

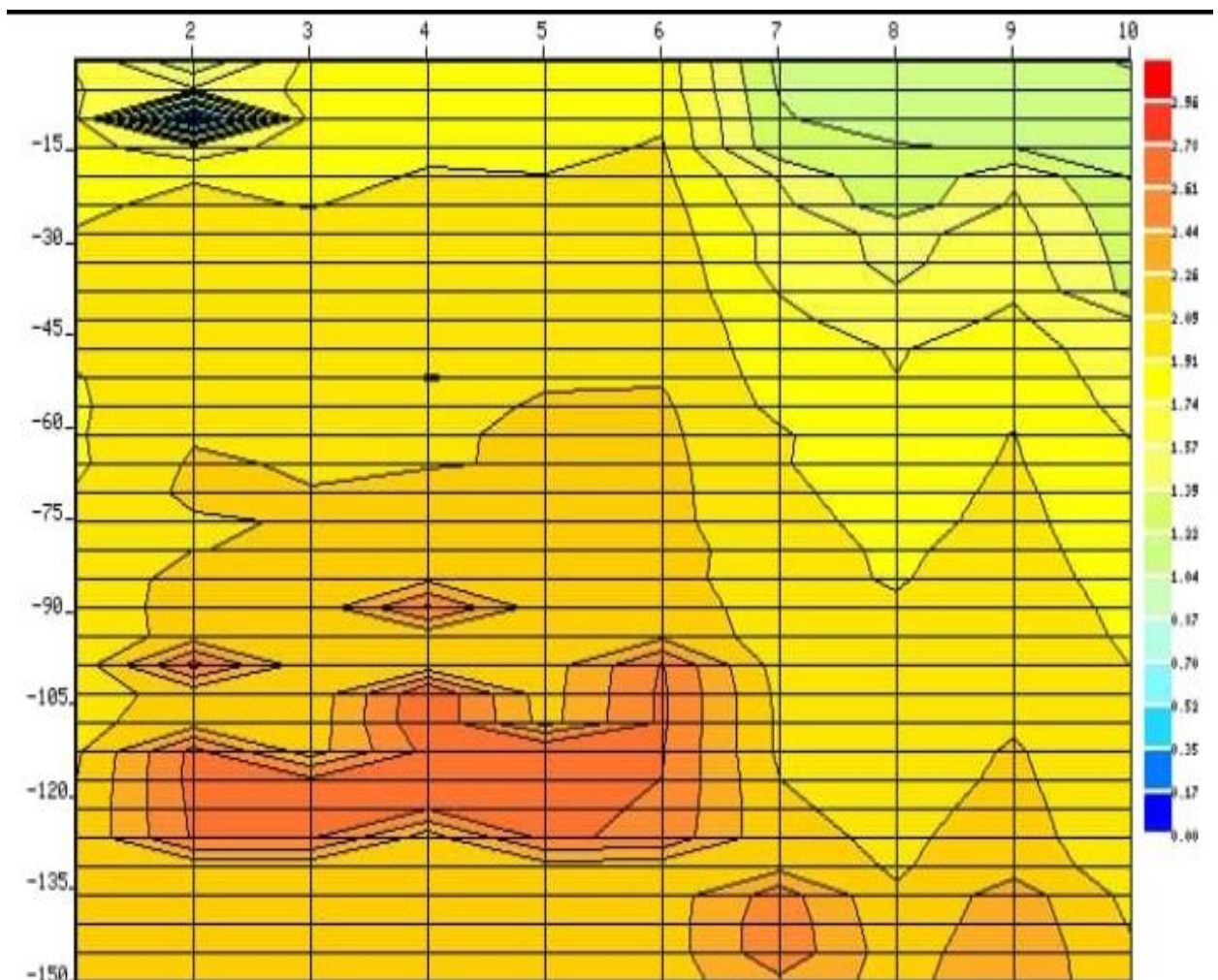
Client Name: ZETDC Northern Region Chinhoyi

