

**IN THE HON'BLE NATIONAL GREEN TRIBUNAL,  
EASTERN ZONE BENCH, KOLKATA.**

**O.A. NO. 25/2024/EZ**  
(Earlier O.A No.755/2023/PB)

In re: News item appearing in  
"The Hindu" dtd.21.12.2023 titled  
"6 dead, 1000 infected in suspected  
cholera outbreak in Rourkela" ... **Applicant(s)**

-Versus-

District Magistrate, Sundargarh  
(Rourkela) & Others ... **Respondents**

**I N D E X**

SL. No.	DESCRIPTION OF DOCUMENTS	PAGE
1	Counter Affidavit filed by the Collector & District Magistrate, Sundargarh, Respondent No.1.	1 - 12
2	<b><u>COMMITTEE REPORT</u></b> Copy of Joint Inspection Report of the committee dtd.09.02.2024 along with its Annexures.	13 - 21
	<b><u>ANNEXURE-1</u></b> .....	22 - 81
	<b><u>ANNEXURE-2</u></b> .....	- 82 -
	<b><u>ANNEXURE-3</u></b> .....	83 - 84
	<b><u>ANNEXURE-4</u></b> .....	85 - 142

Cuttack

By the Respondent No.1 through

Date: 18.04.2024

  
Advocate

**IN THE HON'BLE NATIONAL GREEN TRIBUNAL,  
EASTERN ZONE BENCH, KOLKATA.**

**O.A. NO. 25/2024/EZ**  
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In re: News item appearing in  
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**-Versus-**

District Magistrate, Sundargarh  
(Rourkela) & Others ... **Respondents**

**COUNTER AFFIDAVIT FILED BY  
COLLECTOR & DISTRICT MAGISTRATE,  
SUNDARGARH, RESPONDENT NO. 1 IN O.A.  
NO.25/2024/EZ (EARLIER O.A NO.755/2023/PB)**

I, Dr. Parag Harshad Gavali, aged about 38 years, S/o. Harshad Gavali, at present serving as Collector & District Magistrate, Sundargarh, At/P.O./Dist. Sundargarh, do hereby solemnly affirm and state as follows:-

1. That, I have been arrayed as Respondent No.1 in the aforesaid Original Application and well acquainted with the facts of the case and swear this affidavit.
2. That, I have gone through the Original Application as well as the documents annexed thereto and understood the contents thereof. I am well acquainted with the facts of this case on the basis of official records.

*Parag Harshad Gavali*  
Collector  
Sundargarh

3. That, it is respectfully submitted that this Hon'ble Tribunal registered suo-motu case bearing O.A. No. 25/2024/EZ (Earlier O.A. No. 755/2023/PB) on the basis of a news item titled "6 dead, 1000 infected in suspected cholera outbreak in Rourkela" published in "The Hindu" on 21.12.2023. The disease was suspected to be caused by water contamination leading to severe health complications among the affected peoples. Six places in Rourkela have been identified as hotspots for diarrhoea infection. As per the reports, it is suspected that the infection had been spread through rupture in water supply pipes.

4. That, it is respectfully submitted that the following is the brief background and steps taken by the district administration to control the diarrhoea outbreak:-

**Background:** The Superintendent of Rourkela Govt. Hospital (RGH) informed the Chief District Medical & Public Health Officer (CDM&PHO), Sundargarh on 15<sup>th</sup> December, 2023, that diarrhoea cases hospitalization has been increasing since past few days. On 15<sup>th</sup> December, 2023, F.N., the District Public Health Officer (DPHO), Sundargarh rushed to Rourkela and conducted a situation assessment. On 16<sup>th</sup> December, 2023, the early warning signal (EWS/Alert for Outbreak) report was received from ADUPHO, Rourkela. As the cases were focal and sporadic in nature, they were treated and discharged

*Manish Kumar*

*Manish Kumar*

Collector  
Sundargarh

*Parrag*

from the hospital after being cured. Following the EWS report, epidemiological investigation was conducted.

It is respectfully submitted that the Collector and District Magistrate, Sundargarh, convened a meeting on 16<sup>th</sup> December, 2023, including all stakeholders i.e. CDM&PHO, Commissioner, Rourkela Municipal Corporation, Director, IGH, Director/Superintendent, RGH, ADUPHO Rourkela, General Manager, WATCO, Sub-Collector, Tahasildar etc. to review the situation. The district administration promptly initiated measures to provide immediate medical care to patients, conduct extensive IEC/outreach activities, and contain the outbreak.

**STEPS TAKEN BY DISTRICT ADMINISTRATION.**

**(A) Surveillance and Outreach:** To strengthen surveillance and outreach activities at the community level, the CDM&PHO mobilized medical manpower from nearby blocks. ADUPHO, Rourkela was declared as the Nodal Officer for the same. A mobile health team with Ayush Doctors, Pharmacists, Laboratory Technicians, and Health Workers was dispatched to ADUPHO, Rourkela. Four (4) Public Health Managers (PHM) and two District Public Health Communication Officers (DPHCO) were deployed for community-level sensitization activities. They conducted 262 and 78 numbers of sensitization meetings respectively. 13 Rapid Response Teams (RRT) comprising medical and

Parag Harshad Gavali  
Collector  
Sundargarh

paramedics staff were deployed to conduct medical camps at the field level. In the Rourkela Urban area, they visited the houses of each and individual patient for surveillance and primary treatment. The medical camps were conducted as per hotspot area updated based on daily reports by the RRT team and hospitalized case load. Antidiarrheal medicine and ORS powder packets were distributed. The RRTs visited the field as per the daily micro plan prepared based on daily hotspot areas. Fifty-four health workers (Female), 208 ASHA workers, and 447 Mahila Arogya Samiti (MAS) groups were engaged for house-to-house visits.

They conducted frequent community-level meetings for sensitization on hand hygiene, safe drinking water, environmental sanitation, use of toilets, and improving health-seeking behaviour to attend health facilities at the earliest.

**(B) Daily Reporting:** Field activities data and hospitalization information are reported by ADUPHO, Rourkela, every day to DPHO, Sundargarh. The data was analysed by the District Surveillance Unit and further reported to higher authorities such as CDM&PHO, the Collector & District Magistrate, and the Director of Public Health, Odisha. Tracking of hotspot areas was undertaken to detect new cases early by forming mobile health teams comprising ASHA workers, health workers, and doctors who conducted

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Collector  
Sundargarh

household-level surveys daily. Two state-level health officers were deployed by the Director of Public Health, Odisha to monitor the surveillance activity.

**(C) Information, Education & Communication (IEC):** 10 IEC vans with a public address system were deployed for the propagation of preventive health awareness messages. 20 hoardings were displayed at various key places in the city. An emergency contact number (7077311234) was circulated in the community as a single point of contact for all outbreak related information and guidance.

**(D) Treatment & Outsourcing of Medical Professionals:** To ensure prompt and effective treatment and augment human resources at Rourkela Government Hospital (RGH), 5 specialist doctors from SCB Medical College, Cuttack, and 4 specialist doctors from Govt. Medical College, Sundargarh, and one medicine specialist from nearby CHC were deployed to Rourkela Govt. Hospital to support the treating doctors. During the diarrheal disease outbreak, 150 extra beds were prepared at Rourkela Govt. Hospital to provide dedicated treatment to patients. State health authorities instructed private referral hospitals with ICU facilities such as JP Hospital, Ispat General Hospital, and Hi-Tech Medical College Hospital in Rourkela to offer free treatment to these patients. Additionally, 30 beds at UHC in Panposh and 02 beds each at 10 UPHCs in Rourkela were made

*Parag*  
*Manish*  
*Garali*  
Collector  
Sundargarh

available for 24/7 service. To ensure round-the-clock functionality of UPHCs and UCHC, Rourkela received 30 MBBS doctors, 05 Ayush Doctors, 28 Nursing Officers, 11 Laboratory Technicians, and 08 Pharmacists. SOP was prepared by a team of doctors to ensure uniform treatment standards are maintained at government and private hospitals both. Treatment was **free of cost** at government hospitals and patients referred from government hospitals to private hospitals.

**(E) Free Ambulance Services:** Ten dedicated ambulances were stationed 24/7 at 10 UPHCs for emergency patient transportation services. Ambulances were also stationed at Rourkela Govt. Hospital.

**(F) Medicines:** Additional stocks of medicines, testing kits, bleaching powder, were provided from OSMCL warehouse under the Government of Odisha in adequate quantities. There was no stockout situation at any time. Logistics availability was monitored on a daily basis.

**(G) Testing:** Laboratory tests of collected samples (Rectal Swab and Water) are conducted at District Public Health Laboratory (DPHL), Sundargarh. Total 492 rectal swabs were taken and out of these 135 show positive signs of infection. All other relevant tests were done in RGH or the hospital of admission. Laboratory tests confirmed presence of V. Cholera in few of the samples.

Parag Manishod Gouderi  
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Sundargarh

**(H) Control and Command Structure:** Overall supervision was done by the Collector, Sundargarh, Commissioner, Rourkela Municipal Corporation was nodal person stationed at Rourkela and coordinated with various agencies like Health Department, WATCO, Private Hospitals etc. CDM&PHO, Sundargarh, oversaw all health activities, while ADUPHO, Rourkela, served as the Nodal Officer for supervising surveillance and IEC activities at the field level. The Superintendent of Rourkela Govt. Hospital supervised the treatment, whereas the Associate Professor of Community Medicine at Govt. Medical College, Sundargarh, coordinated the line listing of patients at different levels. At Rourkela Govt. Hospital, Senior Medicine Specialist was kept in charge of patient treatment, and the one Senior Eye Specialist facilitated patient referrals to other hospitals. The District Public Health Officer, Sundargarh coordinated the data reporting process.

**(I) Water Supply:** A team headed by the Sub-Collector, Panposh was formed to check for leakages, defects etc. in the piped water supply system. They visited various places in Rourkela and identified such defects and ensured rectification of the same within 24 hours. During the outbreak, number of defects were identified and rectified. Public health teams conducted water sampling from various drinking water sources, including pipe water supply taps and tube wells. They

Parag Marshud Gavalik  
Collector  
Sundargarh

performed H<sub>2</sub>S tests on the samples and detected organic contamination.

Additionally, Ortho-toluidine (OT) tests were conducted to assess chlorine levels in drinking water. Water quality testing was carried out extensively across hotspot areas by UPHC/UCHC, Jal Sathis and laboratory technicians to identify contamination. A dedicated team from UCHC, Panposh, visited different hotspot areas for this purpose. Furthermore, the health officer of Rourkela Municipal Corporation conducted water quality testing in different wards with his staff. This was done in coordination with the WATCO. GM, WATCO ensure the chlorination is done as per standards and did daily water testing through Jal Sathis and departmental staff. CEO, WATCO was stationed in Rourkela during the outbreak to supervise the situation.

**(J) Food Safety Measures:** Three (3) Food Safety Officers were deployed to Rourkela to support the existing 3 Food Safety Officers there for the enforcement of food safety activities. They inspected food establishments and vendors in the hotspot areas. Food samples were collected by them and were sent for analysis to the State Food Testing Laboratory, Bhubaneswar. A mobile food testing laboratory was also put into operation.

**(K) State Level Monitoring:** The Principal Secretary of the Department of Housing and Urban Development

Parag Karshid Gawali  
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Sundargarh

and Commissioner-cum-Secretary of the Health and Family Welfare Department, Government of Odisha, along with the Director of Health Services (Odisha) and Director of Public Health (Odisha), visited Rourkela on 20.12.2023 to review arrangements to control Diarrhoea Outbreak. Daily monitoring was done till control of the outbreak.

**(L) Current Status:** During the outbreak, there were total 1321 hospitalized cases out of the total detected cases of 3148. Number of deaths related to diarrhea was 9. Since January 2024, the number of cases of diarrhea has gone down drastically and the outbreak is under control.

5. That, it is respectfully submitted that in compliance of the Order dtd.25.01.2024 passed by this Hon'ble Tribunal, a joint committee was constituted on 09.02.2024 to inspect and verify the possible causes of spread of Cholera disease in the area and its prevention measures.

- a) Dr. Parag Harshad Gavali, IAS, Collector & District Magistrate, Sundargarh.
- b) Er. Prasanta Kumar Mohapatra, Engineer-in-Chief, Odisha Water Supply & Sewerage Board, Bhubhaneswar.
- c) Dr. Debdutta Bhattacharya, Deputy Director/SEE, Indian Counsel of Medical Research, RMRC, Bhubhaneswar.

Parag Harshad Gavali  
Collector  
Sundargarh

- d) Dr. Ashok Paikray, JD, IDSP, O/o. DPH, Health & Family Welfare Department, Government of Odisha.
- e) Sri Sarat Chandra Mishra, COO, Water Corporation of Odisha (WATCO), Government of Odisha
- f) Er. Pareswar Jena, Addl. Chief Engineer, O/o. EIC, PH, Circle, Bhubaneswar, Public Health and Engineering Organization, Government of Odisha.
- g) Dr. Anup Kumar Mallick, Addl. Chief Environmental Scientist and Regional Officer, SPCB, Rourkela, Odisha.

It is humbly submitted that, as per the direction dtd.25.01.2024 of this Hon'ble Tribunal passed in Original Application No.25/2024/EZ, the joint committee have inspected the area in question on 09.02.2024 and submitted the Joint Inspection Report.

Copy of Joint Inspection Report of the committee dtd.09.02.2024 along with its enclosures is annexed herewith as **ANNEXURE-R/1 Series**.

