

Drinking Water Quality Management Plan Report Longreach Regional Council

SPID: 488

Annual Report

1 July 2021 - 30 June 2022

This report has been prepared in accordance with the Drinking Water Quality Management Plan Report Guidance Note.

Table of contents

1	Introduction	1
2	Summary of scheme/s operated	2
3	DWQMP implementation	3
4	Verification monitoring - water quality information and summary	7
5	Incidents reported to the regulator	14
6	Customer complaints	15
7	DWQMP review outcomes	16
8	DWQMP audit findings	18
Tab	ole of tables	
Table	e 1 – Summary of schemes	2
Table	e 2 – Risk management improvement program implementation status	4
Table	e 3 – Drinking water quality performance - verification monitoring	7
Table	e 4. E. coli compliance with annual value	10
Table	e 5 – Incidents reported to the regulator	14
Table	e 7 – DWQMP review outcomes	16
Table	e 8 – DWQMP audit findings and status	19
App	endix A – Water Quality Verification Certificates and Results	22

1 Introduction

This report documents the performance of Longreach Regional Council's (LRC) drinking water service with respect to water quality and performance in implementing actions detailed in the Drinking Water Quality Management Plan (DWQMP) as required under the Water Supply (Safety and Reliability) Act 2008 for the financial year 2021-22.

This report assists the Regulator to determine whether the approved DWQMP and any approval conditions have been complied with and provide a mechanism for providers to report publicly on their performance in managing drinking water quality.

Longreach Regional Council is a registered service provider (service provider identification number 488). Longreach Regional Council supplies drinking water for the towns of Longreach, Ilfracombe, Isisford and Yaraka under an approved DWQMP to ensure a safe and reliable supply of drinking water for its community. This is achieved through a proactive risk management approach to public health risks associated with drinking water.

This DWQMP annual report includes:

- The activities undertaken over the financial year in operating our drinking water service
- Drinking water quality summary
- A summary of our performance across implementation of the Plan.

2 Summary of scheme/s operated

The table below summarise the water supplies and treatment process used for each town. Further information is available in the DWQMP.

Table 1 – Summary of schemes

	Water Source	Treatment processes	Treatment capacity	Towns supplied
Longreach	Surface water - Thomson River	Coagulation, flocculation, clarification, filtration, chlorination	9ML/day	Longreach
Ilfracombe	Surface water - Collumpton Creek supplemented with bore water (up to 4kL/day)	Surface water - Coagulation, flocculation, clarification, filtration, chlorination Bore water – cooling, aeration, filtration, reverse osmosis, calcium carbonate (for softness) prior to blending for chlorination	684kL/day	Ilfracombe
Isisford	Surface water – Barcoo River	Coagulation, flocculation, clarification, filtration, chlorination	720kL/day	Isisford
Yaraka	Surface water - Kiama Dam	Coagulation, flocculation, clarification, filtration, chlorination	45kL/day	Yaraka

3 DWQMP implementation

LRC takes a proactive approach toward training of its operational staff in Certificate III Water Operations. All operators are either fully trained or progressing towards completion of this certificate.

Risk management improvements are being implemented according to prioritisation based on risk and available budget. Longreach Regional Council has continued to implement improvement actions in accordance with its Risk Management Improvement Program (RMIP) throughout 2021-2022.

Actions undertaken to implement the risk management improvement program are discussed in Table 2. The table shows consolidate risks from the most recent review of the DWQMP, undertaken during 2022, and risk improvement actions identified previous to that.

Progress on improvements is ongoing but largely dependent on availability of funding. Staff changes have also impacted the implementation of some improvements. Risk management items with low cost and high risk are generally attended to first, while expensive risk management items are generally still in progress. The latter require detailed investigation to ensure the solution will be suitable and cost effective.

Table 2 – Risk management improvement program implementation status

Scheme name	Ref	Component	Improvement actions	Target date	Actions taken to date	Status and revised target date	Responsible Officer / Position
All	1	Treatment	Undertake HBT assessment and need for further treatment (eg UV) include supernatant in assessment criteria.	Sep-22	Council is in the process of carrying out assessments in regards to HBT's where applicable. Council is investigating the installation of UV filters at all schemes depending on budgets and funding.	In progress. Aiming to complete by June 2026.	Roger Naidoo
All	2	Treatment	Implement additional treatment as per HBT assessment (eg UV).	Dec-23	Isisford UV Treatment is undergoing scope of works and tender process.	Due for completion by June 2023.	Roger Naidoo
Longreach	3	Catchment	Masterplan for full amenities at camping area near Thompson River.	ТВА	Project remains included within the Thomson River Master Plan – further progress is pending funding.	Ongoing.	LRC
All	4	Whole of Scheme	Review Drought Management Plan.	Sep-22	To commence review in early 2023. Identification of key stakeholders completed.	Aiming to complete full review by September 2023.	Roger Naidoo
Longreach	5	Catchment	Undertake condition assessment on inlet pumps.	Jan-23	Assessed operation manuals for pumps and found that they don't require maintenance at this stage.	Review in 2024.	Roger Naidoo
Longreach	6	Catchment	Develop contingency plan for pump failure as replacement will take long lead time, and operating one pump only could lead to second failure.	Jan-24	Council has an additional duty standby process in place for these pumps should a failure occur. Secondary pumps can be hooked up should the duty and standby fail at the same time.	Completed.	Roger Naidoo
All	7	Whole of Scheme	Prepare SCADA/telemetry & online monitoring specification through RAPAD group.	Jun-22	On hold and to be considered as funding is made available.	Ongoing.	Roger Naidoo
Longreach	8	Treatment	Assess need to upgrade clarifier to meet OCP limits.	Jan-23	Clarifier samples assessed during FY. It has been identified that clarifier NTU's vary but this does not compromise filtration results and they remain within limits.	Completed.	Roger Naidoo
All	9	Whole of Scheme	Implementation of SCADA upgrades, including accessing funding.	Jun-25	On hold and to be considered as funding is made available.	Ongoing.	Roger Naidoo
Longreach	10	Treatment	Implement upgrades if appropriate as per outcomes of clarifier Assessment.	Jun-27	Not required. See comment as per Item 8.	N/A	Roger Naidoo
All	11	Whole of Scheme	Incorporate reservoir security/vermin inspections into routine operational Safety Hazard inspections.	Aug-22	An inspection checklist and schedule has been identified.	Implementation to commence in early 2023.	Roger Naidoo
Longreach	12	Reservoir	Implement chlorine monitoring from the water tower to determine if there is loss of FCR in the tower.	Jun-22	Operator to conduct sampling 3 times weekly and monitor results.	In progress with implementation scheduled for December 2022.	Roger Naidoo

Scheme name	Ref	Component	Improvement actions	Target date	Actions taken to date	Status and revised target date	Responsible Officer / Position
All	13	Whole of Scheme	Develop documentation (SOP) for routine flushing program.	Jan-23	Flushing is being carried out currently but not documented. An inspection checklist and schedule is to be developed and implemented.	Implementation to commence in early 2023.	Roger Naidoo
Ilfracombe	14	Treatment	Develop BGA manual/SOP and PAC dosing decision flowchart.	Dec-22	BGA SOP and PAC dosing manuals and flow charts are in the process of being developed.	To be completed early 2023.	Roger Naidoo
All	15	Whole of Scheme	Review current operational monitoring and implement a formal quarterly review of water quality data with key stakeholders.	Jul-22	Quarterly meetings scheduled to commence in late 2022.	In progress.	Roger Naidoo
Ilfracombe Isisford	16	Treatment	Determine flow rate and validate chlorine contact time to determine minimum critical limit.	Jul-22	Being investigated.	In progress.	Roger Naidoo
Ilfracombe Isisford	17	Treatment	Develop SOP for fire flows, incorporating any chlorine Ct actions.	Sep-22	Being investigated.	In progress.	Roger Naidoo
All	18	Whole of Scheme	Undertake asset criticality assessment to ensure all critical assets and spares are identified and documented (Qld Water Directorate have a tool available for WSP).	ТВА	Council's Store keeps an appropriate number of critical spares on hand and these are replenished as and when required.	Ongoing.	Roger Naidoo
All	19	Whole of Scheme	Ensure AMS captures water critical spares in development of the AMS.	ТВА	As above.	As above.	Roger Naidoo
Isisford	20	Reservoir	Complete fencing of offline storage.	Jun-22	In progress.	Due for completion September 2022.	Roger Naidoo
Isisford	21	Treatment	Upgrade/refurbishment of clarifiers.	Jun-22	In progress.	Due for completion November 2022.	Roger Naidoo
Isisford	22	Treatment	Supplier to review pressure filter operation to provide advice on if it able to meet CCP.	Jun-22	Council looking at replacing the filters pending budget and funding.	Ongoing.	Roger Naidoo
All	23	Whole of Scheme	Implement THM and HAA testing every quarter with Longreach sampling. Implement chlorate testing all schemes.	Mar-22	Council has developed a revised quarterly testing schedule for all schemes including chlorates, BGA, THM & HAA's.	Ongoing.	Roger Naidoo
Isisford	24	Reticulation	Implement mains replacement program.	Dec-22	Council has an asset management plan for mains replacement. Works in Isisford in progress.	Completion is scheduled for December 2022.	Roger Naidoo
Isisford	25	Reticulation	Assess removal of raw water system once mains replacement is complete.	Jun-25	Not started.	On hold.	Roger Naidoo

Scheme name	Ref	Component	Improvement actions	Target date	Actions taken to date	Status and revised target date	Responsible Officer / Position
Yaraka	26	Reticulation	Implement chlorine testing at outskirts/dead ends in Yaraka and establish flushing regime if necessary.	Mar-22	An inspection checklist and schedule is to be developed.	Implementation due early 2023.	Roger Naidoo
Yaraka	27	Reticulation	Assess opportunities to eliminate dead end mains if needed.	Jan-24	Ring mains being investigated. Regular flushing currently in progress.	Ongoing.	Roger Naidoo
Yaraka	28	Treatment	Succession planning for a new operator -as part of succession planning LRC will assess automation of plant. In interim back-up operators from other systems are available.	Jan-25	Council is investigating options for an additional WTP operator to be trained as a succession planning measure.	In progress.	Roger Naidoo
All	29	Whole of Scheme	At least two operators to be trained in use & calibration of monitoring equipment for all systems.	Dec-22	Council has atleast 2 WTp Operator that are trained in the calibration of monitoring equipment.	Completed.	Roger Naidoo

4 Verification monitoring - water quality information and summary

There have been no changes to the verification monitoring program undertaken by LRC, which was bought into line with regulatory requirements in the last review of the DWQMP. Water treatment plant operators undertake verification monitoring in accordance with a comprehensive schedule each year.

Water quality results were compliant with ADWG and Regulatory guidelines for the financial year 2020-2021. A summary can be found for each scheme in the tables below.

