

JANUARY 31ST, 2025

<b>Description of Sample:</b>	<b>BOREHOLE WATER</b>	<b>Date of Sampling:</b>	<b>18/01/2025</b>
<b>Submitted By:</b>	<b>ILPOORI PRIMARY SCHOOL</b>	<b>Date Sample Received:</b>	<b>28/01/2025</b>
<b>Customer Contact:</b>	<b>Betterline Water Ltd</b>	<b>Date of Analysis:</b>	<b>28/01/2025</b>
<b>Sampled By:</b>	<b>CLIENT</b>	<b>Date of Report Issue:</b>	<b>31/01/2025</b>
<b>Sample Source:</b>	<b>NAROK</b>	<b>Sample ID:</b>	<b>S0513-31179</b>

PARAMETERS	METHOD	VALUES	KS EAS 12:2018 NATURAL WATER SPECIFICATION	WHO STANDARD	REMARKS
<b>PHYSIO-CHEMICAL ANALYSIS</b>					
pH (pH Units pH)	AQL/TM/HACH/8156	7.27	5.5 - 9.5	NS	PASS
Colour (Pt. Co. APHA Colour)	AQL/TM/HACH/8025	480	50	NS	FAIL
Turbidity (NTU TUB)	AQL/TM/CHEM/10	60.4	25	NS	FAIL
Total Suspended Solids (mg/L TSS)	AQL/TM/HACH/8006	60	ND	NIL	FAIL
Total Dissolved Solids (mg/L TDS)	AQL/TM/HACH/8160	619	1500	NS	PASS
Electrical Conductivity (uS/cm EC)	AQL/TM/HACH/8160	1217	2500	NS	PASS
P Alkalinity (mg/L CaCO <sub>3</sub> PA)	AQL/TM/HACH/ISO/9963-1:1994	ND	NS	NS	-
Total Alkalinity (mg/L CaCO <sub>3</sub> TA)	AQL/TM/HACH/ISO/9963-1:1994	528.4	NS	NS	-
Chloride (mg/L Cl)	AQL/TM/HACH/ISO/9297:2000	136.5	250	NS	PASS
Fluoride (mg/L F) ✓	AQL/TM/HACH/8323	3.16	1.5	1.5	FAIL
Sulfate (mg/L SO <sub>4</sub> )	AQL/TM/HACH/8051	72	400	NS	PASS
Nitrate (mg/L NO <sub>3</sub> )	AQL/TM/HACH/8358	4.1	45	50	PASS
Phosphate (mg/L PO <sub>4</sub> )	AQL/TM/HACH/8114	< 0.3	2.2	NS	PASS
Sodium (mg/L Na)	AQL/TM/APHA/3111B	96.1	200	NS	PASS
Calcium (mg/L Ca) ✓	AQL/TM/CHEM/07	50.05	150	NS	PASS
Magnesium (mg/L Mg) ✓	AQL/TM/CHEM/07	10.93	100	NS	PASS
Iron (mg/L Fe)	AQL/TM/APHA/3111B	2.05	0.3	NS	FAIL
Manganese (mg/L Mn)	AQL/TM/APHA/3111B	0.032	0.1	-	PASS
Ammonia (mg/L NH <sub>3</sub> )	AQL/TM/HACH/10001	0.17	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	< 0.01	5.0	NS	PASS
Calcium Hardness (mg/L CH) ✓	AQL/TM/CHEM/07	125	NS	NS	-
Magnesium Hardness (mg/L MH) ✓	AQL/TM/CHEM/07	50	NS	NS	-
Total Hardness (mg/L TH) ✓	AQL/TM/CHEM/07	175	600	NS	PASS
Silica HR (mg/L SiO <sub>2</sub> )	AQL/TM/HACH/8185	73	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} Turbidity, Colour, Total

Suspended Solids, Fluoride, Iron does not meet the set standard. Therefore, treatment is recommended.



**JOHN KIIRU**  
QUALITY MANAGER



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ASSISTANT TECHNICAL MANAGER

