PO Box 1751
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250 Victoria Square
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Internet: www.awqc.com.au

Email: awqc@sawater.com.au

Barossa Infrastructure Ltd
ATTN: Simon Schutz
PO Box 665
TANUNDA
SA 5352 AUSTRALIA

31/01/2022

Dear Simon

Please find attached the Final Analytical Report for

Customer Service Request:	122622-2021-CSR-1
Account:	122622
Project:	AWQC-167090 Barossa Infrastructure Ltd - Routine 21/22

This report has also been sent to: Neville Skipworth

AWQC Sample Receipt hours are Monday and Tuesday 8:30am to 8pm and Wednesday, Thursday and Friday 8:30am to 4:30pm.

Yours sincerely,

Jason Cutler
Customer Service Officer
Jason.Cutler@sawater.com.au

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FINAL REPORT: 330209

Report Information

Project Name	AWQC-167090
Customer	Barossa Infrastructure Ltd
CSR_ID	122622-2021-CSR-1

Analytical Results

Sampling Point	84513-Barossa Infrastucture Ltd - Fromms Square Williamstown
Sampled Date	14/01/2022 7:50:23AM
Sample Received Date	14/01/2022 7:50:23AM
Sample Analysis Completed	31/01/2022 10:44:05AM
Sample ID	*2021-012-4177
Status	Endorsed
Collection Type	AWQC Collected

Bacteriology	LOR	Result	Test Start Date
Sample temperature at time of receipt NA			
E.coli & Thermotolerant Coliforms T0081-01 WMZ-500(ADEL)			14/01/2022
E.coli		0 cfu/100mL	
Thermotolerant Coliforms		0 cfu/100mL	

Inorganic Chemistry - Metals	LOR	Result	Test Start Date
Sample temperature at time of receipt NA			
Arsenic - Total TIC-006 W09-023(ADEL)			19/01/2022
Arsenic - Total	0.0003	0.0016 mg/L	
Boron - Soluble TIC-006 W09-023(ADEL)			19/01/2022
Boron - Soluble	0.020	<0.020 mg/L	
Cadmium - Total TIC-006 W09-023(ADEL)			19/01/2022
Cadmium - Total	0.0001	0.0002 mg/L	
Calcium TIC-004 W09-023(ADEL)			19/01/2022
Calcium	0.1	10.9 mg/L	
Chromium - Total TIC-006 W09-023(ADEL)			19/01/2022
Chromium - Total	0.0001	0.0041 mg/L	
Iron - Total TIC-006 W09-023(ADEL)			19/01/2022
Iron - Total	0.0005	2.775 mg/L	
Lead - Total TIC-006 W09-023(ADEL)			19/01/2022
Lead - Total	0.0001	0.0019 mg/L	
Magnesium TIC-004 W09-023(ADEL)			19/01/2022
Magnesium	0.05	7.77 mg/L	
Manganese - Total TIC-006 W09-023(ADEL)			19/01/2022

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Status	Endorsed
Collection Type	AWQC Collected

Manganese - Total TIC-006 W09-023(ADEL)			19/01/2022
Manganese - Total	0.0001	0.0649 mg/L	
Potassium TIC-004 W09-023(ADEL)			19/01/2022
Potassium	0.05	3.17 mg/L	
Sodium Adsorption Ratio TMZ-M06 W09-023(ADEL)			14/01/2022
Sodium Adsorption Ratio - Calculation		2.18	
Sodium TIC-004 W09-023(ADEL)			19/01/2022
Sodium	0.1	38.6 mg/L	
Sulphur TIC-004 W09-023(ADEL)			19/01/2022
Sulphate	1.5	11.1 mg/L	
Sulphur	0.5	3.7 mg/L	
Total Hardness as CaCO3 TMZ-M06 W09-023(ADEL)			14/01/2022
Total Hardness as CaCO3	2.0	59 mg/L	
Zinc - Total TIC-006 W09-023(ADEL)			19/01/2022
Zinc - Total	0.0003	0.0123 mg/L	

Inorganic Chemistry - Nutrients	**LOR**	**Result**	**Test Start Date**
Sample temperature at time of receipt NA			
Chloride T0104-02 W09-023(ADEL)			17/01/2022
Chloride	4.0	58 mg/L	
Nitrate + Nitrite as N T0161-01 W09-023(ADEL)			28/01/2022
Nitrate + Nitrite as N	0.003	0.030 mg/L	
Nitrogen - Total TMZ-M06 W09-023(ADEL)			14/01/2022
Nitrogen - Total		0.99 mg/L	
Phosphorus - Total T0109-01 W09-023(ADEL)			25/01/2022
Phosphorus - Total	0.005	0.093 mg/L	
TKN as N T0112-01 W09-023(ADEL)			25/01/2022
TKN as Nitrogen	0.05	0.96 mg/L	

Inorganic Chemistry - Physical	**LOR**	**Result**	**Test Start Date**

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Sample Analysis Completed	31/01/2022 10:44:05AM
Sample ID	*2021-012-4177
Status	Endorsed
Collection Type	AWQC Collected