Table 3 - Drinking water quality performance - verification monitoring

Scheme name	Parameter	No. of samples required to be collected (as per the approved DWQMP)	No. of samples actually collected and tested	Water quality criteria (i.e ADWG health guideline value)	No. of non compliant samples	Comments
Longreach	E. coli	88	85	<1MPN/100mL	0	No samples taken 04/07/2021, 17/07/2021 & 18/07/2021. Due to error in recording sheets which has since been rectified.
Longreach	Coliforms	88	85	No guideline	0	No samples taken 04/07/2021, 17/07/2021 & 18/07/2021. Due to error in recording sheets which has since been rectified.
Longreach	Free Chlorine	88	85	>5mg/L	0	No samples taken 04/07/2021, 17/07/2021 & 18/07/2021. Due to error in recording sheets which has since been rectified.
Longreach	Turbidity	88	85	>5 NTU	0	No samples taken 04/07/2021, 17/07/2021 & 18/07/2021. Due to error in recording sheets which has since been rectified.
Longreach	рН	88	85	6.5 - 7.5	0	No samples taken 04/07/2021, 17/07/2021 & 18/07/2021. Due to error in recording sheets which has since been rectified.
Ilfracombe	E. coli	48	48	<1MPN/100mL	0	
Ilfracombe	Coliforms	48	48	No guideline	0	

Scheme name	Parameter	No. of samples required to be collected (as per the approved DWQMP)	No. of samples actually collected and tested	Water quality criteria (i.e ADWG health guideline value)	No. of non compliant samples	Comments
Ilfracombe	Free Chlorine	48	48	>5mg/L	0	
Ilfracombe	Turbidity	48	48	>5 NTU	0	
Ilfracombe	рН	48	48	6.5 - 7.5	0	
Isisford	E. coli	48	36	<1MPN/100mL	0	No samples taken 04/07/2021, 02/09/2021 and 31/12/2022. Due to staff changeover, staff leave and COVID19.
Isisford	Coliforms	48	36	No guideline	0	No samples taken 04/07/2021, 02/09/2021 and 31/12/2022. Due to staff changeover, staff leave and COVID19.
Isisford	Free Chlorine	48	36	>5mg/L	0	No samples taken 04/07/2021, 02/09/2021 and 31/12/2022. Due to staff changeover, staff leave and COVID19.
Isisford	Turbidity	48	36	>5 NTU	0	No samples taken 04/07/2021, 02/09/2021 and 31/12/2022. Due to staff changeover, staff leave and COVID19.
Isisford	рН	48	36	6.5 - 7.5	0	No samples taken 04/07/2021, 02/09/2021 and 31/12/2022. Due to staff changeover, staff leave and COVID19.
Yaraka	E. coli	24	20	<1MPN/100mL	0	No samples taken 02/11/2021 and 01/05/2022. Due to staff changeover, staff leave and COVID19.
Yaraka	Coliforms	24	20	No guideline	0	No samples taken 02/11/2021 and 01/05/2022. Due to staff changeover, staff leave and COVID19.
Yaraka	Free Chlorine	24	20	>5mg/L	0	No samples taken 02/11/2021 and 01/05/2022. Due to staff

Scheme name	Parameter	No. of samples required to be collected (as per the approved DWQMP)	No. of samples actually collected and tested	Water quality criteria (i.e ADWG health guideline value)	No. of non compliant samples	Comments
						changeover, staff leave and COVID19.
Yaraka	Turbidity	24	20	>5 NTU	0	No samples taken 02/11/2021 and 01/05/2022. Due to staff changeover, staff leave and COVID19.
Yaraka	рН	24	20	6.5 - 7.5	0	No samples taken 02/11/2021 and 01/05/2022. Due to staff changeover, staff leave and COVID19.

Table 4. E. coli compliance with annual value

Drinking water scheme: LONGREACH

Year						2021 -	- 2022					
Month	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
No. of samples collected	4	6	7	8	7	7	8	7	7	8	7	7
No. of samples collected in which E. coli is detected (i.e. a failure)	0	0	0	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 month period	8	7	7	8	7	7	5	7	7	8	7	7
No. of failures for previous 12 month period	0	0	0	0	0	0	0	0	0	0	0	0
% of samples that comply	100	100	100	100	100	100	100	100	100	100	100	100
Compliance with 98% annual value	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 5. E. coli compliance with annual value

Drinking water scheme: ILFRACOMBE

Year						2021 -	- 2022					
Month	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
No. of samples collected	4	4	4	4	4	4	4	4	4	4	4	4
No. of samples collected in which E. coli is detected (i.e. a failure)	0	0	0	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 month period	4	4	4	4	4	4	4	4	4	4	4	4
No. of failures for previous 12 month period	0	0	0	0	0	0	0	0	0	0	0	0
% of samples that comply	100	100	100	100	100	100	100	100	100	100	100	100
Compliance with 98% annual value	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 6. E. coli compliance with annual value

Drinking water scheme: ISISFORD

Year		2021 – 2022											
Month	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
No. of samples collected	0	4	0	4	4	0	4	4	4	4	4	4	
No. of samples collected in which E. coli is detected (i.e. a failure)	0	0	0	0	0	0	0	0	0	0	0	0	
No. of samples collected in previous 12 month period	4	4	4	4	4	4	4	4	4	4	4	4	
No. of failures for previous 12 month period	0	0	0	0	0	0	0	0	0	0	0	0	
% of samples that comply	100	100	100	100	100	100	100	100	100	100	100	100	
Compliance with 98% annual value	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

Table 7. E. coli compliance with annual value

Drinking water scheme: YARAKA

Year						2021 -	- 2022					
Month	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
No. of samples collected	2	2	2	2	0	2	2	2	2	2	0	2
No. of samples collected in which E. coli is detected (i.e. a failure)	0	0	0	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 month period	2	2	2	2	2	2	2	2	2	2	2	2
No. of failures for previous 12 month period	0	0	0	0	0	0	0	0	0	0	0	0
% of samples that comply	100	100	100	100	100	100	100	100	100	100	100	100
Compliance with 98% annual value	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

5 Incidents reported to the regulator

The incidents reported to the regulator and management actions undertaken over the financial year are provided in this section.

The Isisford water treatment plant (WTP) struggles to handle high levels of turbidity to a level that manages the risk of protozoan pathogens adequately. LRC will notify the Regulator if turbidity is higher than 1.0NTU (as stated in the DWQMP). If the turbidity exceeds 1.0NTU from the Isisford WTP, a boil water notice will be issued to the community, to manage the risk, until plant upgrades can be planned and implemented. During the 2020-2021 financial year Isisford was on a boil water notice for 143 days. This boil water notices was notified to the regulated as per table 8 below.

Table 8 – Incidents reported to the regulator

Incident date	Scheme / location	Parameter / issue	Preventive actions
19/11/2021	Isisford	High levels of Turbidity	Boil water notice for the community. Upgrades to the WTP budgeted for in 22/23 FY for longer term improvements.

6 Customer complaints

This section discusses details of any complaints received about the drinking water service

No customer complaints relating to water quality were received during 2021-2022. This includes the period that LRC had in place a boil water notice for the Isisford supply due to higher than desired turbidity in treated water.

7 DWQMP review outcomes

A summary of the outcomes of the review and how issues/changes raised in the review, were actioned is provided in this section.

Table 9 – DWQMP review outcomes

Review Date: 08/02/2022

Review component	Findings	Outcomes	Status of actions	Responsible Officer / Position
Service description	No changes	N/A	N/A	
Details of infrastructure	The new GLR at Isisford has been installed since the previous DWQMP. Plant schematic for Ilfracombe and Isisford requires corrections to flow. UV filter at the Ilfracombe RO plant not indicated.	Schematic updated in the DWQMP to reflect correct 180kL GLR capacity at Isisford. Correct plant processes indicated for Ilfracombe and Isisford. RO UV Filter updates on the schematic for Ilfracombe.	Completed	Roger Naidoo
Water quality and catchment characteristics	No changes in catchment description.	N/A	N/A	
Risk assessment	Council continues to assess the risks across all schemes with the majority of risks well managed.	Risk assessment was updated during the course of the review.	Completed	Roger Naidoo
Operations and maintenance procedures	Yaraka and Isisford require updated procedure manuals for interim operators. Manuals for the management of Blue Green Algae and Chlorates are to be developed. A checklist for routine reservoir inspections is to be developed.	Manuals and checklists to be developed and implemented.	In progress	Water & Sewerage Team

Review component	Findings	Outcomes	Status of actions	Responsible Officer / Position
Management of incidents and emergencies	No changes	N/A	N/A	
Risk management improvement program	A number of improvement actions have been implemented with some in progress. Filter system at Isisford requires upgrade to meet minimum treatment levels.	Funding options and scope for a new filtration system for Isisford WTP to be investigated.	In progress	Water & Sewerage Team
Service wide information management	No changes	N/A	N/A	
Operational monitoring	There should be monitoring of the Free Chlorine at the watertower Longreach	Develop a monitoring sheet to collect samples on a daily basis.	In progress	James Doyle Water & Sewerage Supervisor
Verification monitoring	A consistent annual testing schedule should be developed for all schemes and in house VM sheets updated to reflect schedule.	Adopted schedule for annual external testing of	In progress	James Doyle Water & Sewerage Supervisor

8 DWQMP audit findings

A standard regular audit of LRC's DWQMP was undertaken in March 2022 through the engagement of Water Futures Pty Ltd. The auditor submitted the audit report to the regulator on 19 May 2022. The audit identified three (3) non-compliances and made several recommendations for opportunities for improvement. The next audit is scheduled for 2026.

The purpose of the audit was to:

- · verify the accuracy of data
- assess compliance with the plan and its conditions
- assess the relevance of the plan in relation to the provider's drinking water service.

A summary of the auditor's findings includes:

- The LRC water supply system was largely consistent with its description in the DWQMP.
- Three non-compliances were identified as follows and further outlined in Table 8:
 - The integrity of the measures to prevent human access and entry, exclude vermin and runoff ingress, of the water storage tank rooves was subject to minor defects but was not considered consistent with the level of protection implied in the DWQMP.
 - There appeared to be some areas of non-compliance with the plumbing code as it pertains to non-potable reticulation systems and mitigating the risk of consumption of non-potable water.
 - For the in-house verification monitoring, records were not always retained for in-house samples that reported non-detect values.
- A number of OFIs were identified for consideration by LRC as outlined in Table 8.

In summary, the auditor concluded that LRC's DWQMP was accurate, current, and relevant, other than in three respects.

The actions undertaken to address the audit recommendations are outlined in Table 8.

Table 10 – DWQMP audit findings and status

Item	Recommendation or OFI	Action	Status of actions	Responsible Officer / Position
Ensure that treated water storage tanks are secured for unauthorised human access and entry, securely vermin-proofed, and protected from runoff ingress, including operational monitoring and preventive maintenance.	Recommendation	Undertake maintenance to storage tanks for vermin proofing. Implement routine inspection schedule for storage tanks.	In progress and due to be completed by June 2023.	James Doyle Water and Sewerage Supervisor
Review the height, location, signage, colour, and accessibility of the lines, taps, threads and connections, and so on, of the non-potable water system against the plumbing code.	Recommendation	Install signage at Yaraka and Isisford Parks.	In progress and due to be completed by March 2023.	James Doyle Water and Sewerage Supervisor
Record when all verification monitoring is undertaken even if the results report a 'non-detect'	Recommendation	Currently all verification monitoring is being recorded including non detects.	Ongoing	James Doyle Water and Sewerage Supervisor
Given the zero values being reported, it is worth checking the calibration or dynamic range of the colour measurement instrument at the Ilfracombe site.	OFI	Instrument calibration by external consultant undertaken on a quarterly basis. Instruments are rotated between schemes as part of the calibration process and results documented.	Ongoing	James Doyle Water and Sewerage Supervisor
The in-house laboratory should keep all materials and chemical reagents within their vendor-advised use-by dates, or retain evidence that	OFI	All materials and chemicals are used within their storage dates. This is monitored by WTP Operators at each scheme.	Ongoing.	Water Treatment Plant Operators

Item	Recommendation or OFI	Action	Status of actions	Responsible Officer / Position
extending their shelf lives is sound.				
Ensure the tenderer selected for the clarifier upgrade addresses means to provide ready access to the clarifiers to enable them to be kept clean and well-maintained.	OFI	The ladder to the Isisford WTP clarifier requires upgrades to improve access. An improved design is to be investigated.	To be considered in future budget.	Roger Naidoo Director of Infrastructure Services
Seek clarification on the reliance of Isisford filters as a barrier to protozoan pathogens.	OFI	Install UV Filter System at Isisford WTP.	In progress.	Roger Naidoo Director of Infrastructure Services
Ilfracombe RO Plant UV system is not shown on the process flow diagram on the DWQMP.	OFI	Update the Ilfracombe WTP schematic.	Completed.	Roger Naidoo Director of Infrastructure Services
Improve signage and labelling to reduce the risk of confusion for relief operators or maintenance personnel when operating plants.	OFI	Improved signage and labelling to be developed and installed across all schemes.	In progress.	James Doyle Water and Sewerage Supervisor
Determine whether or not reservoir inspections are intended to cover water quality.	OFI	Routine inspections are to identify condition defects and WHS hazards.	Ongoing.	James Doyle Water and Sewerage Supervisor
Discontinue the use of 'pool grade' chemicals at Yaraka	OFI	Council to conduct an assessment that chemicals are clearly warranted as being fit-for-	In progress.	James Doyle Water and Sewerage Supervisor

Item	Recommendation or OFI	Action	Status of actions	Responsible Officer / Position
		purpose for drinking water treatment.		
Seek assurance that BTX coagulants are fit for purpose for drinking water treatment.	OFI	Obtain written documentation on coagulant product.	In progress.	James Doyle Water and Sewerage Supervisor



Forensic and Scientific Services

CERTIFICATE OF ANALYSIS

CLIENT: Longreach Regional Council - Longreach

PO Box 144 (HLONLN)

ILFRACOMBE QLD 4727

: SSP0075639 Laboratory Reference

Client Order No.