On the day of inspection, Collector & District Magistrate, Sundargarh could not able to attend the joint committee visit due to his personal appearance before the Hon'ble High Court of Odisha, Cuttack. Further, the Collector & District Magistrate, Sundargarh along with Addl. Chief Environmental Scientist and Regional Officer, SPCB, Rourkela,

Pannag Manshud Gowari

Collector  
Sundargarh

Odisha again visited all the water intake points, water treatment plants, various distribution system and other concerned areas.

6. That, it is respectfully submitted that as per the recommendation of the committee, the following remedies are taken by the District Administration like:-

- a) All water intake points were made free from any type of debris and intake pump were covered with double layer MS screen barricade. Regular/ periodical cleaning was done near the intake well to maintain the free flow of water and to reduce the load of bacteria growth on the river water.
- b) It was proposed to upgrade the water treatment plant with automatic operating system to ensure water quality of the supplied water which is under consideration.
- c) Adequate measures have been taken to deploy Trained & skilled personnel at all the water treatment plants for proper operation & supervision.
- d) Full proof mechanism has been developed by the District Administration to collect sample from the end user points to analyse different water supply pipe network to detect the water leakage points if any, to reduce contamination points & water leakage.

7. That, it is respectfully submitted that the present deponent is duty bound to carry out the orders and/or directions passed by this Hon'ble Tribunal in letter and spirit.

8. That, the contents of the above paragraphs are true and correct to the best of my knowledge as derived

Parag Manishud Gavauli

Collector  
Sundargarh

from the official records and that nothing material has been concealed therefrom.

Identified by

*[Signature]*  
Advocate

*Parag Harshad Gavali*  
DEPONENT  
Collector  
Sundargarh

**VERIFICATION**

I, Dr. Parag Harshad Gavali, aged about 38 years, S/o. Harshad Gavali, at present serving as Collector & District Magistrate, Sundargarh, At/P.O./Dist. Sundargarh, do hereby verify that the contents of the above affidavit are true and correct to the best of my knowledge as derived from official records and that nothing material has been concealed therefrom.

Verified at Sundargarh on this the 18<sup>th</sup> day of April, 2024.



*Parag Harshad Gavali*  
Collector  
Sundargarh

VERIFICANT

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18/04/2024

The above named deponent is well knowned to me who is appeared in my court on Dt 18.04.2024 at 11 AM and state an oath that the contents of this affidavit is true to the best of his knowledge.

*[Signature]*  
18.4.24  
Executive Magistrate  
O/o : Sub-Collector, Sadar  
Sundargarh

Joint Inspection Report of the Committee constituted under para 9 of the Order Dtd. 25.01.2024 of Hon'ble National Green Tribunal, Eastern Zone Bench, Kolkata in the matter of Original Application No.25/2024/EZ (Earlier O.A. No.755/2023/PB) in Re: News item appearing in The Hindu Dtd. 21.12.2023, titled "6 dead, 1000 infected in suspected cholera outbreak in Rourkela"

In response to the order dated 25.01.2024 of Hon'ble National Green Tribunal, Eastern Zone Bench, Kolkata in the matter of Original Application No.25/2024/EZ (Earlier O.A. No.755/2023/PB) - in Re: News item appearing in The Hindu Dtd. 21.12.2023 titled "6 dead, 100 infected in suspected cholera outbreak in Rourkela" vs. District Magistrate, Rourkela & Others, the committee constituted under para 9 of the order comprising of following authorized officials jointly inspected on dtd.09.02.2024 in & around the water intake points, water treatment plants and various areas of Rourkela city to verify the possible causes of spread of cholera disease in the area and its prevention measures. Prior to the filed visit, a preparatory meeting was held in the office chamber of the Regional Officer, SPCB, Odisha, Rourkela between committee members;

- I. Dr. Gavali Parag Harshad, IAS, Collector and District Magistrate, Sundargarh
- II. Er. Prasanta Kumar Mohapatra, Engineer in Chief, Odisha Water Supply & Sewerage Board, Bhubaneswar
- III. Dr. Debdutta Bhattacharya, Deputy Director/ SEE, Indian Council of Medical Research, RMRC, Bhubaneswar
- IV. Dr. Ashok Paikray, JD, IDSP, O/o DPH, Health and Family Welfare Department, Government of Odisha
- V. Shri Sarat Chandra Mishra, COO, Water Corporation of Odisha (WATCO), Government of Odisha
- VI. Er. Pareswar Jena, Addl. Chief Engineer, O/o EIC, PH Circle, Bhubaneswar, Public Health and Engineering Organization, Government of Odisha,
- VII. Dr. Anup Kumar Mallick, Addl. Chief Environmental Scientist and Regional Officer SPCB, Rourkela, Odisha

On the day of inspection, Collector and District Magistrate, Sundargarh could not able to attend the joint committee visit due to his personal appearance before the Hon'ble High Court of Odisha, Cuttack. Further, Collector and District Magistrate, Sundargarh along with Addl. Chief Environmental Scientist and Regional Officer SPCB, Rourkela, Odisha again

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Assistant Collector Judicial  
Collectorate, Sundargarh

-14-

- catchment area with a distribution length of around 809.09 kilometres (approximately). Around 981 roadside stand posts are there.
- The main sources of supply of water in Rourkela are the rivers Brahmani & Koel. WATCO has 6 nos. of raw water treatment plants with a capacity of 109.80 MLD. WATCO has provided 47,677 numbers of house connections in the RMC area with a distribution length of around 809.09 kilometres (Approximately). Around 981 road side stand posts are there.
- There is a sudden increase in number of diarrhoea cases in Rourkela city since 11.12.2023, the District Administration through its stake holders, had taken all precautionary, control & further prevention measures to get rid over the situation. Further, the stool samples collected on 16.12.2023 were sent to District Public Health Laboratory at Sundargarh, who confirmed the presence Vibrio Cholerae in the rectal swabs.
- The outbreak of Acute Gastroenteritis (AGE) in Rourkela during December 2023 was caused by Vibrio cholerae O1 as it was the major bacterial pathogen isolated from most of the clinical cases.
  - a) Vibrio cholerae is a species of Gram-negative, facultative anaerobe and comma-shaped bacteria.
  - b) During infection, V. cholerae secretes cholera toxin (CT), a protein that causes profuse, watery diarrhoea (known as "rice-water stool").
  - c) V. cholerae has 2 serogroups called O1 and O139 which are responsible for cholera outbreaks.
  - d) Infection is mainly through drinking contaminated water and is linked to sanitation, hygiene and chances of contamination through the leakage points in water supply line to the households and slum area. When ingested, it invades the intestinal mucosa which can cause diarrhoea and vomiting in a host within several hours to 2-3 days of ingestion.
- As the diarrhoea is a water borne disease and based on the V. cholerae positive samples in the city, a spot map was generated and accordingly action plan was prepared and executed for control & prevention of diseases. V. cholerae infection happen in the city and around the slum areas under Rourkela. In the meantime, Rourkela Municipal Corporation had detected & reported 60 water leakage points

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Page 3 of 9



Assistant Collector Judicial  
Collectorate, Sundargarh

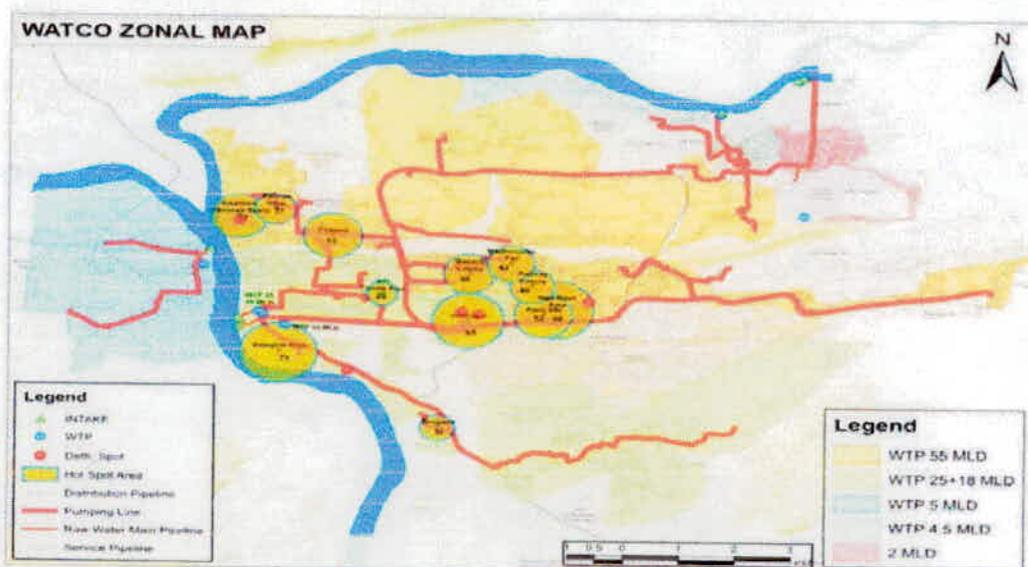
- 15 -

visited all the water intake points, water treatment plants, various distribution system and other concerned areas.

Besides above Dr. Kanhu Charan Nayak, D.P.H.O., Sundargarh and Smt. (Dr.) Pushpamitra Mishra, ADUPHO, Rourkela, and Er. P. K. Mohanty, GM, Water Corporation of Odisha (WATCO) also accompanied the committee members during site visit.

#### Background:-

- Rourkela City is a Municipal Corporation in the district of Sundargarh and spreads over 53.3 square km and has 40 wards with 71,368 households out of which 41,837 are slum households which reside in 105 slums. The total present population of Rourkela would be around 4,92,205 approximately.
- Besides Rourkela Municipal Corporation area, Rourkela city has another urban township area namely Rourkela Steel Plant Township of Rourkela Steel Plant of M/s. Steel Authority of India Ltd. with 18 numbers of residential sectors i.e., sector No.1 to 9 and sector No.13 to 22 spreading over 34 sq. Km . There are 24000 nos. of households and 223 nos of slums. However, there is no such outbreak of cholera disease in Steel Township area.
- The Water Corporation of Odisha (WATCO) wholly-owned, not-for-profit Company of the Government of Odisha, is engaged for supplying water in the households of Rourkela Municipal Corporation of Area. Out of 40 wards of Rourkela Municipal Corporation, 37 wards have been fully covered by WATCO water supply and 3 wards (ward no: 1,2 & 3) are partly covered. WATCO has 6 treatment plants with a capacity of 109.80 MLD. WATCO has provided 47,677 numbers of house connections in the



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Page 2 of 9

  
 Assistant Collector Judicial  
 Collectorate, Sundargarh

in different wards under RMC area. The leakage points have been repaired by WATCO on war footing basis.

**Immediate Action Taken By District Administration, Rourkela Municipal Corporation and Health & family welfare department**

The action taken to control & prevent the disease by the District Administration, Rourkela Municipal Corporation and Health & family welfare department are as follows

- a) Dedicated beds round the clock were provided in Rourkela Govt. hospital & Private hospitals for ADD patients. 223 Nos. of Medical camps were conducted at the hot spot areas.
- b) Daily monitoring & supervision were conducted by CPMU staff along with ADUPHO, Panposh.
- c) During Outbreak situation 13 nos. of MO MBBS & 5 nos. of MO AYUSH, 28 nos. of Nursing Officers, 11 nos. of LTs & 8 nos. of Pharmacists were deputed to Rourkela for functionalization of 24X7 OPD services at UPHC & UCHC level.
- d) Monitoring by City, District & state level authority during the ADD outbreak.
- e) 4 Asst. Prof from SCB, Medical college & Hospital & 4 Asst. Prof were deployed from GMCH Sundargarh (Medicine -1, Pead -1, Community Med -1 & Microbiology -1)
- f) Treatment of all diarrhoea patients of the district made free in any BSKY patients referred through Govt. Hospital.
- g) Visit by Epidemiologist and Microbiologists from ICMR-RMRC, Bhubaneswar, collection of clinical samples by them for laboratory confirmation of etiological agents.
- h) Monitoring by Central team during the ADD outbreak.
- i) Private health Institution Institutional strengthening.
- j) Availability of drugs supply.
- k) Ambulance services for Emergency Transportation Functionalization of 24x7 urban Health Institution.
- l) Deployment for 24x7 functionalization of urban outbreak situation under Rourkela.
- m) Massive drive is going on by HW (F) & ASHA along with RRT team, everyday house to house visited in the affected areas & distributed ORS packet, Zink tablet & along with for safe drinking water, halazone tablet in every household.
- n) In the House-to-House visit field level staff counsel for safe drinking water (after boiling of 20 minutes) & hand hygiene practices.
- o) Free Medical Camps conducted in the hot spots.

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Page 4 of 9

  
Assistant Collector Judicial  
Collectorate, Sundargarh

- p) Public Health Division of Rourkela Municipal Corporation, Rourkela had conducted various surveys on food & safety as well as awareness programme and the copy of report is enclosed for kind reference.
- q) Further the action taken report of various departments are enclosed herewith for kind reference of Hon'ble NGT as annexure -I.

**Observations of the Committee:**

**A. Water Treatment Plant at Koelnagar**

1. Intake well (01 Number) and 0.75MLD Water Treatment Plant at Koelnagar (Lat: 22°16'1.00"N & Long: 84°53'8.00"E) of WATCO was visited by the committee. Water is pumped from Koel River. Regular/ periodical cleaning near the intake well area was not carried out
2. Water treatment plant comprises of cascading aeration system, mixing channel, clariflocculator, settling tank, sand bed filter and treated water tank with chlorination system.
3. Backwash of sand bed filters and underflow of clariflocculator and settling tank flushed back to the river, upstream to the intake point. Algae were observed to be deposited on surface of the mixing channel, aerator and settling tank.
4. Chlorination system has been provided at the treated water tank. No online water quality monitoring system has been provided to ensure the water quality of the supplied water on real time basis in the water supply network.

