



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

28/07/2023

Dear Simon

Please find attached the Final Analytical Report for

Customer Service Request: 122622-2023-CSR-2
Account: 122622
Project: AWQC-184092 Barossa Infrastructure Ltd - Routine 23/24

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

Yours sincerely,

Corrina Smith
Customer Service Officer
Corrina.Smith@sawater.com.au



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FINAL REPORT: 366918

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This report supercedes the following issued reports: 366804

Analytical Results

Sampling Point	92112-Barossa Infrastructure
Sampled Date	14/07/2023 8:07:06AM
Sample Received Date	14/07/2023 8:07:06AM
Sample Analysis Completed	26/07/2023 8:27:31AM
Sample ID	*2023-004-9454
Status	Endorsed
Collection Type	AWQC Collected

Bacteriology	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt NA</i>			
E.coli & Thermotolerant Coliforms T0081-01 WMZ-500(ADEL)			14/07/2023
E.coli		0 cfu/100mL	
Thermotolerant Coliforms		0 cfu/100mL	

Inorganic Chemistry - Metals	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt NA</i>			
Arsenic - Total TIC-006 W09-023(ADEL)			17/07/2023
Arsenic - Total	0.00006	0.00073 mg/L	
Boron - Soluble TIC-006 W09-023(ADEL)			17/07/2023
Boron - Soluble	0.020	0.149 mg/L	
Cadmium - Total TIC-006 W09-023(ADEL)			17/07/2023
Cadmium - Total	0.0001	<0.0001 mg/L	
Calcium TIC-006 W09-023(ADEL)			17/07/2023
Calcium	0.05	37.8 mg/L	
Chromium - Total TIC-006 W09-023(ADEL)			17/07/2023
Chromium - Total	0.0001	0.0003 mg/L	
Iron - Total TIC-006 W09-023(ADEL)			17/07/2023
Iron - Total	0.0005	0.1277 mg/L	
Lead - Total TIC-006 W09-023(ADEL)			17/07/2023
Lead - Total	0.0001	0.0005 mg/L	
Magnesium TIC-006 W09-023(ADEL)			17/07/2023
Magnesium	0.05	31.0 mg/L	
Manganese - Total TIC-006 W09-023(ADEL)			17/07/2023
Manganese - Total	0.0001	0.0329 mg/L	
Potassium TIC-006 W09-023(ADEL)			17/07/2023
Potassium	0.05	29.3 mg/L	
Sodium Adsorption Ratio TMZ-M06 W09-023(ADEL)			14/07/2023
Sodium Adsorption Ratio - Calculation		5.75	



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Sodium TIC-006 W09-023(ADEL)			17/07/2023
Sodium	0.1	197 mg/L	
Sulphur TIC-006 W09-023(ADEL)			17/07/2023
Sulphate	0.6	108 mg/L	
Sulphur	0.2	35.9 mg/L	
Total Hardness as CaCO3 TMZ-M06 W09-023(ADEL)			14/07/2023
Total Hardness as CaCO3	2.0	222 mg/L	
Zinc - Total TIC-006 W09-023(ADEL)			17/07/2023
Zinc - Total	0.0003	0.0728 mg/L	

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt NA</i>			
Chloride T0104-02 W09-023(ADEL)			20/07/2023
Chloride	4.0	253 mg/L	
Nitrate + Nitrite as N T0161-01 W09-023(ADEL)			25/07/2023
Nitrate + Nitrite as N	0.003	4.32 mg/L	
Nitrogen - Total TMZ-M06 W09-023(ADEL)			14/07/2023
Nitrogen - Total		39.62 mg/L	
Phosphorus - Total T0109-01 W09-023(ADEL)			20/07/2023
Phosphorus - Total	0.005	7.46 mg/L	
TKN as N T0112-01 W09-023(ADEL)			20/07/2023
TKN as Nitrogen	0.05	35.3 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt NA</i>			
Conductivity & Total Dissolved Solids T0016-01 W09-023(ADEL)			18/07/2023
Conductivity	2	1680 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	935 mg/L	
pH T0010-01 W09-023(ADEL)			18/07/2023



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Collection Type	AWQC Collected

pH T0010-01 W09-023(ADEL)			18/07/2023
pH		7.3 pH units	
Temperature at which pH is measured		21.9 °C	

Turbidity T0018-01 W09-023(ADEL)			17/07/2023
Turbidity	0.1	14 NTU	

Sampling	LOR	Result	Test Start Date
Sample temperature at time of receipt NA			
Chlorine T0012-01 W09-023(ADEL)			14/07/2023
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)			14/07/2023
Biochemical Oxygen Demand	2	18 mg/L	
Suspended Solids T0160-01 W09-023(ADEL)			17/07/2023
Suspended Solids	1.0	32 mg/L	



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AWQC Signatories

- Dzung Bui - Supervisor Metals and Physical
- Ivana Cech - Technical Officer Chemistry
- Thuy Diep - Technical Officer Chemistry
- Andrew Ford - Acting Method Development Specialist
- Kerrie Jooste - Manager Chemistry Services
- John Martini - Method Development Specialist
- Chad Major - Supervisor Field Services
- Melissa Phillips - Technical Officer Chemistry
- Gayle Polley - Supervisor Nutrients and Waste
- Saiful Talukder - Technical Officer Chemistry
- Lisa Teakle - Senior Technical Officer Bacteriology & Molecular Testing



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Incidents

Sample ID	S.Point	Description	Sampled Date	Analysis (where Applicable)	Incident Description
2023-004-9454	92112	Barossa Infrastructure	14/07/2023	Turbidity	Test not processed within holding time
2023-004-9454	92112	Barossa Infrastructure	14/07/2023	pH	Test not processed within holding time
2023-004-9455	84513	Barossa Infrastructure Ltd - Fromms Square Williamstown	14/07/2023	Turbidity	Test not processed within holding time
2023-004-9455	84513	Barossa Infrastructure Ltd - Fromms Square Williamstown	14/07/2023	pH	Test not processed within holding time
2023-004-9455	84513	Barossa Infrastructure Ltd - Fromms Square Williamstown	14/07/2023	Ammonia as N	Dependent results are within acceptable analytical uncertainty

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
T0050-01	Trihalomethanes	IH
T0081-01	E. coli - Membrane filtration	USEPA1604_1H
T0100-01	Ammonia/Ammonium - Automated Flow Colorimetry	AP4500NH3G
T0101-01	Alkalinity - Automated Acidimetric Titration	AP2320B
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 + Nitrite (NOx) - Automated Flow Colorimetry	AP4500NO3I
T0800-01	Nitrogen and Phosphorous Containing Pesticides	USEPA507
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



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Sampling Method

Sampling Method Code	Description
W09-023	Sampling Method for Chemical Analyses
WMZ-500	Sampling Method for Microbiological Analyses

Sampling point and date sampled are provided when collected by customers. Validity of results are based on information and samples supplied by customers. Unless it is reported that sampling has been performed by AWQC, the samples have been analysed as received.

Laboratory Information

Laboratory	NATA accreditation ID
Inorganic Chemistry - Physical	1115
Inorganic Chemistry - Waste Water	1115
Sampling	1115
Inorganic Chemistry - Nutrients	1115
Organic Chemistry	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.
 12. AWQC Melbourne Laboratory are only NATA accredited for sampling of potable waters by inhouse method W09-023.