

Ground Water Quality Data in Karaikal during Post Monsoon 2026

Sl.No.	Parameters	Vadamattam	T.R.Pattinam	Acceptable Limit (IS 10500 : 2012)	Permissible Limit (IS 10500 : 2012)
		2014	2013		
Station Code		2014	2013		
1	Latitude	10.96825 N	10.841278 N		
2	Longitude	79.7955 E	79.832111 E		
3	Dt.of Sampling	02.02.2026	02.02.2026		
4	Time	06.40 A.M	08.15 A.M		
5	Temperature °C	33.0	32.0		
6	pH	8.30	8.42	6.5 - 8.5	NR
7	Conductivity µmho/cm	1465	1994		
8	COD (mg/l)	BDL (DL:5.0)			
9	BOD (mg/l)	BDL (DL:1.0)			
10	Turbidity NTU	BDL (DL:1.0)		1	5
11	Nitrate -N (mg/l)	BDL (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)	20	36		
16	Total Alkalinity (mg/l)	356.0	354.0	200	600
17	Chloride (mg/l)	295.10	398.20	250	1000
18	Fluoride (mg/l)	0.33	0.47	1	1.5
19	Total Hardness as CaCO ₃ (mg/l)	40.0	64.0	200	600
20	Calcium Hardness as CaCO ₃ (mg/l)	4.0	34.0		
21	Magnesium Hardness as CaCO ₃ (mg/l)	36.0	30.0		
22	Calcium as Ca ⁺⁺ (mg/l)	1.6	13.6	75	200
23	Magnesium as Mg ⁺⁺ (mg/l)	8.75	7.3	30	100

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24	TDS (mg/l)	925	1331	500	2000
25	TSS (mg/l)	BDL (DL:10.0)			
26	FDS / TFS (mg/l)	554	738		
27	Sodium (mg/l)	363.8	486.4		
28	Potassium (mg/l)	3.59	2.96		
29	Sulphate (mg/l)	BDL (DL: 5.0)	14.22	200	400
30	Ortho phosphate (mg/l)	BDL (DL: 0.05)	0.31		
31	% Sodium	94.62	93.95		
32	SAR	24.87	26.35		
33	Total Coliform MPN/100 ml	210	220	Nil	Nil
34	Faecal Coliform MPN/100 ml	<1.8	33	Nil	Nil
35	Faecal Streptococci MPN/100 ml	<1.8		Nil	Nil
36	Copper (mg/l)	BDL (DL:0.02)		0.05	1.5
37	Nickel (mg/l)	BDL (DL:0.005)		0.02	NR
38	Cadmium (mg/l)	BDL (DL:0.001)		0.003	NR
39	Lead (mg/l)	BDL (DL:0.005)		0.01	NR
40	Total Chromium (mg/l)	BDL (DL:0.02)		0.05	NR
41	Iron (mg/l)	0.07	0.21	0.3	NR
42	Zinc (mg/l)	BDL (DL:0.05)		5	15
43	Arsenic (mg/l)	BDL (DL:0.005)		0.01	0.05
44	Mercury (mg/l)	BDL (DL:0.0005)		0.001	NR

Sl.No.	Parameters	Vadamattam	T.R.Pattinam	Limit µg/l
Station Code		2014	2013	
45	Alpha HCH µg/l	BDL		0.01
46	Gamma HCH µg/l	BDL		2.0
47	Delta HCH µg/l	BDL		0.04
48	Methyl Parathion µg/l	BDL		0.3
49	Alachor µg/l	BDL		20
50	Aldrin µg/l	BDL		0.03
51	Malathion µg/l	BDL		190
52	Chlorpyrifos µg/l	BDL		30
53	Alpha Endosulfan µg/l	BDL		0.4
54	Butachlor µg/l	BDL		125
55	Beta Endosulfan µg/l	BDL		0.4
56	Phorate µg/l	BDL		2
57	op DDT µg/l	BDL		1
58	op DDD µg/l	BDL		1
59	pp DDD µg/l	BDL		1
60	op DDE µg/l	BDL		1
61	pp DDE µg/l	BDL		1
62	Dieldrin µg/l	BDL		0.03
63	Ethion µg/l	BDL		3
64	Endosulfan sulfate µg/l	BDL		0.4
65	pp DDT µg/l	BDL		1

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