



TENDER FOR DRILLING OF TWENTY-ONE BOREHOLES IN WARRAP TONJ NORTH (REF IRSS-WP-08/01-23)

BACKGROUND/INTRODUCTION

Islamic Relief is an independent humanitarian and development UK-based organization, with an active presence in over 40 countries across the globe, we strive to make the world a better and fairer place for people still living in poverty. Islamic relief began its humanitarian operation in South Sudan in 2004 focusing on providing lifesaving aid and implementing developmental Programmes to support people affected by the flood, drought, and Conflict establishing three sub-offices in Narus (Kapoeta East), Wau, Warrap. A satellite office in Yei and the Main office in Juba.

Our vision:

Inspired by our Islamic faith and guided by our values, we envisage a caring world where communities are empowered, social obligations are fulfilled and people respond as one to the suffering of others.

Our mission:

Exemplifying our Islamic values, we will mobilize resources, build partnerships, and develop local capacity, as we work to:

Enable communities to mitigate the effect of disasters, prepare for their occurrence and respond by providing relief, protection and recovery.

Promote integrated development and environmental custodianship with a focus on sustainable livelihoods.

Support the marginalized and vulnerable to voice their needs and address root causes of poverty.

We allocate these resources regardless of race, political affiliation, gender or belief, and without expecting anything in return.

INTRODUCTION

Islamic Relief South Sudan received funding from IR Canada to implement two (2) years Project titled; “WASH, Protection and Nutrition for Tonj North Crisis Affected Populations (WAPNUT)” to be implemented in Tonj North in two (02) Payams of; Alabek & Akop respectively.

With the WASH outcome “Improved use of safe and gender-sensitive WASH services and culturally appropriate hygiene practices among IDPs and Host communities including women, men, girls and boys in Tonj North”, South Sudan, the project underwent budget realignment and savings obtained from different line items were channelled to construct additional 21 boreholes (Hand Pumps) in Tonj North

county. The purpose of this activity is to improve access to clean and safe portable water at areas with critical water crisis for domestic and livestock use. Therefore, this ToR/BoQ is developed to seek for approval for undertaking the drilling activities.

conditions involved during and after the construction project.

The overall borehole drilling details:

(a) Geophysical Survey/Profile Taking

The selected company is expected to carry out detailed geophysical survey before drilling commences, study 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. The outcome of the study and recommendations is to be shared with IRSS before commencement of drilling work starts.

The geophysical investigations will be carried out in a multi-step approach:

- a) Desk study: Review of existing data, topographical maps, satellite images, existing studies and borehole site investigations in the area, geological reports and maps, borehole and surface water records, etc.
- b) Findings.
- c) Compilation, analysis, and evaluation of the gathered data and information.
- d) Site selection and reporting.

(A) BOREHOLE SITING:

The field investigations **MUST** be undertaken by highly qualified hydro-geologists, the geologist will be responsible for planning, execution and interpretation of all geophysical data, reporting and selection of the most suitable site for the drilling. The most promising site selected for drilling shall be marked with a concrete marker and indicated on a sketch map. The recommended site identified has to be well communicated to the community and the community should agree on the site through a community meeting. Should there be total lack of ground water potential as indicated by the siting machine in the proposed location by the community, the situation will be communicated to the community in order to find sites with promising ground water.

(b) Bore Well Drilling Requirements

The drilling of the borehole should be carried out according to the characteristics of the soil formation of the site using appropriate drilling technology, as per result of the hydro geophysical survey while using proper drilling tools, drill pipes, casing pipes with centralizers to ensure that casing string is central within the hole.

- The expected bore well diameter is 8.0” to 10”
- The expected depth of the bore well ranges between 50-65m
- The expected yield of the bore well shall be minimum 1.8M³/Hr.

Screen casing – factory made UPVC slotted 5 inches’ nominal internal diameter screens will be used throughout the aquifer zone. The slot size and screen length will depend on the aquifer materials and

aquifer thickness placed at appropriate positions and depth. Screens should be of an ISO standard and having the specification UPVC class 9/10 drinking water standard non- toxic.

Plain casing – 5. Inches nominal internal diameter casing should be of ISO standard UPVC class 10 drinking water standard, 3 meters long with threaded joints, well screwed, appropriately placed in the correct positions in the well.

Permanent casing – plain casing of 8 inches' diameter Permanent casing must go up to 6 m or up to hard formation to ensure that it seals off all materials from surface runoff entering the well and sanitary grout is inserted to a depth of not less than 1.50m from ground level.

