

## HELP BILL OF QUANTITIES FOR DRILLING OF 1 BOREHOLE

| ITEM          | DESCRIPTION/SPECIFICATION  | UNIT  | Qty | RATE (USD) | AMOUNT (USD) |
|---------------|--|-------|-----|------------|--------------|
| <b>1.0</b>    | <b>PRELIMINARIES AND GENERAL</b>   |       |     |            |              |
| 1.1           | Mobilisation and demobilisation of contractors personnel, materials and equipment  | sum   | 1   |            |              |
| 1.2           | Geophysics investigation for ground water exploration  | sum   | 1   |            |              |
| 1.3           | Preparation and submission of borehole completion reports, Geophysics report and water quality tests.  | nr    | 1   |            |              |
| <b>Bill 1</b> | <b>SUB TOTAL 1</b>   |       |     |            |              |
| <b>2.0</b>    | <b>DRILLING AND WELL DEVELOPMENT</b>   |       |     |            |              |
| 2.1           | Shifting between sites(average Km)   | Km    | 10  |            |              |
| 2.2           | Clearing, setting up and dismantling of equipments at drilling sites   | sum   | 1   |            |              |
| 2.3           | Drilling by rotary (mud drilling) or DTH methods as instructed by the supervisor in soft formation(over burden) at 12" diameter bit from 0-6m meter deep and installation & removal of 12" temporary casing. | m     | 6   |            |              |
| 2.4           | Drilling with min. 8" bit to total depth of 100m(06-100m depth, effective depth 94m per borehole)  | m     | 80  |            |              |
| 2.5           | Soil sampling recording and storing of drill cutting at 2m intervals or instructed by the supervisor   | sum   | 1   |            |              |
| 2.6           | Well capping and installation of bottom plug   | nr    | 1   |            |              |
| 2.7           | Supply and installation of UPVC 5"ND screens of 3m length with ends threaded, male and female with thickness of 5mm.   | m     | 18  |            |              |
| 2.8           | Supply and installation of UPVC (5mm thickness) 5"ND Plain casing 3m length with both ends threaded, male or female  | m     | 62  |            |              |
| 2.9           | Supply and installation of 50kg bags gravel pack f 2mm-6mm   | bags  | 35  |            |              |
| 2.10          | Supply and installation of inert backfill and casting material   | sum   | 1   |            |              |
| 2.11          | Place 1m cement grouting on ditto for clay seal  | sum   | 1   |            |              |
| 2.12          | Casting of sanitary seal   | sum   | 1   |            |              |
| 2.13          | Well development by airlifting until borehole is clean and free of sediments ( average 4hrs)   | Hours | 4   |            |              |
| <b>Bill 2</b> | <b>SUB TOTAL 2</b>   |       |     |            |              |
| <b>3.0</b>    | <b>TEST PUMPING AND RECOVERY</b>   |       |     |            |              |
| 3.1           | Movement between sites   | Km    | 10  |            |              |
| 3.2           | Pumping and measuring draw down and constant discharge test  | hours | 4   |            |              |
| 3.3           | Pump installation at a depth recommended by the supervisor   | Sum   | 1   |            |              |
| 3.4           | Recovery monitoring  | hours | 2   |            |              |
| <b>Bill 3</b> | <b>SUB TOTAL 3</b>   |       |     |            |              |



| ITEM          | DESCRIPTION/SPECIFICATION  | UNIT | Qty | RATE (USD) | AMOUNT (USD)      |
|---------------|--|------|-----|------------|-------------------|
| <b>4.0</b>    | <b>WATER QUALITY</b>   |      |     |            |                   |
| 4.1           | Sample collection in sterilized one litre bottles  | nr   | 1   |            |                   |
| 4.2           | Water Quality Analysis and report by National Lincensed laboratory   | nr   | 1   |            |                   |
| <b>Bill 4</b> | <b>SUB TOTAL 4</b>   |      |     |            |                   |
| <b>5.0</b>    | <b>PUMP INSTALLATION</b>   |      |     |            |                   |
| 5.1           | Supply and installation of India Mark II Pump Head Complete (may install extra deep depending on pump test results)  | No   | 1   |            |                   |
| 5.2           | Supply and installation of India Mark II Water tank with "reduce Spout"  | No   | 1   |            |                   |
| 5.3           | Supply and installation of india Mark II pedestal  | No.  | 1   |            |                   |
| 5.4           | Supply and installation of Ull stainless steel raiser pipes, in 3m length  | Pcs  | 20  |            |                   |
| 5.5           | Supply and installation of stainless steel connecting rods   | Pcs  | 20  |            |                   |
| 5.6           | Supply and installation of Ull cylinders (may use extra deep hand pump cylinder depending on installation depth)   | No.  | 1   |            |                   |
| 5.7           | Borehole disinfection as detail in specification   | No.  | 1   |            |                   |
| <b>Bill 5</b> | <b>SUB TOTAL 5</b>   |      |     |            |                   |
| <b>6.0</b>    | <b>CONSTRUCTION OF BOREHOLE APRON, DRAINAGE CHANNEL AND SOAKPIT</b>  |      |     |            |                   |
| 6.1           | 100mm thick reinforced concrete (1:2:4/12mm aggregates) for apron (minimum diameter 1.85) and 6m drainage channel (refer the drawings for reinforcement details)                           | sum  | 1   |            |                   |
| 6.2           | Excavate 1.5m dia. and 1.5m deep Soakpit at the end of the drainage chanel, fill with laterite stone or any other appropriate material and cover with 1000mm gauge polythene and backfill. | sum  | 1   |            |                   |
| <b>Bill 6</b> | <b>SUB TOTAL 6</b>   |      |     |            |                   |
|               | <b>SUMMARY TO BoQ</b>  |      |     |            | <b>AMOUNT USD</b> |
| Bill 1        | PRELIMINARIES AND GENERAL  |      |     |            |                   |
| Bill 2        | DRILLING AND WELL DEVELOPMENT  |      |     |            |                   |
| Bill 3        | TEST PUMPING AND RECOVERY  |      |     |            |                   |
| Bill 4        | WATER QUALITY  |      |     |            |                   |
| Bill 5        | PUMP INSTALLATION  |      |     |            |                   |
| Bill 6        | CONSTRUCTION OF BOREHOLE APRON, DRAINAGE CHANNEL AND SOAKPIT   |      |     |            |                   |
|               | <b>TOTAL FOR 01 BOREHOLE</b>   |      |     |            |                   |
|               | <b>GRAND TOTAL FOR 4 BOREHOLES</b>   |      |     |            |                   |

  
 08/10/2018  
