

Ground Water Quality Data in Karaikal during Post Monsoon 2024					
Sl.No.	Parameters	Vadamattam	T.R.Pattinam	Acceptable Limit (IS 10500 : 2012)	Permissible Limit (IS 10500 : 2012)
Station Code		2014	2013		
1	Latitude	10.96825 N	10.841278 N		
2	Longitude	79.7955 E	79.832111 E		
3	Dt.of Sampling	01.02.2024	01.02.2024		
4	Time	6.15 AM	7.30 AM		
5	Temperature °C	34.0	34.5		
6	pH	8.28	8.25	6.5 - 8.5	NR
7	Conductivity µmho/cm	1529	1983		
8	COD (mg/l)	BDL(DL:4.0)			
9	BOD (mg/l)	BDL(DL:1.0)			
10	Turbidity NTU	BDL(DL:10.0)		1	5
11	Nitrate -N (mg/l)	BDL (DL:0.3)			
12	Nitrite-N (mg/l)	BDL (DL:0.02)			
13	Nitrate (mg/l)	BDL		45	NR
14	Ammonia -N (mg/l)	BDL(DL:0.4)			
15	P. Alkalinity (mg/l)	12	12		
16	Total Alkalinity (mg/l)	291	285	200	600
17	Chloride (mg/l)	263.23	424.26	250	1000
18	Total Hardness as CaCO ₃ (mg/l)	28	72	200	600
19	Calcium Hardness as CaCO ₃ (mg/l)	10	38		
20	Magnesium Hardness as CaCO ₃ (mg/l)	18	34		
21	Calcium as Ca ⁺⁺ (mg/l)	4.0	15.2	75	200
22	Magnesium as Mg ⁺⁺ (mg/l)	4.374	8.262	30	100

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23	TDS (mg/l)	844	1096	500	2000
24	TSS (mg/l)	BDL (DL:10.0)			
25	FDS / TFS (mg/l)	652	970		
26	Sodium (mg/l)	394.3	88.1		
27	Potassium (mg/l)	3.03	3.09		
28	Sulphate (mg/l)	8.97	14.87	200	400
29	Ortho phosphate (mg/l)	0.18	0.36		
30	% Sodium	96.39	71.49		
31	SAR	32.3	4.5		
32	Total Coliform MPN/100 ml	<2	<2		
33	Faecal Coliform MPN/100 ml	<2	<2		
34	Faecal Streptococci MPN/100 ml	110	120		
35	Copper (mg/l)	0.024	0.026	0.05	1.5
36	Nickel (mg/l)	BDL	0.047	0.02	NR
37	Cadmium (mg/l)	BDL		0.003	NR
38	Lead (mg/l)	BDL		0.01	NR
39	Total Chromium (mg/l)	0.019	0.041	0.05	NR
40	Iron (mg/l)	0.934	0.514	0.3	NR
41	Zinc (mg/l)	0.107	0.064	5	15
42	Arsenic (mg/l)	BDL		0.01	0.05
43	Mercury (mg/l)	0.17	0.009	0.001	NR
44	Alpha HCH µg/l	BDL			
45	Gamma HCH µg/l	BDL			
46	Detla HCH µg/l	BDL			

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47	Methyl Parathion µg/l	BDL			
48	Alachor µg/l	BDL			
49	Aldrin µg/l	BDL			
50	Malathion µg/l	BDL			
51	Chlorpyrifos µg/l	BDL			
52	Alpha Endosulfan µg/l	BDL			
53	Butachlor µg/l	BDL			
54	Beta Endosulfan µg/l	BDL			
55	Phorate µg/l	BDL			
56	op DDT µg/l	BDL			
57	op DDD µg/l	BDL			
58	pp DDD µg/l	BDL			
59	op DDE µg/l	BDL			
60	pp DDE µg/l	BDL			
61	Dieldrin µg/l	BDL			
62	Ethion µg/l	BDL			
63	Endosulfan sulfate µg/l	BDL			
64	pp DDT µg/l	BDL			

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