**B. Water Treatment Plant at Jhirpani**

5. Water Treatment Plant at Jhirpani (Lat:22°16'28.00"N& Long: 84°53'57.30"E) of WATCO is of 2MLD capacity. It has one intake point. Water is pumped from Koel River.
6. Water treatment plant comprises of cascading aeration system, mixing channel (lime and alum feeding), settling tank, sand bed filter and treated water tank with chlorination system.
7. Backwash of sand bed filters and underflow of settling tank flushed back to the river, downstream to the intake point.
8. Open defecation was observed near the water intake point. Dumping of household/municipal waste near water intake point was observed.

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Assistant Collector Judicial  
Collectorate, Sundargarh

- 18 -

9. Chlorination system has been provided at the treated water tank. No online water quality monitoring system has been provided to ensure the water quality of the supplied water on real time basis in the water supply network.

**C. Water Treatment Plant at Panposh (In front of Rourkela One building of RMC)**

10. Water Treatment Plant at Panposh (Lat:22°13'14.00"N & Long: 84°48'37.00"E) of WATCO is of 55MLD capacity. Water is pumped from Brahmani River.

11. Automation of this plant was under progress. Online water monitoring system was being installed.

**D. Water Treatment Plant at Panposh (near Hockey Chowk)**

12. Water Treatment Plant at Panposh inside WATCO Campus (Lat: 22°22'31.00"N & Long: 84°80'69"E) of WATCO is of 43MLD (18MLD+25MLD) capacity. It has two intake points. Water is pumped from Brahmani River near Circuit House.

13. Water treatment plant comprises of cascading aeration system, mixing channel (lime and alum feeding), settling tank, sand bed filter and treated water tank with chlorination system.

14. Backwash of sand bed filters and underflow of settling tank flushed back to the municipality drain, downstream to the intake point.

15. During joint inspection, water sample from various sources, water treatment plant Outlets, end user points (outbreak of cholera in December-2023) were collected by the Regional Office, Rourkela, SPCB, Odisha. Analysis report of the water sample collected during visit are enclosed as Annexure-II.

**E. Water Treatment Plant at Vedvyas (near Vedvyas temple)**

16. Water Treatment Plant at Vedvyas near Vedvyas temple (Lat: 22°22'31.00"N & Long: 84°80'69"E) of WATCO is of 4.5MLD capacity. It has one intake points. Water is pumped from Brahmani River.

17. Water treatment plant comprises of cascading aeration system, mixing channel (lime and alum feeding), settling tank, sand bed filter and treated water tank with chlorination system.

18. It was learnt from the WATCO official that the treated water is being supplied to Jharatarang and Brahmanitarang area which is outside of Rourkela City.

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Page 6 of 9

  
Assistant Collector Judicial  
Collectorate, Sundargarh

-19-

▼ Other Observations: -

- At present there is no cases of Cholera outbreak in Rourkela city as per the report of Health & family Welfare Department, Govt. Of Odisha.
- The Water Corporation of Odisha (WATCO) has been operating a Sewage Treatment Plant of Capacity 40 MLD near Balughat, Rourkela for treatment of domestic wastewater generated from Rourkela City. SPC Board, Odisha has been monitoring quality of River Water Brahmani, Sankh & Koel River etc. and the water quality of Sewage Treatment Plant of Capacity 40 MLD of Rourkela City on monthly basis at strategic points for the parameters related to Pollution as per the standard specified by CPCB and MoEF & CC, Government of India. Analysis Reports for the last three months of STP and Water quality of river Brahmani & Koel are enclosed for kind reference as Annexure-III.
- The Baikuntha burning ghat and clogging of water near the intake point of Water Treatment Plant at Koelnagar is resulting in accumulation of debris which may provide ideal environment for growth and proliferation of bacterial pathogens and coliforms.
- The water treatment plant and surrounding areas was found very dirty and may be regularly cleaned to avoid any cross contamination.
- The 3rd party laboratory which was responsible for testing of the water samples from the treatment plants was not NABL accredited neither they have any External Quality Control (EQAS) or Internal Quality Control (IQC) in place to ensure the quality control. The laboratory staffs were also not having any Standard Operating Procedure (SOP) in place for the testing of water quality. The instruments used in the laboratory did not have any calibration certificate.
- During the day of inspection, it was observed that adequate Chlorine dosing was carried out at all the water treatment plant outlets. The water samples were collected from various intake points, water treatment plants outlets and other end user locations and sealed water samples were sent to Central Laboratory of SPCB, Odisha, Head Office, Bhubaneswar for analysis of pH, BOD, COD, TDS, residual Free chlorine, Total Coliform Bacteria and Fecal Coliform bacteria. As the water samples were not analysed during sampling for residual Free chlorine and were analysed at Central Laboratory of SPCB, Odisha, Bhubaneswar, there might be loss of residual free chlorine in the water sample which is revealed from the analysis reports.

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Page 7 of 9

  
Assistant Collector Judicial  
Collectorate, Sundargarh

-20-

- It is also revealed from the analysis reports that Fecal Coliform bacteria is absent in the water samples of all the treatment plant outlets and different end user locations of the supplied water. However, Total Coliform is present only in the outlet of 43 MLD Water Treatment Plant, Panposh (near Hockey Chowk) which might be due to presence of chlorine resistant Coliform. The concentration of other parameters like pH, TDS & Fluoride etc. in the water samples collected at different end user locations of the supplied water are within the prescribed standard as per IS 10500:2012 for drinking water. Analysis reports are enclosed for kind reference as Annexure-IV.

### Recommendations:

Considering the aforesaid facts, findings and in view of the above observations, the committee is of the opinion that there are possible chances of contamination of water through the aforesaid leakage points/treated water storage tank and inadequate chlorine dosing after contamination. The Committee recommends the following points for further prevention of such outbreak of waterborne diseases in Rourkela

1. All water intake points should be free from any type of debris and intake pump shall be covered with double layer MS screen barricade. Regular/ periodical cleaning near the intake well area shall be carried out so that there shall be free flow of water near the water Intake pump point to reduce the load of bacteria growth on the river water.
2. All the water treatment Plants shall be upgraded with automatic operating system using Scada or PLC based with automatic chlorine dosing system to ensure water quality of the supplied water.
3. The outlet of all WTPs shall be installed with online water quality (for drinking water standards) monitoring system and facility shall be provided to store online data in a central server.
4. Trained, skilled and adequate personnel shall be deployed at all the water treatment plants for proper operation. Proper monitoring and supervision of the treatment plants along with maintenance of log book (manual/e-log) for each activity and to be signed by a senior officer on weekly basis to ensure the quality of drinking water supply.
5. A full proof mechanism shall be developed to collect sample from the end user points

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Page 8 of 9

  
Assistant Collector Judicial  
Collectorate, Sundargarh

- 21 -

and analysed of different water supply pipe network to detect the water leakage points, Contamination points and possible water leakage points through the proper planned preventive maintenance to ensure water quality at end user points.

6. A NABL accredited laboratory may be entrusted for the water testing from the treatment plant and end users. The performance of the Laboratory shall be evaluated through Quality Control & Quality Assurance Mechanisms and parallel sampling through other NABL accredited laboratory time to time if felt necessary.

A review of implementation of recommended action points shall be carried out once in two months.



Shri P. K. Mohapatra, EIC,  
Odisha Water Supply & Sewerage Board,  
Bhubaneswar



Dr. Gavali Parag Harshad, IAS  
Collector and District Magistrate,  
Sundargarh, Odisha



Dr. A. K. Paikray, JD, IDSP,  
O/o DPH, Health and Family Welfare  
Department, Bhubaneswar



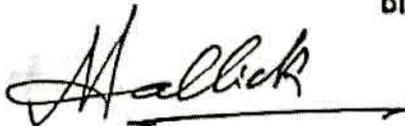
Dr. Debdutta Bhattacharya,  
Deputy Director/ Sc-E,  
Indian Council of Medical Research-RMRC,  
Bhubaneswar



Shri Pareswar Jena, ACE, O/o EIC, PH Circle,  
Bhubaneswar, Public Health and Engineering  
Organization,



Shri Sarat Chandra Mishra, COO, Water  
Corporation of Odisha (WATCO),  
Bhubaneswar



Dr. Anup Kumar Mallick,  
Nodal Officer,  
Addl. Chief Env. Scientist and Regional Officer  
State Pollution Control Board, Rourkela, Odisha

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Page 9 of 9



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**Detail report of Acute Diarrhoea Diseases (ADD) outbreak under RMC****Status Report of Suspected ADD OUTBREAK AT ROURKELA AS ON 22/01/2024**

DATE	NO OF CASES DETECTED AT CAMPS (RRT)	NO OF CASES DETECTED AT HOSPITAL (OPD)	TOTAL NO OF CASES DETECTED	TOTAL NO OF CASES HOSPITALISED	NO OF CASES DISCHARGED	NO OF CASES REFERRED	NO OF LAM A	NO OF DEATHS IF ANY	TOTAL CASES CONTINUING UNDER TREATMENT AT HOSPITAL	NO OF CRITICAL CASES
	A	B	C(A+B)	D	E	F	G	H	I	J
11.12.23	5	28	33	28	25	0	3	0	0	
12.12.23	9	35	44	35	34	0	1	0	0	
13.12.23	11	28	39	28	23	1	4	0	0	
14.12.23	15	26	41	26	24	0	2	0	0	
15.12.23	32	13	45	13	12	0	1	0	0	
16.12.23	78	111	189	111	92	4	12	3	0	
17.12.23	102	102	204	102	71	16	14	1	0	
18.12.23	166	264	430	148	129	4	13	2	0	
19.12.23	142	318	460	135	121	7	7	0	0	
20.12.23	120	207	327	85	74	4	7	0	0	
21.12.23	73	186	259	71	63	2	6	0	0	
22.12.23	66	155	221	66	54	6	6	0	0	
23.12.23	43	124	167	47	40	4	3	0	0	
24.12.23	23	84	107	24	14	3	4	3	0	
25.12.23	42	74	116	34	28	2	4	0	0	
26.12.23	6	70	76	25	21	1	3	0	0	
27.12.23	6	47	53	20	16	2	2	0	0	
28.12.23	4	26	30	21	18	0	3	0	0	
29.12.23	0	21	21	21	19	2	0	0	0	
30.12.23	2	28	30	28	20	7	1	0	0	
31.12.23	0	24	24	24	19	2	3	0	0	
01.01.24	0	18	18	18	18	0	0	0	0	
02.01.24	0	15	15	15	12	2	1	0	0	

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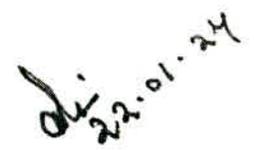
## Status Report of Suspected ADD OUTBREAK AT ROURKELA AS ON 22/01/2024

DATE	NO OF CASES DETECTED AT CAMPS (RRT)	NO OF CASES DETECTED AT HOSPITAL (OPD)	TOTAL NO OF CASES DETECTED	TOTAL NO OF CASES HOSPITALISED	NO OF CASES DISCHARGED	NO OF CASES REFERRED	NO OF LAM A	NO OF DEATHS IF ANY	TOTAL CASES CONTINUING UNDER TREATMENT AT HOSPITAL	NO OF CRITICAL CASES
	A	B	C(A+B)	D	E	F	G	H	I	J
03.01.24	1	17	18	17	12	3	2	0	0	
04.01.24	2	13	15	13	11	0	2	0	0	
05.01.24	0	21	21	21	19	1	1	0	0	
06.01.24	0	12	12	12	9	2	1	0	0	
07.01.24	0	10	10	10	7	0	3	0	0	
08.01.24	0	15	15	15	12	2	1	0	0	
09.01.24	0	7	7	7	5	2	0	0	0	
10.01.24	0	13	13	13	10	2	1	0	0	
11.01.24	0	14	14	14	12	1	1	0	0	
12.01.24	0	10	10	10	8	0	2	0	0	
13.01.24	0	10	10	10	6	4	0	0	0	
14.01.24	0	3	3	3	3	0	0	0	0	
15.01.24	0	9	9	9	5	0	3	0	1	
16.01.24	0	4	4	4	3	0	1	0	0	
17.01.24	0	9	9	9	8	0	1	0	0	
18.01.24	0	3	3	3	2	1	0	0	0	
19.01.24	0	9	9	9	7	0	1	0	1	
20.01.24	0	2	2	2	1	0	0	0	1	
21.01.24	0	5	5	5	0	1	1	0	3	
22.01.24	0	5	5	5	1	0	0	0	4	
<b>Cumulative Total</b>	<b>948</b>	<b>2195</b>	<b>3143</b>	<b>1316</b>	<b>1088</b>	<b>88</b>	<b>121</b>	<b>9</b>	<b>10</b>	

