

BILLS OF QUANTITIES FOR SITING, DRILLING AND INSTALLATION OF SOLAR POWERED MECHANISED BOREHOLE INCLUDING OVERHEAD WATER TANK AND CHAIN LINK FENCE AT TODOME					
ITEM	DESCRIPTION	UNIT	QTY	RATE (GHS)	CONTRACT AMOUNT (GHS)
1	PRELIMINARIES AND GENERAL CONDITIONS				
1	<u>Contractual Requirement</u>				
1.1	Performance Security	Sum	1		
1.2	Insurance of the works	Sum	1		
1.3	Insurance of constructional equipment	Sum	1		
BILL 1	SUB-TOTAL 1				
2	<u>Mobilization and Demobilization to and from a drilling site including</u>				
2.1	Mobilization to site and geophysics/siting of borehole (at least 3 possible	LS	1		
2.2	De-mobilization from site	LS	1		
2.3	Movement between Communities within a District	Km	20		
2.4	Movement between sites within a community including making of access to	Km	1		
2.5	Site Clearance for all borehole sites including bushes and trees with girth	No	1		
2.6	Removal of trees with girth > 0.6m	No	1		
BILL 2	SUB-TOTAL 2				
3	BOREHOLE DRILLING				
3.1	Drilling through overburden and highly weathered rock for completion of	m	40		
3.2	Drilling through poorly weathered to fresh rock with D.T.H. for completion of	m	100		
BILL 3	SUB-TOTAL 3				
4	BOREHOLE CONSTRUCTION				
4.1	Supply and install 126mm PVC Plain casings	m	100		
4.2	Supply and install 126mm PVC Screens	m	20		
4.3	Supply and install centralizers on 126mm casings	No.	15		
4.4	Supply and place gravel 2-4mm gravel packed as in design and specification	m	40		
4.5	Supply cement, mix and place grout on gravel as in design	m	10		
4.6	Backfill annulus above grout seal as in design	m	10		
4.7	Supply cement, mix and place grout above backfill as in design	m	10		
BILL 4	SUB-TOTAL 4				

5	BOREHOLE DEVELOPMENT & CHLORINATION				
5.1	Develop borehole by surging with compressed air and air-lifting	hr	3		
5.2	Develop borehole by horizontal jetting and air-lift pumping	hr	2		
5.3	Chlorinate successfully developed Borehole	no	1		
BILL 5	SUB-TOTAL 5				
6	ABANDONMENT OF BORE HOLE				
6.1	Backfill unsuccessful borehole	no	1		
BILL 6	SUB-TOTAL 6				
7	BOREHOLE CAPPING/BAIL PLUG				
7.1	Supply and fix suitable cap on borehole	no	1		
7.2	Supply and fix bail plug on bottom of first casing	no	1		
BILL 7	SUB TOTAL 7				
8	TEST PUMPING				
8.1	Supply, installation and removal of pumping test equipment at each site as	no	1		
8.2	Carry out constant discharge test for handpump boreholes (12 hrs)	hr	12		
8.3	Carry out recovery for handpump boreholes (3 hrs)	hr	3		
BILL 8	SUB TOTAL 8				
9	WATER QUALITY				
9.1	Take, Label and store sample of water from borehole	sample	1		
9.2	Carry out chemical analysis of water sample as specified	sample	1		
9.3	Carry out bacteriological analysis of water sample as specified	sample	1		
BILL 9	SUB TOTAL 9				
10	POLY TANK				
	Provide and install 5,000 ltrs poly tank with all pipe accessories including	sum	1		
BILL 10	SUB TOTAL 10				
11	SOLAR MECHANISATION				
	Include a PROVISIONAL sum of GHS 30,000.00 for Mechanisation (pipes,	sum	1		
BILL 11	SUB TOAL				
12	CHAIN LINK				
	Include a PROVISIONAL sum of GHS 10,000.00 for chain link fence	sum	1		
BILL 12	SUB TOAL				

SUMMARY					
	MAIN WORK				
BILL 2	MOBILISATION AND DEMOBILISATION TO AND A DRILLING SITE INCLUDING MOUNTING AND DISMOUNTING AT EACH SITE				
BILL 3	BOREHOLE DRILLING				
BILL 4	BOREHOLE CONSTRUCTION				
BILL 5	BOREHOLE DEVELOPMENT & CHLORINATION				
BILL 6	ABANDONMENT OF TEST HOLE				
BILL 7	BOREHOLE CAPPING/BAIL PLUG				
BILL 8	TEST PUMPING				
BILL 9	WATER QUALITY				
BILL 10	POLY TANK				
BILL 11	MECHANISATION				
BILL 12	CHAIN LINK FENCE				
BILL 13	CONSTRUCTION OF WATER TANK STAND				
	TOTAL FOR 1 BOREHOLE MECHANISATION				
	GENERAL SUMMARY				
	PRELIMINARIES AND GENERAL CONDITIONS				
	TOTAL FOR 1No MECHANISED BOREHOLE *NO. OF BOREHOLES	x		1	
	GRAND TOTAL CARRIED TO FORM OF TENDER				