

TERMS OF REFERENCE

FOR THE HYDROGEOLOGIST

HYDROGEOLOGICAL SURVEY OF THE PROPOSED SITE FOR NEW CAMP DUNDO, LUANDA PROVINCE, ANGOLA

1. Background:

Since March the conflict in Kasai Province of the DRC have increased the flow of refugees into Dundo, Luanda Province of Angola. The Angolan government estimates that approximately 20,563 people have fled Kasai region to Angola since early April and approximately 500 refugees per day are recorded. UNHCR and partners are supporting the Angolan authorities to pre-register new arrivals, the first official fact-sheet reports that 10,312 refugees have been pre-registered to date in Dundo with the average family size recorded as 3 persons: Mussungue 2116, Kakanda 7061 and within host communities 1135. The vast majority of newly arrived Refugees are being accommodated in two reception centers in Dundo, however both centres are overcrowded. As a result, UNHCR together with the Angolan government are considering the establishment of a new camp.

Through coordinated efforts between UNHCR, Ministry of Reintegration and Social Affairs (MINARS), *Médecins Sans Frontières* (MSF), and UNICEF and the host community led to the identification of a new site located about 85 kms from Dundo near the town of Louva. Prior to the development of the new site, UNHCR intends to engage the services of a hydro geologist to carry out independent hydrogeological data collection and interpretation/analysis. This is aimed at recommending prospective drilling sites for drilling new boreholes and submission of an accurate report to guide the drilling process.

2. Objective of the hydrogeological and geophysical survey.

The purpose of this assignment is to support the UNHCR staff in Dundo with expertise related to hydrogeological investigation to determine the most suitable water supply location for the proposed camp. This will include assessing the potential water supplies (e.g. springs, ground water, and river) and, if a borehole is recommended, the preferred location(s) for borehole drilling, as well as recommend the most appropriate drilling methodology.

3. Expected outputs.

Working closely with the Dundo UNHCR WASH Officer, the hydro geologist will;

- Carry out relevant background information/data check on the proposed site prior to the actual field exercise.
- Carry out on-site assessments to collect relevant information and data. No geophysical equipment is currently available in-country and therefore data collection will be limited to assessment of existing boreholes near the site, site characteristics, collecting GIS data, reviewing existing maps and data.
- Analyse data and report on findings including ground water potential and probable drilling sites.
- To take account of the geological conditions and provide advice on the most appropriate drilling methodology and borehole construction methodology in order to build boreholes which maximise the available yield.

4. Length of Deployment.

It is expected based on the above objective that the hydro geologist will stay deployed for a period of up to 3 weeks to conduct the hydrogeological investigations and make the appropriate recommendations.

5. Qualifications and professional experience.

Required

Academic: University Degree in Hydrogeology, Groundwater hydrology, Civil Engineering (Water Resources Engineering).

Experience:

- At least 5 years direct Hydrogeological and Drilling experience based in the field
- Experience and professional training in geology and geophysical methods.
- Proven ability to deal with multiple tasks in a courteous and service-oriented manner in a demanding working condition that often has short deadlines.
- Ability to coordinate a range of diverse actors and drillings activities to achieve a common objective in the area of groundwater development and production.
- Exposure to UNHCR mandate, its priorities and principles.

Skills:

- Ability work in difficult field context.
- Ability towards analytical and creative thinking for rapid technical/mechanical solutions
- Good communicator with strong interpersonal and negotiations skills to deal with persons of various cultural and educational backgrounds.
- Strive to live up to high ethical and professional standards.
- A team player with service oriented attitudes.
- Proficiency in computer software such as Ground water modelling, MS Excel, Word, GIS.
- Excellent technical reporting skills.

Languages: Excellent knowledge of English (written / oral / comprehension) is essential.

Desirable

- To this end, an advanced degree and additional training in one or more of the above sectors would be useful.
- Applied knowledge in UNHCR programme management and reporting standards.
- Proficiency in Portuguese.