Development – on completion of drilling, an appropriate development method will be applied this will include continuous flushing for a period not less than 4 hours, meanwhile estimating the discharge rate. This is necessary to obtain the maximum yield of the well.

Gravel packing – Gravel packing material shall be supplied and install all along the filter (aquifer) section of the well. The material shall be 2mm – 4 mm diameter, clean, well rounded siliceous gravel with not more than 5% of non- siliceous materials. Sanitary seal should be installed at an appropriate depth using grout cement.

Pumping test - Pumping test will be for a period not less than 8 hours in which the first 4 hours is for step draw down while the 4 hours for continuous test. The discharge at this point will correlate to the discharge during flushing.

Recovery test – recovery test should be done for at least 2 hours or such time when there is at least 80% of the static water level noted.

Water Quality Analysis – water quality test to be conducted at the d end of the drilling to determine the status of the water, considering the available parameters recommended for testing. Ensure borehole is chlorinated before opening to users

Bore-hole Installation:

Successful borehole will be installed with either Indian MK III hand pump will be installed as follows:
< 50 m pump depth will be Indian MK II and > 51 m pump depth will be Indian MK III

- All platforms (aprons) should conform to South Sudan standards from Ministry of water resources and UNICEF.
- All drainage channels should be 6m long. Ensure boreholes are chlorinated and closed for 8 hours before use.

DELIVERY DETAILS

SITE LOCATION:

The 21 boreholes will be drilled at the below proposed locations:

SELECTED BOREHOLE DRILLING SITES IN TONJ NORTH COUNTY-WARRAP STATE

S/N	Name Of Location	Payam	Estimated Distance From Warrap Center (Km)
1	Thur-anyeer P/S	Alabek	72
2	Manguon P/S	Alabek	70
3	Pawaak	Alabek	60
4	Chuei-kuc	Alabek	68
5	Payuai	Alabek	65
6	Aguoch	Akop	76
7	Gier	Akop	70
8	Bol Bol P/S	Akop	68
9	Agumuot	Akop	56
10	Kuanyiel PHCU	Rualbet	65
11	Wunthilik PHCU	Rualbet	68
12	Amothic	Rualbet	75
13	Amol-gok	Rualbet	70
14	Mangoktiit P/S	Kirrik	40
15	Ngong-dok	Kirrik	35
16	Kuel Abiei	Kirrik	48
17	Akeer-nor	Kirrik	30
18	Mabior-ngap P/S	Awul	20
19	Pakur	Awul	25
20	Pandhiot	Awul	28
21	Awucuei	Awul	28

All tenders are required to be submitted before **Wednesday 06th September 2023, 4.00 pm Local time** pursuant to the attached guidelines for submitting a quotation and be returned to; **HAND DELIVERY TO IRSS TENDER BOX** Hai Cinema, 2nd class, Plot no 52, Block B-XVI, South Sudan upon registration on the bid receipt form.

For any issues relating to the tender or its contents please email directly to; IRSS.Tender@islamic-relief.com.ss

All quotation providers are requested to fill in Appendix 1 and 2 below when submitting their proposal to IRSS

APPENDIX 1

Summary of Bid Prices

No.	Description	Total Price in USD (\$)
1	Grand Total Bid Price	
2	Discount Ratio (if any) ... % and the amount	
3	Grand Total after Discount	
4	Delivery time scales (in days)	

5	Quotation Validity	
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We have carefully checked and examined all bid documents and we are offering the costs above on a fixed basis and they are not subject to any changes or alterations including those due to currency fluctuations.

Total Price **USD (\$)**

In words [_____]

Bidder's Signature

Stamp

Date

Bidder is required to stamp this document with their legal company stamp no bid will be accepted without a genuine company stamp

APPENDIX 2 BILL OF QUANTITIES

Please also use our table when filling the prices. If you do not have the item just keep it empty. Your offer should be for the quantity that we request, not less and not more.

Please only use USD (\$) as the currency for your offers as per the guidelines.

BILL OF QUANTITY FOR DRILLING OF 21 BOREHOLES IN WARRAP:

Location: Tonj north County.

