

Food & Water Testing

ANALYTICAL REPORT

REPORT CODE

AR-25-NC-021435-01

REPORT DATE

28/07/2025

Attention Otago Regional Council

Private Bag 1954

9054 DUNEDIN

NEW ZEALAND

Phone

Email

Copy to: regulatory

Contact for your orders:

Contract:

Submission Reference:

Shotover WWTP

Emergency Discharge to Shotover River

Order code:

EUNZCH-00223771

Purchase Order Number:

SAMPLE CODE

817-2025-00070053

Sample Name

GT7800RC

Sample Reference

GT7800RC

Reception Date & Time:

21/07/2025 13:50

Analysis Started on:

22/07/2025

Product Type

Surface water, raw water

Sampled Date & Time

21/07/2025 11:38

Reception temperature:

3.3 °C

Analysis Ending Date:

28/07/2025

Sampler(s)

RESULTS

LOQ

*NCOAK Ammoniacal Nitrogen by Discrete Analyser				
Ammonia nitrogen	<0.01	mg/l	0.01	
*ZMJU7 Enumeration of Escherichia coli by Membrane Filtration				
Escherichia coli	<1	cfu/100 ml	1	
*NCOAF pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)				
pH	7.8		0.1	
*NC05B Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode				
Biochemical oxygen demand (BOD)	<2	mg/l	2	
*NC03M Total Nitrogen in Water by Discrete Analyser (Trace)				
Total Nitrogen (N)	0.04	mg/l	0.01	
*NC04C Total Oxidised Nitrogen in Water by Discrete Analyser				
Total Oxidised Nitrogen	0.03	mg/l	0.01	
*NC76G Total Phosphorus in Water by Discrete Analyser (Trace)				
Total phosphorus	0.03	mg/l	0.01	
*NCOAE Total Suspended Solids in Water by Gravimetry				
Suspended Solids	17.4	mg/l	2.5	

SAMPLE CODE

817-2025-00070054

Sample Name

GT7800RC

Sample Reference

GT7790RC

Reception Date & Time:

21/07/2025 13:50

Analysis Started on:

22/07/2025

Product Type

treated effluent

Sampled Date & Time

21/07/2025 12:45

Reception temperature:

3.3 °C

Analysis Ending Date:

28/07/2025

Sampler(s)

RESULTS

LOQ

*NCOAK Ammoniacal Nitrogen by Discrete Analyser				
Ammonia nitrogen	6.79	mg/l	0.01	

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RESULTS			LOQ
*ZMJU7	Enumeration of Escherichia coli by Membrane Filtration		
	Escherichia coli	27	cfu/100 ml
			1
*NCOAF	pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)		
	pH	7.1	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)	12.3	mg/l
			0.01
*NC04C	Total Oxidised Nitrogen in Water by Discrete Analyser		
	Total Oxidised Nitrogen	2.7	mg/l
			0.01
*NC76G	Total Phosphorus in Water by Discrete Analyser (Trace)		
	Total phosphorus	1.80	mg/l
			0.01
*NCOAE	Total Suspended Solids in Water by Gravimetry		
	Suspended Solids	34.0	mg/l
			2.5

SAMPLE CODE		817-2025-00070055	
Sample Name	GT7800RC		
Sample Reference	GT7810RC		
Reception Date & Time:	21/07/2025 13:50	Reception temperature:	3.3 °C
Analysis Started on:	22/07/2025	Analysis Ending Date:	28/07/2025
Product Type	Surface water, raw water	Sampler(s)	
Sampled Date & Time	21/07/2025 11:54		

RESULTS			LOQ
*NCOAK	Ammoniacal Nitrogen by Discrete Analyser		
	Ammonia nitrogen	5.63	mg/l
			0.01
*ZMJU7	Enumeration of Escherichia coli by Membrane Filtration		
	Escherichia coli	250	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)	23	mg/l
			2
*NC03M	Total Nitrogen in Water by Discrete Analyser (Trace)		
	Total Nitrogen (N)	17.1	mg/l
			0.01
*NC04C	Total Oxidised Nitrogen in Water by Discrete Analyser		
	Total Oxidised Nitrogen	2.7	mg/l
			0.01
*NC76G	Total Phosphorus in Water by Discrete Analyser (Trace)		
	Total phosphorus	3.19	mg/l
			0.01
*NCOAE	Total Suspended Solids in Water by Gravimetry		
	Suspended Solids	147	mg/l
			2.5

SAMPLE CODE		817-2025-00070056	
Sample Name	GT7800RC		
Sample Reference	GT7820RC		
Reception Date & Time:	21/07/2025 13:50	Reception temperature:	3.3 °C
Analysis Started on:	22/07/2025	Analysis Ending Date:	28/07/2025
Product Type	Surface water, raw water	Sampler(s)	
Sampled Date & Time	21/07/2025 12:06		

