



CERTIFICATE OF ANALYSIS with GUIDELINE COMPARISON

Work Order	: EP2616069	Page	: 1 of 11
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	: 3 Site Water Quality Testing		
Order number	: ----		
C-O-C number	: ----	No. of samples received	: 3
Site	: Town Sites	No. of samples analysed	: 3
Sampled by	: GWC	Issue Date	: 29-Sep-2026 15:42
Quote number	: EP2024GASWAT0004 (EP24GASWAT0004_V2)	Date Samples Received	: 23-Sep-2026 11:00

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. All pages of this report have been checked and approved for release. This document shall not be reproduced, except in full.



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

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)
Canhuang Ke	Inorganics Supervisor (Perth Inorganics, Wangara, WA)
Chris Lemaitre	Perth - State Manager (Perth Inorganics, Wangara, WA)
Efua Wilson	Metals Chemist (Perth Inorganics, Wangara, WA)
Vinitha Kesavan	Senior Microbiologist (Perth Microbiology, Wangara, WA)

right solutions. right partner.

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.

Where a result is required to meet compliance limits, the associated uncertainty **must be** considered. Refer to the ALS Contract [Terms and Conditions](#) for details, and EnviroMail 53 for a guide on how to interpret the measurement of uncertainty (MU).

Work Order Specific Comments

- 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.
- As per QWI-EN/55-3 Ionic Balance % is only reported when the anion sum exceeds or is equal to 3.0 meq/L. When the anion sum is less than 3.0 meq/L the acceptable difference is 0.2 meq/l and ionic balance % is not reported.
- MW006 and MW007:Analysis Commenced:Date:23/09/2026.Time:2:45PM.
- EG020: It is recognised that total Boron concentration is less than dissolved for samples EP2616069-001 and -003. However, the difference is within experimental variation of the methods.
- 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

Irrigation and General Water Use Long-term Trigger Values (Primary Industries, ANZECC 2000)

Sub-Matrix: WATER

Sub-Matrix: WATER				Sample ID		186 North River Road		Long-term Trigger Values (LTV) in Irrigation Water (Long-term use - up to 100 years)		
				Laboratory sample ID		EP2616069001				
				Sampling date / time		22-Sep-2026 13:50				
Parameter	CAS Number	LOR	Unit	Result	MU	Low	High	Unit		
ED045G: Chloride by Discrete Analyser										
Chloride	16887-00-6	1	mg/L	114	± 9	----	25	mg/L		
ED093F: Dissolved Major Cations										
Sodium	7440-23-5	1	mg/L	76	± 8	----	115	mg/L		
EG020F: Dissolved Metals by ICP-MS										
Aluminium	7429-90-5	0.01	mg/L	<0.01	--	----	5	mg/L		
Arsenic	7440-38-2	0.001	mg/L	0.002	± 0.004	----	0.1	mg/L		
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	--	----	0.01	mg/L		
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	0.2	mg/L		
Lead	7439-92-1	0.001	mg/L	<0.001	--	----	2	mg/L		
Manganese	7439-96-5	0.001	mg/L	<0.001	--	----	0.2	mg/L		
Molybdenum	7439-98-7	0.001	mg/L	0.007	± 0.0009	----	0.01	mg/L		
Nickel	7440-02-0	0.001	mg/L	<0.001	--	----	0.2	mg/L		
Selenium	7782-49-2	0.004	mg/L	<0.004	--	----	0.02	mg/L		
Zinc	7440-66-6	0.005	mg/L	<0.005	--	----	2	mg/L		
Boron	7440-42-8	0.05	mg/L	0.37	± 0.07	----	0.5	mg/L		
Iron	7439-89-6	0.05	mg/L	<0.05	--	----	0.2	mg/L		
EG020T: Total Metals by ICP-MS										
Aluminium	7429-90-5	0.01	mg/L	<0.01	--	----	5	mg/L		
Arsenic	7440-38-2	0.001	mg/L	0.002	± 0.0002	----	0.1	mg/L		



