

SERVICE CONTRACT 2010xxxxx *sign and initial each page*

This contract between xxxxxxxxxxxxxx, xxxxxxxx, xxxxxxxx (hereinafter referred to as *the Client*) and xxxxxxxx, xxxxxxxxxxxxxx, xxxxxxxxxxxxxx (hereinafter referred to as *the Consultant*) has been established and signed by the parties for the provision of geophysical siting services in ...xxxxx.....

PROJECT NAME	Geophysical survey of one production borehole in xxxxxxxx.
STARTING DATE	The starting date of this contract shall be 27 th July 2010
COMPLETION PERIOD	The siting exercise will be completed within 2 working days, while reporting of the siting results will take 1 working day.
SUBCONSULTANT FEES	<p>The Consultant shall be contracted for an amount of xxxxxx US\$ (xxxxxxxxxxxxx). This amount shall cover all the input necessary from the Consultant to prepare and finalise the tasks and assignments given to the Consultant under this contract. The costs are built on the quote attached.</p> <p>A working day is defined as a day that the Hydrogeologist has been on the site or kept waiting with in region, with an average of 6 working days in a week.</p>
METHOD OF PAYMENT	<p>All rates are excluding VAT.</p> <p>The Consultant will be paid by cheque or cash by the Client according to the agreed payment schedule. The Consultant shall invoice the Client for Work done.</p>
PAYMENT SCHEDULE	<p>50% advance payment up completion of field work</p> <p>50% upon submission of the siting report.</p>
ASSIGNMENT	<p>The Consultant's base during the project will be xxxxxx, whereas the field team will lodge in xxxxxxxxxxxxxx. The Consultant shall follow the instructions of the Client, when carrying out the tasks given so longer as such instructions will not have a negative impact on the consultant's performance.</p> <p>The assignment is described in the attached proposal.</p>
OUTPUT	<p>The outputs will consist of A brief borehole siting report with results of the field survey and recommended drill sites.</p> <p>All reports and other documentation, which is a result of The Consultant's work and which are deemed necessary by the Client. The Client receives one copy of the siting report. Any costs concerning the further reproduction of this material will be for the account of the Client.</p> <p>The Consultant is not responsible for the output of the <u>drilling</u> contract, i.e. for the quantity and quality of the water in the drilled boreholes. However, in Basement rocks, or areas underlain by Basement rocks and covered by sediments not exceeding 100 m, the consultant will conduct a minimum of 750 mtrs of resistivity profile in the area provided for the survey. The consultant will further do at least three vertical electrical soundings (VES) on the</p>

identified anomalies to an 1/2AB distance of at least 120 metres. In positively identified sedimentary areas, geophysical profiling will not be required, but a minimum of 3 VESs will still be required, to confirm the absence of Basement at depth, and get an idea of presence of highly mineralised (salty) aquifers). More details of approach for geophysical siting is found in the Annex.

ALLOWANCES

Included in the contract sum.

TRANSPORT

Transport will be organised by the Consultant.

MEDICAL SERVICES

Medical services are not covered under this contract. The Consultant is responsible for any medical services and treatment of its staff.

LEAVE

There is no provision for leave or paid leave under this contract.

INSURANCE & RISK

Any insurance required by The Consultant to carry out the assigned tasks is the responsibility of The Consultant. The Client cannot be held responsible for any damage to equipment or injury of staff during the execution of the assignment.

TERMINATION

This Contract can be terminated at any time by both parties giving the other party a notification of min. 2 days. In case of negligence of loyalty, confidentiality, or general misconduct the contract can be terminated immediately.

SETTLEMENT OF DISPUTES

The rights and obligations of The Consultant and the Client under this agreement will be governed by the laws and regulations of Uganda.

OWNERSHIP OF REPORTS

All reports as well as other documents or material prepared by The Consultant during this assignment will at the completion of the services become the property of the Client.

CONFIDENTIALITY

Information collected during The Consultant's work under this assignment is to be treated with confidentiality and must only be made available to a third party upon agreement with the Client.

XXXXXXXX

(For "The Consultant")

XXXXXXXX

(For "The Client")

DATE

DATE

The proposed standard approach for geo electrical profiling of boreholes is as follows:

- Based on the results of a desk study on geology, hydrogeology and borehole data, and the results of a detailed aerial photograph interpretation focused on lineaments, target zones are selected for further geophysical investigations.
- Next to a borehole with known well log data a resistivity sounding is carried out to calibrate the interpretation model of soundings carried out for the geophysical survey. If no well log data are available, a sounding is carried out in each area of interest to get an idea about the depth to the fresh bedrock, and thus establish the optimum $\frac{1}{2}AB$ distance for subsequent resistivity profiling. The $\frac{1}{2}AB$ distance for profiling should be slightly larger than the $\frac{1}{2}AB$ distance where the sounding curves indicates a rise of 45 degrees.
- The profiling will be carried out perpendicular to major lineaments marked during the aerial photograph interpretation. The resistivity profiling will be done using a station interval of 10 m.
- In the centre of the most significant anomaly that can be related to an anomalous zone a resistivity sounding is carried out. The array of the sounding is extended until sufficient data are available to define the 45 degrees slope indicating fresh (dry) bedrock.
- Finally, an analysis of all soundings carried out on significant anomalies will be carried out to select the site that is most favourable in terms of groundwater, being a suitable pre-bedrock resistivity and sufficient depth of weathering.

The field phase for siting is anticipated to take 1-2 working days. Reporting to the Client will take place through a siting report at the end of the geophysical siting phase, including presentation and analysis of all measurements, recommended sites (i.e. sites that are deemed appropriate by the Village community and district authorities and that are within the perimeter of the village), site sketches, exact GPS co-ordinates and anticipated depth to bedrock for each site.