Sample temperature at time of receipt NA

Conductivity & Total Dissolved Solids T0016-01 W09-023(ADEL)			14/01/2022
Conductivity	2	323 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	179 mg/L	
pH T0010-01 W09-023(ADEL)			14/01/2022
pH		7.3 pH units	
Temperature at which pH is measured		23.1 °C	
Turbidity T0018-01 W09-023(ADEL)			20/01/2022
Turbidity	0.1	21 NTU	

Sampling	LOR	Result	Test Start Date
Sample temperature at time of receipt NA			
Chlorine T0012-01 W09-023(ADEL)			14/01/2022
Chlorine - Free	0.1	<0.1 mg/L	
Chlorine - Total	0.1	<0.1 mg/L	
Monochloramine	0.1	<0.1 mg/L	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
Sample temperature at time of receipt NA			
Biochemical Oxygen Demand - Total T0153-01 W09-023(ADEL)			14/01/2022
Biochemical Oxygen Demand	2	4 mg/L	
Suspended Solids T0160-01 W09-023(ADEL)			17/01/2022
Suspended Solids	1.0	5 mg/L	

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AWQC Signatories

Vickie Dalgleish - Senior Technical Officer Bacteriology & Molecular Testing

Thuy Diep - Technical Officer Chemistry

David Evans - Technical Officer Chemistry

Aji John - Technical Officer Chemistry

Andrew Kay - Technical Officer Chemistry

Chad Major - Supervisor Field Services

Melissa Phillips - Technical Officer Chemistry

Gayle Polley - Supervisor Nutrients and Waste

Saiful Talukder - Technical Officer Chemistry

Corporate Accreditation No.1115 Chemical and Biological Testing
Accredited for compliance with ISO/IEC 17025 - Testing

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Incidents

Sample ID	S.Point	Description	Sampled Date	Analysis (where Applicable)	Incident Description
2021-012-4177	84513	Barossa Infrastucture Ltd - Fromms Square Williamstown	14/01/2022	pH	Test not processed within holding time
2021-012-4177	84513	Barossa Infrastucture Ltd - Fromms Square Williamstown	14/01/2022	Turbidity	Test not processed within holding time

Analytical Method

Analytical Method Code	Description	Reference Method
T0010-01	Determination of pH	AP4500HB
T0012-01	Chlorine by classical and portable meter (field test)	AP4500CLF
T0016-01	Determination of Conductivity - Corrected to 25C	AP2510B
T0018-01	Turbidity - Nephelometric Measurement	APAWWA-WEF
T0081-01	E. coli - Membrane filtration	USEPA1604_1H
T0104-02	Chloride - Discrete Analyser	AP4500CLE
T0109-01	Phosphorus - total by discrete analyser	AP4500PF
T0112-01	Nitrogen- Total Kjeldahl by discrete analyser	AP4500NORGA
T0153-01	Biochemical Oxygen Demand	AP5210B
T0160-01	Suspended Solids 103C to 105C	AP4500
T0161-01	Nitrate + Nitrate (NOx) - Automated Flow Colorimetry	AP4500NO3I
TIC-004	Determination of Metals - ICP Spectrometry by ICP2	AP3120
TIC-006	Elemental Analysis By ICP- MS	EPA200.8
TMZ-M06	Derived Results and Data Checks	
TMZ-M06	Derived Results and Data Checks	AP4500NORGA
TMZ-M06	Derived Results and Data Checks	APHA2340B
W-052	Preparation of Samples for Metal Analysis	AP3030AD

Sampling Method

Sampling Method Code	Description
W09-023	Sampling Method for Chemical Analyses
WMZ-500	Sampling Method for Microbiological Analyses
	When samples are taken by customers, samples are analysed as received.

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Laboratory Information

Laboratory	NATA accreditation ID
Inorganic Chemistry - Physical	1115
Inorganic Chemistry - Waste Water	1115
Sampling	1115
Inorganic Chemistry - Nutrients	1115
Bacteriology	1115
Inorganic Chemistry - Metals	1115

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Notes

1. The last figure of the result value is a significant figure.
2. # determination of the component is not covered by NATA Accreditation.
3. ^ indicates result is out of specification according to the reference guideline. Refer to report footer.
4. * indicates an incident has been recorded against the sample. Refer to report footer.
5. & Indicates the results have changed since the last issued report.
6. Where a result is required to meet compliance limits the associated measurement uncertainty must be considered. Measurement uncertainty is available at <https://www.awqc.com.au/our-services/Water-quality-testing-and-analysis/measurement-uncertainty>
7. Uncertainty of Measurement is reported with a coverage factor of 2 providing approximately 95% confidence interval
8. The Limit of Reporting (LOR) is the lowest concentration of analyte which is reported at the AWQC and is based on the LOQ rounded up to a more readily used value. The Limit of Quantitation (LOQ) is the lowest concentration of analyte for which quantitative results may be obtained within a specified degree of confidence.
9. Where collection type is AWQC Collect, NATA has confirmed that due to a robust system in place for maintaining the temperature integrity for samples collected by AWQC's Field Laboratory Services, the recording of temperature when samples arrive at the AWQC is out of scope.
10. If pH has been tested then the pH will be outside of its holding time unless measured in the field.
11. (ADEL) indicates analysed in Adelaide, (MELB) indicates analysed in Melbourne.