

**BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA
(THROUGH PHYSICAL HEARING WITH HYBRID MODE)**

Original Application No.144/2023/EZ

In the matter of:

News Item published in Avenue Mail
Dated 7th February 2023 titled
“Jamshedpur: Industrial Wastes adding
to Pollution level in River Subarnarekha”

Applicant(s)

Versus

- 1. Member Secretary,**
Jharkhand State Pollution Control Board,
- 2. Deputy Commissioner, East Singhbhum,**
Jamshedpur,
Jharkhand
- 3. Executive Officer,**
Mango Municipal Corporation,
Jamshedpur,
Jharkhand

Date of hearing: 11.10.2023

**CORAM: HON’BLE MR. JUSTICE B. AMIT STHALEKAR, JUDICIAL MEMBER
 HON’BLE DR. ARUN KUMAR VERMA, EXPERT MEMBER**

For Applicant(s) : *Suo Motu*,

For Respondent(s) : Ms. Nandini Rai, Adv. for JSPCB, (in Virtual Mode)
 Ms. Aishwarya Rajyashree, Advocate (in Virtual Mode)
 for Dy. Commissioner, Jamshedpur,

ORDER

1. This Original Application was registered by the New Delhi Bench of the National Green Tribunal as Original Application No.124/2023/PB on a *suo motu* cognizance being taken on the basis of a media report with respect to the matters of pollution in the Subarnarekha River in Jharkhand in and around area Jamshedpur.
2. The media report refers to survey conducted by the State Pollution Control Board showing exceedance of pH value, DO content and

lead content. The report further mentions that the river covers drainage area of 1.93 million hectares and the river is rain-fed originating near Ranchi and going upto Bay of Bengal through Odisha and West Bengal covering length of 450 kilometers, and at some places like – Mango and Moubhandar, pollution was more.

3. Notices were issued on 14.02.2023 from the Office of the New Delhi Bench of the Tribunal in response to which affidavit has been filed by the Jharkhand State Pollution Control Board but no response was filed by the Deputy Commissioner, Jamshedpur, and the Mango Municipal Corporation.
4. The Tribunal also constituted a Committee comprising of the following Members:-
 - (i) *Additional Chief Secretary Environment, State of Jharkhand;*
 - (ii) *Nominee of Central Pollution Control Board, Integrated Regional Office, Ranchi;*
 - (iii) *Nominee of State Pollution Control Board; and*
 - (iv) *Nominee of District Magistrate, Jamshedpur, East Singhbhum District,*
5. The Committee was directed to visit the site in question and interact with the stakeholders and coordinate with concerned local bodies, residents, panchayats and other concerned persons and file a factual report in respect of gaps in management of sewage and trade effluents with time bound action plan to be furnished within two months.
6. Thereafter, the case has been transferred from New Delhi, National Green Tribunal to the Eastern Zone Bench of the Tribunal at Kolkata and re-registered as Original Application No.144/2023/EZ.

7. Action taken report has been filed by the Jharkhand State Pollution Control Board on 28.02.2023. It is stated that no untreated industrial effluents are being discharged into the Subarnarekha river. M/s Tata Steel and M/s Tata Motors discharged their treated effluents into the Subarnarekha river. Monthly River Water Analysis is carried out by the Regional Office-cum-Laboratory, Jamshedpur of the Jharkhand State Pollution Control Board. The values of pH, D.O. are within prescribed standard of Class-B of Designated best use, formulated by the Central Pollution Control Board. Analysis work of Hazardous Trace Metals was also carried out through M/s Scientific Research Laboratory at some probable contaminated sites related to the Subarnarekha river and Lead value was found to be below minimum detection limit. Analysis Reports have been filed by the State Pollution Control Board read as under: -

JHARKHAND STATE POLLUTION CONTROL BOARD
REGIONAL OFFICE-CUM-LABORATORY, M/B-15, NEW HOUSING COLONY
ADITYAPUR, JAMSHEDPUR

Analysis report under NWMP for the month of November, 2022

SL No.	Lab. Ref.	Water Code	Name of the Sampling Point	Date / Time of collection	Temp		D.O mg/l	pH	Cond. $\mu\text{ohm}/\text{cm}^2$	B.O.D mg/l	Alk. Mg/l	Total Hard. mg/l	Ca++ mg/l	Mg++ mg/l	T.D.S mg/l	T.S.S mg/l	T.S mg/l
					A	W											
1	167/22	48	Chandil Road Bridge	11.11.2022 At-10.15AM	26.0	22.5	6.8	7.1	241.0	BDL	22.0	28.0	6.1	3.20	161.0	9.0	170.0
2	165/22	4744	On swarnrekha river before meeting to kharkai	11.11.2022 At-9.20AM	24.5	21.5	7.1	7.0	213.0	BDL	BDL	19.0	3.6	2.35	142.0	10.0	152.0
3	166/22	4745	On swarnrekha river after confluence kharkai river	11.11.2022 At-9.35AM	24.7	21.5	6.8	6.9	196.0	1.0	24.0	39.0	6.4	5.72	131.0	12.0	143.0
4	164/22	4745	On Kharkai river before meeting swarnrekha river	11.11.2022 At-9.10AM	24.5	21.0	6.0	6.7	213.0	1.4	28.0	83.0	21.5	7.10	142.0	13.0	155.0
5	163/22	49	D/S Mango, Jamshedpur	11.11.2022 At-8.30AM	24.0	21.0	6.2	6.9	208.0	1.8	34.0	58.0	14.2	5.54	139.0	9.0	148.0
6	170/22	4742	Galudih Barrage	11.11.2022 At-11.40AM	28.0	40.0	6.4	7.3	222.0	1.3	26.0	56.0	12.6	6.00	148.0	8.0	156.0
7	172/22	4743	U/s HCL Ghatsila	11.11.2022 At-4.10PM	28.5	25.0	6.5	7.1	211.0	1.1	23.0	68.0	22.1	2.75	141.0	7.0	148.0
8	174/22	24	D/s HCL Ghatsila	11.11.2022 At-4.40PM	28.0	24.5	6.4	6.9	192.0	1.2	25.0	35.0	8.0	3.74	128.0	9.0	137.0
9	171/22	4748	Bharugora Road Bridge	11.11.2022 At-1.0 PM	29.5	26.0	6.9	7.2	240.0	BDL	BDL	53.0	11.7	5.80	160.0	11.0	171.0
10	161/22	1036	Koel Karo River at Manoherpur	08.11.2022 At-11.20AM	29.0	26.0	7.3	7.5	228.0	BDL	22.0	45.0	13.0	3.18	151.0	7.0	158.0
11	168/22	2399	Chandil Dam	11.11.2022 At-10.25AM	28.0	23.0	7.2	7.3	195.0	BDL	BDL	44.0	7.3	6.36	130.0	13.0	143.0
12	169/22	2396	Dimna Lake	11.11.2022 At-11.0 AM	27.0	24.0	6.7	7.0	201.0	1.3	BDL	43.0	9.1	5.18	134.0	14.0	148.0
13	173/22	2387	Ghatsila Road Bridge	11.11.2022 At-4.20PM	28.0	25.0	7.4	7.2	193.0	BDL	26.0	48.0	11.0	4.90	129.0	12.0	141.0
14	162/22	4747	Koel River at Manoherpur	08.11.2022 At-12.10PM	31.0	28.0	7.0	7.4	234.0	BDL	37.0	64.0	12.8	7.04	156.0	13.0	169.0

MKS
7-12-22
(M.K. Choudhary)
S.T.

(Amrita Mishra)
C.E.

J.P. Singh
19.12.2022
(J.P. Singh)
Regional Officer.

Board Analyst
21/12/2022

JHARKHAND STATE POLLUTION CONTROL BOARD
REGIONAL OFFICE-CUM-LABORATORY, M/T-15, NEW HOUSING COLONY
ADITYAPUR, JAMSHEDPUR

Analysis report under NWMP for the month of December, 2022

Sl. No.	Lab. Ref.	Water Code	Name of the Sampling Point	Date / Time of collection	Temp		D.O mg/l	pH	Cond. $\mu\text{mhos}/\text{cm}^2$	B.O.D mg/l	A.M. Mg/l	Total Hard. mg/l	Ca++ mg/l	Mg++ mg/l	T.D.S mg/l	T.S.S mg/l	T.S mg/l
					A	W											
1	181/22	48	Chandil Road Bridge	29.12.2022 At-9.40AM	22.5	19.0	7.0	7.3	237.0	BDL	23.0	29.0	5.7	3.60	158.0	11.0	169.0
2	179/22	4744	On swarnrekha river before meeting to kharkai	29.12.2022 At-8.30AM	21.0	18.0	6.8	7.0	241.0	1.1	BDL	21.0	3.8	2.75	161.0	13.0	174.0
3	180/22	4746	On swarnrekha river after confluence kharkai river	29.12.2022 At-8.45AM	21.0	18.0	6.5	6.8	219.0	1.3	21.0	41.0	5.9	6.34	146.0	15.0	161.0
4	178/22	4745	On Kharkai river before meeting swarnrekha river	29.12.2022 At-8.20AM	20.5	18.0	6.3	6.6	198.0	1.2	30.0	83.0	18.6	9.0	132.0	18.0	150.0
5	177/22	49	D/S Mango, Jamshedpur	29.12.2022 At-8.0 AM	20.0	18.0	6.2	6.8	182.0	1.7	32.0	59.0	15.3	5.14	128.0	14.0	142.0
6	184/22	4742	Galudih Barrage	29.12.2022 At-11.55AM	24.0	22.0	7.1	7.1	207.0	BDL	23.0	54.0	12.4	5.5	138.0	9.0	147.0
7	185/22	4743	U/s HCL Ghatsila	29.12.2022 At-12.35AM	26.0	23.0	7.0	7.2	236.0	BDL	BDL	65.0	20.8	3.17	157.0	8.0	165.0
8	187/22	24	D/s HCL Ghatsila	29.12.2022 At-2.15 PM	25.5	23.0	7.1	7.0	168.0	1.2	26.0	38.0	8.3	4.2	112.0	10.0	122.0
9	188/22	4748	Bharagora Road Bridge	29.12.2022 At-4.45PM	22.0	20.0	7.3	7.3	231.0	BDL	BDL	47.0	11.2	4.7	154.0	7.0	161.0
10	175/22	1036	Koel Karo River at Manoherpur	20.12.2022 At-11.30AM	24.0	22.0	6.9	6.9	208.0	1.0	27.0	45.0	11.8	3.75	139.0	12.0	151.0
11	182/22	2399	Chandil Dam	29.12.2022 At-10.05AM	22.5	20.0	7.2	7.1	181.0	BDL	BDL	43.0	8.2	5.46	121.0	8.0	129.0
12	183/22	2398	Dimna Lake	29.12.2022 At-12.50 PM	23.0	21.0	7.0	7.0	213.0	1.1	24.0	47.0	8.6	6.27	142.0	16.0	158.0
13	186/22	2387	Ghatsila Road Bridge	29.12.2022 At-12.20 PM	26.5	24.0	7.6	7.2	189.0	BDL	BDL	54.0	12.3	5.72	126.0	18.0	144.0
14	176/22	4747	Koira River at Manoherpur	20.12.2022 At-12.10PM	25.0	23.0	7.3	7.5	244.0	BDL	36.0	62.0	10.9	8.6	163.0	13.0	176.0

MKG
07/01/2023
(M.K. Choudhary)
S.T.

Amrita Mishra
07/01/2023
(Amrita Mishra)
C.E.

J.P. Singh
07/01/2023
(J.P. Singh)
Regional Officer.

