

### KWAZULU-NATAL DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT

**Quotation No: R/S/1920/1694** 

SUPPLY, DELIVER AND INSTALL NOGWAJA BOREHOLE IN WARD 03 UMVOTI LOCAL OFFICE – UMZINYATHI DISTRICT

NAME OF BIDDER:	

1. PRE-QUALIFICATION CRITERIA

REQUIREMENT-CIDB Grading: 1 CE, ME OR GB

Evaluation will be in terms of the 80/20 preference point system

For more information, please contact the following official:

For: Technical Enquiries: MRS TT. Mnguni 082 454 7741 / 033-413 2155

For: Quotation/SCM enquiries: Ms Bonnie Nzimande

033-343 8311

CLOSING DATE: 13 MARCH 2020 TIME: 11:00 AM



# agriculture & rural development

Department:
agriculture
& rural development
PROVINCE OF KWAZULU-NATAL

#### **INVITATION OF QUOTATION ABOVE R30,000.00**

THIS FORM SHOULD BE COMPLETED IN DETAIL AND SHOULD BE ACCOMPANIED BY A VALID TAX

COMPLIANCE STATUS PIN AND VALID BBBEE VERIFICATION CERTIFICATE/AFFIDAVIT

QUOTATION NUMBER: <b>R/S/1920/1694</b>	VALIDITY PERIOD OF QUOTATION Days (To be completed by the Supplier)
20 100 1000	
CLOSING DATE:03/03/2020	CLOSING TIME:11H00
DESCRIPTION(SPECIFICATION/S) OF ITEMS/	COMPANY NAME:
SERVICE REQUIRED:TO SUPPLY, DELIVER & INSTALL	
NOGWAJA BOREHOLE IN UMVOTI LOCAL OFFICE –	TEL NO:
UMZINYATHI DISTRICT	FAX NO:
SEE ATTACHED SPEC	CONTACT PERSON:
	CSD REG NUMBER
	MAAA
DOES OFFER COMPLY WITH SPECIFICATION?	YES/NO
SPECIFICATION!	(DELETE WHICH EVER IS NOT APPLICABLE)
DOES ARTICLE COMPLY WITH SABS SPECIFICATION?	YES/NO
HAS IT BEEN INSPECTED BY SABS?	YES/NO
<b>Q</b>	(DELETE WHICH EVER IS NOT APPLICABLE)
DELIVERY PERIOD AFTER INITIAL ORDER?	
IS THE PRICE FIRM	
WHERE ARE THE STOCK HELD?	
(PHYSICAL ADDRESS , PLEASE)	
(	
QUOTATION PRICE INCLUDING VAT	TOTAL: R
(VAT TO BE ADDED BY REGISTERED VAT VENDORS ONLY)	TOTAL, K
COMPANY OFFICIAL STAMP (COMPULSORY)	SIGNATURE OF BIDDER
	SIGNATURE OF BIDDER
	DATE
NUMBER OF PAGES FAXED BACK TO THE DEPARTMENT BY	(2 11
THE SUPPLER	( Supplier to complete)

**NB:** QUOTATIONS MUST BE DEPOSITED IN THE BID BOX SITUATED AT: THE DEPARTMENT OF AGRICULTURE & RURAL DEVELOPMENT:4 PIN OAK AVENUE HILTON

FOR THE ATTENTION OF: BONGI MBOKAZI TELEPHONE NUMBER: 033-343 8312

**NB:** THE ATTACHED SBD4 & SBD9 FORMS MUST BE COMPLETED .THIS QUOTATION COVER PAGE MUST BE COMPLETED AND RETURNED WITH ALL YOUR QUOTATION DOCUMENTS.

COMPAN	IY NAME	:					
ADDRES	S	•			<del>2</del> 0		
CONTAC	T PERSON				E.		
CONTAC	TNUMBER						
AX NUM	IBER						
	SPECIFIC	CRIPTION OR CATION OF ITEM		UNIT PI EXCL.		TOTAL P	RICE
LINE NO.		District	REQUIRED QUANTITY	R	С	R	
1,	See attache	ed bill of quantities					
2.							+
ONLY A	PPLICABLE TO	O VAT REGISTERE	D SUPPLIERS		TAL		
				TOTAL PR	RICE		
When Where Conta TEL	Registration No Required (Required (	uester):Mrs.	TT Mnguni_ 454 7741/0334132 M			- - DAYS	



# SITING, DRILLING, TESTING, EQUIPPING OF BOREHOLES

### 2019

DISTRICT

Umzinyathi

NAME OF BOREHOLE

Nogwaja Borehole

CO - ORDINATES

S=29 13 47.2

E=30 54 47. 5

### This document contains:

No.	Section	Pages
1	A – Project Particulars	2
2	B — General Conditions of Contract	3-6
3	C – Project Technical Specifications	7–10
4	Bill of Quantities	11
5	ANNEXURE A: Work Phase Schedule	
6	ANNEXURE B: Summary of costs	=======================================
7	ANNEXURE C : Additional Information	

#### A - PROJECT PARTICULARS

#### 1) PROJECT DESCRIPTION / BACKGROUND

Nogwaja borehole is in ward 1 of Umvoti Municipality and is located at Makhabeleni area under iNkosi S S Dlomo of Amakhabela Omvoti Tribal Authority. The borehole is for Nogwaja goat project that will benefit the goats. The project has 5 benficiaries.

