**International Rescue Committee**

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**Lodwar Field Site**

**TERMS OF REFERENCE FOR THE BOREHOLE ASSESSMENT AND CAPACITY TESTING**

**PROJECT DETAILS**

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| **PROJECT TITLE** | **Integrated Emergency Drought Response in Turkana County.** |
| **LOCATION** | **Central, Loima and Turkana South Sub-counties** |

**BACKGROUND**

The IRC is implementing a 12-month WASH intervention under the project integrated emergency drought response in Turkana County. The IRC Kenya has identified 19 (nineteen) boreholes to be rehabilitated in Turkana County. In view of this, the IRC Kenya seeks qualified and experienced contractors, to conduct camera inspection and capacity testing of each of 10 (ten) boreholes. The contractors are required to produce a report for each of the boreholes indicating borehole condition including casing and the yield data including tables and narrative. The contractor will provide the IRC with original copies of the raw borehole inspection and testing data accompanying the report. The task inclusive of reporting should commence within 5 days after the award of contract and be completed in 2 weeks.

Additional information is as provided below.

# TERMS OF REFERENCE

The specific terms of reference for the assignment will be:

1. Condition, and depth of the casings (plain and screened).
2. Conduct capacity testing consisting of step draw down tests (three tests) and recovery tests (three tests) for a minimum of 8 hours for the 10 (ten) boreholes providing pumping details (Liters/second)
3. The step draw down pumping test should be conducted by the contractor for a minimum of 8 hours considering 3 steps with different yields (Qmx/5, Qmx/3, Qmx/2 and Qmax) and a recovery step. Each test should last a minimum of 1.5hr. In addition, 4 hours constant pump test should be conducted by the contractor using the optimal yield identified during the step draw down test.
4. The recovery test will be for one hour or such time when there is at least recovery of 80% of the static water level noted at the start of the pump test.
5. Step draw down, constant pump test and recovery data should be reported and should contain at least: Date of Test (Day, Month, Year); Depth of BH at time of test (m); Static Water Level (SWL) before test (m); Type of Pump used; Depth of Pump Intake (m); Discharge (liters/Minute); Dynamic/Pumping water level (m).
6. Produce a capacity test and inspection report for each borehole along with all the requisite data including analysis of results and recommendation.
7. Provide photos and videos of the camera inspection in DVD and flash drive.
8. Close and return assessed borehole back to original state prior to capacity testing.
9. The target boreholes are distributed as follows:

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| S/NO. | Sub-County | Borehole Name | Latitude | Longitude | Water Availability | Water Palatability |
| 1. | Loima | Koswat | 2.659046 | 35.010561 | Borehole | Good |
| 2. | Loima | Kaemanik | 2.668797 | 34.986265 | Borehole | Good |
| 3. | Loima | Nakapirpir | 2.730945 | 34.852369 | Borehole | Good |
| 4. | Loima | Loreng-Esinyen | 2.971937 | 35.155210 | Borehole | Good |
| 5. | Loima | Lomil | 3.338292 | 35.234799 | Borehole | Good |
| 6. | Turkana south | Kanaodon | 2.496181 | 35.409146 | Borehole | Good |
| 7. | Loima | Lochor-Esekon | 2.826547 | 35.541915 | Borehole | Good |
| 8. | Central | Nakurchanait | 2°53'23.8"N | 35°37'46.0"E | Borehole | Good |
| 9. | Central | Naiyanae Atarukot | 3°32'56.8"N | 35°44'22.2"E | Borehole | Good |
| 10. | Central | Lolupe | 3°06'30.0"N | 35°40'21.6"E | Borehole | Good |