TERMS OF REFERENCE FOR SITING AND DRILLING SUPERVISION FOR SOLARISED DEEP WATER WELL

1. BACKGROUND

Habitat for Humanity Uganda is planning to implement a water sanitation and hygiene project at Bukana subcounty in Namayingo district. Habitat Humanity Uganda tends to utilise part of the funds for construction of a solarized deep water well for school and community water supply. The District therefore wishes to procure the services of competent company undertake Borehole siting and supervision. These activities are to be carried out in a manner that conforms to the following principles:

Support to the decentralisation process; Institutional capacity building especially at District, Sub-County and Community level; Demand responsiveness; Community participation and ownership; and **Emphasis on gender responsiveness, environmental mitigation measures.**

The company is required to prepare and execute an investigation in Bukana village. The ground water abstraction technology option to be implemented is deep boreholes unless otherwise directed by the Client in writing. `

Habitat for Humanity Uganda invites Competent companies to bid for the execution of hydro geological surveys and drilling supervision for boreholes.

2. OBJECTIVE

The overall objective of this assignment is to provide services to assist the client to implement the Solarised deep water well construction program effectively. Specifically:

- a) To describe the three areas in terms of a baseline description of the geology, topography, soils, existing water points and sanitation facilities.
- b) For new boreholes sites, to conduct a hydrogeological and geophysical investigation to describe the site's aquifer properties, aquifer groundwater quality and quantity, site soil types and collapsing capability, groundwater levels, groundwater flow direction, and ecologically significant groundwater recharge areas.
- c) Perform a risk assessment of the sites' aquifer contamination potential and indicate possible sources of contamination.
- d) Recommendation from findings on which site to drill new boreholes and which existing boreholes/wells can be upgraded into water schemes.

3. SCOPE OF SERVICES

The Company's services will generally cover the following:

Borehole siting, including conducting reconnaissance surveys and hydrogeological investigations; Drilling supervision in conjunction with District officials and Habitat for

Humanity in a manner that enables skills transfer, while observing relevant statutory requirements and Government regulations.

The Consultant is expected to use both secondary and primary data in the exercise, Secondary data will involve desk study of available information/data on existing boreholes, drill logs, reports and maps. While primary data will be obtained by carrying out hydro geophysical measurements on new sites. During the study, they will need to use the necessary hydrogeological surveying equipment, the instrument, which distinguishes between clays and freshwater by resistivity profiling and vertical electrical soundings. The outcome of the consultancy will be a detailed hydrogeological investigation report giving details of the findings and recommendations.

4. ACTIVITIES

The Company is expected to carry out the following main activities;

4.1. Hydro-geological Investigations and Borehole/ deep well siting

The Company is required to make a thorough, precise and concise but brief study of the area, identifying the characteristics of the hydrogeological unit under question, and provide precise locations for drilling of Borehole both deep wells and production wells for community water supply.

4.2.Reconnaissance Surveys

The Company shall liaise with the relevant District authorities and agencies, and collect all relevant data and information on the selected target areas in order to determine, among others, the groundwater potential, accessibility and community readiness. Potential alternatives (e.g existing Borehole, springs, or shallow wells), if any, should also be examined during the reconnaissance survey.

4.3.Detailed Surveys

Based on the findings of the reconnaissance surveys and recommendations of the Client the consultant shall undertake detailed investigations to determine ground water conditions in and around all selected, and identify specific sites for construction of deep Borehole and production wells.

4.4.Preparatory work for Hydro geological surveys

The Company shall prepare and organise hydro-geological surveys in Bukana Village, the surveys will be based on detailed aerial photograph interpretations, field verifications. The contractor is also expected to make use of existing water resources data from both DWD and the District available sources of information includes, but is not limited, to the following:

- Aerial photographs at a scale of 1:60,000
- Water resources Assessment Survey Reports and Technology options maps*
- Maps showing regional Hydro-geological analysis
- Water point inventory reports

- Social-Technical Manual for siting
- Community Mobilisation manuals
- Topographic Maps (Dept Survey and Mapping)
- Geological Maps (Dept. Surveys and Mapping)
- Geological maps and reports (**Dept. Geological Surveys**)
- Drilling Records (WRMD-DWD)

The Consultant should carefully study the available documents, then select 3 potential sites at village based on hydrogeological criteria such as ground water potential, existence of fractures or faults, confined/unconfined/leaky aquifers, alluvial aquifers, typical potential formations/rocks, geological unconformity, potential geological structures such as dikes and community considerations.