The project covers the siting, drilling, testing and equipping of .....01..... Bore Hole

#### 2) LOCATION

#	NAME OF PROJECT	DISTRICT	PROJECT DISTANCE (Km's) FROM NEAREST TOWN	NAME OF NEAREST TOWN	PROJECT CO_ORDINATES (if available)
1	Nogwaja borehole	Umzinyathi	49km away from Greytown	Greytown	S=29 13 47.2 E=30 54 47 .5

For exact location see attached map(s) or directions to be provided at site briefing.

#### 3) GENERAL SCOPE OF WORKS

The contract covers the supply of all material, drilling and equipping of borehole(s). The following are the scope of works for the drilling and equipping of *boreholes*. Details of these works are specified in *Section C: Project Technical Specifications*.

- **Desktop Assessment**: The co-ordinates of the boreholes must be plotted on GIS map coverage and assessed for the probability of ground water.
- Site Assessment: The physical site must be surveyed with a Magnetometer or equivalent Geohydrological survey equipment.
- Drilling: The appropriate drilling must be done according to the ground conditions and to the appropriate depth based on the above results, ie. Air Percussion, Mud Rotary Percussion, Symetrix, Odex
- **Equipping** The borehole is to be equipped with a quality SABS approved pump carrying a minimum of a 12 month quality guarantee.
- Strength of concrete 20MPa for the tank stand footings, concrete bases.
- Tank Stand Galvanised 3m tank stand to carry 5000L JoJo Water Tank.
- Water supply 2X500L Jojo Drinking troughs (Secured with galvanised frame)
- Water supply Tap stand with stand encased in concrete and pvc piping, secured to concrete block 1.2m X 1m X 200mm

#### **B - GENERAL CONDITIONS OF CONTRACT**

#### 1) COMPETENCY

Geohydrological services are to conform to the standards detailed in the "Criteria for Groundwater Development for the Community Water Supply and Sanitation Programme" by the Department of Water Affairs and Forestry 1996. The consultant / organization must be registered and recognized for their proficiency in hydro-geological services.

Valid proof of registration with the South African Council for Natural Scientific Professions (SACNASP) must be attached

Registered and paid up members of the Ground-water Association of Kwa-Zulu Natal must supply a copy of their membership details!!!

The bidders competence and reliability will be evaluated according to the proof of previous works indicated in Annexure B.

#### COMPETENCY OF THE CONTRACTOR

2) 3)

4)

5)

6) 7)

8)

#### 2) CONTRACTOR TO PROVIDE EVERYTHING NECESSARY

The Contractor shall provide everything necessary for the proper execution of the Works according to the true intent and meaning of the Drawings and Specification taken together. The Contractor shall provide without extra charge all assistance and everything reasonably necessary for proving the quality of work done as may be required by the Engineer.

#### 3) SUB-CONTRACTED WORK

The Contractor shall **not sub-contract the whole** of the contract. In case the Contractor decides to subcontract part of the work he shall obtain written consent of the Engineer. Any such consent shall not relieve the Contractor from any liability or obligation under the contract and he shall be fully liable for the acts, defaults and neglects of any sub-contractor, his agent or employees. The Contractor remains fully responsible and accountable for all aspects of the work (quality, timorousness and budget).

#### 4) VARIATIONS / 'AS BUILT' DETAILS

No variations or alterations may be made without the prior approval of the Regional Engineer. As the work progresses, the Contractor shall keep full records of all amendments to and deviations from the specifications as issued to the Contractor at the start of the contract. These details will, where appropriate, be noted on the supplied drawing. All alterations will be deemed to have a zero additional cost implication. If any additional works are required that have an additional cost implication then these must first be authorized in writing by the Regional Engineer. Refer to Clause 41: Ancillary Materials, Services And Equipment.

#### 5) VERIFICATION OF EXPERIENCE

The Bidder will be required to produce adequate and sufficient references to enable the Department to inspect previously completed projects and assess the capacity of the Bidder. The Bidder shall provide such information in Annexure B – Additional Information.

#### PRICING AND PAYMENT STRUCTURES

#### 6) FIXED RATE CONTRACT

The contract shall **not** be subject to contract rate (unit price) adjustment. Bidders must therefore allow for increased cost for the contract duration, including possible delays in awarding the Bid in accordance with the validity period. The tendered rates will be applied for calculating the payment value by using the actual quantities as measured and certified by the engineer at completion of the work.