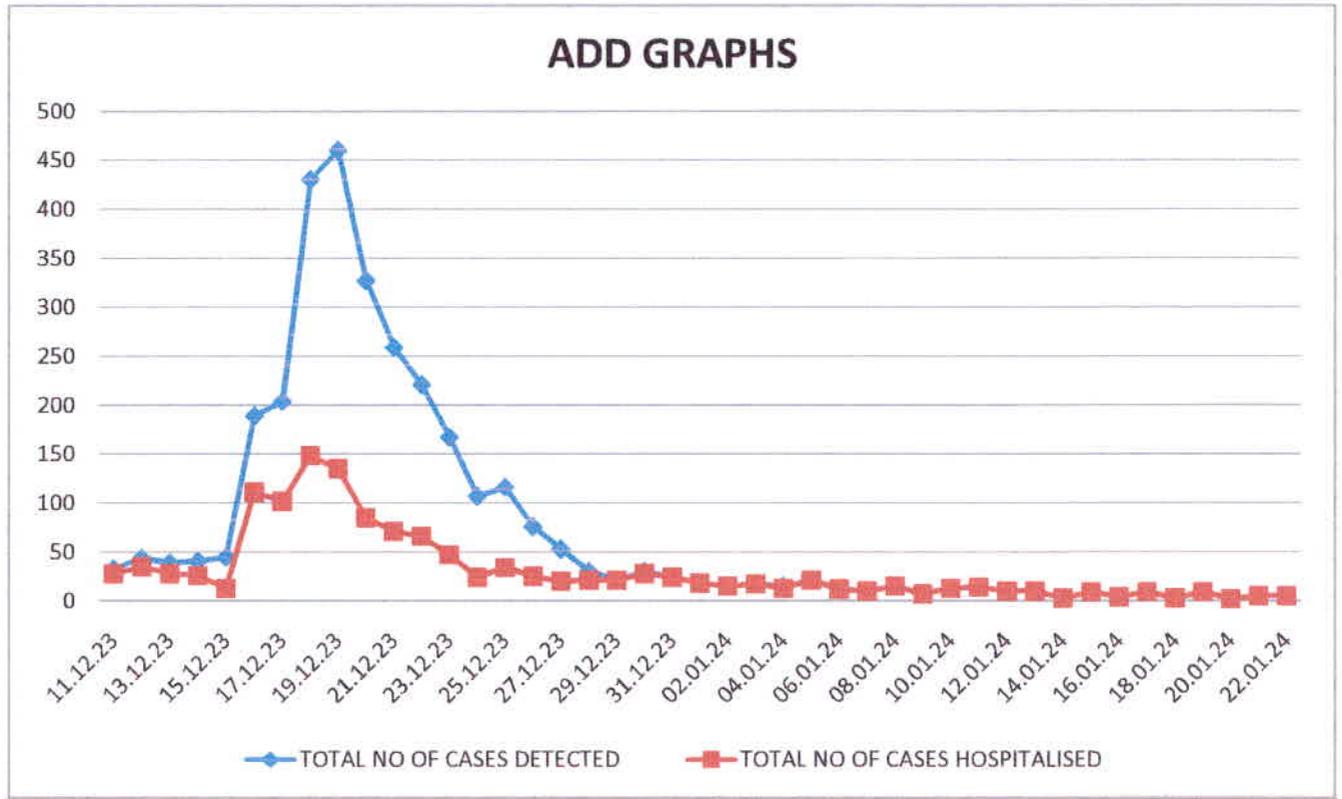
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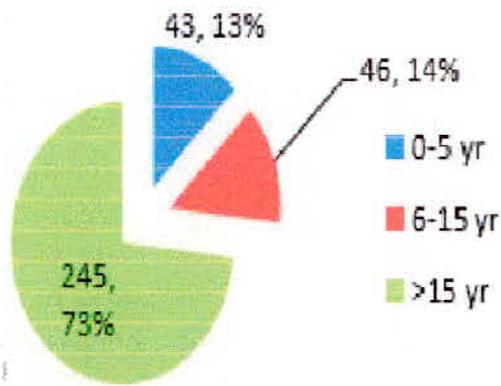
  
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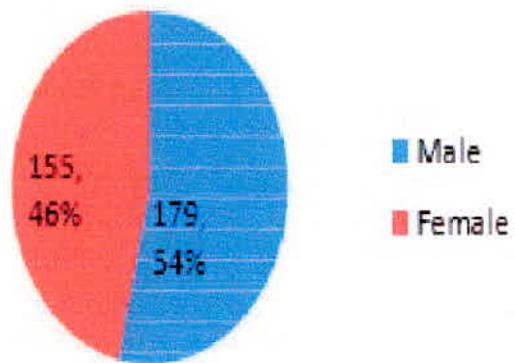


**Age and gender wise distribution of ADD (n=334)**

**Agewise ADD cases from 11/12/23 to 05/01/24**



**Genderwise ADD cases from 11/12/23 to 05/01/24**



3 | Page

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**DAILY HOT SPOT AREA(ACCORDING TO CASE LOAD AT GOVT & PRIVATE HOSPITAL) - ROURKELA URBAN ONLY**

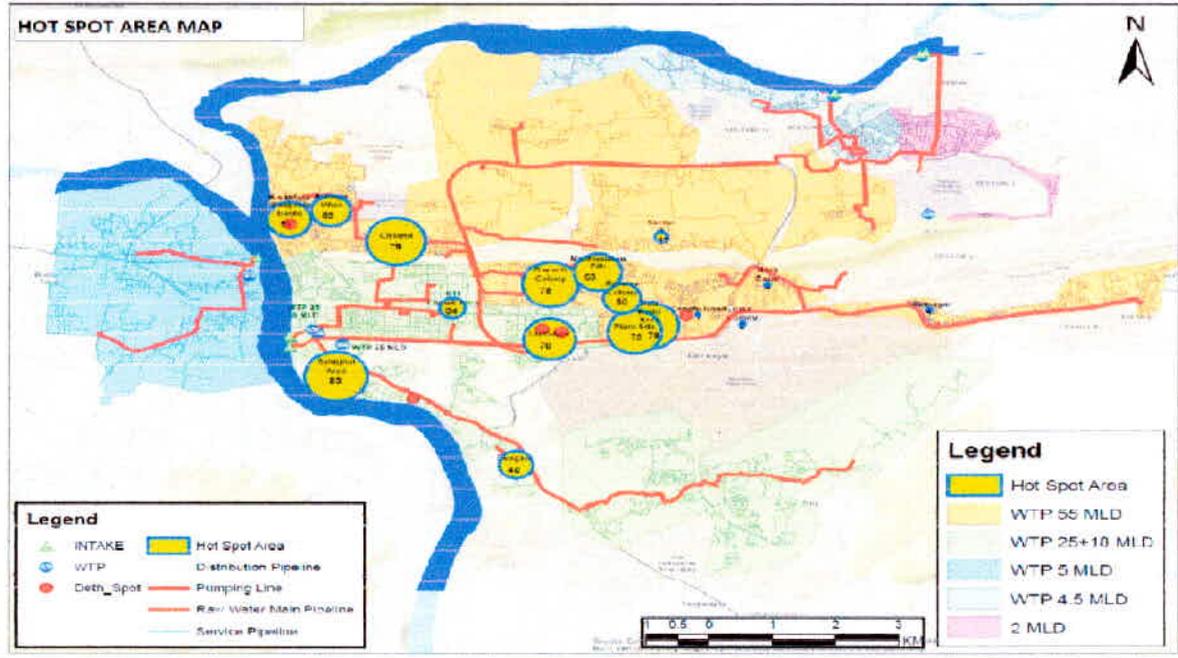
Sl. No.	AREA Name	U p t o																																		
		16-12-2023	17-12-2023	18-12-2023	19-12-2023	20-12-2023	21-12-2023	22-12-2023	23-12-2023	24-12-2023	25-12-2023	26-12-2023	27-12-2023	28-12-2023	29-12-2023	30-12-2023	31-12-2023	01-01-2024	02-01-2024	03-01-2024	04-01-2024	05-01-2024	06-01-2024	07-01-2024	08-01-2024	09-01-2024	10-01-2024	11-01-2024	12-01-2024	13-01-2024	14-01-2024	15-01-2024	16-01-2024			
1	Balughat	13	8	14	6	4	4								1	1		1	1																	
2	Deogaon	8	1	3	5	6	5	3		2		2			1		1		1		1															
3	Kisan Tola (panposh Basti)	3	2	2	1																															
4	Civil townshp						1	1	2			1																								
5	Kalinga Vihar	5	9	3	1	8	7	1	1	2	1																									
6	Chhend	9	2	1	2	1	4	4	2	2	1	4	1	1	1		1	1		1	1	2					1		1					1		
7	Basanti colony	9	1	1	1	7	9	9	6	7	2				2	2	1	1		2			1				1			1						
8	Railway Colony	4	9	6	1	1	0	3	1	1	2	1	2	1							1	2										1				
9	Malgodam						5	1	4	1	1	1	2	1	1				1		1							1								
10	MS Palli	9	2	5	1	2	1	1	2	1					1					1					1		1									
11	GBPALI						7	2	2				1		1	2	1		1																	
12	Nayabazar					3	1	1	1	1	1	1	1	1			1																			
13	STI Chowk	4	6	1	4	6	4			1												1														
14	Udit nagar	2	1	1																																
15	Daily Market						1		2						1				1																	
16	Plant Side	6	2	1	1	9	8	7	2	1	2	1								1							1						1			
17	Nala Road Glamour gali	1	2	2	6	8	8								1		1	1																		
18	Gandhi Road			1				3	2	1	1	1	1						1																	
19	Power House road						3	2	1		2																									
20	CISF Colony					2		1							1							1			1											
21	Tilkanagar					4	1	7	3	6	1			1	2	1				1	2	2	2	2				1								
22	SECTOR-AREA				5	9	5	1	2	1	1	0	0	1	1	9	4	5	2	7	1	2	2	6	1	2	4	2	1	3	3	1	4	1	2	2
	Cumulative total	130	137	195	148	166	166	153	130	120	109	99	97	111	112	125	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	

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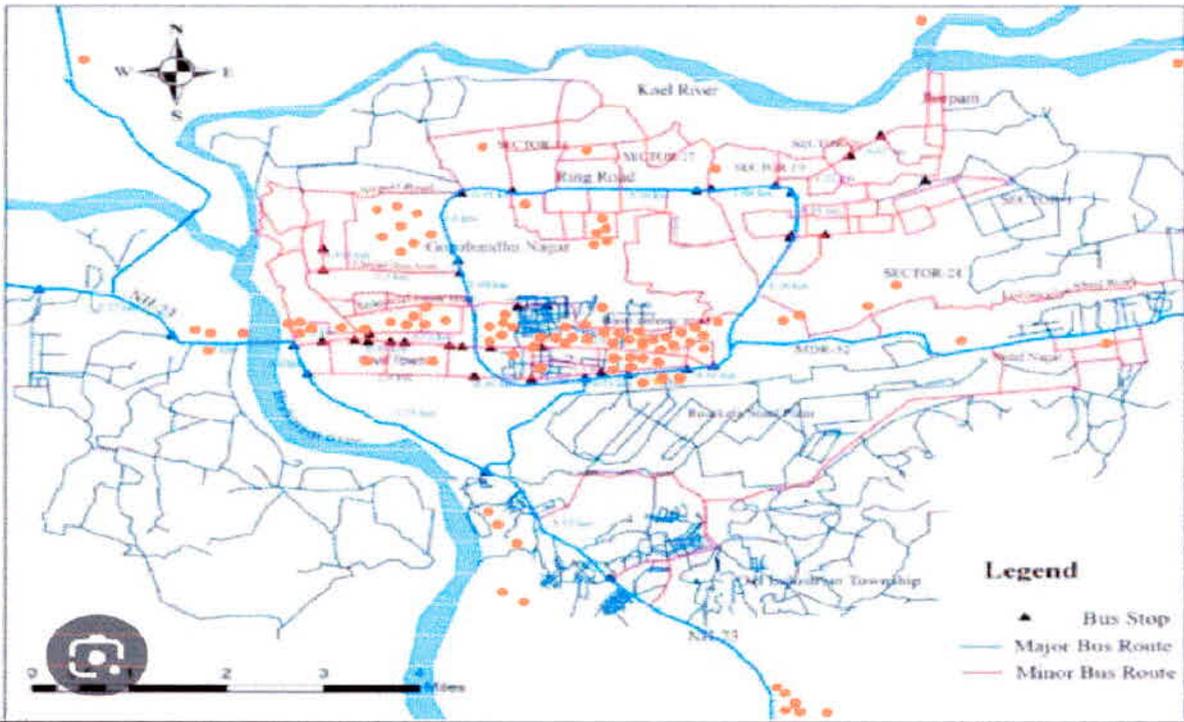
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**HOT SPOT AREAS MAP:**



**Spot map of V.Cholerae positive cases among ADD cases.**

Based on the *V.cholerae* positive samples in the city of Rourkela, a spot map was generated. The map indicated that almost all *V.cholerae* infection happen in the city and around the water line supply and the designated slum areas under Rourkela.



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**RRT Team:**

- 13 nos. of RRT (Rapid Response Team) are deployed at field level for medical camp.
- Medical camps conducted as per the hot spot areas updation based on daily hospitalized case load & daily reports by RRT team.
- The RRTs visited the field as per the daily micro plan prepared based on daily hot spot areas.
- Emergency contact no: 7077311234 circulated to at field level.