Date Received : 11-Aug-2021

Laboratory Number/s : SS21MW12240-SS21MW12245

Number of Samples : 6

Reason for Analysis : Compliance

Method/s of Analysis : 20902 - SHW17 - Coliforms and Escherichia coli - enzyme hydrolysable substrate

Remarks : One or more samples > 24 hours old on testing. This exceeds the maximum allowable holding time for E.

coli. Accuracy of results may be reduced.

Key = Colony Forming Units : cfu

> = Estimated Count est

FDMEAS = Field Measurements as provided by Submitting Authority

mg = Milligrams

mpn = Most Probable Number

NA = Not Applicable NR = No Result NT = Not Tested

NTU = Nephelometric Turbidity Units

= Plaque Forming Units pfu

Positive = Detected, but no count possible due to confluent growth on the plate(s)

TFOL = Results to Follow = Not Ordered = Less than < = More than



Lawrence Ariotti

Supervising Scientist, Water Microbiology

12-Aug-21

SS21MW12240-SS21MW12245

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Lawrence Ariotti

Client	Reference		1954	1955	1956	1957
Sample	е Туре		Water Dam Treated	Water Dam Treated	Water Dam Treated	Water Dam Treated
Sampl	ing Time/Date		07:30 10-Aug-2021	07:30 10-Aug-2021	07:00 10-Aug-2021	06:45 10-Aug-2021
Testing	g Time/Date		11:15 11-Aug-2021	11:15 11-Aug-2021	11:15 11-Aug-2021	11:15 11-Aug-2021
Sample	e Description		Yaralea WTP	Long Res	Isisford WTP	Skate Park
Method	Test Microorganisms	Units	SS21MW12240	SS21MW12241	SS21MW12242	SS21MW12243
20902	Coliforms	mpn/100mL	0	0	0	0
20902	E. coli	mpn/100mL	0	0	0	0
	Interpretation of Results		PASS	PASS	PASS	PASS

Client	Reference		1958	1959
Sampl	е Туре		Water Dam Treated	Water Dam Treated
Sampl	ing Time/Date		06:30 10-Aug-2021	06:50 10-Aug-2021
Testin	g Time/Date		11:15 11-Aug-2021	11:15 11-Aug-2021
Sampl	e Description		Race Course	Depot Lunchroom
Method	Test Microorganisms	Units	SS21MW12244	SS21MW12245
20902	Coliforms	mpn/100mL	0	0
20902	E. coli	mpn/100mL	0	0
	Interpretation of Results		PASS	PASS

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on this report are confidential and are not to be used or disclosed to any other person or used for any other person or purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).



Forensic and Scientific Services

CERTIFICATE OF ANALYSIS

CLIENT: Longreach Regional Council - Longreach

PO Box 144 (HLONLN)

ILFRACOMBE QLD 4727

: SSP0075639 Laboratory Reference

Client Order No.

Date Received : 11-Aug-2021

Laboratory Number/s : SS21MW12240-SS21MW12245

Number of Samples : 6

Reason for Analysis : Compliance

Method/s of Analysis : 20902 - SHW17 - Coliforms and Escherichia coli - enzyme hydrolysable substrate

Remarks : One or more samples > 24 hours old on testing. This exceeds the maximum allowable holding time for E.

coli. Accuracy of results may be reduced.

Key = Colony Forming Units : cfu

> = Estimated Count est

FDMEAS = Field Measurements as provided by Submitting Authority

mg = Milligrams

mpn = Most Probable Number

NA = Not Applicable NR = No Result NT = Not Tested

NTU = Nephelometric Turbidity Units

= Plaque Forming Units pfu

Positive = Detected, but no count possible due to confluent growth on the plate(s)

TFOL = Results to Follow = Not Ordered = Less than < = More than



Lawrence Ariotti

Supervising Scientist, Water Microbiology

12-Aug-21

SS21MW12240-SS21MW12245

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Lawrence Ariotti

Client	Reference		1954	1955	1956	1957
Sample	е Туре		Water Dam Treated	Water Dam Treated	Water Dam Treated	Water Dam Treated
Sampl	ing Time/Date		07:30 10-Aug-2021	07:30 10-Aug-2021	07:00 10-Aug-2021	06:45 10-Aug-2021
Testing	g Time/Date		11:15 11-Aug-2021	11:15 11-Aug-2021	11:15 11-Aug-2021	11:15 11-Aug-2021
Sample	e Description		Yaralea WTP	Long Res	Isisford WTP	Skate Park
Method	Test Microorganisms	Units	SS21MW12240	SS21MW12241	SS21MW12242	SS21MW12243
20902	Coliforms	mpn/100mL	0	0	0	0
20902	E. coli	mpn/100mL	0	0	0	0
	Interpretation of Results		PASS	PASS	PASS	PASS

Client	Reference		1958	1959
Sampl	е Туре		Water Dam Treated	Water Dam Treated
Sampl	ing Time/Date		06:30 10-Aug-2021	06:50 10-Aug-2021
Testin	g Time/Date		11:15 11-Aug-2021	11:15 11-Aug-2021
Sampl	e Description		Race Course	Depot Lunchroom
Method	Test Microorganisms	Units	SS21MW12244	SS21MW12245
20902	Coliforms	mpn/100mL	0	0
20902	E. coli	mpn/100mL	0	0
	Interpretation of Results		PASS	PASS

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on this report are confidential and are not to be used or disclosed to any other person or used for any other person or purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).



Forensic and Scientific Services

CERTIFICATE OF ANALYSIS

CLIENT: (HLONLN)

Longreach Regional Council - Longreach

PO Box 144

ILFRACOMBE QLD 4727

Laboratory Reference : SSP0076396

: DIRECTOR

Client Order No. Date Received

: 13-Oct-2021

Date Commenced Date Completed

: 15-Oct-2021

Laboratory Number/s

: 20-Oct-2021 : 21KE9869-21KE9872

ATTN: Director of Infracstructure Services

Number of Samples : 4

Method/s of Analysis : 16307 - Haloacetic Acids in Water by GC

28017 - Trihalomethanes in Water by Purge and Trap GCMS

Remarks

: Health Values based on the Australian Drinking Water Guidelines 2011.

Please sample a separate bottle for THM and haloacetic acid analysis.

The samples as submitted comply with the Australian Drinking Water Guidelines (2011) for haloacetic

acids in water.

HAA results have been released by D. Hnatko.

The samples submitted for analysis, therefore, comply with the Australian Drinking Water Guidelines

(2011) for total trihalomethanes in water.

NATA accreditation does not cover the performance of QIS Method 16307.



21KE9869-21KE9872

Benjamin Tan Chemist, Organic Chemistry

21-Oct-21

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

"
ŏ
_
N
ö
മ്
a
n

Client Reference				1981	1982	1983	1984
Sample Type				Water River Chlorinated	Water River Chlorinated	Water River Chlorinated	Water River Chlorinated
Sampling Time/Date				10:00 12-Oct-2021	10:15 12-Oct-2021	10:30 12-Oct-2021	10:45 12-Oct-2021
Sample Description				DPI	PCYC	ОРІ	PCYC
Method Trihalomethanes	ADWG Health Value	Units	Reporting Limit	21KE9869	21KE9870	21KE9871	21KE9872
28017 Chloroform	250	ng/L	-	49	42	56	49
28017 Bromodichloromethane	250	µg/L	-	6	8	10	6
28017 Dibromochloromethane	250	ug/L	-	^ <u>^</u>	1 >	1>	1 >
28017 Bromoform	250	ug/L	-	- v	<1	<1	-1
28017 Total Trihalomethanes	250	μg/L	4	28	50	99	57
Haloacetic Acids	**************************************						
16307 Monochloroacetic Acid (MCAA)	150	µg/L	5	<5	\ \	۸ دۍ	< 5
16307 Monobromoacetic Acid (MBAA)		µg/L	2	< 5	<.5	۸ ک	< 5
16307 Dichloroacetic Acid (DCAA)	100	µg/L	5	25	23	43	40
16307 Trichloroacetic Acid (TCAA)	100	µg/L	2	44	39	53	54
16307 Bromochloroacetic Acid (BCAA)		µg/L	22	< 5	<5	9	9
16307 Bromodichloroacetic Acid (BDCAA)		µg/L	5		7	6	6
16307 Dibromoacetic Acid (DBAA)		μg/L	5	< 5	<5	< 5	< 5
16307 Chlorodibromoacetic Acid (CDBAA)		μg/L	5	< 5	<5	< 5	< 5
16307 Dalapon (2,2-DPA)	500	μg/L	10	\ ئ	\ \ \	<5	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \

This report overrides all previous reports. The results relate solely to the sample's as received and are limited to the specific tests undertaken as listed on the report. The results on this report are not to be used or disclosed to any other person or used for any other person or used for any other person or used for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample's, or (b) ary negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample's were taken, stored or transported).



Forensic and Scientific Services

CERTIFICATE OF ANALYSIS

CLIENT: (HLONLN)

Longreach Regional Council - Longreach

PO Box 144

ILFRACOMBE QLD 4727

Laboratory Reference : SSP0076396 Client Order No.

: DIRECTOR : 13-Oct-2021

Date Received **Date Commenced**

: 15-Oct-2021

Date Completed Laboratory Number/s

: 20-Oct-2021 : 21KE9869-21KE9872

ATTN: Director of Infracstructure Services

Number of Samples : 4

Method/s of Analysis : 16307 - Haloacetic Acids in Water by GC

28017 - Trihalomethanes in Water by Purge and Trap GCMS

Remarks

: Health Values based on the Australian Drinking Water Guidelines 2011.

Please sample a separate bottle for THM and haloacetic acid analysis.

The samples as submitted comply with the Australian Drinking Water Guidelines (2011) for haloacetic

acids in water.

HAA results have been released by D. Hnatko.

The samples submitted for analysis, therefore, comply with the Australian Drinking Water Guidelines

(2011) for total trihalomethanes in water.

21KE9869-21KE9872

Benjamin Tan

Chemist, Organic Chemistry

20-Oct-21

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Enquiries Phone

Benjamin Tan (+61 7) 3096 2853 Benjamin_Tan@health.qld.gov.au Coopers Plains QLD 4108 AUSTRALIA

Archerfield QLD 4108 AUSTRALIA

(+61) 1800 000 FSS (377) Fax (+61 7) 3096 2977 FSS@health.qld.gov.au Email

Client	Client Reference				1981	1982	1983	1984
Sampl	Sample Type				Water River Chlorinated	Water River Chlorinated	Water River Chlorinated	Water River Chlorinated
Sampl	Sampling Time/Date				10:00 12-Oct-2021	10:15 12-Oct-2021	10:30 12-Oct-2021	10:45 12-Oct-2021
Sample	Sample Description				IdO	PCYC	DPI	PCYC
Method	Method Trihalomethanes	ADWG Health Value	Units	Reporting	21KE9869	21KE9870	21KE9871	21KE9872
28017	Chloroform	250	mg/L	-	49	42	56	49
28017	Bromodichloromethane		µg/L	-	6	∞	10	6
28017	1	250	µg/L	-	1 ×	, v	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ \ 1
28017	Bromoform	250	μg/L	-	1 >		× 1	\ \ \ -
28017	Total Trihalomethanes	250	µg/L	4	58	50	99	22
	Haloacetic Acids							
16307	Monochloroacetic Acid (MCAA)	150	ng/L	2	< 5	< 5	< 5	<5
16307	+		ng/L	2	< 5	< 5	۸ ت	<5
16307	Dichloroacetic Acid (DCAA)	100	ng/L	2	25	23	43	40
16307	Trichloroacetic Acid (TCAA)	100	na/L	2	44	39	53	54
16307			ng/L	2	< 5	< 5	9	9
16307	1		ng/L	2		7	6	6
16307	+		na/L	2	<5	\ 5	< 5	< 5
16307			ua/L	2	< 5	<5	× 5	< 5
16307	1	200	ng/L	10	<5	<5	<5	< 5

This report overrides all previous reports. The results relate solely to the sample's as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used for any other parson or used for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability. Ifmess or quality of the sample's, or (b) any pagingent or unalwhul act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample's were taken, stored or transported).