#### 7) PRICING

The Bidders will be required to Bid for all services, products and commissioning as specified in this document and associated plans. Partial bids will not be accepted. If a Bidder does not Bid on all items, his/her Bid may be rejected.

All prices tendered are to be in South African currency. All prices must exclude Vat. Vat must be added in the pricing summary.

- All items as described in the project specification are to be priced in full.
- Prices to exclude VAT.
- The costs for travel, accommodation, all associated disbursements and labour must be included in the rates/amounts tendered for the all the works required.
- Transport/Delivery costs must be included in the pricing. It must not be a separate item.
- VAT must be filled in as the sub total followed by the complete price for the entire project.
- The tendered price must have your company stamp, date and be signed by an authorised person.

#### 8) **QUANTITIES OF WORK**

The Contractor shall receive payment only for the works actually executed and approved by the Engineer. No claim for an extra or for any addition, or for any variation shall be entertained unless such extra, addition or variation was ordered in writing by the Head of Department.

#### 9) PROGRESS PAYMENTS

- .1 The contractor may submit claims for progress payments only on completion of the hereunder listed levels. Payment shall only be paid for claims, which are commensurate with the works actually executed and complete. NOTE: Payment will only be made against the construction progress as pertaining to built items. Movable items and materials on site are excluded from progress payments until they have been fully installed, fitted or built up.
- .2 If any item or part of an item in an invoice is disputed by the Engineer, the Engineer shall give notice of such with reasons.
- .3 The contractor shall be paid in monthly instalments <u>up to a maximum</u> of five (5) or one (1) per borehole if more than 5 boreholes are awarded through a single order. Refer to <u>ANNEXURE B</u>: Work Phase Schedule for Drilling and Equipping of a Borehole for the values of each phase. Please note these values are primarily estimates of what part the work phase constitutes of the entire project, and do NOT reflect the exact amounts paid per payment. Usually payment certificates reflect work done in several work phases, which have not necessarily all been completed. Verification of the % complete will be at the sole discretion of the Engineer.

- ANNEXURE F presents a pro forma payment certificate. This will be used in conjunction with ANNEXURE B (Work phase schedule). The latter provides an approximate maximum to prevent over-payment of items that have been clearly over-priced.
- .5 Part payments will be made after the Department has approved the completion of each construction phase.

#### 10) DEFECT LIABILITY PERIOD

The contractor shall unconditionally guarantee all materials, workmanship related to the works for a minimum period of twelve (12) months. The guarantee shall cover any defects due to inferior materials and/or workmanship of the Contractor, or any of his sub-contractors, fair wear and tear excepted. The Contractor shall repair, remedy or replace any such defects, part or complete works without delay and at his own cost.

If any defects are not remedied within the period specified by the Head of Department, then the Head of Department shall have such defect repaired at the risk and cost of the Contractor by another Contractor whom the Head of Department deems to be proficient in the work without prejudice to any rights the Head of Department has against the defaulting contractor. The Head of Department will give written notice to the Contractor of such instances where he appoints another Contractor to remedy defects in the works.

#### 11) SERVICE LEVEL AGREEMENT

The successful Bidder and the Department will sign a Service Level Agreement prior to commencement of works. A proposed schedule of work must be provided by the contractor for the approval of the Engineer within 2 (two) weeks of receiving notification of a successful bid.

#### 12) COMMENCEMENT OF THE WORKS

1The Department will organize a site hand-over to the contractor who will then be introduced to the project stakeholders and participants. The site shall only be accessible to contractor staff and Departmental representatives while work is in progress. If this contract entails the drilling and equipping of more than one borehole, work on more than one site should commence simultaneously. The site(s) will be handed back after practical completion. Site establishment must start within one week, and the actual works within one week after hand-over of the site, provided that an official order has been issued and that no exceptional circumstanced such as inclement weather or other outside the control of either party to the contract prevail. In the case the work has not commenced within three weeks of the hand-over and no attenuating circumstances for the delay can be provided, the Department reserves itself the right to cancel the contract and appoint one of the other contractors that have works.

#### 13) COMPLETION OF THE WORKS

The project is to be completed within 3 months of award of Bid, provided that the order was received within two weeks after award of the Bid. In case of the drilling and equipping of more than one borehole, an extended period should be agreed upon, which will be part of the Implementation plan/Work schedule as drawn up by the contractor before commencement of the works and included in the Service Level Agreements.

#### 14) RATE OF PROGRESS

The Works shall be completed within the time period indicated on the official order form.