**Micro plan:**

- RRTs Micro plan prepared daily basis according to the hot spot areas
- The below mentioned table shows the sample micro plan prepared for RRTs:

**MICROPLAN FOR DIARRHOEIA OUT BREAK DATED- 23.12.2023**

RRT (MMV/MHU) TEAM	VEHICLE NO.	Place	HW(F) Name	Phone Number
RRT 1	MP17G3105	TILKANAGAR KA, FULBARI	PURNIMA SAHU	9439984994
RRT 2	BISRA MHU	BASANTI COLONY 2 KUMBHARPADA	Sulami Nutan Minz	9439989332
RRT 3	MP17 DA 0489	KOILA GATE KUMBHARPADA	ANUSUYA BEHERA	9439984996
RRT 4	MP17 DA 0406	MALLIK BASTI MEDINIPUR BASTI JHUMPUDI BASTI	Lina Rani Kalo	9439989796
RRT 5	BIRKERA MHU	SECTOR 6 AREA SECTOR6-H BLOCK	MANJULA SA BARSHA PATEL	7894775823 7978744657
RRT 6	MP17 G3110	BALIJODI UTKAL NAGAR	RANJITA MAHANTA	7853086806
RRT 7	KUANRMUNDA MHU	CONTRACTOR COLONY MUNDARI BASTI JAMTOLI	KABITA NAYAK	9439987013
RRT 8	MP20 GB0424	NALA ROAD 2 &3 GTLINE PLANT SIDE 3 HASANPUR	MAMATA PRADHAN	9439988687
RRT 9	MP17 G3019	GANDHI NAGAR KHA MAGUNI BASTI MACHHLI BASTI STATION ROAD	SUSMITA XAXA	7894306170
RRT 10	URBAN MHU	KUSTA BASTI NAYABAZAR BHABANIPUR CHHEND BASTI	Anjana Sahoo	9439984992
RRT 11	MP17 G3106	CO-OP COLONY CHHEND BASTI CZ SOCIAL HOME	SUJATA SAHOO	9583656391
RRT 12	MP20 GB 0408	BIRJAPALI RAJIV BASTI CHORATOLA RAGHUNATHPALI	MANISHA MOHANTY PRAVATI NAYAK	8456844333 7894107996
RRT 13	MP17 G3104	MALGODAM GBPALI1 GBPALI2 GBPALI3 & 10	JHARANA RANJIT	7077642991

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- 28 -

**Medical Camp:**

- Medical camps conducted as per the hot spot areas updation based on daily hospitalized case load & daily reports by RRT team.
- In medical camp anti Diarrheal medicine given along with ORS packet are distributed.
- Medical camps conducted as per the hot spot areas updation based on daily hospitalized case load & daily reports by RRT team.
- 1020 no.of medical camps conducted in the hotspot areas.

DAILY MEDICAL CAMP CONDUCTED BY RRTS		
Date	No. Medical Camp held	No of areas camp held
11.12.2023	21	21
12.12.2023	21	21
13.12.2023	21	21
14.12.2023	21	21
15.12.2023	23	23
16-12-2023	21	21
17-12-2023	21	21
18-12-2023	21	21
19-12-2023	21	21
20-12-2023	21	21
21-12-2023	21	21
22-12-2023	28	28
23-12-2023	28	28
24-12-2023	28	28
25-12-2023	36	36
26-12-2023	37	37
27-12-2023	37	37
28-12-2023	39	39
29-12-2023	37	37
30-12-2023	36	36
31-12-2023	38	38
01-01-2024	39	39
02-01-2024	39	39
03-01-2024	26	26
04-01-2024	28	28
05-01-2024	39	39
06-01-2024	39	39
07-01-2024	39	39
08-01-2024	39	39
09-01-2024	39	39
10-01-2024	39	39
11-01-2024	7	7
12-01-2024	7	7
13-01-2024	7	7
14-01-2024	7	7
15-01-2024	7	7
16-01-2024	6	6
17-01-2024	6	6
18-01-2024	6	6
19-01-2024	6	6
20-01-2024	6	6
21-01-2024	6	6
22-01-2024	6	6
Cumulative Total	1020	1020

7 | Page

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**MEDICAL CAMP PHOTOS:**

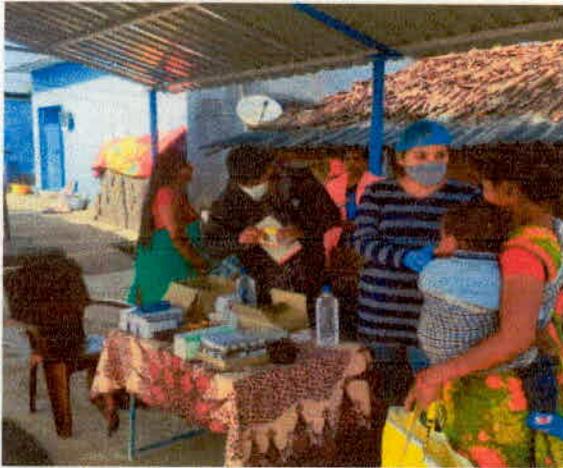


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**MEDICAL CAMP PHOTOS:**



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-31-

**ORS & HALAZONE STOCK**

Sl.no.	Name	Received	Distributed
01	ORS	250000	206660
02	HALAZONE	350000	320698

**House to house visit details:**

- Massive drive is going on by HW (F) & ASHA along with RRT team , everyday house to house visited in the affected areas & distributed ORS packet, Zink tablet & along with for safe drinking water, halazone tablet in every household.
- In the House to House visit field level staff counsel for safe drinking water (after boiling of 20 minutes) & hand hygiene practices.
- Emergency contact no: 7077311234 circulated to at field level.
- Distribution of soap at affected areas by RMC.
- 54 nos of HW (F), 208 ASHA and 447 MAS group engaged for field level sensitization and house to house visit.

**Daily House to House Visit Report of ADD Outbreak, Rourkela (22.01.2024)**

Date	HH Visit	UHC / UPHC Visit	TOTAL	New Cases	Total Affected Cases(Cumulative )	Medication	ORS(in pkt.)	Halazone
11.12.2023	454	168	622	22	22	22	1795	2221
12.12.2023	1006	163	1169	26	48	26	2113	4120
13.12.2023	1117	184	1301	22	70	22	2556	3904
14.12.2023	1623	218	1841	20	90	20	3773	5844
15.12.2023	1117	226	1343	22	112	22	4107	5201
16.12.2023	2660	266	2926	45	157	45	7188	7502
17.12.2023	3769	274	4043	87	244	87	8659	12008
18.12.2023	3866	249	4115	66	310	66	8444	12312
19.12.2023	3907	248	4155	63	373	93	8916	12444
20.12.2023	3985	231	4216	82	455	175	8807	13302
21.12.2023	4132	204	4336	40	495	194	8946	12954
22.12.2023	4205	187	4392	23	518	176	8889	12541
23.12.2023	4512	146	4658	18	536	128	8215	13877
24.12.2023	4601	141	4742	7	543	97	8411	11986
25.12.2023	4756	133	4889	23	566	102	7985	12337
26.12.2023	4892	162	5054	5	571	22	7698	13207
27.12.2023	4963	121	5084	1	572	12	7560	12244
28.12.2023	4991	97	5088	0	572	3	4206	12668
29.12.2023	5325	92	5417	0	572	2	4632	10266
30.12.2023	5101	86	5187	0	572	2	3513	11500
31.12.2023	4962	88	5050	0	572	3	3640	8684
01.01.2024	4516	74	4590	0	572	4	3817	8106
02.01.2024	5213	69	5282	0	572	9	3772	8201
03.01.2024	5425	51	5476	0	572	11	3506	7852
04.01.2024	5321	38	5359	0	572	8	4227	6599
05.01.2024	2652	22	2674	0	572	6	6802	6841
06.01.2024	2772	19	2791	0	572	5	8316	9406
07.01.2024	2691	17	2708	0	572	0	8073	13455
08.01.2024	1766	11	1777	0	572	2	6456	8991
09.01.2024	1624	7	1631	0	572	0	4918	10112
10.01.2024	1577	4	1581	0	572	1	8954	10224
11.01.2024	1809	3	1812	0	572	0	4542	5107
12.01.2024	1264	1	1265	0	572	0	2416	3248
13.01.2024	1045	0	1045	0	572	0	2114	2729

10 | Page

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-32-

Date	HH Visit	UHC / UPHC Visit	TOTAL	New Cases	Total Affected Cases(Cumulative )	Medication	ORS(in pkt.)	Halazone
14.01.2024	923	0	923	0	572	0	1757	1988
15.01.2024	652	0	652	0	572	0	1364	1124
16.01.2024	547	0	547	0	572	0	1021	876
17.01.2024	513	0	513	0	572	0	1215	1007
18.01.2024	423	0	423	0	572	0	865	896
19.01.2024	386	0	386	0	572	0	774	787
20.01.2024	342	0	342	0	572	0	722	734
21.01.2024	269	0	269	0	572	0	565	668
22.01.2024	213	0	213	0	572	0	411	625
Cumulative total	117887	4000	121887	572	20554	1365	206660	320698

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House to house visit Photos



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- 34 -

**Sensitization meeting:**

- 4 nos of Public health Manager (PHM) & 2 nos. of District level officer ADPHCO & DPHCO are engaged for Community level sensitization meeting & MAS level & ASHA level Sensitization meeting.
- All sensitization meeting area conducted according to the daily micro plan based on case load in hot spot areas.
- 54 nos of HW (F), 208 ASHA and 447 MAS group also engaged for field level sensitization
- Supervision, monitoring & sensitization meeting conducted by CPMU staff & ADUPHO, Rourkela.

**Micro plan of Public health Managers:**

- Micro plan of PHM are prepared daily basis as density of case load in the areas
- The sensitize all field level staffs , community members ,Stakeholder meeting at field level, MAS members , along with monitor the field level activities like house to house survey , testing , distribution of IEC , Making etc.

**MICROPLAN FOR DIARRHOEHA OUT BREAK DATED- 23.12.2023**

Sl.No	CONCERNED PHM	Place	HW(F)	Phone Number
1	SASMITA GOSWAMY	TILKANAGAR KA, FULBARI UTTAMBASTI KUMBHARPADA KOILA GATE	PURNIMA SAHU ANUSUYA BEHERA	9439984994 9439984996
2	ATISH DAS	NALA ROAD 2 & 3 PLANT SIDE 3 HASANPUR GANDHI NAGAR KHA STATION ROAD	MAMATA PRADHAN SUSMITA XAXA	9439988687 7894306170
3	PRADEEP NAG	CHHEND BASTI CO-OP COLONY CHHEND BASTI C2 SOCIAL HOME	SUJATA SAHOO SASWATI PATRA	9583656391 9337700316
4	DEBASISH DASH	BIRJAPALI RAJIV BASTI CHORATOLA RAGHUNATHPALLI	MANISHA MOHANTY PRAVATI NAYAK	8456844333 7894107996

**Field level sensitization meeting by Public Health Manager**

DATE	NO PHM	NUMBER OF SENSITIZATION MEETING HELD	NO OF AREAS
15.12.2023	4	16	16
16-12-2023	4	16	16
17-12-2023	4	16	16
18-12-2023	4	16	16
19-12-2023	4	16	16
20-12-2023	4	16	16
21-12-2023	4	16	16
22-12-2023	4	16	16
23-12-2023	4	16	16
24-12-2023	4	16	16
25-12-2023	4	16	16
26-12-2023	4	16	16
27-12-2023	4	16	16
28-12-2023	4	16	16
29-12-2023	4	16	16

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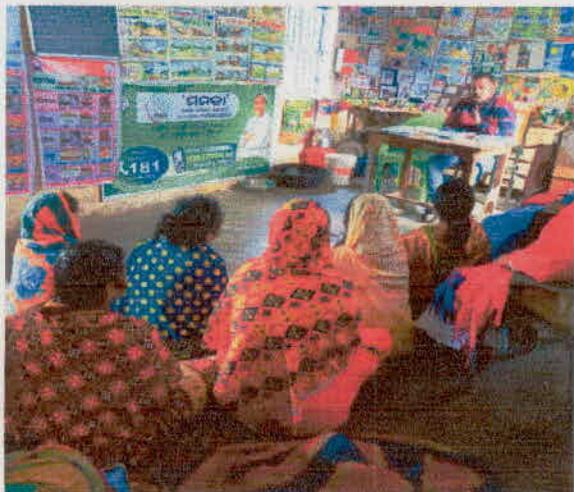
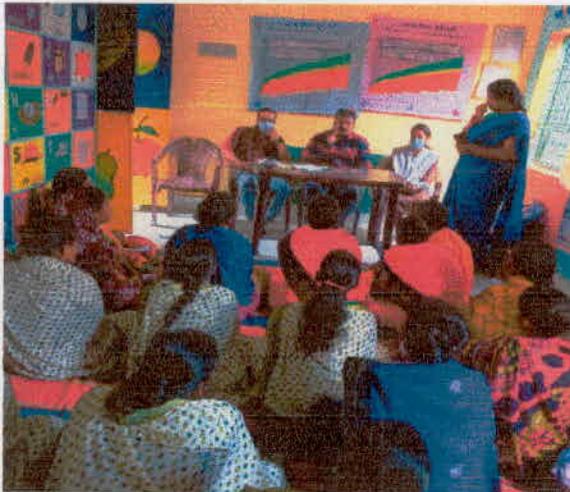
  
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-35

DATE	NO OF PHM	NUMBER OF SENSITIZATION MEETING HELD	NO OF AREAS
30-12-2023	4	16	16
31-12-2023	4	16	16
01-01-2024	4	16	16
02-01-2024	4	16	16
03-01-2024	4	16	16
04-01-2024	4	16	16
05-01-2024	4	16	16
06-01-2024	4	16	16
07-01-2024	4	16	16
08-01-2024	4	16	16
09-01-2024	4	16	16
10-01-2024	4	16	16
11-01-2024	4	16	16
12-01-2024	4	16	16
13-01-2024	4	16	16
14-01-2024	4	16	16
15-01-2024	4	16	16
<b>Cumulative Total</b>		<b>512</b>	<b>512</b>