Forensic and Scientific Services HealthSupport

CERTIFICATE OF ANALYSIS

CLIENT: Longreach Regional Council - Longreach

(HLONLN) PO Box 144

ILFRACOMBE QLD 4727

Laboratory Reference : SSP0076692 Client Order No. : DIRECTOR Date Received : 05-Nov-2021

Laboratory Number/s : SS21MW17196-SS21MW17199

Copies sent to: Environmental Health Central QLD

Number of Samples : 4

Reason for Analysis : Compliance

Method/s of Analysis : 20902 - SHW17 - Coliforms and Escherichia coli - enzyme hydrolysable substrate

Remarks : One or more samples > 24 hours old on testing. This exceeds the maximum allowable holding time for E.

coli. Accuracy of results may be reduced.

Key : cfu = Colony Forming Units

est = Estimated Count

FDMEAS = Field Measurements as provided by Submitting Authority

mg = Milligrams

mpn = Most Probable Number

NA = Not Applicable
NR = No Result
NT = Not Tested

NTU = Nephelometric Turbidity Units

pfu = Plaque Forming Units

Positive = Detected, but no count possible due to confluent growth on the plate(s)

TFOL = Results to Follow
-- = Not Ordered
< = Less than
> = More than



Variatt)

Lawrence Ariotti

Supervising Scientist, Water Microbiology

08-Nov-21

SS21MW17196-SS21MW17199

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Client Reference			1991	1992	1993	1994
Sampl	е Туре		Water Dam Chlorinated	Water Dam Chlorinated	Water Dam Chlorinated	Water Dam Chlorinated
Sampl	ing Time/Date		10:00 04-Nov-2021	10:15 04-Nov-2021	10:30 04-Nov-2021	10:45 04-Nov-2021
Testin	g Time/Date		11:39 05-Nov-2021	11:39 05-Nov-2021	11:39 05-Nov-2021	11:39 05-Nov-2021
Sample Description		Rec Centre	Memorial Park	Mitchell Street	ILF WTP	
Method	Test Microorganisms	Units	SS21MW17196	SS21MW17197	SS21MW17198	SS21MW17199
20902	Coliforms	mpn/100mL	0	0	0	0
20902	E. coli	mpn/100mL	0	0	0	0
	Interpretation of Results		PASS	PASS	PASS	PASS

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on this report are confidential and are not to be used or disclosed to any other person or used for any other person or purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).



Forensic and Scientific Services HealthSupport

CERTIFICATE OF ANALYSIS

CLIENT: Longreach Regional Council - Longreach

(HLONLN) PO Box 144

ILFRACOMBE QLD 4727

Laboratory Reference : SSP0076858
Client Order No. : RC_Group
Date Received : 17-Nov-2021

Laboratory Number/s : SS21MW17956-SS21MW17959

Number of Samples : 4

Reason for Analysis : Human Consumption - Compliance

Method/s of Analysis : 20902 - SHW17 - Coliforms and Escherichia coli - enzyme hydrolysable substrate

Remarks : Samples were not adequately chilled while being transported. Samples must be adequately chilled (2 to 8

degrees C) at all stages after collection to the point of testing. Adequate chilling is necessary to

ensure accurate microbiological results.

One or more samples > 24 hours old on testing. This exceeds the maximum allowable holding time for

E. coli. Accuracy of results may be reduced.

Key : cfu = Colony Forming Units

est = Estimated Count

FDMEAS = Field Measurements as provided by Submitting Authority

mg = Milligrams

mpn = Most Probable Number

NA = Not Applicable
NR = No Result
NT = Not Tested

NTU = Nephelometric Turbidity Units

pfu = Plaque Forming Units

Positive = Detected, but no count possible due to confluent growth on the plate(s)

TFOL = Results to Follow
-- = Not Ordered
< = Less than
> = More than



SS21MW17956-SS21MW17959

of ariath

Lawrence Ariotti

Supervising Scientist, Water Microbiology

18-Nov-21

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Enquiries Phone Email

Lawrence Ariotti (+61 7) 3096 2822 Lawrence.Ariotti@health.gld.gov.au 39 Kessels Road Coopers Plains QLD 4108 AUSTRALIA PO Box 594 Archerfield QLD 4108 AUSTRALIA Phone (+61) 1800 000 FSS (377) Fax (+61 7) 3096 2977 Email FSS@health.qld.gov.au

Client	Reference		1997	1998	1999	2000
Sample	е Туре		Water Dam Chlorinated	Water Dam Chlorinated	Water Dam Chlorinated	Water Dam Chlorinated
Sampl	ing Time/Date		07:00 16-Nov-2021	07:15 16-Nov-2021	07:30 16-Nov-2021	07:45 16-Nov-2021
Testing	g Time/Date		15:14 17-Nov-2021	15:14 17-Nov-2021	15:14 17-Nov-2021	15:14 17-Nov-2021
Sample Description		Skate park	Racecourse	Depot lunchroom	WTP	
Method	Test Microorganisms	Units	SS21MW17956	SS21MW17957	SS21MW17958	SS21MW17959
20902	Coliforms	mpn/100mL	0	0	0	0
20902	E. coli	mpn/100mL	0	0	0	0
	Interpretation of Results		PASS	PASS	PASS	PASS

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on this report are confidential and are not to be used or disclosed to any other person or used for any other person or purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).



Forensic and Scientific Services HealthSupport

CERTIFICATE OF ANALYSIS

CLIENT: Longreach Regional Council - Longreach

(HLONLN) PO Box 144

ILFRACOMBE QLD 4727

Laboratory Reference : SSP0077064
Client Order No. : RC_GROUP
Date Received : 02-Dec-2021

Laboratory Number/s : SS21MW18727-SS21MW18730

Copies sent to: Environmental Health Central QLD

Number of Samples : 4

Reason for Analysis : Compliance

Method/s of Analysis : 20902 - SHW17 - Coliforms and Escherichia coli - enzyme hydrolysable substrate

Remarks : One or more samples > 24 hours old on testing. This exceeds the maximum allowable holding time for E.

coli. Accuracy of results may be reduced.

Key : cfu = Colony Forming Units

est = Estimated Count

FDMEAS = Field Measurements as provided by Submitting Authority

mg = Milligrams

mpn = Most Probable Number

NA = Not Applicable
NR = No Result
NT = Not Tested

NTU = Nephelometric Turbidity Units

pfu = Plaque Forming Units

Positive = Detected, but no count possible due to confluent growth on the plate(s)

TFOL = Results to Follow
-- = Not Ordered
< = Less than
> = More than



SS21MW18727-SS21MW18730

V. ariatt

Lawrence Ariotti

Supervising Scientist, Water Microbiology

03-Dec-21

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities

or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Client	Reference		2002	2003	2004	2005
Sample	е Туре		Water River Chlorinated	Water River Chlorinated	Water River Chlorinated	Water River Chlorinated
Sampl	Sampling Time/Date		10:00 01-Dec-2021	10:15 01-Dec-2021	10:30 01-Dec-2021	10:45 01-Dec-2021
Testing Time/Date		12:50 02-Dec-2021	12:50 02-Dec-2021	12:50 02-Dec-2021	12:50 02-Dec-2021	
	Sample Description		WREN	PCYC	Edkins	Gull
Sample	e Description					
Method	Test Microorganisms	Units	SS21MW18727	SS21MW18728	SS21MW18729	SS21MW18730
20902	Coliforms	mpn/100mL	0	0	0	0
20902	20902 E. coli mpn/100n		0	0	0	0
	Interpretation of Results		PASS	PASS	PASS	PASS

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on this report are confidential and are not to be used or disclosed to any other person or used for any other person or purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample's were taken, stored or transported).



CERTIFICATE OF ANALYSIS

CLIENT: Longreach Regional Council - Longreach

(HLONLN) PO Box 144

ILFRACOMBE QLD 4727

Laboratory Reference : SSP0077274 Client Order No. : Longreach R/C Date Received : 16-Dec-2021

Laboratory Number/s : SS21MW19840-SS21MW19841

Copies sent to: Environmental Health Central QLD

Number of Samples : 2

Reason for Analysis : Compliance

Method/s of Analysis : 20902 - SHW17 - Coliforms and Escherichia coli - enzyme hydrolysable substrate

Remarks : Samples were not adequately chilled while being transported. Samples must be adequately chilled (2 to 8

degrees C) at all stages after collection to the point of testing. Adequate chilling is necessary to

ensure accurate microbiological results.

One or more samples > 24 hours old on testing. This exceeds the maximum allowable holding time for

E. coli. Accuracy of results may be reduced.

Key : cfu = Colony Forming Units

est = Estimated Count

FDMEAS = Field Measurements as provided by Submitting Authority

mg = Milligrams

mpn = Most Probable Number

NA = Not Applicable
NR = No Result
NT = Not Tested

NTU = Nephelometric Turbidity Units

pfu = Plaque Forming Units

Positive = Detected, but no count possible due to confluent growth on the plate(s)

TFOL = Results to Follow
-- = Not Ordered
< = Less than
> = More than



Lawrence Ariotti

V. andt

Supervising Scientist, Water Microbiology

SS21MW19840-SS21MW19841 17-Dec-21

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Lawrence Ariotti

Client	Reference		2007	2008			
Sampl	е Туре		Water Dam Treated	Water Dam Treated			
Sampl	ing Time/Date	07:00 15-Dec-2021	07:00 15-Dec-2021				
Testin	g Time/Date	11:42 16-Dec-2021 11:42 16-Dec-20					
Sampl	e Description		Yaraka Long Res	Yaraka WTP			
Method	Test Microorganisms	Units	SS21MW19840	SS21MW19841			
20902	20902 Coliforms mpn/1		0	0			
20902	20902 E. coli mpn		0	0			
	Interpretation of Results		PASS	PASS			

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on this report are confidential and are not to be used or disclosed to any other person or used for any other person or purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).



CERTIFICATE OF ANALYSIS

CLIENT: Longreach Regional Council - Longreach

(HLONLN) PO Box 144

ILFRACOMBE QLD 4727

Laboratory Reference : SSP0077922 Client Order No. : Director Date Received : 16-Feb-2022

Laboratory Number/s : SS22MW2666-SS22MW2669

Copies sent to: Environmental Health Central QLD

Number of Samples : 4

Reason for Analysis : Compliance

Method/s of Analysis : 20902 - SHW17 - Coliforms and Escherichia coli - enzyme hydrolysable substrate

Remarks : Samples were not adequately chilled while being transported. Samples must be adequately chilled (2 to 8

degrees C) at all stages after collection to the point of testing. Adequate chilling is necessary to

ensure accurate microbiological results.

One or more samples > 24 hours old on testing. This exceeds the maximum allowable holding time for

E. coli. Accuracy of results may be reduced.

Key : cfu = Colony Forming Units

est = Estimated Count

FDMEAS = Field Measurements as provided by Submitting Authority

mg = Milligrams

mpn = Most Probable Number

NA = Not Applicable
NR = No Result
NT = Not Tested

NTU = Nephelometric Turbidity Units

pfu = Plaque Forming Units

Positive = Detected, but no count possible due to confluent growth on the plate(s)

TFOL = Results to Follow
-- = Not Ordered
< = Less than
> = More than



Lawrence Ariotti

V. andt

Supervising Scientist, Water Microbiology

17-Feb-22

SS22MW2666-SS22MW2669

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Client	Reference		2025	2026	2027	2028
Sampl	Sample Type		Water Dam Treated	Water Dam Treated	Water Dam Treated	Water Dam Treated
Sampling Time/Date		09:00 15-Feb-2022	09:15 15-Feb-2022	09:30 15-Feb-2022	09:45 15-Feb-2022	
Testin	Testing Time/Date		11:58 16-Feb-2022	11:58 16-Feb-2022	11:58 16-Feb-2022	11:58 16-Feb-2022
Sampl	e Description		ILF WTP	Rec Centre	Memorial Park	Mitchel Street
Method	Method Test Microorganisms		SS22MW2666	SS22MW2667	SS22MW2668	SS22MW2669
20902	Coliforms	mpn/100mL	0	0	0	0
20902	20902 E. coli mpn		0	0	0	0
	Interpretation of Results		PASS	PASS	PASS	PASS

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on this report are confidential and are not to be used or disclosed to any other person or used for any other person or purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample's were taken, stored or transported).