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RESULTS			LOQ
*NC0AK	Ammoniacal Nitrogen by Discrete Analyser		
	Ammonia nitrogen	1.02 mg/l	0.01
*ZMJU7	Enumeration of Escherichia coli by Membrane Filtration		
	Escherichia coli	48 cfu/100 ml	1
*NC0AF	pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)		
	pH	7.7	0.1
*NC05B	Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode		
	Biochemical oxygen demand (BOD)	4 mg/l	2
*NC03M	Total Nitrogen in Water by Discrete Analyser (Trace)		
	Total Nitrogen (N)	1.82 mg/l	0.01
*NC04C	Total Oxidised Nitrogen in Water by Discrete Analyser		
	Total Oxidised Nitrogen	0.37 mg/l	0.01
*NC76G	Total Phosphorus in Water by Discrete Analyser (Trace)		
	Total phosphorus	0.25 mg/l	0.01
*NC0AE	Total Suspended Solids in Water by Gravimetry		
	Suspended Solids	29.9 mg/l	2.5

SAMPLE CODE		817-2025-00070057	
Sample Name		GT7800RC	
Sample Reference		GT7840RC	
Reception Date & Time:		21/07/2025 13:50	Reception temperature: 3.3 °C
Analysis Started on:		22/07/2025	Analysis Ending Date: 28/07/2025
Product Type		Surface water, raw water	Sampler(s) XXXXXXXXXX
Sampled Date & Time		21/07/2025 12:25	

RESULTS			LOQ
*NC0AK	Ammoniacal Nitrogen by Discrete Analyser		
	Ammonia nitrogen	<0.01 mg/l	0.01
*ZMJU7	Enumeration of Escherichia coli by Membrane Filtration		
	Escherichia coli	46 cfu/100 ml	1
*NC0AF	pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)		
	pH	7.5	0.1
*NC05B	Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode		
	Biochemical oxygen demand (BOD)	<2 mg/l	2
*NC03M	Total Nitrogen in Water by Discrete Analyser (Trace)		
	Total Nitrogen (N)	0.05 mg/l	0.01
*NC04C	Total Oxidised Nitrogen in Water by Discrete Analyser		
	Total Oxidised Nitrogen	0.24 mg/l	0.01
*NC76G	Total Phosphorus in Water by Discrete Analyser (Trace)		
	Total phosphorus	<0.01 mg/l	0.01
*NC0AE	Total Suspended Solids in Water by Gravimetry		
	Suspended Solids	4.6 mg/l	2.5

Food & Water Testing

SAMPLE CODE	817-2025-00070058		
Sample Name	GT7800RC		
Sample Reference	GT7830RC		
Reception Date & Time:	21/07/2025 13:50	Reception temperature:	3.3 °C
Analysis Started on:	22/07/2025	Analysis Ending Date:	28/07/2025
Product Type	Surface water, raw water	Sampler(s)	
Sampled Date & Time	21/07/2025 11:06		

		RESULTS	LOQ	
⑨*NC0AK	Ammoniacal Nitrogen by Discrete Analyser			
	Ammonia nitrogen	<0.01	mg/l	0.01
*ZMJU7	Enumeration of Escherichia coli by Membrane Filtration			
	Escherichia coli	1	cfu/100 ml	1
*NC0AF	pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)			
	pH	7.9		0.1
*NC05B	Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode			
	Biochemical oxygen demand (BOD)	<2	mg/l	2
*NC03M	Total Nitrogen in Water by Discrete Analyser (Trace)			
	Total Nitrogen (N)	0.07	mg/l	0.01
*NC04C	Total Oxidised Nitrogen in Water by Discrete Analyser			
	Total Oxidised Nitrogen	0.04	mg/l	0.01
*NC76G	Total Phosphorus in Water by Discrete Analyser (Trace)			
	Total phosphorus	<0.01	mg/l	0.01
*NC0AE	Total Suspended Solids in Water by Gravimetry			
	Suspended Solids	15.8	mg/l	2.5

LIST OF METHODS			
NC03M	Total Nitrogen in Water by Discrete Analyser (Trace):	NC04C	Total Oxidised Nitrogen in Water by Discrete Analyser:
	APHA Online Edition 4500-P J/4500-NH		APHA Online Edition 4500-NO3 H
NC05B	Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode:	NC0AE	Total Suspended Solids in Water by Gravimetry:
	APHA Online Edition 5210 B		APHA Online Edition 2540 D
NC0AF	pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time):	NC0AK	Ammoniacal Nitrogen by Discrete Analyser:
	APHA 24th Edition 4500-H B		ISBN 0117516139 mod.
NC76G	Total Phosphorus in Water by Discrete Analyser (Trace):	ZMJU7	Escherichia coli E [IVC] <1 >8 000 cfu/100 ml (0) mTEC
	APHA Online Edition 4500-P B/J mod.		Agar-F: US-EPA 1603:2014

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.

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.

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END OF REPORT

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