If the Works are delayed by cessation of work by any workmen, inclement weather, or by any omissions, additions, substitutions or variations of the Works, or of any items of work, labour or material, or by another causes beyond the Contractor's control then the Contractor shall have the right within twenty-one days of any such cause of delay arising, to apply in writing to the Department to extend the date of completion, stating the cause of delay and period of extension applied for. The Department upon receipt of such written application may by order in writing extend such date of completion by a period to be determined, or may refuse to extend such date of completion, or may postpone giving a decision upon such application until completion of the

Contract period set out in sub-clause (a) of this clause. The date of completion will be extended only to the extent approved by the Department.

Should the Contractor fail to apply in writing for an extension within the time set out above, or should the Department refuse to grant any extension in writing, then the Contract period provided by sub-clause (a) of this clause shall not be exceeded.

When the Works are completed the Department will give a completion certificate and the date of such certificate shall be the date of commencement of the guarantee period.

#### 15) TIME TO BE OF THE ESSENCE

Time shall be considered as the essence of the Contract. If, therefore, the Contractor fails to commence work or the Works or to proceed with and complete the Works in compliance with the projected timeframes, then the Head of Department shall have the right in his/her absolute discretion to adopt and exercise all or any of the following courses wholly or partly, viz: -

- To direct the Contractor, in writing, on any day named therein to suspend and discontinue the
  execution of the Works, and to withdraw himself and his workmen from the said Site or Sites,
  and thereupon: -
- To make any Contract or Contracts by calling for Bids or otherwise with any other Contractor
  or Contractors for the completion of the Works, or any part thereof, at such times and upon
  such terms as to the Department shall deem best.
- To provide such number of men, or purchase such materials, or both provide the men and purchase the materials as to him shall seem fit and proceed with and complete the said Works. In relation to the foregoing provisions the Department shall charge any sums of money which may be paid by the Department for completing the said Contract against the Contractor and if such amount shall exceed this Contract, then the Department shall have the right to recover such excess or any balance thereof from the Contractor by legal proceedings.

#### 16) WORK SCHEDULE & PROGRESS PAYMENTS

The contractor is to supply a Gantt chart with the proposed times of completion of each phase. The progress payments suggested in *ANNEXURE B* serve as a <u>guideline</u> for part payments. However, the contractor, in consultation with the Engineer, may deviate from this as long as the claim does not exceed the actual progress made.

#### C) PROJECT TECHNICAL SPECIFICATIONS

#### 1) SPECIFIC SCOPE OF WORKS

To Facilitate the Drilling and Equipping of boreholes as indicated in Section A: Project Particulars, clause 1.

- a. Geohydrological Desktops study, physical survey (instruments) and siting of borehole.
  - Geohydrological services are to conform to the standards detailed in the "Criteria for Ground-water Development for the Community Water Supply and Sanitation Programme" by the Department of Water Affairs and Forestry 1996. The consultant / organization must be recognized for their proficiency in hydrogeological services.
  - Study and interpretation of published geological and hydro-geological maps
  - Study and interpretation of available remotely-sensed information (aerial photography, ortho photos and / or satellite imagery)
  - Interrogation of existing databases National Groundwater Archive (NGA) and the Groundwater Resource Information Project (GRIP)
  - The siting of a potential ground-water borehole position must be pre-ceded by the pre-feasibility and / or hydro-census study to maximise the success rate within the most cost effective and productive manner. Every effort must be made to identify targets offering the greatest potential success in terms of yield and locality.
  - Siting is to be conducted utilizing at least one geophysical technique (preferably two) by a hydro-geological consultant / team
  - More than one potential position is required per project, based on whether or not the geophysical results show good potential for ground-water. The minimum requirements are as follows:
  - Production application: a minimum of two(2) potential positions (pegs) required per project.
  - Geophysical techniques include but are not limited to:
    - Magnetic surveys
    - Frequency domain electromagnetic surveys
    - Gravimetric surveys
    - Electrical resistivity surveys
    - Seismic refraction surveys

#### b. Drilling of boreholes.

• The drilling contractor will function under the direct supervision of the hydrogeological consultant (unless otherwise specified). The hydro-geological consultant will be responsible for the adequate instruction and on site supervision of the borehole construction for all aspects of that construction, inclusive of technical and management aspects. The hydro-geological consultant will be required to verify and document the construction parameters of the borehole as well as to log the geological formation encountered in that borehole.

Drilling method	Geological formation for drilling method used
Rotary air percussion	All consolidated rock formations (with limited overburden)
ODEX / Symetrix	In all formation
Rotary mud flush	In extensive unconsolidated soil formation

#### c. Pump Test and laboratory water sampling.

- The test pumping contractor will function under the direct supervision of the hydro-geological consultant (unless otherwise specified). The hydro-geological consultant will be responsible for the adequate instruction and on site supervision of the testing of the borehole and for all aspects of the testing of that borehole, inclusive of technical and management aspects. The hydro-geological consultant will be required to verify, document and interpret test results and make pump and pumping recommendations. Payment shall be made according to the type of test performed and per borehole tested. Test pumping will typically be one of the following:
- Step tests and associated recovery
- Step test, 24 hour constant discharge and associated recovery
- Calibration test. Step tests and associated recovery
- Calibration test, Step test, 24 hour constant discharge and associated recovery
- Comprehensive water sampling test ie. Bacteria, salinity etc.

