

Environment & Water

ANALYTICAL REPORT

REPORT CODE

AR-26-NC-035506-01

REPORT DATE

28/10/2026

Attention Otago Regional Council

Copy to: Regulatory Procurement

Contact for your orders:

Shotover

Order code:

EUNZCH-00271264

Contract:

Submission Reference:

Emergency Discahrge to Shotover River

Purchase Order Number:

SAMPLE CODE

817-2026-00096605

Sample Name

NC0001613004:Kawarau River - Downstreaml21/10/2026

Sample Reference

GT7850RC

Sampling Point code:

NC0001613004

Sampling Point name:

Kawarau River - Downstream of
Point of Discharge

Reception Date & Time:

21/10/2026 12:00

Reception temperature:

10.8 °C

Analysis Started on:

21/10/2026

Analysis Ending Date:

28/10/2026

Product Type

Surface water

Sampler(s)

Sampled Date & Time

20/10/2026 12:56

RESULTS

LOQ

NC03M Total Nitrogen in Water by Discrete Analyser (Trace)

Total Nitrogen (N) 0.04 mg/l 0.01

NC03N Carbonaceous Biochemical Oxygen Demand in Water by DO Meter

Carbonaceous Biochemical Oxygen Demand <2 mg/l 2

NC03P Dissolved Reactive Phosphorus in Water by Discrete Analyser (Trace)

Phosphorus 0.066 mg/l 0.002

NC03R Nitrate-Nitrogen in Water by Discrete Analyser Calculation (Trace)

Nitrate nitrogen 0.01 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 10.8 mg/l 2.5

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

pH 7.9 0.1

NC0AK Ammoniacal Nitrogen by Discrete Analyser

Ammonia nitrogen 0.02 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 6 cfu/100 ml 1

Environment & Water

SAMPLE CODE 817-2026-00096606

Sample Name US WWTP SH6
Sample Reference GT7800RC
Reception Date & Time: 21/10/2026 12:00
Analysis Started on: 21/10/2026
Product Type Surface water
Sampled Date & Time 20/10/2026 13:20

Reception temperature: 10.8 °C
Analysis Ending Date: 28/10/2026
Sampler(s) [REDACTED]

RESULTS

LOQ

NC03M Total Nitrogen in Water by Discrete Analyser (Trace)

Total Nitrogen (N) 0.02 mg/l 0.01

NC03N Carbonaceous Biochemical Oxygen Demand in Water by DO Meter

Carbonaceous Biochemical Oxygen Demand <2 mg/l 2

NC03P Dissolved Reactive Phosphorus in Water by Discrete Analyser (Trace)

Phosphorus 0.012 mg/l 0.002

NC03R Nitrate-Nitrogen in Water by Discrete Analyser Calculation (Trace)

Nitrate nitrogen 0.02 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 2.8 mg/l 2.5

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

pH 8.0 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 0.03 mg/l 0.01

ZMJU7 Enumeration of Escherichia coli by Membrane Filtration

Escherichia coli 3 cfu/100 ml 1

SAMPLE CODE 817-2026-00096607

Sample Name NC0001613003:Kawarau River - Upstream of 21/10/2026
Sample Reference GT7840RC
Sampling Point code: NC0001613003

Sampling Point name: Kawarau River - Upstream of Point of Discharge
Reception temperature: 10.8 °C
Analysis Ending Date: 28/10/2026
Sampler(s) [REDACTED]

Reception Date & Time: 21/10/2026 12:00
Analysis Started on: 21/10/2026
Product Type Surface water
Sampled Date & Time 20/10/2026 13:34

RESULTS

LOQ

NC03M Total Nitrogen in Water by Discrete Analyser (Trace)

Total Nitrogen (N) 0.08 mg/l 0.01

NC03N Carbonaceous Biochemical Oxygen Demand in Water by DO Meter

Carbonaceous Biochemical Oxygen Demand <2 mg/l 2

NC03P Dissolved Reactive Phosphorus in Water by Discrete Analyser (Trace)

Phosphorus 0.014 mg/l 0.002

NC03R Nitrate-Nitrogen in Water by Discrete Analyser Calculation (Trace)

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	RESULTS	LOQ
NC03R Nitrate-Nitrogen in Water by Discrete Analyser Calculation (Trace)		
Nitrate nitrogen	0.02 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	7.5	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	0.03 mg/l	0.01
ZMJU7 Enumeration of Escherichia coli by Membrane Filtration		
Escherichia coli	11 cfu/100 ml	1

SAMPLE CODE	817-2026-00096608		
Sample Name	~ 200m DS of discharge to Shotover		
Sample Reference	GT7820RC		
Reception Date & Time:	21/10/2026 12:00	Reception temperature:	10.8 °C
Analysis Started on:	21/10/2026	Analysis Ending Date:	28/10/2026
Product Type	Surface water	Sampler(s)	
Sampled Date & Time	20/10/2026 14:05		

	RESULTS	LOQ
NC03M Total Nitrogen in Water by Discrete Analyser (Trace)		
Total Nitrogen (N)	0.45 mg/l	0.01
NC03N Carbonaceous Biochemical Oxygen Demand in Water by DO Meter		
Carbonaceous Biochemical Oxygen Demand	<2 mg/l	2
NC03P Dissolved Reactive Phosphorus in Water by Discrete Analyser (Trace)		
Phosphorus	0.013 mg/l	0.002
NC03R Nitrate-Nitrogen in Water by Discrete Analyser Calculation (Trace)		
Nitrate nitrogen	0.34 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	14.0 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	0.05 mg/l	0.01
ZMJU7 Enumeration of Escherichia coli by Membrane Filtration		
Escherichia coli	25 cfu/100 ml	1

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SAMPLE CODE 817-2026-00096609

Sample Name Shotover WWTP discharge to Shotover River

Sample Reference GT7810RC

Reception Date & Time: 21/10/2026 12:00

Reception temperature: 10.8 °C

Analysis Started on: 21/10/2026

Analysis Ending Date: 28/10/2026

Product Type Surface water

Sampler(s)
Sampled Date & Time 20/10/2026 14:25

RESULTS
LOQ
NC03M Total Nitrogen in Water by Discrete Analyser (Trace)

Total Nitrogen (N) 3.55 mg/l 0.01

NC03N Carbonaceous Biochemical Oxygen Demand in Water by DO Meter

Carbonaceous Biochemical Oxygen Demand 2.84 mg/l 2

NC03P Dissolved Reactive Phosphorus in Water by Discrete Analyser (Trace)

Phosphorus 0.039 mg/l 0.002

NC03R Nitrate-Nitrogen in Water by Discrete Analyser Calculation (Trace)

Nitrate nitrogen 2.38 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 5.6 mg/l 2.5

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

pH 7.2 0.1

NC0AK Ammoniacal Nitrogen by Discrete Analyser

Ammonia nitrogen 0.07 mg/l 0.01

NC76G Total Phosphorus in Water by Discrete Analyser (Trace)

Total phosphorus 0.38 mg/l 0.01

ZMJU7 Enumeration of Escherichia coli by Membrane Filtration

Escherichia coli 60 cfu/100 ml 1

SAMPLE CODE 817-2026-00096610

Sample Name Final Discharge post UV

Sample Reference GT7790RC

Reception Date & Time: 21/10/2026 12:00

Reception temperature: 10.8 °C

Analysis Started on: 21/10/2026

Analysis Ending Date: 28/10/2026

Product Type Surface water

Sampler(s)
Sampled Date & Time 20/10/2026 14:45

RESULTS
LOQ
NC03M Total Nitrogen in Water by Discrete Analyser (Trace)

Total Nitrogen (N) 3.67 mg/l 0.01

NC03N Carbonaceous Biochemical Oxygen Demand in Water by DO Meter

Carbonaceous Biochemical Oxygen Demand 2.71 mg/l 2

NC03P Dissolved Reactive Phosphorus in Water by Discrete Analyser (Trace)

Phosphorus 0.035 mg/l 0.002

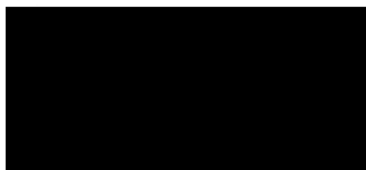
Environment & Water

	RESULTS	LOQ
NC03R Nitrate-Nitrogen in Water by Discrete Analyser Calculation (Trace)		
Nitrate nitrogen	2.72 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	4.5 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	0.06 mg/l	0.01
NC76G Total Phosphorus in Water by Discrete Analyser (Trace)		
Total phosphorus	0.34 mg/l	0.01
ZMJU7 Enumeration of Escherichia coli by Membrane Filtration		
Escherichia coli	4 cfu/100 ml	1

LIST OF METHODS

NC03M Total Nitrogen in Water by Discrete Analyser (Trace): APHA 24th Edition 4500-P J/4500-NH	NC03N Carbonaceous Biochemical Oxygen Demand in Water by DO Meter: APHA 24th Edition 5210 B
NC03P Dissolved Reactive Phosphorus in Water by Discrete Analyser (Trace): APHA 24th Edition 4500-P E	NC03R Nitrate-Nitrogen in Water by Discrete Analyser Calculation (Trace): Calculated, Calculation [(Nitrate-N + Nitrite-N) - Nitrite-N]
NC05B Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode: APHA 24th Edition 5210 B	NC0AE Total Suspended Solids in Water by Gravimetry: APHA 24th Edition 2540 D
NC0AF pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time): APHA 24th Edition 4500-H B	NC0AK Ammoniacal Nitrogen by Discrete Analyser: ISBN 0117516139 mod.
NC76G Total Phosphorus in Water by Discrete Analyser (Trace): APHA 24th Edition 4500-P B/J mod.	ZMJU7 Escherichia coli E [IVC] <1 >8 000 cfu/100 ml (0) mTEC Agar-F: US-EPA 1603:2014

Signature



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

Environment & Water

This report applies exclusively to the samples provided by the Customer and does not represent the entire lot or batch from which the samples were drawn.

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Unless otherwise stated, all tests (except subcontracted tests) are performed at 142 Esk Street, Invercargill.

END OF REPORT