

DATE OF ISSUE: 20/11/23

REPORT NO: WN232330


Water Analysis Report

REPORT NO:	WN232330	ISSUE DATE:	20/11/23
DATE SAMPLES RECEIVED:	7/11/23	PURCHASE ORDER:	
SAMPLES RECEIVED:	9	COMMENT:	Results relate only to items tested.

SUBMITTER:	David Cash
COMPANY:	Richmond Valley Council
ADDRESS:	Locked Bag 10 CASINO NSW 2470,

METHOD ID	ANALYSIS METHOD
W107	EC, pH, Alkalinity & Chloride in water by autotitrator
C806	Calculations **
W112	Turbidity of water
W111	Determination of True and Apparent Colour in Water
W125	Anions in Water and Aqueous Extracts by Ion Chromatography
W141	Ammonia Nitrogen by FIA
W151	Nitrite Nitrogen by FIA
W153	Oxidised Nitrogen by FIA
M670	Elements and Metals by ICP-AES
C804	Hardness
M671	Elements and Metals by ICP-MS

REPORT AUTHORISATION

Approved for Release by: 
Steven Leahy
Chemist



Accreditation No. 14173
Accredited for compliance
with ISO/IEC 17025 - Testing



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ANALYSIS RESULTS			1	2	3	4	5	6
Test Description	LOR	UNITS	Woodburn Park Wharf	Rileys Hill Communit	Broadwater Community	Evans Head High Scho	Evans Head High Zone	Coraki Memorial Pk
Date Sampled		Date	7/11/2023	7/11/2023	7/11/2023	7/11/2023	7/11/2023	7/11/2023
Sampled By			MW	MW	MW	MW	MW	MW
Time Sampled		Time	7:30 AM	7:45 AM	8:00 AM	8:25 AM	8:40 AM	10:50 AM
Field Total Chlorine**	0.05	mg/L	0.67	0.71	0.81	0.73	0.24	0.59
Field Free Chlorine**	0.05	mg/L	0.61	0.60	0.59	0.46	0.20	0.42
Field pH**	1	pH units	7.6	7.6	7.6	7.9	7.8	8.3
Field Temperature**	1	°C	20.8	21.5	19.9	22.8	23.4	23.4
Field Electrical Conductivity**	10	µS/cm	210	210	200	210	200	230
Field TDS from Field EC	6	mg/L	140	140	140	140	140	150
Field Turbidity**	0.07	NTU	0.29	0.19	0.20	0.22	0.22	0.16
Field Dissolved Oxygen** in %	1	%	97	99	94	95	96	98
Alkalinity	14	mg/L CaCO ₃	78	73	73	72	78	72
True Colour	1	CU	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	0.5	mg/L	15	15	15	15	15	16
Sulfate	0.5	mg/L	1.3	1.3	1.3	1.5	1.5	1.7
Ammonium Nitrogen	0.02	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nitrite Nitrogen	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nitrate Nitrogen	0.02	mg/L	0.065	0.066	0.070	0.071	0.068	0.095
Dissolved Sodium	0.05	mg/L	9.8	12	10	12	12	9.8
Hardness	1.0	mg/L CaCO ₃	53	64	55	66	65	52
Calcium	0.03	mg/L	20	24	21	25	25	19
Magnesium	0.006	mg/L	0.66	0.91	0.79	0.77	0.79	0.87
Total Boron	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Aluminium	0.001	mg/L	0.010	0.0098	0.011	0.010	0.011	0.0079
Total Arsenic	0.0005	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Total Cadmium	0.0001	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Total Chromium	0.0005	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Total Copper	0.0005	mg/L	0.066	0.018	0.0057	0.014	0.0055	0.021
Total Iron	0.005	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0059
Total Manganese	0.0005	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Total Nickel	0.0005	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Total Lead	0.0005	mg/L	0.00059	<0.00050	<0.00050	<0.00050	<0.00050	0.00066
Total Antimony	0.0005	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Total Selenium	0.0005	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Total Zinc	0.001	mg/L	0.0088	0.0022	0.0021	0.0016	0.0066	0.0055

ANALYSIS RESULTS					
Test Description	LOR	UNITS	7 Casino Council Depot	8 Casino North Reservoir	9 Casino Walker St
Date Sampled		Date	7/11/2023	7/11/2023	7/11/2023
Sampled By			MW	MW	MW
Time Sampled		Time	12:20 PM	11:45 AM	11:25 AM
Field Total Chlorine**	0.05	mg/L	0.54	1.4	1.2
Field Free Chlorine**	0.05	mg/L	0.39	1.2	0.90
Field pH**	1	pH units	7.9	8.1	8.0
Field Temperature**	1	°C	23.4	22.1	23.3
Field Electrical Conductivity**	10	µS/cm	420	380	400
Field TDS from Field EC	6	mg/L	280	250	270
Field Turbidity**	0.07	NTU	0.21	0.22	0.25

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ANALYSIS RESULTS					
			7	8	9
Test Description	LOR	UNITS	Casino Council Depot	Casino North Reservoir	Casino Walker St
Field Dissolved Oxygen** in %	1	%	93	94	94
Alkalinity	14	mg/L CaCO ₃	130	120	120
True Colour	1	CU	<1.0	<1.0	<1.0
Chloride	0.5	mg/L	40	37	38
Sulfate	0.5	mg/L	23	23	23
Ammonium Nitrogen	0.02	mg/L	<0.02	<0.02	<0.02
Nitrite Nitrogen	0.01	mg/L	<0.01	<0.01	<0.01
Nitrate Nitrogen	0.02	mg/L	0.024	<0.020	<0.020
Dissolved Sodium	0.05	mg/L	29	27	36
Hardness	1.0	mg/L CaCO ₃	110	95	120
Calcium	0.03	mg/L	23	20	25
Magnesium	0.006	mg/L	12	11	14
Total Boron	0.05	mg/L	<0.05	<0.05	<0.05
Total Aluminium	0.001	mg/L	0.030	0.038	0.034
Total Arsenic	0.0005	mg/L	<0.00050	<0.00050	<0.00050
Total Cadmium	0.0001	mg/L	<0.00010	<0.00010	<0.00010
Total Chromium	0.0005	mg/L	<0.00050	<0.00050	<0.00050
Total Copper	0.0005	mg/L	0.014	0.0051	0.074
Total Iron	0.005	mg/L	0.0051	<0.0050	<0.0050
Total Manganese	0.0005	mg/L	0.00078	0.0028	0.0013
Total Nickel	0.0005	mg/L	<0.00050	0.00059	0.00054
Total Lead	0.0005	mg/L	<0.00050	<0.00050	0.00093
Total Antimony	0.0005	mg/L	<0.00050	<0.00050	<0.00050
Total Selenium	0.0005	mg/L	<0.00050	<0.00050	<0.00050
Total Zinc	0.001	mg/L	0.0010	<0.0010	0.011

LABORATORY NOTES

****NATA Accreditation does not cover the performances of this service.**

As requested, testing for Mercury, THM, Carbon Tetrachloride will be performed by Envirolab, and testing for H₂S will be performed by ALS.

- Analysis is conducted within the date received and the date the report is finalised.
- Results are expressed on an 'as received' basis unless otherwise stated.
- This report should not be reproduced except in full.
- Samples will be retained for one calendar month from the date of the final report and then discarded.
- Clients wishing to recover their samples must contact the laboratory within this period.
- Sample return is at the clients expense.
- Results for elements analysed by ICP are reported in mg/L for ICP-OES and low level analysis in ug/L for ICP-MS