**Sensitization meeting Photos:**



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**Field level sensitization meeting**



**Field level ADD sensitization meeting**



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-37-

**Micro plan of District level official (DPHCO & ADPHCO):**

- Micro plan are prepared daily basis according to the hot spot areas & ADD case load
- They attend the sensitization meeting at field level & sensitize for Diarrhoea related preventive behavioral changes measures at field level.
- Procedure of hand washing
- ORS demonstration
- Plan for House to house visit by MAS members for IPC to cover all house hold.
- Visit school level of ADD sensitization.
- Below mentioned some of sample micro plan of Diarrhoea cases

MICROPLAN FOR DIARRHOEA CASES 25-12-2023				
TEAM	PLACE/ AREA	SUBCENTER	HW(f)S	PHONE NUMBER
DPHCO	PLANT SITE	NALA ROAD	MAMATA PRADHAN	9439988687
	POWER HOUSE ROAD			
	RAILWAY COLONY	RAILWAY COLONY	SONALI BEHERA	7873195281
ADPHCO	STATION ROAD	GANDHI ROAD	SUSMITA XAXA	7894306170
	GANDHI ROAD			
MICROPLAN FOR DIARRHOEA CASES 26-12-2023				
TEAM	PLACE/ AREA	SUBCENTER	HW(f)S	PHONE NUMBER
DPHCO	TULSI TOLA	CHHEND	BEBBY BISWAL	9439988688
	DHAMRA BASTI			
	CHHEND COLONY			
ADPHCO	MISHRA KHATAL	SEC 20	LALITA SAHU	9439989323
	NEHERUPALI 1			
MICROPLAN FOR DIARRHOEA CASES 27-12-2023				
TEAM	PLACE/ AREA	SUBCENTER	HW(f)S	PHONE NUMBER
DPHCO	SECTOR 18 AREA	SECTOR 18	URMILA HATI	8457982462
	AMBAGAN 2			
	AMBAGAN 3			
ADPHCO	GOLGHAR	SECTOR 5	SARMISTA SAHOO	9439987015
	RAMESWARPALLI			

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**PHOTOS OF SENSITIZATION MEETING CONDUCTED BY DISTRICT LEVEL OFFICIAL AT FIELD LEVEL:**



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**Daily reports:**

- According to the micro plan official visited field level & in the evening submitted their daily

①

**Awareness activity report on ADD, Rourkela**

Date: 22.12.2023

NUHM, Rourkela

Name of the Staff engaged : Mahendra Bagh, DPHCO, Sundargarh

: Tiraman Pradhan, ADPHCO, Sundargarh

Area allotted: 1. Oram Pada (Udit Nagar)

2. Kalinga vihar, II Chend.

3. Naya Bazar, Gopabandhupall

4. Mal Godam

**1. Sub-centre: Oram pada**

- Name of UHND visited : Sital Pada, Population 533, House hold-116, Diarrhoea admitted-1 & recovered (Bijaya Nag: 25 Years (M)
- Name of Staff attended:
  - HW(F): Sukanti Perua
  - AWW: Tanuja Suna
  - AWW: Sukanti Majhi
  - ASHA : Ranjana Barik

**Activities**

**Sensitization Meeting:**

Approximate participants: 30

Participants: Mass Members, UHND Beneficiaries, CWC social workers.

- Discussion regarding diarrhoea & its preventive measures.
- Procedure of hand washing
- ORS demonstration
- Leaflet distribution
- Plan for h-t-h visit by MAS member for IPC to cover all house hold.
- School visit: Uditit Nagar High school (school closed for x-mas) Discussed with the emergence staff of school & provide leaflets.

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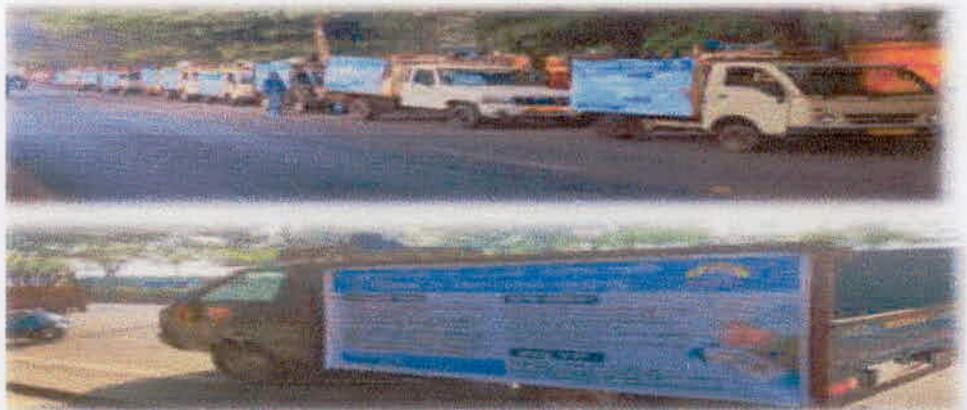
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-40-

**IEC & BCC measures**

- IEC measures are going on through distribution of leaflet, erection of hoarding & door to door counseling by field level staff etc.
- 20 Nos. Hoardings were displayed at various key places of the city.
- 1500 nos. of banner & 150000 leaflets distributed at field level.
- MAS (Mahila Arogya Samiti) Level & Community level sensitization meeting with keystoneholder are going on every affected area, for ADD outbreak.
- 447 nos. of MAS level sensitization conducted
- Miking announcements are going on field level by RMC & NUHM, Rourkela.
- Emergency contact no: 7077311234 circulated to at field level.
- Disinfectant of well by field level staff

**Hoarding****Miking****True Copy Attested**

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41-

**Miking & leaflet distribution**



**Leaflet distribution photos:**



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**Disinfectant of well by HW(F) in field level:**



21 | Page  
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**HR Deployment details:**

- In view of Outbreak situation 13 nos. of MO MBBS & 5 nos. of MO AYUSH, 28 nos. of Nursing Officers, 11 nos. of LTs & 8 nos. of Pharmacists were deputed to Rourkela for fictionalization of 24X7 OPD services at UPHC & UCHC level.

Sl.no.	Name of Institution	Categories of Staff	No of Staff
1	Sundargarh DHH	Medical Officer( MBBS)	5
2		Medical Officer (AYUSH)	4
3	GMH Sundargarh	Nursing Officer	18
4		LT	11
5		Pharmacist	06
6	DHH Jharsuguda	Medical Officer( MBBS)	5
7		Pharmacist	2
8		Nursing Officer	10
9	DHH Sambalpur	Medical Officer( MBBS)	4
	<b>Total</b>		<b>65</b>

**ROASTER DUTY CHAT FOR 24X7 DUTY HOURS AT UPHC LEVEL:**

Diarrhoea Roaster Duty				
SL NO	NAME OF THE STAFF	DESIGNATION	Shift Duty &Time	UPHC NAME
1	DR.GOURAV BHUSAN	MO(I/C)	MORNING SHIFT	UPHC Chhend
2	SUBHASHREE PATI	PHARMACIST		
3	RITA DUNG DUNG	STAFF NURSE		
4	SWAYAM PRAVA DEO	LT		
5	PRIYANKA PASAYAT	STAFF NURSE		
6	KANTI MAJHI	STAFF NURSE		
7	RASHMITA SAHU	TB ANM		
8	GULAP GHASI	ATTENDANT		
1	DR.BANDITA BOITY	MO(I/C)	NIGHT SHIFT 8.00PM TO 8.00AM	
2	SILVA PATEL	STAFF NURSE		
3	SURABHE NAIK	STAFF NURSE		
4	SUKANTI SORENG	STAFF NURSE		
5	SANJIWAN KULLU	SEURITY GUARD		
6	SANTOSH NAYAK	SUPPORT STAFFS		

-44-

Diarrhoea Roaster Duty				
SL NO	NAME OF THE STAFF	DESIGNATION	Shift Duty & Time	UPHC NAME
7	Harapriya Mahato	Sanitary Worker		
1	Dr. Madhulita Sahoo	MEDICAL OFFICER	MORING SHIFT (8A.M TO 8P.M)	UPHC SECTOR-6
2	Rosalin Kiro	STAFF NURSE		
3	Sweta Tirpathy	STAFF NURSE		
4	Aditya Prasad Nayak	LT		
5	Bikram Das	STAFF NURSE		
6	Deepika Singh	Pharmacisit		
7	Panchami Mohato	ATTENDANT		
8	Mahendra Deep	ATTENDANT		
1	Dr. Kusal Singh	MEDICAL OFFICER	NIGHT SHIFT  8.00PM TO 8.00AM	
2	Dharitri Chawan	STAFF NURSE		
3	Sagarika Nayak	STAFF NURSE		
4	Champati Kishan	STAFF NURSE		
5	Binashree Gardia	LT		
6	Satyam Badaik	SEURITY GUARD		
7	Janamejay Patra	SUPPORT STAFFS		
1	Dr. Sumitra Bhagwar	MEDICAL OFFICER	MORING SHIFT (8A.M TO 8P.M)	
2	Prasantimayee Das	STAFF NURSE		
3	Sujata Kullu	STAFF NURSE		
4	Devi Prasad Das	LT		
5	Sunitilata Das	STAFF NURSE		
6	Nishi Padma	Pharmacisit		
7	Manjulata Sahoo	ATTENDANT		
8	Srikant Mahato	ATTENDANT		
1	Dr. Retesh Kumar Samal	MO(I/C)	NIGHT SHIFT  8.00PM TO 8.00AM	UPHC KOELNAGAR
2	Sumita Dung Dung	STAFF NURSE		
3	Rasmita Jaypuria	STAFF NURSE		
4	Supriya Deep	STAFF NURSE		
5	Oscar Soy	LT		
6	Bhaskara Mahato	SEURITY GUARD		
1	Dr. Jyoti Anuja	MEDICAL OFFICER	MORING SHIFT (8A.M TO 8P.M)	UPHC DAV MAC
2	Bijyalaxmi Nayak	STAFF NURSE		
3	Sangyan Priyambada Swain	STAFF NURSE		
4	Sukanti Behera	LT		
5	JAYAKRISHNA MAREI	STAFF NURSE		
6	Golaka Bihari Panda	Pharmacisit		
7	Khirodini Karlo	ATTENDANT		
1	Dr. Jugal Kishore Bhoi	MEDICAL OFFICER	NIGHT SHIFT  8.00PM TO 8.00AM	
2	Netrananda Banchha	Pharmacist		
3	Anchal Sahu	STAFF NURSE		
4	Rupali Rupachhandra Nayak	STAFF NURSE		
5	Ajit Oram	Support Staff		
6	Premasila Patta	LT		
7	Fhalindra Singh	SEURITY GUARD		
8	Anil Nayak	Support Staff		
1	Dr. Lipsa Sahoo	MEDICAL OFFICER	MORING SHIFT (8A.M TO 8P.M)	UFWC BALUGHAT
2	Punam Surin	STAFF NURSE		
3	Supriya Mohanta	STAFF NURSE		
4	Subham Kumar Pattnaik	LT		
5	Mohini Mahanta	TB HWF		
6	Gourab Babu	Pharmacisit		
7	Jasinta Lakra	ATTENDANT		
1	Dr. Harapriya Paramanik	MEDICAL OFFICER	NIGHT SHIFT	
2	Nitin Xaxa	SN MALE		
3	Priyambada Parida	STAFF NURSE		

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-45-

## Diarrhoea Roaster Duty

SL NO	NAME OF THE STAFF	DESIGNATION	Shift Duty Time	UPHC NAME
4	Ketaki Rani Rohidas	STAFF NURSE	8.00PM TO 8.00AM	
5	Supriya Sahoo	LT		
6	George Kandulna	SECURITY GUARD	MORING SHIFT (8A.M TO 8P.M)	UPHC TILKANAGAR
1	Dr. Premesh Mishra	MEDICAL OFFICER		
2	Dr. Gyana Ranjan Dash	MEDICAL OFFICER		
3	Sunita Saudia	STAFF NURSE		
4	Alina Ekka	STAFF NURSE		
5	Ankita Singh	LT		
6	Himandri Pradhan	TB HW f		
7	Pama Hansdah	Pharmacisit		
8	Sangeeta Kurmi	Support Staff		
9	Bharat Sahu	Support Staff		
10	Indra Mahato	Support Staff		
11	Arun Mahanto	SECURITY GUARD	NIGHT SHIFT  8.00PM TO 8.00AM	
1	Dr. Sipun Kumar Nayak	MEDICAL OFFICER		
2	Nima Goud	Pharmacisit		
3	Roshila Kerketta	STAFF NURSE		
4	Rojalin Choudhry	STAFF NURSE		
5	Mahima Oram	LT		
6	Rajeeb Singh	SECURITY GUARD	MORING SHIFT (8A.M TO 8P.M)	UPHC SECTOR-22
1	Dr. Bishnupriya Dei	MEDICAL OFFICER		
2	Saraswati Bhumij	STAFF NURSE		
3	Padmini Gouda	STAFF NURSE		
4	Fatin Bhoi	LT		
5	Deepika Mahanta	TB HW f		
6	Rebati Giri	Support Staff	NIGHT SHIFT  8.00PM TO 8.00AM	
1	Maytriranjana Mohanty	MEDICAL OFFICER		
2	Dibya Jyoti Rout	Pharmacisit		
3	Pankajini Behera	STAFF NURSE		
4	Usarani Bhuyan	STAFF NURSE		
5	Ruchika Dash	LT		
6	Anuj Sharma	Support Staff		
7	Pranaya Nayak	SECURITY GUARD	MORING SHIFT (8A.M TO 8P.M)	UPHC GOPABANDHUPALLI
1	Dr. Rahul kumar Singh	MEDICAL OFFICER		
2	Swarnalata Tigga	STAFF NURSE		
3	Sangita Pujari	STAFF NURSE		
4	Kishan Prabhanjan Dhal	LT		
5	Laxmipriya Mahanta	STAFF NURSE		
6	Swastika Kar	Pharmacisit		
7	Jyoti Lakra	Support Staff	NIGHT SHIFT( 8.00 P.M TO 8.00A.M)	
1	Dr. Basudev Murmu	MEDICAL OFFICER		
2	Kirankumar Bharsagar	Pharmacisit		
3	Minati Bakli	STAFF NURSE		
4	Chuleswari Kariali	STAFF NURSE		
5	Surabhi Pradhan	TB HW f		
6	Mita Patel	LT		
7	Sama Tirkey	SECURITY GUARD	MORING SHIFT (8A.M TO 8P.M)	UPHC MAHATABROAD
1	Dr. Shuvendu Kar	MEDICAL OFFICER		
2	Alice Barla	STAFF NURSE		
3	Suchitra Sahu	STAFF NURSE		
4	Raja Laxmi Parida	LT		
5	Puspalata Nayak	STAFF NURSE		
6	Bijay Kansari	Pharmacisit		
7	Narasingha Mundari	Support Staff		
8	Singhasana Nayak	Support Staff		

