DEPARTMENT OF CHEMISTRY

Onsite Programme 2018-2019

							1					NO	SL.
5						Program	Onsite				LINKAGE	THE	TITLE OF
				died, vijayapai	area Viiavaniir	water plant, Industrial	Aqua sure mineral	DETAILS	WITH CONSTANT	RY/RESEARCH LAB	INSTITUTION/INDUST	PARTNERING	NAME OF THE
							2018					COMMENCMENT	YEAR OF
						0107/8/8101	11/8/2018					N(FROM-10)	DURATIO
S. C.	equipment	testing	mineral water	purification	and	Mqrei rezuile	Drinking testing					LINKAGE	NATURE OF
							Attactica	Attached			DOCOMENT	RELEVANT	LINK OF

Head
Dept. cf Chemistry
SB Arts & KCP Sc. College,
Vijayapur.

S.B.Arts & K.C.P. Science College

S.B. Arts and KCP Science College VIJAYAPUR

Coordinator .

S.B. Arts and K.C.P. Science College, Vijayapur-586103

Department of Chemistry NOTICE

Date:03/08/2018

It is here by informed to the chemistry students that, there is Onsite Training Course in Mineral water testing at Aquasure for 8 days. So interested students can enroll their names to the Dr. M S Yadawe before 03/08/2018.

Bijapur

S. B. Arts & KCP Sc. Collec

IQAC, Co-ordinator
S.B.Arts & K.C.P.Science College,
Vijayapur.

Head
Dept. of Chemistry
SB Arts & KCP Sc. College,
Vijayapur.

A Report on

Industrial Training on 11th to 18nd August 2018

Sites Visited:

- 1. Bhutnal drinking water
- 2. Aqua Sure mineral water plant

Number of Students: 10

Faculty coordinators: 05

Dr.M.S.Yadawe

Mahesh.Gurav

Savitri.Biradar

Gayatri.Desai

Neela.Inchal

Dept. of Chemistry SB Arts & KCP Sc. College, Vijayapur.

IQAC, Co-ordinator

S.B.Arts & K.C.P.Science College, Vijayapur.

Principal, S. B. Arts & KCP Sc. College

Bijapur

Industrial Training

Aim of this Training

Aqua-Guard offers full on-site training with several packages to choose from. This training is designed to help you to protect your working and natural environments Training courses include:

- Sewage Treatment
- Drinking water testing and purification
- Mineral water testing including chemical and microbiological tests
- Equipment Training

To develop skill among the students, hard working students and to earn money easily, steadily, forever, in this flourishing water treatment trade, particularly in domestic modern drinking water R.O and allied systems with very low capital investment. This RO based water treatment system is an ever growing need-based it commodity. Every house, indivitual establishments, offices, factories, educational institutions, hotels, hospitals, hostels lodges etc. are going to purchasing the RO systems and hence, the growth of the business is tremendously increasing year after year. Hence, this business has a bright future.

After visualizing the above prospects, we felt that it is the need of the hour to educate the students with water chemistry, train them to acquaint and acquire water testing training technical knowledge to identify the best components, design the system to the customers need both by way of quantity and quality with the use of trained knowledge/experience, effect the supply, install, test maintain etc, with 100% confidence and thereby to derive the mental satisfaction of having served the people with best quality product and to make the end user/buyer to be happy about the product with cherish able water quality and honesty of the supplier.

TRAINING TO MANUFACTURE AND START YOUR OWN INDUSTRY

SUCH AS

Training on WATER ANALYSIS on more than 15 Parameters including chemical contaminants of the water source including Bacterial / Virus test - with the use of test



1. liquid Waste (Sewage/Wastewater) Treatment

Wastewater (liquid waste) from flushing the toilet, bathing, washing sinks and general cleaning goes down the drain and into a pipe, which joins a larger sewer pipe under the road. The larger pipe also joins a major pipe that leads to the treatment center.

STAGE ONE: SCREENING

Screening is the first stage of the wastewater treatment process. Screening removes large objects like, diapers, nappies, sanitary items, cotton buds, face wipes and even broken bottles, bottle tops, plastics and rags that may block or damage equipment. Special equipment is also used to remove grit that gets washed into the sewer.

STAGE TWO: PRIMARY TREATMENT

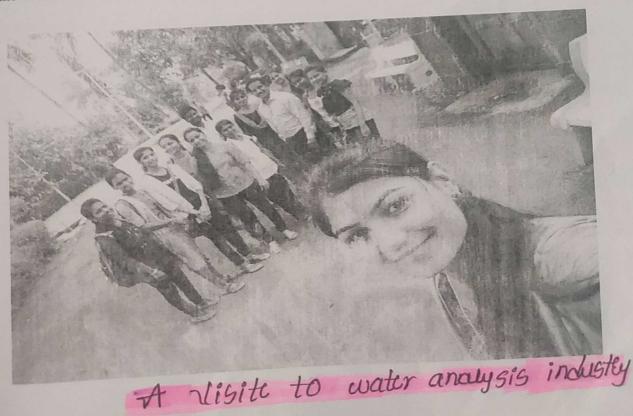
This involves the separation of organic solid matter (or human waste) from the wastewater. This is done by putting the wastewater into large settlement tanks for the solids to sink to the bottom of the tank. The settled solids are called 'sludge'. At the bottom of these circular tanks, large scrappers continuously scrape the floor of the tank and push the sludge towards the center where it is pumped away for further treatment. The rest of the water is then moved to the Secondary treatment.