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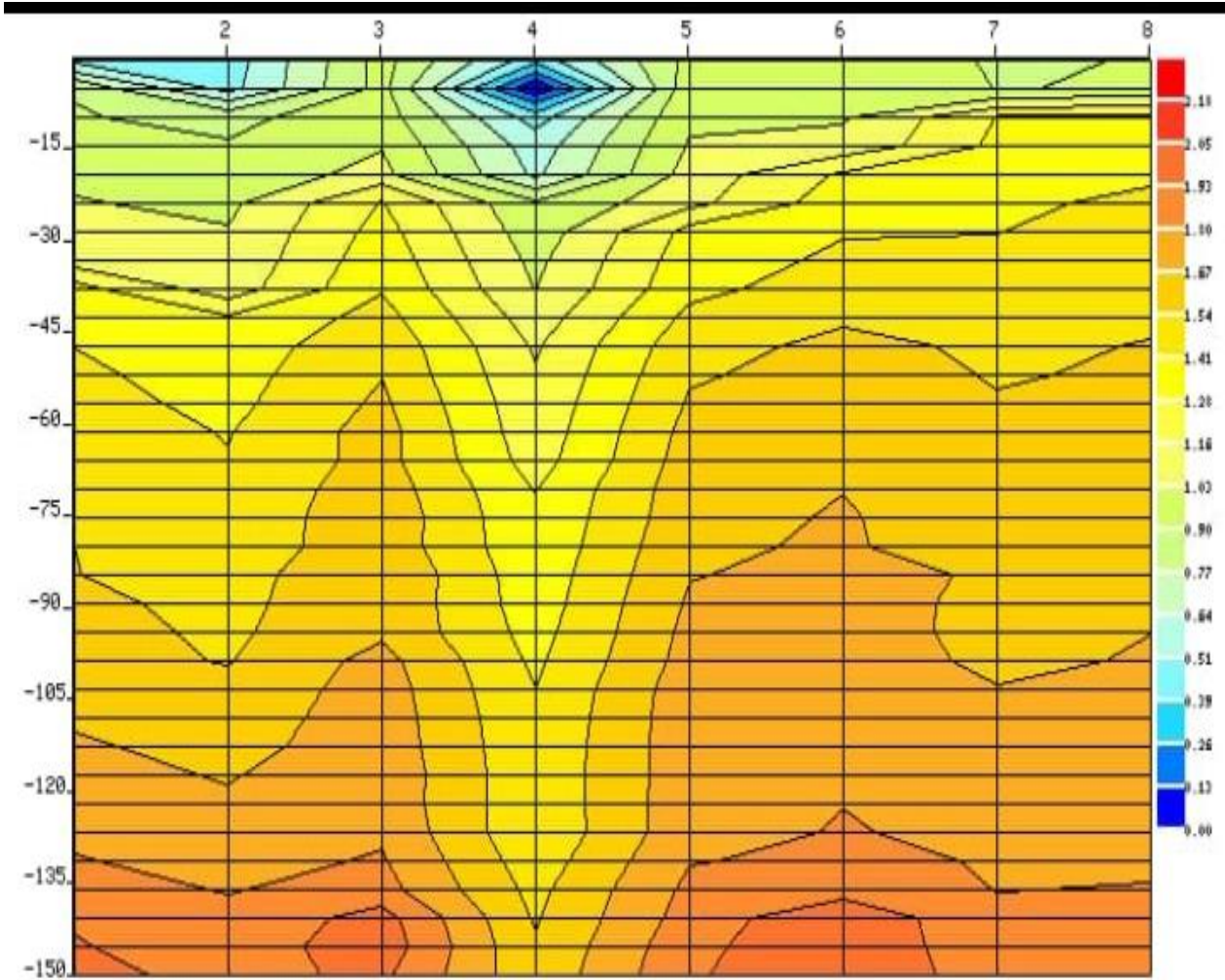
Sitting date: 07/07/2021

Profile graph Site A



Number of meters is indicated to the left side of the geo-profile

Profile graph Site B



To your left side is the number of meters starting from surface water

Introduction

The objective of the survey was to locate a source of groundwater within the premises (shown to members of our staff), estimate (interpret) its depth and, the degree possible, estimate the permeability of the rock formation that contains the groundwater fracture. The groundwater, if found, will be produced by drilling a borehole into the groundwater fracture aquifer/s for domestic consumption purposes. The survey was conducted using the **PQWT machine** which has the potential to provide the approximate depth and yield of subsurface water bearing fractures found in ground formations.

Analysis

- Point 8 at site A and point 4 at site B, have a good chance of giving us water as there is soft rock, however, there could be need for double casing to minimise risk of borehole collapse. However exact casing to be used will be determined during drilling of the borehole.
- **Suitable point for borehole drilling: point 4 sites B;** this point indicates soft formation between 0-135 metres. Noticeable breaks within the hydro aquifer.
- Please be advised that the actual yield quality to determine the suitability of the ground water will be known after carrying a capacity test and is recommended to conduct after the borehole is drilled.
- Chances of success are 79%

Red Color represents **highly** strengthen/ high resistivity of rock formation, and the color indicate danger symbol, we don't get water in this zones.

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

Yellow Color represents **medium** strengthen rock formation, this color also indicates warning to getting water in this zones

Green Color represents the **less-than medium** strengthen rock formation, this color also indicates starting of water zones.

Light Blue Color represents the **soft rock formation** / water bearing rock formation, this color 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.

Summary

- Based on past statistics, all of the following interpreted depths and yields may vary by +/- 20%, or sometimes more. The interpreted results were primarily obtained by using the proprietary software available to our organization. The result estimates assume that the full thickness of the fracture is used down to the base at the specified site.
- According to this profile, point 4 Site B is suitable to drill a borehole.
- Casing used can only be determined by drillers during the actual drilling of the borehole.
- Likely to encounter surface water at 13m-16m then more breaks after 38m, Note that these breaks might be dry or might be wet.

Minimum Depth: 80m

Maximum Depth: 150m

It should be noted that the interpreted results made by our organization involves many assumptions and should be used as a guide for drilling. Previous yield interpretations have been nearly exact in some instances but have also been lower, and higher, than that which was obtained after drilling had been completed.

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 one hour to determine the quality of water yield. If the borehole happens to dry during this test the recovery is used to determine the borehole yield.

NB: WE DON'T GURANTEE WATER