

BEML LIMITED, BANGALORE

| | | |
|------------|---------------------|-----------|
| ISSUED TO: | Period of contract: | 06 Months |
| | EMD : (Rs) | 700000.00 |

Sub: Establishing alternate source of water supply at factory- by drilling borewells, construction of RCC sump, horizontal drilling of GI pipe lines & connecting to main sump at Bangalore Complex, BEML Ltd, Bangalore.

SCHEDULE 'A' - BILL OF QUANTITIES

| Sl. No | Description | Unit | Qty | Rate/unit in fig. & in words Rs. | Amount (Rs) |
|--------|--|------|------|----------------------------------|-------------|
| 1 | Surveying & Geological Identification of ground water points & marking of borewell points & submission of ground water table report. | JOB | 1.00 | | |
| 2 | Drilling 10 borewells to extract ground water of 6" diameter from 0 feet upto 1200 feet depth using Mechanical boring Rigs of required capacity. The cost of boring should include the cost of mobilization & demobilization of boring equipments, including supplying & fixing of Heavy Duty MS Collars of required numbers, supplying & fixing of 3mm MS Pipe of required length as per site condition, supplying & fixing of end cap fittings of required numbers, welding charges, water injection charges, transportation charges, labour charges etc., complete all as specified and as directed by Engineer in Charge. Note: 1) The quoted rate is deemed to include for welding charges, transportation, labour charges as per site condition. 2) The exact locations of borewells will be determined only after identifying water sources completely to drilling process. 3) Consequently, the length of water pumping lines from the borewell points to the collecting sump has been estimated approximately for the purpose of their estimate. The actual length will be determined upon completion of the drilling process and the payment to the agency will be made accordingly based on the final/actual measurements. 4) The actual length of water distribution line from borewell collecting sump-1 to pumping to sump-2 will be determined only after finalizing the location of sump-1. | | | | |
| | 0 feet to 250 feet | RFT | 250 | | |
| | 251 feet to 350 feet | RFT | 100 | | |
| | 351 feet to 450 feet | RFT | 100 | | |
| | 451 feet to 500 feet | RFT | 50 | | |
| | 501 feet to 600 feet | RFT | 100 | | |
| | 601 feet to 700 feet | RFT | 100 | | |
| | 701 feet to 800 feet | RFT | 100 | | |
| | 801 feet to 900 feet | RFT | 100 | | |
| | 901 feet to 1000 feet | RFT | 100 | | |
| | 1001 feet to 1100 feet | RFT | 100 | | |
| | 1101 feet to 1200 feet | RFT | 100 | | |
| 3 | Supplying & fixing of 10 inch outer diameter 6kg/cm ² PVC Casing Pipe of first quality approved brand manufactured by M/s Supreme/Astral with all standard PVC Fittings & hardware items etc., complete all as specified & directed by Engineer in Charge. | RFT | 600 | | |

| Sl. No | Description | Unit | Qty | Rate/unit in fig. & in words Rs. | Amount (Rs) |
|--------|---|------|------|----------------------------------|-------------|
| 4 | Supplying & fixing of 8 inch outer diameter 6kg/cm ² PVC Casing Pipe of first quality approved brand manufactured by M/s Supreme/Astral with all standard PVC Fittings & hardware items etc., complete all as specified & directed by Engineer in Charge. | RFT | 1000 | | |
| 5 | Supplying, installing, testing and commissioning of multistage TEXMO AQUA make submersible pump set model no-YSRF-15/ 80 stage / 10 HP three phase, COMPLETE SS CONSTRUCTION 400/440v, 50cy, 2800 rpm, as per manufacturer supply, Discharge will be 2000 lph @1450 ft/ 1000 lph @ 1564 ft Including 1 ½" dia HDPE PIPE PE 63 GRADE VARUNA/RAKSHA/MANGALAM (25 kg/cm ²) make including all accessories like S S end fittings, L & T make Indoor type control Panel Board for 10 HP3PH, 6.0 sqmm x 3 core of M/s FINOLEX/TEXMO AQUATEX make Submerisable cable, 8 mm Steel Rope with PVC Coating, Labour & transportation charges, . etc., complete all as specified & as directed by Engineer in charge. (for 10 borewells) | Nos | 10 | | |
| 6 | Providing and Lowering of Slotted Pipe with Gio Fabric for entier Borewell depth of 110 mm diameter @ 6kg/cm ² . etc., complete all as specified and directed by Engineer in charge. (for 10 borewells) | RFT | 6000 | | |
| 7 | Supply, erection, testing, jointing and commissioning of HDPE PIPE PE 63 GRADE/PE 100 GRADE of M/s VARUNA/RAKSHA/MANGALAM Make (25 kg/cm ²) , conforming to relevant IS including all accessories like, S S end fittings, L & T make Indoor type control Panel Board for 10 HP3PH, 6.0 sqmm x 3 core of M/s FINOLEX/TEXMO AQUATEX make submerisable cable, 8 mm Steel Rope with PVC Coating with all Labour & transportation charges etc., complete all as specified and directed by Engineer-in-Charge. Note: 1) Consiquently, the length of water pumping lines from the borewell points to the collecting sump has been estimated approximately for the purpose of their estimate. The actual length will be determined upon completion of the drilling process and the payment to the agency will be made accordingly based on the final/actual measurements. 2) The actual length of water distrubition line from borewell collecting sump-1 to pumping to sump-2 will be determined only after finalizing the location of sump-1. | | | | |
| | a) 63mm diameter HDPE Pipe | RMT | 3500 | | |
| | b) 110mm diameter HDPE Pipe | RMT | 3600 | | |