4.5.Hydro geological Surveys and Siting

Siting of Borehole will need to be carried out in close co-operation with District and Subcounty staff and leaders, in order to accommodate community participation aspect. Since a shorter walking distance to a safe water supply adds great value to utilisation of the facility, the Company is strongly urged to try and find formations for drilling that fulfil these criteria.

The beneficiary communities are required to provide three options the deep borehole well site. The Consultant shall carry out detailed surveys at the three sites proposed by the community and in areas that have been identified in the preliminary studies as potential sites. Before detailed surveys are carried out, a discussion and comparison of the sites selected by the community and the target sites selected for geophysical surveys should be made. The Company should not that investigations should not necessarily be limited to the three sites selected by the community, as professional judgement can justify other sites. In case the community's preference sites has not groundwater potential, the Company should be able to explain this to the community and should together with the community find alternative sites to survey.

Geophysical surveys shall be carried out employing methods including but not limited to Magnetic, Electromagnetic and Resistivity. A combination of Traverse and Vertical Electrical Sounding methods normally yields very good results and is therefore recommended. The Company shall be required to use appropriate methods/techniques and sound equipment to carry out work in the field. All the surveys shall be carried out with an objective of determining the site with the highest potential for water productivity in a given objective of determining the site with the highest potential for water productivity in a given area. The consultant shall be required to analyse and interpret the data using software recommended by the Client.

The Company, at the end of a successful survey, shall conspicuously mark the selected sites. Borehole/deep wells shall be marked with silver or red durable site pegs (metal, timber, etc). a location map for the site and a separate brief report on the site, e.g expected formation, expected depth to water, etc, should be prepared. The Company should, as far as possible, confirm to standard reporting format (Item 5). The Company shall discuss each potential target site with local community and Habitat for Humanity Uganda. Agreement to the final drilling site will be sought after Geophysical surveys from the HFHU, chairperson of the WSC and the landowner who will sign on the water source location map in the presence of the concerned WSC.

Access to the target sites for the purpose of undertaking the surveys shall be the responsibility of the HFHU, District and the respective community. Nevertheless, the Company, should as far as possible advice the HFHU, District and the community to try not to locate sites that interfere with existing structures, fences, road reserves, cultivated land and pollution prone areas, and to always bear in mind that sites MUST be accessible to the drilling Contractor's equipment.

4.6.Supervision of Drilling Contracts

4.6.1 Supervisor's authority

The company shall supervise the contractors following the terms, conditions and specifications as provided for in the drilling contract. Specifically, he shall:

(a) Exercise the authority specified or implied in the contract. However, the Company's attention is directed to some provisions in the contract that reserve some powers to the client and where the company can only proceed after seeking written approval of the client.

(b) Except as expressly stated in the Contract, have no authority to relieve the contractor of any of his obligations under the contract.

(c) Appoint qualified and experienced personnel, subject to approval of the Client, for dayto-day on-site supervision for all sites wherever the contractor is operating. Such personnel shall carry out such duties and may exercise authority as may be delegated, and full responsibility shall be borne by the Company. Before deployment of such personnel, the Company shall be required to provide the client with full details in form of their Curriculum Vitae and seek written approval.

(d) From time-to-time delegate to the approved personnel any of his duties and authorities and revoke such assignment, as required. Any such delegation or revocation shall be in writing and shall not take effect until a copy thereof has been delivered to the Client and the Contractor.

Any communication given by the Company's Representative to the Contractor shall have the same effect as though it had been given by the company provided that:

Any failure of the Company's representative to disapprove any work, materials or plant shall both prejudice the authority of the Company to disapprove such work, materials and plant to give instructions for ratification thereof; If the Contractor questions any communication of the Company's delegate he may refer the matter to the company who shall confirm, reverse or vary the contents of such communication.

4.6.2 Specific Duties

The Company shall manage the drilling contract on a day-to-day basis on behalf of the client. He shall carry out quality control, and ensure that works are being carried out as provided for in the contract. The company shall specifically carry out the following:

(a) Examine tools, materials, plant and equipment and approve or reject as appropriate on the basis of the standards. Such instructions shall be provided to the contractor in writing.