CERTIFICATE OF ANALYSIS

CLIENT :

Longreach Regional Council - Longreach

(HLONLN)

PO Box 144

ILFRACOMBE QLD 4727

Laboratory Reference : SSP0078078

Client Order No.

: DIRECTOR

Date Received Laboratory Number : 01-Mar-2022 : 22NA1515

Batch No

: 581-24

ATTN: Director of Infrastructures Services

Client Reference

: 2032

Date Sampled

: 24-Feb-2022

Sample Source Sample Point

: Ilfracombe GLR

: Dam

Further Information:

Submitting Authority : Longreach Regional Council - Longreach

Reason for Analysis

: Compliance

Water Treatment

: Chlorinated

Method		Units	Result	Guidelines **	Method		Units	Result	Guide	lines **
				Health Aesthetic	! 	CATIONS			Health /	Aesthetic
18320	Conductivity @ 25°C	μs/cm	280		18195	Sodium	mg/L	26		180
18320	pH	at 21°C	7.25	6.5 - 8.5	18195	Potassium	mg/L	4.7		
18209	Total Hardness*	mg CaCO ₃ /L	71	200	18195	Calcium	mg/L	24		
18209	Temporary Hardness*	mg CaCO ₃ /L	71		18195	Magnesium	mg/L	2.6		
18320	Alkalinity	mg CaCO ₃ /L	77		18209	Hydrogen*	mg/L	0.0		
18209	Residual Alkalinity*	meq/L	0.1				•			
18195	Silica	mg/L	6.5	80		ANIONS				
18209	Total Dissolved Ions*	mg/L	203		18209	Bicarbonate*	mg/L	94		
18209	Total Dissolved Solids*	mg/L	160	600	18209	Carbonate*	mg/L	0.1		
		_			18209	Hydroxide*	mg/L	0.0		
18206	True Colour	Hazen	< 8	15	35047	Chloride	mg/L	18		250
18212	Turbidity	NTU	< 1	5	35047	Fluoride	mg/L	0.22	1.5	
	·				35047	Nitrate	mg/L	0.20	50	
18209	pH Sat.* (calc. for CaCo	O ₃)	8.2		35047	Sulphate	mg/L	33	500	250
18209	Saturation Index*	.	-0.9		į	•	•			
18209	Mole Ratio*		2.6			OTHER DISS	OLVED	ELEME	NTS	
18209	Sodium Absorpt. Ratio*		1.4		18195	Iron	mg/L	< 0.01		0.3
18209	Figure of Merit Ratio*		1.2		18195	Manganese	mg/L ·	< 0.001	0.5	0.1
	·			18195	Zinc	mg/L	< 0.06		3	
Notes:	* parameter is derived from calcula				18195	Aluminium	mg/L	< 0.03		0.2
	** Australian Drinking Water Guidelines 2011 (ADWG) Health and Aesthetic Values '-' not determined			ic Values	18195	Boron	mg/L	0.08	4	
Lab use Or		ΓA 2.76 Imb 0.0	8A 1/C 0.	.56	18195	Copper	_	< 0.003	2	1

Please note that the concentration of total elements present may be higher than that of dissolved elements stated in this report.

The water complies with Australian Drinking Water Guidelines 2011 for the parameters tested.



Elizabeth Harrison

Senior Laboratory Technician, Inorganic Chemistry

21-Mar-2022

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be fiable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Enquiries Phone Email

22NA1515

Elizabeth Harrison

(+61 7) 3096 2803

Elizabeth.Harrison@health.qld.gov.au

39 Kessels Road Coopers Plains QLD 4108 AUSTRALIA

PO Box 594 Archerfield QLD 4108 AUSTRALIA

(+61) 1800 000 FSS (377) (+61 7) 3096 2977 FSS@health.qld.gov.au Email



CERTIFICATE OF ANALYSIS

CLIENT:

Longreach Regional Council - Longreach

(HLONLN)

PO Box 144 ILFRACOMBE QLD 4727 Laboratory Reference : SSP0078078

Client Order No.

DIRECTOR

Date Received

01-Mar-2022

Laboratory Number

: 22NA1516

Batch No

: 581-25

ATTN: Director of Infrastructures Services

Client Reference

: 2033

: 24-Feb-2022

Date Sampled Sample Source

: Ilfracombe Raw

Sample Point

: Dam

Submitting Authority Reason for Analysis

: Longreach Regional Council - Longreach

Water Treatment

: Compliance : Untreated

Further Information:

Metho	d	Units	Result	Guidelines **	Method	d .	Units	Result	Guid	delines **
18320 18320 18209 18209 18320 18209	pH Total Hardness* Temporary Hardness* Alkalinity Residual Alkalinity*	μs/cm at 21°C mg CaCO ₃ /L mg CaCO ₃ /L mg CaCO ₃ /L meq/L	260 7.15 71 71 85 0.3	6.5 - 8.5 200	18195 18195 18195 18195 18209	CATIONS Sodium Potassium Calcium Magnesium Hydrogen*	mg/L mg/L mg/L mg/L mg/L	23 4.6 24 2.5 0.0	Health	Aesthetic 180
18195 18209 18209	Silica Total Dissolved Ions* Total Dissolved Solids*	mg/L mg/L mg/L	6.9 199 150	80 600	18209 18209	ANIONS Bicarbonate* Carbonate*	mg/L mg/L	104 0.1		
18206 18212	True Colour Turbidity	Hazen NTU	< 8 22	15 5	18209 35047 35047	Hydroxide* Chloride Fluoride	mg/L mg/L mg/L	0.0 5.6 0.31	1.5	250
18209 18209 18209	pH Sat.* (calc. for CaCC Saturation Index* Mole Ratio*	O ₃)	8.1 -1.0 2.1		35047 35047	Nitrate Sulphate	mg/L mg/L	0.77 34	50 500	250
18209 18209	Sodium Absorpt. Ratio* Figure of Merit Ratio*		1.2 1.4		18195 18195	OTHER DISSO Iron Manganese	OLVED mg/L mg/L <	< 0.01	0.5	0.3 0.1
	parameter is derived from calculat "Australian Drinking Water Guideli "not determined ly: TE 501.00 TC 2.55 T. ote that the concentration of	nes 2011 (ADWG) Hea	A I/C 0.57		18195 18195 18195	Zinc Aluminium Boron Copper	mg/L mg/L mg/L <	< 0.06 < 0.03 0.08	4 2	3 0.2

oncentration of total elements present may be higher than that of dissolved elements stated in this report. The water does not comply with the Australian Drinking Water Guidelines 2011 for Turbidity.



E. Hemson

Elizabeth Harrison

Senior Laboratory Technician, Inorganic Chemistry

23-Mar-2022

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Enquiries Email

Elizabeth Harrison

(+61 7) 3096 2803

Elizabeth.Harrison@health.qld.gov.au

39 Kessels Road Coopers Plains QLD 4108 **AUSTRALIA**

PO Box 594 Archerfield QLD 4108 **AUSTRALIA**

Phone (+61) 1800 000 FSS (377) Fax (+61 7) 3096 2977 Email FSS@health.qld.gov.au



CERTIFICATE OF ANALYSIS

CLIENT:

Longreach Regional Council - Longreach

(HLONLN)

PO Box 144 ILFRACOMBE QLD 4727 Laboratory Reference

: SSP0078078

Client Order No.

: DIRECTOR

Date Received Laboratory Number

: 01-Mar-2022 : 22NA1519

Batch No

: 581-28

ATTN: Director of Infrastructures Services

Client Reference Date Sampled

: 2036

: 24-Feb-2022

: Dam

Sample Source

Submitting Authority

: Longreach Regional Council - Longreach

Reason for Analysis Water Treatment

: Compliance : Chlorinated

: Yaraka GLR

Sample Point Further Information:

Method		Units		Result Guidelines **		Method		Units	Result	Guidelines **		
				Health A	esthetic		CATIONS			Health	Aesthetic	
18320	Conductivity @ 25°C	μs/cm	390			18195	Sodium	mg/L	50		180	
18320	pH	at 21°C	7.06	6.	.5 - 8.5	18195	Potassium	mg/L	4.2			
18209	Total Hardness*	mg CaCO ₃ /L	67		200	18195	Calcium	mg/L	20			
18209	Temporary Hardness*	mg CaCO ₃ /L	61			18195	Magnesium	mg/L	4.5			

18320 Alkalinity mg CaCO₃/L 61 18209 Hydrogen* ma/L 0.0 Residual Alkalinity* 0.0 18209 meg/L 18195 Silica mg/L 3.6 80 **ANIONS** 260 18209 Bicarbonate* 18209 Total Dissolved Ions* mg/L mg/L 74 mg/L Total Dissolved Solids* 230 600 18209 Carbonate* 0.0 18209 mg/L 18209 Hydroxide* mg/L 0.0 250 18206 True Colour Hazen < 8 15 35047 Chloride mg/L 23 35047 Fluoride mg/L 0.21 1.5 18212 Turbidity NTU < 1 5 35047 Nitrate 0.22 mg/L 50 pH Sat.* (calc. for CaCO₃) 500 250 8.4 35047 Sulphate mg/L 18209

18209 Sodium Absorpt. Ratio* 18209 Figure of Merit Ratio*

18209 Mole Ratio*

Lab use Only: TE 668.00

18209

Notes:

Saturation Index*

* parameter is derived from calculation.

TC 3.63

** Australian Drinking Water Guidelines 2011 (ADWG) Health and Aesthetic Values '-' not determined

TA 3.63

I/C 0.57 Imb 0.00 A

-1.3

2.9

2.7

0.6

OTHER DISSOLVED ELEMENTS mg/L < **0.01** Iron

18195 Manganese mg/L < 0.0010.5 0.1 18195 Zinc mg/L < 0.063 Aluminium mg/L 0.2 18195 0.07 18195 0.04 4 Boron mg/L 18195 Copper mg/L < 0.0032 1

Please note that the concentration of total elements present may be higher than that of dissolved elements stated in this report.

The water complies with Australian Drinking Water Guidelines 2011 for the parameters tested.



Flizabeth Harrison

Senior Laboratory Technician, Inorganic Chemistry 21-Mar-2022

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis

Enquiries Email

22NA1519

(+61 7) 3096 2803

Elizabeth.Harrison@health.qld.gov.au

39 Kessels Road Coopers Plains QLD 4108 **AUSTRALIA**

or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

PO Box 594 Archerlield QLD 4108 **AUSTRALIA**

which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities

18195

(+61 7) 3096 2977 FSS@health.gld.gov.au Email

0.3



CERTIFICATE OF ANALYSIS

CLIENT:

Longreach Regional Council - Longreach

(HLONLN) PO Box 144

ILFRACOMBE QLD 4727

Laboratory Reference : SSP0078078

Client Order No. Date Received

: DIRECTOR

Laboratory Number

: 01-Mar-2022

: 22NA1520

Batch No

: 581-29

ATTN: Director of Infrastructures Services

Client Reference

: 2037

: 24-Feb-2022

Date Sampled Sample Source Sample Point

: Dam

: Yaraka Raw

Submitting Authority

: Longreach Regional Council - Longreach

Reason for Analysis

Compliance

Water Treatment

Untreated

Campic	. 0	111	
Further	Info	rmat	tion:

Method	1	Units	Result	Guidelines **	Method	1	Units	Result	Guid	delines **
18320	Conductivity @ 25°C			Health Aesthetic		CATIONS			Health	Aesthetic
18320		μs/cm	340		18195	Sodium	mg/L	44		180
18209		at 21°C	7.69	6.5 - 8.5	18195	Potassium	mg/L	4.2		100
	Total Hardness*	mg CaCO ₃ /L	65	200	18195	Calcium	mg/L	19		
18209	Temporary Hardness*	mg CaCO ₃ /L	65		18195	Magnesium	mg/L	4.4		
18320	Alkalinity	mg CaCO ₃ /L	82		18209	Hydrogen*	mg/L	0.0		
18209	Residual Alkalinity*	meq/L	0.3			riyarogen	mg/L	0.0		
18195	Silica	mg/L	4.1	80		ANIONS				
18209	Total Dissolved Ions*	mg/L	245		18209	Bicarbonate*	no er //	400		
18209	Total Dissolved Solids*	mg/L	200	600	18209	Carbonate*	mg/L	100		
				000	18209		mg/L	0.3		
18206	True Colour	Hazen	< 8	15	35047	Hydroxide*	mg/L	0.0		
18212	Turbidity	NTU	9	5		Chloride	mg/L	15		250
				3	35047	Fluoride	mg/L	0.30	1.5	
18209	pH Sat.* (calc. for CaCo	O ₂)	8.3		35047	Nitrate	mg/L	0.38	50	
18209	Saturation Index*	- 3/	-0.6		35047	Sulphate	mg/L	58	500	250
18209	Mole Ratio*		2.0							
18209	Sodium Absorpt. Ratio*					OTHER DISS	OLVED	ELEMEN	ITS	
18209	Figure of Merit Ratio*		2.3		18195	Iron	mg/L	< 0.01		0.3
	and of Month Hallo		0.7		18195	Manganese	mg/L <	0.001	0.5	0.1
Notes:	parameter is derived from calculate	tion.			18195	Zinc	mg/L	< 0.06		3
	** Australian Drinking Water Guidel	ines 2011 (ADWG) Hea	Ilh and Aesthe	etic Values	18195	Aluminium	mg/L	< 0.03		0.2
ah usa Ca	- not determined				18195	Boron	mg/L	0.04	4	0.2
av use On	ly: TE 609.00 TC 3.31 To toote that the concentration of the does not comply with the	A 3.30 Imb 0.01	A I/C (0.58	18195	Copper	•		2	

The water does not comply with the Australian Drinking Water Guidelines 2011 for Turbidity.



