## REPORT ON GEO-PHYSICAL ELECTRICAL LOGGING OF BOREHOLE

at Village: Nethla Baghpat, Baghpat, Uttar Pradesh

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

Submitted Through

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

Conducted by



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

Date: 18th August 2023

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

1

#### At

# Village: Nethla Baghpat, Baghpat, Uttar Pradesh

### Introduction:

A deep borehole 159 (522 Feet) was drilled by working agency *M/s. LC Infra Projects Private Limited, Baghpat, U.P.* as a part of their scope work for development of tubewells under Jal Jeevan Mission Project of SWSM. GGWC conducted a Geophysical Resistivity logging in the above borehole using IGIS's Logger dated on 18<sup>th</sup> August 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 mudwash samples.

| Depth in m |     |     | Expected Litholog | Expected Quality |
|------------|-----|-----|-------------------|------------------|
| 0          | -   | 3   | Surface Soil      |                  |
| 3          | -   | 16  | Fine sand         |                  |
| 16         | -   | 22  | Sandy clay        |                  |
| 22         | -   | 29* | Fine sand         | Good             |
| 29         | -   | 54* | Medium sand       | Good             |
| 54         | -   | 68  | Sandy clay        |                  |
| 68         | -   | 74  | Clay              |                  |
| 74         | -   | 89  | Kankar sand       |                  |
| 89         | -   | 109 | Clay              |                  |
| 109        | )_  | 116 | Kankar clay       |                  |
| 116        | ) - | 159 | 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 20,000 LPH to 30,000 LPH.
- 4. Water Level is 16 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.

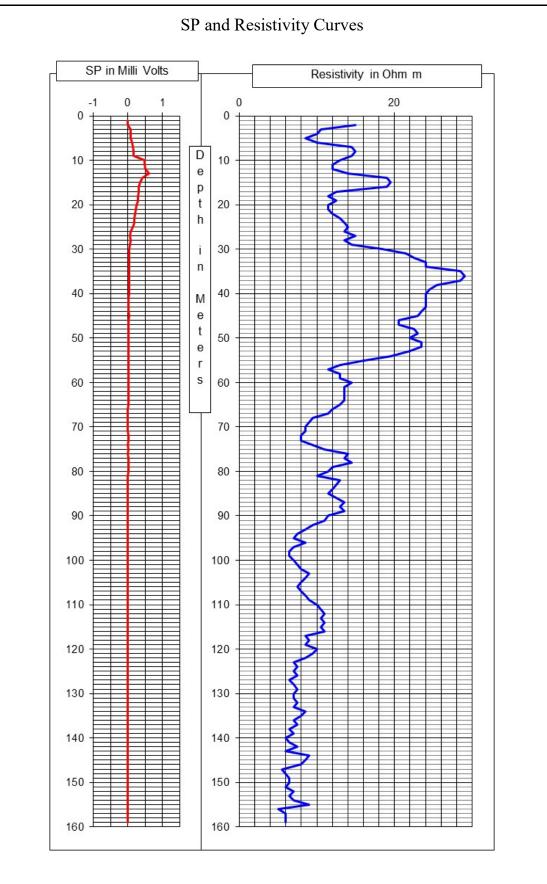
for Global Groundwater Consultants

+ citin



Chief Executive

Global Groundwater Consultants Consulting Geologists and Geophysists 2



3



Global Groundwater Consultants Consulting Geologists and Geophysists