Board Analyst 11/01/2023

JHARKHAND STATE POLLUTION CONTROL BOARD
REGIONAL OFFICE-CUM-LABORATORY, M/T-15, NEW HOUSING COLONY
ADITYAPUR, JAMSHEDPUR

Analysis report under NWMP for the month of January, 2023

Sl. No.	Lab. Ref.	Water Code	Name of the Sampling Point	Date / Time of collection	Temp		D.O mg/l	pH	Cond. $\mu\text{mhos}/\text{cm}^2$	B.O.D mg/l	A.M. Mg/l	Total Hard. mg/l	Ca++ mg/l	Mg++ mg/l	T.D.S mg/l	T.S.S mg/l	T.S mg/l
					A	W											
1	182/23	48	Chandil Road Bridge	29.01.2023 At-9.35AM	24.0	22.0	6.8	7.1	241.0	BDL	21.0	29.0	6.1	3.40	151.0	13.0	174.0
2	08/23	4744	On swarnrekha river before meeting to kharkai	29.01.2023 At-8.20AM	21.0	19.0	6.6	7.3	238.0	1.3	24	23.0	4.2	3.17	159.0	15.0	174.0
3	09/23	4746	On swarnrekha river after confluence kharkai river	29.01.2023 At-08.30AM	21.5	19.0	6.5	6.9	222.0	1.5	26.0	44.0	6.3	7.50	143.0	14.0	162.0
4	07/23	4745	On Kharkai river before meeting swarnrekha river	29.01.2023 At-08.10AM	21.0	19.0	6.2	6.8	216.0	1.8	32.0	87.0	18.4	11.22	144.0	17.0	162.0
5	06/23	49	D/S Mango, Jamshedpur	29.01.2023 At-7.30 AM	20.0	18.0	6.0	6.7	183.0	2.1	37.0	63.0	14.7	6.40	129.0	18.0	147.0
6	01/23	4742	Galudih Barrage	23.01.2023 At-8.0 AM	19.0	16.0	7.2	7.2	228.0	1.1	20.0	53.0	13.3	4.81	152.0	10.0	162.0
7	05/23	4743	U/s HCL Ghatsila	24.01.2023 At-8.10 AM	18.8	15.5	7.0	7.0	246.0	1.2	23	67.0	22.0	3.00	164.0	12.0	176.0
8	03/23	24	D/s HCL Ghatsila	24.01.2023 At-7.30AM	17.0	15.0	6.9	6.8	188.0	1.3	21.0	42.0	7.8	8.08	126.0	11.0	137.0
9	02/23	4748	Bharagora Road Bridge	23.01.2023 At-12.40PM	20.0	23.0	7.2	7.3	256.0	BDL	BDL	41.0	9.8	3.92	170.0	8.0	178.0
10	13/23	1036	Koel Karo River at Manoherpur	31.01.2023 At-11.45AM	28.0	25.0	6.7	6.8	190.0	1.4	31.0	47.0	13.5	3.20	133.0	18.0	149.0
11	11/23	2399	Chandil Dam	29.01.2023 At-10.00AM	24.5	22.0	7.1	7.0	222.0	BDL	BDL	42.0	9.2	4.81	148.0	11.0	159.0
12	12/23	2398	Dimna Lake	24.01.2023 At-10.45AM	25.0	23.0	6.8	7.4	244.0	1.3	30.0	46.0	8.9	6.80	163.0	17.0	180.0
13	04/23	2387	Ghatsila Road Bridge	31.01.2023 At-8.00 AM	17.5	15.0	7.4	7.3	192.0	1.2	28	37.0	11.2	7.13	128.0	15.0	143.0
14	14/23	4747	Koira River at Manoherpur	31.01.2023 At-12.15 PM	29.0	26.0	6.9	7.4	238.0	1.5	33.0	61.0	13.0	8.88	159.0	18.0	175.0

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20/01/2023
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Board Analyst 20/01/2023



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[Format No. : SRL / FRM /17]

[ULR-TC76492200003241F]

TEST REPORT

[Report No. SRL / JSPCB / SW- 724-2022 Dated: 20.12.2022]

A. SAMPLE DETAILS:

Name & Address of the Customer	JHARKHAND STATE POLLUTION CONTROL BOARD Jamshedpur Regional Office M.15, New Housing Colony, Adityapur Jamshedpur - 839018		
Sample Type	Surface Water (River Water)		
Sampling Location	Damohani Kharkai River, Jamshedpur, Jharkhand-831001 Lat:22.83549N, Long:86.18171E		
Sample Identification No	SW- 724-2022		
Test Requirement	Chemical		
Sampling Method	APHA 23rd Edition, 1060B		
Sample Collected By	Scientific Research Laboratory		
Sample Preservation	Preserved	Environmental Condition	Clear
Water Sampling Date	05.12.2022	Sample Receiving Date	06.12.2022
Analysis Started On	06.12.2022	Analysis Completed On	19.12.2022

B. RESULTS

Sl. No	Characteristic	Minimum Detection Limit	Results SW-724-2022	Test Method Specification
Organoleptic and Physical Parameters				
i)	Colour, Hazen Units	5	<5	APHA 23rd Edition, 2120 B
ii)	pH Value	2	7.43	APHA 23rd Edition, 4500-H ⁺ B
iii)	Dissolve Oxygen, mg/L	1	8.8	APHA 23rd Edition, 4500 -O C
iv)	Conductivity at 25°C, $\mu\text{mhos/cm}$	10 $\mu\text{S/cm}$	438.0	APHA 23rd Edition, 2510 B
v)	Total Dissolved Solids, mg/L	10	250.0	APHA 23rd Edition, 2540 C
General Parameters Concerning Substances Undesirable in Excessive Amounts				
i)	Chloride (as Cl), mg/L	2	32.0	APHA 23rd Edition, 4500 -Cl B
ii)	Copper (as Cu), mg/L	0.05	<0.05	APHA 23rd Edition, 3111 B
iii)	Fluoride (as F), mg/L	0.05	0.31	APHA 23rd Edition, 4500 -F D
iv)	Iron (as Fe), mg/L	0.1	0.47	APHA 23rd Edition, 3500-Fe B
v)	Manganese (as Mn), mg/L	0.05	0.08	APHA 23rd Edition, 3111 B
vi)	Nitrate (as NO ₃), mg/L	0.5	13.42	APHA 23rd Edition, 4500-NO ₃ B
vii)	Sulphate (as SO ₄), mg/L	2.5	39.0	APHA 23rd Edition, 4500-SO ₄ E
viii)	Sulphide (as S), mg/L	0.5	<0.5	APHA 23rd Edition, 4500-S ²⁻ F
ix)	Total Hardness (as CaCO ₃), mg/L	5	149.0	APHA 23rd Edition, 2340 C
x)	Phosphate (as PO ₄), mg/L	0.03	0.32	APHA 23rd Edition, 4500-P D
xi)	Oil and Grease (Hexane Extract), mg/L	5.0	<5.0	APHA 23rd Edition, 5520 B
xii)	Zinc (as Zn), mg/L	0.01	0.033	APHA 23rd Edition, 3111 B
Parameters Concerning Toxic Substances				
i)	Cadmium (as Cd), mg/L	0.02	<0.02	APHA 23rd Edition, 3111 B
ii)	Cyanide (as CN), mg/L	0.02	<0.02	APHA 23rd Edition, 4500 -CN- E
iii)	Cobalt (as Co), mg/L	0.1	<0.1	APHA 23rd Edition, 3111 B
iv)	Lead (as Pb), mg/L	0.1	<0.1	APHA 23rd Edition, 3111 B
v)	Mercury (as Hg), mg/L	0.001	<0.001	APHA 23rd Edition, 3112 B
vi)	Nickel (as Ni), mg/L	0.05	<0.05	APHA 23rd Edition, 3111 B
vii)	Total Arsenic (as As), mg/L	0.01	<0.01	APHA 23rd Edition, 3114 C
viii)	Total Chromium (as Cr), mg/L	0.05	<0.05	APHA 23rd Edition, 3111 B
ix)	Chromium (as Cr ⁶⁺), mg/L	0.01	<0.01	APHA 23rd Edition, 3500 -Cr B

—End of Test Report—

1 of 1

Dr. Jyotirmoy Majumdar
(Authorized Signatory)

- The test report shall not be reproduced, except in full, without written approval of the company.
- Results relate only to the parameters tested.
- No Repeat Analysis will be entertained after 15 days from the date of reporting.
- All relevant information of customers regarding testing are treated as "Confidential"



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[ULR- TC764922000003248F]

[Format No. : SRL / FRM /17]

TEST REPORT

[Report No. SRL / JSPCB / SW- 731-2022 Dated: 20.12.2022]

A. SAMPLE DETAILS:-

Name & Address of the Customer	JHARKHAND STATE POLLUTION CONTROL BOARD Jamshedpur Regional Office M.15, New Housing Colony, Adityapur Jamshedpur - 839015		
Sample Type	Surface Water (River Water)		
Sampling Location	Ghatila, Subarnarekha River, East Singhbhum, Jharkhand-831001, Lat:22.5915N, Long:86.4531E		
Sample Identification No.	SW- 731-2022		
Test Requirement	Chemical		
Sampling Method	APHA 23 rd Edition, 1050B		
Sample Collected By	Scientific Research Laboratory		
Sample Preservation	Preserved	Environmental Condition	Clear
Water Sampling Date	06.12.2022	Sample Receiving Date	06.12.2022
Analysis Started On	06.12.2022	Analysis Completed On	19.12.2022

B. RESULTS

Sl No	Characteristic	Minimum Detection Limit	Results SW-731-2022	Test Method Specification
Organoleptic and Physical Parameters				
i)	Colour, Hazen Units	5	<5	APHA 23 rd Edition, 2120 B
ii)	pH Value	2	6.69	APHA 23 rd Edition, 4500-H ⁺ B
iii)	Dissolve Oxygen, mg/L	1	6.4	APHA 23 rd Edition, 4500 -O C
iv)	Conductivity at 25°C, μ hos/cm	10 μ s/cm	1040.0	APHA 23 rd Edition, 2510 B
v)	Total Dissolved Solids, mg/L	10	624.0	APHA 23 rd Edition, 2540 C
General Parameters Concerning Substances Undesirable in Excessive Amounts				
i)	Chloride (as Cl), mg/L	2	110.0	APHA 23 rd Edition, 4500 -Cl B
ii)	Copper (as Cu), mg/L	0.05	<0.05	APHA 23 rd Edition, 3111 B
iii)	Fluoride (as F), mg/L	0.05	0.42	APHA 23 rd Edition, 4500 -F D
iv)	Iron (as Fe), mg/L	0.1	2.78	APHA 23 rd Edition, 3500-Fe B
v)	Manganese (as Mn), mg/L	0.05	0.337	APHA 23 rd Edition, 3111 B
vi)	Nitrate (as NO ₃), mg/L	0.5	38.26	APHA 23 rd Edition, 4500-NO ₃ -B
vii)	Sulphate (as SO ₄), mg/L	2.5	121.0	APHA 23 rd Edition, 4500-SO ₄ -E
viii)	Sulphide (as S), mg/L	0.5	<0.5	APHA 23 rd Edition, 4500-S ²⁻ F
ix)	Total Hardness (as CaCO ₃), mg/L	5	310.0	APHA 23 rd Edition, 2340 C
x)	Phosphate (as PO ₄), mg/L	0.03	0.021	APHA 23 rd Edition, 4500-P D
xi)	Oil and Grease (Hexane Extract), mg/L	5.0	<5.0	APHA 23 rd Edition, 5520 B
xii)	Zinc (as Zn), mg/L	0.01	0.158	APHA 23 rd Edition, 3111 B
Parameters Concerning Toxic Substances				
i)	Cadmium (as Cd), mg/L	0.02	<0.02	APHA 23 rd Edition, 3111 B
ii)	Cyanide (as CN), mg/L	0.02	<0.02	APHA 23 rd Edition, 4500 -CN- E
iii)	Cobalt (as Co), mg/L	0.1	<0.1	APHA 23 rd Edition, 3111 B
iv)	Lead (as Pb), mg/L	0.1	<0.1	APHA 23 rd Edition, 3111 B
v)	Mercury (as Hg), mg/L	0.001	<0.001	APHA 23 rd Edition, 3112 B
vi)	Nickel (as Ni), mg/L	0.05	<0.05	APHA 23 rd Edition, 3111 B
vii)	Total Arsenic (as As), mg/L	0.01	<0.01	APHA 23 rd Edition, 3114 C
viii)	Total Chromium (as Cr), mg/L	0.05	<0.05	APHA 23 rd Edition, 3111 B
ix)	Chromium (as Cr ⁶⁺), mg/L	0.01	<0.01	APHA 23 rd Edition, 3500 -Cr B

Dr. Jyotirmoy Majumdar
(Authorized Signatory)

—End of Test Report—

1 of 1

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Website : www.srlkolkata.com

[ULR: TC764922000003246F]

[Format No. : SRL / FRM /17]

TEST REPORT

[Report No. SRL / JSPCB / SW- 729-2022 Dated: 20.12.2022]

A. SAMPLE DETAILS:-

Name & Address of the Customer	JHARKHAND STATE POLLUTION CONTROL BOARD Jamshedpur Regional Office M.15, New Housing Colony, Adityapur Jamshedpur - 839018		
Sample Type	Surface Water (River Water)		
Sampling Location	Lupungdhi Subarnarekha River polluted site, East Singhbhum Jharkhand-831001, Lat:22.7820112N, Long:86.29601E		
Sample Identification No.	SW- 729-2022		
Test Requirement	Chemical		
Sampling Method	APHA 23rd Edition, 1060B		
Sample Collected By	Scientific Research Laboratory		
Sample Preservation	Preserved		
Water Sampling Date	06.12.2022	Environmental Condition	Clear
Analysis Started On	06.12.2022	Sample Receiving Date	06.12.2022
		Analysis Completed On	19.12.2022

