

REPORT ON GEO-PHYSICAL ELECTRICAL
LOGGING OF BOREHOLE

at
Village: Asra
Simbhawali, Hapur, Uttar Pradesh

For
State Water Sanitation Mission (Jal Jeevan Mission)
UP Jal Nigam(Rural), Hapur, U.P

Submitted Through
M/s. L.C.Infra Projects Private Limited



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REPORT ON GEO-PHYSICAL RESISTIVITY LOGGING OF BOREHOLE

At
Village: Asra
 Simbhawali, Hapur, Uttar Pradesh

Introduction:

A deep borehole 135m (442 Feet) was drilled by working agency *M/s. L.C.Infra Projects Private Limited, Ghaziabad, U.P.*, as a part of their scope of work of development of tubewell under Jal Jeevan Mission Project of SWSM, GGWC conducted a Geophysical Resistivity logging in the above borehole using IGIS's Logger dated on 23rd Oct, 2023

Based on the interpretation of the Logging, the following litho logy has been inferred which tallies fairly well with the well-site litho-log based on mud-wash samples.

| <i>Depth in m</i> | <i>Expected Litholog</i> | <i>Expected Quality</i> |
|-------------------|--------------------------|-------------------------|
| 0 - 3 | Surface Soil | |
| 3 - 22 | Medium sand | |
| 22 - 27 | Sandy clay | |
| 27 - 52* | Medium sand | Good |
| 52 - 55 | Clay | |
| 55 - 64* | Medium to fine sand | Good |
| 64 - 96* | Medium sand | Good |
| 96 - 109 | Clay Kankar | |
| 109 - 132 | Sandy clay | |
| 132 - 135 | Clay | |

Conclusions and Recommendations:

1. The litholog inferred broadly tallies with that of the well-site litholog.
2. The zones marked with asterisk (*) appear to be Aquifer Zones for possible development of tubewell.
3. As per thickness of the Aquifer the expected discharge is 80,000 LPH to 90,000 LPH.
4. Water Level is 25 m below ground level.
5. The Quality of water is Good. However, it is recommended to have a chemical and bacteriological analysis of the water sample before using it for human consumption or for any other use.
6. The shallow aquifers are also recommended for development to get good quantity of water.
7. *All projections and recommendations are subject to the inherent limitations of the technique employed and there could be variations as the underground conditions are not always amenable to physical interpretations.*

for Global Groundwater Consultants



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SP and Resistivity Curves



