

## Food & Water Testing

ANALYTICAL REPORT

REPORT CODE		AR-25-NC-019328-01		REPORT DATE	07/07/2025	
Attention	Otago Regiona Private Bag 19 9054 DUNED	954				
Phone	NEW ZEALAND					
Email				Copy to: regulatory		
Contact for your orders: Contract: Submission Reference:		Shotover WWTP Emergency Discharge to S	Shotover River	Order code: Purchase Order Number:	EUNZCH-00222166	
	E CODE	817-2025-00064846				
Sample Name Sample Reference Reception Date & Time: Analysis Started on: Product Type Sampled Date & Time		GT7800RC U/S WWTP and SH6 Bridge GT7800RC 30/06/2025 13:05 01/07/2025 Surface water, raw water 30/06/2025 11:10		Reception temperature: Analysis Ending Date: Sampler(s)	4.3 °C 07/07/2025	
Sampled		RESULTS		LOQ		
 @ <sup>*</sup> NCOAK	Ammoniacal Nitro	ogen by Discrete Analyse	r			
-t-	Ammonia nitrogen Enumeration of E	<0.01 Scherichia coli by Membr 3	mg/l rane Filtration	0.01		
*NCOAF						
*NC05B	<b>Total Biochemica</b> Biochemical oxygen (BOD)	II Oxygen Demand (TBOD demand <2	9 <b>5 Days) by E</b> mg/l	lectrode 2		
*NC03М	<b>Total Nitrogen in</b> Total Nitrogen (N)	Water by Discrete Analys 0.10	e <b>r (Trace)</b> mg/l	0.01		
*NC04C		trogen in Water by Discre gen 0.05	-	0.01		
*NC76G	Total Phosphorus	s in Water by Discrete Ana 0.03	alyser (Trace) mg/l	0.01		
*NCOAE	Total Suspended Suspended Solids	Solids in Water by Gravin 39.0	m <b>etry</b> mg/l	2.5		
SAMPL	E CODE	817-2025-00064847				
Sample Name Sample Reference Reception Date & Time: Analysis Started on: Product Type Sampled Date & Time		GT7790RC Final Discharge Post UV 30/06/2025 13:05 01/07/2025 Surface water, raw water 30/06/2025 12:25	GT779ORC	Reception temperature: Analysis Ending Date: Sampler(s)	4.3 °C 07/07/2025	
- sinpled		RESULTS		LOQ		
 ℗ <sup>*</sup> NCOAK	Ammoniacal Nitro Ammonia nitrogen	ogen by Discrete Analyse	r mg/l	0.01		
Eurofins El 43 Detroit l Rolleston Christchuro NEW ZEAI	Drive ch 7614	Eurofins ELS Limi 142 Esk Street Invercargill 9810 NEW ZEALAND	ted	Phone (Christchurch) + Phone (Invercargill) www.eurofins.co.nz	64 3 343 5227	



