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PHYSICO-CHEMICAL ANALYSIS OF RIVER GANGA AT MISHARPUR U.K.INDIA

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ABSTRACT

The study was carried out to assessee the ground water quality of Misharpur in Haridwar district of U.K.
The quality was assessed in the terms of Physico-Chemical Parameters. Various Parameters such as Temperaturs ,Conductivity,Turbidity Velocity,Total Solids(TS) Total dissolved Solids(TDS).Total Suspended Solid (TSS)PH ,Desolved oxygen(DO).Free Co2,Alkolinity,Biochemical Oxygen demand (COD),Hardness ,Acidity,Chloride (cl^{-}),Calcium,Total Nitrogen,Magnesium,were analyzed to know the status of water quality .Consequently sewage treated and untreated industrial effivents are being discharged directly or indirectly into the river and deterionating the water quality of river ganga day by day

Keywords: *Physico chemical parameters ,anthology,assessment.*

1. INTRODUCTION

A portion which is penetrated into the earth is called water.

All fresh water bodies are inter connected to the oceans. The atmosphere, and aquifers via- complex hydrological cycle of the earth's total resource of water 97% is in the oceans. Used for drinking, irrigation or industry. Pollution is highest in urban areas. From this point of view study was undertaken to analyse the physico chemical parameters of riverline system. River ganga, the holiest river of all river of and life line of the north india originates from gangotri glacier. It emerges from the confluence of two important rivers of the hills. After descending 2829 meters at haridwar, the river ganga cuts across the shivalik hills and for the first time it enter the great plain of the uttrakhand state of india. Haridwar is known as gate way of god. It is well known that ganga is one of the most important river of india and has served as cradle for Indian civilization.

2. MATERIAL AND METHODS

Materials and methodology were taken by sample collection and analysis were used as per standard method (APHA – 1998). ISI method (1982), and trivedi and goel (1984). Water sample were collected in a neat and clean two litter capacity white plastic jericans for parameters collected sample were preserved in refridge till analysis. The water sample for do were collected in neat and clean 300 ml capacity borosill glass stoppered bottle by dipping the do bottles is ifrence of water surface. When bottle do fully filled with water then bottle were stoppered below its surface. At the point do was fixed by adding 2ml of each manganous sulphate ($Mnso_4$)and alkaline KI acid solutions, temperature is recordedon the site and free CO_2 were also .

3. RESULT AND DISCUSSION

The result of various physio chemical parameter observed during study period are tabulated in table 1 graph showing monthly Fluctuation in tables 4a.7-12 minimum water tempreture 10.25°C±00°C in November month in the year 2003-2004 and maximum 25.25°C±125°C in the march year 2003-2004.

Turbidity was minimum 0.00JTU +0.00 in the month of feburary and march in the year 2003-2004 and maximum of 562.64 JTU ± 178.06 in july month in the year 2003-2004. Velocity was minimum 0.10 m/sec ±0.00 in the march month in the 2004-2005 and minimum 2.15 m/sec± 0.05 in june month in the year 2003-2004.

Total solid were minimum 116.22 mg/l ± 0.21 in the February month in the year 2003-2004 and maximum of 1537.00 mg/l± 0.18 in the june month in the year 2003-2004.

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Total dissolved solids were minimum 78.21 mg/l ±0.61 in September month in the year 2004-2005.and maximum of 324.17 mg/l ±0.39 in the November month .Total suspended solid were minimum 26.00 mg/l ±0.29 in octobar month in the year 2004-2005 and maximum of 1142.00 mg/l ±17.55 in july month in the year 2004-2005.

PH of water were observed to be minimum 6.13 mg/l ±0.01 in the December month in the year 2003-2004 and maximum In 8.85 mg/l ±0.67 in the august month in the year 2004-2005.Dissolved oxygen was minimum 8.12 mg/l ±0.16 in the august month in the year 2004-2005 and maximum of 13.15 mg/l ±0.03 in the February month in the yaear 2003-2004.

Free co2 was minimum 1.15 mg/l ±0.01 in the month of September in the year 2003-2004 and maximum of 4.50 mg/l ±0.05 in the month of may in the year 2003-2004.Total alkaline of river was minimum 4.07 mg/l ±3.55 in the month of February in the year 2003-2004 and maximum of 87.0 mg/l ±1.47 in the month of November in the year 2003-2004.

B.O.D were observed to be minimum 1.75 mg/l ±0.06 in February in the year 2003-2004 and maximum 5.64 mg/l ±0.21 in the july month 2004-2005.

(C.O.D.)of water was minimum 3.16 mg/l ±0.24 in the month of august in the year 2004-2005.and maximum of 44.00 mg/l ±0.26 in the month of June in the year 2003-2004 .The total hardness of water was minimum 27.50 mg/l ±0.00 in the march month in the year 2003-2004 and maximum of 131.00 mg/l ±0.23 in the month of September in the year 2003-2004.

Acidity was minimum of 18.50 mg/l ±0.10 in the july month in the year 2003-2004 and maximum of 66.24 mg/l ±0.06 in the month of march in the year 2003-2004.

Chlorides in water was minimum 8.61 mg/l ±7.10 in the month of January in the year 2004-2005 and maximum of 28.35 mg/l ±15.00 in the month of July in the year 2004-2005.

Calcium was minimum 16.78 mg/l ±0.50 in the month of july in the year 2003-2004 and maximum of 47.00 mg/l ±0.07 in the January in the year 2003-2004.

Total nitrogen was minimum 0.20 mg/l ±0.00 in November month in the year 2004-2005 and maximum of 2.87 mg/l ±0.30 in the month of april in the year 2004-2005.

Magnesium was observed minimum of 0.20 mg/l ± janauary month in the year 2003-2004 and maximum of 0.93 mg/l ±0.03 in the month of july of 0.93 mg/l ±0.03 in the month of july in the year 2003-2004.
All average values are shown in the tables

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