

Certificate of Analysis

Request ID: EAL/E25-00-3037 Report ID: E25-00-3037_EALP3_2 Issue date: 01 May 2025

Client Sample ID:				BQN1-B	BQN1-A	BQN1-D	BQN2-B	BQN2-A
Sample Date:				20 March 2025	20 March 2025	20 March 2025	20 March 2025	20 March 2025
EAL Sample ID:				E25-00-3037-0001	E25-00-3037-0002	E25-00-3037-0003	E25-00-3037-0004	E25-00-3037-0005
Parameter	Unit	Method Reference	LOR	---	---	---	---	---
Total Alkalinity	mg CaCO ₃ /L	** APHA 2320	<1	196	242	126	100	195
Water Hardness	mg/L CaCO ₃ equivalent	** Calculation using Ca and Mg	<1	126	256	30	70	101
Sodium	mg/L	Total Available - APHA 3125 ICPMS	<0.5	171	349	306	190	92.4
Potassium	mg/L	Total Available - APHA 3125 ICPMS	<0.5	3.49	8.29	2.35	7.02	5.03
Calcium	mg/L	Total Available - APHA 3125 ICPMS	<0.5	24.9	90.6	9.98	25.5	24.3
Magnesium	mg/L	Total Available - APHA 3125 ICPMS	<0.5	15.4	7.25	1.31	1.54	9.67
Chloride	mg/L	Total Available - APHA 3125 ICPMS	<10	139	396	246	181	54.6
Sulfate	mg/L SO ₄	Total Available - APHA 3125 ICPMS	<9	9.08	21.5	48.6	17.6	14.3
Chloride/Sulfate Ratio	---	Total Available - APHA 3125 ICPMS	---	15	18	5.1	10	3.8
Iron	mg/L	Total Available - APHA 3125 ICPMS	<0.005	2.12	3.03	1.68	0.207	0.128
Lead	mg/L	Total Available - APHA 3125 ICPMS	<0.001	< 0.001	0.006	< 0.001	0.002	0.002
Sodium Absorption Ratio	---	** Calculation	---	6.6	9.5	24	9.9	4.0
SGS Report No.	---	** Subcontracted SGS Laboratories Australia	---	SE280495	SE280495	SE280495	SE280495	SE280495
Benzene	µg/L	** Subcontracted SGS Laboratories Australia	---	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	** Subcontracted SGS Laboratories Australia	---	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	** Subcontracted SGS Laboratories Australia	---	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-xylene	µg/L	** Subcontracted SGS Laboratories Australia	---	<1	<1	<1	<1	<1
o-xylene	µg/L	** Subcontracted SGS Laboratories Australia	---	<0.5	<0.5	<0.5	<0.5	<0.5
Total Xylenes	µg/L	** Subcontracted SGS Laboratories Australia	---	<1.5	<1.5	<1.5	<1.5	<1.5
Total BTEX	µg/L	** Subcontracted SGS Laboratories Australia	---	<3	<3	<3	<3	<3
Napthalene (VOC)	µg/L	** Subcontracted SGS Laboratories Australia	---	<0.5	<0.5	<0.5	<0.5	<0.5
SGS Report No.	---	** Subcontracted SGS Laboratories Australia	---	SE280495	SE280495	SE280495	SE280495	SE280495
TRH C6-C9	µg/L	** Subcontracted SGS Laboratories Australia	---	<40	<40	<40	<40	<40
Benzene (F0)	µg/L	** Subcontracted SGS Laboratories Australia	---	<0.5	<0.5	<0.5	<0.5	<0.5
TRH C6-C10	µg/L	** Subcontracted SGS Laboratories Australia	---	<50	<50	<50	<50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	** Subcontracted SGS Laboratories Australia	---	<50	<50	<50	<50	<50
SGS Report No.	---	** Subcontracted SGS Laboratories Australia	---	SE280495	SE280495	SE280495	SE280495	SE280495
LLTRH C10-C14	µg/L	** Subcontracted SGS Laboratories Australia	---	<50	<50	<50	<50	<50
LLTRH C15-C28	µg/L	** Subcontracted SGS Laboratories Australia	---	<100	<100	<100	<100	<100
LLTRH C29-C36	µg/L	** Subcontracted SGS Laboratories Australia	---	<50	<50	<50	<50	<50
LLTRH >C10-C16	µg/L	** Subcontracted SGS Laboratories Australia	---	<50	<50	<50	<50	<50
LLTRH >C16-C34 (F3)	µg/L	** Subcontracted SGS Laboratories Australia	---	<100	<100	<100	<100	<100
LLTRH >C34-C40 (F4)	µg/L	** Subcontracted SGS Laboratories Australia	---	<100	<100	<100	<100	<100

