



BIHAR STATE POLLUTION CONTROL BOARD
Parivesh Bhawan, NSB-2, Patliputra Industrial Area
Patliputra, Patna - 800 010
Analysis Report on Physico - Chemical examination of Ground Water sample.

Location Name	Bahyara Wetland, Siwan	Baraila Wetland, Siwan	Prem Hatta Wetland, Siwan	Chorma Wetland, Siwan
Co-ordinates	25.09107026 84.71956602	26.10185447 84.62631814	26.26282381 84.42269459	26.16402802 84.61131658
Lab Ref. Number	821	822	823	824
Date of Sampling	25.07.2022	25.07.2022	26.07.2022	26.07.2022
Nature of Sample:-	Wetland Water	Wetland Water	Wetland Water	Wetland Water
Temperature (A/W)	34/29	32/27	32/28	32/27
pH	8.21	8.2	7.53	8.2
Turbidity (NTU)	34.7	9.6	47.6	13.3
Electrical Conductivity (μ S/cm)	360	378	252	470
Dissolved Oxygen (mg/L)	8.4	12	6.1	8.3
Total Hardness as CaCO ₃ (mg/L)	170	132	158	156.0
Alkalinity as CaCO ₃ (mg/L)	170	130	140	164.0
Calcium Hardness as Ca (mg/L)	42.4	24.8	36.0	32.8
Magnesium Hardness as Mg (mg/L)	15.5	17.0	16.5	18.0
Chloride (mg/L)	48.0	14.0	21.0	23.0
Phosphate (mg/L)	0.07	0.04	0.06	0.08
Sulphate (mg/L)	4.59	2.24	59.39	3.02
Nitrate as N (mg/L)	0.08	0.06	0.07	0.10
Ammonical Nitrogen as N (mg/L)	0.17	0.16	0.24	0.10
Fluoride (mg/L)	0.91	0.50	0.65	0.96
COD (mg/L)	60	28	44.0	44.0
BOD (mg/L)	4.4	3.5	4.1	4.2
TSS (mg/L)	30	8	44.0	10.0
TDS (mg/L)	290	280	192.0	338.0
TC (MPN/100 ml)	920	540000	3500.0	21000
FC (MPN/100 ml)	350	240000	2800.0	17000
FSc (MPN/100 ml)	NA	NA	NA	NA

Jay

12/10/2022

Location Name	Wetland water sample No.34	Wetland water sample No. 33	Wetland water sample No.37	Wetland water sample No. 32	Wetland water sample No. 35
Co-ordinates	26.363206N 84.59511E	26.331508N 84.561025E	26.284825 85.03437E	26.302780N 85.4444E	26.311210 84.431206
Lab Ref. Number	925	926	927	928	929
Date of Sampling	02.08.2022	02.08.2022	02.08.2022	02.08.2022	03.08.2022
Nature of Sample:-	Wetland Water	Wetland Water	Wetland Water	Wetland Water	Wetland Water
pH	7.8	7.9	7.9	8.1	7.8
Turbidity (NTU)	48.9	14.8	17.7	11.2	27.0
Electrical Conductivity (µS/cm)	171.0	220.0	169.0	201.0	239.0
Total Hardness as CaCO ₃ (mg/L)	114.0	134.0	98.0	108.0	126.0
Alkalinity as CaCO ₃ (mg/L)	90.0	122.0	86.0	110.0	154.0
Calcium Hardness as Ca (mg/L)	28.8	32.0	21.6	27.2	29.6
Magnesium Hardness as Mg (mg/L)	10.2	13.1	10.7	9.7	12.6
Chloride (mg/L)	16.0	12.0	12.0	12.0	8.0
Phosphate (mg/L)	0.04	0.02	0.02	0.01	0.05
Sulphate (mg/L)	0.45	0.78	1.12	0.78	47.98
Nitrate as N (mg/L)	0.12	0.09	0.11	0.11	0.35
Ammonical Nitrogen as N (mg/L)	0.04	0.08	0.16	0.04	0.25
Fluoride (mg/L)	0.25	0.27	0.40	0.42	0.32
COD (mg/L)	40.0	32.0	28.0	28.0	52.0
TSS (mg/L)	52.0	16.0	20.0	12.0	30.0
TDS (mg/L)	152.0	180.0	120.0	136.0	178.0
TC (MPN/100 ml)	540000.0	92000.0	540000.0	350000.0	920000.0
FC (MPN/100 ml)	350000.0	14000.0	350000.0	240000.0	350000.0
FSc (MPN/100 ml)	8.0	8.0	8.0	33.0	11.0
E. coli (MPN/100ml)	240000.0	1700.0	170000.0	130000.0	170000.0
Iron (mg/L)	1.863	ND	0.351.0	0.193	0.310