| Sl. No | Description | Unit | Qty | Rate/unit in fig. & in words Rs. | Amount (Rs) |
|--------|--|------|------|----------------------------------|-------------|
| 8 | Supplying & Making Horizontal Directional Drilling (HDD) Bore of 110mm diameter a for laying the HDPE Pipe for watersupply etc., complete all as specified & directed by Engineer in charge. Note: 1) HDPE Pipe shall be measured and paid seperately. 2) The Contractor to take utmost care while doing HDD method such as no distrubances should occur to adjacent buildings/hangars. 3) The Contractor to note that, if any damages occur to existing underground cables, waterpipe lines, the firm shall rectify the same to the damaged portion with his own risk & cost | RMT | 1600 | | |
| 9 | Supplying & fixing of Stainless steel end fittings for both sides etc., complete all as specified & directed by Engineer in charge. | Nos | 10 | | |
| 10 | Supplying & installation of Heavy Duty fittings viz., Clamp set 5kg, Heavy duty bore cap, Bend, SS 304 grade Bush, Hose nipple and Noni brass Non Return Valve of weight approximate 500g of first quality approved brand conforming to relevant IS etc., complete all as specified and directed by Engineer in charge. | Nos | 10 | | |
| 11 | Design & Construction of 2,00,000 Liters capacity RCC Water collecting sump at two different locations. Including Submission of structural design & Analysis based on soil conditions, designing load factors with relevant IS Codes, including providing centering, shuttering, waterproofing to sump etc., complete all as specified and directed by Engineer in charge. Note: a) The Rate is deemed to include for all materials, labour, tools, equipments required for excavation, concreting, reinforcement, waterproofing, plastering, finishing and testing of sumps. b) The work must comply with relevant IS Codes. c) The Contractor must provide structural details and bar bending schedule before the execution of work both in Hard copy & Soft copy in (AUTO CAD & PDF Format). d) Payment for the above work will be made on lumpsum basis considering the entire sump as one unit (1 JOB). e) The Rate is deemed to include for providing & removal of scaffolding, staging wherever necessary. f) No Extra Claims for Site Clearing, Scaffolding, curing, minor modifications will be entertained. g) The location of collecting water sump-1 will be determined based on the final positioning of the borewells, ensuring it is placed at the nearest point to the identified watersources. h) Sump-2 will be located adjacent to existing BWSSB water collecting sump near pump house. | JOB | 2 | | |

| Sl. No | Description | Unit | Qty | Rate/unit in fig. & in words Rs. | Amount (Rs) |
|---|--|------|-----|----------------------------------|-------------|
| 12 | Providing necessary repairs to existing Old water sump of 65000 gallons Capacity & OHT's (02 Nos) of one lakh liters & 50000 Liters Capacity, the scope includes providing concreting to tanks & sump wherever damaged, plastering to tanks & sump for damaged portion, providing waterproofing treatment for sump, Plastering, concreting to sump wherever damaged, providing painting to sump & OHT's, dismantling of broken wall of sumps & loose surfaces and carting away debris outside the site premises. etc., complete all as specified and directed by Engineer In Charge. Note: a) The rate quoted is deemed to include for providing & removal , erecting of scaffolding, staging, providing safety nets etc. b) The rate is deemed to include for wastages. c) Payment for the above work will be made on lumpsum basis considering the entire work as one unit (1 JOB). d) No Extra Claims for Site Clearing, Scaffolding, curing, minor modifications will be entertained. | Job | 1 | | |
| 13 | Supplying and installation of 10HP Open well Submerisable Pump of 50000 Liters/Hr-80mm x 65mm with 3 phase starter and 3 core cable along with Auto Level controller etc., complete all as specified and directed by Engineer In Charge. | Nos | 1 | | |
| 14 | Supply, erection, testing, jointing and commissioning of 110mm diameter HDPE PIPE PE 100 GRADE of M/s VARUNA/RAKSHA/MANGALAM Make of (25 kg/cm2) , conforming to relevant IS including all accessories like, S S end fittings etc., complete all as specified & directed by Engineer in Charge. | RMT | 100 | | |
| 15 | Supplying, fixing & installation at site triple Layered covered rotational moulded, threaded/Hinged Polyethylene water storage tank (Cylindrical vertical with closed top) of capacity 10000 liters of first quality conforming to relevant IS:12701, Manufactured by M/s Sintex/Vectus/Supreme/Kaveri etc., along with all accessories such as ball valve, CPVC & PVC Fittings & fixtures etc., complete all as specified & directed by Engineer-in-Charge.. Note: a) The quoted rate is deemed to include for supplying, erecting & fixing of MS Stands along with supports of approximate 10 feet height for laying & fixing of PVC Tanks. b) The rate is deemed to include for making provision for pipe lines connections from sump to new pvc tanks. | Nos | 2 | | |
| Note:- rate quoted for the above items is deemed to include for providing and removal of scaffolding/staging wherever necessary. 1) The 2) The contractors/ prospective bidders shall visit the site and acquaint themselves with the site conditions before submission of bid/ quote. 3) The contractor to note that the dismantled materials should be removed and shifted immediately from the site premises without disturbing the regular production activities . | | | | | |
| | Total value of work excluding GST (Rs). | | | | |
| | GST (Rs). | | | | |
| | Total value of work inclusive of GST (Rs) | | | | |

(Total Amount in words Rupees.....)

.....)

Signature of the Contractor with seal