



**GROUND WATER DEPARTMENT**  
**GOVERNMENT OF UTTAR PRADESH**  
Lucknow-226002



## GEOPHYSICAL BOREHOLE-LOGGING REPORT

1. Date of Logging: 27/09/2023  
2. Village: Masauli - I (Zone I)  
3. Location: Masjid  
4. Block: Masauli  
5. District: Barabanki  
6. Latitude & Longitude: 26.9337 & 81.3244.  
7. Drilling depth: 165m bgl  
8. Logging depth: 165 m bgl  
9. Logging Company: UP Ground Water Department  
10. Bore hole drilled by: Verma boring.  
11. Recorded Geophysical log data: SP, Natural gamma & Resistivity (16 N & 64 N).  
12. (i) Resistivity of Mud (Rm): 3.60 ohm-m. (ii) Resistivity of fresh water (Rf): 3.0 ohm-m.

13. On the basis of interpretation of recorded log data in open hole detail report is made is as follows:-

(a) **Acquifer:** The depth zones with high resistivity and relatively low Natural Gamma radioactivity values are referred as Aquifer Zones.

(b) **Clay:** The depth zones with less resistivity and relatively high Natural Gamma radioactivity values are referred as Clay zones.

Based on the downhole Geophysical Parameters following information (Granular zones) deciphered:-

S.No	Depth Range (m bgl)	Thickness (meter)	Lithology	Acquifer Recommendation	Remark (Quality of aquifer water)
1.	0-13	13	Top Soil		Good
2.	13-19	6	Fine sand		Good
3.	19-25	6	Fine sediments		Good
4.	25-31	6	Fine sand	Recommended	Good
5.	31-43	12	Medium to fine sand	Recommended	Good
6.	43-58	15	Medium to coarser sand	Recommended	Good
7.	58-67	9	Clay		Good
8.	67-127	60	Medium to coarser sand	Recommended	Good
9.	127-148	21	Clay		Good
10.	148-153	5	Medium to fine sand	Recommended	Good
11.	153-165	12	Clay		Good

14. Note:-

(i) All Zones are intermixed with kankar.

(ii) Zone 1,2,3,8 & 10 is intermixed with thin layers of kankar.

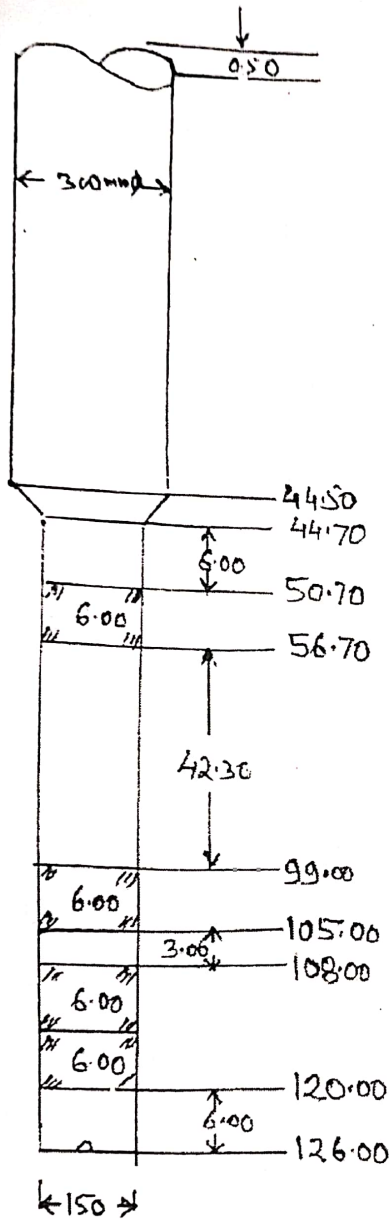
15. Quality of the formation water is good up to Logging depth.

16. Log Attached.

*Rajeev Kumar*  
**Rajeev Kumar**  
Geophysicist  
National Hydrology Project  
Ground Water Department, Govt. U.P.



