

## BoQ FOR DRILLING OF SHALLOW BH

S/N	Description of lines	Unit	Quantity	Unit price (NGN)	Amount (NGN)	Amount (USD)
<b>Drilling</b>						
1	Mobilization,erection of equipment and demobilization after completion of drilling	No.	1			
2	Geophysical investigation of the area for location of most suitable point for drilling if applicable	No.	1			
3	Drilling in sedimentary formation to appropriate formation in appropriate diameterfor installation of casing and screen.Using 150mm drilling bit.	m	100			
4	Supply & pack selected 6-9mm river gravel	m <sup>3</sup>	10			
5	Cleaning and well development by air lifting	Sum	1			
6	Well head construction and inject cement grout to protect borehole surface from surface water up to 10m below the ground level	Sum	1			
7	back filling and sealing abortive borehole if applicable	Sum	1			
<b>Supply and installation of casing</b>						
8	100mm diameter PVC casing	m	88			
9	100mm diameter PVC screen casing	m	12			
11	Backfilling well, annulus and casing	Sum	1			
<b>Borehole Testing</b>						
12	Open well test including preliminary	hrs	1			
13	constant rate test (12 hrs min)	hrs	12			
<b>Water sample analysis and completion report</b>						
14	conduct water sample physical,bacteriological and chemical analysis.	Nr	1			
15	Borehole detail report -including coordinate of the location ,lithological description ,pump testing result etc.with progress photograph in format of hard and soft copy.	Nr	1			
<b>Borehole disinfection</b>						
16	Disinfection of borehole with 50mg/l chlorine solution	Sum	1			
				<b>Total for Drilling</b>		
<b>WATER POINTS</b>						
S/N	Description of lines	Unit	Quantity	Unit price (NGN)	Amount (NGN)	Amount (USD)
1.1	Excavation of trench	m <sup>3</sup>	2.8			
1.2	2" blinding of footing with weak concrete (1:3:6)	m <sup>3</sup>	0.5			

1.3	Laying of sancrete blockwork (230x450mm) ; laid stretcher bond on cement and sand mortar (1:3) flush pointed; Filled solid with weak concrete (1:3:6)	m <sup>2</sup>	6.4			
1.4	3" Floor screeding with M15 concreete (1:2:4)	m <sup>3</sup>	0.24			
1.5	Rendering of blockwork	m <sup>2</sup>	8.5			
1.6	Installation of 4x4" metallic floor drain	No.	1			
1.7	Installation of 6 GI tap head water points connected to the storage tank	No.	1			
1.8	Connecting 4" PVC pipe to the soak pit	No.	1			
1.9	Provision of 1" PVC for reticulation from the storage tank to water points	m	30			

<b>Total for 1 Water Point</b>		
<b>Total for 2 Water Point</b>		

### FENCING OF BOREHOLE FACILITY

S/N	Description of lines	Unit	Quantity	Unit price (NGN)	Amount (NGN)	Amount (USD)
2.1	Excavation of trench	m <sup>3</sup>	8.5			
2.2	2" blinding of footing with weak concrete (1:3:6)	m <sup>3</sup>	2			
2.3	Laying of hollow sancrete blockwork (230x450mm) ; laid stretcher bond on cement and sand mortar (1:3) flush pointed; Filled to hold GI pipes in position	m <sup>2</sup>	19			
2.4	Rendering of blockwork	m <sup>2</sup>	30			
2.5	2" vertical hollow poles	No.	15			
2.6	2" horizontal hollow poles	m	40			
2.7	Chain link - 2x2"x1.8m	m	40			
2.8	Framed metalic entrance door	No.	1			
2.9	Gravel filling	m <sup>3</sup>	5			

<b>Total for Fencing</b>		
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### BOQ FOR ELEVATED TOWER TANK

S/N	Description of lines	Unit	Quantity	Unit price (NGN)	Amount (NGN)	Amount (USD)
<b>Footing/foundation work</b>						
1.1	Excavation of foundation pad trench	m <sup>3</sup>	15.40			
1.2	2" blinding of footing with weak concrete (1:3:6)	m <sup>3</sup>	0.40			
1.3	Sawn formwork to cover sides of foundation pad and column	m <sup>2</sup>	3.84			

1.4	Plain M15 grade concrete (1:2:4); developing minimum 15N/mm <sup>2</sup> working strength after 28 days of curing	m <sup>3</sup>	3.30			
1.5	Supply and fixing of Y12 high yield reinforcement bar (this include the cost of bending and fixing) for stirrups	Kg	37.00			
1.6	reinforcement bar (this include the cost of	Kg	146.00			

**Steel tower over and overhead tank**

1.1	6 meter H- channel 100mm X 100mm X SHS steel column in the 4 corners, braces with angle iron by welding and screwed to the footing rod.	Pcs	4.00			
1.3	75mmX 75mmX6mm angle iron for bracing the 4 stanchions (placed in 4 places at an interval of 1.5m each); also crisscross from the footing to top of the tower, properly wedeled or screwed to stanchion.	No.	4.00			
1.4	Ladder made up of 50mm X 50mm X3 mm angle iron serves to support walkway to top of the tower	Pc	1.00			
1.5	4mm thick iron sheet at the base of the tank, properly welded to the top of tower.	m <sup>2</sup>	5.00			
1.6	Anti-rust + silver coloured gloss paint	ltrs	10.00			
1.7	2 GP tank 5000 liters each install on the tower and well secured to avoid distruction by wind.	Pc	2.00			
1.8	connecting the borehole to the overhead tank with 2" GI pipe and the tank outlet to distribution line.	Pc	1.00			

<b>Total for Tower &amp; Tank</b>					-
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**PUMP INSTALLATION**

1.1	Supply and install solar pump in accordance to well yeild test provided by pump test.	No.	1			
1.2	supply riser pipe 1 1/4" uPVC	pcs	10			
1.3	supply and install solar models 100w	pcs	10			
1.4	solar cables	roll	1			
1.5	solar switch	pcs	1			
1.6	Provide and install well head with opening for pipe connection and pump cable	No.	1			
<b>Total for Pump Installation</b>						

SUMMARY		
ITEMS	NGN	USD
Drilling		
Water Point		

Fencing		
Installation of Tank		
Pump Installation		
<b>Grand Total</b>		