Analytical Results

Irrigation and General Water Use Long-term Trigger Values (Primary Industries, ANZECC 2000)

Sub-Matrix: WATER

Sub-Matrix: WATER				Sample ID	186 North River Road		Long-term Trigger Values (LTV) in Irrigation Water (Long-term use - up to 100 years)		
				Laboratory sample ID	EP2616069001				
				Sampling date / time	22-Sep-2026 13:50				
Parameter	CAS Number	LOR	Unit	Result	MU	Low	High	Unit	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001		----	0.01	mg/L	
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	0.2	mg/L	
Lead	7439-92-1	0.001	mg/L	<0.001	--	----	2	mg/L	
Manganese	7439-96-5	0.001	mg/L	0.002	± 0.0002	----	0.2	mg/L	
Molybdenum	7439-98-7	0.001	mg/L	0.008		----	0.01	mg/L	
Nickel	7440-02-0	0.001	mg/L	<0.001	--	----	0.2	mg/L	
Selenium	7782-49-2	0.004	mg/L	<0.004	--	----	0.02	mg/L	
Zinc	7440-66-6	0.005	mg/L	<0.005	--	----	2	mg/L	
Boron	7440-42-8	0.05	mg/L	0.35	± 0.04	----	0.5	mg/L	
Iron	7439-89-6	0.05	mg/L	<0.05		----	0.2	mg/L	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	0.5		----	1	mg/L	

Aesthetic guideline values

Sub-Matrix: WATER

Sub-Matrix: WATER				Sample ID	186 North River Road		Aesthetic Guideline Limits - ADWG 2011 (Version 4.0, June 2025)		
				Laboratory sample ID	EP2616069001				
				Sampling date / time	22-Sep-2026 13:50				
Parameter	CAS Number	LOR	Unit	Result	MU	Low	High	Unit	
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L	114	± 9	----	250	mg/L	
ED093F: Dissolved Major Cations									
Sodium	7440-23-5	1	mg/L	76	± 8	----	180	mg/L	
ED093F: SAR and Hardness Calculations									
Total Hardness as CaCO3	----	1	mg/L	152		----	200	mg/L	
EG020F: Dissolved Metals by ICP-MS									
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	1	mg/L	
Manganese	7439-96-5	0.001	mg/L	<0.001	--	----	0.05	mg/L	
Zinc	7440-66-6	0.005	mg/L	<0.005	--	----	3	mg/L	
Iron	7439-89-6	0.05	mg/L	<0.05	--	----	0.3	mg/L	
EG020T: Total Metals by ICP-MS									
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	1	mg/L	
Manganese	7439-96-5	0.001	mg/L	0.002	± 0.0002	----	0.05	mg/L	
Zinc	7440-66-6	0.005	mg/L	<0.005	--	----	3	mg/L	
Iron	7439-89-6	0.05	mg/L	<0.05		----	0.3	mg/L	



