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Profile Site Survey Report for Borehole Drilling

CLIENT NAME	ZETDC CHEGUTU
CELL NUMBER	N/A
SITTING DATE	11 NOVEMBER 2022
ADDRESS	CHEGUTU URBAN
INSTRUMENT	PQWT

WATER SURVEY DETAILS:

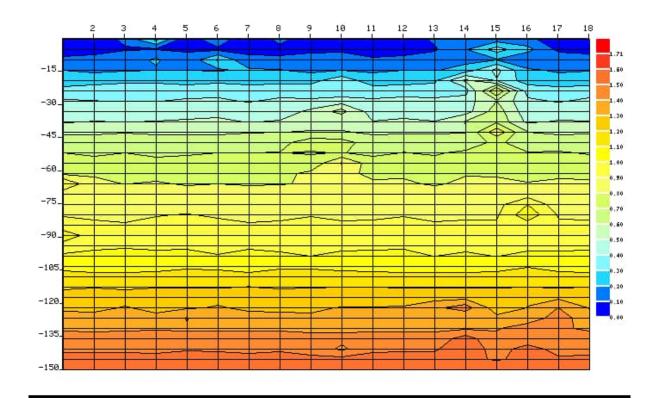
1.MN Electrode Equidistance: 10 m

2.Point Distance: 1 m

3.Graph Depth: 150 m

Disclaimer: There is no 100% Guarantee of availability of water on proposed point.

Coordinates: 18°07'15.8"S and 30°09'21.6"E



KEY

Red Colour represents **highly** strengthen: high resistivity of rock formation, and the colour indicate danger symbol, we don't get water in this zones, getting in limited areas.

Orange Colour represents less than the highly strengthen rock formation, this colour also indicates some of danger zone, here we don't get water in this zones, getting in the limited areas.

Yellow Colour represents **medium** strengthen rock formation. this colour also indicates warning to getting water in this zones.

Green Colour represents the **less than medium** strengthen rock formation. this colour also indicates starting of water zones.

Light Blue Colour represents the **soft rock formation** water bearing rock formation, this colour indicates wealthy chances of getting water in the zone.

Blue Color represents the **soft rock formation**, water bearing rock formation, this color indicates wealthy chances of getting water in the zone.

RECOMMENDATIONS

Graph/ Map Analysis

- **1.**The proposed site is at **Point 10/11** with a likelihood of giving a low to an average yielding borehole and our suitable point (**Point 10/11**) requires **class 10**. There could also be a need for double casing to minimize risk of borehole collapse. However, exact casing to be used will be determined during drilling of the borehole.
- 2. The minimum depth is 75m and this is due to the soil formation which might require Class 10 to be ascertained during drilling. There is water potential from 30m.
- **3.** Please be advised that the actual yield quality to determine the suitability of the groundwater will be known after carrying out a capacity test and is recommended to conduct after the borehole is drilled.
- 4. Chances of success are 65%

Summary

According to this profile, **Point 10/11** may be suitable to drill a borehole. Casings used can only be determined by drillers during the actual drilling of the borehole however class 6 casings can be used but we strongly recommend class 10 as it is a pressure class..

Minimum Depth: 75 meters and above

Maximum Depth: 150 meters

During drilling, the yield of water will be estimated by the drillers by means of a blow test, which is not accurate. A more accurate water yield may be obtained by having a capacity test done.

Capacity test involves pumping water out of the borehole for at least 1 hour to determine the quality of water yield and also the groundwater potential was estimated based on pumping tests, and the optimal motorized pump capacity and pump installation depth as recommended considering water demand. If the borehole happens to run dry during this test, the recovery is used to determine the borehole yield.