2. Hemison

Elizabeth Harrison

Senior Laboratory Technician, Inorganic Chemistry

23-Mar-2022

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are conlidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis, which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Email

22NA1520

(+61 7) 3096 2803

Elizabeth.Harrison@health.qld.gov.au

39 Kessels Road Coopers Plains QLD 4108 AUSTRALIA

PO Box 594 Archerfield QLD 4108 AUSTRALIA

Phone (+61) 1800 000 FSS (377) (+61 7) 3096 2977 FSS@health.qld.gov.au Email



CERTIFICATE OF ANALYSIS

CLIENT: Longreach Regional Council - Longreach

PO Box 144 (HLONLN)

ILFRACOMBE QLD 4727

: SSP0078220 Laboratory Reference : RC_GROUP Client Order No. Date Received : 10-Mar-2022

Laboratory Number/s : SS22MW3913-SS22MW3918

Copies sent to: Environmental Health Central QLD

Number of Samples : 6

Reason for Analysis : Compliance

Method/s of Analysis : 20902 - SHW17 - Coliforms and Escherichia coli - enzyme hydrolysable substrate

Remarks : Please ensure adequate ice-bricks are povided to achieve desired cooling while in transit. Ice-bricks

should be frozen and eskies should be packed to maximise cooling efficiency. The laboratory recommends a

minimum of five standard ice-bricks when six 250mL sampling containers are submitted.

Samples were not adequately chilled while being transported. Samples must be adequately chilled (2 to 8 degrees C) at all stages after collection to the point of testing. Adequate chilling is necessary

to ensure accurate microbiological results.

One or more samples > 24 hours old on testing. This exceeds the maximum allowable holding time for

E. coli. Accuracy of results may be reduced.

: cfu = Colony Forming Units Key

= Estimated Count

FDMEAS = Field Measurements as provided by Submitting Authority

= Milligrams mg

= Most Probable Number mpn

NA = Not Applicable NR = No Result NT = Not Tested

NTU = Nephelometric Turbidity Units

pfu = Plaque Forming Units

Positive = Detected, but no count possible due to confluent growth on the plate(s)

TFOL = Results to Follow = Not Ordered < = Less than = More than



SS22MW3913-SS22MW3918

Lawrence Ariotti

Supervising Scientist, Water Microbiology

11-Mar-22

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Lawrence Ariotti (+61 7) 3096 2822 Email Lawrence.Ariotti@health.qld.qov.au

39 Kessels Road Coopers Plains QLD 4108 AUSTRALIA

Archerfield QLD 4108 AUSTRALIA

(+61) 1800 000 FSS (377) +61 7) 3096 2977 FSS@health.qld.gov.au

Client	Reference		2042	2043	2044	2045			
Sample	е Туре		Water Dam Treated	Water Dam Treated	Water Dam Treated	Water Dam Treated			
Sampli	ng Time/Date		06:30 09-Mar-2022	06:45 09-Mar-2022	07:00 09-Mar-2022	07:15 09-Mar-2022			
Testing	g Time/Date	12:10 10-Mar-2022	12:10 10-Mar-2022 12:10 10-Mar-2022 12:10 10-Mar-2022						
Sample	Sample Description		Skate park	Park	Depot lunch room	WTP			
Method	Test Microorganisms	Units	SS22MW3913	SS22MW3914	SS22MW3915	SS22MW3916			
20902	Coliforms	mpn/100mL	0	0	0	0			
20902	E. coli	mpn/100mL	0	0	0	0			
FDMEAS	pH		7.52	7.38	7.42	7.41			
FDMEAS	Total Chlorine	mg/L	1.16	2.20	1.43	1.72			
FDMEAS	Free Chlorine	mg/L	0.97	2.02	1.27	1.51			
FDMEAS	Turbidity	NTU	0.44	0.85	0.37	0.41			
	Interpretation of Results		PASS	PASS	PASS	PASS			

Client	Reference		2046	2047					
Sample	е Туре		Water Dam Treated	Water Dam Treated					
Sampli	ing Time/Date		07:00 09-Mar-2022 07:00 09-Mar-2						
Testing	g Time/Date		12:10 10-Mar-2022	12:10 10-Mar-2022					
Sample	Sample Description		Long's residence, Yaraka	WTP,Yaraka					
Method	Test Microorganisms	Units	SS22MW3917	SS22MW3918					
20902	Coliforms	mpn/100mL	0	0					
20902	E. coli	mpn/100mL	0	0					
FDMEAS	pH		7.16	7.23					
FDMEAS	Total Chlorine	mg/L	2.20	2.15					
FDMEAS	Free Chlorine	mg/L	2.08	1.93					
FDMEAS	Turbidity	NTU	0.18	0.25					
	Interpretation of Results		PASS	PASS					

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on this report are confidential and are not to be used or disclosed to any other person or used for any other person or purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).



CERTIFICATE OF ANALYSIS

CLIENT: Longreach Regional Council - Longreach

(HLONLN) PO Box 144

ILFRACOMBE QLD 4727

Laboratory Reference : SSP0078510 Client Order No. : DIRECTOR Date Received : 29-Mar-2022

Laboratory Number/s : SS22MW4797-SS22MW4800

Number of Samples : 4

Reason for Analysis : Compliance

Method/s of Analysis : 20902 - SHW17 - Coliforms and Escherichia coli - enzyme hydrolysable substrate

Remarks : Samples were not adequately chilled while being transported. Samples must be adequately chilled (2 to 8

degrees C) at all stages after collection to the point of testing. Adequate chilling is necessary to

ensure accurate microbiological results.

One or more samples > 24 hours old on testing. This exceeds the maximum allowable holding time for

E. coli. Accuracy of results may be reduced.

Key : cfu = Colony Forming Units

est = Estimated Count

FDMEAS = Field Measurements as provided by Submitting Authority

mg = Milligrams

mpn = Most Probable Number

NA = Not Applicable
NR = No Result
NT = Not Tested

NTU = Nephelometric Turbidity Units

pfu = Plague Forming Units

Positive = Detected, but no count possible due to confluent growth on the plate(s)

TFOL = Results to Follow
-- = Not Ordered
< = Less than
> = More than



Lawrence Ariotti

V. andt

Supervising Scientist, Water Microbiology

30-Mar-22

SS22MW4797-SS22MW4800

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Lawrence Ariotti

Client	Reference		2051	2052	2053	2054
Sample	Sample Type		Water River Chlorinated	Water River Chlorinated	Water River Chlorinated	Water River Chlorinated
Sampl	Sampling Time/Date		09:00 28-Mar-2022	09:15 28-Mar-2022	09:30 28-Mar-2022	09:45 28-Mar-2022
Testing Time/Date		15:17 29-Mar-2022	15:17 29-Mar-2022	15:17 29-Mar-2022	15:17 29-Mar-2022	
Sample	Sample Description		GLR	WREN	PCYC	Edkins
Method	Test Microorganisms	Units	SS22MW4797	SS22MW4798	SS22MW4799	SS22MW4800
20902	Coliforms	mpn/100mL	0	0	0	0
20902	20902 E. coli mpn/100mL		0	0	0	0
	Interpretation of Results		PASS	PASS	PASS	PASS

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on this report are confidential and are not to be used or disclosed to any other person or used for any other person or purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample's were taken, stored or transported).



CERTIFICATE OF ANALYSIS

CLIENT :

Longreach Regional Council - Longreach

(HLONLN) PO Box 144

ILFRACOMBE QLD 4727

Laboratory Reference : SSP0078639

: Longreach Shire Council Long

Client Order No. : Longreach S
Date Received : 07-Apr-2022
Date Commenced : 12-Apr-2022

Laboratory Number/s : 22KE4425-22KE4432

Number of Samples : 8

Method/s of Analysis : 16307 - Haloacetic Acids in Water by GC

28017 - Trihalomethanes in Water by Purge and Trap GCMS

Remarks : Health Values based on the Australian Drinking Water Guidelines 2011.

THM results released by A.Tronoff

Note: Please submit a separate sample bottle each for trihalomethane and haloacetic acid tests.

The samples submitted for analysis comply with the Australian Drinking Water Guidelines (2011) for total trihalomethanes in water.

The samples as submitted comply with the Australian Drinking Water Guidelines (2011) for haloacetic

acids in water.

NATA accreditation does not cover the performance of QIS Method 16307.

NATA Accredited
Laboratory 41

NATA
Accredited for compliance
with ISO/IEC 17025 - Testing.

22KE4425-22KE4432

Cassandra Kelly Analyst 26-Apr-22

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Enquiries Phone Cassandra Kelly (+61 7) 3274 9130 39 Kessels Road Coopers Plains QLD 4108 AUSTRALIA PO Box 594 Archerfield QLD 4108 AUSTRALIA Phone (+61) 1800 000 FSS (377) Fax (+61 7) 3096 2977 Email FSS@health.qld.gov.au

NATA Accredited 22KE4425-22KE4432 Laboratory 41 Accredited for compliance MmI SO/IEC 17025 - Testing. 60557-63954 Printed: 09:21 26-Apr-22 clkp1	16307 Dalapon (2,2-DPA)									16307 Monochloroacetic Acid (MCAA)	Haloacetic Acids					28017 Chloroform	Method Trihalomethanes	Sample Description	Sampling Time/Date	Sample Type	Client Reference
3	500 µ9/L		iig/i	110/l	1,011			100 110/L		150 µg/L		250 µg/L				250 µg/L	ADWG Health Units				
	10	; o	א כ	ט ת	טו נכ	თ (თ (Ο 1 (თ	55		4		_	-		Reporting Limit	No. 446-44			
	^10	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ /\ n (C	יוני	6	۸ ت	56	32	۸	۸ ه		110	< 1	^1		95	22KE4425	Longreach DPI	09:00 05-Apr-2022	Water River Treated	2056
	^ <u> </u>	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ /	۸ ۲۸	ປ າ (۸ . ·	51	31	٨	\ 01		83	^ <u> </u>	^ <u> </u>	9	73	22KE4426	Longreach PCYC	09:30 05-Apr-2022	Water River Treated	2057
	A	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	۸ ۸	۸	۸ ش	۸ س	&	9	۸ کا	۸		35	^ <u>1</u>	4	9	22	22KE4427	llfracombe Rec Centre	09:45 05-Apr-2022	Water Dam Treated	2058
Page: 2 of	A C	240	١ ٦ (۸ ۵	٨	۷ ک	&	8	< 5	\ 5		36	<u>^</u>	4	10	22	22KE4428	llfracombe Mitchell St	10:00 05-Apr-2022	Water Dam Treated	2059

