

Ground Water Quality Data in Karaikal during Post Monsoon 2023					
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	23.01.2023	23.01.2023		
4	Time	06.00 A.M	07.20 A.M		
5	Temperature °C	29°C	33°C		
6	pH	8.14	8.21	6.5 - 8.5	NR
7	Conductivity µmho/cm	1968	2770		
8	COD (mg/l)	BDL (DL : 5.0)			
9	BOD (mg/l)	BDL (DL : 1.0)			
10	Turbidity NTU	2.7	BDL (DL : 1.0)	1	5
11	Nitrate -N (mg/l)	0.49	BDL (DL : 0.3)		
12	Nitrite-N (mg/l)	BDL (DL : 0.02)			
13	Nitrate (mg/l)	2.17	1.06	45	NR
14	Hexavalent Chromium (mg/l)	BDL			
15	P. Alkalinity (mg/l)	22	30		
16	Carbonate CO ₃ ²⁻ (mg/l)	13.2	18		
17	M. Alkalinity (mg/l)	273	273		
18	Total Alkalinity (mg/l)	295	303	200	600
19	Bi-Carbonate as HCO ₃ ⁻ (mg/l)	333.06	333.06		
20	Chloride (mg/l)	266.14	422.53	250	1000
21	Total Hardness as CaCO ₃ (mg/l)	34	82	200	600
22	Calcium Hardness as CaCO ₃ (mg/l)	20	58		
23	Magnesium Hardness as CaCO ₃ (mg/l)	14	24		

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24	Calcium as Ca ⁺⁺ (mg/l)	8.0	23.2	75	200
25	Magnesium as Mg ⁺⁺ (mg/l)	3.402	5.832	30	100
26	TDS (mg/l)	791	1082	500	2000
27	TSS (mg/l)	BDL (DL : 10.0)			
28	FDS / TFS (mg/l)	456	753		
29	Sodium (mg/l)	209.9	311.2		
30	Potassium (mg/l)	3.55	3.43		
31	Sulphate (mg/l)	4.13	18.35	200	400
32	Ortho phosphate (mg/l)	0.20	0.20		
33	% Sodium	92.18	88.64		
34	SAR	15.6	14.9		
35	Copper (mg/l)	0.025	0.023	0.05	1.5
36	Nickel (mg/l)	0.016	0.015	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)	0.026	0.018	0.05	NR
40	Iron (mg/l)	0.78	0.04	0.3	NR
41	Zinc (mg/l)	BDL (DL : 0.01)	0.011	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

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