



## Water Resources Management Authority

### ***BOREHOLE COMPLETION RECORD***

*(To be submitted in triplicate)*

*(Rule 33)*

Borehole No: **C -**

Borehole Name: **SHANKOE PRIMARY SCHOOL BOREHOLE**

Formation: **VOLCANIC**

PARTICULARS OF APPLICANT			DETAILS		
1. Full name of applicant(s) (In Block Letters)			SHANKOE PRIMARY SCHOOL		
2. Category of Applicant - Individual, Group [Association, Society], Company, Institution			INSTITUTION		
3. ID Number of Applicant (Individual) or Certificate of Incorporation or Registration for Groups or Companies			-		
4. PIN Number					
Physical Address where water is to be used (see sketch)			Contact Address of Applicant		
5. L/R Number(s)			6. Box Number	245	
7. Village(s)/Ward(s)			8. Town	KILGORIS	
9. Sub-location(s)	NAIYENY		10. Post Code	40700	
11. Location(s)	SHANKOE		12. Telephone Contact (Landline)	-	
13. Division(s)	-		14. Telephone Contact (Mobile)	-	
15. Sub-County	TRANSMARA WEST		16. Email Contact	-	
17. County	NAROK		18.		
PARTICULARS OF CONTRACTOR			BETTERLINE WATER LIMITED.		
19. Box Number	27277		22. License Number	WD/WC/4010	
20. Town	NAIROBI		23. Gazetted On	02/02/2021	
21. Post Code	00100		24. Drilling Supervisor	MR. IKUA WAWERU	
22. Telephone Contact (Landline)	+254736948511		25. Type and Make of Drill Rig	MAX DRILL 2023	
23. Telephone Contact (Mobile)	+254722619402				
24. Email Contact	info@betterlinewater.com				
INTENDED USE OF WATER					
Public W.S.; Irrigation.; Industries.; Domestic.; Stock, other			DOMESTIC		
PARTICULARS OF BOREHOLE					
Type of Borehole: - Drilled; Driven; Bored; Jetted; Other			DRILLED		
Borehole Construction (also see sketch page 3)					
Drilling started (date)	28.09.2024	Drilling completed (date)	30.09.2024	All work completed (date)	30.9.2024
Total Depth: Reported (m)	160	Measured (m)	160	Final (back-filled) Depth (m)	NIL
Hole Diameter (mm)	215	From (m)	0	To (m)	160
Hole Diameter (mm)		From (m)		To (m)	



<b>Permanent Casing</b>									
<b>Plain</b>									
Type	Mild steel	Diam (mm)	228	Length (m)	6	From (m)	0	To (m)	6
Type		Diam (mm)	152	Length (m)	120	From (m)	0 24 36 72 96 120 144 162	To (m)	12 30 54 90 114 138 156 180
<b>Slotted or Perforated:</b>									
<b>Size and Description of Openings</b>									
Type	Mild steel	Diam (mm)	152	Length (m)	60	From (m)	12 30 54 90 114 138 156	To (m)	24 36 72 96 120 144 162
<b>Type and Make</b>			<b>Mild Steel -</b>						
Diameter (mm)		Length (m)		Set from (m)		To (m)			
<b>Gravel Pack</b>									
Size of grains (mm)	2-3mm	Roundness (good, fair, poor)	GOOD	Volume inserted in annular Space (m3)	4.2				
		From (m)	0	To (m)	180				
<b>Open Hole</b>									
Diam (mm)	-	From (m)	-	To (m)	-				
<b>Aquifer</b>									
1 <sup>st</sup> Water Struck at (m)	40-46	Water Rest Level (m)	2.99						
2 <sup>nd</sup> Water Struck at (m)	55-85	Water Rest Level (m)	2.99						
3 <sup>rd</sup> water struck at (m)		Water Rest Level (m)	2.99						
Main Aquifer Struck at (m)		Water Rest Level (m)	2.99						
Water bearing material	Fractured SEDIMENTS	From (m)		To (m)					
Other Aquifers, Remarks, etc (also see log on page3)	<b>-GOOD</b>								
<b>Yield:</b> SWL (m)	28.34m	PWL (m below surface)	36.80m	Discharge (litres per minute)	466.67L				
After pumping (hours)	24	Recovered to SWL in (minutes)	60						
Expected production discharge (litres per hour)	28,000L	With pump set at (m below surface)	146m						