(b) Write instructions to the contractor relating to the management of the contract, the design and development of the water source, or any other relevant matters as and when required. All instructions issued by the company shall be in triplicate, and shall be signed by site representatives of both the company and the contractor. One copy is to be retained at the site by the company, one copy is to be given to the contractor, and one copy is to be submitted to the client as part of the Supervisor's Daily Report.

(c) Ensure that the Contractor:

• Uses the correct drilling methods, equipment and tools for any site to be drilled.

• Follows the standard drilling practice, including making all necessary drilling records correctly and on the spot.

• Completes the Borehole/deep well according to the recommended well design. In case of need to change the well-design due to unforeseen variation in hydrogeological conditions, the Contractor shall be required to make consultations with the company's site representative who will inform HFHU in written. Upon a sound technical judgement, for which he takes full responsibility, HFHU in consultation with the supervising company will issue written approval and instructions to the contractor to go ahead with the necessary changes, all the changes made shall be properly recorded and shall form part of the driller's log.

• Upon completion of the Borehole/deep well fully develops it in accordance with specifications.

• Prepares completion records (Item 5.0) carefully and accurately for Borehole/deep well. Completion records shall be duly signed by three parties: the Contractor, Company and local leader or the Chairperson Water and Sanitation Committee. These shall form part of the hand over report when finally, the installations are handed over to the users.

• Makes and submits Borehole/deep well completion reports to Water Resources Management Department (DWD) Entebbe, in conformity with the water Resources regulations -1998/latest.

(d) The Company shall ensure collection, storage, transport and submission to the Department of Geological Survey, Entebbe of all lithological samples by the contractor.

4.6.3 Supervisor's Daily Record

This should be recorded on standard forms (Appendix G) provided by the Client, and must include the following items:

- Site name:
- Site location (Village, Parish, sub-county, District)
- Reference number of the site

- GPS Co-ordinates of site grids
- Date of reporting
- Name of Supervisor's representative
- Name of Contractor
- Details of Contractor's plant and equipment on the site
- Details of work completed by the Contractor, especially time-based activities, if any.
- Number of people involved at the site dis-aggregated by gender.
- Participation of the community, if any, disaggregated by gender
- A copy of the Supervisor's Instructions to the contractor
- Problems encountered/resolved

A copy of the Supervisors daily record shall be made available to the Client whenever requested, and may include other pertinent data as may be requested from time to time by the client.

4.6.4 Technical Record

This should be recorded on standard forms (Appendix G), normally referred to as Borehole Logs, in the format provided by the client, and must include the following items:

- Site name:
- Site location (Village, Parish, sub-county, District)
- Reference number of the site
- GPS Co-ordinates of site (latitude/longitude or grids)
- Name of Contractor
- Details of Contractor's plant and equipment on the site
- Depths/diameters (Drilling)
- Materials installed, such as casing, screens, gravel etc. (Drilling)
- Equipment installed, such as pumps, rising main, etc
- Lithology log (Drilling)
- Penetration rate (Drilling)
- Water strike level/static water level/estimated yield (drilling)
- Discharge rate/draw-down (Testing)
- Water quality analysis
- Problems encountered/resolved

A copy of the Technical Record shall be made available to the Client on completion of the Borehole/deep well, and may include other pertinent data as may be requested from time to time by the Client. No such record shall be accepted by the client if it does not bear GPS coordinates, reference site number, site name and site location.

In case the Company is dissatisfied with construction records due to inconsistency, or a dispute/disagreement between the company and the contractor over the accuracy of the construction/technical details, the company may request the Client in writing to authorise him in writing to carry out further investigations applying geographical methods to determine the correct data of the drilled holes in question using methods such as, but not limited to; resistivity Borehole/shallow well logging.

4.6.5 Site Records

The site records shall include all site identification information, reports, data and maps, compiled in a standard format (APPENDIX G) as agreed by the Client. Such records shall reflect all the relevant technical and social information obtained from the site during the execution of the work. The Consultant shall submit these records to the Client in hard copy and also in soft copy where data analysis is carried out by some specific software as may be agreed between the Consultant and the Client.

The records (in an agreed format) (Appendix G) must include the following:

• Site identification from which must include; site name, site location (village, parish. subcounty, district) Reference number of site, GPS Coordinates of site (grids).

