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Cawthron Analytical Science
Ensuring Integrity Through Analytical Excellence.

# Certificate of Analysis: Final

**Cawthron Contract Number:** 60026

## Project Number: C05380

**Timaru District Council**
**PO Box 522**
**TIMARU**

**Attention:** John Clemens

**Customer Order No:** 38317
**Email Recipients:** John Clemens

### Sample Details

**Laboratory ID:** C05380-1 **Sample Type:** Water **Date Sampled:** 20/12/2021 16:45
**Description:** Timaru Treated **Date Received:** 21/12/2021 08:50

| Species | Description | Cell Count (Cells/mL) | Mean Cell Vol. (µm³)* | Biovolume (mm³/L)* |
|---|---|---|---|---|
| Total Cyanobacteria cell count | | 55 | | 0.0005 |
| Pseudanabaena sp. | Potentially Toxic Cyanobacteria | 11 | | |
| Synechococcus sp. (1.0-2.6 µm) | Cyanobacteria (not known to be toxic) | 44 | 12 | 0.0005 |

Method: In-house, based on Hotzel and Croome 1999
*Biovolume Method: In-house, based on NZ Guidelines for Cyanobacteria in Recreational Fresh Waters - Interim Guidelines (Table A4.1) 2009*

### Sample Details

**Laboratory ID:** C05380-2 **Sample Type:** Water **Date Sampled:** 20/12/2021 11:45
**Description:** Timaru Raw **Date Received:** 21/12/2021 08:50

| Species | Description | Cell Count (Cells/mL) | Mean Cell Vol. (µm³)* | Biovolume (mm³/L)* |
|---|---|---|---|---|
| Total Cyanobacteria cell count | | 362 | | 0.004 |
| Picocyanobacteria (< 2 µm) | Potentially Toxic Cyanobacteria | 17 | 4.2 | 0.00007 |
| Pseudanabaena sp. | Potentially Toxic Cyanobacteria | 1 | | |
| Leptolyngbyaceae | Cyanobacteria (not known to be toxic) | 4 | | |
| Synechococcus sp. (1.0-2.6 µm) | Cyanobacteria (not known to be toxic) | 340 | 12 | 0.004 |

Method: In-house, based on Hotzel and Croome 1999
*Biovolume Method: In-house, based on NZ Guidelines for Cyanobacteria in Recreational Fresh Waters - Interim Guidelines (Table A4.1) 2009*

Results apply to samples as received unless otherwise specified.

*Taxa identifications and enumeration are reported to the best possible certainty within the limitations of bright field microscopy and on-going taxonomic reviews. These limitations are most apparent in organisms with a cell diameter less than 2.5µm.*

ilac-MRA ACCREDITED IANZ TESTING LABORATORY

Test results indicated as not accredited are outside the scope of the laboratory's accreditation



**Report Number:** 918828
**Project Number:** C05380

* Indicates an analysis that is not IANZ accredited

V18.55 SL:FW



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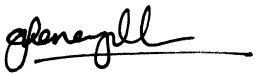
Our routine detection limits for chemical testing relate to samples with a clean matrix.
Reported detection limits may be higher for individual samples if there is insufficient sample or the matrix is complex.

< means less than, > means greater than

**Date Generated:** 22/12/21

**Authorised by:** Sumali Nanayakkara

**Position:** Senior Technician, Natural Toxins Laboratory

**Signature:** 

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