<i>Pumping Test Record</i> in Summary (Detailed test records on attached sheets): (all depth measurements to be in metres below ground surface)		
	<b>Test No. 1</b>	<b>Test No. 2</b>
Date of Test (day, month, year)	15.10.2024 TO 16.10.2024	
Depth of Borehole at time of test (m)	160	
Water Entry (perforations or screen setting at time of test)	Refer to page 2	
Static Water (SWL) before test (m)	28.34	
Type of Pump (Bailler) used	Shakti QF30-27	
Depth of Pump intake (m)	146	
Discharge (in litres per minute)	466.67	
Pumping Water Level (PWL m)	36.80	
After pumping continuously for (hours)	24	
Time of Recovery to Original SWL (minutes)	60	
Rate of Recovery-WL after 5 minutes (m)	31.81m (12.57%)	
Rate of Recovery-WL after 20 minutes (m)	31.27m (54.84%)	
Rate of Recovery-WL after 60 minutes (m)	30.38m (95.06%)	
Rate of Recovery-WL after 120 minutes (m)		

(Additional pumping tests to be mentioned in REMARKS and included with file).

Government representative witnessing the test.....

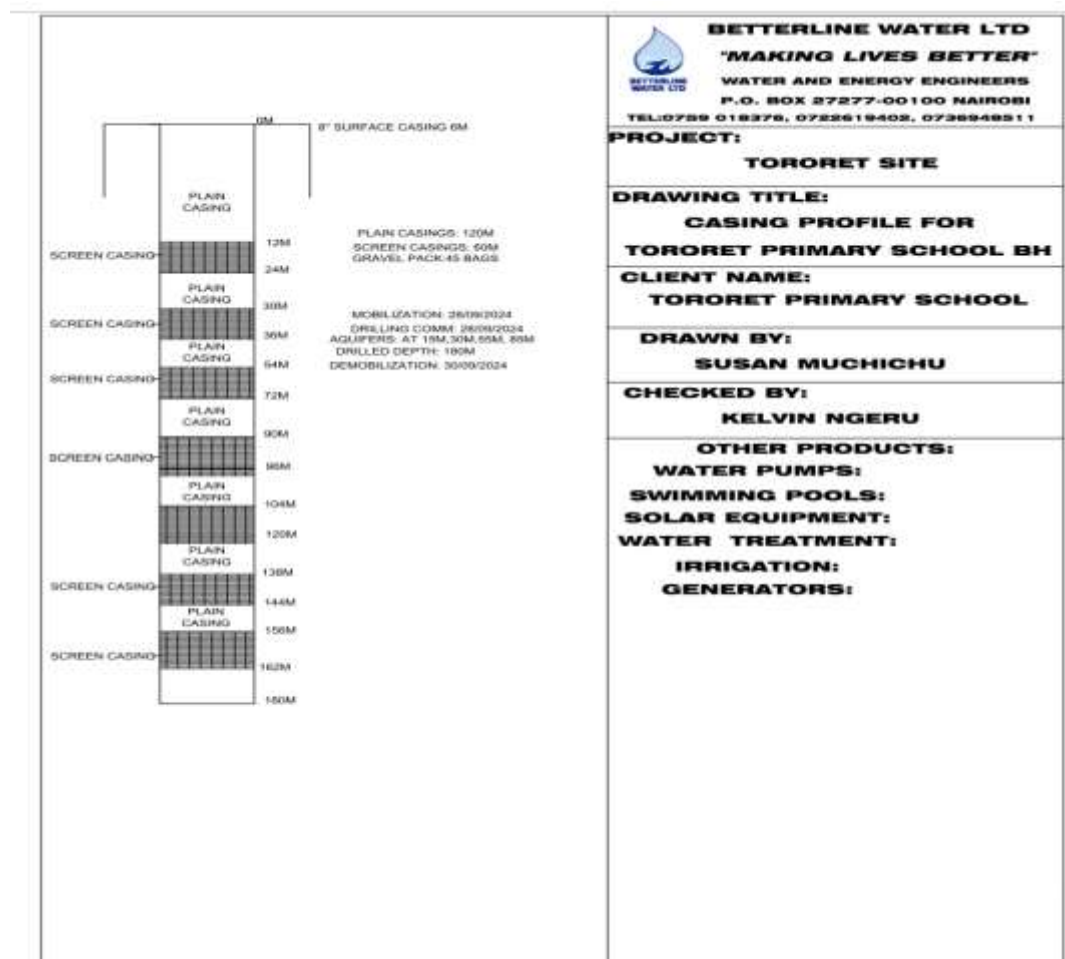
<b>Quality of Water</b>					
Sample (Yes/No)	YES	Collected at (hour)	1918HRS	On (date)	16.10.2024
Sediment		Taste	-	Odour	
Colour (Pt. Co. APHA)		Temperature (0c)	-	Spec. Conductivity ( $\mu\text{mho}/\text{cm}^3$ )	