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-46-

Diarrhoea Roaster Duty				
SL NO	NAME OF THE STAFF	DESIGNATION	Shift Duty & Time	UPHC NAME
1	Dr. Manoj Kumar Sethi	MEDICAL OFFICER	NIGHT SHIFT( 8.00 P.M TO 8.00 A.M)	
2	Dr. Sunil	MEDICAL OFFICER		
3	Pratap Kallo	Pharmacisit		
4	Laxmipriya Mohanty	STAFF NURSE		
5	Niturani Mishra	STAFF NURSE		
6	Kumuduni Bag	LT		
7	Sankarsan Kansari	SEURITY GUARD		
1	Dr. Sonali Mohanty	MEDICAL OFFICER	MORING SHIFT (8A.M TO 8P.M)	UPHC HAMIRPUR
2	Elizabeth Tirkey	STAFF NURSE		
3	Dharitri Toppo	STAFF NURSE		
4	Ramachandra Maharana	LT		
1	Dr. R. N. Majhi	MEDICAL OFFICER	NIGHT SHIFT( 8.00 P.M TO 8.00 A.M)	
2	Anjalina Barla	STAFF NURSE		
3	Rasmita Behera	STAFF NURSE		
4	Ghaneswar Giri	LT		

**Strengthening of Urban Health Institution:**

- All the UPHCs (Urban Primary Health Institution) are providing 24x7 OPD & IPD services
- Institutional level ORS & Halazone conner
- Deployment of additional manpower to provide 24x7 dedicated services at urban health institution level.
- Adequately supply drug at institutional level
- Adequately available IV Fluid & other anti Diarrhoeal medicine at institutional level

**Night OPD Photos****True Copy Attested**

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## 24 x 7 dedicated services at institutional level



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-49-

**Bed occupancy:**

- Dedicated beds round the clock also available at UCHC level ( 30 nos. bed) & at UPHC level (2 nos. bed )

Sl.no.	Name of Urban Institution	No.of Bad
01	UCHC Panposh	30
02	UPHC DAV MAC	2
03	UPHC BALUGHAT	2
04	UPHC KOELNAGAR	2
05	UPHC CHHEND	2
06	UPHC TILKANAGAR	2
07	UPHC HAMIRPUR	2
08	UPHC GOPABADHUPALLI	2
09	UPHC SECTOR 6	2
10	UPHC UFWC	2
11	UPHC SECTOR 22	2
	Total No	50 nos.

**Bed occupancy of other health institution under Rourkela:**

	RGH		JP HOSPITAL		HI-TECH		IGH, ROURKELA		TOTAL	
	GENERAL	ICU	GENERAL	ICU	GENERAL	ICU	GENERAL	ICU	GENERAL	ICU
AVAILABALE	155	0	307	50	470	60	600	20	1532	130
OCCUPIED	126	0	247	20	200	60	223	15	796	95
VACANT	29	0	60	30	270	0	397	5	736	35

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**Testing:**

- To identify the water contamination, Water testing is going on throughout the hotspot area along with other mild affected areas by the UPHC / UCHC Lab Technician.
- Apart from One Dedicated Team from UCHC visited to different Hotspot area of Rourkela city for water Testing.
- During ADD outbreak different labs like UPHC, UCHC, RGH, IGH, DPHL Sundargarh were used for testing of stool samples /rectal swab and water samples from affected OPD/IPD ADD cases.
- Under the emergency situation of ADD outbreak, SOP and protocols were developed for collection of patients sample and subsequent test for the causative agent.
- Sundargarh DPHL lab played key role in isolation of the pathogenic organism as well as antibiotic sensitivity assay. During the initial part of this outbreak, 33 samples were also tested in RMRC Bhubaneswar

Sl.no.	Total OT Test	Total H2S Test	Total stool sample
01	745	522	434

**Water testing at field level Photos:**



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**Emergency Transportation Facility:**

- For emergency transportation facility, 10 nos of dedicated Ambulance deployed at different UPHC level under Rourkela Urban.
- 24 X 7 dedicated Ambulance services are provided at facility level.



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**Co-ordination meeting along with other line department conducted by administration**

- In view of ADD outbreak situation, co- ordination meeting with other line department was conducted by the Administrative Authority. And discussed below mentioned points
  - Institutional level strengthening
  - For strengthening of field level surveillance
  - IEC /BCC at field level
  - Testing at institutional level & field level
  - Departmentally analysis of daily reports etc.



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**Monitoring & Supervision:**

- Daily monitoring & supervision conducted by CPMU staff along with ADUPHO
- Monitoring by City, District & state level authority during the ADD outbreak
- Monitoring by Central team during the ADD outbreak

**Photos of monitoring by state Authorities & ADUPHO along with CPMU Team:**



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In view of ADD outbreak situation under Rourkela, monitoring & supervision in different health Institution by Health Secretary , Director of Public Health , Collector & DM & Commissioner at RGH & UPHC DAV MAC:

- Meeting with Govt & Private health Institution
- Monitor Institutional strengthening
  - Bed availability
  - Availability of drugs supply
  - Dedicated Ambulance services for Emergency Transportation facility.
  - Functionalization of 24 X7 urban Health Institution.
  - Manpower deployment for 24x 7 functionalization of urban Health institution.

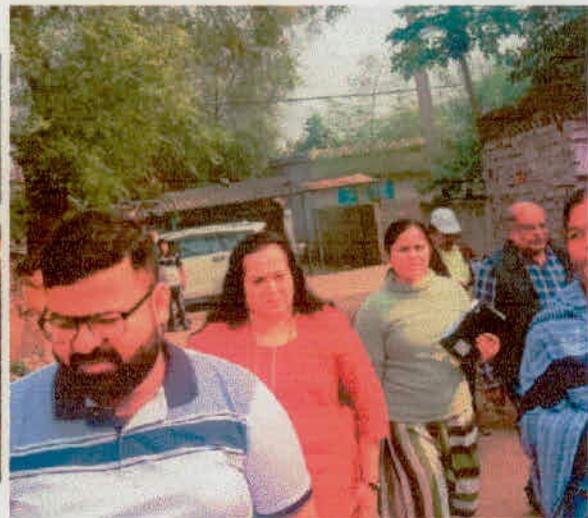
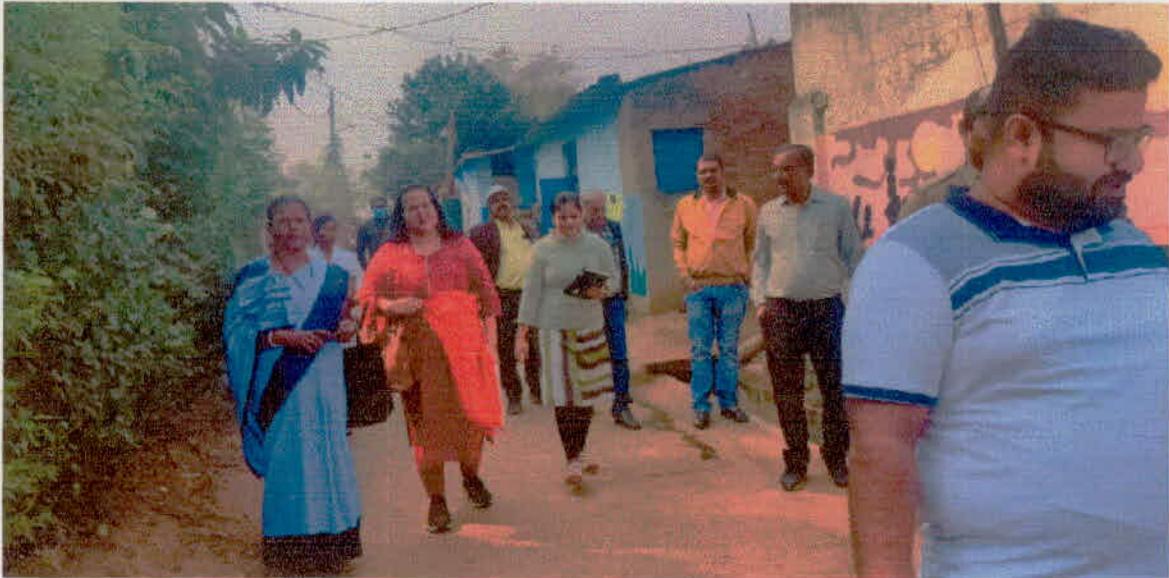


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**Field level monitoring by Commissioner RMC**



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**Field level monitoring by Central team:**



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Assistant Collector Judicial  
Collectorate, Sundargarh

*Di*  
22.01.24

UPHC DAV MAC visited by central team



True Copy Attested

  
Assistant Collector Judicial  
Collectorate, Sundargarh

*Di*  
22.01.24

**Field visited by central team level**



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Collectorate, Sundargarh

*di*  
22.01.24

**Standards followed during the outbreak:****1 Case finding and Treatment Protocol for ADD:**

A Standard Operating Procedure for case definition and treatment protocol as devised by Deputy Superintendent of RGH dated 19/12/2023 is shown as Annexure 1.

**2 Laboratory investigation:**

During ADD outbreak different labs like UPHC ,UCHC ,RGH, IGH, DPHL Sundargarh were used for testing of stool samples /rectal swab and water samples from affected OPD/IPD ADD cases.

Under the emergency situation of ADD outbreak, SOP and protocols were developed for collection of patients sample and subsequent test for the causative agent.

**3 Water Quality:**

Water quality was tested by OT test and H2S test by Health Officer Rourkela and by Urban Health Rourkela.

**4 Food Quality:**

Food sample testing by Health Officer Rourkela using FSO

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Collectorate, Sundargarh

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22.01.24

-60-

## ADD TREATMENT PROTOCOL ( Annexure -I

**OFFICE OF THE DIRECTOR****ROURKELA GOVT. HOSPITAL**E-Mail: [directorrrgh.rourkela@odisha.gov.in](mailto:directorrrgh.rourkela@odisha.gov.in) , Phone/Fax: (0661) 2400161Letter No. 3899 /RGHDate 21/12/2023

To,

**All health establishment of the District  
(Public/Private/NGO/PSU & Other)****Subject: Request for adherence of ADD treatment protocol.**

Madam/Sir,

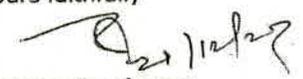
As you all are aware that , an ADD outbreak reported at Rourkela city in last few days. Accordingly some of the health establishment are providing treatment to such patients. For smooth management of this situation and for ensuring proper treatment of such patients, a treatment/referral & discharge protocol has been prepared by the experts of SCBMCH, Cuttack, GMCH, Sundargarh & Rourkela Govt. Hospital based on different criteria as per the instruction of District Administration.

All hospitals (providing treatment of ADD cases) are hereby requested to start follow the treatment protocol prepared by the expert with immediate effect & co-operate with the Administration for smooth management of this situation.

For any query related to these protocol, the clarification Director, RGH mail id may be communicated.

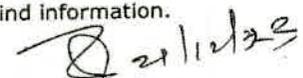
Encl : As above.

Yours faithfully

  
**Director In-charge  
Rourkela Govt. Hospital**
Memo No. 3900 /RGH Date 21/12/2023

Copy to :

1. The ADUPHO, Rourkela /DPHO, Sundargarh for information and necessary action.
2. The CDM & PHO, Sundargarh for information.
3. The Commissioner, RMC for information.
4. The Collector & District Magistrate, Sundargarh for kind information.
5. The Director Health Services/Director Public Health, Odisha for kind information.
6. The Commissioner cum Secretary, H & FW , Odisha for kind information.

  
**Director In-charge  
Rourkela Govt. Hospital**

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 22.01.24

-61-

ADD Treatment Protocol: Paediatric Cases

**Case Definition:**

- Any Children who have acute watery diarrhoea
- Or
- Any Children recently travelled to suspected area
- Or
- Any Children with laboratory confirmed vibrio Cholera.



