

**M/S E.R. TECHNOLOGIES** 

(Govt. Contractor of PH & Civil Works & Electrical Works)

(Specialist in: Deep Tube well, Sick Tube well, Geological and Hydro-Geological Survey, Electric Logging of Borehole, Videography of Borehole, Water Sample & Soil Testing etc.

Ref. ....

06/09/2023 Dated.....

# REPORT OF ELECTRIC LOGGING OF BOREWELL DRILLED AT SITE VILLLAGE HARJIPUR, BLOCK MILK, DISRICT RAMPUR, UTTAR PRADESH UNDER JAL JEEVAN MISSION

### Introduction:

The borehole at the site was drilled to a depth of 140.00 meters, and the electric logging was conducted up to 140.00-meter depth using a continuous logger on Sep 06, 2023. The purpose of this logging was to assess the various subsurface strata and properties encountered during drilling, with a focus on resistivity measurements (LON -64" and SHN-16) and self-potential (SP) data. This report provides an analysis of the interpreted data and offers recommendations for further actions under the Jal Jeevan Mission.

LOGGING DATA

Name of agency	NKG Infra. , Pawan Kumar				
Location	Harjipur				
Block	Milk				
District	Rampur, U.P				
Depth drilled (mbgl)	140				
Depth logged (mbgl)	140				
Water level (m)	12				
LON -64" Resistivty (N-64)	Ohm.m (Blue)				
SHN-16 Resistivity (N-16)	Ohm.m (Red)				
Self-Potential (SP)	Mv (Green)				

Log Report of Harjipur, block Milk, district Rampur, Uttar Pradesh							
Sr. No	Depth Range (m)		Zone Thickness(m)	LON -64" N Resistivity (ohm.m)	Probable Strata	Expected water Quality	
	From	То					
1	0.00	5.00	5.00	10	Topsoil	-	
2	5.00	20.00	15.00	29	Clay	-	
3	20.00	56.00	36.00	66	Medium Coarse Sand	-	
4	56.00	64.00	8.00	38	Clay	-	
5	64.00	108.00	44.00	68	Medium Coarse Sand	Good	
6	108.00	115.00	7.00	33	Clay	-	
7	115.00	121.00	6.00	65	Medium Coarse Sand	Good	
8	121.00	126.00	5.00	21	Clay	-	
9	126.00	130.00	4.00	62	Medium Coarse Sand	Good	
10	130.00	136.00	6.00	28	Clay	-	
11	136.00	140.00	4.00	45	Fine Sand	-	

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# **Recommendations:**

Based on the interpreted strata data from the electric logging, the following recommendations are provided:

### 1. Screen Installation:

It is recommended to install screens against the **bold-marked strata** indicated in the interpretation above. These screens will help facilitate water inflow from the identified permeable zones.

# 2. Expected Water Quality:

The expected water quality in the zones marked as "Good" is anticipated to be favorable.

# 3. Tubewell Development:

To optimize water yield, it is advised to develop the tubewell using a high-capacity air compressor.

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