



Jivan Vikas Shikshan Sanstha Risod's

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Department of Chemistry

Report

“Analysis of Drinking Water In and Around Risod”

Title:Analysis of Drinking Water In and Around Risod on 18th February 2020.

Objective:To find pH, Electrical Conductivity, Total Dissolved Solids (TDS), Total hardness, Salinity, Dissolved Oxygen (DO).

Abstract:Water is one of the most important natural resources for mankind. Water is responsible for so many effects like physicochemical effects, biological effects, toxic effects and pathogenic effects. Drinking water adequacy in Risod region is achieved through a mix of interventions with trap ground water and rain water. Students are asked to study some important physicochemical parameter of water samples collected from Risod and some villages around it. Students have collected water samples from different resources like bore well, dug well, dam water, water from public water supply system Risod itself and around.

Main content:These water samples were analyzed by the students with help of water analysis kit total five parameters were recorded.

In this analysis we analyzed different parameters of water like pH, Conductivity, TDS (Total Dissolved Solids), DO (Dissolved oxygen) and Salinity. It is important to monitor these parameters for several reasons. As water quality does not stay constant. It can vary from season to season and needs to be monitored regularly. Most of the chemical changes to water quality cannot be detected by eye or smell, and hence need laboratory analysis. A high concentration of dissolved solid is usually not a health hazard. Dissolved solid can produce hard water when a water source has high or low level of these parameters; it is likely that there is other harmful contaminant in water like TDS & pH are also easy to measure and if something is happening to

water such as pollution chances are both TDS & pH level change. So keeping track of those changes can act as an early warning signal that something is happening to the water and that water is hazardous for human health.

Water samples were collected from Risod, Mahagaon, Sawad, Haral, Ghoti, Wadji, Mop, Ekalsapur, Gowardhan, Rithad, MagulZanak, Mothegaon, Nawali, Karda and Nijampur. It is observed that the water from this region is somewhat salty therefore, it was needed to check its portability. The main purpose of this extension activity was to make aware the people about drinking water. It is important to monitor these parameters, so that immediate action can be taken on it.

Sr. No.	Name of Student	Class	Address	pH	Cond.	TDS	Salinity	DO
1.	Ku.RupaliGajanan Shelke	B. Sc. I	At.Post. Sawad Tq Risod	7.6	2.1	218	1.3	10.5
2.	Ku.Renu Bharat Giram	B. Sc. I	Samarth Nagar RisodTq Risod	6.9	1.5	150	0.5	8.4
3.	Ku.Vaishanavi M. Chopade	B. Sc. I	GulabwadiGalii RisodTq Risod	7.3	0.9	400	0.4	15.5
4.	Ku. Payal Sunil Jadhav	B. Sc. I	GajananVasahat, Risod Tq. Risod	6.5	0.7	100	0.09	6.5
5.	Ku. PrajaktaDattaDhoke	B. Sc. I	At.Post. HaralTq Risod	7.5	0.8	70	0.3	6.9
6.	Ku. Megha V. Ghayal	B. Sc. I	At.Post. Mop Tq. Risod	8.0	0.2	37	0.09	6.7
7.	Ku. Nilita P.Narwade	B. Sc. I	At.MopTq Risod	7.8	0.7	70	0.2	6.3
8.	Ku. Radhika S. Deshmukh	B. Sc. I	At.Post, Goverdhan, Risod	7.2	1.6	178	1.1	6.0
9.	Ku. Shubhangi V. Thikhe	B. Sc. I	At.Post. PardiThikheTq.Risod	7.9	0.9	95	0.5	6.5
10.	Ku. Poonam G Sureshe	B. Sc. I	NijampurTq Risod	7.5	0.8	83	0.5	7.9
11.	Ku. Vaishanvi P. Sonune	B. Sc. I	At.PostSegaonKhodke , Tq. Sengaon	7.5	1.7	167	1.0	6.7
12.	Ku. Kiran C. Pacharane	B. Sc. I	At.Post. AsolaTq Risod	8.0	0.4	39	0.2	6.3
13.	Ku. Anchal V. Wathore	B. Sc. I	Ekta NagarTq Risod	7.6	0.8	79	0.4	5.9
14.	Ku. Rani B. Devkar	B. Sc. I	At.Post. WakadTq Risod	7.4	2.6	262	1.1	7.9
15.	Ku.RaniGhodekar	B. Sc. I	At. AsanGaliiTq Risod	7.7	1.3	133	0.7	6.9
16.	Ku.Swati V. Raut	B. Sc. I	At.Post. HaralTqRisod	7.7	0.9	89	0.5	6.7
17.	Ku. Nikta S. Gavhane	B. Sc. I	At.Post. PalaskhedaTq Risod	7.7	0.8	88	0.5	6.8
18.	Akash A. Dhele	B. Sc. I	At.Post. VyadTq Risod	7.6	1.2	120	0.7	7.3
19.	Mahesh R, Zungare	B. Sc. I	At.Post. PankanergaonTqSengaon	7.7	0.7	73	0.5	6.8

