GEOSCIENCE TESTING LABORATORY (PTY)LTD
CIVIL ENGINEERING MATERIALS LABORATORY
Reg. No.2022/794178/07

Deliveries: 3 Brand Street, Westering, Port Elizabeth, 6001
PO Box 27067, Greenacres, PE, 6057
Tel: +27 (0)41 487-3130 • Fax: +27 (0)41 487-3160
E-mail: civil@geosciencelab.co.za

CLIENT :	Lower Sundays River Water User Association	**PROJECT:**	Quarterly Water Sampling
		JOB CARD :	TET2656
		DATE SAMPLED :	20.03.2025
		DATE DELIVERED:	20.03.2025
DATE TESTED:	24.03.2025	**DATE COMPLETED:**	26.03.2025
		DATE REPORTED:	24.04.2025
ATT :	Christo Jonker	**SAMPLED BY:**	Client
		SAMPLING PROCEDURE:	N/A

LABORATORY ANALYTICAL REPORT

Parameter	Units	Method Reference / Method No	Limits SANS 241:2015	SANS 241 RISK CLASS	Sample No:	Sample No:	Sample No:	Sample No:
					WL9080	WL9081	WL9082	WL9083
					Sample ID:	Sample ID:	Sample ID:	Sample ID:
					Manager's House	Koraans drift	Scheeper's Vlakte	Caesars Dam
Electrical Conductivity	mS/m	SANS 7888	≤ 170	Aesthetic	54.20	44.30	43.7	54.9
pH @ 25 °C	pH units	SANS 5011:2005	≥ 5 and ≤ 9.7	Operational	8.27	8.49	8.57	8.87
Turbidity	NTU	APHA 2130	Operational ≤ 1 Aesthetic ≤ 5	Operational ≤ 1 Aesthetic ≤ 5	2.61	201.00	239.0	38.2
Colour *	Pt-Co Units	Hach 8025	≤ 15	Aesthetic	<5	<5	<5	<5
Sodium *	mg/l Na	SANS 11885	≤ 200	Aesthetic	58.464	44.144	39.244	56.138
Calcium *	mg/l Ca	SANS 11885	n/a	n/a	19.988	16.002	19.041	18.194
Magnesium *	mg/l Mg	SANS 11885	n/a	n/a	19.067	11.835	11.299	20.552
Potassium *	mg/l K	SANS 11885	n/a	n/a	4.523	9.190	9.803	6.026
Iron *	mg/l Fe	SANS 11885	Chronic Health ≤2 Aesthetic ≤ 0.3	Chronic Health ≤2 Aesthetic ≤ 0.3	0.000	0.150	0.290	0.050
Manganese *(s)	mg/l Mn	ALM 31	Chronic Health ≤ 0.4 Aesthetic ≤ 0.1	Chronic Health ≤ 0.4 Aesthetic ≤ 0.1	0.015	0.087	0.093	0.032
Total Alkalinity	mg/l CaCO3	APHA 2023	n/a	n/a	176.00	176.00	176.00	192.00
Chloride	mg/l Cl	APHA 4500-Cl	≤ 300	Aesthetic	90.75	54.45	54.45	81.68
Ammonia as N	mg/l NH_3-N	USEPA Method 10031	≤ 1.5	Aesthetic	0.1	<0.4	0.2	<0.4
Nitrate as N	mg/l NO_3-N	USEPA Method 10020	≤ 11	Acute Health	1.1	0.9	0.9	0.7
Nitrite as N *	mg/l NO_2-N	Hach 10019	≤ 0.9	Acute Health	0.005	0.007	0.007	0.002
Combined Nitrate plus Nitrite*	Ratio	SANS 5210	≤ 1.0	Acute Health	0.11	0.09	0.09	0.07
Flouride as F	mg/l F^-	USEPA Method 10225	≤ 1.5	Chronic Health	0.30	0.15	0.01	0.41
Sulphate as SO_4^{2-}	mg/l SO_4^{-2}	USEPA Method 8051	Acute Health ≤ 500 Aesthetic ≤ 250	Acute Health ≤ 500 Aesthetic ≤ 250	16	24	22	31
Total Dissolved Solids	mg/l TDS	SANS 5213	≤ 1200	Aesthetic	342	255	235	345
Copper *	mg/l Cu	SANS 11885	≤ 2	Chronic Health	0.029	0.0376	0.0292	0.038
Zinc *	mg/l Zn	SANS 11885	≤ 5	Aesthetic	<0.002	<0.002	<0.002	<0.002
Boron	mg/l B	USEPA Method TNT 877	2.4	Chronic Health	0.132	0.207	0.218	0.205
E. coli *	count/100ml	Compact Dry	N/D	Acute Health	ND	170	143	44
Total Coliforms *	count/100ml	Compact Dry	≤ 10	Operational	87	>300	>300	>300
Heterotrophic Plate Count	count/ml	Compact Dry	≤ 1000	Operational	15	350	300	404
Total Hardness *	mg equiv. $CaCO_3$/L	APHA 2340-B	n/a	Operational	128.43	88.69	94.07	130.06

