

FINAL REPORT: 219231

This report shall not be reproduced, except in full without the written permission of the laboratory.

Report Information

Project Name	AWQC-121884
Customer	BAROSSA INFRASTRUCTURE LTD
CSR_ID	122622-2017-CSR-1

Analytical Results

Customer Sample Description	BIL Connection Point
Sampling Point	84513-Barossa Infrastructure Ltd - Fromms Square Williamstown
Sampled Date	12/01/2018 8:05:00AM
Sample Received Date	12/01/2018 1:14:23PM
Sample Analysis Completed	25/01/2018 9:56:13AM
Sample ID	2017-010-5784
Status	Endorsed
GuidelineType	ECOLI
Collection Type	AWQC Collected

Bacteriology LOR Result

Sample temperature at time of receipt NA

E.coli & Thermotolerant Coliforms T0081-01 WMZ-500(ADEL)

E.coli	0 cfu/100mL
Thermotolerant Coliforms	0 cfu/100mL

Inorganic Chemistry - Metals LOR Result

Sample temperature at time of receipt NA

Arsenic - Total TIC-006 W09-023(ADEL)

Arsenic - Total	0.0003	0.0005 mg/L
-----------------	--------	-------------

Boron - Soluble TIC-006 W09-023(ADEL)

Boron - Soluble	0.020	0.033 mg/L
-----------------	-------	------------

Cadmium - Total TIC-006 W09-023(ADEL)

Cadmium - Total	0.0001	<0.0001 mg/L
-----------------	--------	--------------

Calcium TIC-004 W09-023(ADEL)

Calcium	0.1	12.5 mg/L
---------	-----	-----------

Chromium - Total TIC-006 W09-023(ADEL)

Chromium - Total	0.0001	0.0025 mg/L
------------------	--------	-------------

Iron - Total TIC-006 W09-023(ADEL)

Iron - Total	0.0005	3.195 mg/L
--------------	--------	------------

Lead - Total TIC-006 W09-023(ADEL)

Lead - Total	0.0001	0.0022 mg/L
--------------	--------	-------------

Magnesium TIC-004 W09-023(ADEL)

Magnesium	0.05	10.5 mg/L
-----------	------	-----------

Manganese - Total TIC-006 W09-023(ADEL)

Manganese - Total	0.0001	0.1734 mg/L
-------------------	--------	-------------



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

Notes

- The last figure of the result value is a significant figure.
- # determination of the component is not covered by NATA Accreditation.
- ^ indicates result is out of specification according to the reference guideline. Refer to report footer.
- * indicates an incident has been recorded against the sample. Refer to report footer.
5. & indicates the results have changed since the last issued report.
- 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.
- 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.
- Where applicable Measurement of Uncertainty is available upon request.
- If pH has been tested then the pH will be outside of its holding time unless measured in the field.
- (ADEL) indicates analysed in Adelaide, (MELB) indicates analysed in Melbourne.

FINAL REPORT: 219231

This report shall not be reproduced, except in full without the written permission of the laboratory.

Analytical Results

Customer Sample Description	BIL Connection Point
Sampling Point	84513-Barossa Infrastructure Ltd - Fromms Square Williamstown
Sampled Date	12/01/2018 8:05:00AM
Sample Received Date	12/01/2018 1:14:23PM
Sample Analysis Completed	25/01/2018 9:56:13AM
Sample ID	2017-010-5784
Status	Endorsed
GuidelineType	ECOLI
Collection Type	AWQC Collected

Potassium TIC-004 W09-023(ADEL)

Potassium	0.05	3.32 mg/L
-----------	------	-----------

Sodium Adsorption Ratio W09-023(ADEL)

Sodium Adsorption Ratio - Calculation		2.88
---------------------------------------	--	------

Sodium TIC-004 W09-023(ADEL)

Sodium	0.1	57.0 mg/L
--------	-----	-----------

Sulphur TIC-004 W09-023(ADEL)

Sulphate	1.5	21.0 mg/L
----------	-----	-----------

Total Hardness as CaCO3 W09-023(ADEL)

Total Hardness as CaCO3	2.0	74 mg/L
-------------------------	-----	---------

Zinc - Total TIC-006 W09-023(ADEL)

Zinc - Total	0.0003	0.0084 mg/L
--------------	--------	-------------

Inorganic Chemistry - Nutrients **LOR** **Result**

Sample temperature at time of receipt NA

Chloride T0104-02 W09-023(ADEL)

