TENDER FOR DRILLING OF THREE BOREHOLES IN WARRAP TONJ NORTH
(REF IRSS-KP-01/004-23)

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

With funding from IR-Canada (PROTECT), IRSS is implementing a 9 months' multi-sector project that encompasses; FSL, WASH, Health and protection.

With outcome 2 of this project; increased access to adequate water for domestic and livestock consumption through improvement of water infrastructure, WASH sector is planning to executed drilling of 5 boreholes as stipulated in the first output of this outcome.
Therefore, with this ToR, IRSS is sourcing for a highly experienced and competent borehole drilling company with experienced hydrologist to carry out the drilling activities in Kapoeta East and North Counties as displayed in the below table.

1. Scope of Work:

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's 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 and IR tender committee/WASH Coordinator in order to find other sites with promising ground water.

Note: ***the 3 proposed sites for drilling are quite challenging in terms ground water scarcity. Therefore, the successful vendor should consider hiring highly experienced hydrologist with modern sitting equipment to conduct the sitting work.***

(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 65 .00m- 120.00m
- The expected yield of the bore well minimum 2,500 liters/hour.

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 end of drilling activity to determine the yield of the well, 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.

1. Objectives:

To ensure that, three (3) boreholes successfully constructed, hand pump well fixed and aprons are of good standard. Ensure the boreholes produces good amount and quality of water as required.

DELIVERY DETAILS

SITE LOCATION:

S#	Boma	Payam	Population Size	DISTANCE	Km	GPS Coordinates	
KAPOETA EAST							
						N	**E**
1	Locuwa	Narus	5000	Narus town	70	**N**	**E**
KAPOETA NORTH							
2	Lomeyen	Lomeyen	3700	Kapoeta South town	62	TBD	TBD
3	Paringa	Paringa	4500	Kapoeta South town	50	TBD	TBD

All tenders are required to be submitted beforeWednesday **18th Jan 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**	

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 03 BOREHOLES IN KAPOETA:
Location: KAPOETA County.
Project: PROTECT

ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	RATE - USD	AMOUNT -USD
(A)	**Borehole drilling**				
01	Preliminaries: Physical survey and assessment of the sites.	job	1		
02	Mobilization, transportation of drilling equipment to site, inter site and back from site, including setting of equipment and camping site.	job	1		
03	Carry out hydrogeological geophysical survey to identify high ground water potential. At least 3 promising points per proposed sites.	survey	1		
04	Carry out drilling of 8-10 inches' diameter hole, throughout all types of strata (soil	meter	**100-120**		

	formations). The following drilling methods should be applied depending on the soil formation: **DTH hammer, air-rotary well as mud drilling in case of collapsible soil where necessary to successfully extract clean water**.				
05	Allow for taking samples of drilling cuttings at 6.00m intervals	meter	20		
06	Supply and install 5 inches plain casing nominal internal diameter UPVC	meter	88		
07	Supply and install 5 inches nominal internal diameter UPVC slotted casing with end cap.	meter	12		
08	Gravel packing material shall be supplied and install all along the 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.	M^3	2.00		
09	Sanitary seal should be installing at an appropriate depth, not less than 1.5m using recommended grout materials	M^3			
10	Allow for flushing of the borehole for not less than six hours to assess the well yield	job	01		
11	Provide and install 8 inches diam. Permanent casing up to the rock/hard formation	Metre	06		
12	Allow to carry out water quality test from a recognized institution, both for physical and chemical parameters as per the policy of the country.	Sample	05		
(B)	**Hand pump installation**				
13	Supply and install Indian MK III hand pump, complete set comprising head assembly, pedestal, water tank, and cylinder with G.I. pipes 1/14". Pump depth determining factors, < 50.00m Indian MK II while > 50.00 pump depth is Indian MK III.	set	1		
14	General excavation of top soil to depth not exceeding 200 mm (assume 3x2m channel)	M^3	1.50		
15	Provision and placement of BRC wire mesh as reinforcement to the apron , provision and laying of grade 2 reinforced concrete 1:2:4 in plate form and drainage channel	M^3	03.00		

16	Provision and laying of mortar screed (1:3) on the plate form as well as the drainage channels trowelled smooth.	job	1		
17	Installation of G.I. pipes 1/14", 12mm MS connecting rods, water tank assembly, cylinder assembly and head assembly, to depth 60.00 metres. .	job	1		
18	Allow but excavation of 1.50m diameter x 2.00m deep soak away pit filled up with recommended filling materials, well covered with plastic sheet and soil, in soak away pit well completed.	No	1		
19	Carry out general landscaping of the borehole site, restoring back the area to its original shape. 7.00 radius.	No	1		
20	Provide and allow for fixing in place metallic sign post as described in the TOR.	No	1		
21	Provide and install/cast metallic rails to protect the head assemblies from damage.	Pairs	1		
22	Supply and install street solar lights (150w) at each water points to prevent GBV rated occurrences at water points.	Pieces	1		
	Subtotal (01)				
Grand total: Subtotal (1) x 3=					

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.