<i>Remarks:</i> (drilling difficulties, gravel-pack details, all pertinent information about the drilling and completion of the hole)	Drilling formation good
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<i>Drilling Supervisor</i>		<i>Drilling Contractor</i>	
Signature		Signature	
Name	MR. IKUA WAWERU	Name	BETTERLINE WATER LTD
DATE	30.9.2024		30.09.2024

Depth (m)	Resistivity (Ohm-m)	Geological nature
0 – 1	50.3	Lateritic soil
1 – 13	18	Sandy-loam soil
13- 112	97	Partially weathered volcanics
>112	19	Highly weathered volcanics/sediments

## 2. Sketch of Borehole Construction:



(Geologist's log on attached sheets) .

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Formations encountered are basically Sediments. Borehole sketch not drawn to scale, it shows the casing design.....



13. *Location Sketch:* (To be sketched by the driller on the site, showing roads, tracks and prominent land marks, with road distances to the nearest town or trading centre and to water source).

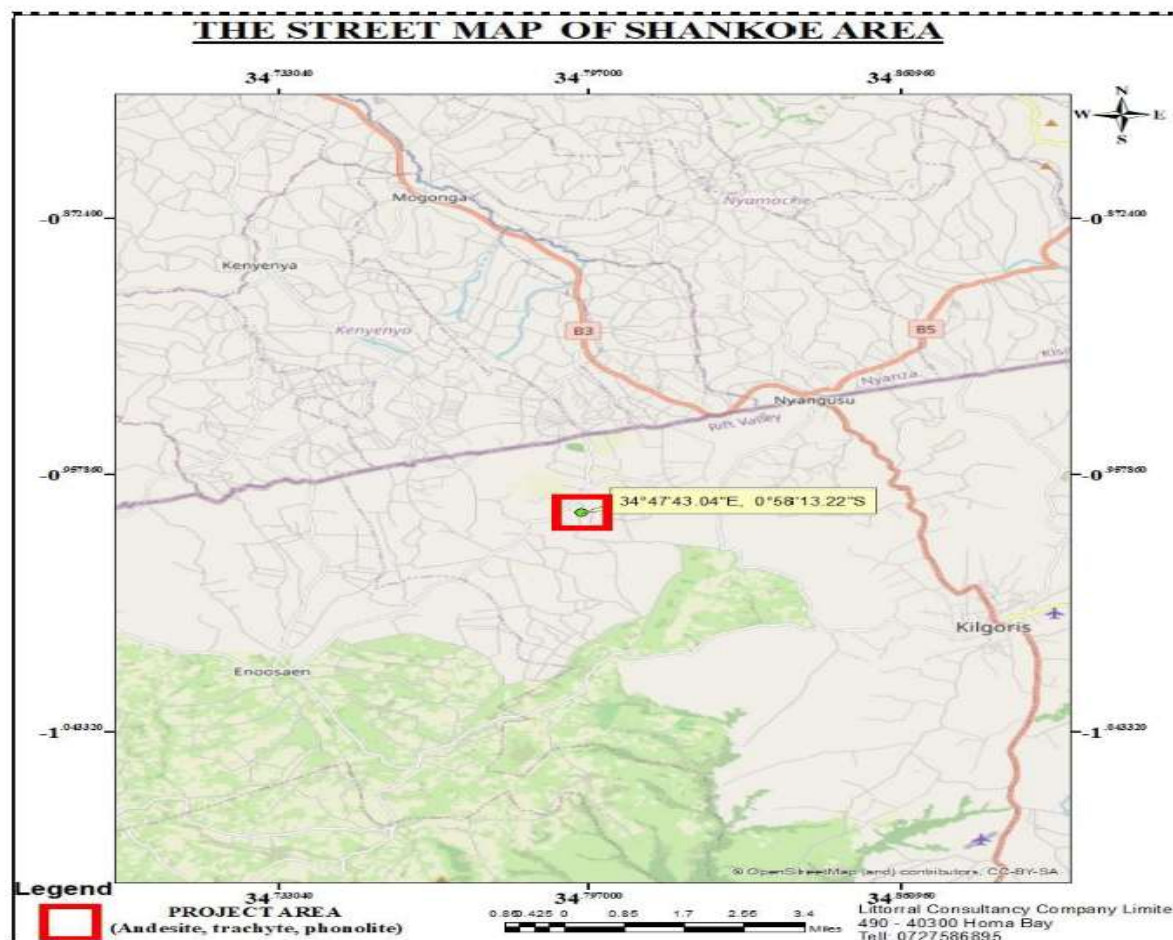