- Village location map
- Geophysical survey information and interpretations
- Test pumping data
- Water quality data

• A water Source Location Map (which must be signed by Chairperson/member of Water and Sanitation Committee or member on the WSC. The land owner of the area where the final site is should also sign.)

- A copy of the Technical Record for the site
- A copy of the Supervisor's Daily reports

• A copy of the Borehole/shallow well completion record (duly signed by the contractor, Supervisor and Chairperson WSC, for each Borehole/shallow well)

• Any other pertinent documentation relating to the site (land matters and others).

5. Reporting

5.1. Reporting Standards

The Company is required to adhere to the guidelines for report presentation and standards

6. PROJECT ADMINISTRATION

A. Coordinator

Habitat for Humanity Uganda will be responsible for the co-ordination of activities under the Contract, for acceptance and approval of the reports and other deliverable by the Client and for receiving and approving invoices for the payments.

B. Reports

The reports listed in Appendix 1 shall be submitted to Habitat for Humanity Uganda in the course of the assignment, and will constitute basis for the payment.

C. Confidentiality

The Company shall not, during the term of this contract and after expiration, disclose any propriety or confidential information relating to the services, this contract or the Client's business or operations without prior written consent of the Client.

INSTRUCTIONS FOR PREPARING THE TECHNICAL SECTIONS OF THE PROPOSAL

Introduction

 \checkmark

 \checkmark The essential purpose of the Technical Proposal is to describe how the Company plans to reach the ultimate goal of the Project through logical, inter-linked facets of the Project.

 \checkmark The Company shall present an outline description of how the Project will be approached, linking all the individual tasks and Project components.

 \checkmark The Company shall identify possible problems and constraints to the study and explain what he will do to remove or overcome such foreseen hindrances.

 \checkmark The Company shall make a brief description of his understanding of the area or field of investigation, previous investigations performed and amount of background data available.

 \checkmark The Company shall list the staff he intends to use for the various studies together with time estimates for their involvement.

The Company shall submit signed CVs and also fill in the table below.

Designation	Name/Nationality	Summary of Qualifications	Signature of Nominee

 \checkmark No price or cost data is to be included in the Technical Proposal. However, the number of man-days must be stated.

Work Programme and Schedules

The Company shall submit with his Proposal a detailed work program and accompanying Activity and Personnel Schedules in chart form, indicating clearly the scope and interconnection of the various inputs/activities. Details of personnel, their position in the proposed program and their total input in man-days should all be tabulated. The Client considers it important that the personnel mentioned in the Proposal documentation (with CVs) should be the ones to execute the work

Format and Specific Duties

To aid the evaluation of the proposals it is essential that the proposals follow the same format. Therefore, the proposal must contain the information specified below in accordance with the following format.

- Table of contents
- List of tables and drawings
- Short introduction and summary
- Objectives
- The Company's understanding of the Project
- Comments on the Scope of Services
- General Approach and Methodology to be used.

• Difficulties anticipated

• The Company's understanding and knowledge of the area or field of investigation. This section shall contain the Consultant's present knowledge of the area derived from available background data.

Liaison and Comments on the Project

 \checkmark This section shall contain information on how the Company intends to liaise with Habitat for Humanity and other Government and non-government bodies and organizations.

 \checkmark The Company may comment and expand on any aspect of the Project he feels is relevant, including suggestions for changes or amendments to the Project.

Previous Experience

- i.List all contracts (with evidence) undertaken in the past 3 years in chronological order, indicating: the previous and current clients in Uganda (stating a names and contact addresses and telephone numbers), the scope and value of the previous and current similar works undertaken over last 3 years.
- ii.Any similarities to the proposed programe

iii.The level of completion achieved.

PROJECT MANAGEMENT, ORGANIZATION AND MANPOWER ALLOCATION

The Company must submit the following Schedules:

- ✓ Project Organization
- ✓ Personnel Schedule (Bar Chart)
- ✓ Activities Schedule (Work Breakdown Structure Bar Chart)

The Project Organization must display clearly the lines of authority and responsibility, communications and co-ordination, as well as a description of the qualifications and experience of the key personnel in context of the Project duties and their anticipated tasks and man days in the Project. The Consultant is committed to deploy the key personnel included in his Technical Proposal. Such key staff may only be replaced only with the written approval of the Client.

The Work Plan must perform the following critical functions:

- \checkmark Identify and define the work to be done
- \checkmark Identify who is responsible for this work

 \checkmark Form the basis for the integration of the works to be done, the organization and the planning and control system.

