



Directorate: Utility Services
Department: Water & Sanitation

Scientific Services

**WATER QUALITY MONITORING OF RIVERS AND WETLANDS:
CHEMICAL ANALYSIS REPORT**

Sampled Date: 23 August 2016

RONDEVLEI

Determinand	Units	RVIRD	RVWEIR
Temperature*	°C	15.0	14.3
Dissolved Oxygen*	mg/l O	7.51	6.85
Oxygen Saturation*	%	74	67
Total Suspended Solids	mg/l	8	9
pH @ 25 °C	-	7.8	7.9
Conductivity @ 25 °C	mS/m	45	78
COD	mg/l O	42	45
Total Nitrogen*	mg/l N	1.126	0.972
Soluble Ammonia*	mg/l N	0.045	0.068
Un-ionised Ammonia*	mg/l N	0.001	0.002
Soluble Nitrite +	mg/l N	0.337	<0.050
Total Phosphorus*	mg/l P	0.091	0.189
Orthophosphate*	mg/l P	0.014	0.185

Sampling Point Key

RVIRD - Italian Road canal leading to Rondevlei

RVWEIR - Rondevlei weir

Weather:

COMMENTS:

COD = Chemical Oxygen Demand

Un-ionised Ammonia: Calculated using the measured soluble ammonia, temperature, pH and conductivity values. A value of 0.000 means that the un-ionised ammonia concentration is <0.004 mg/l N. DWAF Target Water Quality Range =<0.007 mg/l N.

Technical Signatory:

Name: Ismail Halday

Signature:

Laboratory Head: Analytical Laboratory:

Name: Swastika Surujlal-Naicker

Signature:

(In absence Deputy signature)

APPENDIX 1: TEST METHODS

Parameter	Test Method	Uncertainty of Measurement (Worst case UoM for a confidence level of 95%)
Turbidity	MM/WL_TM/03	7%
pH @ 25°C	MM/CCH_TM/01	12%
Conductivity @ 25°C	MM/CCH_TM/02	17%
Chemical Oxygen Demand	MM/AL_TM/01	11%
Total Suspended Solids @ 105°C	MM/CCH_TM/21	11%
Chloride	ISO 15682	See Note 5
Nitrite	ISO 10304	See Note 5
Nitrate & Nitrite	ISO 13395	See Note 5
Free Chlorine	ISO 7393	See Note 5
Alkalinity	ISO 9963	See Note 5
Ammonia	ISO 5664	See Note 5
Biological Oxygen Demand	ISO 5815	See Note 5
Colour	ISO 7887	See Note 5
Cyanide	ISO 6703	See Note 5
Fluoride	ISO 10359	See Note 5
ICP-MS for Metals	ISO 17294	See Note 5
ICP-OES for Metals	ISO 11885	See Note 5
Phenols	ISO 14402	See Note 5
Silica	ISO 16264	See Note 5
Sulphate	ISO 22743	See Note 5
Sulphide	ISO 33358	See Note 5
Total Kjeldahl Nitrogen	ISO 5663	See Note 5
Total & Ortho Phosphate	ISO 15681	See Note 5
Total Persulfate Oxidizable Nitrogen	ISO 11905	See Note 5
Total Organic Carbon	ISO 8245	See Note 5

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