#### d. Equipping of boreholes.

- The hydro-geological consultant will be required to verify, document and interpret test results and make pump and pumping recommendations. The borehole will be equipped with the recommended submersible pump powered by the recommended power supply ie. Generator
- SVM Franklin Pump, Motor 1.1Kw and Control Box 1.1Kw (or equivalent to be discussed with Engineer before installation), supplied by 4mm X 4 core electric cable and secured with heavy duty nylon ski-rope.
- Generator 6.5 Kva with combination battery powered and pull start
- 3m Galavanised Tank Stand secured with 20MPa concrete footings (500mm X 500mm X 500mm).
- 5000L Jojo tank braced with 4mm wire ties to tank stand
- 2 X 500L Jojo drinking troughs secured to the ground with 50mm X 50mm X 2mm galvanised frame. Frame to be secured in the ground with concrete footings.
- Tap and tap stand secured in concrete and pvc piping 800mm above the concrete slab.
- Concrete slab is to be 15Mpa (1.2m X 1m X 200mm). The slab is to be recessed 50mm below natural ground level.
- Supply(rising main) and delivery lines is to be 32mm HDPE class 10 (SABS approved), 100m supply from borehole and 200m delivery to water points.
- Trenching for piped water supply to be 600mm deep by 300mm wide
- Fittings control valves must be visited on both independent supply lines from the Jojo tank to the drinking troughs and the tap. The drinking troughs are to be further fitted with control valves before the float valve.
- The pump will be secured in a concrete ring. Galvanised lockable lid to be used to secure control box and pump(Alternative to be discussed with Engineer prior to any installations). The ring or lid to be fitted with ease of use lockable box which houses plug lead to prevent the continuous opening and closing of the lid.
- All operation and service manuals to be supplied on commissioning.

#### e. Testing and commissioning of boreholes.

 A complete operational test will be performed of the borehole pump and all associated pipes and fittings. The Geohydrologist will be required to be present on site to verify proper functioning of the borehole and to commission each project. All materials must conform to SABS specifications for the products. This includes all items such as piping, HDPE fittings, tank stands, reservoir tank, all other fittings, borehole pump and control box, etc...

All construction works must conform to the applicable standard specifications and installation requirements as per NBR requirements and manufacturers recommendations. All concrete works to conform to Cement & Concrete Institute standards and recommendations.

STANDARD CONCRETE MIXES:

(Class B concrete Slabs and footings)

Mixing, pouring and curing of concrete: SABS 1200 GA (5.4)

Materials: SABS 1200 AA (3); SABS 1200 GA (3)

Cement: Common cement 32,5N or R to SANS 50197-1

Testing: SABS 1200 AA (7); SABS 1200 GA (7)

Quality control through the slump test SABS 1200 GA (5.4.1.2) SABS method 862. The contractor is

to supply the slump testing equipment.

Tolerances to SABS 1200 GA (6.4)

Formwork: Refer to SABS 1200 GA (4.4: 5.2)

Reinforcing: SABS 1200 GA (5.1)

Refer to standard concrete mixes specification.

MORTAR CLASS	MIX RATIO: (By Volume)	MASONRY CEMENT: kg	LIME: L	SAND: (loose and damp) L (max)
	1:4	50	0-10	130
11	1:6	50	0-40	200
	MIX RATIO:	MASONRY	LIME:	6 0 0 0 m //
	(By Volume)	CEMENT: kg	LIME:	SAND: (loose and damp) L (max)
PLASTER CLASS  Rich mix (foundations, wet areas)			0-10	1156

#### STANDARD CONCRETE MIXES:

Concrete for non-structural purposes shall be "Prescribed mix concrete" produced in accordance with the requirements indicated in table 5.1, and the Contractor is also referred to the foregoing preambles insofar as they apply: -

Class of	Estimated Maximum		Proportion of Constituents				
Concret e	Minimum Compressive Strength in MPA at 28 Days	Nominal Size of Coarse Aggregate in mm	Cement (Parts)	Fine Aggregate (Parts)	Coarse Aggregate (Parts)		
Α	10	37,5	1 (=2 bags)	4	5		
В	15	19,0	1 (=2 bags)	3	4		
С	20	19,0	1 (=2 bags)	21/2	31/2		
D	25	19,0	1 (=2 bags)	2	3		
E	30	19,0	1 (=2 bags)	2	21/2		

Cement and aggregates shall be mixed by volume and the contents of a 50kg sack of cement shall be taken to be 0,033m³. Water addition should be kept to a minimum. Only sufficient water should be used to produce a workable mix of 60-100mm slump. A recommended maximum water: cement ratio is 1 for a 10Mpa; 0.8 for a 15Mpa; 0.65 for a 20Mpa; 0.59 for a 25Mpa; 0.53 for a 30Mpa mix, however the lower the ratio the better the durability of the concrete. Approximately 210 litres per m³ of concrete is required for an average quality sand and optimum quantity 19mm stone.