Company Establishment

This shall include:

- \checkmark Name of Company
- Names and qualifications of Directors
 Registered Office (Physical and po
 - Registered Office (Physical and postal address, telephone, fax, e-mail, Company
- ✓ Secretaries and Auditors
- ✓ Company Principals (Shareholders; directors)
- ✓ Legal Status (Joint Venture; partnership; limited liability company)

 \checkmark Income tax clearance certificate for the current year (copy), TIN number, and VAT registration number.

- \checkmark Certificate of registration (copy)
- ✓ Certificate of Incorporation (copy)
- ✓ Extracts from Memorandum and Articles of Association concerning:
- $\checkmark \qquad \text{Allocation of shares}$
- ✓ Objectives of Company
- Registered activities of Company
- \checkmark Powers of Attorney of the person authorised to sign the Bid
- ✓ Any other relevant information requested by the Client.

• **Curriculum Vitae.** The Bidder should provide complete curriculum vitae (CV) of staff to be used on the Project including education details, background, and experience on similar projects, accomplishments, and other pertinent information. Each CV shall contain two traceable references.

The responsibilities of the company

The Company shall provide the Services as described in the Terms of Reference in accordance with these Conditions of Agreement. The Client reserves the right to alter the Terms of Reference after consultation with the Company.

The Company shall exercise all reasonable skill, care and diligence in the provision of the Services and shall carry out all his responsibilities in accordance with recognized professional standards.

The Company shall in all professional matters act as a faithful adviser to the Client and, in so far as any of his duties are discretionary, act fairly between the Client and third parties. The Company shall provide or contract suitably qualified staff and facilities to carry out the Services.

The Company shall provide the entire expert technical advice and skills that are normally required for the Services for which he is engaged. Where specialist technical advice or assistance is required beyond that committed under the Terms of Reference, the Company may, with the prior written Contract of the Client, arrange for the provision of such advice or assistance. and, the Company shall retain full and unserviceable responsibility for all the Services that he is committed to provide under this Agreement.

Obligations of the Client:

The Client shall furnish without charge and within a reasonable time all pertinent data and information available to him and shall give such assistance as shall reasonably be required by the Company for carrying out of her responsibilities under this Agreement.

Payments to the consultant:

70% payments shall be made after completion of the hydrogeological survey by the contractor on presentation of progress report and an invoice and shall be in Uganda Shillings.

The 30% retention shall be payable on successful completion of drilling and on submission of Final Report.

Settlement of disputes:

Any dispute or claim arising out of or in relation to this Contract, which cannot be amicably settled between the parties shall be referred to adjudication or arbitration in accordance with the laws of Uganda or by arbitration in accordance with the UNCINTRAL Arbitration rules as may be at present in force.

Ownership of Material

Any studies, reports or other materials, graphic, software or otherwise, prepared by the Company for the Client under the Contract shall belong and remain the property of the Client. The Company may retain a copy of such documents and software

Appendix 1

(THE REPUBLIC OF UGANDA) (REPORT NAME) (CONTRACT NAME, NUMBER) (DATE PREPARED)

Prepared by

(Company's name and Address)

All reports must have a Table of Contents with page numbers. The Table of Contents must include all figures (diagrams and maps included) and all tables

The same font should be used throughout the text of the report.

All paragraphs shall be fully justified and the chapter numbering and text shall all begin on the left margin of the page with the exception of listings under a paragraph.

All reports shall be written in English. Reference to place names in Uganda should conform to the Census Data names 1991.

All figures, tables must be produced in digital format and must have numbers and titles. The title of figures must be at the bottom while those of tables must be at the top. Maps must be prepared in a format, which is ArcView compatible. No hand drawn maps and/or hand written figures and tables will be acceptable. All drawn maps shall be plotted on a UTM map projection using the Clerke 1880 spheroid, and both UTM and geographical graticules shall be shown. All the figures and maps must have a legend in symbols or in symbols and colour.

Metric system of measurement shall be used for all maps and in all reports. For diameter of pipes both metric and commonly used non-metric units (inches) can be used in reports and diagrams.

Report Scheduling and Content

The Company is expected to compute, print and report to Habitat for Humanity Uganda on evaluation for all siting information and interpretation/analyses data.