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Client Sample ID:				BQN1-B	BQN1-A	BQN1-D	BQN2-B	BQN2-A
Sample Date:				20 March 2025	20 March 2025	20 March 2025	20 March 2025	20 March 2025
EAL Sample ID:				E25-00-3037-0001	E25-00-3037-0002	E25-00-3037-0003	E25-00-3037-0004	E25-00-3037-0005
Parameter	Unit	Method Reference	LOR	---	---	---	---	---
TRH Sum C10-C36	µg/L	** Subcontracted SGS Laboratories Australia	---	<100	<100	<100	<100	<100
LLTRH C37-C40	µg/L	** Subcontracted SGS Laboratories Australia	---	<100	<100	<100	<100	<100
Iron	mg/L	Dissolved - APHA 3125 ICPMS	<0.005	0.021	0.011	0.009	0.013	0.008
Lead	mg/L	Dissolved - APHA 3125 ICPMS	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Total Oils and Grease	mg/L	APHA 5520-D (hexane extractable)	<2	---	4.84	---	---	< 2
SGS Report No.	---	** Subcontracted SGS Laboratories Australia	---	---	---	---	---	---
TRH C10-C14-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<50	---	---	---	---	---
TRH C15-C28-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<200	---	---	---	---	---
TRH C29-C36-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<200	---	---	---	---	---
TRH C37-C40-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<200	---	---	---	---	---
TRH >C10-C16-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<60	---	---	---	---	---
TRH >C16-C34-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<500	---	---	---	---	---
TRH >C34-C40-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<500	---	---	---	---	---
TRH Sum C10-C36-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<450	---	---	---	---	---
TRH Sum C10-C40-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<650	---	---	---	---	---

Client Sample ID:				BQN2-D	BQS1-S	BQS1-I	BQS1-D
Sample Date:				20 March 2025	20 March 2025	20 March 2025	20 March 2025
EAL Sample ID:				E25-00-3037-0006	E25-00-3037-0007	E25-00-3037-0008	E25-00-3037-0009
Parameter	Unit	Method Reference	LOR	---	---	---	---
Total Alkalinity	mg CaCO ₃ /L	** APHA 2320	<1	353	171	379	132
Water Hardness	mg/L CaCO ₃ equivalent	** Calculation using Ca and Mg	<1	12	97	86	39
Sodium	mg/L	Total Available - APHA 3125 ICPMS	<0.5	243	54.6	164	382
Potassium	mg/L	Total Available - APHA 3125 ICPMS	<0.5	1.98	3.46	4.29	3.68
Calcium	mg/L	Total Available - APHA 3125 ICPMS	<0.5	3.85	24.2	24.5	12.8
Magnesium	mg/L	Total Available - APHA 3125 ICPMS	<0.5	0.508	8.93	5.93	1.71
Chloride	mg/L	Total Available - APHA 3125 ICPMS	<10	88.6	17.5	43.2	356
Sulfate	mg/L SO ₄	Total Available - APHA 3125 ICPMS	<9	16.3	< 9	< 9	31.7
Chloride/Sulfate Ratio	---	Total Available - APHA 3125 ICPMS	---	5.4	n.a.	n.a.	11
Iron	mg/L	Total Available - APHA 3125 ICPMS	<0.005	0.129	0.703	4.05	0.157
Lead	mg/L	Total Available - APHA 3125 ICPMS	<0.001	0.002	0.001	0.002	< 0.001
Sodium Absorption Ratio	---	** Calculation	---	31	2.4	7.7	27
SGS Report No.	---	** Subcontracted SGS Laboratories Australia	---	SE280495	SE280495	SE280495	SE280495
Benzene	µg/L	** Subcontracted SGS Laboratories Australia	---	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	** Subcontracted SGS Laboratories Australia	---	<0.5	<0.5	<0.5	<0.5

