

JANUARY 31ST, 2025

Description of Sample:	BOREHOLE WATER	Date of Sampling:	18/01/2025
Submitted By:	PARDAMAT COMPREHENSIVE SCHOOL	Date Sample Received:	28/01/2025
Customer Contact:	Betterline Water Ltd	Date of Analysis:	28/01/2025
Sampled By:	CLEINT	Date of Report Issue:	31/01/2025
Sample Source:	NAROK	Sample ID:	S0513-31173

PARAMETERS	METHOD	VALUES	KS EAS 12:2018 NATURAL WATER SPECIFICATION	WHO STANDARD	REMARKS
PHYSIO-CHEMICAL ANALYSIS					
pH (pH Units pH)	AQL/TM/HACH/8156	7.8	5.5 - 9.5	NS	PASS
Colour (Pt. Co. APHA Colour)	AQL/TM/HACH/8025	38	50	NS	PASS
Turbidity (NTU TUB)	AQL/TM/CHEM/10	6.97	25	NS	PASS
Total Suspended Solids (mg/L TSS)	AQL/TM/HACH/8006	6	ND	NIL	FAIL
Total Dissolved Solids (mg/L TDS)	AQL/TM/HACH/8160	670	1500	NS	PASS
Electrical Conductivity (uS/cm EC)	AQL/TM/HACH/8160	1315	2500	NS	PASS
P Alkalinity (mg/L CaCO ₃ PA)	AQL/TM/HACH/ISO/9963-1:1994	ND	NS	NS	-
Total Alkalinity (mg/L CaCO ₃ TA)	AQL/TM/HACH/ISO/9963-1:1994	396.5	NS	NS	-
Chloride (mg/L Cl)	AQL/TM/HACH/ISO/9297:2000	51.9	250	NS	PASS
Fluoride (mg/L F) ✓	AQL/TM/HACH/8323	8.88	1.5	1.5	FAIL
Sulfate (mg/L SO ₄)	AQL/TM/HACH/8051	75	400	NS	PASS
Nitrate (mg/L NO ₃)	AQL/TM/HACH/8358	3.9	45	50	PASS
Phosphate (mg/L PO ₄)	AQL/TM/HACH/8114	0.6	2.2	NS	PASS
Sodium (mg/L Na)	AQL/TM/APHA/3111B	270.5	200	NS	FAIL
Calcium (mg/L Ca) ✓	AQL/TM/CHEM/07	20.02	150	NS	PASS
Magnesium (mg/L Mg) ✓	AQL/TM/CHEM/07	4.86	100	NS	PASS
Iron (mg/L Fe)	AQL/TM/APHA/3111B	0.12	0.3	NS	PASS
Manganese (mg/L Mn)	AQL/TM/APHA/3111B	< 0.006	0.1	-	PASS
Ammonia (mg/L NH ₃)	AQL/TM/HACH/10001	0.13	0.5	NS	PASS
Copper (mg/L Cu)	AQL/TM/APHA/3111B	< 0.04	1.0	2.0	PASS
Zinc (mg/L Zn)	AQL/TM/APHA/3111B	0.07	5.0	NS	PASS
Calcium Hardness (mg/L CH) ✓	AQL/TM/CHEM/07	50	NS	NS	-
Magnesium Hardness (mg/L MH) ✓	AQL/TM/CHEM/07	30	NS	NS	-
Total Hardness (mg/L TH) ✓	AQL/TM/CHEM/07	80	600	NS	PASS
Silica HR (mg/L SiO ₂)	AQL/TM/HACH/8185	64.3	NS	NS	-

Notes and Disclaimer

KS EAS 153:2018 - Packaged Drinking Water —Specification, KS EAS 12:2018 - Potable Water —Specification, ANSI/AAMI/ISO 23500-3:2019 - Preparation and quality management of fluids for haemodialysis and related therapies—Part 3: Water for haemodialysis and related therapies, EMCR 2006 -Environmental Management and Co-ordination (Water Quality) Regulations 2006, WHO 4th EDITION - World Health Organization Guidelines for Drinking - Water Quality, ISE - Ion Selective Electrode, NS - No Set Standard, ND - Not Detected, TN - Too Numerous, Parameters marked with (*) are Subcontracted while (✓) are Accredited.

The test report shall not be reproduced except in full without written approval from Aqualytic Laboratories Limited. The laboratory will not be held responsible for any sampling error(s) unless sampled by the laboratory personnel. The results relate only to the sample(s) submitted.

Statements of conformity (e.g. Pass/Fail) to specifications are made in this report without taking measurement uncertainty into account except when requested by the customer. The Uncertainty of Measurements applied does not take into account the Sampling aspect for this sample.

Where statements of conformity are made in this report, the following decision rules are applied:

PASS - Results within limits/specifications.

FAIL - Results exceed limits/specifications.

COMMENTS

Based on the tested parameters only, the water sample was found not to conform to the Borehole Water (KS EAS 12:2018 NATURAL WATER SPECIFICATION){failed analytes} Total Suspended Solids, Fluoride,

Sodium does not meet the set standard. Therefore, treatment is recommended.



JOHN KIIRU
QUALITY MANAGER



LABAN WAWERU MACHARIA
ASSISTANT TECHNICAL MANAGER