B. RESULTS

Sl No	Characteristic	Minimum Detection Limit	Results	Test Method Specification
			SW-729-2022	
Organoleptic and Physical Parameters				
i)	Colour, Hazen Units	5	<5	APHA 23 rd Edition, 2120 B
ii)	pH Value	2	7.28	APHA 23 rd Edition, 4500-H ⁺ B
iii)	Dissolve Oxygen, mg/L	1	6.8	APHA 23 rd Edition, 4500 -O C
iv)	Conductivity at 25°C, $\mu\text{mhos/cm}$	10 $\mu\text{S/cm}$	354.0	APHA 23 rd Edition, 2510 B
v)	Total Dissolved Solids, mg/L	10	204.0	APHA 23 rd Edition, 2540 C
General Parameters Concerning Substances Undesirable in Excessive Amounts				
i)	Chloride (as Cl), mg/L	2	19.0	APHA 23 rd Edition, 4500 -Cl B
ii)	Copper (as Cu), mg/L	0.05	<0.05	APHA 23 rd Edition, 3111 B
iii)	Fluoride (as F), mg/L	0.05	0.32	APHA 23 rd Edition, 4500 -F D
iv)	Iron (as Fe), mg/L	0.1	0.22	APHA 23 rd Edition, 3500-Fe B
v)	Manganese (as Mn), mg/L	0.05	0.111	APHA 23 rd Edition, 3111 B
vi)	Nitrate (as NO ₃), mg/L	0.5	0.75	APHA 23 rd Edition, 4500-NO ₃ -B
vii)	Sulphate (as SO ₄), mg/L	2.5	37.0	APHA 23 rd Edition, 4500-SO ₄ -E
viii)	Sulphide (as S), mg/L	0.5	<0.5	APHA 23 rd Edition, 4500-S ²⁻ F
ix)	Total Hardness (as CaCO ₃), mg/L	5	137.0	APHA 23 rd Edition, 2340 C
x)	Phosphate (as PO ₄), mg/L	0.03	0.024	APHA 23 rd Edition, 4500-P D
xi)	Oil and Grease (Hexane Extract), mg/L	5.0	<5.0	APHA 23 rd Edition, 5520 B
xii)	Zinc (as Zn), mg/L	0.01	0.022	APHA 23 rd Edition, 3111 B
Parameters Concerning Toxic Substances				
i)	Cadmium (as Cd), mg/L	0.02	<0.02	APHA 23 rd Edition, 3111 B
ii)	Cyanide (as CN), mg/L	0.02	<0.02	APHA 23 rd Edition, 4500 -CN- E
iii)	Cobalt (as Co), mg/L	0.1	<0.1	APHA 23 rd Edition, 3111 B
iv)	Lead (as Pb), mg/L	0.1	<0.1	APHA 23 rd Edition, 3111 B
v)	Mercury (as Hg), mg/L	0.001	<0.001	APHA 23 rd Edition, 3112 B
vi)	Nickel (as Ni), mg/L	0.05	<0.05	APHA 23 rd Edition, 3111 B
vii)	Total Arsenic (as As), mg/L	0.01	<0.01	APHA 23 rd Edition, 3114 C
viii)	Total Chromium (as Cr), mg/L	0.05	<0.05	APHA 23 rd Edition, 3111 B
ix)	Chromium (as Cr ⁶⁺), mg/L	0.01	<0.01	APHA 23 rd Edition, 3500 -Cr B

—End of Test Report—

1 of 1

Dr. Jyotirmoy Majumdar
(Authorized Signatory)

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Website : www.srkokolkata.com

[ULR-TC764922000003242F]

[Format No. : SRL / FRM / 117]

TEST REPORT

[Report No. SRL / JSPCB / SW-725-2022 Dated: 20.12.2022]

A. SAMPLE DETAILS:

Name & Address of the Customer	JHARKHAND STATE POLLUTION CONTROL BOARD Jamshedpur Regional Office M.15, New Housing Colony, Adityapur Jamshedpur - 839010		
Sample Type	Surface Water (River Water)		
Sampling Location	Manikul-Chandi swarnarekha river polluted site, seraikella kharswan, Jharkhand Lat: 22.835772N, Long: 85.160685E		
Sample Identification No.	SW-725-2022		
Test Requirement	Chemical		
Sampling Method	APHA 23rd Edition, 1060B		
Sample Collected By	Scientific Research Laboratory		
Sample Preservation	Preserved	Environmental Condition	Clear
Water Sampling Date	05.12.2022	Sample Receiving Date	05.12.2022
Analysis Started On	06.12.2022	Analysis Completed On	19.12.2022

B. RESULTS

Sl. No	Characteristic	Minimum Detection Limit	Results	Test Method Specification
			SW-725-2022	
Organoleptic and Physical Parameters				
i)	Colour, Hazen Units	5	<5	APHA 23 rd Edition, 2120 B
ii)	pH Value	2	6.04	APHA 23 rd Edition, 4500-H ⁺ B
iii)	Dissolve Oxygen, mg/L	1	8.5	APHA 23 rd Edition, 4500 -O C
iv)	Conductivity at 25°C, μ hos/cm	10 μ s/cm	214.0	APHA 23 rd Edition, 2510 B
v)	Total Dissolved Solids, mg/L	10	116.0	APHA 23 rd Edition, 2540 C
General Parameters Concerning Substances Undesirable in Excessive Amounts				
i)	Chloride (as Cl), mg/L	2	15.0	APHA 23 rd Edition, 4500 -Cl B
ii)	Copper (as Cu), mg/L	0.05	<0.05	APHA 23 rd Edition, 3111 B
iii)	Fluoride (as F), mg/L	0.05	0.23	APHA 23 rd Edition, 4500 -F D
iv)	Iron (as Fe), mg/L	0.1	<0.1	APHA 23 rd Edition, 3500-Fe B
v)	Manganese (as Mn), mg/L	0.05	0.058	APHA 23 rd Edition, 3111 B
vi)	Nitrate (as NO ₃), mg/L	0.5	0.51	APHA 23 rd Edition, 4500-NO ₃ B
vii)	Sulphate (as SO ₄), mg/L	2.5	13.5	APHA 23 rd Edition, 4500-SO ₄ E
viii)	Sulphide (as S), mg/L	0.5	<0.5	APHA 23 rd Edition, 4500-S ²⁻ F
ix)	Total Hardness (as CaCO ₃), mg/L	5	69.0	APHA 23 rd Edition, 2340 C
x)	Phosphate (as PO ₄),mg/L	0.03	0.021	APHA 23 rd Edition, 4500-P D
xi)	Oil and Grease (Hexane Extract),mg/L	5.0	<5.0	APHA 23 rd Edition, 5520 B
xii)	Zinc (as Zn), mg/L	0.01	0.012	APHA 23 rd Edition, 3111 B
Parameters Concerning Toxic Substances				
i)	Cadmium (as Cd), mg/L	0.02	<0.02	APHA 23 rd Edition, 3111 B
ii)	Cyanide (as CN), mg/L	0.02	<0.02	APHA 23 rd Edition, 4500 -CN E
iii)	Cobalt (as Co),mg/L	0.1	<0.1	APHA 23 rd Edition, 3111 B
iv)	Lead (as Pb), mg/L	0.1	<0.1	APHA 23 rd Edition, 3111 B
v)	Mercury (as Hg), mg/L	0.001	<0.001	APHA 23 rd Edition, 3112 B
vi)	Nickel (as Ni), mg/L	0.05	<0.05	APHA 23 rd Edition, 3111 B
vii)	Total Arsenic (as As), mg/L	0.01	<0.01	APHA 23 rd Edition, 3114 C
viii)	Total Chromium (as Cr), mg/L	0.05	<0.05	APHA 23 rd Edition, 3111 B
ix)	Chromium (as Cr ⁶⁺), mg/L	0.01	<0.01	APHA 23 rd Edition, 3500 -Cr B

Dr. Jyotirmoy Majumdar
(Authorized Signatory)

—End of Test Report—

1 of 1

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TATA STEEL LIMITED
ENVIRONMENT MANAGEMENT DEPARTMENT-LABORATORY
DISCHARGED EFFLUENT QUALITY REPORT OF WORKS DRAINS- DEC'22

SL No.	Parameters	Method of Analysis ^a	Units	Norms ^b	Result
1	Ammonical Nitrogen (as N)	APHA 23 rd Edition 2017; 4500 NH ³ B, C	mg/L	< 50	17.13
2	Biochemical Oxygen demand	IS 3025 (Part 44)	mg/L	< 30	8.8
3	Cadmium (as Cd)	APHA 23 rd Edition 2017; 3120 B	mg/L	< 2.0	< 0.01
4	Chemical Oxygen Demand	APHA 23 rd Edition 2017; 5220 D	mg/L	< 250	91
5	Copper (as Cu)	APHA 23 rd Edition 2017; 3120 B	mg/L	< 3.0	< 0.10
6	Cyanide (as CN)	APHA 23 rd Edition 2017; 4500 CN- C, F	mg/L	< 0.2	0.18
7	Dissolved Phosphates (as P)	APHA 23 rd Edition 2017; 4500 P D	mg/L	< 5.0	0.09
8	Hexavalent Chromium (as Cr (VI))	APHA 23 rd Edition 2017; 3500 Cr B	mg/L	< 0.1	0.08
9	Iron (as Fe)	APHA 23 rd Edition 2017; 3120 B	mg/L	< 3.0	0.08
10	Lead (as Pb)	APHA 23 rd Edition 2017; 3120 B	mg/L	< 0.1	< 0.01
11	Manganese (as Mn)	APHA 23 rd Edition 2017; 3120 B	mg/L	< 2.0	< 0.02
12	Nickel (as Ni)	APHA 23 rd Edition 2017; 3120 B	mg/L	< 3.0	0.1
13	Nitrate Nitrogen	APHA 23 rd Edition 2017; 4500 NO ₃ - B	mg/L	< 10.0	9.3
14	pH Value	APHA 23 rd Edition 2017; 4500-H+ B	—	5.5 – 9.0	8.22
15	Phenolic Compounds	APHA 23 rd Edition, 2017; 5530 B, D	mg/L	< 1.0	0.23
16	Selenium (as Se)	APHA 23 rd Edition 2017; 3120 B	mg/L	< 0.05	< 0.01
17	Sulphide (as S)	APHA 23 rd Edition 2017; 4500 S ₂ - F	mg/L	< 2.0	< 0.10
18	Suspended Solids	APHA 23 rd Edition 2017; 2540 D	mg/L	< 100	52
19	Total Chromium (as Cr)	APHA 23 rd Edition 2017; 3120 B	mg/L	< 2.0	< 0.02
20	Total Residual Chlorine	APHA 23 rd Edition 2017; 4500 Cl B	mg/L	< 1.0	< 1.0
21	Zinc (As Zn)	APHA 23 rd Edition 2017; 3120 B	mg/L	< 5.0	0.07
22	Arsenic (as As)	APHA 23 rd Edition 2017; 3120; B	mg/L	< 0.2	< 0.02
23	Free ammonia (as NH ₃)	APHA 23 rd Edition 2017; 4500 NH ₃ D	mg/L	< 5.0	4.8
24	Mercury (as Hg)	APHA 23 rd Edition 2017; 3120 B	mg/L	< 0.01	NT
25	Oil and grease	APHA 23 rd Edition 2017; 5520 B	mg/L	< 10	2.4
26	Total Kjeldahl Nitrogen (as NH ₃)	APHA 23 rd Edition 2017; 4500 Norg B	mg/L	< 100	28.34
27	Vanadium (as V)	APHA 23 rd Edition 2017; 3120 B	mg/L	< 0.2	NT

NOTE:

Standards applicable as per Environment (Protection) (Third Amendment) Rules, 2012 Issued in Gazette of India
 Notification vide No.: G. S. R. 277 (E) dated March 31, 2012

UoM - Unit of Measurement

APHA - American Public Health Association

NT- Not Traced

\$ This test report was generated by TATA STEEL LIMITED ISR EMD LAB having NABL Accreditation No.TC-8363



TATA STEEL LIMITED
ENVIRONMENT MANAGMENT DEPARTMENT-LABORATORY
DISCHARGED EFFLUENT QUALITY REPORT OF WORKS DRAINS- JAN'23

