# REPORT ON GEO-PHYSICAL ELECTRICAL LOGGING OF BOREHOLE

at Village: Matant Nagar Block : Pilana, Bhagpat, Uttar Pradesh

For

# State Water Sanitation Mission (Jal Jeevan Mission) UP Jal Nigam(Rural), Bhagpat, U.P

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



GLOBAL GROUND WATER CONSULTANTS (Consulting Geologists & Geophysicists) 84- III Floor, Humayun pur, Safdarjung Enclave, New Delhi - 110 029 Phone: **9818-888824; 9818-007038**.

Date : 22<sup>nd</sup> December, 2022.

#### REPORT ON GEO-PHYSICAL RESISTIVITY LOGGING OF BOREHOLE

1

# At Village: Matant Nagar Block : Pilana, Bhagpat, Uttar Pradesh

## Introduction:

A deep borehole 154m (505 Feet) was drilled by working agency *M/s. L.C.Infra Projects Private Limited, Bhagpat, 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 22<sup>nd</sup> December, 2022.

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.

Depth in m			Expected Litholog	Expected Quality
0	-	3	Surface Soil	
3	-	17	Fine sand	
17	-	41	Sandy clay	
41	-	56*	Medium sand	Good
56	-	68	Sandy clay	
68	-	84*	Medium sand	Good
84	-	91	Sandy clay	
91	-	105*	Medium sand	Good
105	-	128	Clay with kankar	
128	-	141*	Fine sand	Good
141	-	154	Clay with kankar	

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### 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 40,000 LPH to 50,000 LPH.
- 4. Water Level is 21 m below ground level.

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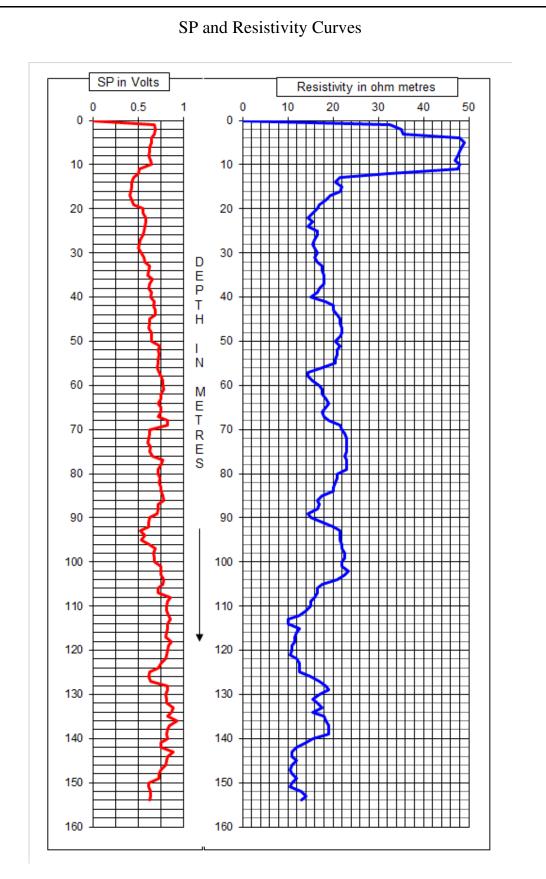
- 5. The Quality of water is Good. However, it is recommended to have a chemical and bacteriological analysis of the water sample before using it for human consumption or for any other use.
- 6. The shallow aquifers are also recommended for development to get good quantity of water.
- 7. All projections 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

(M. RAVI KANTH)

M.Ravi Kanth Hydrogeologist

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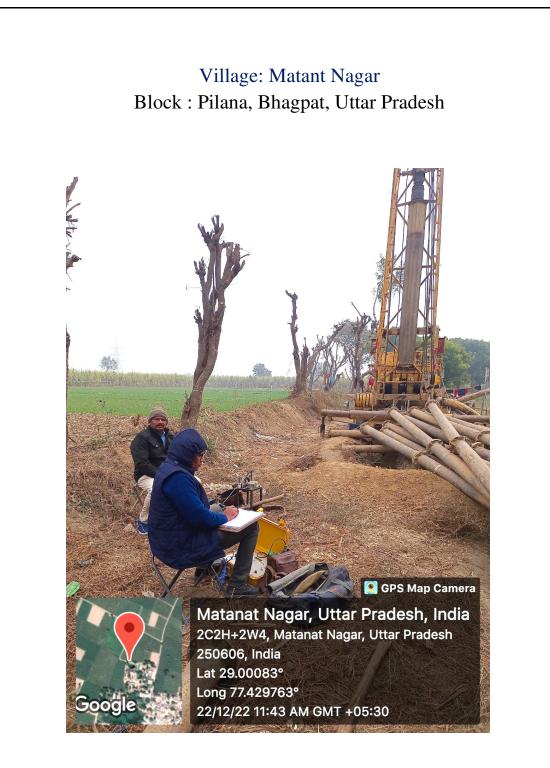


Photo of the Site at the time of Logging

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