The Company is required to submit the following reports and in quantities and format indicated:

On completion of the inception study, the Company shall produce and submit an *Inception Report*. Detailed surveys by the Company shall be undertaken ONLY after approval of the *Inception report by the District*.

(i) **Inception report:** to be submitted in three copies – two to the Habitat for Humanity Uganda and one to District Water Officer.

The Report shall contain, but not be limited to, the following topics:

• Data gathered and examined, with comments on its scope, reliability and any other Pertinent aspects.

• Hydro-geological siting methodology and work-plan, with a statement of anticipated results, timing and outputs, Work program,

• Any maps or figures that may be necessary to illustrate the Company's evaluations or proposals.

(ii) **Weekly Progress notes**; summary of week's activities and any problems encountered should be submitted to the Habitat for Humanity Uganda. No data or maps are required unless necessary for illustrative purposes.

(iii) **Site Records**: A complete set of records for site completed as described in earlier above, shall be submitted to Habitat for Humanity with a copy to District Water Officer after completion. No certificate of payment to the Contractor shall be honoured until all such records are duly compiled and submitted to the Client.

(iv) **Final Report** – This is to be submitted as a Draft final Report at the Date of completion as of the Agreement, for discussion with Habitat for Humanity Uganda

The Final Report in three copies, including all modifications and additions requested by the Client will be within two weeks of the Final Meeting. The report shall present a comprehensive account of the whole of the Company's programme, to a high professional standard. It shall include all data, interpretations, hydrogeological evaluations, conclusions and recommendations relating to the investigation area, together with appropriate maps, diagrams and data plots.

Of considerable importance will be an objective assessment of the applicability and success of the siting and water source construction methods, an analysis of any failed sources, and recommendations for any alternative groundwater exploration or development techniques for the particular area.

The company shall return all data, reports, maps, aerial photos or any other information in his possession or purchased to the Habitat for Humanity Uganda.

TECHNICAL/FINANCIAL PROPOSAL

<u>Proposal</u>

The Technical / Financial Proposal shall contain the following detail:

Technical specifications of equipment, accessories, computing facilities, transport, backup service, communications etc, present location of relevant equipment to allow for inspection, qualifications and relevant experience of proposed key personnel, schedules of events and personnel and cost estimates

The proposal should show how and when the Company would successfully complete the Assignment. However, the Client would like fieldwork and submission of the hydrogeological draft report to be completed within **2 weeks**.

The Company is expected to fill in the bills of quantities appropriately and should take into consideration the duration of the Assignment.

The Company shall be held fully responsible for willful negligence, omissions and/or commissions. The Client reserves the right to seek remedial measures including withholding

of payment should there be any breach of Contract. The Client reserves the right to cancel the Contract for lack of adherence to the above Terms of Reference during the execution of the work. The Client shall inform the Company in writing of the course of action to be taken immediately on discovery of any wrong doing, mistakes, and omissions or when the Client is dissatisfied with the work.

COSTS

Under section 4.2.2 Hydro geological Investigations, the Contract shall be based on **BOREHOLE** sited according to procedures described above. In the event that the community's preferred options (three for each site) are NOT viable, the Consultant will be paid for work carried out at these options. The Consultant will then be required to work with the community to locate a "viable" alternative. The Company shall be paid (additional) for this alternative site at the same rates.

Under 4.2.3, **Supervision of Drilling Contractors,** the Contract shall be based on **BOREHOLE** completed by the drilling Contractor following procedures in the TOR. **Penalty**

The Consultant shall use the best professional judgement to ensure that boreholes sited have a minimum yield of **20cubic/hr**. In case **the** boreholes sited **yield less than 20cubic/hr**, the <u>Company shall pay the Client an amount equivalent to the Cost of Siting and drilling Supervision</u> for the failed source. However, should the failure of a borehole be attributed to poor workmanship resulting from Contractor's failure to follow Consultant's instructions or normally acceptable professional drilling norms, then the cost of the penalty will fall on the Contractor.

Work Program and Schedules

The Compay shall submit with his proposal a detailed work program and accompanying Activity and Personnel Schedules in chart form, indicating clearly the scope and interconnection of the various inputs/activities. Details of personnel, their position in the proposed program their total input in man-days should all be tabulated. The Client considers it important that the personnel mentioned in the Proposal documentation (with CVs) should be the ones to execute the work.

