

Food & Water Testing

ANALYTICAL REPORT

REPORT CODE

AR-25-NC-005548-01

REPORT DATE

26/02/2025

Attention Otago Regional Council

Private Bag 1954
9054 DUNEDIN
NEW ZEALAND

Phone

Email

Copy to: compliance , regulatory

Contact for your orders:

Contract: Incident Response

Submission Reference: Shotover WWTP IN24.0004

Order code:

EUNZCH-00207557

Purchase Order Number:

SAMPLE CODE

817-2025-00015381

Sample Name Shotover WWTP Discharge from Disposal Field

Sample Reference IN24.0004A - Shotover WWTP Discharge from disposal Feild

Reception Date & Time: 12/02/2025 13:13

Analysis Started on: 13/02/2025

Analysis Ending Date: 26/02/2025

Product Type Surface Water

Sampled Date & Time 12/02/2025 00:00

Sampler(s)

Sampling Purpose Monitoring

FAECAL SOURCE TRACKING

RESULTS

LOQ

⑤ NC04R Microbial Source Tracking (Faecal Source Tracking)

Dna Extraction Complete N/A
See Document Attached See attached document N/A

④ NCWE6 Quantification of Ruminant BacR MST marker by ddPCR

Ruminant BacR <900 copies/100 ml N/A

④ NCAI2 Quantification of Canine DG72 MST marker by ddPCR

Canine DG72 <900 copies/100 ml N/A

④ NCAJ2 Quantification of Avian GFD MST marker by ddPCR

Avian GFD <900 copies/100 ml N/A

④ NCWF6 Quantification of Avian Gull4 MST marker by ddPCR

Avian Gull4 <900 copies/100 ml N/A

④ NCWG6 Quantification of Human HF183 MST marker by ddPCR

Human HF183 <900 copies/100 ml N/A

④ NCWH6 Quantification of Human HumM2 MST marker by ddPCR

Human HumM2 <900 copies/100 ml N/A

RESULTS

LOQ

① NCKX4 Customer Sample Storage Fee

sample storage Complete N/A

*ZMJU7 Enumeration of Escherichia coli by Membrane Filtration

Escherichia coli 1100 cfu/100 ml 1

*NC0AF pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)

pH 8.9 0.1

*NC05B Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode

Biochemical oxygen demand (BOD) 10 mg/l 2

*NC03M Total Nitrogen in Water by Discrete Analyser (Trace)

Total Nitrogen (N) 10.1 mg/l 0.01

Food & Water Testing

RESULTS	LOQ
---------	-----

***NCOAE Total Suspended Solids in Water by Gravimetry**

Suspended Solids 23.0 mg/l 2.5

SAMPLE CODE 817-2025-00015386

Sample Name Final Effluent Post UV Shotover WWTP

Sample Reference IN24.0004J - Final Effluent Post UV Shotover WWTP

Reception Date & Time: 12/02/2025 13:13

Analysis Started on: 13/02/2025

Analysis Ending Date: 21/02/2025

Product Type effluent

Sampled Date & Time 12/02/2025 00:00

Sampler(s)

Sampling Purpose Monitoring

RESULTS	LOQ
---------	-----

***ZMJU7 Enumeration of Escherichia coli by Membrane Filtration**

Escherichia coli 28 cfu/100 ml 1

***NCOAF pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)**

pH 7.3 0.1

***NC05B Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode**

Biochemical oxygen demand (BOD) 16 mg/l 2

***NC03M Total Nitrogen in Water by Discrete Analyser (Trace)**

Total Nitrogen (N) 23.7 mg/l 0.01

***NCOAE Total Suspended Solids in Water by Gravimetry**

Suspended Solids 47.0 mg/l 2.5

LIST OF METHODS

NC03M Total Nitrogen in Water by Discrete Analyser (Trace):

APHA Online Edition 4500 P J/4500 NH

NC05B Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode:

APHA Online Edition 5210 B

NC0AF pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time): APHA 24th Edition 4500 H B

NCAJ2 Quantification of Avian GFD MST marker by ddPCR:

Method of the subcontractor (subcontract)

NCWE6 Quantification of Ruminant BacR MST marker by ddPCR:

Method of the subcontractor (subcontract)

NCWG6 Quantification of Human HF183 MST marker by ddPCR:

Method of the subcontractor (subcontract)

