

References:

- APHA American Public Health Association
- AS Australian Standard
- FDA BAM United States Food and Drug Administration Bacteriological Analytical Manual
- MIMM Microbiological Methods for the Meat Industry (5th Edition)
- NMD NZFSA National Microbiological Database Technical Procedures
- NZTM 2 New Zealand Dairy Industry Microbiological Test Methods Manual
- USEPA United States Environmental Protection Agency

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