

## Food &amp; Water Testing

## ANALYTICAL REPORT

REPORT CODE

AR-26-NC-000896-01

REPORT DATE

13/01/2026

Attention Otago Regional Council

[Redacted]  
 [Redacted]  
 [Redacted]  
 [Redacted]  
 [Redacted]  
 [Redacted]

Copy to: regulatory

Contact for your orders:

[Redacted]

Order code:

EUNZCH-00241756

Contract:

Shotover WWTP

Submission Reference:

Emergency Discharge to Shotover River

Purchase Order Number:

[Redacted]

SAMPLE CODE

817-2026-00001388

Sample Name

GT7800RC

Sampling Point code:

GT7800RC

Sampling Point name:

1. Upstream WWTP (before the SH6 bridge) - ORC Sam

Reception Date &amp; Time:

07/01/2026 12:38

Reception temperature:

14.1 °C

Analysis Started on:

08/01/2026

Analysis Ending Date:

13/01/2026

Product Type

Surface water, raw water

Sampler(s)

[Redacted]

Sampled Date &amp; Time

07/01/2026 11:10

## RESULTS

## LOQ

NC03M Total Nitrogen in Water by Discrete Analyser (Trace)

Parameter	Result	Unit	LOQ
Total Nitrogen (N)	0.04	mg/l	0.01

NC04C Total Oxidised Nitrogen in Water by Discrete Analyser

Parameter	Result	Unit	LOQ
Total Oxidised Nitrogen	0.01	mg/l	0.01

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

Parameter	Result	Unit	LOQ
Biochemical oxygen demand (BOD)	<2	mg/l	2

NC0AE Total Suspended Solids in Water by Gravimetry

Parameter	Result	Unit	LOQ
Suspended Solids	55.7	mg/l	2.5

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

Parameter	Result	LOQ
pH	7.8	0.1

© NC0AK Ammoniacal Nitrogen by Discrete Analyser

Parameter	Result	Unit	LOQ
Ammonia nitrogen	<0.01	mg/l	0.01

NC76G Total Phosphorus in Water by Discrete Analyser (Trace)

Parameter	Result	Unit	LOQ
Total phosphorus	0.02	mg/l	0.01

ZMJU7 Enumeration of Escherichia coli by Membrane Filtration

Parameter	Result	Unit	LOQ
Escherichia coli	11	cfu/100 ml	1

SAMPLE CODE

817-2026-00001389

Sample Name

GT7790RC

Sampling Point code:

GT7790RC

Sampling Point name:

2. Final Discharge post UV - ORC Sampling

Reception Date &amp; Time:

07/01/2026 12:38

Reception temperature:

14.1 °C

Analysis Started on:

08/01/2026

Analysis Ending Date:

13/01/2026

Product Type

Treated Effluent

Sampler(s)

[Redacted]

Sampled Date &amp; Time

07/01/2026 12:07

## RESULTS

## LOQ

## Food & Water Testing

RESULTS			LOQ
<b>NC03M</b>	<b>Total Nitrogen in Water by Discrete Analyser (Trace)</b>		
	Total Nitrogen (N)	5.15	mg/l
			0.01
<b>NC04C</b>	<b>Total Oxidised Nitrogen in Water by Discrete Analyser</b>		
	Total Oxidised Nitrogen	2.6	mg/l
			0.01
<b>NC05B</b>	<b>Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode</b>		
	Biochemical oxygen demand (BOD)	2	mg/l
			2
<b>NC0AE</b>	<b>Total Suspended Solids in Water by Gravimetry</b>		
	Suspended Solids	7.7	mg/l
			2.5
<b>NC0AF</b>	<b>pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)</b>		
	pH	6.9	
			0.1
<b>© NC0AK</b>	<b>Ammoniacal Nitrogen by Discrete Analyser</b>		
	Ammonia nitrogen	0.10	mg/l
			0.01
<b>NC76G</b>	<b>Total Phosphorus in Water by Discrete Analyser (Trace)</b>		
	Total phosphorus	0.89	mg/l
			0.01
<b>ZMJU7</b>	<b>Enumeration of Escherichia coli by Membrane Filtration</b>		
	Escherichia coli	11	cfu/100 ml
			1

