Journal of Medicinal Chemistry and Drug Discovery
ISSN: 2347-9027
Special Issue
Analytical Chemistry Teachers And Researchers Association
National Convention/Seminar
18 January 2015

Physico-chemicalanalysis of water pollution of Manjara river in Kallam City.

V. V. Naiknaware*, Syed Abed,** MazharFarquiee***

*Swa. Sawarkarcollege, Beed. **Government college of Arts and Science ,Aurangabad

*** Head, Dept. of chemistry, Dr. RafiqZakeria College for Women ,Aurangabad

Abstract:

The present study reports physico-chemical analysis of water samples from manjara river, which flow from eastern side of Kallam city. Water samples were collected from chosen five locations or sites from entering the city to left of river to the city. The parameters of water samples at these sites have been studied. In observed parameter results were compared with their desirable limits. The results showed that last two sites were more polluted due to city wastes entered in it.

Key Words:-Physico-chemical analysis, Manjara River water River pollution, Kallam (M.S.)

Introdution:

Kallam city is a central place of Marathwada Region situated on the bank of river Manjara. Water from Manjara river is used mainly from cloth washing ,Brisk industries, other Domestic purposes. It is always observed that rivers passing through the cities are usually polluted due to Domestic and Industrial wastages. The present study deals with the degree of pollution of river.

Materials Methods:

River water samples were collected from various five sites aroundsKallam city. The samples were collected in December -2011 Sampling sites were selected and indentified as hasegaon,behind of hanuman mandir, ChondeGalli, BhoiGalli& Malegaon.

These sampling sites were at the distance around 20KM from the both sides of Kallam. The Work was planned to investigate and assess the pollution of the river water regarding its suitability for Drinking and Agricultural purpose. The water analysed for its quality following Neeri,(1979).

Results:

Table I:-Physico-chemical analysis of river water around Kallam city area

Sr. No.	Sampling sites	Temp. ^{o}C	P^{H}	Hardness (ppm)	Total Solids(ppm)	Chlorides (ppm)	Fluorides (ppm)	Alkalinity (ppm)
01.	Hasegaon	26	6.9	120.0	330.0	12.0	0.28	136.0
02.	Behind of hanuman Temple	28	7.1	140.0	360.0	16.0	0.30	170.0
03	ChondeGalli	29	7.2	225.0	440.0	52.0	0.32	212.0
04	BhoiGalli	30	7.2	305.0	690.0	95.0	0.35	288.0
05	Malegaon	32	7.4	340.0	800.0	124.0	0.40	376.0

Discussion:

Above Table gives a chemical analyzed values obtained at five sites from various parameters. The temperature of river water from 27c to 32c .The maximum being at the last two sites with polluted water. Very little variation in ^{pH}(6.9 to 7.4) was observed, which was neutral and within permissible limits. Hardness andtotal dissolved solids of water samples at the site no. 4&5 showned maximum value above permissible limits.

The higher hardness might be due to increasedinorganic matter from brisk industries, funerals waste entering while that of total solids may be attributed industrial and domestic waste water suspensions also entering in it. In chemical analyzed maximum chloride content was recorded at the site no.3 and next sites, because their entering dhobighat waste water,its concentration in riverwater was belo permissible. The samples from all sites shoed minimum amount of fluride

content. The high alkalinity at last two sites were due to Domestic and Industrial waste material entering into the river.

It is clear from above results that samples from sites no. 4 and 5 were more polluted and they were above degree of pollution, therefore, river water polluted at the stege where river leaves Kallam city and it is mainly affected due to wastage entering in river from Kallam city.

References:-

1) D. Kelin,(1959) “River Pollution, Chemical Analysis”, ButterworthsSci.Pub. London, U.K.

2)Neeri,(1979) “Manual on Water and Wastewater Analysis”, National Environment Engineering Research Institue,Nagpur.