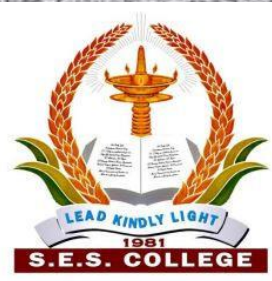




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Water Audit Report

2020-2021

Water analysis report of the College

Water is a natural resource; all living organisms depend on water. While freely available in many natural environments, in human settlements potable (drinkable) water is less readily available. Groundwater depletion and water contamination are taking place at an alarming rate. Hence it is essential to examine the quality and usage of water in the college. Monitoring the quality of our water and testing it regularly is very important to maintain reliable and safe water sources and eliminate the potential health risks related to water contamination. From the report we understood relevant method that can be adopted and implemented to balance the demand and supply of water.

Water quality testing is important because it identifies contaminants and prevents waterborne diseases. Drinking or using contaminated water can result in severe illness or death. That is why it is important to ensure that drinking water is safe, clean and free from bacteria and disease. The parameters for water quality are determined by the intended use. Work in the area of water quality tends to be focused on water that is treated for human consumption, or in the environment.

Water Quality Assessment

Water samples from two different locations were collected and analyzed for its quality parameters. The samples includes one well water which are the main water source of the college campus and the other one is Bore water samples which is used for canteen and drinking water cum cooler systems. The samples were collected, preserved and transported to Kerala water authority, Quality Control Regional Laboratory Kannur, and analyzed for various physio-chemical parameters. The major parameter analyzed are acidity, alkalinity, turbidity, Sulphate, Calcium, Magnesium, Flouride, Iron, Nitrate, Chloride, hardness, pH, conductivity, total dissolved solids and salinity. The results are presented in the Table. The results are comparable with the values of drinking water standards prescribed by different agencies

Water Analysis Report

From the report we reached a conclusion that both well water and bore well water are acidic in nature. In both the samples Coliform bacteria is present. When the pH is less than 6.5 is that it can leach metals from the well and from the pipes that bring you water. These metals include lead, manganese, copper and iron and they can be toxic in large amounts. So acidic water obviously poses a health risk. Additionally, its high acidity may corrode your teeth and the pipes in our college. If coliform bacteria are present in our drinking water, our risk of contracting a water-borne illness is increased.

No E.Coli bacteria present in our water sources.

Suggestions

If water is acidic (low pH). Soda ash (sodium carbonate) and sodium hydroxide raise the pH of water to near neutral when injected into a water system. When acidic water is treated with a neutralizing filter such as ground limestone (calcium carbonate), hardness is added to the water. This happens as a result of adding calcium and magnesium minerals that the water absorbs when passing through the filter.

When coliform bacteria are found in a water supply, we will immediately begin disinfecting the water supply by feeding chlorine into the water system. We commonly use bleaching powder. The relatively easiest, most affordable and arguably the most effective way for an owner to protect their water supply from coliform bacteria is to use a UV system. A UV system is a metal chamber that houses a UV lamp.

Water Analysis Report is enclosed below with this Report



KERALA WATER AUTHORITY
QUALITY CONTROL REGIONAL LABORATORY
KANNUR

Report on Analysis of WATER

Test Report No : 246/20-21

Date : 20/10/2020

Name : SES College Campus (B No 44/2020 P 18)

Address : Sreekandapuram

Date of Receipt : 09/10/2020

Date of Testing : 09/10/2020

SI No.	Characteristics	Unit	Desirable limits as per IS 10500 : 2012	Permissible limits	Actual Contents
					Sampling Points
					1
1	Turbidity (NTU)	NTU	1	5	0.5
2	pH		6.5-8.5	No relaxation	4.41
3	Electrical Conductivity	µs/cm			33.7
4	Acidity	mg/litre			95.0
5	Alkalinity	mg/litre	200	600	10.0
6	Sulphate (as SO ₄)	mg/litre	200	400	NIL
7	Total Dissolved Solids(TDS)	mg/litre	500	2000	28.0
8	Total Hardness as (CaCO ₃)	mg/litre	200	600	10.0
9	Calcium (Ca)	mg/litre	75	200	1.6
10	Magnesium (Mg)	mg/litre	30	100	1.46
11	Chloride as (Cl)	mg/litre	250	1000	7.09
12	Fluoride as (F)	mg/litre	1	1.5	NIL
13	Iron (as Fe)	mg/litre	0.3	No relaxation	0.02
14	Nitrate (as NO ₃)	mg/litre	45	No relaxation	NIL

Sampling Points

- 1 Open well (Sample brought by the party)

Remarks:

Very low pH.

Signature of Chemist

BACTERIOLOGICAL ANALYSIS

SI No.	Source	MPN of coliforms in 100 ml	MPN of E.Coli
1	Open well (Sample brought by the party)	50	NIL

Remarks:

Coliforms present.

Signature of Bacteriologist


 Signature of Asst. Engineer
ASSISTANT ENGINEER
QUALITY CONTROL REGIONAL LAB
KERALA WATER AUTHORITY
KANNUR-12



KERALA WATER AUTHORITY
QUALITY CONTROL REGIONAL LABORATORY
KANNUR

Report on Analysis of WATER

Test Report No : 247/20-21

Date : 20/10/2020

Name : SES College (B No 44/20 P 20)
 Address : Sreekandapuram
 Date of Receipt : 09/10/2020
 Date of Testing : 09/10/2020

SI No.	Characteristics	Unit	Desirable limits as per IS 10500 : 2012	Permissible limits	Actual Contents
					Sampling Points
					1
1	Turbidity (NTU)	NTU	1	5	NIL
2	pH		6.5-8.5	No relaxation	6.24
3	Electrical Conductivity	µs/cm			81.5
4	Acidity	mg/litre			12.0
5	Alkalinity	mg/litre	200	600	60.0
6	Sulphate (as SO ₄)	mg/litre	200	400	2.8
7	Total Dissolved Solids(TDS)	mg/litre	500	2000	62.0
8	Total Hardness as (CaCO ₃)	mg/litre	200	600	44.0
9	Calcium (Ca)	mg/litre	75	200	8.01
10	Magnesium (Mg)	mg/litre	30	100	5.82
11	Chloride as (Cl)	mg/litre	250	1000	8.51
12	Fluoride as (F)	mg/litre	1	1.5	NIL
13	Iron (as Fe)	mg/litre	0.3	No relaxation	NIL
14	Nitrate (as NO ₃)	mg/litre	45	No relaxation	NIL

Sampling Points

- 1 Bore well (Sample brought by the party)

Remarks:

Low pH.

Signature of Chemist

BACTERIOLOGICAL ANALYSIS

SI No.	Source	MPN of coliforms in 100 ml	MPN of E.Coli
1	Bore well (Sample brought by the party)	5	NIL

Remarks:

Coliforms present.

Signature of Bacteriologist

Signature of Asst. Engineer

ASSISTANT ENGINEER
QUALITY CONTROL REGIONAL LAB
KERALA WATER AUTHORITY
KANNUR-12