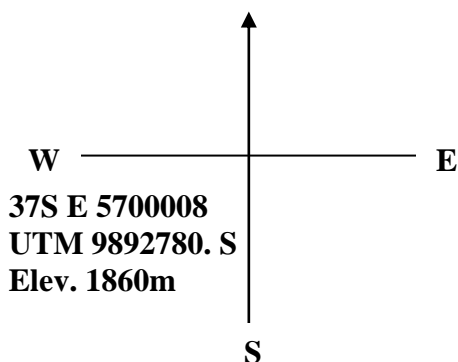


Figure 1: Project area



**For Official Use Only**

Entered on Schedule..... (Yes/No) Water Sample Received.....(Yes/No)  
Drilling Samples Received..... (Yes/No) Chemical Analysis Received.....(Yes/No)  
Drilling Samples Filed..... (Yes/No) Geologist's Log Available.....(Yes/No)  
Location Plotted on Maps..... (Yes/No)

Hydro geological Report No.....of.....

The Chief Executive Officer,  
Water Resources Management Authority,  
P.O. Box 45250 – 00100  
NAIROBI



Form: WRMA 009A  
Catchment: TANA  
WRMA ID:WRMA

(Date)

Geophysical Curve No.....of.....

(Date)

Borehole Data entered and checked by (Name).....Signature.....

**Permit details**

Permit Number ..... Authorised abstraction ..... m<sup>3</sup>/d

Authorised water use(s) .....

Pump intake depth ..... m bgl Maximum authorised abstraction rate ..... m<sup>3</sup>/hr

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All Borehole Completion Records duly completed should be sent to the appropriate WRMA Regional Office.