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Client Sample ID:				BQN2-D	BQS1-S	BQS1-I	BQS1-D
Sample Date:				20 March 2025	20 March 2025	20 March 2025	20 March 2025
EAL Sample ID:				E25-00-3037-0006	E25-00-3037-0007	E25-00-3037-0008	E25-00-3037-0009
Parameter	Unit	Method Reference	LOR	---	---	---	---
Ethylbenzene	µg/L	** Subcontracted SGS Laboratories Australia	---	<0.5	<0.5	<0.5	<0.5
m/p-xylene	µg/L	** Subcontracted SGS Laboratories Australia	---	<1	<1	<1	<1
o-xylene	µg/L	** Subcontracted SGS Laboratories Australia	---	<0.5	<0.5	<0.5	<0.5
Total Xylenes	µg/L	** Subcontracted SGS Laboratories Australia	---	<1.5	<1.5	<1.5	<1.5
Total BTEX	µg/L	** Subcontracted SGS Laboratories Australia	---	<3	<3	<3	<3
Napthalene (VOC)	µg/L	** Subcontracted SGS Laboratories Australia	---	<0.5	<0.5	<0.5	<0.5
SGS Report No.	---	** Subcontracted SGS Laboratories Australia	---	SE280495	SE280495	SE280495	SE280495
TRH C6-C9	µg/L	** Subcontracted SGS Laboratories Australia	---	<40	<40	<40	<40
Benzene (F0)	µg/L	** Subcontracted SGS Laboratories Australia	---	<0.5	<0.5	<0.5	<0.5
TRH C6-C10	µg/L	** Subcontracted SGS Laboratories Australia	---	<50	<50	<50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	** Subcontracted SGS Laboratories Australia	---	<50	<50	<50	<50
SGS Report No.	---	** Subcontracted SGS Laboratories Australia	---	SE280495	SE280495	SE280495	SE280495
LLTRH C10-C14	µg/L	** Subcontracted SGS Laboratories Australia	---	67	<50	55	<50
LLTRH C15-C28	µg/L	** Subcontracted SGS Laboratories Australia	---	<100	<100	<100	<100
LLTRH C29-C36	µg/L	** Subcontracted SGS Laboratories Australia	---	<50	<50	<50	<50
LLTRH >C10-C16	µg/L	** Subcontracted SGS Laboratories Australia	---	79	<50	57	<50
LLTRH >C16-C34 (F3)	µg/L	** Subcontracted SGS Laboratories Australia	---	<100	<100	<100	<100
LLTRH >C34-C40 (F4)	µg/L	** Subcontracted SGS Laboratories Australia	---	<100	<100	<100	<100
TRH Sum C10-C36	µg/L	** Subcontracted SGS Laboratories Australia	---	120	<100	<100	<100
LLTRH C37-C40	µg/L	** Subcontracted SGS Laboratories Australia	---	<100	<100	<100	<100
Iron	mg/L	Dissolved - APHA 3125 ICPMS	<0.005	0.011	0.022	0.030	0.008
Lead	mg/L	Dissolved - APHA 3125 ICPMS	<0.001	< 0.001	< 0.001	< 0.001	< 0.001
Total Oils and Grease	mg/L	APHA 5520-D (hexane extractable)	<2	2.30	< 2	< 2	< 2
SGS Report No.	---	** Subcontracted SGS Laboratories Australia	---	SE280495A	---	SE280495A	---
TRH C10-C14-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<50	<50	---	<50	---
TRH C15-C28-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<200	<200	---	<200	---
TRH C29-C36-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<200	<200	---	<200	---
TRH C37-C40-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<200	<200	---	<200	---
TRH >C10-C16-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<60	<60	---	<60	---
TRH >C16-C34-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<500	<500	---	<500	---
TRH >C34-C40-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<500	<500	---	<500	---
TRH Sum C10-C36-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<450	<225	---	<225	---
TRH Sum C10-C40-Silica	µg/L	** Subcontracted SGS Laboratories Australia	<650	<320	---	<320	---

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Notes:

- ** denotes NATA accreditation does not cover the performance of this service.
- .. denotes not requested, no data/information or no guidelines available.
- All services undertaken by EAL are covered by the EAL Laboratory Services Terms and Conditions (available on request or at scu.edu.au/eal).
- Analysis conducted between sample arrival date and reporting date.
- This report is not to be reproduced except in full.
- Results only relate to the item tested.
- Analysis performed according to APHA. 2017. Standard Methods for the Examination of Water & Wastewater, 23rd Edition. Except where stated otherwise.
- Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS).
- 1:3 Nitric/HCl digest analysed in accordance with APHA 3125 ICPMS.
- mg/L = ppm
- For conductivity 1 dS/m = 1 mS/cm = 1000 μ S/cm.