# BILL OF QUANTITIES GEOHYDROLOGICAL SERVICES

Payment Reference	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	PRE-FEASIBILITY STUDY				
1.1	SITE ESTABLISHMENT FOR THE DURATION OF THE PROJECT	Month	3		
1.2	HYDROCENSUS				
	a) Initiation, desktop collection and verification of data, map generation and report. Report to be compiled and approved by a Professional Geohydrologist registered with SACNASP.	no	1	sum	
1.3	BOREHOLE SITING Costs to include setting up of instruments, travelling, accommodation, travel time, compiling report and all related disbursements. Report to be compiled and approved by a Professional Geohydrologist registered with SACNASP. The report to include and recommend three possible positions to drill rank them.	no	1	sum	
	1				

SUB-TOTAL							
VAT@ 15%							
TOTAL CARRI BILL OF QUAN DRILLING OF							
PAYMENT REFERENCE	T DESCRIPTION LINUT OTY BATE						
1.	Instrument set-up and labour	no	1	sum			
2.	Drilling of borehole	•					
2.1	Borehole diameter of 165 mm						
2.1.1	Drilling depth range: 0-120 m	m	120				
2.1.2	Drilling depth range:120m-150m	m	30				
2.1.3	Mild steel 3-4mm wall thickness	m	50				
LIR TOTAL					1		

SUB TOTAL	
ADD: 15% VAT	
TOTAL CARRIED FORWARD	

# BILL OF QUANTITIES TEST PUMPING

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	Instrument Set-up Pump Testing & Labour	sum	1		
2	Pump Test				
	To include slug test, variable discharge (4hr),24hr constant discharge, recovery monitoring (1hr).  NB:Payment for this item will be effected upon received all tests results and data obtained during testing.	No.	1		
3	<b>Borehole Disinfection -</b> Granular chlorine (HTH or equivalent)	No.	1		
4	Borehole capping and install Borehole ID	No.	1		
5	<b>Data Recording –</b> (hard copy field sheet and digital excel spreadsheet)	No.	1		
6	Water level monitoring at observation borehole	No.	1		
7	Collection of water sample (cold storage and delivery to the laboratory)	No.	1		
8	SABS 241 Short borehole water quality analysis at accredited laboratory	No.	Rate		
	To include travel, accommodation, travel time and all related disbursements.				
SUB TO	TAL				
ADD: 15	% VAT				
TOTAL (	CARRIED FORWARD				



# BILL OF QUANTITIES EQUIPPING

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	instrument Set-up and Equipping(labour)	No.	1		
2	Disinfection of borehole	No.	1		
3	Trenching (600mm X 300mm)	m	300		
4	Pump & motor unit: Stainless submersible pump and motor unit to supplier a flow rate of 11/s and pumping head of 120m maximum.	No.	1		
5	Standard Control box :1.5 kW	No.	1		
6	Piping 32mm Class 12 HDPE (SABS approved)	m	300		
7	Fittings: Refer to drawing FTM/2018/BH01 (No deviation from the drawing)	No.	1		
8	Cable 4mm (4 core)	m	130		
9	Petrol Generator (6.5kVa) Key-starter Mounted on Wheelbarrow frame	No.	1		
10	Galvanized tank Stand (3m High)	No.	2		
11	Jojo Tank 5000L	No.	2		
12	Protective Pump House (Refer to drawing FTM/2018/BH01 with lockable lid)	No.	1		
13	Tap stand with Concrete block (1.5m X 1m X 200mm (20 MPa)	No.	1		
14	Drinking trough (500L side by side) Secured to the ground with 50mm X 50mm X 2mm galvanised frame. Frame to be secured in the ground with concrete footings.	No.	4		
	To include travel, accommodation, travel time and all related disbursements.				
SUB TOT	AL				
ADD: 159	% VAT				
TOTAL	ARRIED FORWARD				



### **ANNEXURE A: SUMMARY OF COSTS**

ITEM	DESCRIPTION	AMOUNT,R
1	Geohydrological Desktop studies & physical survey	
2	Borehole testing	
3	Borehole equipping	
Sub-tota	al (excluding vat)	
Add 159	% VAT	
Add 109	% Contingencies	
Total Pr	oject cost	



ANNEXURE B:		Additiona
	<u>Information</u>	

#### 1. PROFESSIONAL REGISTRATION

Please note that the awarded bidder will be required to supply proof of registration with the appropriate body.

Please note that Completion of the table below is mandatory and proof of registration must be attached !!!!

