



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



GEOPHYSICAL BOREHOLE-LOGGING REPORT

1. Date of Logging: 15/06/2023
2. Village: Jamapur
3. Location: Panchayat Bhawan
4. Block: Jarwal
5. District: Bahraich
6. Latitude & Longitude: 27.2219 & 81.5802.
7. Drilling depth: 330m bgl
8. Logging depth: ~~296m bgl~~
9. Logging Company: UP Ground Water Department
10. Bore hole drilled by: SQUAD SYNERGY PVT LTD.
11. Recorded Geophysical log data: SP, Natural gamma & Resistivity (16 N & 64 N, FL, Lateral).
12. (i) Resistivity of Mud (Rm): 12.90 ohm-m. (ii) Resistivity of fresh water (Rf): 13.20 ohm-m.
13. On the basis of interpretation of recorded log data in open hole detail report is made 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.	0-10	10	Top Soil		Good
2.	10-46	36	Medium to fine sand	Recommended	Good
3.	46-55	9	Fine sand Clay		Good
4.	55-61	6	Medium to fine sand	Recommended	Good
5.	61-71	10	Sandy clay		Good
6.	71-92	21	Medium to fine sand	Recommended	Good
7.	92-107	15	Clayey sand		Good
8.	107-125	18	Medium to fine sand	Recommended	Good
9.	125-136	9	Clayey sand		Good
10.	136-141	5	Medium to fine sand	Recommended	Good
11.	141-150	9	Sandy clay		Good
12.	150-170	20	Medium to Fine sand	Recommended	Good
13.	170-177	7	Fine sand Finer Sediments.		Good
14.	177-184	7	Medium to fine sand	Recommended	Good
15.	184-189	5	Sandy clay		Good
16.	189-198	9	Fine sand		Good
17.	198-204	6	Clay Finer Sediments.		Good
18.	204-271	67	Medium to Fine sand	Recommended	Good
19.	271-285	14	Clay		Good
20.	285-291	6	Fine sand	Recommended	Good

14. Note:-

(i) All Zones are intermixed with kankar.

(ii) Zone 1, 6, 12 & 18 is intermixed with thin layers of kankar.

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

Verified as per logs provided

Rajeev Kumar

Rajeev Kumar

(Geophysicist)

*Note: Review Sr No 18
G/Su
17/06/23*