Client Reference				2060	2061	2062	2063
Sample Type				Water Dam Treated	Water Dam Treated	Water Dam Treated	Water Dam Treated
Sampling Time/Date			10 (1) (1)	08:00 05-Apr-2022	08:05 05-Apr-2022	09:00 05-Apr-2022	09:15 05-Apr-2022
Comple Description				Isisford Skate Park	Isisford Lunch Room	Yaraka Long Res	Yaraka Hall
Sample Description							
Method Trihalomethanes	ADWG Health Value	Units	Reporting Limit	22KE4429	22KE4430	22KE4431	22KE4432
28017 Chloroform	250	μg/L	-	67	55	33	49
28017 Bromodichloromethane	250	μg/L	_	14	13	20	23
	250	μg/L	_	2	2	9	10
28017 Bromoform	250	μg/L		<1	<u>^1</u>	^	^_
28017 Total Trihalomethanes	250	μg/L	4	84	70	62	83
Haloacetic Acids			2				
16307 Monochloroacetic Acid (MCAA)	150	μg/L	თ	۸ ن	٨٥٦	۸ 5	∧ ज
16307 Monobromoacetic Acid (MBAA)		μg/L	σı	٨	۸	< 5	A 5
	100	μg/L	O	22	16	14	19
	100	μg/L	ഗ	30	24	16	18
16307 Bromochloroacetic Acid (BCAA)		μg/L	Oī	۸ س	۸ 5	7	9
		μg/L	ហ	7	6	10	
16307 Dibromoacetic Acid (DBAA)		µg∕L	OI .	۸ 5	٨	٨	^ 5
16307 Chlorodibromoacetic Acid (CDBAA)		μg/L	ഗ	۷ کا	٨	٨	۸ ۍ
16307 Dalapon (2,2-DPA)	500	μg/L	10	< 10	< 10	< 10	< 10



CERTIFICATE OF ANALYSIS

CLIENT :

Longreach Regional Council - Longreach

(HLONLN) PO Box 144

ILFRACOMBE QLD 4727

Laboratory Reference : SSP0078639

: Longreach Shire Council Long

Client Order No. : Longreach S
Date Received : 07-Apr-2022
Date Commenced : 12-Apr-2022

Laboratory Number/s : 22KE4425-22KE4432

Number of Samples : 8

Method/s of Analysis : 16307 - Haloacetic Acids in Water by GC

28017 - Trihalomethanes in Water by Purge and Trap GCMS

Remarks : Health Values based on the Australian Drinking Water Guidelines 2011.

THM results released by A.Tronoff

Note: Please submit a separate sample bottle each for trihalomethane and haloacetic acid tests.

The samples submitted for analysis comply with the Australian Drinking Water Guidelines (2011) for total trihalomethanes in water.

The samples as submitted comply with the Australian Drinking Water Guidelines (2011) for haloacetic

acids in water.

NATA accreditation does not cover the performance of QIS Method 16307.

NATA Accredited
Laboratory 41

NATA
Accredited for compliance
with ISO/IEC 17025 - Testing.

22KE4425-22KE4432

Cassandra Kelly Analyst 26-Apr-22

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Enquiries Phone Cassandra Kelly (+61 7) 3274 9130 39 Kessels Road Coopers Plains QLD 4108 AUSTRALIA PO Box 594 Archerfield QLD 4108 AUSTRALIA Phone (+61) 1800 000 FSS (377) Fax (+61 7) 3096 2977 Email FSS@health.qld.gov.au

NATA Accredited 22KE4425-22KE4432 Laboratory 41 Accredited for compliance MmI SO/IEC 17025 - Testing. 60557-63954 Printed: 09:21 26-Apr-22 clkp1	16307 Dalapon (2,2-DPA)									16307 Monochloroacetic Acid (MCAA)	Haloacetic Acids					28017 Chloroform	Method Trihalomethanes	Sample Description	Sampling Time/Date	Sample Type	Client Reference
3	500 µ9/L		iig/i	110/l	1,011			100 110/L		150 µg/L		250 µg/L				250 µg/L	ADWG Health Units				
	10	; o	א כ	ט ת	טו נכ	თ (თ (Ο 1 (თ	55		4		_	-		Reporting Limit	No. 446-44			
	^10	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ /\ n (C	יוני	6	۸ ت	56	32	۸	۸ ه		110	< 1	^1		95	22KE4425	Longreach DPI	09:00 05-Apr-2022	Water River Treated	2056
	^ <u> </u>	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ /	۸ ۲۸	ປ າ (۸ . ·	51	31	٨	\ 01		83	^ <u> </u>	^ <u> </u>	9	73	22KE4426	Longreach PCYC	09:30 05-Apr-2022	Water River Treated	2057
	A	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	۸ ۸	۸	۸ ش	۸ س	&	9	۸ کا	۸		35	^ <u>1</u>	4	9	22	22KE4427	llfracombe Rec Centre	09:45 05-Apr-2022	Water Dam Treated	2058
Page: 2 of	A C	240	١ ٦ (۸ ۵	٨	۷ ک	&	8	< 5	\ 5		36	<u>^</u>	4	10	22	22KE4428	llfracombe Mitchell St	10:00 05-Apr-2022	Water Dam Treated	2059

Client Reference				2060	2061	2062	2063
Sample Type				Water Dam Treated	Water Dam Treated	Water Dam Treated	Water Dam Treated
Sampling Time/Date			10 (1) (1)	08:00 05-Apr-2022	08:05 05-Apr-2022	09:00 05-Apr-2022	09:15 05-Apr-2022
Comple Description				Isisford Skate Park	Isisford Lunch Room	Yaraka Long Res	Yaraka Hall
Sample Description							
Method Trihalomethanes	ADWG Health Value	Units	Reporting Limit	22KE4429	22KE4430	22KE4431	22KE4432
28017 Chloroform	250	μg/L	-	67	55	33	49
28017 Bromodichloromethane	250	μg/L	_	14	13	20	23
	250	μg/L	_	2	2	9	10
28017 Bromoform	250	μg/L		<1	<u>^1</u>	^	^_
28017 Total Trihalomethanes	250	μg/L	4	84	70	62	83
Haloacetic Acids			2				
16307 Monochloroacetic Acid (MCAA)	150	μg/L	თ	۸ ن	٨٥٦	۸ 5	∧ ज
16307 Monobromoacetic Acid (MBAA)		μg/L	σı	٨	۸	< 5	A 5
	100	μg/L	O	22	16	14	19
	100	μg/L	ഗ	30	24	16	18
16307 Bromochloroacetic Acid (BCAA)		μg/L	Oī	۸ س	۸ 5	7	9
		μg/L	ហ	7	6	10	
16307 Dibromoacetic Acid (DBAA)		µg∕L	OI .	۸ 5	٨	٨	^ 5
16307 Chlorodibromoacetic Acid (CDBAA)		μg/L	ഗ	۷ کا	٨	٨	۸ ۍ
16307 Dalapon (2,2-DPA)	500	μg/L	10	< 10	< 10	< 10	< 10



CERTIFICATE OF ANALYSIS

CLIENT :

Longreach Regional Council - Longreach

(HLONLN) PO Box 144

ILFRACOMBE QLD 4727

Laboratory Reference : SSP0078639

: Longreach Shire Council Long

Client Order No. : Longreach S
Date Received : 07-Apr-2022
Date Commenced : 12-Apr-2022

Laboratory Number/s : 22KE4425-22KE4432

Number of Samples : 8

Method/s of Analysis : 16307 - Haloacetic Acids in Water by GC

28017 - Trihalomethanes in Water by Purge and Trap GCMS

Remarks : Health Values based on the Australian Drinking Water Guidelines 2011.

THM results released by A.Tronoff

Note: Please submit a separate sample bottle each for trihalomethane and haloacetic acid tests.

The samples submitted for analysis comply with the Australian Drinking Water Guidelines (2011) for total trihalomethanes in water.

The samples as submitted comply with the Australian Drinking Water Guidelines (2011) for haloacetic

acids in water.

NATA accreditation does not cover the performance of QIS Method 16307.

NATA Accredited
Laboratory 41

NATA
Accredited for compliance
with ISO/IEC 17025 - Testing.

22KE4425-22KE4432

Cassandra Kelly Analyst 26-Apr-22

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Enquiries Phone Cassandra Kelly (+61 7) 3274 9130 39 Kessels Road Coopers Plains QLD 4108 AUSTRALIA PO Box 594 Archerfield QLD 4108 AUSTRALIA Phone (+61) 1800 000 FSS (377) Fax (+61 7) 3096 2977 Email FSS@health.qld.gov.au

NATA Accredited 22KE4425-22KE4432 Laboratory 41 Accredited for compliance MmI SO/IEC 17025 - Testing. 60557-63954 Printed: 09:21 26-Apr-22 clkp1	16307 Dalapon (2,2-DPA)									16307 Monochloroacetic Acid (MCAA)	Haloacetic Acids					28017 Chloroform	Method Trihalomethanes	Sample Description	Sampling Time/Date	Sample Type	Client Reference
3	500 µ9/L		iig/i	110/l	1,011			100 110/L		150 µg/L		250 µg/L				250 µg/L	ADWG Health Units				
	10	; o	א כ	ט ת	טו נכ	თ (თ (Ο 1 (თ	55		4		_	-		Reporting Limit	No. 446-44			
	^10	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ /\ n (C	יוני	6	۸ ت	56	32	۸	۸ ه		110	< 1	^1		95	22KE4425	Longreach DPI	09:00 05-Apr-2022	Water River Treated	2056
	^ <u> </u>	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ /	۸ ۲۸	ປ າ (۸ . ·	51	31	٨	\ 01		83	^ <u> </u>	^ <u> </u>	9	73	22KE4426	Longreach PCYC	09:30 05-Apr-2022	Water River Treated	2057
	A	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	۸ ۸	۸	۸ ش	۸ س	&	9	۸ کا	۸		35	^ <u>1</u>	4	9	22	22KE4427	llfracombe Rec Centre	09:45 05-Apr-2022	Water Dam Treated	2058
Page: 2 of	A C	240	١ ٦ (۸ ۵	٨	۷ ک	&	8	< 5	\ 5		36	<u>^</u>	4	10	22	22KE4428	llfracombe Mitchell St	10:00 05-Apr-2022	Water Dam Treated	2059

Client Reference				2060	2061	2062	2063
Sample Type				Water Dam Treated	Water Dam Treated	Water Dam Treated	Water Dam Treated
Sampling Time/Date			10 (1) (1)	08:00 05-Apr-2022	08:05 05-Apr-2022	09:00 05-Apr-2022	09:15 05-Apr-2022
Comple Description				Isisford Skate Park	Isisford Lunch Room	Yaraka Long Res	Yaraka Hall
Sample Description							
Method Trihalomethanes	ADWG Health Value	Units	Reporting Limit	22KE4429	22KE4430	22KE4431	22KE4432
28017 Chloroform	250	μg/L	-	67	55	33	49
28017 Bromodichloromethane	250	μg/L	_	14	13	20	23
	250	μg/L	_	2	2	9	10
28017 Bromoform	250	μg/L		<1	<u>^1</u>	^	^_
28017 Total Trihalomethanes	250	μg/L	4	84	70	62	83
Haloacetic Acids			2				
16307 Monochloroacetic Acid (MCAA)	150	μg/L	თ	۸ ن	٨٥٦	۸ 5	∧ ज
16307 Monobromoacetic Acid (MBAA)		μg/L	σı	٨	۸	< 5	A 5
	100	μg/L	O	22	16	14	19
	100	μg/L	ഗ	30	24	16	18
16307 Bromochloroacetic Acid (BCAA)		μg/L	Oī	۸ س	۸ 5	7	9
		μg/L	ហ	7	6	10	
16307 Dibromoacetic Acid (DBAA)		µg∕L	OI .	۸ 5	٨	٨	^ 5
16307 Chlorodibromoacetic Acid (CDBAA)		μg/L	ഗ	۷ کا	٨	٨	۸ ۍ
16307 Dalapon (2,2-DPA)	500	μg/L	10	< 10	< 10	< 10	< 10



CERTIFICATE OF ANALYSIS

CLIENT :

Longreach Regional Council - Longreach

(HLONLN) PO Box 144

ILFRACOMBE QLD 4727

Laboratory Reference : SSP0078639

: Longreach Shire Council Long

Client Order No. : Longreach S
Date Received : 07-Apr-2022
Date Commenced : 12-Apr-2022

Laboratory Number/s : 22KE4425-22KE4432

Number of Samples : 8

Method/s of Analysis : 16307 - Haloacetic Acids in Water by GC

28017 - Trihalomethanes in Water by Purge and Trap GCMS

Remarks : Health Values based on the Australian Drinking Water Guidelines 2011.

THM results released by A.Tronoff

Note: Please submit a separate sample bottle each for trihalomethane and haloacetic acid tests.

