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DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

From

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To

The Principal,
Sivanthi Public School,
Metha Nagar, Andarkuppam,
Kundrathur,
Chennai-600 069.

R.No.75/C/2025 Misc -56 & 57

Dated: 17.02.2025.

Sir,

Sub: Report on examination of water samples - Regarding.

Ref: Your letter dated 09.01.2025.

Two samples of water stated to have been collected on 30.01.2025 by Thiru.P.Mahalingam from the following source/point located within the premises of Sivanthi Public School, Metha Nagar, Andarkuppam, Kundrathur, Chennai-69 were received at this laboratory on the same day from the addressee to assess their suitability for drinking purposes.

1. Water from the tap (Source : Well) (MISC 56)
2. Water from the RO Plant outlet tap (Source : Well) (MISC 57)

The Results of analysis are furnished over leaf.

1. Water from the tap (Source : Well) (MISC 56)

The above sample of water is colourless and clear in physical appearance.

Chemical analysis reveals that it is very hard, with high value for alkalinity and considered to be acceptable chemical quality for drinking purposes.

It is of poor bacteriological quality for drinking purposes as evidenced by the presence Coliform group of Organisms.

Microscopical Examination also reveals the presence of few algal and zoo forms.

Hence the water needs disinfection before distribution for consumption.

Method of Disinfection :

The disinfection is usually carried out by chlorinating the water collected from the Source at the storage units (Sump/OHT) by using 4 gms of BIS grade bleaching powder containing 32 to 34 % of chlorine content or 20 ml of 4 to 6 % sodium

RESULTS OF EXAMINATION OF SAMPLES OF WATER

From : The Principal, Sivanthi Public School, Metha Nagar, Andarkuppam, Kundrathur,
Chennai – 600 069.

Collected by : Thiru. P. Mahalingam.

M – 56

M – 57

Date of Collection : 30.01.2025		Water from the tap (Source : Well)	Water from the RO Plant outlet tap (Source: Well)		Maximum permissible limit for drinking water as per BIS 10500/2012
Date of Receipt : 30.01.2025					
Source as per label:					
Bacteriological Examination	Total colonies per ml on agar at 37°C	90	10		10
	MPN of Coliform bacteria per 100 ml.	150	0		0
	Nature of Coliform bacteria isolated	Klebsiella aerogens II			absent
	Rapid Test for Ecoli				
Physical Examination	Colour	Colourless	Colourless		Colourless
	Turbidity (Units)	5	3		5
	Smell	None	None		None
Chemical Examination (in mg/l).	Total dissolved Solids	950	40		2000
	Carbonate hardness as CaCO ₃	344	8.4		-
	Non- Carbonate hardness as CaCO ₃	0	0		-
	Total hardness as CaCO ₃	344	8.4		600
	Chloride as Chlorine	152	8.0		1000
	Ammoniacal nitrogen	-	-		Nil
	Albuminoid nitrogen	-	-		Nil
	Oxygen absorbed (Tidy's test)	0.96	0.32		-
	Nitrate-nitrogen	1.0	0.5		10.2
	Alkalinity } Phenolphthalein	0	0		-
		as CaCO ₃ } Methyl Orange	372	14.4	
	Fluoride as Fluorine	0.2	0.1		1.5
	PH.	7.6	7.2		6.5-8.5
	Iron as Fe Total	0.05	Nil		1.0
	Ferrous	Nil	Nil		--
	Manganese as Mn.				0.3
	Qualitative-				
	Nitrite nitrogen	Present	Trace		Trace
	Sulphate	Present	Trace		400
	Phosphate	Trace	Trace		Trace
	Toxic substances				
	Electrical conductivity (Reciprocal megohms per Cm ³ at 20°C)	1360	60		-
Microscopical Examination		Philodina, Monas and Amorphous matter	Amorphous Matter		

hypochlorite solution for every 1000 litres of water with half an hour contact time before Consumption.

The Storage units should be cleaned with strong Bleaching powder solution periodically atleast once in a month to ensure hygienic safety of storage units.

2. Water from the RO Plant outlet tap (Source: Well) (MISC 57)

The above sample of RO water is colourless and clear in physical appearance.

Chemical analysis reveals that it is very soft and less mineralized. Even though it is of usable chemical quality for drinking, the total hardness is only 8.4 mg/l. The calcium and magnesium elements are almost removed from this water, which are very essential for healthy living of human beings including growing children.

Hence, it is advised that the firm that installed the R.O. unit should be contacted with this analytical report and set right the RO unit in such a way that the outlet water should contain atleast a minimum content of total hardness of 30 mg/l so as to have some amount of calcium and magnesium that are very essential for healthy life.

It is of satisfactory biological and bacteriological quality for drinking purposes on this occasion.

Copy to: Lab & File

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18.2.2025
for CHIEF WATER ANALYST,
Chief Water Analysis Laboratory,
Guindy, Chennai – 32.

18/2/25