ZMJU7 Escherichia coli E (Water) [NZ Water] <1 >8 000 /100 ml

(0) mTEC Agar-F: US EPA 1603 2014

NC04R Microbial Source Tracking (Faecal Source Tracking):

Method of the subcontractor (subcontract)

NC0AE Total Suspended Solids in Water by Gravimetry: APHA

Online Edition 2540 D

NCAI2 Quantification of Canine DG72 MST marker by ddPCR:

NCKX4 Customer Sample Storage Fee:

NCWF6 Quantification of Avian Gull4 MST marker by ddPCR:

Method of the subcontractor (subcontract)

NCWH6 Quantification of Human HumM2 MST marker by ddPCR:

Method of the subcontractor (subcontract)

Signature

EXPLANATORY NOTE

Food & Water Testing

- ① Test is not accredited
- ② Test is subcontracted within Eurofins group and is accredited
- ③ Test is subcontracted within Eurofins group and is not accredited
- ④ Test is subcontracted outside Eurofins group and is accredited
- ⑤ Test is subcontracted outside Eurofins group and is not accredited
- ⑥ Test result is provided by the customer and is not accredited
- ⑦ Tested at the sampling point by Eurofins and is not accredited
- ⑧ Tested at the sampling point by Eurofins and is accredited
- ⑨ Test is RLP accredited
- ⑩ Test is subcontracted within Eurofins group and is RLP accredited
- *Test was performed at Eurofins ELS Limited, 142 Esk Street, Invercargill

N/A means Not Applicable

Not Detected means not detected at or above the Limit of Quantification (LOQ)

LOQ means Limit of Quantification and the unit of LOQ is the same as the result unit

✗ (Unsatisfactory) means does not meet the specification

✓ (Satisfactory) means meets the specification

MAV means Maximum Allowable Value

The Customer acknowledges and accepts that: (a) where Eurofins is not responsible for sampling, the test result(s) in this report apply only to the sample as received. Customer is solely responsible for the sampling process and warrants that the sample provided to Eurofins is representative of the lot / batch from which the samples were drawn; and (b) Eurofins expresses no opinion and accepts no liability in respect of the Customer's production process or homogeneity of the product.

This document can only be reproduced in full.

The tests are identified by a five-digit code, their description is available on request.

Accreditation does not apply to comments or graphical representations.

Unless otherwise stated, all tests in this analytical report (except for subcontracted tests) are performed at 43 Detroit Drive, Rolleston, Christchurch, NEW ZEALAND.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

Eurofins may subcontract the performance of part or all of the Services to a third party and the Customer authorises the release of all information necessary to the third party for the provision of the Services.

All samples become the property of Eurofins to the extent necessary for the performance of the Services.

Eurofins will not be required to store samples and may destroy or otherwise dispose of the samples or return the samples to the Customer (at the Customer's cost in all respects) immediately following analysis of the samples.

If the Customer pays for storage of the samples Eurofins will take commercially reasonable steps to store the samples for the agreed period in terms of industry practice.

The Eurofins water sampling service follows methodology based on AS/NZS 5667 and / or best practice to collect and transport samples that are fit for the purpose of analytical testing. The laboratory is not responsible for sampling activities unless explicitly indicated by the statement "Sampled by Eurofins" on the report for water samples.

The Customer acknowledges that the Services are provided using the current state of technology and methods developed and generally applied by Eurofins and involve analysis, interpretations, consulting work and conclusions. Eurofins shall use commercially reasonable degree of care in providing the Services.

This report is produced and issued on the basis of information, documents and/or samples provided by, or on behalf of, the Customer and solely for the benefit of the Customer who is responsible for acting as it sees fit on the basis of this report. Neither Eurofins nor any of its officers, employees, agents or subcontractors shall be liable to the Customer nor any third party for any actions taken or not taken on the basis of this report nor for any incorrect results arising from unclear, erroneous, incomplete, misleading or false information provided to Eurofins.

Eurofins shall have no liability for any indirect or consequential loss including, without limitation, loss of production, loss of contracts, loss of profits, loss of business or costs incurred from business interruption, loss of opportunity, loss of goodwill or damage to reputation and cost of product recall (including any losses suffered as a result of distribution of the Customer's products subject of the Services prior to the report being released by Eurofins). It shall further have no liability for any loss, damage or expenses arising from the claims of any third party (including, without limitation, product liability claims) that may be incurred by the Customer.

Eurofins General Terms and Conditions apply.

END OF REPORT