<b>SAMPLE CODE</b>	<b>817-2026-00001390</b>		
<b>Sample Name</b>	GT781ORC		
<b>Sampling Point code:</b>	GT781ORC	<b>Sampling Point name:</b>	3. Discharge to the river - ORC Sampling
<b>Reception Date &amp; Time:</b>	07/01/2026 12:38	<b>Reception temperature:</b>	14.1 °C
<b>Analysis Started on:</b>	08/01/2026	<b>Analysis Ending Date:</b>	13/01/2026
<b>Product Type</b>	Surface water, raw water	<b>Sampler(s)</b>	
<b>Sampled Date &amp; Time</b>	07/01/2026 11:38		

RESULTS			LOQ
<b>NC03M</b>	<b>Total Nitrogen in Water by Discrete Analyser (Trace)</b>		
	Total Nitrogen (N)	5.41	mg/l
			0.01
<b>NC04C</b>	<b>Total Oxidised Nitrogen in Water by Discrete Analyser</b>		
	Total Oxidised Nitrogen	3.0	mg/l
			0.01
<b>NC05B</b>	<b>Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode</b>		
	Biochemical oxygen demand (BOD)	2	mg/l
			2
<b>NC0AE</b>	<b>Total Suspended Solids in Water by Gravimetry</b>		
	Suspended Solids	8.0	mg/l
			2.5
<b>NC0AF</b>	<b>pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)</b>		
	pH	7.1	
			0.1
<b>© NC0AK</b>	<b>Ammoniacal Nitrogen by Discrete Analyser</b>		
	Ammonia nitrogen	0.09	mg/l
			0.01
<b>NC76G</b>	<b>Total Phosphorus in Water by Discrete Analyser (Trace)</b>		
	Total phosphorus	0.94	mg/l
			0.01
<b>ZMJU7</b>	<b>Enumeration of Escherichia coli by Membrane Filtration</b>		
	Escherichia coli	130	cfu/100 ml
			1

## Food & Water Testing

SAMPLE CODE		817-2026-00001391	
Sample Name	GT782ORC	Sampling Point name:	4. 200 meters downstream - ORC
Sampling Point code:	GT782ORC	Sampling	
Reception Date & Time:	07/01/2026 12:38	Reception temperature:	14.1 °C
Analysis Started on:	08/01/2026	Analysis Ending Date:	13/01/2026
Product Type	Surface water, raw water	Sampler(s)	
Sampled Date & Time	07/01/2026 11:40		
RESULTS		LOQ	

NC03M	<b>Total Nitrogen in Water by Discrete Analyser (Trace)</b>		
	Total Nitrogen (N)	0.73 mg/l	0.01
NC04C	<b>Total Oxidised Nitrogen in Water by Discrete Analyser</b>		
	Total Oxidised Nitrogen	0.16 mg/l	0.01
NC05B	<b>Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode</b>		
	Biochemical oxygen demand (BOD)	<2 mg/l	2
NC0AE	<b>Total Suspended Solids in Water by Gravimetry</b>		
	Suspended Solids	46.8 mg/l	2.5
NC0AF	<b>pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)</b>		
	pH	7.7	0.1
© NC0AK	<b>Ammoniacal Nitrogen by Discrete Analyser</b>		
	Ammonia nitrogen	0.02 mg/l	0.01
NC76G	<b>Total Phosphorus in Water by Discrete Analyser (Trace)</b>		
	Total phosphorus	0.09 mg/l	0.01
ZMJU7	<b>Enumeration of Escherichia coli by Membrane Filtration</b>		
	Escherichia coli	48 cfu/100 ml	1

SAMPLE CODE		817-2026-00001392	
Sample Name	GT784ORC	Sampling Point name:	5. Upstream of Kawarau River - ORC
Sampling Point code:	GT784ORC	Sampling	
Reception Date & Time:	07/01/2026 12:38	Reception temperature:	14.1 °C
Analysis Started on:	08/01/2026	Analysis Ending Date:	13/01/2026
Product Type	Surface water, raw water	Sampler(s)	
Sampled Date & Time	07/01/2026 11:19		
RESULTS		LOQ	

NC03M	<b>Total Nitrogen in Water by Discrete Analyser (Trace)</b>		
	Total Nitrogen (N)	0.49 mg/l	0.01
NC04C	<b>Total Oxidised Nitrogen in Water by Discrete Analyser</b>		
	Total Oxidised Nitrogen	0.03 mg/l	0.01
NC05B	<b>Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode</b>		
	Biochemical oxygen demand (BOD)	<2 mg/l	2
NC0AE	<b>Total Suspended Solids in Water by Gravimetry</b>		
	Suspended Solids	10.8 mg/l	2.5
NC0AF	<b>pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)</b>		
	pH	7.3	0.1
© NC0AK	<b>Ammoniacal Nitrogen by Discrete Analyser</b>		
	Ammonia nitrogen	0.38 mg/l	0.01
NC76G	<b>Total Phosphorus in Water by Discrete Analyser (Trace)</b>		