The samples submitted for analysis comply with the Australian Drinking Water Guidelines (2011) for total trihalomethanes in water.

The samples as submitted comply with the Australian Drinking Water Guidelines (2011) for haloacetic

acids in water.

NATA accreditation does not cover the performance of QIS Method 16307.

NATA Accredited
Laboratory 41

NATA
Accredited for compliance
with ISO/IEC 17025 - Testing.

22KE4425-22KE4432

Cassandra Kelly Analyst 26-Apr-22

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Enquiries Phone Cassandra Kelly (+61 7) 3274 9130 39 Kessels Road Coopers Plains QLD 4108 AUSTRALIA PO Box 594 Archerfield QLD 4108 AUSTRALIA Phone (+61) 1800 000 FSS (377) Fax (+61 7) 3096 2977 Email FSS@health.qld.gov.au

NATA Accredited 22KE4425-22KE4432 Laboratory 41 Accredited for compliance MmI SO/IEC 17025 - Testing. 60557-63954 Printed: 09:21 26-Apr-22 clkp1	16307 Dalapon (2,2-DPA)									16307 Monochloroacetic Acid (MCAA)	Haloacetic Acids					28017 Chloroform	Method Trihalomethanes	Sample Description	Sampling Time/Date	Sample Type	Client Reference
3	500 µ9/L		iig/i	110/l	1,011			100 110/L		150 µg/L		250 µg/L				250 µg/L	ADWG Health Units				
	10	; o	א כ	ט ת	טו נכ	თ (თ (Ο 1 (თ	55		4		_	-		Reporting Limit	No. 444 Au			
	^10	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ /\ n (C	יוני	6	۸ ت	56	32	۸	۸ ه		110	< 1	^1		95	22KE4425	Longreach DPI	09:00 05-Apr-2022	Water River Treated	2056
	^ <u> </u>	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ /	۸ ۲۸	ປ າ (۸ . · · · · · · · · · · · · · · · · · ·	51	31	٨	\ 01		83	^ <u> </u>	^ <u> </u>	9	73	22KE4426	Longreach PCYC	09:30 05-Apr-2022	Water River Treated	2057
	A	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	۸ ۸	۸	۸ ش	۸ س	&	9	۸ کا	۸		35	^ <u>1</u>	4	9	22	22KE4427	llfracombe Rec Centre	09:45 05-Apr-2022	Water Dam Treated	2058
Page: 2 of	A C	240	١ ٦ (۸ ۵	٨	۷ ک	&	8	< 5	\ 5		36	<u>^</u>	4	10	22	22KE4428	llfracombe Mitchell St	10:00 05-Apr-2022	Water Dam Treated	2059

Client Reference				2060	2061	2062	2063
Sample Type				Water Dam Treated	Water Dam Treated	Water Dam Treated	Water Dam Treated
Sampling Time/Date			10 (1) (1)	08:00 05-Apr-2022	08:05 05-Apr-2022	09:00 05-Apr-2022	09:15 05-Apr-2022
Comple Description				Isisford Skate Park	Isisford Lunch Room	Yaraka Long Res	Yaraka Hall
Sample Description							
Method Trihalomethanes	ADWG Health Value	Units	Reporting Limit	22KE4429	22KE4430	22KE4431	22KE4432
28017 Chloroform	250	μg/L	-	67	55	33	49
28017 Bromodichloromethane	250	μg/L	_	14	13	20	23
	250	μg/L	_	2	2	9	10
28017 Bromoform	250	μg/L		<1	<u>^1</u>	^	^_
28017 Total Trihalomethanes	250	μg/L	4	84	70	62	83
Haloacetic Acids			2				
16307 Monochloroacetic Acid (MCAA)	150	μg/L	თ	۸ ن	٨٥٦	۸ 5	∧ ज
16307 Monobromoacetic Acid (MBAA)		μg/L	σı	٨	۸	< 5	A 5
	100	μg/L	O	22	16	14	19
	100	μg/L	ഗ	30	24	16	18
16307 Bromochloroacetic Acid (BCAA)		μg/L	Oī	۸ س	۸ 5	7	9
		μg/L	ហ	7	6	10	
16307 Dibromoacetic Acid (DBAA)		µg∕L	OI .	۸ 5	٨	٨	^ 5
16307 Chlorodibromoacetic Acid (CDBAA)		μg/L	ഗ	۷ کا	٨	٨	۸ ۍ
16307 Dalapon (2,2-DPA)	500	μg/L	10	< 10	< 10	< 10	< 10



CERTIFICATE OF ANALYSIS

CLIENT: Longreach Regional Council - Longreach

(HLONLN) PO Box 144

ILFRACOMBE QLD 4727

Laboratory Reference : SSP0079512 Client Order No. : DIRECTOR Date Received : 15-Jun-2022

Laboratory Number/s : SS22MW9002-SS22MW9007

Number of Samples : 6

Reason for Analysis : Compliance

Method/s of Analysis : 20902 - SHW17 - Coliforms and Escherichia coli - enzyme hydrolysable substrate

Remarks : One or more samples > 24 hours old on testing. This exceeds the maximum allowable holding time for E.

coli. Accuracy of results may be reduced.

Key : cfu = Colony Forming Units

est = Estimated Count

FDMEAS = Field Measurements as provided by Submitting Authority

mg = Milligrams mL = Millilitre

MPN = Most Probable Number

NA = Not Applicable
NR = No Result
NT = Not Tested

NTU = Nephelometric Turbidity Units

pfu = Plaque Forming Units

Positive = Detected, but no count possible due to confluent growth on the plate(s)

TFOL = Results to Follow
-- = Not Ordered
< = Less than
> = More than



Mellell .

Leonie Cover Laboratory Technician, Water Microbiology 16-Jun-22

SS22MW9002-SS22MW9007

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Client	Reference		2076	2077	2078	2079
Sampl	е Туре		Water River Chlorinated	Water River Chlorinated	Water River Chlorinated	Water River Chlorinated
Sampl	ing Time/Date		06:30 14-Jun-2022	06:45 14-Jun-2022	07:00 14-Jun-2022	07:15 14-Jun-2022
Testin	g Time/Date		11:46 15-Jun-2022	11:46 15-Jun-2022	11:46 15-Jun-2022	11:46 15-Jun-2022
Sampl	e Description		Town Park	Skate Park	Depot Lunch Room	Isisford WTP
Method	Test Microorganisms	Units	SS22MW9002	SS22MW9003	SS22MW9004	SS22MW9005
20902	Coliforms	MPN/100mL	0	0	0	0
20902	E. coli	MPN/100mL	0	0	0	0
	Interpretation of Results		PASS	PASS	PASS	PASS

Client	Reference		2080	2081
Sampl	е Туре		Water Dam Chlorinated	Water Dam Chlorinated
Sampl	ing Time/Date		07:00 14-Jun-2022	07:00 14-Jun-2022
Testin	g Time/Date		11:46 15-Jun-2022	11:46 15-Jun-2022
Sampl	e Description		Yaraka WTP	Yaraka House
Method	Test Microorganisms	Units	SS22MW9006	SS22MW9007
20902	Coliforms	MPN/100mL	0	0
20902	E. coli	MPN/100mL	0	0
	Interpretation of Results		PASS	PASS

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on this report are confidential and are not to be used or disclosed to any other person or used for any other person or purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).



CERTIFICATE OF ANALYSIS

CLIENT: Longreach Regional Council - Longreach

(HLONLN) PO Box 144

ILFRACOMBE QLD 4727

Laboratory Reference : SSP0079512 Client Order No. : DIRECTOR Date Received : 15-Jun-2022

Laboratory Number/s : SS22MW9002-SS22MW9007

Number of Samples : 6

Reason for Analysis : Compliance

Method/s of Analysis : 20902 - SHW17 - Coliforms and Escherichia coli - enzyme hydrolysable substrate

Remarks : One or more samples > 24 hours old on testing. This exceeds the maximum allowable holding time for E.

coli. Accuracy of results may be reduced.

Key : cfu = Colony Forming Units

est = Estimated Count

FDMEAS = Field Measurements as provided by Submitting Authority

mg = Milligrams mL = Millilitre

MPN = Most Probable Number

NA = Not Applicable
NR = No Result
NT = Not Tested

NTU = Nephelometric Turbidity Units

pfu = Plaque Forming Units

Positive = Detected, but no count possible due to confluent growth on the plate(s)

TFOL = Results to Follow
-- = Not Ordered
< = Less than
> = More than



Mellell .

Leonie Cover Laboratory Technician, Water Microbiology 16-Jun-22

SS22MW9002-SS22MW9007

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Client	Reference		2076	2077	2078	2079
Sampl	е Туре		Water River Chlorinated	Water River Chlorinated	Water River Chlorinated	Water River Chlorinated
Sampl	ing Time/Date		06:30 14-Jun-2022	06:45 14-Jun-2022	07:00 14-Jun-2022	07:15 14-Jun-2022
Testin	g Time/Date		11:46 15-Jun-2022	11:46 15-Jun-2022	11:46 15-Jun-2022	11:46 15-Jun-2022
Sampl	e Description		Town Park	Skate Park	Depot Lunch Room	Isisford WTP
Method	Test Microorganisms	Units	SS22MW9002	SS22MW9003	SS22MW9004	SS22MW9005
20902	Coliforms	MPN/100mL	0	0	0	0
20902	E. coli	MPN/100mL	0	0	0	0
	Interpretation of Results		PASS	PASS	PASS	PASS

Client	Reference		2080	2081
Sampl	е Туре		Water Dam Chlorinated	Water Dam Chlorinated
Sampl	ing Time/Date		07:00 14-Jun-2022	07:00 14-Jun-2022
Testin	g Time/Date		11:46 15-Jun-2022	11:46 15-Jun-2022
Sampl	e Description		Yaraka WTP	Yaraka House
Method	Test Microorganisms	Units	SS22MW9006	SS22MW9007
20902	Coliforms	MPN/100mL	0	0
20902	E. coli	MPN/100mL	0	0
	Interpretation of Results		PASS	PASS

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on this report are confidential and are not to be used or disclosed to any other person or used for any other person or purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).



CERTIFICATE OF ANALYSIS

CLIENT: Longreach Regional Council - Longreach

PO Box 144 (HLONLN)

ILFRACOMBE QLD 4727

: SSP0079579 Laboratory Reference Client Order No. : 1376198 Date Received : 21-Jun-2022

Laboratory Number/s : SS22MW9305-SS22MW9308

Copies sent to: Environmental Health Central QLD

Number of Samples : 4

Reason for Analysis : Compliance

Method/s of Analysis : 20902 - SHW17 - Coliforms and Escherichia coli - enzyme hydrolysable substrate

Remarks : One or more samples > 24 hours old on testing. This exceeds the maximum allowable holding time for E.

coli. Accuracy of results may be reduced.

Key : cfu = Colony Forming Units

> = Estimated Count est

FDMEAS = Field Measurements as provided by Submitting Authority

mg = Milligrams mL = Millilitre

MPN = Most Probable Number

NA = Not Applicable NR = No Result = Not Tested NT

NTU = Nephelometric Turbidity Units

= Plaque Forming Units pfu

Positive = Detected, but no count possible due to confluent growth on the plate(s)

TFOL = Results to Follow = Not Ordered = Less than < = More than



SS22MW9305-SS22MW9308

V. ariett

Lawrence Ariotti

Supervising Scientist, Water Microbiology

22-Jun-22

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities

or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Client	Reference		2083	2084	2085	2086
Sample	е Туре		Water Dam Chlorinated	Water Dam Chlorinated	Water Dam Chlorinated	Water Dam Chlorinated
Sampli	ing Time/Date		10:00 20-Jun-2022	10:15 20-Jun-2022	10:30 20-Jun-2022	10:30 20-Jun-2022
Testing	g Time/Date		13:45 21-Jun-2022	13:45 21-Jun-2022	13:45 21-Jun-2022	13:45 21-Jun-2022
Sample	e Description		Memorial Park	Mitchell St	Ilfracombe WTP	RLL Centre
Method	Test Microorganisms	Units	SS22MW9305	SS22MW9306	SS22MW9307	SS22MW9308
20902	Coliforms	MPN/100mL	0	0	0	0
20902	E. coli	MPN/100mL	0	0	0	0
	Interpretation of Results		PASS	PASS	PASS	PASS

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results on this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).