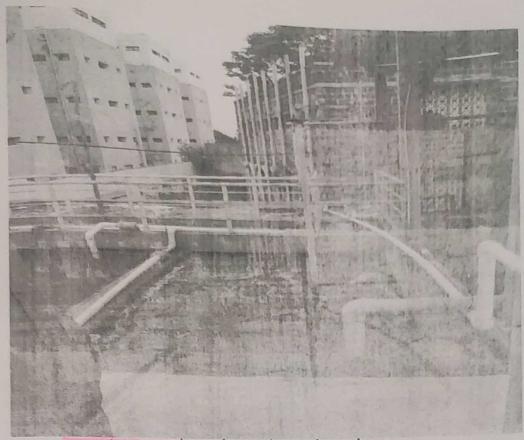
STAGE THREE: SECONDARY TREATMENT

The water, at this stage, is put into large rectangular tanks. These are called aeration lanes. Air is pumped into the water to encourage bacteria to break down the tiny bits of sludge that escaped the sludge scrapping process.

STAGE FOUR: FINAL TREATMENT

Next, the 'almost' treated wastewater is passed through a settlement tank. Here, more sludge is formed at the bottom of the tank from the settling of the bacterial action. Again, the sludge is scraped and collected for treatment. The water at this stage is almost free from harmful substance and chemicals. The water is allowed to flow over a wall where it is filtered through a bed of sand to remove any additional particles.





water tecament structure.

Community Water Treatment

Drinking water supplies in the United States are among the safest in the world. However, even in the U.S., drinking water sources can become contaminated, causing sickness and disease from waterborne germs, such as *Cryptosporidium*, *E. coli*, Hepatitis A, *Giardia intestinalis*, and other pathogens.

Drinking water sources are subject to contamination and require appropriate treatment to remove disease-causing agents. Public drinking water systems use various methods of water treatment to provide safe drinking water for their communities. Today, the most common steps in water treatment used by community water systems (mainly surface water treatment) include:

S. B. Arts & KCP Sc. College Bijapur

Head
Dept. of Chemistry
SB Arts & KCP Sc. College,
Vijayapur.

IQAC, Co-ordinator S.B.Arts & K.C.P.Science College, Vijayapur.

Intra Structure of water Analysis. DISINFECTION STORAGE

Figure courtesy of EPA



Head Dept. of Chemistry SB Arts & KCP Sc. College, Vijayapur.

Picture of water filter

Principal, Bijapur

-IQAC, Co-ordinator S. B. Arts & KCP Sc. College, Arts & K.C.P. Science College, Vijayapur.



Training About the water analysis.



Experts Speaking about water analysis. with Coagulation and Flocculation Students.

Coagulation and flocculation are often the first steps in water treatment. Chemicals with a positive charge are added to the water. The positive charge of these chemicals neutralizes the negative charge of dirt and other dissolved particles in the water. When this occurs, the particles bind with the chemicals and form larger particles, called floc.

S.B.Arts & Kc.P.Science College,

S. B. Arts & KCP Sc. College.

ept. of Chemistry
uts & KCP Sc. College,

sedimentation

During sedimentation, flocculate settles to the bottom of the water supply, due to its weight. This settling process is called sedimentation.

Filtration

Once the flocculate has settled to the bottom of the water supply, the clear water on top will pass through filters of varying compositions (sand, gravel, and charcoal) and pore sizes, in order to remove dissolved particles, such as dust, parasites, bacteria, viruses, and chemicals.

Disinfection

After the water has been filtered, a disinfectant (for example, chlorine, chloramine) may be added in order to kill any remaining parasites, bacteria, and viruses, and to protect the water from germs when it is piped to homes and businesses.

Parameters for Drinking Water Testing

- pH: pH is how acidic or basic something is.
- Hardness Minerals from rocks and soil give water its hardness
- Copper: From pipes and industrial components
- Iron: Enters water from rocks and soil
- Phosphate: Found in many detergents Stimulates plant growth
- Chlorine: Used for disinfection
- Ammonia: Fecal matter and decaying vegetation produce ammonia
- Chromium: Can be naturally occurring or the result of industry

Ultra Violet Treatment

Purely intended for bacteria/ virus killing in the drinking water. We give training for designing of the UV system based on buyers requirements such as quality and quantity, procurement of ultra violet lamps, quartz tubes / sleeves from Indian and foreign companies including choke. We also give training on fabrication of Ultra Violet stainless steel chamber

for durability and non corrosive utility for an indefinite period and testing of the absence of the bacteria / virus with suitable test kit, namely Bactoscope.