Analytical Results

Health based guideline values

Sub-Matrix: WATER

Sub-Matrix: WATER				Sample ID	186 North River Road		Health Guideline Limits - ADWG 2011 (Version 4.0, June 2025)		
				Laboratory sample ID	EP2616069001				
				Sampling date / time	22-Sep-2026 13:50				
Parameter	CAS Number	LOR	Unit	Result	MU	Low	High	Unit	
EG020F: Dissolved Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L	0.002	± 0.004	----	0.01	mg/L	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	--	----	0.002	mg/L	
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	2	mg/L	
Lead	7439-92-1	0.001	mg/L	<0.001	--	----	0.005	mg/L	
Manganese	7439-96-5	0.001	mg/L	<0.001	--	----	0.1	mg/L	
Molybdenum	7439-98-7	0.001	mg/L	0.007	± 0.0009	----	0.05	mg/L	
Nickel	7440-02-0	0.001	mg/L	<0.001	--	----	0.02	mg/L	
Selenium	7782-49-2	0.004	mg/L	<0.004	--	----	0.004	mg/L	
Boron	7440-42-8	0.05	mg/L	0.37	± 0.07	----	4	mg/L	
EG020T: Total Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L	0.002	± 0.0002	----	0.01	mg/L	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001		----	0.002	mg/L	
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	2	mg/L	
Lead	7439-92-1	0.001	mg/L	<0.001	--	----	0.005	mg/L	
Manganese	7439-96-5	0.001	mg/L	0.002	± 0.0002	----	0.1	mg/L	
Molybdenum	7439-98-7	0.001	mg/L	0.008		----	0.05	mg/L	
Nickel	7440-02-0	0.001	mg/L	<0.001	--	----	0.02	mg/L	
Selenium	7782-49-2	0.004	mg/L	<0.004	--	----	0.004	mg/L	
Boron	7440-42-8	0.05	mg/L	0.35	± 0.04	----	4	mg/L	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	0.5		----	1.5	mg/L	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	--	----	0.913	mg/L	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	0.92		----	11.3	mg/L	
MW006: Faecal Coliforms & E.coli by MF									
Thermotolerant Coliforms	----	1	CFU/100mL	<1		----	1	CFU/100mL	
Escherichia coli	----	1	CFU/100mL	<1		----	1	CFU/100mL	

Microbiology

Sub-Matrix: WATER

Sub-Matrix: WATER				Sample ID	186 North River Road		Microbiology		
				Laboratory sample ID	EP2616069001				
				Sampling date / time	22-Sep-2026 13:50				
Parameter	CAS Number	LOR	Unit	Result	MU	Low	High	Unit	
MW006: Faecal Coliforms & E.coli by MF									
Escherichia coli	----	1	CFU/100mL	<1		----	1	CFU/100mL	
MW007: Coliforms by MF									
Coliforms	----	1	CFU/100mL	<1		----	1	CFU/100mL	



Analytical Results

Sub-Matrix: WATER

				Sample ID	186 North River Road	Guideline comparison not requested for sample		
				Laboratory sample ID	EP2616069001			
				Sampling date / time	22-Sep-2026 13:50			
Parameter	CAS Number	LOR	----	Result	MU	----	----	----
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	678		----	----	----
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	----	1	mg/L	<1		----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1		----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	106		----	----	----
Total Alkalinity as CaCO3	----	1	mg/L	106	± 16	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	45	± 4	----	----	----
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	33	± 3	----	----	----
Magnesium	7439-95-4	1	mg/L	17	± 1	----	----	----
Potassium	7440-09-7	1	mg/L	9	± 0.6	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	----	0.01	mg/L	0.92	± 0.05	----	----	----
EN055: Ionic Balance								
∅ Total Anions	----	0.01	meq/L	6.27		----	----	----
∅ Total Cations	----	0.01	meq/L	6.58		----	----	----
∅ Ionic Balance	----	0.01	%	2.42		----	----	----



Analytical Results

Irrigation and General Water Use Long-term Trigger Values (Primary Industries, ANZECC 2000)