#	PROFFESSIONAL BODY REGISTRATION	REGISTRATION NUMBER
1		
2		
3		
4		

### 2. EXPERIENCE

Please indicate your experience and expertise by completing the table.

#	NAME OF PROJECT + PERIOD	PROJECT DESCRIPTION	ROLE	PROJECT VALUE	NAME AND CONTACT NUMBER OF REFEREE
1					
2					
3					
4					
5					

#### **DECLARATION OF INTEREST**

- 1. Any legal person, including persons employed by the state<sup>1</sup>, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes an advertised competitive bid, a limited bid, a proposal or written price quotation). In view of possible allegations of favouritism. should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where
  - the bidder is employed by the state; and/or

the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

2.	In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.
2.1	Full Name of bidder or his or her representative:
2.2	Identity Number:
2.3	Position occupied in the Company (director, trustee, shareholder², member):
2.4	Registration number of company, enterprise, close corporation, partnership agreement or trust:
2.5	Tax Reference Number:
2.6	VAT Registration Number:
2.6.1	The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / PERSAL numbers must be indicated in paragraph 3 below.

1"State	" m	ear	15 -

- (a) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
- (b) any municipality or municipal entity;
- (c) provincial legislature;
- (d) national Assembly or the national Council of provinces; or
- (e) Parliament.

<sup>2</sup>"Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

man	agement of the enterprise of business and exercises control over the enterprise.	
Pleas	e clearly indicate, with an 'X' only one box that is applicable to your business or	firm
2.7	Are you or any person connected with the bidder presently employed by the state?  YES N	0
2.7.1	If so, furnish the following particulars:	
	Name of person / director / trustee / shareholder/member:	
	Name of state institution at which you or the person connected to the bidder is employ	•
	Position occupied in the state institution:	
	Any other particulars:	666
2.7.2	If you are presently employed by the state, did you obtain	0
	the appropriate authority to undertake remunerative work outside employment in the p sector?	oubli
	If yes, did you attach proof of such authority to the bid document?	
	(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.)	0
2.7.2.1	1 If no, furnish reasons for non-submission of such proof:	
	5	

	trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months?	
2.8.1		
	If so, furnish particulars:	grant to
	S	
	Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid?	YES NO
2.9.1	If so, furnish particulars.	
av aı w	ware of any relationship (family, friend, other) between ny other bidder and any person employed by the state tho may be involved with the evaluation and or adjudication f this bid?	YES NO
2.10.1	If so, furnish particulars.	2005
2.10.1	·	······································
	·	YES NO
2.11 D		YES NO
2.11 Do	o you or any of the directors / trustees / shareholders / members f the company have any interest in any other related companies	YES NO

### 3 Full details of directors / trustees / members / shareholders.

Signature

Full Name	Identity Number	Personal Income Tax Reference Number	State Employee Number / Persal Number
4 DECLARATION  I, THE UNDERSIGNED (NAM	E)	10000	v
CERTIFY THAT THE INFORCED CORRECT.  I ACCEPT THAT THE STATE DECLARATION PROVE TO B	RMATION FURNIS	SHED IN PARAGRAPHS	S 2 and 3 ABOVE IS
Name of bidder			Position

Date

SBD 9

#### CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Standard Bidding Document (SBD) must form part of all bids<sup>1</sup> invited.
- Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).<sup>2</sup> Collusive bidding is a *per se* prohibition meaning that it cannot be justified under any grounds.
- 3 Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
  - a. disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
  - b. cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
- This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bidrigging.
- In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:
- <sup>1</sup> Includes price quotations, advertised competitive bids, limited bids and proposals.
- <sup>2</sup> Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

#### CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:		
(Bid Number and Description)		
in response to the invitation for the bid made by:		
(Name of Institution)		
do hereby make the following statements that I certify to be true and complete in every respect:		
I certify, on behalf ofthat:		

- I have read and I understand the contents of this Certificate;
- 2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
- 3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder:
- 4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
- 5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
  - (a) has been requested to submit a bid in response to this bid invitation;
  - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
  - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
- 6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.

- 7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
  - (a) prices;
  - (b) geographical area where product or service will be rendered (market allocation)
  - (c) methods, factors or formulas used to calculate prices;
  - (d) the intention or decision to submit or not to submit, a bid;
  - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
  - (f) bidding with the intention not to win the bid.
- 8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

11.35.15.11.11.13.13.13.11.11.13.13.11.13.11.13.11.13.11.13.11.11	***************************************
Signature	Date
Position	Name of Bidder

Can Conkern

SBD 6.2

### DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

This Standard Bidding Document (SBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2011, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

#### 1. General Conditions

- 1.1. Preferential Procurement Regulations, 2011 (Regulation 9) makes provision for the promotion of local production and content.
- 1.2. Regulation 9.(1) prescribes that in the case of designated sectors, where in the award of bids local production and content is of critical importance, such bids must be advertised with the specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Where necessary, for bids referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

x is the imported content in Rand

y is the bid bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid as indicated in paragraph 4.1 below.