Jayee

12/10/2022

Location Name	Wetland water sample No. 27	Wetland water sample No.28	Wetland water sample No. 36	Wetland water sample No.26
Co-ordinates	26.392109N 84.434522E	26.315966 84.443879	26.321929 84.541481	26.243973N 84.472690E
Lab Ref. Number	930	931	932	933
Date of Sampling	03.08.2022	02.08.2022	02.08.2022	02.08.2022
Nature of Sample:-	Wetland Water	Wetland Water	Wetland Water	Wetland Water
pH	7.8	7.7	8.0	7.9
Turbidity (NTU)	6.1	6.4	59.4	9.2
Electrical Conductivity (μ S/cm)	285.0	341.0	169.0	262.0
Total Hardness as CaCO ₃ (mg/L)	162.0	176.0	102.0	112.0
Alkalinity as CaCO ₃ (mg/L)	86.0	140.0	82.0	100.0
Calcium Hardness as Ca (mg/L)	32.8	36.0	24.0	19.2
Magnesium Hardness as Mg (mg/L)	19.4	20.9	10.2	15.5
Chloride (mg/L)	16.0	9.0	7.0	22.0
Phosphate (mg/L)	0.03	0.02	0.02	0.37
Sulphate (mg/L)	0.45	60.29	2.68	45.63
Nitrate as N (mg/L)	0.05	0.07	0.11	0.09
Ammonical Nitrogen as N (mg/L)	0.05	0.30	0.14	0.18
Fluoride (mg/L)	0.38	0.54	0.07	0.66
COD (mg/L)	28.0	16.0	28.0	32.0
TSS (mg/L)	8.0	10.0	62.0	14.0
TDS (mg/L)	208.0	260.0	100.0	206.0
TC (MPN/100 ml)	2200.0	160000.0	540.0	240.0
FC (MPN/100 ml)	460.0	92000.0	350.0	130.0
FSc (MPN/100 ml)	9.0	8.0	49.0	11.0
E. coli (MPN/100ml)	130.0	4900.0	240.0	23.0
Iron (mg/L)	0.279	0.207	0.594	0.252

Jay

Amal Kumar
12/10/2022

Location Name	Wetland water Birai Chaur, Vaishali	Wetland water Baria Chaur	Wetland water Powra Chaur	Wetland water Lotoura	Wetland water pahetia
Lab Ref. Number	989	990	991	992	993
Date of Sampling	22.08.2022	22.08.2022	22.08.2022	22.08.2022	22.08.2022
Nature of Sample:-	Wetland Water	Wetland Water	Wetland Water	Wetland Water	Wetland Water
Temperature (A/W)	7.32	7.14	7.58	7.69	7.24
Turbidity (NTU)	21.10	12.20	46.40	56.50	24.50
Electrical Conductivity (μ S/cm)	223.0	434.0	542.0	236.0	245.0
Dissolved Oxygen (mg/L)	1.3	1.3	1.5	2.7	2.8
Total Hardness as CaCO ₃ (mg/L)	116.0	230.0	166.0	120.0	132.0
Alkalinity as CaCO ₃ (mg/L)	108.0	218.0	160.0	96.0	124.0
Calcium Hardness as Ca (mg/L)	26.4	52.1	42.4	23.2	25.6
Magnesium Hardness as Mg (mg/L)	12.1	24.3	14.6	15.1	16.5
Chloride (mg/L)	15.0	10.0	19.0	8.0	68.0
Phosphate (mg/L)	0.03	1.15	0.05	0.04	0.13
Sulphate (mg/L)	2.57	6.60	76.95	27.85	3.02
Nitrate as N (mg/L)	0.12	0.15	0.14	0.06	0.16
Ammonical Nitrogen as N (mg/L)	0.77	1.39	0.04	0.05	0.13
Fluoride (mg/L)	ND	ND	ND	ND	ND
COD (mg/L)	40.0	80.0	72.0	24.0	96.0
BOD (mg/L)	6.0	10.0	9.0	5.0	12.0
TSS (mg/L)	24.0	14.0	48.0	58.0	28.0
TDS (mg/L)	182.0	334.0	328.0	112.0	178.0
TC (MPN/100 ml)	22000.0	350000.0	270.0	540000.0	43000.0
FC (MPN/100 ml)	3300.0	240000.0	170.0	350000.0	35000.0
FSc (MPN/100 ml)	11.0	45.0	2.0	33.0	14.0
E. coli (MPN/100ml)	1700.0	130000.0	93.0	170000.0	22000.0

Jaya

Shankar
12/10/2022

Location Name	Wetland water Loma Chaur	Wetland water Tal Berai	Wetland water Dhane Chaur	Wetland water Manora Chaur
Lab Ref. Number	994	995	996	997
Date of Sampling	23.08.2022	23.08.2022	23.08.2022	23.08.2022
Nature of Sample:-	Wetland Water	Wetland Water	Wetland Water	Wetland Water
Temperature (A/W)	7.38	7.50	7.82	7.29
Turbidity (NTU)	69.70	12.80	21.90	82.20
Electrical Conductivity (μ S/cm)	255.0	242	201.0	145.0
Dissolved Oxygen (mg/L)	3.2	3.0	2.8	2.8
Total Hardness as CaCO ₃ (mg/L)	132.0	136	104.0	80.0
Alkalinity as CaCO ₃ (mg/L)	104.0	126	96.0	60.0
Calcium Hardness as Ca (mg/L)	25.6	28.0	24.0	19.2
Magnesium Hardness as Mg (mg/L)	16.5	16.0	10.7	7.8
Chloride (mg/L)	8.0	5.0	3.0	7.0
Phosphate (mg/L)	0.05	0.07	0.05	0.02
Sulphate (mg/L)	41.05	1.79	1.57	2.24
Nitrate as N (mg/L)	0.11	0.10	0.06	0.08
Ammonical Nitrogen as N (mg/L)	0.06	0.16	0.28	0.05
Fluoride (mg/L)	ND	ND	ND	ND
COD (mg/L)	36.0	32.0	132.0	36.0
BOD (mg/L)	5.0	5.0	22.0	6.0
TSS (mg/L)	72.0	14.0	24.0	86.0
TDS (mg/L)	110.0	132.0	118.0	74.0
TC (MPN/100 ml)	4900.0	16000.0	22000.0	24000.0
FC (MPN/100 ml)	3300.0	35000.0	17000.0	13000.0
FSc (MPN/100 ml)	5.0	17.0	11.0	8.0
E. coli (MPN/100ml)	110.0	28000.0	13000.0	3400

Jeyar

Arun Kumar
12/10/2022

(Arun Kumar)
Board Analyst
Jeyar