Sub-Matrix: WATER

Sub-Matrix: WATER				Sample ID		23 McGlades Road		Long-term Trigger Values (LTV) in Irrigation Water (Long-term use - up to 100 years)		
				Laboratory sample ID		EP2616069002				
				Sampling date / time		22-Sep-2026 14:10				
Parameter	CAS Number	LOR	Unit	Result	MU	Low	High	Unit		
ED045G: Chloride by Discrete Analyser										
Chloride	16887-00-6	1	mg/L	187	± 15	----	25	mg/L		
ED093F: Dissolved Major Cations										
Sodium	7440-23-5	1	mg/L	95	± 9	----	115	mg/L		
EG020F: Dissolved Metals by ICP-MS										
Aluminium	7429-90-5	0.01	mg/L	<0.01	--	----	5	mg/L		
Arsenic	7440-38-2	0.001	mg/L	0.001	± 0.004	----	0.1	mg/L		
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	--	----	0.01	mg/L		
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	0.2	mg/L		
Lead	7439-92-1	0.001	mg/L	<0.001	--	----	2	mg/L		
Manganese	7439-96-5	0.001	mg/L	<0.001	--	----	0.2	mg/L		
Molybdenum	7439-98-7	0.001	mg/L	0.002	± 0.0003	----	0.01	mg/L		
Nickel	7440-02-0	0.001	mg/L	<0.001	--	----	0.2	mg/L		
Selenium	7782-49-2	0.004	mg/L	<0.004	--	----	0.02	mg/L		
Zinc	7440-66-6	0.005	mg/L	<0.005	--	----	2	mg/L		
Boron	7440-42-8	0.05	mg/L	0.28	± 0.06	----	0.5	mg/L		
Iron	7439-89-6	0.05	mg/L	<0.05	--	----	0.2	mg/L		
EG020T: Total Metals by ICP-MS										
Aluminium	7429-90-5	0.01	mg/L	<0.01	--	----	5	mg/L		
Arsenic	7440-38-2	0.001	mg/L	0.001	± 0.0002	----	0.1	mg/L		
Cadmium	7440-43-9	0.0001	mg/L	<0.0001		----	0.01	mg/L		
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	0.2	mg/L		
Lead	7439-92-1	0.001	mg/L	<0.001	--	----	2	mg/L		
Manganese	7439-96-5	0.001	mg/L	<0.001	--	----	0.2	mg/L		
Molybdenum	7439-98-7	0.001	mg/L	0.002		----	0.01	mg/L		
Nickel	7440-02-0	0.001	mg/L	<0.001	--	----	0.2	mg/L		
Selenium	7782-49-2	0.004	mg/L	<0.004	--	----	0.02	mg/L		
Zinc	7440-66-6	0.005	mg/L	<0.005	--	----	2	mg/L		
Boron	7440-42-8	0.05	mg/L	0.29	± 0.04	----	0.5	mg/L		
Iron	7439-89-6	0.05	mg/L	<0.05		----	0.2	mg/L		
EK040P: Fluoride by PC Titrator										
Fluoride	16984-48-8	0.1	mg/L	0.3		----	1	mg/L		



Analytical Results

Aesthetic guideline values

Sub-Matrix: WATER

Sub-Matrix: WATER				Sample ID	23 McGlades Road		Aesthetic Guideline Limits - ADWG 2011 (Version 4.0, June 2025)		
				Laboratory sample ID	EP2616069002				
				Sampling date / time	22-Sep-2026 14:10				
Parameter	CAS Number	LOR	Unit	Result	MU	Low	High	Unit	
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L	187	± 15	----	250	mg/L	
ED093F: Dissolved Major Cations									
Sodium	7440-23-5	1	mg/L	95	± 9	----	180	mg/L	
ED093F: SAR and Hardness Calculations									
Total Hardness as CaCO3	----	1	mg/L	201		----	200	mg/L	
EG020F: Dissolved Metals by ICP-MS									
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	1	mg/L	
Manganese	7439-96-5	0.001	mg/L	<0.001	--	----	0.05	mg/L	
Zinc	7440-66-6	0.005	mg/L	<0.005	--	----	3	mg/L	
Iron	7439-89-6	0.05	mg/L	<0.05	--	----	0.3	mg/L	
EG020T: Total Metals by ICP-MS									
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	1	mg/L	
Manganese	7439-96-5	0.001	mg/L	<0.001	--	----	0.05	mg/L	
Zinc	7440-66-6	0.005	mg/L	<0.005	--	----	3	mg/L	
Iron	7439-89-6	0.05	mg/L	<0.05		----	0.3	mg/L	

