CERTIFICATE OF ANALYSIS

Work Order	: **EP2510092**	Page	: 1 of 4
Client	: **GASCOYNE WATER COOPERATIVE LTD**	Laboratory	: Environmental Division Perth
Contact	: Lisa Sweetman	Contact	: Customer Services EP
Address	: 50 BOUNDARY ROAD PO BOX 5 CARNARVON WESTERN AUSTRALIA, AUSTRALIA 6701	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: Retest - 3 sites June 2025	Date Samples Received	: 25-Jun-2025 14:15
Order number	: ----	Date Analysis Commenced	: 25-Jun-2025
C-O-C number	: ----	Issue Date	: 03-Jul-2025 09:45
Sampler	: Carnarvon Plumbing		
Site	: Town Sites		
Quote number	: EP24GASWAT0004		
No. of samples received	: 3		
No. of samples analysed	: 3		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Chris Lemaitre	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA
Daniel Fisher	Inorganics Analyst	Perth Inorganics, Wangara, WA
Jasmine Myintaye	Lab Technician	Perth Microbiology, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- MF = membrane filtration
- CFU = colony forming unit
- As per QWI – EN55-3 Data Interpreting Procedures, Ionic balances are typically calculated using Major Anions - Chloride, Alkalinity and Sulfate; and Major Cations - Calcium, Magnesium, Potassium and Sodium. Where applicable and dependent upon sample matrix, the Ionic Balance may also include the additional contribution of Ammonia, Dissolved Metals by ICPMS and H+ to the Cations and Nitrate, SiO2 and Fluoride to the Anions.
- MW006 is ALS's internal code and is equivalent to AS4276.5.
- MW006,MW007:Analysis Commenced:Date:25/6/25.Time:3:00PM.
- Microbiological Comment: In accordance with ALS work instruction QWI-MIC/04, membrane filtration result is reported an approximate (~) when the count of colonies on the filtered membrane is outside the range of 10 - 100cfu.
- MW007 is ALS's internal code and is equivalent to AS4276.5.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- ED045G: The presence of Thiocyanate, Thiosulfate and Sulfite can positively contribute to the chloride result, thereby may bias results higher than expected. Results should be scrutinised accordingly.

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	186 North River Road	23 McGlades Road	50 Boundary Road	----	----
				Sampling date / time	24-Jun-2025 13:46	24-Jun-2025 14:00	24-Jun-2025 14:22	----	----
Compound	CAS Number	LOR	Unit		EP2510092-001	EP2510092-002	EP2510092-003	--------	--------
					Result	Result	Result	----	----
EA005P: pH by PC Titrator									
pH Value	----	0.01	pH Unit		**7.86**	**7.76**	**7.85**	**----**	**----**
EA010P: Conductivity by PC Titrator									
Electrical Conductivity @ 25°C	----	1	µS/cm		**943**	**899**	**703**	**----**	**----**
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	<1	**----**	**----**
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	<1	**----**	**----**
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		**104**	**91**	**105**	**----**	**----**
Total Alkalinity as CaCO3	----	1	mg/L		**104**	**91**	**105**	**----**	**----**
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		**73**	**62**	**62**	**----**	**----**
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		**210**	**203**	**114**	**----**	**----**
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		**58**	**44**	**30**	**----**	**----**
Magnesium	7439-95-4	1	mg/L		**24**	**22**	**14**	**----**	**----**
Sodium	7440-23-5	1	mg/L		**89**	**99**	**92**	**----**	**----**
Potassium	7440-09-7	1	mg/L		**10**	**11**	**9**	**----**	**----**
ED093F: SAR and Hardness Calculations									
Total Hardness as CaCO3	----	1	mg/L		**244**	**200**	**132**	**----**	**----**
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	<0.01	<0.01	**----**	**----**
Arsenic	7440-38-2	0.001	mg/L		**0.001**	**0.001**	**0.002**	**----**	**----**
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	<0.0001	<0.0001	**----**	**----**
Copper	7440-50-8	0.001	mg/L		<0.001	<0.001	<0.001	**----**	**----**
Lead	7439-92-1	0.001	mg/L		<0.001	<0.001	<0.001	**----**	**----**
Manganese	7439-96-5	0.001	mg/L		<0.001	<0.001	<0.001	**----**	**----**
Molybdenum	7439-98-7	0.001	mg/L		**0.002**	**0.002**	**0.013**	**----**	**----**

Analytical Results

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				Sampling date / time	24-Jun-2025 13:46	24-Jun-2025 14:00	24-Jun-2025 14:22	----	----
Compound	CAS Number	LOR	Unit		EP2510092-001	EP2510092-002	EP2510092-003	--------	--------
					Result	Result	Result	----	----
EG020F: Dissolved Metals by ICP-MS - Continued									
Nickel	7440-02-0	0.001	mg/L		<0.001	<0.001	<0.001	----	----
Selenium	7782-49-2	0.01	mg/L		<0.01	<0.01	<0.01	----	----
Zinc	7440-66-6	0.005	mg/L		**0.009**	**0.014**	<0.005	----	----
Iron	7439-89-6	0.05	mg/L		<0.05	<0.05	<0.05	----	----
EG052G: Silica by Discrete Analyser									
Reactive Silica	----	0.05	mg/L		**46.9**	**48.1**	**38.4**	----	----
Reactive Silica as Silicon	----	0.05	mg/L		**21.9**	**22.5**	**18.0**	----	----
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L		**0.3**	**0.4**	**0.8**	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	<0.01	<0.01	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		**0.70**	**0.82**	**0.81**	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		**0.70**	**0.82**	**0.81**	----	----
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		**9.52**	**8.84**	**6.60**	----	----
ø Total Cations	----	0.01	meq/L		**9.00**	**8.59**	**6.88**	----	----
ø Ionic Balance	----	0.01	%		**2.84**	**1.38**	**2.05**	----	----
MW006: Faecal Coliforms & E.coli by MF									
Thermotolerant Coliforms	----	1	CFU/100mL		<1	<1	<1	----	----
Escherichia coli	----	1	CFU/100mL		<1	<1	<1	----	----
MW007: Coliforms by MF									
Coliforms	----	1	CFU/100mL		**35**	**~8**	**18**	----	----