20.	Rameshwar B. Tejankar	B. Sc. I	At.Post. MahagaonTq Risod	7.8	0.6	65	0.2	7.6
21.	Rushikesh S. Khanzode	B. Sc. I	Shivaji Nagar Risod Tq Risod	7.4	1.1	110	0.7	7.8
22.	Aankush N. Bais	B.Sc. I	At. Gohgaon Hade Tq Risod	7.5	1.5	210	1.5	9.00
23.	Vaibhav V. Shirsat	B.Sc. I	At.Post. Ekalasapur	7.9	0.8	95	0.3	5.5
24.	Pavan G. Bajad	B.Sc. I	At,Post, WadajiTq. Risod	7.3	0.8	90	0.6	7.2
25.	Satish D. Dhande	B.Sc. I	At.Post. MothegaonTq. Risod	7.3	1.5	210	0.9	7.8

Outcomes:From the above studies, it is clear that all the physico-chemical parameters from various villages were found potable except the water samples collected from Risod town was somewhat saline however in the permissible level i.e. 1200 mg/lit while hardness and dissolved oxygen of tap water is crossing the limit of standard data. As well as hardness of Bore Well water is found to be high and dissolved oxygen found to be low.

Photographs:



Students of B.Sc-I Participated in water analysis departmental activity



Dr. P. S. Phatak demonstrating the use of water analysis kit

Paper news:

सकाळ

पाटील महाविद्यालयात पाणी परीक्षण

रोग टाळण्यासाठी पाणी तपासणी : विविध ३५ ठिकाणच्या पाण्याची तपासणी

रिसोड, ता. २५ : येथील स्व. पुण्यादेवी पाटील महाविद्यालयातील रसायनशास्त्र विभागाच्यावतीने महाविद्यालयाचे प्राचार्य डॉ. जे. बी. देव्हडे यांच्या मार्गदर्शनाखाली रिसोड शहरातील एकता नगर, शिवाजीनगर, आंबेडकर नगर, सिव्हील लाइन व ग्रामीण मधील व्याड, सवड, रिठद, वाकद, मोप, गोवर्धन इत्यादी भागातील जवळपास ३० ते ३५ पाण्याचे नमुने विद्यार्थ्यांमार्फत गोळा करून त्यांचे परीक्षण रसायनशास्त्र प्रयोगशाळेत करण्यात आले.

या तपासणीमध्ये पाण्याचे पीएच. मूल्य, विसर्जित ऑक्सिजन, पाण्याची चालकता, पाण्यातील खजिनाची मात्रा व पाण्याची क्षारता इत्यादी गोष्टींचा 'बॉटर अनालिसिस किट' द्वारे विद्यार्थ्यांना



रिसोड : पाणी परीक्षणासाठी उपस्थित विद्यार्थी. (सकाळ छायाचित्रसेवा)

प्रात्यक्षिक करून अभ्यास करण्यात आला. लोह, आर्सेनिक, क्रोमियम, अॅल्युमिनियम हे धातुयुक्त घटक जर प्रमाणाबाहेर असतील तर ते घातक ठरू शकतात. तसेच पाण्याच्या निर्जंतुकीकरण करिता वापरण्यात येणाऱ्या रसायनांचे प्रमाणही मर्यादितच असायला हवे. दूषित पाण्यामुळे विषमज्वर,

अतिसार, कावीळ, पटकी इत्यादी रोग होऊ शकतात त्याकरिता पाण्याचे परीक्षण करणे आवश्यक असते, असे प्रतिपादन रसायनशास्त्र विभागाचे विभाग प्रमुख डॉ. के. एफ. शेळके यांनी केले. या करिता विभागातील प्रा. आदिनाथ बदर, प्रा. प्रमोद फाटक, प्रा. अमरदीप जाधव व एकनाथ खिराडे यांनी परिश्रम घेतले.