Proposed Tw Assembly chart of Masauli <sup>Zener</sup> w/s scheme block Masauli  
Distt. Barabank



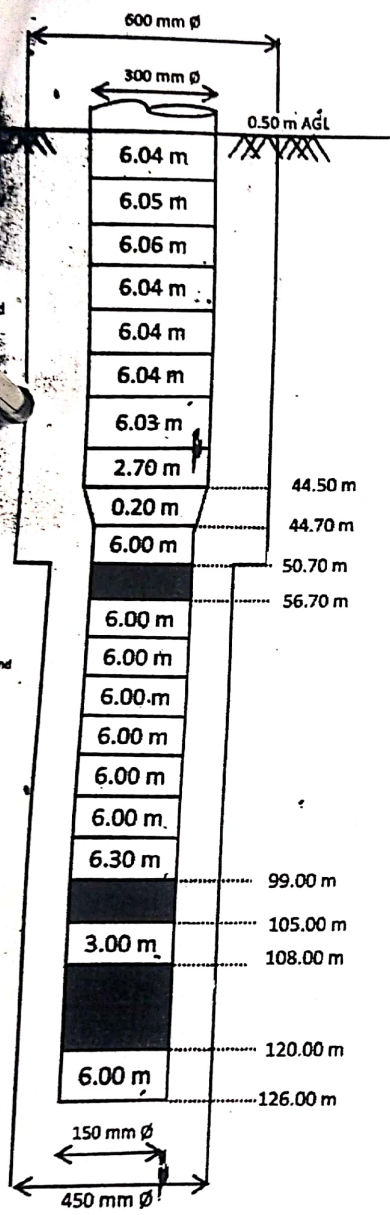
1. Discharge - 907L
2. HP - 15 HP
3. Assembly size - 300x150
4. Bore  $\phi$  = 600x150mm
5. Logging Report of -  
27-9-23

- 1-0-13 = 13 TOP soil
- 2-13-19 = 6 Finesand
- 3-19-25 = 6 Finesand
- 4-25-31 = 6 Finesand
- 5-31-43 = 12 Medium to fines
- 6-43-58 = 15 Medium to coarse
- 7-58-67 = 9 clay
- 8-67-127 = 60 Medium to coarse sand
- 9-127-148 = 21 clay
- 10-148-153 = 5 Medium to fines
- 11-153-165 = 12 clay



**OFFICE OF THE EXECUTIVE ENGINEER**  
**DIVISION OFFICE (E/M), UTTAR PRADESH JAL NIGAM (RURAL), AYODHYA**  
**Strata Chart & T.W. Assembly lowered of 600 x 450 mm of Masauli Zone-1, WSS BLOCK-Masauli**  
**Under Jal Jeevan Mission, Distt- Barabanki**

Latitude - 26.675061°  
 Longitude - 81.497833°



ACTUAL T.W. ASSEMBLY	
BORE SIZE	600 mm x 450 mm
T.W. ASSEMBLY	300 mm x 150 mm
DISCHARGE	907 LPM
WORKING HEAD	
PUMP	15 HP
LOGGING REPORT	27/09/2023
Date of Lowering	30/09/2023

S.NO.	DEPTH RANGE	THICKNESS	REMARKS
1	0-13	13	GOOD
2	13-19	6	GOOD
3	19-25	6	GOOD
4	25-31	6	GOOD
5	31-43	12	GOOD
6	43-58	15	GOOD
7	58-67	9	GOOD
8	67-127	60	GOOD
9	127-148	21	GOOD
10	148-153	5	GOOD
11	153-165	12	GOOD
1- Housing Pipe 300 mm Ø			= 45.00 m
2- Plain Pipe 150 mm Ø			= 57.30 m
3- Slotted Pipe 150 mm Ø			= 24.00 m
4- Reducer (300 x 150) mm Ø			= 0.20 m
Total Assembly			= 126.50 m
Less AGL			= (-)0.50 m
Total Lowering (BGL)			= 126.00 m

I/s VTL - GATA ENGINEERING PVT LTD JV  
 Contractor

R.A.P.  
 FITCHNER India Ltd.  
 T.P.I.

S.P. Yadav  
 J.E. (E&M)

R. S. Prasad  
 A.E. (E&M)

Mohd. Maaz  
 E.E. (E&M)