Remarks: The above test results are pertinent only to the samples as per conditions received and tested at the laboratory. This report shall not be reproduced, except in full, without the prior consent of Geoscience Lab (Pty) Ltd. (s) = Subcontracted test.N/D=Not Detected

2. The highlighted result is an intrepretation of the direct comparison between the quoted specification and the single test sample result obtained.

3. The results met/not met is based on an aproximate of 95% level of confidence with reference to ISO/IEC 98-4

Name: Aviwe Nontenja

Position: Technical Signatory

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LABORATORY ANALYTICAL REPORT

Parameter	Units	Method Reference / Method No	Limits SANS 241:2015	SANS 241 RISK CLASS	Sample No:	Sample No:	Sample No:	Sample No:
					WL9084			
					Sample ID:	Sample ID:	Sample ID:	Sample ID:
					Barkely Dam			
Electrical Conductivity	mS/m	SANS 7888	≤ 170	Aesthetic	44.80			
pH @ 25 °C	pH units	SANS 5011:2005	≥ 5 and ≤ 9.7	Operational	8.76			
Turbidity	NTU	APHA 2130	Operational ≤ 1 Aesthetic ≤ 5	Operational ≤ 1 Aesthetic ≤ 5	241			
Colour *	Pt-Co Units	Hach 8025	≤ 15	Aesthetic	<5			
Sodium *	mg/l Na	SANS 11885	≤ 200	Aesthetic	43.949			
Calcium *	mg/l Ca	SANS 11885	n/a	n/a	14.558			
Magnesium *	mg/l Mg	SANS 11885	n/a	n/a	12.417			
Potassium *	mg/l K	SANS 11885	n/a	n/a	9.801			
Iron *	mg/l Fe	SANS 11885	Chronic Health ≤2 Aesthetic ≤ 0.3	Chronic Health ≤2 Aesthetic ≤ 0.3	0.180			
Manganese *(s)	mg/l Mn	ALM 31	Chronic Health ≤ 0.4 Aesthetic ≤ 0.1	Chronic Health ≤ 0.4 Aesthetic ≤ 0.1	0.095			
Total Alkalinity	mg/l CaCO3	APHA 2023	n/a	n/a	173			
Chloride	mg/l Cl	APHA 4500-Cl	≤ 300	Aesthetic	49.91			
Ammonia as N	mg/l NH_3-N	USEPA Method 10031	≤ 1.5	Aesthetic	<0.4			
Nitrate as N	mg/l NO_3-N	USEPA Method 10020	≤ 11	Acute Health	1.0			
Nitrite as N *	mg/l NO_2-N	Hach 10019	≤ 0.9	Acute Health	0.001			
Combined Nitrate plus Nitrite*	Ratio	SANS 5210	≤ 1.0	Acute Health	0.09			
Flouride as F	mg/l F^-	USEPA Method 10225	≤ 1.5	Chronic Health	0.18			
Sulphate as SO_4^{2-}	mg/l SO_4^{-2}	USEPA Method 8051	Acute Health ≤ 500 Aesthetic ≤ 250	Acute Health ≤ 500 Aesthetic ≤ 250	21			
Total Dissolved Solids	mg/l TDS	SANS 5213	≤ 1200	Aesthetic	250			
Copper *	mg/l Cu	SANS 11885	≤ 2	Chronic Health	0.041			
Zinc *	mg/l Zn	SANS 11885	≤ 5	Aesthetic	<0.002			
Boron	mg/l B	USEPA Method TNT 877	2.4	Chronic Health	0.232			
E. coli *	count/100ml	Compact Dry	N/D	Acute Health	81			
Total Coliforms *	count/100ml	Compact Dry	≤ 10	Operational	>300			
Heterotrophic Plate Count	count/ml	Compact Dry	≤ 1000	Operational	252			
Total Hardness *	mg equiv. $CaCO_3$/L	APHA 2340-B	n/a	Operational	87.48			

Remarks: The above test results are pertinent only to the samples as per conditions received and tested at the laboratory. This report shall not be reproduced, except in full, without the prior consent of Geoscience Lab (Pty) Ltd. (s) = Subcontracted test.N/D=Not Detected

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