Health based guideline values

Sub-Matrix: WATER

Sub-Matrix: WATER				Sample ID	23 McGlades Road		Health Guideline Limits - ADWG 2011 (Version 4.0, June 2025)		
				Laboratory sample ID	EP2616069002				
				Sampling date / time	22-Sep-2026 14:10				
Parameter	CAS Number	LOR	Unit	Result	MU	Low	High	Unit	
EG020F: Dissolved Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L	0.001	± 0.004	----	0.01	mg/L	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	--	----	0.002	mg/L	
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	2	mg/L	
Lead	7439-92-1	0.001	mg/L	<0.001	--	----	0.005	mg/L	
Manganese	7439-96-5	0.001	mg/L	<0.001	--	----	0.1	mg/L	
Molybdenum	7439-98-7	0.001	mg/L	0.002	± 0.0003	----	0.05	mg/L	
Nickel	7440-02-0	0.001	mg/L	<0.001	--	----	0.02	mg/L	
Selenium	7782-49-2	0.004	mg/L	<0.004	--	----	0.004	mg/L	
Boron	7440-42-8	0.05	mg/L	0.28	± 0.06	----	4	mg/L	
EG020T: Total Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L	0.001	± 0.0002	----	0.01	mg/L	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001		----	0.002	mg/L	
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	2	mg/L	
Lead	7439-92-1	0.001	mg/L	<0.001	--	----	0.005	mg/L	
Manganese	7439-96-5	0.001	mg/L	<0.001	--	----	0.1	mg/L	
Molybdenum	7439-98-7	0.001	mg/L	0.002		----	0.05	mg/L	
Nickel	7440-02-0	0.001	mg/L	<0.001	--	----	0.02	mg/L	
Selenium	7782-49-2	0.004	mg/L	<0.004	--	----	0.004	mg/L	
Boron	7440-42-8	0.05	mg/L	0.29	± 0.04	----	4	mg/L	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	0.3		----	1.5	mg/L	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	--	----	0.913	mg/L	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	0.90		----	11.3	mg/L	
MW006: Faecal Coliforms & E.coli by MF									
Thermotolerant Coliforms	----	1	CFU/100mL	~4		----	1	CFU/100mL	
Escherichia coli	----	1	CFU/100mL	<1		----	1	CFU/100mL	



Analytical Results

Microbiology

Sub-Matrix: WATER

				Sample ID	23 McGlades Road	Microbiology		
				Laboratory sample ID	EP2616069002			
				Sampling date / time	22-Sep-2026 14:10			
Parameter	CAS Number	LOR	Unit	Result	MU	Low	High	Unit
MW006: Faecal Coliforms & E.coli by MF								
Escherichia coli	----	1	CFU/100mL	<1		----	1	CFU/100mL
MW007: Coliforms by MF								
Coliforms	----	1	CFU/100mL	~5		----	1	CFU/100mL

Sub-Matrix: WATER

				Sample ID	23 McGlades Road	Guideline comparison not requested for sample		
				Laboratory sample ID	EP2616069002			
				Sampling date / time	22-Sep-2026 14:10			
Parameter	CAS Number	LOR	Unit	Result	MU	Low	High	Unit
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	880		----	----	----
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	----	1	mg/L	<1		----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1		----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	99		----	----	----
Total Alkalinity as CaCO3	----	1	mg/L	99	± 15	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	64	± 6	----	----	----
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	46	± 4	----	----	----
Magnesium	7439-95-4	1	mg/L	21	± 2	----	----	----
Potassium	7440-09-7	1	mg/L	9	± 0.7	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	----	0.01	mg/L	0.90	± 0.05	----	----	----
EN055: Ionic Balance								
∅ Total Anions	----	0.01	meq/L	8.59		----	----	----
∅ Total Cations	----	0.01	meq/L	8.39		----	----	----
∅ Ionic Balance	----	0.01	%	1.17		----	----	----



Analytical Results

Irrigation and General Water Use Long-term Trigger Values (Primary Industries, ANZECC 2000)