SL No.	Parameters	Method of Analysis [§]	Units	Norms*	Result
1	Ammonical Nitrogen (as N)	APHA 23rd Edition 2017; 4500 NH3 B, C	mg/L	< 50	17.91
2	Biochemical Oxygen demand	IS 3025 (Part 44)	mg/L	< 30	9
3	Cadmium (as Cd)	APHA 23rd Edition 2017; 3120 B	mg/L	< 2.0	< 0.01
4	Chemical Oxygen Demand	APHA 23rd Edition 2017; 5220 D	mg/L	< 250	82
5	Copper (as Cu)	APHA 23rd Edition 2017; 3120 B	mg/L	< 3.0	< 0.05
6	Cyanide (as CN-)	APHA 23rd Edition 2017; 4500 CN- C, F	mg/L	< 0.2	0.18
7	Dissolved Phosphates (as P)	APHA 23rd Edition 2017; 4500 P D	mg/L	< 5.0	0.11
8	Hexavalent Chromium (as Cr (VI))	APHA 23rd Edition 2017; 3500 Cr B	mg/L	< 0.1	< 0.05
9	Iron (as Fe)	APHA 23rd Edition 2017; 3120 B	mg/L	< 3.0	0.07
10	Lead (as Pb)	APHA 23rd Edition 2017; 3120 B	mg/L	< 0.1	< 0.01
11	Manganese (as Mn)	APHA 23rd Edition 2017; 3120 B	mg/L	< 2.0	< 0.02
12	Nickel (as Ni)	APHA 23rd Edition 2017; 3120 B	mg/L	< 3.0	0.1
13	Nitrate Nitrogen	APHA 23rd Edition 2017; 4500 NO3- B	mg/L	< 10.0	4.31
14	pH Value	APHA 23rd Edition 2017; 4500-H+ B	—	5.5 – 9.0	7.93
15	Phenolic Compounds	APHA 23rd Edition, 2017; 5530 B, D	mg/L	< 1.0	0.15
16	Selenium (as Se)	APHA 23rd Edition 2017; 3120 B	mg/L	< 0.05	< 0.01
17	Sulphide (as S)	APHA 23rd Edition 2017; 4500 S2- F	mg/L	< 2.0	< 0.10
18	Suspended Solids	APHA 23rd Edition 2017; 2540 D	mg/L	< 100	68
19	Total Chromium (as Cr)	APHA 23rd Edition 2017; 3120 B	mg/L	< 2.0	< 0.02
20	Total Residual Chlorine	APHA 23rd Edition 2017; 4500 Cl B	mg/L	< 1.0	< 1.0
21	Zinc (As Zn)	APHA 23rd Edition 2017; 3120 B	mg/L	< 5.0	< 0.05
22	Arsenic (as As)	APHA 23rd Edition 2017; 3120; B	mg/L	< 0.2	< 0.02
23	Free ammonia (as NH3)	APHA 23rd Edition 2017; 4500 NH3 D	mg/L	< 5.0	< 5.0
24	Mercury (as Hg)	APHA 23rd Edition 2017; 3120 B	mg/L	< 0.01	NT
25	Oil and grease	APHA 23rd Edition 2017; 5520 B	mg/L	< 10	2
26	Total Kjeldahl Nitrogen (as NH3)	APHA 23rd Edition 2017; 4500 Norg B	mg/L	< 100	30.24
27	Vanadium (as V)	APHA 23rd Edition 2017; 3120 B	mg/L	< 0.2	NT

NOTE:

Standards applicable as per Environment (Protection) (Third Amendment) Rules, 2012 issued in Gazette of India
Notification vide No.: G. S. R. 277 (E) dated March 31, 2012

UoM - Unit of Measurement

APHA – American Public Health Association

NT- Not Traced

§ This test report was generated by TATA STEEL LIMITED JSR EMD LAB having NABL Accreditation No.TC-8363

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TC-5418

ISSUED:

M/s. TATAMOTORS LIMITED
Jamshedpur 831010
Jharkhand, India.

Report Number:
Issue date:
P.O. No. & date:

VLL/VLS/22/MW/17019/067
2023.02.08
3430053769 & 25.04.2022,
AMD 05.01.2023

01 of 01

01 of 01

Customer Provided Details :			
Sample Name:		Package STP OUTLET	
Test Required:		pH, TSS, TDS, O&G, BOD, COD, Total Nitrogen, Total Po4,Cr+6,Cu,Zn,CN-,Ni,Fe,Cl, SO ₄ and Fecal Coliform	
Lab Provided Details :			
Sampling Date:		2023.01.27	Sample Registration Date:
Analysis Starting Date:		2023.01.30	2023.01.30
Quantity Received :		1000 ml X 2 No's	Analysis Completion Date:
Sampling Details :		Package STP OUTLET	2023.02.03
Method of Testing :		As per APHA 23 rd Edition & IS 3025 Part-44	
Other Details if Any :		NA	
TEST RESULTS			

TEST RESULTS					
S. No	Test parameters	Unit of Measurement	Method of Testing	Results	CPCB Limits
1	pH	-	APHA 23 rd ed. (4500-H+ B)	7.37	5.5-9.0
2	Total Suspended Solids	mg/l	APHA 23 rd ed. (2540 D)	21.2	<100
3	Total Dissolved Solids	mg/l	APHA 23 rd ed. (2540 C)	397	<2100
4	Oil and Grease	mg/l	APHA 23 rd ed. (5520 C)	<1.0	<10
5	Biochemical Oxygen Demand 3 Day at 27 °C	mg/l	IS:3025 (Part-44):2009	7.4	<30
6	Chemical Oxygen Demand	mg/l	APHA 23 rd ed. (5220 B)	40	<250
7	Total Nitrogen as N	mg/l	APHA - 23 rd ed. 4500-Norg-B 2012	<1.0	100
8	Total Phosphate as PO ₄	mg/l	APHA - 23 rd ed. (4500-P.D)	0.24	5.0
9	Hexavalent Chromium as Cr ⁶⁺	mg/l	APHA 23 rd ed. (5220 B)	<0.05	0.1
10	Copper as Cu	mg/l	APHA 23 rd ed. (3120 B)	<0.01	3.0
11	Zinc as Zn	mg/l	APHA 23 rd ed. (3120 B)	<0.01	5.0
12	Cyanide as CN	mg/l	APHA 23 rd ed. (3120 B)	<0.02	0.2
13	Nickel as Ni	mg/l	APHA 23 rd ed. (5220 B)	<0.01	3.0
14	Iron as Fe	mg/l	APHA 23 rd ed. (3120 B)	<0.01	3.0
15	Chloride as Cl	mg/l	APHA 23 rd ed. (3120 B)	0.06	3.0
16	Sulphate as SO ₄	mg/l	APHA 23 rd ed. (4500-Cl B)	140	-
17	Fecal Coliform	MPN per 100ml	APHA 23 rd ed. (5220 B) EPA Method 1681	50.5 140	<1000

Remarks: Results relate to the sample tested.

Instrument used: BOD incubator (Make: Technica, S. No. LV-C-149, Calibration on: 24/11/2022, Calibration due date: 3/05/2023, ID No. VLS-EC/BOD/01), COD Digester (Make: D&K COD Digester, S. No: 170437, Calibration on: 16/09/2022, Calibration due date: 5/09/2023, ID No: VLS/COD/001).

END OF THE TEST REPORT.

Name and Designation of Authorized Signatory

[Signature]
Dr. SUBBAREDDY MALLAMPATI
Dy. Manager-Environment

Life Sciences Campus, # 5, MN Science & Technology Park, Genome Valley, Shamshpet, Hyderabad - 500 101, Telangana, India
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**ISSUED:**

M/s.TATAMOTORS LIMITED
Jamshedpur 831010
Jharkhand, India.

Report Number:

VLL/VLS/22/MW/17019/065

Issue date:

2023.02.06

P.O. No. & date:

3430053969 & 25.04.2022.

AMD 05.01.2023

01 of 01

01 of 01

Customer Provided Details :			
Sample Name :		WWTP UNIT-A Outlet	
Test Required :		PH, TSS, TDS, O&G, BOD, COD, Temperature.	
Lab Provided Details :			
Sampling Date:		2023.01.27	Sample Registration Date:
			2023.01.30
Analysis Starting Date:		2023.01.30	Analysis Completion Date:
			2023.02.03
Quantity Received :		500 ml X 2 No's	
Sampling Details :		WWTP UNIT-A Outlet	
Method of Testing :		As per APHA 23 rd Edition & IS 3025 Part-44	

TEST RESULTS

S. No.	Test parameters	Unit of Measurement	Method of Testing	Results	CPCB Limits
1	pH	-	APHA-23rd ed. (4500-H ⁺ -8)	7.48	5.5 - 9.0
2	Total Suspended Solids	mg/l	APHA-23rd ed. (2540- D)	10.7	<100
3	Total Dissolved Solids	mg/l	APHA-23rd ed. (2540-C)	408	<2100
4	Oil and Grease	mg/l	APHA-23rd ed (5520 C)	<1.0	<10
5	Biochemical Oxygen Demand 3 Day at 27°C	mg/l	IS:3025 (Part-44):2009	4.2	<30
6	Chemical Oxygen Demand	mg/l	APHA-23rd ed (S220-B)	20	<250
7	Temperature	°C	APHA-23rd ed (2550-B)	23.5	-

Remarks: Results relate to the sample tested.

Instrument used: BOD Incubator (Make: Technica, S.No. LV-C-149, Calibration on: 24/11/2022, Calibration due date: 3/05/2023, ID No. VLS-EC/BOD/01), COD Digester (Make: DBK COD Digester, S. No: 170437, Calibration on: 16/09/2022, Calibration due date:15/09/2023, ID No.: VLL/COD/001).

- END OF THE TEST REPORT

Name and Designation of Authorized Signatory

Dr. SUBBAREDDY MALLAMPATI
Dy. Manager-Environment

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ISSUED:
M/s. TATAMOTORS LIMITED
Jamshedpur 831010
Jharkhand, India.

Report Number:
Issue date:
P.O. No. & date:

VLL/VLS/22/MW/17019/061
2023.02.08
3430053969 & 25.04.2022,
AMD 05.01.2023

01 of 01

Customer Provided Details:			
Sample Name:	WWTP Unit-B Outlet		
Test Required:	pH, TSS, TDS, O&G, BOD, COD, Nitrate, E.coli, Total Coliforms		
Lab Provided Details:			
Sampling Date:	2023.01.16	Sample Registration Date:	2023.01.25
Analysis Starting Date:	2023.01.25	Analysis Completion Date:	2023.01.31
Quantity Received:	1000 ml X 2 No's		
Sampling Details:	WWTP Unit-B Outlet		
Method of Testing:	As per APHA 23 rd Edition & IS 3025 Part-44		
Other Details If Any:	NA		

TEST RESULTS

S. No.	Test parameters	Unit of Measurement	Method of Testing	Results	CPCB Limits
1	pH	-	APHA 23 rd ed. (4500-H+ B)	7.46	5.5-9.0
2	Total Suspended Solids	mg/l	APHA 23 rd ed. (2540 D)	11.4	<100
3	Total Dissolved Solids	mg/l	APHA 23 rd ed. (2540 C)	422	<2100
4	Oil and Grease	mg/l	APHA 23 rd ed. (5520 C)	<1.0	<10
5	Biochemical Oxygen Demand 3 Day at 27 °C	mg/l	IS:3025 (Part-44):2009	4.5	<30
6	Chemical Oxygen Demand	mg/l	APHA 23 rd ed. (5220 B)	20	<250
7	Nitrate	mg/l	APHA 23 rd ed (4500-NO3 B)	5.7	—
8	E.coli	MPN/100ml	APHA 9221: 2017	<1.8	—
9	Total Coliforms	MPN/100ml	APHA 9221: 2017	150	—

Remarks: Results relate to the sample tested.

Instrument used: BOD Incubator (Make: Technico, S.No. LV-C-149, Calibration on: 24/11/2022, Calibration due date: 3/05/2023, ID No. VLS-EC/1800/01), COD Digester (Make: B&K COD Digester, S. No: 170437, Calibration on: 16/09/2022, Calibration due date: 15/09/2023, ID No.: VLL/COD/001).

• END OF THE TEST REPORT •

Name and Designation of Authorized Signatory

[Signature]
Dr. SUBBAREDDY MALLAMPATI
Dy. Manager-Environment

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TC-5418

ISSUED:
M/ATATAMOTORS LIMITED
Jamshedpur 831010
Jharkhand, India.

Report Number: VLL/VLS/22/MW/17019/059
Issue date: 2023.02.08
P.O. No. & date: 3430053969 & 25.04.2022.
AMD 05.01.2023

01 of 01

Customer Provided Details :			
Sample Name :	CETP OUTLET		
Test Required :	PH, TSS, TDS, O&G, BOD, COD, Zn, Ni, Temp.		
Lab Provided Details :			
Sampling Date:	2023.01.16	Sample Registration Date:	2023.01.25
Analysis Starting Date:	2023.01.25	Analysis Completion Date:	2023.01.31
Quantity Received :	1000 ml X 2 No's		
Sampling Details :	CETP OUTLET		
Method of Testing :	As per APHA 23 rd Edition & IS 3025 Part-44		
Other Details If Any :	NA		

TEST RESULTS

S. No	Test parameters	Unit of Measurement	Method of Testing	Results	CPCB Limits
1	pH	--	APHA 23 rd ed.(4500-H+ B)	6.74	5.5-9.0
2	Total Suspended Solids	mg/l	APHA 23 rd ed.(2540 D)	48.6	<100
3	Total Dissolved Solids	mg/l	APHA 23 rd ed.(2540 C)	772	<2100
4	Oil and Grease	mg/l	APHA 23 rd ed.(5520 C)	5.2	<10
5	Biochemical Oxygen Demand 3 Day at 27 °C	mg/l	IS:3025 (Part-44):2009		
6	Chemical Oxygen Demand	mg/l	APHA 23 rd ed.(5220 B)	28.5	<30
7	Zinc as Zn	mg/l	APHA 23 rd ed.(3120 B)	160	<250
8	Nickel as Ni	mg/l	APHA 23 rd ed.(3120 B)	0.07	<5.0
9	Temperature	°C	APHA 23 rd ed.(2550 B)	<0.01	<3.0
				23.8	—

Remarks: Results relate to the sample tested.

Instrument used: BOD Incubator (Make: Technico, S.No. LV-C-149, Calibration on: 24/11/2022, Calibration due date: 3/05/2023, ID No. VLS-EC/BOD/01), COD Digester (Make: DBK COD Digester, S. No: 170437, Calibration on: 16/09/2022, Calibration due date:15/09/2023, ID No.: VLL/COD/001).

- END OF THE TEST REPORT -

Name and Designation of Authorized Signatory

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TC-5418

ISSUED:
M/s. TATA MOTORS LIMITED
Jomshedpur 831010
Jharkhand, India.

Report Number: VLL/VLS/22/MW/15052/054
Issue date: 2023.01.06
P.O. No. & date: 3430053969 & 25.04.2022,
AMD 04.08.2022

01 of 01

Customer Provided Details:			
Sample Name:	WWTP Unit-B Outlet		
Test Required:	pH, TSS, TDS, O&G, BOD, COD, Nitrate, E.coli, Total Coliforms		
Lab Provided Details:			
Sampling Date:	2022.12.20	Sample Registration Date:	2022.12.30
Analysis Starting Date:	2022.12.30	Analysis Completion Date:	2023.01.05
Quantity Received:	1000 ml X 2 No's		
Sampling Details:	WWTP Unit-B Outlet		
Method of Testing:	As per APHA 23 rd Edition & IS 3025 Part-44		
Other Details if Any:	NA		

TEST RESULTS					
S. No.	Test parameters	Unit of Measurement	Method of Testing	Results	CPCB Limits
1	pH	-	APHA 23 rd ed. (4500-H+ B)	7.42	5.5-9.0
2	Total Suspended Solids	mg/l	APHA 23 rd ed. (2540 D)	12.4	<100
3	Total Dissolved Solids	mg/l	APHA 23 rd ed. (2540 C)	418	<2100
4	Oil and Grease	mg/l	APHA 23 rd ed. (5520 C)	<1.0	<10
5	Biochemical Oxygen Demand 3 Day at 27 °C	mg/l	IS:3025 (Part-44):2009	4.2	<30
6	Chemical Oxygen Demand	mg/l	APHA 23 rd ed. (5220 B)	20	<250
7	Nitrate	mg/l	APHA 23 rd ed (4500-NO3 B)	5.6	-
8	E.coli	MPN/100ml	APHA 9221: 2017	<1.8	-
9	Total Coliforms	MPN/100ml	APHA 9221: 2017	160	-

Remarks: Results relate to the sample tested.
Instrument used: BOD Incubator (Make: Technico, S.No. LV-C-149, Calibration on: 24/11/2022, Calibration due date: 3/05/2023, ID No. VLS-FC/BOD/01), COD Digester (Make: D&K COD Digester, S. No: 170437, Calibration on: 16/09/2022, Calibration due date: 15/09/2023 ID No.: VLL/COD/001).

• END OF THE TEST REPORT •

Name and Designation of Authorized Signatory

[Signature]
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ISSUED:
M/s. TATA MOTORS LIMITED
Jamshedpur 831010
Jharkhand, India.

Report Number: VLL/VLS/22/MYI/15032/052
Issue date: 2023.01.06
P.O. No. & date: 3430053969 & 25.04.2022,
AMD 04.08.2022

01 of 01

Customer Provided Details :				
Sample Name :		CETP OUTLET		
Test Required :		PH, TSS, TDS, O&G, BOD, COD, Zn, Ni, Temp.		
Lab Provided Details :				
Sampling Date:		2022.12.20	Sample Registration Date:	2022.12.30
Analysis Starting Date:		2022.12.30	Analysis Completion Date:	2023.01.05
Quantity Received :		1000 ml X 2 No's		
Sampling Details :		CETP OUTLET		
Method of Testing :		As per APHA 23 rd Edition & IS 3025 Part-44		
Other Details If Any :		NA		

TEST RESULTS					
S. No	Test parameters	Unit of Measurement	Method of Testing	Results	CPCB Limits
1	pH	-	APHA 23 rd ed.(4500-H+ B)	7.12	5.5-9.0
2	Total Suspended Solids	mg/l	APHA 23 rd ed.(2540 D)	33.2	<100
3	Total Dissolved Solids	mg/l	APHA 23 rd ed.(2540 C)	852	<2100
4	Oil and Grease	mg/l	APHA 23 rd ed.(5520 C)	5.1	<10
5	Biochemical Oxygen Demand 3 Day at 27 °C	mg/l	IS:3025 (Part-44):2009	28.2	<30
6	Chemical Oxygen Demand	mg/l	APHA 23 rd ed.(5220 B)	160	<250
7	Zinc as Zn	mg/l	APHA 23 rd ed.(3120 B)	0.08	<5.0
8	Nickel as Ni	mg/l	APHA 23 rd ed.(3120 B)	<0.01	<3.0
9	Temperature	°C	APHA 23 rd ed.(2550 B)	23.4	-

Remarks: Results relate to the sample tested.

Instrument used: BOD Incubator (Make: Technica, S.No. LV-C-149, Calibration on: 24/11/2022, Calibration due date: 3/03/2023, ID No. VLS-EC/BOD/01), COD Digester (Make: DBK COD Digester, S. No: 170437, Calibration on: 16/07/2022, Calibration due date:15/09/2023, ID No.: VLU/COD/001).

- END OF THE TEST REPORT -

Name and Designation of Authorized Signatory

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ISSUED:

M/s. TATA MOTORS LIMITED
Jamshedpur 831010
Jharkhand, India.

Report Number:
Issue date:
P.O. No. & date:

VLL/VLS/22/MW/15052/060
2023.01.06
3430053969 & 25.04.2022.
AMD 04.08.2022

01 of 01

Customer Provided Details :			
Sample Name:	Package STP OUTLET		
Test Required:	pH, TSS, TDS, O&G, BOD, COD, Total Nitrogen, Total Po4, Cr+6, Cu, Zn, CN-, Ni, Fe, Cl, SO ₄ and Fecal Coliform		
Lab Provided Details :			
Sampling Date:	2022.12.26	Sample Registration Date:	2022.12.30
Analysis Starting Date:	2022.12.30	Analysis Completion Date:	2023.01.05
Quantity Received :	1000 ml X 2 No's		
Sampling Details :	Package STP OUTLET		
Method of Testing :	As per APHA 23 rd Edition & IS 3025 Part-44		
Other Details If Any :	NA		

TEST RESULTS

S. No	Test parameters	Unit of Measurement	Method of Testing	Results	CPCB Limits
1	pH	-	APHA 23 rd ed. (4500-H+ B)	7.45	5.5-9.0
2	Total Suspended Solids	mg/l	APHA 23 rd ed. (2540 D)	20.5	<100
3	Total Dissolved Solids	mg/l	APHA 23 rd ed. (2540 C)	387	<2100
4	Oil and Grease	mg/l	APHA 23 rd ed. (5520 C)	<1.0	<10
5	Biochemical Oxygen Demand 3 Day at 27 °C	mg/l	IS:3025 (Part-44):2009	6.2	<30
6	Chemical Oxygen Demand	mg/l	APHA 23 rd ed. (5220 B)	20	<250
7	Total Nitrogen as N	mg/l	APHA-23 rd ed. 4500-Norg-B 2012	<1.0	100
8	Total Phosphate as PO ₄	mg/l	APHA-23 rd ed. (4500-P, D)	0.28	5.0
9	Hexavalent Chromium as Cr ⁶⁺	mg/l	APHA 23 rd ed. (5220 B)	<0.05	0.1
10	Copper as Cu	mg/l	APHA 23 rd ed. (3120 B)	<0.01	3.0
11	Zinc as Zn	mg/l	APHA 23 rd ed. (5220 B)	<0.01	5.0
12	Cyanide as CN	mg/l	APHA 23 rd ed. (3120 B)	<0.02	0.2
13	Nickel as Ni	mg/l	APHA 23 rd ed. (3120 B)	<0.01	3.0
14	Iron as Fe	mg/l	APHA 23 rd ed. (4500-Cl B)	135	-
15	Chloride as Cl	mg/l	APHA 23 rd ed. (5220 B)	51.2	<1000
16	Sulphate as SO ₄	mg/l	EPA Method 1681	125	<1000
17	Fecal Coliform	MPN per 100ml			

Remarks: Results relate to the sample tested.

Instrument used: BOD Incubator (Make: Technica, S.No. LV-C-149, Calibration on: 24/11/2022, Calibration due date: 3/05/2023, ID No. VLS-EC/1900/01), COD Digester (Make: D&K COD Digester, S. No: 170437, Calibration on: 16/09/2022, Calibration due date: 15/09/2023, ID No.: VLU/COD/001).

• END OF THE TEST REPORT.

Name and Designation of Authorized Signatory

[Signature]
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Dy. Manager-Environment

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TC-9418

ISSUED:
M/s. TATA MOTORS LIMITED
Jamshedpur 831010
Jharkhand, India.

Report Number: VLL/VLS/22/MW/15052/059
Issue date: 2023.01.06
P.O. No. & date: 3430053769 & 25.04.2022,
AMD 04.08.2022

01 of 01

01 of 01

Customer Provided Details :			
Sample Name :	WWTP UNIT-A Outlet		
Test Required :	PH, TSS, TDS, O&G, BOD, COD, Temperature.		
Lab Provided Details :			
Sampling Date:	2022.12.26	Sample Registration Date:	2022.12.30
Analysis Starting Date:	2022.12.30	Analysis Completion Date:	2023.01.05
Quantity Received :	500 ml X 2 No's		
Sampling Details :	WWTP UNIT-A Outlet		
Method of Testing :	As per APHA 23 rd Edition & IS 3025 Part-44		

TEST RESULTS

S. No.	Test parameters	Unit of Measurement	Method of Testing	Results	CPCB Limits
1	pH	—	APHA-23rd ed. (4500-H ⁺ -B)	7.45	5.5 - 9.0
2	Total Suspended Solids	mg/l	APHA-23rd ed. (2540- D)	16.1	<100
3	Total Dissolved Solids	mg/l	APHA-23rd ed. (2540- C)	373	<2100
4	Oil and Grease	mg/l	APHA-23rd ed (5520 C)	<1.0	<10
5	Biochemical Oxygen Demand 3 Day at 27°C	mg/l	IS:3025 (Part-44):2009	3.4	<30
6	Chemical Oxygen Demand	mg/l	APHA-23rd ed (5220-B)	10	<250
7	Temperature	°C	APHA-23rd ed (2550-B)	23.2	—

Remarks: Results relate to the sample tested.

Instrument used: BOD incubator (Make: Technico, S.No. LV-C-149, Calibration on: 24/11/2022, Calibration due date: 3/05/2023, ID No. VLS-EC/BOD/01), COD Digester (Make: D&K COD Digester, S. No: 170437, Calibration on: 16/09/2022, Calibration due date: 15/09/2023, ID No.: VLL/COD/001).

- END OF THE TEST REPORT

Name and Designation of Authorized Signatory

[Signature]

Dr. SUBBAREDDY MALLAMPATI
Dy. Manager-Environment

8. A further Action Taken Report has been filed by the Joint Committee. The Minutes of the Meeting of the Expert Committee held on 25.04.2023 has been filed which reads as under: –

“Minutes of Meeting of the Expert Committee held on 25/04/2023 in the Conference Hall of SKIPA in compliance of directions issued by the Hon’ble NGT, Principal Bench, New Delhi vide its order dated 01/03/2023 in O. A. No.124/2023 In re: News Item published in The Avenue Mail dated 07.02.2023 titled “Jamshedpur: Industrial Wastes adding to pollution level in River Subarnarekha”.

Attendees:

- i. Additional Chief Secretary (ACS), Forest, Environment and Climate Change Department, GoJ – Cum – Chairman, Expert Committee.*
 - ii. Deputy Commissioner, East Singhbhum.*
 - iii. Member Secretary (MS), Jharkhand State Pollution Control Board (JSPCB)-Cum-Member Secretary, Expert Committee.*
 - iv. Sri Rajeev Ranjan, Scientist – E, MoEF&CC IRO, Ranchi.*
 - v. Sri Toufic Aslam, Scientist – C, CPCB Regional Directorate, Kolkata.*
 - vi. Additional Secretary, Forest, Environment and Climate Change Department, GoJ.*
 - vii. Representative of Director, SUDA, Urban Development and Housing Department, GoJ.*
 - viii. Representative of Director, Panchayati Raj Department, GoJ.*
 - ix. The Regional Office (RO), JSPCB Regional Office-Cum-Laboratory, Jamshedpur.*
 - x. Sri Sourav Kumar, Representative of Jamshedpur Notified Area Committee.*
- 1. At the outset of the meeting the Additional Chief Secretary-Cum-Chairman of the Expert Committee briefed the members about the order dated 01.03.2023 passed by the Hon’ble NGT, Principal Bench, New*

Delhi in O.A. No.124/2023 In re: News item published in The Avenue Mail dated 07.02.2023 titled “Jamshedpur: Industrial Wastes adding to pollution level in River Subarnarekha”. It was further informed that the proceedings have been initiated suo-out in light of captioned media report about the pollution of river Subarnarekha in Jharkhand in and around Jamshedpur. The said media report refers to survey conducted by the State PCB showing exceedance of pH value, DO content and lead content. At some places like Mango and Moubhandar, pollution was more. It was further informed that a preparatory meeting was convened with the officials of the JSPCB for the NGT constituted Expert Committee Meeting.

- 2. The Member Secretary, JSPCB informed that an Expert Committee has been constituted by the Forest, Environment and Climate Change Department, GoJ vide Notification No.1283 dated 10/04/2023 under Chairmanship of the ACS, Forest, Environment and Climate Change Department, GoJ. It was further informed that the JSPCB will be the nodal agency for coordination and compliance.*
- 3. The Member Secretary, JSPCB further informed about the issues raised by the Hon’ble NGT to its order dated 01/03/2023 that the verification expected was at different locations where potential of discharge of trade effluents or untreated sewage exists which has not been done. There is no consideration even of material in public domain. The Hon’ble NGT directed that a factual report in respect of gaps in management of sewage and trade effluents with time bound action plan may be furnished within two months.*
- 4. The RO, JSPCB Regional Office – cum – Laboratory, Jamshedpur provided the following details before the committee: -*
 - I. List of Industries discharging their treated effluent in Subarnarekha which is as below: -*
 - a) M/s Tata Steel Ltd., Main Plant, Jamshedpur.*
 - b) M/s Tata Motors Ltd., Telco, Jamshedpur.*

- c) M/s Tin Plate Co. of India Ltd., Jamshedpur.
- d) M/s UCIL, Jadugora, Dist- East Singhbhum.
- e) M/s Hindustan Copper Ltd., Moubhandar (Plant is closed)

It was further informed that the Online Continuous Effluent Monitoring System (OCEMS) is installed by M/s Tata Steel Limited and M/s Tata Motors Limited. However, EPTs has been installed by M/s Tin Plate Co. of India Limited and M/s UCIL, Jadugora and their treated effluent is discharged in Subarnarekha and OCEMS has not been installed by them because it is mandatory for 17 categories of Highly Polluting Industries and both Unit does not comes under this.

- II. Monthly Monitoring of Water Quality of River Suvarnrekha at 09 different locations after Chandil Dam is being carried out by the JSPCB Regional Office – Cum – Laboratory, Jamshedpur under National Water Monitoring Programme (NWMP). The details of which is as below: -

S.N.	Location	Base Line Data (Jan 2022)			Data of Jan 2023			Data of Feb 2023		
		pH	DO	BOD	pH	DO	BOD	pH	DO	BOD
1.	Chandil Road Bridge	7.2	7.2	BDL	7.1	6.8	BDL	7.2	7.3	1.3
2.	On Subarnarekha River before meeting Kharkai	7.6	6.5	1.5	7.3	6.6	1.3	7.0	7.0	1.8
3.	On Subarnarekha River after confluence Kharkai	7.4	6.7	1.8	6.9	6.5	1.6	6.9	6.9	2.4
4.	D/s Mango, Jamshedpur	6.8	6.4	2.2	6.7	6.0	2.1	7.0	6.5	2.6
5.	Galudih Barrage	7.1	7.0	BDL	7.2	7.2	1.1	7.1	7.5	1.6
6.	U/s HCL Ghatsila	7.5	6.6	1.3	7.0	7.0	1.2	7.1	7.0	1.3
7.	D/s HCL Ghatsila	7.4	6.5	1.2	6.9	6.9	1.3	7.0	7.1	1.5
8.	Bahragora Road Bridge	7.6	7.1	BDL	7.3	7.2	BDL	7.3	7.4	1.2
9.	Ghatsila Road	7.7	7.2	1.6	7.3	7.4	1.2	7.3	8.0	1.7

	Bridge								
--	--------	--	--	--	--	--	--	--	--

It was further informed that a River Rejuvenation Plan of Subarnarekha was prepared and the water quality of River Subarnarekha has improved from 2019 and has become of bathing quality. The industrial effluent discharge point of the above mentioned five industries was also depicted.

5. The RO, JSPCB Regional Office – Cum – Laboratory, Jamshedpur has requested the Common Effluent Treatment Plant (CETP) and different ULB's and has collected the data from them w.r.t. the discharge and treatment of their effluent / sewage the details of which is as follows: -

a) Adityapur CETP

Month	Receipt Quantity (KL)	Treated Quantity (KL)	Treated water discharged to the Inland Surface (KL)	Treated water for Reuse (KL)
Apr'22	1545.00	1640.00	1476.00	164.00
May'22	1700.00	1656.00	1457.00	199.00
June'22	1900.00	2004.00	1723.00	281.00
July'22	1807.00	1890.00	1718.00	170.00
Aug'22	1386.00	1333.00	1240.00	93.00
Sep'22	1391.00	1388.00	1277.00	111.00
Oct'22	1121.00	1043.00	928.00	115.00
Nov'22	1426.00	1233.00	1110.00	123.00
Dec'22	1400.00	1418.00	1262.00	156.00
Jan'23	1598.00	1630.00	1434.00	196.00
Feb'23	1478.00	1496.00	1361.00	135.00
Mar'23	1893.00	1741.00	1549.00	192.00
Total	18645.00	18472.00	16535.00	1935.00

b) Jamshedpur Notified Area Committee

S.N.	Information	Details
1.	Total number of sewage drains/ discharge points being discharged in Subarnarekha river	18
2.	Total quantum of discharge of sewage in Subarnarekha river	122.05 MLD
3.	Total quantum of	0

	<i>treated sewage being discharged in Subarnarekha river</i>	
4.	<i>Total quantum of untreated sewage being discharge in Subarnarekha river</i>	<i>122.05 MLD</i>
5.	<i>If any Sewage Treatment Plant (STP) is established then its treatment capacity</i>	<i>1 STP of Capacity 45 MLD 11 PSTPs of Capacity 4.8 MLD</i>
6.	<i>If no STP is there then the proposed plan to treat the sewage and timeline for completion of STP, if any.</i>	<i>Yes, there is proposed plan for treatment of Waste Water; the survey of nallahas has been conducted. Time line for completion – March 2026.</i>

c) Mango Municipal Corporation

S.N.	Information	Details
1.	<i>Total number of sewage drains/discharge points being discharged in Subarnarekha river</i>	<i>09</i>
2.	<i>Total quantum of discharge of sewage in Subarnarekha river</i>	<i>30.24 MLD</i>
3.	<i>Total quantum of treated sewage being discharged in Subarnarekha river</i>	<i>0</i>
4.	<i>Total quantum of untreated sewage being discharge in Subarnarekha river</i>	<i>30.24 MLD</i>
5.	<i>If any Sewage Treatment Plant (STP) is established then its treatment capacity</i>	<i>0</i>
6.	<i>If no STP is there then the proposed plan to treat the sewage and timeline for completion of STP, if any.</i>	<i>Yes, there is proposed plan for treatment of Waste Water; the survey of nallaha has been conducted. Time line for completion – March 2026.</i>

d) Kapali Municipal Council

S.N.	Information	Details
1.	<i>Total number of sewage drains/discharge points</i>	<i>02</i>

	<i>being discharged in Subarnarekha river</i>	
2.	<i>Total quantum of discharge of sewage in Subarnarekha river</i>	<i>Not Calculated</i>
3.	<i>Total quantum of treated sewage being discharged in Subarnarekha river</i>	<i>0</i>
4.	<i>Total quantum of untreated sewage being discharge in Subarnarekha river</i>	<i>Not Calculated</i>
5.	<i>If any Sewage Treatment Plant (STP) is established then its treatment capacity</i>	<i>N/A</i>
6.	<i>If no STP is there then the proposed plan to treat the sewage and timeline for completion of STP, if any.</i>	<i>N/A</i>

e) Tata Steel Utilities & Infrastructure Services Limited

S.N.	Information	Details	Remarks
1.	<i>Total number of sewage drains/discharge points being discharged in Subarnarekha river</i>	18	<i>Numbers of Storm water drain discharge points.</i>
2.	<i>Total quantum of discharge of sewage in Subarnarekha river</i>	NA	<i>JNAC is conducting joint study to ascertain the volume of discharge.</i>
3.	<i>Total quantum of treated sewage being discharged in Subarnarekha river</i>	NIL	<i>TSL does not discharge in River. Treated sewage is used for industrial and irrigation purposes. Only treated sewage is discharged in case of breakdowns / Shut down.</i>
4.	<i>Total quantum of untreated sewage being discharge in Subarnarekha river</i>	NA	<i>TSL does not discharge in River. Treated sewage is used for industrial and irrigation purposes.</i>

5.	<i>If any Sewage Treatment Plant (STP) is established then its treatment capacity</i>	YES 65.7 MLD	<i>BARA STP-45 MLD, KHARKAI STP – 16 MLD, 10 Nos. of PSTPs – 4.7 MLD</i>
6.	<i>If no STP is there then the proposed plan to treat the sewage and timeline for completion of STP, if any.</i>	6 MLD by May 2025	<i>Under construction – 5 PSTPs (6MLD). Completion within May 2025.</i>

f) Jugsalai Nagar Parishad

S.N.	Information	Details
1.	<i>Total number of sewage drains/discharge points being discharged in Kharkai river</i>	05
2.	<i>Total quantum of discharge of sewage in Kharkai river</i>	5.4 MLD (Approx.) (Calculation based on census 2011)
3.	<i>Total quantum of treated sewage being discharged in Kharkai river</i>	0 There is no treatment facility.
4.	<i>Total quantum of untreated sewage being discharge in Kharkai river</i>	5.4 MLD (Approx.) (Calculation based on census 2011)
5.	<i>If any Sewage Treatment Plant (STP) is established then its treatment capacity</i>	No
6.	<i>If no STP is there then the proposed plan to treat the sewage and timeline for completion of STP, if any.</i>	<i>Final DPR of STP Prepared by Juidco in 2018. No further progress has been done.</i>

g) Adityapur Municipal Corporation

S.N.	Information	Details
1.	<i>Total number of sewage drains/discharge points being discharged in Kharkai river</i>	08
2.	<i>Total quantum of discharge of sewage in Kharkai river</i>	14 MLD
3.	<i>Total quantum of treated sewage being discharged in Kharkai river</i>	NIL
4.	<i>Total quantum of untreated</i>	11 MLD

	<i>sewage being discharge in Kharkai river</i>	
5.	<i>If any Sewage Treatment Plant (STP) is established then its treatment capacity</i>	<i>3 MLD in NIT, Jamshedpur</i>
6.	<i>If no STP is there then the proposed plan to treat the sewage and timeline for completion of STP, if any.</i>	<i>36 MLD -04 No. SPTs under construction under AMRUT scheme.</i>

h) Rural Block Area of East Singhbhum

S.N.	Information	Details
1.	<i>Total number of sewage drains/discharge points being discharged in Subarnarekha river</i>	<i>01 (Musabani Block)</i>
2.	<i>Total quantum of discharge of sewage in Subarnarekha river</i>	<i>10 cubic Litre (Musabani Block)</i>
3.	<i>Total quantum of treated sewage being discharged in Subarnarekha river</i>	<i>NIL</i>
4.	<i>Total quantum of untreated sewage being discharge in Subarnarekha river</i>	<i>NIL</i>
5.	<i>If any Sewage Treatment Plant (STP) is established then its treatment capacity</i>	<i>NIL</i>
6.	<i>If no STP is there then the proposed plan to treat the sewage and timeline for completion of STP, if any.</i>	<i>NIL</i>

6. Sri Rajeev Ranjan, Scientist – E, MoEF&CC IRO, Ranchi suggested that the sampling may be done at the discharge points at the representative locations during site visit by the Expert Committee and the sample analysed to know the quality of sewage being discharged in the Subarnarekha river. It was suggested that the sapling at Garra Nala should also be done at the discharge of UCIL meets Garra Nala and where it further meets Subarnarekha River.

After deliberations and discussions, the Chairman gave the following directions:-

1. *Details w.r.t. the sewage being discharged in Subarnarekha River and Kharkai River of the Urban Local Bodies and Panchayat areas along with the complete details drain wise and the action, either being taken or is proposed to be taken for treatment of sewage along with the estimates, timeline for implementation and source of funding to be indicated as well.*

(Action By: concerned ULBs and DC, E. Singhbhum)

2. *To prepare a map of the stretch of Subarnarekha along with the map of Urban Local Bodies indicating discharge points, ETPs, SPTs etc. with its coordinate points (Latitude and Longitude)*

(Action By: concerned ULBs and DC, E. Singhbhum)

3. *Action plan to be prepared at district level for tapping of the sewage being discharged in Subarnarekha by considering each drain as a Unit.*

(Action By: concerned ULBs in coordination with Deputy Commissioner)

4. *To prepare the draft Action Plan and circulate it with the Members of the Committee.*

(Action By: MS, JAPCB)

5. *To collect the layout map and drawing of water supply system and drainage map of the industries.*

(Action By: RO, JSPCB, Jamshedpur)

6. *To submit the desired reports / documents / maps etc. on or before 03/05/2023 to the Member Secretary of the Expert Committee*

(Action By: All the concerned stakeholders)

7. *The site visit of the expert committee and the interaction with the local people and others is scheduled on 8th May, 2023.*

(Action By: All the Members)

The Meeting concluded with the vote of thanks to the Chairman.”

9. Minutes of Meeting of the Expert Committee held on 11.05.2023 have also been filed which reads as under: -

Annexure-D
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Minutes of Meeting of the Expert Committee held on 11/05/2023 in the Conference Hall of the Circuit House, East Singhbhum in compliance of directions issued by the Hon'ble NGT, Principal Bench, New Delhi. vide its order dated 01/03/2023 in O. A. No. 124/2023 In re: News item published in The Avenue Mail dated 07.02.2023 titled "Jamshedpur: Industrial Wastes adding to pollution level in River Subarnarekha".

Attendees:

- i. Sri L. Khiangte, Additional Chief Secretary (ACS), Forest, Environment and Climate Change Department, GoJ – Cum – Chairman, Expert Committee.
- ii. Sri Yatindra Kumar Das, Member Secretary (MS), Jharkhand State Pollution Control Board (JSPCB) – Cum – Member Secretary, Expert Committee.
- iii. Smt. Vijaya Jadhav, Deputy Commissioner, East Singhbhum.
- iv. Sri Rajeev Ranjan, Scientist – E, MoEF&CC IRO, Ranchi.
- v. Miss Mamta Priyadarshi, DFO, Jamshedpur.
- vi. Sri Aditya Narayan, DFO, Saraikela.
- vii. Sri Jitendra Prasad Singh, Regional Officer (RO), JSPCB Regional Office – Cum – Laboratory, Jamshedpur.
- viii. Smt. Amala Murmu, Pramukh of Chandil Block, Saraikela Kharsawan.
- ix. Sri Girja Shankar Prasad, Assistant Municipal Commissioner, Adityapur Municipal Corporation along with his team.
- x. Sri Suresh Yadav, Executive Officer, Mango Nagar Nigam along with his team.
- xi. Sri Sanjay Kumar, Special Officer, Jamshedpur Notified Area Committee along with his team.
- xii. Sri Ranjeet Lohra, Chief Executive Officer, Kapali Nagar Parishad along with his team.
- xiii. Sri Rajendra Kumar, City Manager, Jugsalai Nagar Parishad along with his team.
- xiv. Representatives of Tata Steel Utilities and Infrastructure Services Limited.
- xv. Representatives of Common Effluent Treatment Plant (CETP), Adityapur.
- xvi. Representatives of Tata Steel Limited.
- xvii. Representatives of Tata Motors Limited.
- xviii. Representatives of Uranium Corporation of India Limited.
- xix. Representative of BARC, Turandih.
- xx. Representatives of Tinplate Company of India Limited.
- xxi. Representatives of Hindustan Copper Limited.

1. At the outset of the meeting the Additional Chief Secretary – Cum – Chairman of the Expert Committee briefed the members about the order dated 01.03.2023 passed by the Hon'ble NGT, Principal Bench, New Delhi in O. A. No. 124/2023 In re: News item published in The Avenue

Mail dated 07.02.2023 titled "Jamshedpur: Industrial Wastes adding to pollution level in River Subarnarekha". It was further informed that the proceedings have been initiated suo-motu in light of captioned media report about the pollution of river Subarnarekha in Jharkhand in and around Jamshedpur. The said media report refers to survey conducted by the State PCB showing exceedance of pH value, DO content and lead content. At some places like Mango and Moubhandar, pollution was more. The Hon'ble NGT directed the Expert Committee to prepare a factual Report in respect of gaps in management of sewage and trade effluents with time bound action plan.

2. The Member Secretary, JSPCB informed that an Expert Committee has been constituted by the Forest, Environment and Climate Change Department, GoJ vide Notification No. 1283 dated 10/04/2023 under Chairmanship of the ACS, Forest, Environment and Climate Change Department, GoJ. It was further informed that the JSPCB is the nodal agency for coordination and compliance.
3. The Special Officer, Jamshedpur Notified Area Committee presented the drain wise status of the drains discharging their waste water into river Subarnarekha along with the Estimated Flow, Actions Proposed, Fund required, Source of Funds, Progress Report, proposed timeline for preparation of Draft Detailed Project Report, Tender and commissioning of project. The details of which are as follows: -

S. N.	Location	Latitnde (N)	Longitude (E)	Estimated Flow	Actions Proposed	Fund Required	Fund Source	Progress Re port	DDPR	Tender	Project Commissioning	
		Discharge Point	(in MLD)	(in Cr)								
1	Drain Near Domunhani	22°50'3.77"	86°9'52.49"	2	TUISL setting up a PSTP		Tata Steel	Execution in progress	-	-	Dec-25	
2	Drain Near Swam Vihar	22°49'59.11"	86°10'12.48"	2								
3	Asiana Drain Back Side (Gate 4)	22°49'50.46"	86°10'35.32"	2		8	15th Finance	Survey to start	Aug-23	Dec-23	Dec-26	
4	Asiana Drain Front Side (Gate 3)	22°49'35.32"	86°10'47.57"	2		8	15th Finance					
5	Drain Beside Horse Riding School	22°49'15.62"	86°11'10.23"	10	Tata has a plan post 2025		Tata Steel	Proposed	-	-	-	
6	Drain Beside XLRI & Safari Park	22°49'6.99"	86°11'35.25"	2		8	15th Finance	Survey to start	Aug-23	Dec-23	Dec-26	
7	Gandhi Ghat, RK Mission Hostel	22°49'2.77"	86°12'26.24"	0.02	Nature Based Treatment 20 KLD	0.1	15th Finance	Feasibility Assessment Complete	May-23	Aug-23	Dec-24	
8	Pandey Ghat	22°48'54.60"	86°12'51.40"	27	I&D STP Project by JNAC	525	15th Finance, AMRUT 2.0, Other	Survey Complete	Jun-23	Sep-23	Dec-26	
9	Lalbhatta (C Town)	22°48'46.79"	86°13'20.15"	70	TUISL setting up a SPS of 20 MLD		Tata Steel					
10	Bhuryandih Gwala Bastee	22°48'54.45"	86°13'36.36"	0.6	I&D STP Project by JNAC		15th Finance					
11	Sidgora 10 No Bustee Drain	22°48'59.60"	86°13'42.48"	3.8			15th Finance					
12	Nim Bhatta	22°48'51.26"	86°14'35.50"	0.5	STP (MBBR) 800KLD at Bihari Basti	3.6	15th Finance	Feasibility Assessment Complete	May-23	Aug-23	Dec-25	
13	Bihari Basti	22°48'44.25"	86°14'43.11"	0.1								
14	Bagunahatu Drain	22°48'27.90"	86°15'0.52"	1.2	STP (SBR) of 45-50 MLD at Moharda	131	15th Finance, AMRUT 2.0, Other					
15	Zila School 1	22°48'25.11"	86°15'10.48"	0.4								
	Zila School 2	22°48'24.13"	86°15'14.65"									
16	Drain From Bhojpur Colony	22°48'20.25"	86°15'25.57"	0.1								

17	Moharda Drain (Kumaria Nala)	22°48'15.51"	86°15'27.27"	29.6	153.32	683.7
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4. The Executive Officer, Mango Nagar Nigam presented the drain wise status of the drains discharging their waste water into river Subarnarekha along with the Estimated Flow, Actions Proposed, Fund required, Source of Funds, Progress Report, proposed timeline for preparation of Draft Detailed Project Report, Tender and commissioning of project. The details of which are as follows: -

S. N.	Details of the Drain					Fund			Timeline			
	Location of the Drain	Latitude	Longitude	Estimated Flow (in MLD)	Actions Proposed	Fund Allotted (in Cr)	Fund Required (in Cr)	Fund Source	Progress Report (Action Taken)	DPR	Tender	Project Commissioning
1	Daiguttu Chankya puri Ghat	22°49'09.91"	86°12'22.82"	12.23	Construction of I & D and STP in long term and chemically enhanced primary treatment in short term. Integration of short solution into long term solution wherever feasible	-	To be Estimated	15th Finance	Flow measurements done, Feasibility assessment is in progress	Before July 2023	Before December 2023	Before December 2025 Long term solution (I&D and STP- 24 to 30 Months) Short term solution (Chemically enhanced primary treatment-6 to 8 Months)
2	Shantinagar Ghat	22°49'04.72"	86°13'39.64"	6.25						Before July 2023	Before December 2023	Before December 2025 Long term solution (I&D and STP- 24 to 30 Months) Short term solution (Chemically enhanced primary treatment-6 to 8 Months)
3	Laxman Nagar	22°49'19.18"	86°13'56.94"	0.26						Before July 2023	Before December 2023	Before December 2025 Long term solution (I&D and STP- 24 to 30 Months) Short term solution (Chemically enhanced primary treatment-6 to 8 Months)
4	Ramnagar Ghat	22°49'18.70"	86°14'01.07"	0.06						Before July 2023	Before December 2023	Before December 2025 Long term solution (I&D and STP- 24 to 30 Months) Short term solution (Chemically enhanced primary treatment-6 to 8 Months)

5	Shyamnagar Ghat	22°49'16.54"	86°13'49.88"	9.82						Before July 2023	Before December 2023	Before December 2025 Long term solution (I&D and STP- 24 to 30 Months) Short term solution (Chemically enhanced primary treatment-6 to 8 Months)
6	Baikunth Nagar Ghat	22°48'58.84"	86°12'58.25"	0.10						Before July 2023	Before December 2023	Before December 2025 Long term solution (I&D and STP- 24 to 30 Months) Short term solution (Chemically enhanced primary treatment-6 to 8 Months)
7	Moon City	22°49'15.73"	86°13'48.32"	1.25						Before July 2023	Before December 2023	Before December 2025 Long term solution (I&D and STP- 24 to 30 Months) Short term solution (Chemically enhanced primary treatment-6 to 8 Months)
8	Mango Chowk Nala	22°49'04.43"	86°12'40.40"	0.82						Before July 2023	Before December 2023	Before December 2025 Long term solution (I&D and STP- 24 to 30 Months) Short term solution (Chemically enhanced primary treatment-6 to 8 Months)
9	Kedar Bagan Nala	22°49'11.92"	86°14'14.89"	0.33						Before July 2023	Before December 2023	Before December 2025 Long term solution (I&D and STP- 24 to 30 Months) Short term solution (Chemically enhanced primary treatment-6 to 8 Months)

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5. The City Manager, Jugsalai Nagar Parishad presented the drain wise status of the drains discharging their waste water into river Kharkai along with the Estimated Flow, Actions Proposed, Fund required, Source of Funds, Progress Report, proposed timeline for preparation of Draft Detailed Project Report, Tender and commissioning of project. The details of which are as follows: -

S. N.	Location	Latitude	Longitude	Estimated Flow (in MLD)	Actions Proposed	Fund Required	Fund Source	Progress Report
		Discharge Point				(in Cr)		
1	Near Shiv Ghat Road	22.772546	86.174253	7.848*	Interception & Diversion by Jugsalai Nagar Parishad, STP Proposed Near Shiv Ghat	To be Estimated	15th Finance, Amrut 2.0, Other Fund	Primary Drain Survey
2	Ishlam Nagar, Near Md Sahjad Residence	22.774785	86.174737					
3	Habib Nagar, Near Jawed Hotel	22.776718	86.174418					
4	Khageshwar Dham, Near Eidgah Kabristan	22.777782	86.176427					
5	Khageshwar Dham, Near Garib Nawaj Colony	22.779495	86.17527					

6. The CEO, Kapali Nagar Parishad presented the drain wise status of the drains discharging their waste water into river Subarnarekha along with the Estimated Flow, Actions Proposed, Fund required, Source of Funds, Progress Report, proposed timeline for preparation of Draft Detailed Project Report, Tender and commissioning of project. The details of which are as follows: -

Details of the Drain															Fund			Timeline			
S. N.	Location of the Drain	Catchment Area	Latitude	Longitude	Length (in m)	Estimated Flow (in MLD)	Actions Proposed	Fund Allotted (in Cr)	Fund Required (in Cr)	Fund Source	Progress Report (Action Taken)	DPR	Tender	Project Commissioning							
			Discharge Point																		
Kapali Nagar Parishad																					
1	Near Water Treatment Plant		22.83258	86.17745	995 m	4.5 MLD Note:- to be estimated after survey	Interception & Diversion by Kapuli Nagar Parishad	To be Estimated	To be Estimated	15th Finance, Amrut 2.0, Other Fund	Primary Drain Survey	Before August 2023	Before November 2023	Before December 2026							
2	Sonepada Nala		22.81894	86.19919	5 km																

7. The Assistant Municipal Commissioner, Adityapur Municipal Corporation presented the drain wise status of the drains discharging their waste water into river Subarnarekha along with the proposed timeline for Estimated Flow, Actions Proposed, Fund required, Source of Funds, Progress Report, for preparation of Draft Detailed Project Report, Tender and commissioning of project. The details of which are as follows: -

SL No.	Location of the Drain	Latitude	Longitude	Estimated Flow (in MLD)	Actions Proposed	Fund Allotted (in Cr)	Fund Required (in Cr)	Fund Source	Progress Report (Action Taken)	DPR	Tender	Project Commissioning
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1	Treated effluent from NIT College	22°46'52.8 6"N	86°08'18.8 8"E	3	Construction of I & D and STP in long term and chemically enhanced primary treatment in short term. Integration of short solution into long term solution wherever feasible	To be determined	To be determined	Not yet finalized	Consultant not yet finalized	To be finalized after approval of DPR	After award of contract - Short term solution - About 6 to 8 months) and Long Term Solution - (24 to 30 months)
2	Near Radhaswami Marg-ward 27,28,29	22°46'30.5 6"N	86°10'17.0 0"E	2.1	Construction of I & D and STP in long term and chemically enhanced primary treatment in short term. Integration of short solution into long term solution wherever feasible	To be determined	To be determined	Not yet finalized	Consultant not yet finalized	To be finalized after approval of DPR	After award of contract - Short term solution - Chemically enhanced primary treatment (About 6 to 8 months) and Long Term Solution - I & D s and STPs (24 to 30 months). Integration of short solution into long term solution wherever feasible
3	Near hotel furnitures ward no. 18,19,20	22°46'55.5 3"N	86°10'21.8 9"E	1.5	Construction of I & D and STP in long term and chemically enhanced primary treatment in short term. Integration of short solution into long term solution wherever feasible	To be determined	To be determined	Not yet finalized	Consultant not yet finalized	To be finalized after approval of DPR	After award of contract - Short term solution - Chemically enhanced primary treatment (About 6 to 8 months) and Long Term Solution - I & D s and STPs (24 to 30 months). Integration of short solution into long term solution wherever feasible
4	Harion nagar, Ward no. 16,17	22°47'36.8 5"N	86°10'4.92 "E	0.6	Construction of I & D and STP in long term and chemically enhanced primary treatment in short term. Integration of short solution	To be determined	To be determined	Not yet finalized	Consultant not yet finalized	To be finalized after approval of DPR	After award of contract - Short term solution - Chemically enhanced primary treatment (About 6 to 8 months) and Long Term Solution - I & D s and STPs (24 to 30 months)

					into long term solution wherever feasible							
5	Hariom nagar, Ward no. 14,15	22°47'36.85"	86°10'4.92"E	0.5	Construction of I & D and STP in long term and chemically enhanced primary treatment in short term. Integration of short solution into long term solution wherever feasible	To be determined	To be determined	Not yet finalized		Consultant not yet finalized	To be finalized after approval of DPR	After award of contract - Short term solution - Chemically enhanced primary treatment (About 6 to 8 months) and Long Term Solution - I & Ds and STPs (24 to 30 months).
6	Saldhi Basti, near 20MLD STP ward no. 13,14	22°47'58.03"N	86°9'15.38"E	1.2	Construction of I & D and STP in long term and chemically enhanced primary treatment in short term. Integration of short solution into long term solution wherever feasible	To be determined	To be determined	Not yet finalized		Consultant not yet finalized	To be finalized after approval of DPR	After award of contract - Short term solution - Chemically enhanced primary treatment (About 6 to 8 months) and Long Term Solution - I & Ds and STPs (24 to 30 months).
7	Saldhi Basti, near back side of ESI hospital, ward no. 13	22°47'52.48"N	86°9'0.46"E	2.20	Construction of I & D and STP in long term and chemically enhanced primary treatment in short term. Integration of short solution into long term solution wherever feasible	To be determined	To be determined	Not yet finalized		Consultant not yet finalized	To be finalized after approval of DPR	After award of contract - Short term solution - Chemically enhanced primary treatment (About 6 to 8 months) and Long Term Solution - I & Ds and STPs (24 to 30 months).
8	New AIADA, near Toll bridge, ward no. 11	22°48'15.00"N	86°8'41.20"E	2.1	Construction of I & D and STP in long term and chemically enhanced primary treatment in short	To be determined	To be determined	Not yet finalized		Consultant not yet finalized	To be finalized after approval of DPR	After award of contract - Short term solution - Chemically enhanced primary treatment (About 6 to 8 months) and Long Term

					term. Integration of short solution into long term solution wherever feasible						Solution - I & D.s and STPs (24 to 30 months).
9	Usha Martin to Sitarampur Dam, ward 6,7,8	22°47'20.38"N	86°5'55.14"E	0.8	Construction of I & D and STP in long term and chemically enhanced primary treatment in short term. Integration of short solution into long term solution wherever feasible	To be determined	To be determined	Not yet finalized	Consultant not yet finalized	To be finalized after approval of DPR	After award of contract - Short term solution - Chemically enhanced primary treatment (About 6 to 8 months) and Long Term Solution - I & D.s and STPs (24 to 30 months).

8. The Chairman, Expert Committee asked from the representatives of the ULB's present whether there are any in-situ remedial measures proposed for short term measures which may be adopted till the completion of the Waste Water treatment facility which may take a few years. In reply Sri B.P. Yadav, General Manager, NJSEI (Consultant to the ULBs) replied that the in-situ remediation may be adopted at some of the drains but time is required to submit a preliminary report in this regard.
9. The Representatives of Tata Steel Limited has submitted that at present they are treating 9 MGD of effluent and out of this 7.7 MGD of treated waste water is being reused for different purposes while 1.3 MGD of treated waste water is being discharged outside in drains. The timeline for complete reutilization of treated effluent is by December, 2024.
10. The Representative of Tata Motors Limited has submitted that in last financial year 8.85 Lakhs m^3 of effluent was generated and 100% treatment was carried out, out of which 6.94 Lakhs m^3 of treated waste water was reused for different purposes and rest was being discharged to the Municipal Drains. The timeline for complete reutilization of treated effluent is by December, 2026.
11. The Representative of Uranium Corporation of India Limited, Jadugora has informed that an ETP plant of Capacity 4,800 m^3 is established at Jadugoda Ore Processing Plant and part of treated effluent is recycled back in ore processing plant and rest treated water is discharged to Gara Nalla (River) which meets river Suvarnrekha.
12. The Representative of Tinplate Company of India Limited has informed that at present the effluent generation in their plant is approximately about 170-180 m^3/hr . They have installed an

ETP of capacity 200m³/hr. Moreover, two Waste Water Recycling Plant of capacity 40m³/hr & 20 m³/ hr have been installed by the Unit, which treats about 44 m³/hr of waste water. Rest treated waste water is discharged in the municipal drains. The timeline for complete reutilization of treated effluent is by March, 2026.

13. The representative of Hindustan Copper Limited, Ghatshila has informed that at present the operation of plant is closed since 2019. So, there is no waste water discharge from the plant.

After deliberations and discussions, the Chairman gave the following directions: -

- a) To submit the preliminary report w.r.t. proposals for the in-situ remediation measures to be adopted by the Mango Nagar Nigam, Jamshedpur Notified Area Committee and Adityapur Nagar Nigam.

(Action by: Concerned ULB's in coordination with their consultant)

- b) To submit report on short term measures to be adopted by the industries (Tata Steel Limited, Tata Motors Limited, UCIL, TCIL) for utilization of treated waste water which is being discharged to the drains along with the timelines for utilization.

(Action by: Tata Steel Limited, Tata Motors Limited, UCIL, TCIL)

- c) To submit the updated detailed status of the timelines proposed for the measures to be adopted for treatment of waste water flowing from the drains.

(Action by: All the ULB's)

- d) To monitor and submit the compliance status of the various directions issued while Site Visit of the Committee.

(Action by: DC, E. Singhbhum)

- e) To submit the desired reports / data etc. to the Member Secretary, JSPCB (Nodal Agency) by 29th May, 2023 for preparation of a factual report in respect of gaps in management of sewage and trade effluents with time bound action plan in compliance to the Hon'ble NGT directions dated 01.03.2023.

(Action by: All the concerned stakeholders)

- f) The above reports and status to be submitted to the Member Secretary of the Expert Committee by 7th June, 2023 to enable the Committee to prepare the Report on time.

(Action by: MS, JSPCB)

The meeting concluded with the vote of thanks to the Chairman.

Sd/-

(L. Khiangte)

Additional Chief Secretary
Forest, Environment & Climate Change Department,
Govt. of Jharkhand – Cum –
Chairman, Expert Committee

10. The reports show that a River Rejuvenation Plan (RRP) of Subarnarekha river has been prepared and the water quality of river Subarnarekha has improved from 2019 and has become of bathing quality. Monthly Monitoring Water Quality (MMWQ) of river Subarnarekha at 9 different locations after the Chandil Dam is being carried out by the Jharkhand State Pollution Control Board, Regional Office-cum-Laboratory, Jamshedpur under the National Water Monitoring Programme (NWMP).
11. For the Jamshedpur Notified Area Committee, the report shows that there are 18 sewage drains / discharge points being discharged in river Subarnarekha. The total quantum of sewage discharge is 122.05 MLD. The total quantum of untreated sewage discharge in Subarnarekha is 122.05 MLD. This shows that the entire sewage generated is being discharged into Subarnarekha untreated. This is an extremely serious matter. The Report mentions that there is one STP of capacity 45 MLD and 11 PSTPs of capacity 4.8 MLD. If, in spite of one STP and 11 PSTPs total untreated sewage in the Jamshedpur Notified Area is being discharged into the Subarnarekha river, it means that the STP and PSTPs are not functioning. The Report mentions that there is a proposed plan for treatment of wastewater for which survey of Nullahs has been carried out. Timeline given is March 2026. We find this timeline to be absolutely unacceptable as it does not show any sense of urgency in the concerned authorities to address the river pollution on a war footing considering that the entire sewage generated in Jamshedpur Notified Area is being discharged into Subarnarekha river.

We, therefore, direct the State Respondents to ensure STPs are established within 6 months i.e. by 15.04.2024 and made functional.

12. In the Mango Municipal Corporation area the report shows that there are 9 sewage drains/discharge points being discharged in Subarnarekha River. The total quantum of discharge of sewage in Subarnarekha river is shown as 30.24 MLD. Total quantum of untreated sewage being discharged into the Subarnarekha river is shown as 30.24 MLD. In spite of this poor state of affairs, there is not a single Sewage Treatment Plant for treatment of sewage as per the report. Here also the timeline given for completion is March 2026.

Considering that there is no STP and the entire generated sewage is being discharged into the Subarnarekha river untreated by the Mango Municipal Corporation, we direct the Respondents to establish adequate number of STPs within 6 months by 15.04.2024.

13. So far as Kapali Municipal Council is concerned, the report mentions that there are 2 sewage drains / discharge points in the Subarnarekha river but the quantum of treated sewage and quantum of untreated sewage has not been calculated. Respondents are directed to determine the same and take adequate steps for setting up of STPs within 6 months i.e. by 15.04.2024.
14. As regards Jugsalai Nagar Parishad, the report mentions that the total quantum of sewage discharge in the Kharkai river is 5.4 MLD based on the Census of 2011. There is no treatment facility. Total quantum of untreated sewage being discharged in Kharkai river is 5.4 MLD. The report mentions that Detailed Project Report (D.P.R.)

for STP has been prepared in 2018 but there is no progress thereafter. This shows a completely irresponsible attitude of the respondents towards keeping the Kharkai river clean and keeping the water quality within the prescribed parameters.

We direct the respondents to ensure that the STP is set up within 6 months i.e. by 15.04.2024.

15. For Adityapur Municipal Corporation, the report mentions that the total number of sewage drains/ discharge points into river Kharkai is 08. The total quantum of discharge of sewage in the Kharkai river is 14 MLD. Total quantum of treated sewage discharged in river Kharkai is shown as NIL. Total quantum of untreated sewage being discharged in river Kharkai is stated to be 11 MLD. 3 MLD capacity STP is stated to be constructed in NIT, Jamshedpur. A 36 MLD - 4 STPs are stated to be under construction under the AMRUT Scheme.

We direct the State Respondents to ensure that the 4 STPs are setup within 6 months i.e. by 15.04.2024.

16. For the Rural Block area of East Singhbhum, the total number of sewage drains/discharge points into the river Subarnarekha is shown as one at Musabani Block. Total quantum of discharge of sewage into the Subarnarekha river is shown as 10 cubic liters (Musabani Block). Total quantum of treated sewage being discharged in Subarnarekha river is shown as NIL. Total quantum of untreated sewage being discharged in Subarnarekha River is shown as NIL. There is no STP plant nor is there any proposed plan for setting up of STP which is shown as NIL.

We, therefore, direct the Respondents to ensure that STP is set up in the Rural Block area of East Singhbhum within 6 months i.e. by 15.04.2024.

17. The Respondents are directed to file a Compliance Report positively by 30.04.2024. The District Magistrate, East Singhbhum is directed to file a Compliance Report by 30.04.2024.
18. With the aforesaid directions, the Original Application No.**144/2023/EZ** is accordingly disposed of.
19. Interlocutory Applications, if any, stand disposed of accordingly.
20. There Shall be no order as to costs.

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B. Amit Sthalekar, JM

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Dr. Arun Kumar Verma, EM

October 11, 2023,
Original Application No.144/2023/EZ
SKB