

Water analysis

Organized by the Department of Chemistry

6/7/2016

In order to provide life skills to the students in the Department of Chemistry, we are giving training in water analysis. Water purity is essential for our good health. Whether our water causes illness, stains on plumbing, scaly deposits, or a bad taste, a water analysis identifies the problem and enables us to make knowledgeable decisions about water treatment. The department is conducting water analysis for local areas of Chalakudy. We measure the quality of potable water, agricultural and fish tank water, water in ponds, rivers, and bore-wells, etc. Water is perhaps the most precious natural resource after air. So sources of water must be monitored regularly to determine whether they are in sound health or not.

We have overwhelming responses to analyse the water samples from the local people. It helped people to identify whether the well water is good for drinking purpose or polluted with some chemicals or acid. General Water Quality Indicators are parameters used to indicate the presence of harmful contaminants. Testing for indicators can eliminate costly tests for specific contaminants. Generally, if the indicator is present, the supply may contain the contaminant as well. For example, turbidity or the lack of clarity in a water sample usually indicates that bacteria may be present. The pH value is also considered a general water quality indicator. High or low pHs can indicate how corrosive water is. Corrosive water may further indicate that metals like lead or copper are being dissolved in the water as it passes through distribution pipes. Hardness is one contaminant you will see on the report. Hard water is a purely aesthetic problem that causes soap and scaly deposits in plumbing and decreased cleaning action of soaps and detergents. Hard water can also cause scale buildup in hot water heaters and reduce their effective lifetime.

Dr. Santhosh Paul was the coordinator. 18 water samples were analysed during

this year and forty two third year B.Sc chemistry students actively participated in this analysis.



The list of students has volunteered in this activity is given below.

Sl.No	Name
1.	Aida Simethy
2.	AksaPoulose
3.	Akshaya M
4.	Alphonse Manuel
5.	Anjana E S
6.	Anjukrishna P M
7.	Anliya George
8.	Arya A R
9.	Aswathy N Suresh
10.	AthiraUnnikrishna
11.	Ayisa Varghese
12.	AyshaAbdulkarim
13.	Blessy C J
14.	Christy A L
15.	Geethukrishna
16.	MariyaPoulose
17.	Rajima C M
18.	Sini Sebastian T
19.	Surya K S
20.	ThusharaJohny

21.	Aiswarya C R
22.	Ammu P D
23.	Anila Bastian
24.	Anjana K B
25.	AnuJoju
26.	Anusree K C
27.	Athira K V
28.	Athira M C
29.	Christy M V
30.	Devika T S
31.	Eva Sneha Francis
32.	Kripa Maria Thomas
33.	Livina Salam
34.	Liya Joseph
35.	Mariya P T
36.	Muhsina K U
37.	Nivya Varghese
38.	Praveena C P
39.	RaghilaRamachandran
40.	Shini Jose
41.	SwathySajeevan
42.	VyshnaVinod K

Sample certificate is given below



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Water Quality Analysis

Date of Collection:10/07/2017

Date of testing:10/07/2017

Name:

Source:well water

Ref: IS: 10500

No.	Parameters	Unit	Desirable limit	Permissible limit	Observed value
1	Ammonium	ppm	0.2	0.5	0.5
2	pH		6.5–8.5		5.64
3	Alkalinity (Total)	ppm	200	600	30
4	Calcium Hardness	ppm	75	200	35
5	Total hardness (in terms of CaCO ₃)	ppm	300 - 600		470
6	Chloride	ppm	250	1000	40
7	Fluoride	ppm	1	1.5	Nil
8	Iron	ppm	0.3	1	Nil
9	Residual chlorine	ppm	0.2	1	Nil
10	Nitrate	ppm	45		5
11	Nitrite	ppm	0.5	1	0.5
12	Phosphate	ppm	5	5	Nil
13	Conductivity	µS	2500 µS		227
14	Salinity	ppt	1 x 10 ³		-
15	Total dissolved solids	ppm	500	2000	Nil
16	Turbidity	NTU	5	10	-
17	Ecoli/colifrm bacteria				present

Technician/in-charge

LIGHT SHINES IN DARKNESS