Project: WAPNUT

S/no	Item description	Unit	Quantity	Unit cost-USD	Amount - USD
Preliminaries					
01	Mobilization: Allow for cost of transporting all equipment, personnel and materials to project sites and decommissioning at completion of the job	Mobilization	01		
02	Survey that includes physical assessment of the project site, desk study of the proposed site to establish information that can guide in decision making about the proposed location	Survey	01		
Borehole drilling					
03	Geophysical survey: Conduct geophysical survey using recommended equipment especially resistivity meter and other high tech machines/devices to identify the most promising	Survey	01		

	site for drilling of a successful borehole				
04	Carryout drilling 7"-8" borehole from 0-120 meters depth in all types of soil formation using air, DTH hammer, and or with form, mud rotary with form or polymer, depending on the nature of formation in the respective site	M	90		
05	Supply and install 125mm (5") nominal internal diameter plain UPVC casings	M	60		
06	Supply and install 125mm (5") nominal internal diameter slotted UPVC casings including UPVC end caps	M	09		
07	Supply and install permanent casings 8" nominal internal diameter UPVC plain casing up to hard formation	M	06		
08	Supply and insert filter gravel packing 2mm-4mm size round and clean siliceous material	M ³	2.5		
09	Insert sanitary seal 1:1:2 grout cement not less than 1.5m deep from ground level	M	1.5		
Borehole development					
10	Allow for borehole development work, surging by air of a completed well until the water is crystal clear	Hours	4		
11	Pump testing completed well, time taken until pump is removed, recovery should be around 80%	Hours	6		

12	Allow for water quality test based on recommended parameters for South Sudan both physical, Chemical and Bacteriological	Test	1		
Hand pump installation and apron construction					
13	Apron Construction: All apron construction should consider an elevated apron, 0.4m above the ground level to mitigate effect of flood water on apron. That will involve stonework foundation in 1:4 cement to sand mortar well blinded and finish. General excavation of top soil & cut away depth n.e 200mm (assume 3.0m diameter channel inclusive).	M ³	3.0		
14	Construct a ramp for accessibility to the water collection point and provide guard rails for people with disability to access the water point	job	01		
15	Filling well compacted approved material thickness n.e 300mm. Blinding on top fill approved material well compacted thickness n.e 50mm. Provision and placement of BRC mesh as apron reinforcement, drainage channel length 6.0m Provision and placing of RC in pump platform, apron and drainage channel slab 150mm thick in mix of 1:2:4, well finished in grout cement.	M ³	3.0		
16	Provision and installation of Indian MK II/III hand pump pedestal, head assembly, water tank, 1 1/4" G.I pipes &	Set	01		

	connecting rods, and cylinder assembly to depth n.e 51m (for cylinder depth 50< is Indian MK II hand pump and 50m> is Indian MK III hand pump). Ensure pedestal are well fixed in concrete work to avoid being shaky in long run.				
17	Provide and allow for construction of water through 1.5m long x 1.0m width but n.e 0.4m depth in brick work well plastered, smooth finish and rendered water proof, provided at the end of the drainage channel	No	01		
18	General landscaping around the Borehole 10m radius	Job	01		
19	Provide and allow for fixing of a metallic sign post as specified in the description of visibility length 1.2m x 0.8m width x 1.7m legs using 2mm iron plate and 40mmx40mm hollow section pipes for main frame and legs. Provide the writings on both sides of the sign post with two logos (IRW and IR-Canada) Install the sign post a distance of n.e 3.0m from the water borehole.	Piece	01		
20	Supply and install side by side visibility metallic plates on the Pump head assembly.	Pieces	2		
21	Supply and allow for fixing automatic solar powered night/street light fixed with metallic poles. 120W Solar Endurance Light that provides maximum Light Output with multiple Light levels	system	01		
Total unit cost (USD)					
Grand total = Total x 21 (USD)					

Supplier Code of Conduct

1 Islamic Relief's Supplier Code of Conduct

2 Islamic Relief Worldwide requires all suppliers to adhere to:

The Modern Slavery Act 2015

The International Labour Standards as defined by the ILO (International Labour Organisation).

The United Nations Global Compact's 10 principles as stated below:

Human Rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and

Principle 2: Make sure that they are not complicit in human rights abuses.

Labour

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

Principle 4: The elimination of all forms of forced and compulsory labour;

Principle 5: The effective abolition of child labour;

and

Principle 6: The elimination of discrimination in respect of employment and occupation.

Environment

Principle 7: Businesses should support a precautionary approach to environmental challenges;

Principle 8: Undertake initiatives to promote greater environmental responsibility;

and

Principle 9: Encourage the development and diffusion of environmentally friendly technologies.

Anti-Corruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.