Sub-Matrix: WATER

				Sample ID		Long-term Trigger Values (LTV) in Irrigation Water (Long-term use - up to 100 years)		
				50 Boundary road				
				EP2616069003				
				22-Sep-2026 14:30				
Parameter	CAS Number	LOR	Unit	Result	MU	Low	High	Unit
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	106	± 9	----	25	mg/L
ED093F: Dissolved Major Cations								
Sodium	7440-23-5	1	mg/L	74	± 7	----	115	mg/L
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	<0.01	--	----	5	mg/L
Arsenic	7440-38-2	0.001	mg/L	0.002	± 0.004	----	0.1	mg/L
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	--	----	0.01	mg/L
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	0.2	mg/L
Lead	7439-92-1	0.001	mg/L	<0.001	--	----	2	mg/L
Manganese	7439-96-5	0.001	mg/L	<0.001	--	----	0.2	mg/L
Molybdenum	7439-98-7	0.001	mg/L	0.006	± 0.0008	----	0.01	mg/L
Nickel	7440-02-0	0.001	mg/L	<0.001	--	----	0.2	mg/L
Selenium	7782-49-2	0.004	mg/L	<0.004	--	----	0.02	mg/L
Zinc	7440-66-6	0.005	mg/L	<0.005	--	----	2	mg/L
Boron	7440-42-8	0.05	mg/L	0.36	± 0.07	----	0.5	mg/L
Iron	7439-89-6	0.05	mg/L	<0.05	--	----	0.2	mg/L
EG020T: Total Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	<0.01	--	----	5	mg/L
Arsenic	7440-38-2	0.001	mg/L	0.003	± 0.0002	----	0.1	mg/L
Cadmium	7440-43-9	0.0001	mg/L	<0.0001		----	0.01	mg/L
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	0.2	mg/L
Lead	7439-92-1	0.001	mg/L	<0.001	--	----	2	mg/L
Manganese	7439-96-5	0.001	mg/L	<0.001	--	----	0.2	mg/L
Molybdenum	7439-98-7	0.001	mg/L	0.007		----	0.01	mg/L
Nickel	7440-02-0	0.001	mg/L	<0.001	--	----	0.2	mg/L
Selenium	7782-49-2	0.004	mg/L	<0.004	--	----	0.02	mg/L
Zinc	7440-66-6	0.005	mg/L	<0.005	--	----	2	mg/L
Boron	7440-42-8	0.05	mg/L	0.32	± 0.04	----	0.5	mg/L
Iron	7439-89-6	0.05	mg/L	<0.05		----	0.2	mg/L
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	0.5		----	1	mg/L



Analytical Results

Aesthetic guideline values

Sub-Matrix: WATER

Sub-Matrix: WATER				Sample ID	50 Boundary road		Aesthetic Guideline Limits - ADWG 2011 (Version 4.0, June 2025)		
				Laboratory sample ID	EP2616069003				
				Sampling date / time	22-Sep-2026 14:30				
Parameter	CAS Number	LOR	Unit	Result	MU	Low	High	Unit	
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L	106	± 9	----	250	mg/L	
ED093F: Dissolved Major Cations									
Sodium	7440-23-5	1	mg/L	74	± 7	----	180	mg/L	
ED093F: SAR and Hardness Calculations									
Total Hardness as CaCO3	----	1	mg/L	134		----	200	mg/L	
EG020F: Dissolved Metals by ICP-MS									
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	1	mg/L	
Manganese	7439-96-5	0.001	mg/L	<0.001	--	----	0.05	mg/L	
Zinc	7440-66-6	0.005	mg/L	<0.005	--	----	3	mg/L	
Iron	7439-89-6	0.05	mg/L	<0.05	--	----	0.3	mg/L	
EG020T: Total Metals by ICP-MS									
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	1	mg/L	
Manganese	7439-96-5	0.001	mg/L	<0.001	--	----	0.05	mg/L	
Zinc	7440-66-6	0.005	mg/L	<0.005	--	----	3	mg/L	
Iron	7439-89-6	0.05	mg/L	<0.05		----	0.3	mg/L	

