

Quality of Open Well Water in Mahe region - 2023

Sl. No.	Parameters	Pallur Open well	Pandakkal Open well	Acceptable limit	Permissible limit
	Station Code	2446	2447		
1	Latitude	11.732794 N	11.761178 N		
2	Longitude	75.538042 E	75.53695 E		
3	Dt.of Sampling	01.08.2023	01.08.2023		
4	Time	9:30 AM	9:50 AM		
5	Temperature °C	28.0	28.0		
6	DO mg/l	–	–		
7	pH	5.42	5.07	6.5-8.5	NR
8	Conductivity µmho/cm	406	202		
9	COD (mg/l)	BDL (DL: 5.0)			
10	BOD (mg/l)	BDL (DL : 1.0)			
11	Turbidity NTU	BDL (DL:1.0)		1	5
12	Nitrate -N (mg/l)	2.99	2.87		
13	Nitrite-N (mg/l)	BDL (DL - 0.02)			
14	Nitrate (mg/l)	13.29	12.7	45	NR
15	Carbonate as CO ₃ ²⁻ (mg/l)	BDL (DL : 3.0)			
16	Bi-Carbonate as HCO ₃ ⁻ (mg/l)	21.96	BDL (DL:18.0)		
17	P. Alkalinity (mg/l)	BDL (DL - 5.0)			
18	Total Alkalinity (mg/l)	BDL(DL : 20.0)		200	600
19	M. Alkalinity (mg/l)	BDL			
20	Chloride (mg/l)	55.93	27	250	1000
21	Ammonia -N (mg/l)	–	–		
22	Total Hardness as CaCO ₃ (mg/l)	61.4	13.9	200	600
23	Calcium Hardness as CaCO ₃ (mg/l)	49.5	9.9		
24	Magnesium Hardness as CaCO ₃ (mg/l)	11.9	BDL (DL:4.0)		
25	Calcium as Ca ⁺⁺ (mg/l)	19.8	4.0	75	200

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	Station Code	2446	2447		
26	Magnesium as Mg ⁺⁺ (mg/l)	2.89	0.97	30	100
27	TDS (mg/l)	190.0	90.0	500	2000
28	TSS (mg/l)	BDL (DL : 10.0)			
29	FDS /TFS (mg/l)	BDL (DL :10.0)			
30	Sodium (mg/l)	39.5	9.81		
31	Potassium (mg/l)	6.8	1.34		
32	Hexavalent Chromium (mg/l)	BDL			
33	Sulphate (mg/l)	21.63	BDL (DL : 5.0)	200	400
34	Ortho phosphate (mg/l)	BDL (DL - 0.05)			
35	% Sodium	55.0	57.7		
36	SAR	2.2	1.1		
37	Copper (mg/l)	BDL		0.05	1.5
38	Nickel (mg/l)	BDL		0.02	NR
39	Cadmium (mg/l)	BDL		0.003	NR
40	Lead (mg/l)	BDL		0.01	NR
41	Total Chromium (mg/l)	BDL		0.05	NR
42	Iron (mg/l)	BDL		0.3	NR
43	Zinc (mg/l)	BDL		5	15
44	Arsenic (mg/l)	BDL		0.01	0.05
45	Mercury (mg/l)	BDL		0.001	NR
46	Manganese (mg/l)	0.023	0.037	0.1	0.3
47	Alpha HCH µg/l	BDL			
48	Gamma HCH µg/l	BDL			
49	Detla HCH µg/l	BDL			
50	Methyl Parathion µg/l	BDL			
51	Alachor µg/l	BDL			
52	Aldrin µg/l	BDL			
53	Malathion µg/l	BDL			

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	Station Code	2446	2447		
54	Chlorpyrifos µg/l	BDL			
55	Alpha Endosulfan µg/l	BDL			
56	Butachlor µg/l	BDL			
57	Beta Endosulfan µg/l	BDL			
58	Phorate µg/l	BDL			
59	op DDT µg/l	BDL			
60	op DDD µg/l	BDL			
61	pp DDD µg/l	BDL			
62	op DDE µg/l	BDL			
63	pp DDE µg/l	BDL			
64	Dieldrin µg/l	BDL			
65	Ethion µg/l	BDL			
66	Endosulfan sulfate µg/l	BDL			
67	pp DDT µg/l	BDL			

BDL - Below Detectable Limit; DL - Detection Limit
NR - No Relaxation