Chloride	4.0	110 mg/L
----------	-----	----------

Nitrate + Nitrite as N T0161-01 W09-023(ADEL)

Nitrate + Nitrite as N	0.003	<0.003 mg/L
------------------------	-------	-------------

Nitrogen - Total TMZ-M06 W09-023(ADEL)

Nitrogen - Total		1.09 mg/L
------------------	--	-----------

Phosphorus - Total T0109-01 W09-023(ADEL)

Phosphorus - Total	0.005	0.104 mg/L
--------------------	-------	------------

TKN as N T0112-01 W09-023(ADEL)

TKN as Nitrogen	0.05	1.09 mg/L
-----------------	------	-----------

Inorganic Chemistry - Physical **LOR** **Result**

Sample temperature at time of receipt NA

Conductivity & Total Dissolved Solids T0016-01 W09-023(ADEL)

Conductivity	1	508 µScm
Total Dissolved Solids (by EC)	1.0	280 mg/L



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. 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.
7. 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.
8. Where applicable Measurement of Uncertainty is available upon request.
9. If pH has been tested then the pH will be outside of its holding time unless measured in the field.
10. (ADEL) indicates analysed in Adelaide, (MELB) indicates analysed in Melbourne.

FINAL REPORT: 219231

This report shall not be reproduced, except in full without the written permission of the laboratory.

Analytical Results

Customer Sample Description	BIL Connection Point
Sampling Point	84513-Barossa Infrastructure Ltd - Fromms Square Williamstown
Sampled Date	12/01/2018 8:05:00AM
Sample Received Date	12/01/2018 1:14:23PM
Sample Analysis Completed	25/01/2018 9:56:13AM
Sample ID	2017-010-5784
Status	Endorsed
GuidelineType	ECOLI
Collection Type	AWQC Collected

pH T0010-01 W09-023(ADEL)

pH 7.3 pH units

Turbidity T0018-01 W09-023(ADEL)

Turbidity 0.1 31 NTU



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

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. 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.
7. 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.
8. Where applicable Measurement of Uncertainty is available upon request.
9. If pH has been tested then the pH will be outside of its holding time unless measured in the field.
10. (ADEL) indicates analysed in Adelaide, (MELB) indicates analysed in Melbourne.

FINAL REPORT: 219231

This report shall not be reproduced, except in full without the written permission of the laboratory.

AWQC Signatories

Dzung Bui - Supervisor Metals and Physical

Ivana Cech - Technical Officer Chemistry

Vickie Dalglish - Snr Technical Officer

Andrew Ford - Technical Officer Chemistry

Gayle Polley - Snr Technical Officer



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

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. 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.
7. 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.
8. Where applicable Measurement of Uncertainty is available upon request.
9. If pH has been tested then the pH will be outside of its holding time unless measured in the field.
10. (ADEL) indicates analysed in Adelaide, (MELB) indicates analysed in Melbourne.

FINAL REPORT: 219231

This report shall not be reproduced, except in full without the written permission of the laboratory.

Guidelines

ECOLI	Ecoli	Minimum Value	Maximum Value	Units
Guideline Version:2				
Health1				
110960, 110961, 110963, 110964, 120464, 120465, 120466, 120468, 120469, 122450 122436, 122437	E.coli	-	0	cfu/100mL
	E.coli/F Coliforms - Presumptive	-	0	cfu/100mL
Primary Contact				
110965, 110967, 110968, 110970, 110972, 120470, 120471, 120472, 120475, 120476 110969, 110971, 110973, 110974, 120473, 120474	E.coli	-	150	cfu/100mL
	Faecal coliforms	-	150	cfu/100mL

Analytical Method

Analytical Method Code	Description	Reference Method
T0010-01	Determination of pH	AP4500HB
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
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	AP4500NORGA
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.



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

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. 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.
7. 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.
8. Where applicable Measurement of Uncertainty is available upon request.
9. If pH has been tested then the pH will be outside of its holding time unless measured in the field.
10. (ADEL) indicates analysed in Adelaide, (MELB) indicates analysed in Melbourne.

FINAL REPORT: 219231

This report shall not be reproduced, except in full without the written permission of the laboratory.

Laboratory Information

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



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

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. 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.
7. 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.
8. Where applicable Measurement of Uncertainty is available upon request.
9. If pH has been tested then the pH will be outside of its holding time unless measured in the field.
10. (ADEL) indicates analysed in Adelaide, (MELB) indicates analysed in Melbourne.