Health based guideline values

Sub-Matrix: WATER

Sub-Matrix: WATER				Sample ID	50 Boundary road		Health Guideline Limits - ADWG 2011 (Version 4.0, June 2025)		
				Laboratory sample ID	EP2616069003				
				Sampling date / time	22-Sep-2026 14:30				
Parameter	CAS Number	LOR	Unit	Result	MU	Low	High	Unit	
EG020F: Dissolved Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L	0.002	± 0.004	----	0.01	mg/L	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	--	----	0.002	mg/L	
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	2	mg/L	
Lead	7439-92-1	0.001	mg/L	<0.001	--	----	0.005	mg/L	
Manganese	7439-96-5	0.001	mg/L	<0.001	--	----	0.1	mg/L	
Molybdenum	7439-98-7	0.001	mg/L	0.006	± 0.0008	----	0.05	mg/L	
Nickel	7440-02-0	0.001	mg/L	<0.001	--	----	0.02	mg/L	
Selenium	7782-49-2	0.004	mg/L	<0.004	--	----	0.004	mg/L	
Boron	7440-42-8	0.05	mg/L	0.36	± 0.07	----	4	mg/L	
EG020T: Total Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L	0.003	± 0.0002	----	0.01	mg/L	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001		----	0.002	mg/L	
Copper	7440-50-8	0.001	mg/L	<0.001	--	----	2	mg/L	
Lead	7439-92-1	0.001	mg/L	<0.001	--	----	0.005	mg/L	
Manganese	7439-96-5	0.001	mg/L	<0.001	--	----	0.1	mg/L	
Molybdenum	7439-98-7	0.001	mg/L	0.007		----	0.05	mg/L	
Nickel	7440-02-0	0.001	mg/L	<0.001	--	----	0.02	mg/L	
Selenium	7782-49-2	0.004	mg/L	<0.004	--	----	0.004	mg/L	
Boron	7440-42-8	0.05	mg/L	0.32	± 0.04	----	4	mg/L	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	0.5		----	1.5	mg/L	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	--	----	0.913	mg/L	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	0.93		----	11.3	mg/L	
MW006: Faecal Coliforms & E.coli by MF									
Thermotolerant Coliforms	----	1	CFU/100mL	<1		----	1	CFU/100mL	
Escherichia coli	----	1	CFU/100mL	<1		----	1	CFU/100mL	



Analytical Results

Microbiology

Sub-Matrix: WATER

				Sample ID	50 Boundary road	Microbiology		
				Laboratory sample ID	EP2616069003			
				Sampling date / time	22-Sep-2026 14:30			
Parameter	CAS Number	LOR	Unit	Result	MU	Low	High	Unit
MW006: Faecal Coliforms & E.coli by MF								
Escherichia coli	----	1	CFU/100mL	<1		----	1	CFU/100mL
MW007: Coliforms by MF								
Coliforms	----	1	CFU/100mL	~1		----	1	CFU/100mL

Sub-Matrix: WATER

				Sample ID	50 Boundary road	Guideline comparison not requested for sample		
				Laboratory sample ID	EP2616069003			
				Sampling date / time	22-Sep-2026 14:30			
Parameter	CAS Number	LOR	Unit	Result	MU			
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	641		----	----	----
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	----	1	mg/L	<1		----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1		----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	91		----	----	----
Total Alkalinity as CaCO3	----	1	mg/L	91	± 14	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	53	± 5	----	----	----
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	29	± 3	----	----	----
Magnesium	7439-95-4	1	mg/L	15	± 1	----	----	----
Potassium	7440-09-7	1	mg/L	9	± 0.6	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	----	0.01	mg/L	0.93	± 0.05	----	----	----
EN055: Ionic Balance								
∅ Total Anions	----	0.01	meq/L	5.91		----	----	----
∅ Total Cations	----	0.01	meq/L	6.13		----	----	----
∅ Ionic Balance	----	0.01	%	1.82		----	----	----

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
~ = Indicates an estimated value.
∅ = ALS is not NATA accredited for these tests.