The Company shall compute/complete the Bills of Quantities in accordance with his proposed program, indicating the quantities and unit cost appropriate to each item. Any incomplete items shall be deemed to have been included elsewhere in the Company's costing.

Other requirements

The Company shall provide all equipment, camping and transport needs to fulfill his assignment. Prior to the Company undertaking the surveys, the Client reserves the right to inspect the equipment proposed to be used by the Company.

Acceptance by the Client of the Company's proposed equipment and transport does not, however, relieve the Company of his obligations under this Contract, in case such equipment and transport accepted by the Client fails to successfully complete the required work.

APPENDIX 2

Personnel, Equipment, Facilities and other Services to be provided by the Client

CERTIFICATE OF SITE INSPECTION

This is to certify that Mr/Mrs	of
,	
(Company) on	(date) carried out an inspection of the proposed
Site(s) of the Works to be undertaken for Contra	act No. Nama/594/Srvs/2020-2021/0001
accordance with Clause 2.0 of the Instructions t	to Bidders.

This further certifies that the Bidder is fully conversant with all Site conditions and information necessary for preparing the Bid and entering into a Contract for the completion of all works according to the Scope of Works and the Programme of Work.

(Name)

(Signature)

(Designation)

Duly authorised to sign Bids on behalf of -----

Date-----

[The information requested is required in the format provided below and should be included by the Bidder in its bid. If none, include form and state "None"]

Comments and Suggestions on the Terms of Reference

[The information requested is required in the format provided below and should be included by the Bidder in its bid]

Description of the Methodology for performing the Assignment

[The information requested is required in the format provided below and should be included by the Bidder in its bid]

1. Technical/Managerial Staff										
Name	Position	Task(s)								

Team Composition and Task Assignments

2. Support Staff										
Position	Task(s)									
	Position	Position Task(s) Image: Constraint of the second								

[The information requested is required in the format provided below and should be included by the Bidder in its bid]

Format of Curriculum Vitae for Proposed Professional Staff

Proposed Position:	
Name of Bidder:	
Name of Staff:	
Profession:	
Date of Birth:	
Years with Firm:	Nationality:
Membership in Professional Societies: _	
Detailed Tasks Assigned:	
Key Qualifications: (Relevant to the As	signment)
Education: (& Professional Qualification	ons)
Employment Record:	
Languages:	
Certification:	
I, the undersigned, certify that to the best of me, my qualifications, and my experience	of my knowledge and belief, these data correctly describe e.
	Date:
[Signature of staff member] Full name of staff member:	Day/Month/Year
	Date:
[Authorised representative of the firm] Full name of authorised representative: _	Day/Month/Year

[The information requested is required in the format provided below and should be included by the Bidder in its bid. Bidders may reproduce this format in landscape format if more practical but are responsible for its accurate reproduction.]

			Months (in the Form of a Bar Chart)												
Name	Position	Reports Due/Activities	1	2	3	4	5	6	7	8	9	10	11	12	Number of Months
															Subtotal (1)
															Subtotal (2)
															Subtotal (3)
															Subtotal (4)
Full-time:			1	<u> </u>	1	1	Pa	art-t	ime	:	1	1	I	1	
Signature:															
(Authorised F	Representative)	1													
Full Name:								Title	e:						
Bidder:															

Estimated Time Schedule for Professional Staff

[The information requested is required in the format provided below and should be included by the Bidder in its bid. Bidders may reproduce this format in landscape format if more practical but are responsible for its accurate reproduction]

Activity (Work)Schedule

A. Work Schedule for Hydrogeological Survey

This should include but not be limited to days for preliminary desk review, Inception report and inception meeting, days fieldwork to collect primary data, days to prepare preliminary report, Review by HFH, Meeting to discuss findings, and days for the draft and final hydrogeological report.

	[1st,	[1st, 2nd, etc. are days from the start of assignment.]										
	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 ^t	11 th	12 th
Activity (Work)												

B. Technical Input

	[1st, 2	1st, 2nd, etc. are weeks from the start of assignment.]										
	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th	12 th
Activity (Work)												

C. Completion and Submission of Reports and other Deliverables

	Reports	Date
1.	Inception Report	
2. (a) (b) (c)	Interim Progress Reports First Status Report Second Status Report	
3.	Draft Final Report	
4.	Final Report	
5.	Other Deliverables	