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## Food & Water Testing

		10000		Joung					
		RESULT	S	LOQ					
		Escherichia coli by Me							
	Escherichia coli 1 cfu/100 ml 1								
ŃCOAF		-	ed beyond 15 i	minute APHA holding time)					
L	pH 7.3 0.1								
<sup>*</sup> NC05B	Total Biochemica	al Oxygen Demand (TB	OD 5 Days) by	y Electrode					
	Biochemical oxygen (BOD)	demand 22	mg/l	2					
*NC03М	Total Nitrogen in	Water by Discrete Ana							
	Total Nitrogen (N)	21.2	mg/l	0.01					
NC04C	Total Oxidised N	itrogen in Water by Dis	crete Analyse	er					
	Total Oxidised Nitro	gen 1.4	mg/l	0.01					
*NC76G	Total Phosphoru	s in Water by Discrete	Analyser (Tra	ce)					
	Total phosphorus	2.89	mg/l	0.01					
NCOAE	Total Suspended	Solids in Water by Gra	avimetrv						
1100/12	Suspended Solids	52.0	mg/l	2.5					
	Suspended Solids	52.0	iiig/i	2.5					
SAMPL	E CODE	817-2025-000648	48						
Sample		GT7810RC							
Sample	Reference	Shotover WWTP disch	arge to Shotove						
-	on Date & Time:	30/06/2025 13:05		Reception temperature:	4.3 °C				
Analysi	s Started on:	01/07/2025		Analysis Ending Date:	07/07/2025				
Product	t Туре	Surface water, raw wa	iter	Sampler(s)					
Sampleo	d Date & Time	30/06/2025 11:30							
		RESULT	-s	LOQ					
NCOAK	Ammoniacal Nitr	ogen by Discrete Anal	yser						
	Ammonia nitrogen	10.0	mg/l	0.01					
*ZMJU7	Enumeration of F	Escherichia coli by Me	mbrane Filtrat	ion					
	Escherichia coli	30	cfu/100 m						
*									
*NCOAF		-	ed beyond 15 i	minute APHA holding time)					
	рН	7.4		0.1					
*NC05B	Total Biochemica	al Oxygen Demand (TB	OD 5 Days) by	y Electrode					
	Biochemical oxygen (BOD)	demand 16	mg/l	2					
*NCO3M	Total Nitrogen in	Water by Discrete Ana	alyser (Trace)						
	Total Nitrogen (N)	19.8	mg/l	0.01					
*NC04C	Total Oxidised N	itrogen in Water by Dis	screte Analyse	ar .					
110010	Total Oxidised Nitro		mg/l	0.01					
*		-	0						
*NC76G	•	s in Water by Discrete		ce)					
	Total phosphorus	2.87	mg/l	0.01					
*NCOAE	Total Suspended	Solids in Water by Gra	avimetry						
	Suspended Solids	96.0	mg/l	2.5					
SAMDI	E CODE	817-2025-000648	2/0						
		GT7820RC							
Sample	Name Reference		discharge to Sh	otover River GT7820RC					
-			uischarge in Sh	Reception temperature:	4.3 °C				
Reception Date & Time: Analysis Started on:		30/06/2025 13:05 01/07/2025		Analysis Ending Date:	07/07/2025				
-			<b>.</b>		0//0//2023				
Product Sampled	t Type 1 Date & Time	Surface water, raw wa 30/06/2025 11:45	iter	Sampler(s)					
urofins F	LS Limited	Eurofins ELS L	imited	Phone (Christchurch) +64	3 343 5227				
Eurofins ELS Limited					Phone (Christchurch) +04 5 545 5227				

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### Food & Water Testing

		RESUL	.TS	LOQ				
<b>℗</b> NCOAK	Ammoniacal Nitrogen by Discrete Analyser							
	Ammonia nitrogen	0.73	mg/l	0.01				
*ZMJU7	Enumeration of Escherichia coli by Membrane Filtration							
	Escherichia coli	6	cfu/100 ml	1				
*NCOAF	pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)							
	рН	7.7	0.1					
*NC05B				Electrode				
	Biochemical oxygen de (BOD)	emand <2	mg/l	2				
*NC03М	Total Nitrogen in V	Vater by Discrete An	alyser (Trace)					
	Total Nitrogen (N)	1.41	mg/l	0.01				
*NCO4C	Total Oxidised Nitr	rogen in Water by D	iscrete Analyser	,				
	Total Oxidised Nitroge	n 0.29	mg/l	0.01				
*NC76G	<b>Total Phosphorus</b>	in Water by Discrete	e Analyser (Trac	e)				
	Total phosphorus	0.21	mg/l	0.01				
*NCOAE	Total Suspended S	Solids in Water by G	ravimetry					
	Suspended Solids	71.3	mg/l	2.5				
SAMPL	E CODE	817-2025-00064	850					
Sample		GT7840RC						
-	Reference	U/S of Kawarau River GT7840RC		Decention townships	4.3 °C			
Reception Date & Time: Analysis Started on: Product Type		30/06/2025 13:05 01/07/2025 Surface water, raw water		Reception temperature: Analysis Ending Date: Sampler(s)	07/07/2025			
	d Date & Time	30/06/2025 12:00		F - (-)				
				1.00				
4		RESUL	.15	LOQ				
	Ammoniacal Nitro			LOQ				
	Ammoniacal Nitrog Ammonia nitrogen			0.01				
	Ammonia nitrogen	gen by Discrete Ana <0.01	n <b>lyser</b> mg/l	0.01				
		gen by Discrete Ana <0.01	n <b>lyser</b> mg/l	0.01				
	Ammonia nitrogen <b>Enumeration of Es</b> Escherichia coli	gen by Discrete Ana <0.01 scherichia coli by Me 12	nlyser mg/l embrane Filtratio cfu/100 ml	0.01 on 1				
*ZMJU7	Ammonia nitrogen <b>Enumeration of Es</b> Escherichia coli	gen by Discrete Ana <0.01 scherichia coli by Me 12	nlyser mg/l embrane Filtratio cfu/100 ml	0.01 <b>on</b>				
*ZMJU7	Ammonia nitrogen Enumeration of Es Escherichia coli pH in Water by Mar pH	gen by Discrete Ana <0.01 scherichia coli by Me 12 nual Electrode (Test 7.5	nlyser mg/l embrane Filtratio cfu/100 ml ted beyond 15 m	0.01 on 1 iinute APHA holding time) 0.1				
*ZMJU7 *NCOAF	Ammonia nitrogen Enumeration of Es Escherichia coli pH in Water by Mar pH	gen by Discrete Ana <0.01 scherichia coli by Ma 12 nual Electrode (Test 7.5 Oxygen Demand (T	nlyser mg/l embrane Filtratio cfu/100 ml ted beyond 15 m	0.01 on 1 iinute APHA holding time) 0.1				
*ZMJU7 *NCOAF	Ammonia nitrogen <b>Enumeration of Es</b> Escherichia coli <b>pH in Water by Ma</b> pH <b>Total Biochemical</b> Biochemical oxygen de (BOD)	gen by Discrete Ana <0.01 scherichia coli by Me 12 nual Electrode (Test 7.5 Oxygen Demand (T emand <2	nlyser mg/l embrane Filtratio cfu/100 ml ted beyond 15 m BOD 5 Days) by mg/l	0.01 on 1 <b>sinute APHA holding time)</b> 0.1 Electrode				
*zmju7 *NCOAF *NCO5B	Ammonia nitrogen <b>Enumeration of Es</b> Escherichia coli <b>pH in Water by Ma</b> pH <b>Total Biochemical</b> Biochemical oxygen de (BOD)	gen by Discrete Ana <0.01 scherichia coli by Ma 12 nual Electrode (Test 7.5 Oxygen Demand (T	nlyser mg/l embrane Filtratio cfu/100 ml ted beyond 15 m BOD 5 Days) by mg/l	0.01 on 1 <b>sinute APHA holding time)</b> 0.1 Electrode				
*zmju7 *NCOAF *NCO5B	Ammonia nitrogen Enumeration of Es Escherichia coli pH in Water by Mar pH Total Biochemical Biochemical oxygen de (BOD) Total Nitrogen in W Total Nitrogen (N)	gen by Discrete Ana <0.01 scherichia coli by Ma 12 nual Electrode (Test 7.5 Oxygen Demand (T emand <2 Vater by Discrete An 0.10	nlyser mg/l embrane Filtratio cfu/100 ml ted beyond 15 m BOD 5 Days) by mg/l halyser (Trace) mg/l	0.01 on 1 <b>binute APHA holding time)</b> 0.1 <b>Electrode</b> 2 0.01				
*ZMJU7 *NCOAF *NCO5B *NCO3M	Ammonia nitrogen Enumeration of Es Escherichia coli pH in Water by Mar pH Total Biochemical Biochemical oxygen de (BOD) Total Nitrogen in W Total Nitrogen (N)	gen by Discrete Ana <0.01 scherichia coli by Ma 12 nual Electrode (Test 7.5 Oxygen Demand (T emand <2 Vater by Discrete An 0.10 rogen in Water by D	nlyser mg/l embrane Filtratio cfu/100 ml ted beyond 15 m BOD 5 Days) by mg/l halyser (Trace) mg/l	0.01 on 1 <b>binute APHA holding time)</b> 0.1 <b>Electrode</b> 2 0.01				
*ZMJU7 *NCOAF *NCO5B *NCO3M	Ammonia nitrogen Enumeration of Es Escherichia coli pH in Water by Mar pH Total Biochemical Biochemical oxygen de (BOD) Total Nitrogen in W Total Nitrogen (N) Total Oxidised Nitrogen	gen by Discrete Ana <0.01 scherichia coli by Ma 12 nual Electrode (Test 7.5 Oxygen Demand (T emand <2 Vater by Discrete An 0.10 rogen in Water by Discrete Ma 0.03	nlyser mg/l embrane Filtratio cfu/100 ml ted beyond 15 m BOD 5 Days) by mg/l halyser (Trace) mg/l iscrete Analyser mg/l	0.01 on 1 ninute APHA holding time) 0.1 Electrode 2 0.01 0.01				
*ZMJU7 *NCOAF *NCO5B *NCO3M *NCO4C	Ammonia nitrogen Enumeration of Es Escherichia coli pH in Water by Mar pH Total Biochemical Biochemical oxygen de (BOD) Total Nitrogen in W Total Nitrogen (N) Total Oxidised Nitrogen	gen by Discrete Ana <0.01 scherichia coli by Ma 12 nual Electrode (Test 7.5 Oxygen Demand (T emand <2 Vater by Discrete An 0.10 rogen in Water by D	nlyser mg/l embrane Filtratio cfu/100 ml ted beyond 15 m BOD 5 Days) by mg/l halyser (Trace) mg/l iscrete Analyser mg/l	0.01 on 1 ninute APHA holding time) 0.1 Electrode 2 0.01 0.01				
*ZMJU7 *NCOAF *NCO5B *NCO3M *NCO4C	Ammonia nitrogen Enumeration of Esc Escherichia coli pH in Water by Mar pH Total Biochemical Biochemical oxygen de (BOD) Total Nitrogen in W Total Nitrogen (N) Total Oxidised Nitroge Total Phosphorus Total phosphorus	gen by Discrete Ana <0.01 scherichia coli by Ma 12 nual Electrode (Test 7.5 Oxygen Demand (T emand <2 Vater by Discrete An 0.10 rogen in Water by Di n 0.03 in Water by Discrete	ng/l mg/l mg/l mbrane Filtratio cfu/100 ml ted beyond 15 m BOD 5 Days) by mg/l mg/l mg/l iscrete Analyser mg/l e Analyser (Trac mg/l	0.01 Dn 1 Dinute APHA holding time) 0.1 Electrode 2 0.01 0.01 e)				





# Food & Water Testing

SAMPL	E CODE	817-2025-000648	51					
Sample Name		GT785ORC						
-	Reference	D/S of Kawarau River	GT785ORC	_				
Reception Date & Time: Analysis Started on: Product Type Sampled Date & Time		30/06/2025 13:05 01/07/2025 Surface water, raw water 30/06/2025 10:42			ption temperature: ysis Ending Date: pler(s)	4.3 °C 07/07/2025		
				Samp				
Gampied		RESULT	•		_0Q			
*					-04			
NCOAK		gen by Discrete Analy			0.04			
*	Ammonia nitrogen	<0.01	mg/l	_	0.01			
ZMJU7		cherichia coli by Mer						
*	Escherichia coli	9	cfu/100 m		1			
*NCOAF		nual Electrode (Teste	d beyond 15 i	ninute AP				
*	рН	7.7			0.1			
*NC05B		Oxygen Demand (TB		/ Electrod				
	Biochemical oxygen de (BOD)	emand <2	mg/l		2			
*NCO3М	Total Nitrogen in Water by Discrete Analyser (Trace)							
	Total Nitrogen (N)	0.15	mg/l		0.01			
*NCO4C	Total Oxidised Nitr	ogen in Water by Dis	crete Analyse	r				
	Total Oxidised Nitroge	n 0.05	mg/l		0.01			
*NC76G	Total Phosphorus	in Water by Discrete	Analyser (Tra	ce)				
	Total phosphorus	0.20	mg/l		0.01			
*NCOAE	Total Suspended Solids in Water by Gravimetry							
	Suspended Solids	235	mg/l		2.5			
LIST OF	METHODS							
NC03M	Total Nitrogen in Water by Discrete Analyser (Trace): APHA Online Edition 4500-P J/4500-NH		NC04C	<b>Total Oxidised Nitroge</b> APHA Online Edition 45	en in Water by Discrete Analyser: 00-NO3 H			
NC05B	Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode: APHA Online Edition 5210 B			NC0AE	Total Suspended Solid Online Edition 2540 D	Is in Water by Gravimetry: APHA		
NC0AF	pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time): APHA 24th Edition 4500-H B			NC0AK	Ammoniacal Nitrogen 0117516139 mod.	by Discrete Analyser: ISBN		
NC76G				ZMJU7	Escherichia coli E [IV0 Agar-F: US-EPA 1603:2	<b>C] &lt;1 &gt;8 000 cfu/100 ml (0) mTEC</b> 2014		
			Signatu	re				
			-					



EXPLANATORY NOTE

Eurofins ELS Limited 43 Detroit Drive Rolleston Christchurch 7614 NEW ZEALAND Eurofins ELS Limited 142 Esk Street Invercargill 9810 NEW ZEALAND





## Food & Water Testing

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

 ${f igoplus}$  Test is subcontracted outside Eurofins group and is accredited

 $\ensuremath{\mathfrak{G}}$  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

<sup>®</sup> Tested at the sampling point by Eurofins and is accredited

Test is RLP accredited

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

 $\checkmark$  (Satisfactory) means meets the specification

MAV means Maximum Allowable Value

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