Interpreting a Bacteriological Test

All water has some form of bacteria in it. The presence of bacteria does not mean the water is unsafe to drink. Only disease-causing bacteria known as pathogens lead to disease. Your test results should include total coliform bacteria. Total coliform bacteria are a group of several kinds of bacteria commonly found in the environment, including soil, vegetation and untreated surface water. They also are found in the intestinal tract of warm-blooded animals, including humans.

A laboratory commonly will report the bacteriological test as positive or negative, indicating the presence or absence of total coliform bacteria. A negative total coliform bacteria result means the water is safe for human consumption from a bacteriological standpoint.

A positive total coliform test would indicate unsanitary conditions and the possible presence of disease-causing organisms. Further testing should include the subgroup fecal coliform and its subgroup, *Escherichia coli* (*E. coli*). A positive fecal coliform would indicate possible recent sewage or animal waste contamination.

E.coli outbreaks related to food contamination have received media attention. These outbreaks are caused by a specific strain of E. coli known as E. coli 0157:H7. A positive E. coli result does not necessarily mean this specific strain is present. However, it does indicate recent fecal contamination, which should be interpreted as an indication of a greater risk that pathogens are present.

Disease-causing microbes (pathogens) in these wastes can cause diarrhea, cramps, nausea, headaches or other symptoms. These pathogens may pose a special health risk for infants, young children and people with severely compromised immune systems.

Repeat the bacteria test within seven days to confirm the effectiveness of the chlorination.

Head
Dept. of Chemistry
SB Arts & KCP Sc. College,
Vijayapur.

END

Principal,
S. B. Arts & KCP Sc. College.

Bijapu

IQAC, Co-ordinator
S.B.Arts & K.C.P.Science College,
Vijayapur.

B.L.D.E. Association's

S.B. Arts & K.C.P Science College, Vijayapur

List of Students for On-site training course in Mineral water testing at

Nai	me of students	Signature
Shreedevi.Ba		Sharalesh
Savita.Nadah		ELY
Shilpa.Shindl	ne	SIRL
Swati.S.Khat	And the second s	Siehatan
AishwaryaK		Akaladayii.
Namrata.Kho		1Khot
Rohini.Bhusa		Rohini
Aishwarya.B		ABriader
Sweta.Birada		Suite
Mallika.Birac		nautry
Sneha.Pongu		Inchan.
Gurubai.Bira		Guy
Sweta.Budda		Shurt
Sweta.Budd		

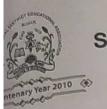
Dept. of Chemistry SB Arts & KCP Sc. College, Vijayapur.

leac, co-cidinator S.B.Arts & K.C.P.Science College, Vijayapur.

Principal,

S. B. Arts & KCP Sc. College,

Bijapur



B.L.D.E.ASSOCIATION'S S. B. ARTS AND K. C. P. SCIENCE COLLEGE BIJAPUR



RE - ACCREDITED AT THE 'B' LEVEL Phone: (08352) - 261766, (08352) 262770 Extn. 2223, 2224 Fax: 08352 - 261766 E-mail: bldesbkcp@gmail.com

REF./PÀæªÀiÁAPÀ	:

Date:

To,

Managing Director

Aquasure mineral water testing, Vijayapur

Sub: Regarding the permission to visit to your Aquasure on $11^{/}08/2018$ to 18/08/2018.

This is to bring to your kind notice that 10 students of our College studying at B.Sc will visit your esteemed wine factory on $11^{\prime}08/2018$ to 18/08/2018. The concerned faculty members (5) will accompany them. Hence we request you kind self to permit our student to visit your Aquasure . This visit to your Aquasure will make our student aware of various processes in your Aquasure . We look forward to your co-operation in this matter. Further you Aquasure is not responsible for any unforeseen accidents to the students during the visit to the Aquasure .

Thanking you

Vijayapur

10th,Aug.2018

Yours faithfully

Principal,

S. B. Arts & KCP Sc. College, Bijapur

IQAC, Co-ordinator S.B.Arts & K.C.P.Science College, Vijayapur.

No

Dept. of Chemistry SB Arts & KCP Sc. College, Vijayapur.

PACKED DRINKING WATER FROM AQUAGAURD AQUASURE Actuaguard

Pacific beverages,

Certificate of Participation

This is to Certify that Kumar/Kumari Shreedevi Babaleshtuor

of B.L.D.E.Association's S.B.Arts and K.C.P.Science College, Vijayapur has attenzied the course on water

testing as per BIS standards.

Venue: MAHAI RHAGAYAT,

K.I.A.D.B Industrial Area Vijayapur Course

Date: 13th to 18th August-2018

Managing Director

