

Ground Water Quality Data in Karaikal during Pre Monsoon 2022					
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	10.09.2022	10.09.2022		
4	Time	05.30 A.M	07.30 A.M		
5	Temperature °C	31°C	29.5°C		
6	pH	8.67	8.69	6.5 - 8.5	NR
7	Conductivity µmho/cm	2020	2760		
8	COD (mg/l)	BDL (DL : 5.0)			
9	BOD	BDL (DL : 1.0)			
10	Turbidity NTU	1.7	BDL (DL : 1)	1	5
11	Nitrate -N (mg/l)	BDL (DL : 0.3)			
12	Nitrite-N (mg/l)	0.06	BDL (DL : 0.02)		
13	Nitrate (mg/l)	BDL	BDL	45	NR
14	Hexavalent Chromium (mg/l)	BDL (DL : 0.05)			
15	P. Alkalinity (mg/l)	32	28		
16	Carbonate CO ₃ ²⁻ (mg/l)	19.2	16.8		
17	M. Alkalinity	312.0	314.0		
18	Total Alkalinity (mg/l)	344	342	200	600
19	Bi-Carbonate as HCO ₃ ⁻ (mg/l)	380.64	383.08		
20	Chloride (mg/l)	347.4	536. 0	250	1000
21	Total Hardness as CaCO ₃ (mg/l)	28	60	200	600
22	Calcium Hardness as CaCO ₃ (mg/l)	16	38		
23	Magnesium Hardness as CaCO ₃ (mg/l)	12	22		

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24	Calcium as Ca ⁺⁺ (mg/l)	6.4	15.2	75	200
25	Magnesium as Mg ⁺⁺ (mg/l)	2.92	5.35	30	100
26	TDS (mg/l)	869	1096	500	2000
27	TSS (mg/l)	BDL (DL : 10)			
28	FDS / TFS (mg/l)	499.0	842.0		
29	Sodium (mg/l)	376.6	484.7		
30	Potassium (mg/l)	3.5	3.2		
31	Sulphate (mg/l)	139.58	123.41	200	400
32	Ortho phosphate (mg/l)	BDL (DL : 0.05)			
33	% Sodium	96.16	94.24		
34	SAR	30.9	27.1		
35	Copper (mg/l)	BDL (DL : 0.01)		0.05	1.5
36	Nickel (mg/l)	BDL (DL : 0.01)		0.02	NR
37	Cadmium (mg/l)	BDL (DL : 0.001)		0.003	NR
38	Lead (mg/l)	BDL (DL : 0.005)		0.01	NR
39	Total Chromium (mg/l)	BDL (DL : 0.01)		0.05	NR
40	Iron (mg/l)	BDL (DL : 0.02)		0.3	NR
41	Zinc (mg/l)	BDL (DL : 0.1)		5	15
42	Arsenic (mg/l)	BDL (DL : 0.005)		0.01	0.05
43	Mercury (mg/l)	BDL (DL : 0.0005)		0.001	NR
44	Alpha HCH µg/l	BDL			
45	Gamma HCH µg/l	BDL			
46	Delta HCH µg/l	BDL			
47	Methyl Parathion µg/l	BDL			

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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