## Food & Water Testing

RESULTS			LOQ
<b>NC76G</b>	<b>Total Phosphorus in Water by Discrete Analyser (Trace)</b>		
	Total phosphorus	0.01 mg/l	0.01
<b>ZMJU7</b>	<b>Enumeration of Escherichia coli by Membrane Filtration</b>		
	Escherichia coli	1 cfu/100 ml	1

<b>SAMPLE CODE</b>	<b>817-2026-00001393</b>		
<b>Sample Name</b>	GT783ORC		
<b>Sampling Point code:</b>	GT785ORC	<b>Sampling Point name:</b>	6. Downstream of Kawarau River - ORC Sampling
<b>Reception Date &amp; Time:</b>	07/01/2026 12:38	<b>Reception temperature:</b>	14.1 °C
<b>Analysis Started on:</b>	08/01/2026	<b>Analysis Ending Date:</b>	13/01/2026
<b>Product Type</b>	Surface water, raw water	<b>Sampler(s)</b>	
<b>Sampled Date &amp; Time</b>	07/01/2026 10:30		

RESULTS			LOQ
<b>NC03M</b>	<b>Total Nitrogen in Water by Discrete Analyser (Trace)</b>		
	Total Nitrogen (N)	0.10 mg/l	0.01
<b>NC04C</b>	<b>Total Oxidised Nitrogen in Water by Discrete Analyser</b>		
	Total Oxidised Nitrogen	0.07 mg/l	0.01
<b>NC05B</b>	<b>Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode</b>		
	Biochemical oxygen demand (BOD)	<2 mg/l	2
<b>NC0AE</b>	<b>Total Suspended Solids in Water by Gravimetry</b>		
	Suspended Solids	15.9 mg/l	2.5
<b>NC0AF</b>	<b>pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)</b>		
	pH	7.7	0.1
<b>© NC0AK</b>	<b>Ammoniacal Nitrogen by Discrete Analyser</b>		
	Ammonia nitrogen	<0.01 mg/l	0.01
<b>NC76G</b>	<b>Total Phosphorus in Water by Discrete Analyser (Trace)</b>		
	Total phosphorus	<0.01 mg/l	0.01
<b>ZMJU7</b>	<b>Enumeration of Escherichia coli by Membrane Filtration</b>		
	Escherichia coli	9 cfu/100 ml	1

LIST OF METHODS			
<b>NC03M</b>	<b>Total Nitrogen in Water by Discrete Analyser (Trace):</b>	<b>NC04C</b>	<b>Total Oxidised Nitrogen in Water by Discrete Analyser:</b>
	APHA 24th Edition 4500-P J/4500-NH		APHA 24th Edition 4500-NO3 H
	* Test was performed at 142 Esk Street, Invercargill		* Test was performed at 142 Esk Street, Invercargill
<b>NC05B</b>	<b>Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode:</b>	<b>NC0AE</b>	<b>Total Suspended Solids in Water by Gravimetry:</b>
	APHA 24th Edition 5210 B		APHA 24th Edition 2540 D
	* Test was performed at 142 Esk Street, Invercargill		* Test was performed at 142 Esk Street, Invercargill
<b>NC0AF</b>	<b>pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time):</b>	<b>NC0AK</b>	<b>Ammoniacal Nitrogen by Discrete Analyser:</b>
	APHA 24th Edition 4500-H B		ISBN 0117516139 mod.
	* Test was performed at 142 Esk Street, Invercargill		* Test was performed at 142 Esk Street, Invercargill
<b>NC76G</b>	<b>Total Phosphorus in Water by Discrete Analyser (Trace):</b>	<b>ZMJU7</b>	<b>Escherichia coli E [IVC] &lt;1 &gt;8 000 cfu/100 ml (0) mTEC</b>
	APHA 24th Edition 4500 P B/J mod		Agar-F: US EPA 1603 2014
	* Test was performed at 142 Esk Street, Invercargill		* Test was performed at 142 Esk Street, Invercargill

Signature

## Food & Water Testing



### 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

**X** (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.

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Unless otherwise stated, all tests in this analytical report (except for subcontracted tests) are performed at 16 Lorne Street, Dunedin.

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