The SABS approved technical specification number SATS 1286:2011 is accessible on http://www.thedti.gov.za/industrial development/ip.jsp at no cost.

- 1.6 A bid may be disqualified if -
  - (a) this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation; and
  - (b) the bidder fails to declare that the Local Content Declaration Templates (Annex C, D and E) have been audited and certified as correct.

#### 2. Definitions

- 2.1. "bid" includes written price quotations, advertised competitive bids or proposals;
- 2.2. "bid price" price offered by the bidder, excluding value added tax (VAT):
- 2.3. "contract" means the agreement that results from the acceptance of a bid by an organ of state;
- 2.4. "designated sector" means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;
- 2.5. "duly sign" means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility(close corporation, partnership or individual).
- 2.6. "imported content" means that portion of the bid price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and which costs are inclusive of the costs abroad (this includes labour or intellectual property costs), plus freight and other direct importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;
- 2.7. "local content" means that portion of the bid price which is not included in the imported content, provided that local manufacture does take place;
- 2.8. "stipulated minimum threshold" means that portion of local production and content as determined by the Department of Trade and Industry; and
- 2.9. "sub-contract" means the primary contractor's assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.
- 3. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

	Description of services, works or good	Stipulated minimun	n threshold
	a)otol		100 %
	umps, accessore	-	*
	Steel product	=	100 %
	· ·	_	%
	- Caraltha comicon 100	arke or goods offered	
4.	Does any portion of the services, wo have any imported content?  (Tick applicable box)	or goods oneres	
	YES NO		
4.1	if yes, the rate(s) of exchange to be prescribed in paragraph 1.5 of the g SARB for the specific currency at 12	general conditions must be tric 2:00 on the date of advertisen	nent of the bid.
	relevant rates of exchange information		
India Ann	cate the rate(s) of exchange against the ex A of SATS 1286:2011):	e appropriate currency in the	able below (refer to
Cur	rency	Rates of exchange	
	Dollar		
	nd Sterling		
Eur			
Yen			
Oth			
NB: 5.	Bidders must submit proof of the SAR		E) audited and certified
	as correct?		
	(Tick applicable box)		
	YES NO		
5.1	If yes, provide the following particulars	3:	7
-	( ) T. I. I		
view	(Documentary proof regarding the satisfaction of the Accounting Office	declaration will, when require er / Accounting Authority)	d, be submitted to the
6.	Where, after the award of a bid, cl minimum threshold for local content to to verify and in consultation with the A	he dii musi de intormed acco	raingly in order for the du

# LOCAL CONTENT DECLARATION (REFER TO ANNEX B OF SATS 1286:2011)

LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT I (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)	BY THE CHIEF				
IN RESPECT OF BID NO.					
ISSUED BY: (Procurement Authority / Name of Institution):  NB					
The obligation to complete, duly sign and submit this declaration cannot be transferred of an external authorized representative, auditor or any other third party acting on behalf of the bidder.					
Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on <a href="http://www.thdti.gov.za/industrial-development/ip.jsp">http://www.thdti.gov.za/industrial-development/ip.jsp</a> . Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below. Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.					
I, the undersigned,					
(a) The facts contained herein are within my own personal knowledge.					
(b) I have satisfied myself that:					
<ul> <li>the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and</li> <li>the declaration templates have been audited and certified to be correct.</li> </ul>					
(c) The local content percentage (%) indicated below has been calculated formula given in clause 3 of SATS 1286:2011, the rates of exchan paragraph 4.1 above and the information contained in Declaration D and E consolidated in Declaration C:	nge indicated in				
Bid price, excluding VAT (y)	R				
Imported content (x), as calculated in terms of SATS 1286:2011	R				
Stipulated minimum threshold for local content (paragraph 3 above)					
Local content %, as calculated in terms of SATS 1286:2011					

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above.

The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2011 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE:	DATE:
WITNESS No. 1	DATE:
WITNESS No. 2	DATE:

This total most correspond w

Date:

	4	Annex E		SATS 1286.201
	Local C	ontent Declaration - Supporting	Schedule to Annay C	CA CONTRACTOR
(E1) (E2) (E3) (E4) (E5)	Tender No. Tender description: Designated products: Tender Authority: Tendering Entity name:			rom all calculations
	Local Products (Goods, Services and Works)	Description of Items purchased	Local suppliers	Value
	A Long to the second life	(E6)	(E7)	(E8)
		(E9) Total local products	(Goods, Services and Works)	
	(E12) Administration overheads and	rer's manpower cost)  depreciation & amortisation, utility costs, con  mark-up (Marketing, insurance, financing	sumables etc.)	Annex C - C24
Sign	ature of tenderer from Annex B			

Date: