

Food & Water Testing

ANALYTICAL REPORT

REPORT CODE

AR-25-NC-028687-01

REPORT DATE

02/10/2025

Attention Otago Regional Council

Private Bag 1954

9054 DUNEDIN

NEW ZEALAND

Phone

Email

Copy to: regulatory (regulatory.procurement@orc.govt.nz),

Contact for your orders:

Contract: Shotover WWTP

Submission Reference: Emergency Discharge to Shotover River

Order code:

EUNZCH-00225358

Purchase Order Number:

SAMPLE CODE 817-2025-00075351

Sample Name GT7800RC

Sample Reference GT7800RC

Reception Date & Time: 22/09/2025 13:10

Analysis Started on: 23/09/2025

Product Type Surface water, raw water

Sampled Date & Time 22/09/2025 10:42

Reception temperature: 10.2 °C

Analysis Ending Date: 02/10/2025

Sampler(s)

RESULTS

LOQ

NC03M Total Nitrogen in Water by Discrete Analyser (Trace)

Total Nitrogen (N) 0.14 mg/l 0.01

NC04C Total Oxidised Nitrogen in Water by Discrete Analyser

Total Oxidised Nitrogen 0.03 mg/l 0.01

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

Biochemical oxygen demand (BOD) <2 mg/l 2

NC0AE Total Suspended Solids in Water by Gravimetry

Suspended Solids 88.4 mg/l 2.5

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

pH 7.7 0.1

© NC0AK Ammoniacal Nitrogen by Discrete Analyser

Ammonia nitrogen <0.01 mg/l 0.01

NC76G Total Phosphorus in Water by Discrete Analyser (Trace)

Total phosphorus 0.04 mg/l 0.01

ZMJU7 Enumeration of Escherichia coli by Membrane Filtration

Escherichia coli 9 cfu/100 ml 1

SAMPLE CODE 817-2025-00075352

Sample Name GT7790RC

Sample Reference GT7790RC

Reception Date & Time: 22/09/2025 13:10

Analysis Started on: 23/09/2025

Product Type Surface water, raw water

Sampled Date & Time 22/09/2025 12:05

Reception temperature: 10.2 °C

Analysis Ending Date: 02/10/2025

Sampler(s)

RESULTS

LOQ

NC03M Total Nitrogen in Water by Discrete Analyser (Trace)

Total Nitrogen (N) 4.05 mg/l 0.01

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RESULTS			LOQ
NC04C	Total Oxidised Nitrogen in Water by Discrete Analyser		
	Total Oxidised Nitrogen	2.1 mg/l	0.01
NC05B	Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode		
	Biochemical oxygen demand (BOD)	3 mg/l	2
NC0AE	Total Suspended Solids in Water by Gravimetry		
	Suspended Solids	14.8 mg/l	2.5
NC0AF	pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)		
	pH	6.9	0.1
© NC0AK	Ammoniacal Nitrogen by Discrete Analyser		
	Ammonia nitrogen	0.10 mg/l	0.01
NC76G	Total Phosphorus in Water by Discrete Analyser (Trace)		
	Total phosphorus	1.31 mg/l	0.01
ZMJU7	Enumeration of Escherichia coli by Membrane Filtration		
	Escherichia coli	53 cfu/100 ml	1

SAMPLE CODE	817-2025-00075353		
Sample Name	GT7810RC		
Sample Reference	GT7810RC		
Reception Date & Time:	22/09/2025 13:10	Reception temperature:	10.2 °C
Analysis Started on:	23/09/2025	Analysis Ending Date:	02/10/2025
Product Type	Surface water, raw water	Sampler(s)	
Sampled Date & Time	22/09/2025 11:38		

RESULTS			LOQ
NC03M	Total Nitrogen in Water by Discrete Analyser (Trace)		
	Total Nitrogen (N)	3.93 mg/l	0.01
NC04C	Total Oxidised Nitrogen in Water by Discrete Analyser		
	Total Oxidised Nitrogen	2.1 mg/l	0.01
NC05B	Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode		
	Biochemical oxygen demand (BOD)	3 mg/l	2
NC0AE	Total Suspended Solids in Water by Gravimetry		
	Suspended Solids	21.6 mg/l	2.5
NC0AF	pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)		
	pH	7.0	0.1
© NC0AK	Ammoniacal Nitrogen by Discrete Analyser		
	Ammonia nitrogen	0.10 mg/l	0.01
NC76G	Total Phosphorus in Water by Discrete Analyser (Trace)		
	Total phosphorus	1.27 mg/l	0.01
ZMJU7	Enumeration of Escherichia coli by Membrane Filtration		
	Escherichia coli	71 cfu/100 ml	1

SAMPLE CODE	817-2025-00075354		
Sample Name	GT7820RC		
Sample Reference	GT7820RC		
Reception Date & Time:	22/09/2025 13:10	Reception temperature:	10.2 °C
Analysis Started on:	23/09/2025	Analysis Ending Date:	02/10/2025
Product Type	Surface water, raw water	Sampler(s)	
Sampled Date & Time	22/09/2025 11:11		

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RESULTS			LOQ
NC03M	Total Nitrogen in Water by Discrete Analyser (Trace)		
	Total Nitrogen (N)	0.48 mg/l	0.01
NC04C	Total Oxidised Nitrogen in Water by Discrete Analyser		
	Total Oxidised Nitrogen	0.16 mg/l	0.01
NC05B	Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode		
	Biochemical oxygen demand (BOD)	<2 mg/l	2
NC0AE	Total Suspended Solids in Water by Gravimetry		
	Suspended Solids	177 mg/l	2.5
NC0AF	pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)		
	pH	7.7	0.1
© NC0AK	Ammoniacal Nitrogen by Discrete Analyser		
	Ammonia nitrogen	0.05 mg/l	0.01
NC76G	Total Phosphorus in Water by Discrete Analyser (Trace)		
	Total phosphorus	0.22 mg/l	0.01
ZMJU7	Enumeration of Escherichia coli by Membrane Filtration		
	Escherichia coli	16 cfu/100 ml	1

SAMPLE CODE	817-2025-00075355		
Sample Name	GT7840RC		
Sample Reference	GT7840RC		
Reception Date & Time:	22/09/2025 13:10	Reception temperature:	10.2 °C
Analysis Started on:	23/09/2025	Analysis Ending Date:	02/10/2025
Product Type	Surface water, raw water	Sampler(s)	
Sampled Date & Time	22/09/2025 10:55		

RESULTS			LOQ
NC03M	Total Nitrogen in Water by Discrete Analyser (Trace)		
	Total Nitrogen (N)	0.06 mg/l	0.01
NC04C	Total Oxidised Nitrogen in Water by Discrete Analyser		
	Total Oxidised Nitrogen	0.03 mg/l	0.01
NC05B	Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode		
	Biochemical oxygen demand (BOD)	<2 mg/l	2
NC0AE	Total Suspended Solids in Water by Gravimetry		
	Suspended Solids	<2.5 mg/l	2.5
NC0AF	pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)		
	pH	7.7	0.1
© NC0AK	Ammoniacal Nitrogen by Discrete Analyser		
	Ammonia nitrogen	<0.01 mg/l	0.01
NC76G	Total Phosphorus in Water by Discrete Analyser (Trace)		
	Total phosphorus	<0.01 mg/l	0.01
ZMJU7	Enumeration of Escherichia coli by Membrane Filtration		
	Escherichia coli	2 cfu/100 ml	1

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SAMPLE CODE 817-2025-00075356

Sample Name GT783ORC

Sample Reference GT783ORC

Reception Date & Time: 22/09/2025 13:10

Analysis Started on: 23/09/2025

Product Type Surface water, raw water

Sampled Date & Time 22/09/2025 10:02

Reception temperature: 10.2 °C

Analysis Ending Date: 02/10/2025

Sampler(s)

RESULTS

LOQ

NC03M Total Nitrogen in Water by Discrete Analyser (Trace)

Total Nitrogen (N) 0.17 mg/l 0.01

NC04C Total Oxidised Nitrogen in Water by Discrete Analyser

Total Oxidised Nitrogen 0.03 mg/l 0.01

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

Biochemical oxygen demand (BOD) <2 mg/l 2

NC0AE Total Suspended Solids in Water by Gravimetry

Suspended Solids 170 mg/l 2.5

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

pH 7.8 0.1

© NC0AK Ammoniacal Nitrogen by Discrete Analyser

Ammonia nitrogen <0.01 mg/l 0.01

NC76G Total Phosphorus in Water by Discrete Analyser (Trace)

Total phosphorus 0.10 mg/l 0.01

ZMJU7 Enumeration of Escherichia coli by Membrane Filtration

Escherichia coli 13 cfu/100 ml 1

LIST OF METHODS

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

APHA Online Edition 4500 P J/4500 NH

* Test was performed at Eurofins ELS Limited, 142 Esk Street, Invercargill

NC05B Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode: APHA Online Edition 5210 B

* Test was performed at Eurofins ELS Limited, 142 Esk Street, Invercargill

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

* Test was performed at Eurofins ELS Limited, 142 Esk Street, Invercargill

NC76G Total Phosphorus in Water by Discrete Analyser (Trace): APHA Online Edition 4500 P B/J mod

* Test was performed at Eurofins ELS Limited, 142 Esk Street, Invercargill

NC04C Total Oxidised Nitrogen in Water by Discrete Analyser:

APHA Online Edition 4500 NO3 H

* Test was performed at Eurofins ELS Limited, 142 Esk Street, Invercargill

NC0AE Total Suspended Solids in Water by Gravimetry: APHA Online Edition 2540 D

* Test was performed at Eurofins ELS Limited, 142 Esk Street, Invercargill

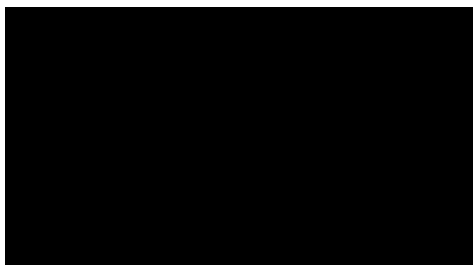
NC0AK Ammoniacal Nitrogen by Discrete Analyser: ISBN 0117516139 mod

* Test was performed at Eurofins ELS Limited, 142 Esk Street, Invercargill

ZMJU7 Escherichia coli E [IVC] <1 >8 000 cfu/100 ml (0) mTEC Agar-F: US EPA 1603 2014

* Test was performed at Eurofins ELS Limited, 142 Esk Street, Invercargill

Signature



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EXPLANATORY NOTE

- 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

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.

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 Eurofins ELS Limited, 16 Lorne Street, Dunedin.

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