**Assessment of Dehydration & full clinical examination**

Assess	Condition	Normal	Irritable/Less active*	Lethargic / Comatose*
	Eyes	Normal	Sunken	Sunken
	Tongue	Normal	Dry	Dry
	Thirst	Normal	Thirsty (drinks eagerly)	Unable to drink*
	Skin pinch	Normal	Goes back slowly*	Goes back very slowly*
	Radial pulse	Normal	Reduced*	Uncountable or absent*
<b>Diagnosis</b>		No sign of dehydration	If at least 2 signs including one (*) sign is present, diagnose <b>Some Dehydration</b>	If some dehydration plus one of the (*) signs are present, diagnose <b>Severe Dehydration</b>
<b>Management</b>		A	B	C

- A – Diarrhoea with No dehydration
- B – Diarrhoea with some dehydration
- C – Diarrhoea with severe dehydration

NO DEHYDRATION	SOME DEHYDRATION	SEVERE DEHYDRATION
Start ORS <ul style="list-style-type: none"> <li>• Less than 1 year - 50 to 100 ml/each loose stool</li> <li>• More than 1 year -100 to 200 ml/each loose stool.</li> </ul> ↓ Observe & Reassess	Start 75 ml /kg of ORS over 4 hours & for every stool pass give 50 to 100 ml per stool (less than one year) & more than one year 100 to 200 ml per stool pass. ↓ Observe & Reassess	IV fluid : RL (Ringer Lactate) Less than one year : 30 ml per kg IV fluid over one hour followed by 70 ml/kg IV fluid over 5 hours More than one year : 30 ml/kg IV fluid over 30 minutes followed by 70 ml/kg IV fluid over 2 hours 30 minutes ↓ Observe & Reassess If improved : Treat as Mild or Moderate as per dehydration status If not improved & severity persist: Repeat the above administration of the IV fluid & if consideration of higher centre /ICU.

True Copy Attested. More than body weight of each child must be taken and considered for the entire treatment.

*(Signature)*  
 Assistant Collector Judicial  
 Collectorate, Sundargarh

ADD Treatment Protocol: Paediatric Cases



**Antibiotics:** As per culture sensitivity currently available. Child with no dehydration should be managed with ORS only and careful observation.

- **Moderate to Severe Dehydration:** Inj. Cefoperazone + Sulbactam (100 mg/kg/day) in two divided doses in 100 ml NS for 3 days.
- ↓
- Injection Piperacilin + Tazobactam (100mg/kg/dose) in 8 hourly in 100 ml NS for 3 days.
- ↓
- Injection Meropenam (20 mg/kg/dose) in 8 hourly in 100 ml NS for 3 days.



**Zinc:** It should be started as soon as vomiting stops.

- 2 to 6 months – Syp. Zinc ( 20/5) 2.5 ml orally OD x 2 weeks
- 6 months to 5 years – Syp. Zinc ( 20/5) 5 ml orally or tablet zinc 20 mg OD x 2 weeks

**Vomiting:**

- Injection Ondansetran 0.1 – 0.2 ml/kg/dose thrice daily
- **During the administration of the drugs, it is suggested that child feeding to be continued.**

**Laboratory Test:** CBC/CRP/RFT/Serum Electrolytes/RBS/Stool Routine Microscopy/Hanging Drop/Stool Culture & Sensitivity in selected cases.

**Referral Criteria :**

- **Shock – 20 ml/kg bolus NS IV Fluid (Then refer to higher centre)**
- **Dyselectrolytemia**
- **Persistent Anuria after IV fluid administration**
- **Unconscious/Coma**
- **Other Co-morbidities (CHD/ Severe Anaemia)**

**Discharge Criteria:**

- No stool or less than 2 episodes of stool in a day.
- No features of dehydration
- Adequate Urination
- Absence of vomiting and other constitutional symptoms
- Taking Orally
- Mother is confident of feeding child with ORS.

**Medication during Discharge**

- ORS
- Tablet or Syp. Zinc to be continued for two weeks
- Feeding to be continued
- Counselling about sanitation and personal hygiene

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*[Signature]*  
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Collectorate, Sundargarh

- 63 -

## ADD Treatment Protocol: Adult Cases

**Case Definition:**

Any adult who have acute watery diarrhoea  
Or  
Any symptomatic adult recently travelled to suspected area  
Or  
Any adult with laboratory confirmed vibrio Cholera.

MILD DEHYDRATION	MODERATE DEHYDRATION (Patient Thirsty , Dry Tongue, Sunken Eyes, Concentrated Urine)	SEVERE DEHYDRATION ( Decrease BP <90, Altered Mentation, Cold Calmly Extremities, Lethargy)
Start ORS (2.5 ltrs over 4 to 6 hours ) then 250 ml ORS after each episode of loose motion. ↓ <b>OPD based management</b>  <b>Follow up telephonically</b>	<ul style="list-style-type: none"> <li>• Hospitalization</li> <li>• IV Fluid of choice -RL</li> <li>• IV Fluid of choice in case of shock/ oliguria – NS</li> </ul> <p>➤ Dose</p> <ul style="list-style-type: none"> <li>• First 30 min – 30 ml/kg body weight (1500 m approx)</li> <li>• Next 2 hours 30 min 70 ml/kg body weight (3500 ml approx.).</li> <li>• ORS should be encouraged as soon as patient is able to drink. Preferably 250 ml after each loose motion.</li> <li>• Special precaution to be taken in patients of CCF , Cirrhosis of liver &amp; CKD.</li> </ul>	Same as Moderate + Vasopressor Agent + Catheterization and Input/ Output charting

**Antibiotics:** As per culture sensitivity currently available. Patient with no dehydration should be managed with ORS only and careful observation.

**1<sup>ST</sup> Choice:** Injection Cefoperazone + Salbactam (2 gm) 1 vial with 100 ml NS IV BD X 3 to 5 days

.Or

Injection Piperacillin + Tazabatam (4.5 gm) with 100 ml NS 1 vial IV TID X 3 to 5 days

and Injection Metronidazole one bottle IV TID

**2<sup>nd</sup> Choice:** Injection Meropenam (1gm) with 100 ml NS 1 vial IV TID x 3 to 5 days

**Oral –** Tab Moxifloxacin 400 mg – 1 tablet OD for 5 days

- Tab Metronidazole 400 mg 1 tab TDS for 5 days

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ADD Treatment Protocol: Adult Cases

**3. Other Medications**

- Injection Ondansetron 4mg – 1 ample IV TDS/SOS if vomiting
- Correction of electrolyte imbalance
- Correction of acidosis if present
- Use of vasopressor (Dopamin/Norad/Dobutamin)
- Cap Rebecadotril 100 mg TDS (may be use to reduce stool volume)

**Laboratory Test:** CBC/RFT/LFT/Serum Electrolytes/ABG/RBS/Stool Routine Microscopy/Stool Culture & Sensitivity in selected cases. Follow up with CBC/RFT/Electrolyte.

**Referral Criteria:**

- Renal Dysfunction – Acute Kidney Injury (AKI) requiring Dialysis.
- Refractory Septic Shock
- Multiple Organ Dysfunction Syndrome (MODS)
- Refractory Dyselectrolytemia
- Any Co-morbidity Condition
- Any other conditions as decided by treating physician.

**Discharge Criteria:**

- No loose motion & vomiting for last 48 to 72 hours.
- Serum urea creatinine in decreasing trend in case of AKI
- Repeat CBC before Discharge to rule out sepsis
- Urine output at least 1500 ml in last 24 hours. Vital Stable

**Discharge Advice**

- ORS
- Oral Antibiotics eg. Moxifloxacin or Nitrofurantoin
- Pre-probiotics
- Counselling about sanitation and personal hygiene.
- Follow up of the patient telephonically for three days for worsening of symptoms.

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**Evening Briefing:**

- Daily report analysis as per the daily hospitalized case load in Govt. and private health institution & according to the reports daily submitted by the RRT & field level staff in House to house visit.
- Hot spot areas finalization according to the density of daily Hospitalized ADD case load.
- Preparation of daily RRT Micro plan according the daily hot spot areas finalization.
- Preparation of IEC & BCC plan based on the hot spot finalization on daily basis.
  - Sensitization meeting micro plan of DPHCO & ADPHCO & Public Health Officer
  - House to House visit plan of field level staffs
  - IEC distribution plan
  - Miking
- Testing plan.
- Drug supply for next day.
  - ORS availability
  - Zink availability
  - Halazone tablet availability
  - Anti Diarrhoeal drug etc.
- Based on the data analysis monitoring micro plan also prepared.

**True Copy Attested**Assistant Collector Judicial  
Collectorate, Sundargarhdi.  
22.01.24

Photos of daily Evening briefing:



  
Assistant Collector Judicial  
Collectorate, Sundargarh

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22.01.24

-67-

**DIARRHEA EPIDEMIC DECEMBER 2023****DIARRHEA AFFECTED AREA IN ROURKELA (HOTSPOTS):****FOOD SAFETY DATA:**

1. 3 Food Safety Officers from Sundargarh were deputed to Rourkela on immediate basis to assist and work with existing Food Safety team of Rourkela. Accordingly, a microplan was prepared and executed according. (A xerox copy of microplan encl.)
2. Mobile Food Testing Laboratory (MFTL) has been deputed from Bhubaneswar on immediate basis for testing food samples.
3. Water samples were collected from all the hotspots areas and sent to State Food Testing Laboratory (SFTL), Bhubaneswar with special messenger for microbiological testing. (A Xerox copy of detailed food inspection report encl.)
4. IEC activities such as
  - a. distribution of 12 Golden rules reflecting Good Hygiene Practices (GHP) were done during food inspections in different areas.
  - b. awareness drive was conducted for hawkers, roadside vendors, food vending establishments, restaurants, etc., for using boiling water for drinking and cooking purposes.
  - c. Gupchup thelas were instructed not to serve gupchup pani to consumers.
  - d. Cut fruits stalls were prohibited.

Complied Data of Food Safety Activities during the Epidemic		
01	Total Inspections Conducted (13.12.2023 to 30.12.2023)	449
02	Total Samples Collected (Food and Water)	326
03	Water Samples Collected	71
04	Non-conforming water samples	23
05	Food samples destroyed (in kg.)	120 kgs approx.
06	Total fine collected	Rs. 26,000/-

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Collectorate, Sundargarh

- 68 -

**Microplan for Food Inspection**

Date	Team	Area
15.12.2023	RMC FSOs	Basanti Colony
16.12.2023	RMC FSOs	Plant site & Panposh
17.12.2023	RMC FSOs	Kalinga Vihar, Balughat & Deogaon
18.12.2023	RMC FSOs	MS Marg, Main Road, Daily Market, STI and Panposh Road
19.12.2023	RMC FSOs	Balughat, Deogaon, Panposh
20.12.2023	RMC FSOs	Timber Colony, Gopabandhupali, Railway Colony, Madhusudanpalli
21.12.2023	Team 1	Bondamunda, Uditnagar
	Team 2	Powerhouse Road, Civil Township
22.12.2023	Team 1	Basanti Colony, Sector 7
	Team 2	Gandhi Road, MS Marg, Uditnagar
23.12.2023	Team 1	STI, Civil Township
	Team 2	Kalinga Vihar, Chhend, Panposh
24.12.2023	Team 1	Fertilizer, Balijodi
	Team 2	Bondamunda
25.12.2023	Team 1	Ambagan Market, Gajapati Market

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-69-

	Team 2	Sector 5
26.12.2023	Team 1	Civil Township
	Team 2	
27.12.2023	Team 1	Koelnagar
	Team 2	Kalinga Vihar, Chhend, Civil Township
28.12.2023	Team 1	Timber Colony, Gopabandhupali, Railway Colony, Basanti Colony
	Team 2	Uditnagar, Chhend
29.12.2023	Team 1	MS Marg, Station Road
	Team 2	
30.12.2023	Team 1	Sector 8, 9
	Team 2	

Team 1: Swagatika Behera (DO), Monali Behera (FSO), Kundan Luhar (FSO)

Team 2: Pratap Rudra Mandal (DO), Diksha Dey (FSO), Monalisa Toppo (FSO)

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-70-

## FOOD INSPECTION REPORT

Date	Area	Total Establishment Inspected	Action	No of case launched for violation of Sec 69 and amount collected	Reports
13.12.2023	Shaktinagar, KoelNagar	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 15  Hotel & Restaurant -05	Total Sample collected -04  Food destroyed: 5 kgs approx. Improvement notice issued	Fine- Rs. 1,500/-	SFTL sample for results are awaited.
14.12.2023	Orampada & Uditnagar	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 20  Hotel & Restaurant -10	Food destroyed: 19 kgs approx. Improvement notice issued	Fine Rs.1,000/-	SFTL sample for results are awaited.
15.12.2023	Basanti Colony	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 24	Food destroyed: 13 kgs approx. Improvement notice issued	Fine Rs.2,000/-	SFTL sample for results are awaited.
16.12.2023	Plant site & Panposh	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 13  Hotel & Restaurant -05	Improvement notice and notice to license are issued	Fine Rs.2,500/-	SFTL sample results are awaited.
17.12.2023	Kalinga Vihar, Balughat & Deogaon	Fast food centers including Tiffin Stalls, panipuri stalls, snacks	Sample collected-18 (water samples: 2)	Fine Rs.1,500/-	16 food samples are conforming.

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-79-

		centers etc. - 35	Food destroyed: 22 kgs approx. Improvement notice and notice to license are issued		2 water samples are not conforming with standards.
18.12.2023	MS Marg, Main Road, Daily Market, STI and Panposh Road	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 48	Sample collected- 5 (water samples: 3)  Food destroyed: 15 kgs approx. Improvement notice and notice to license are issued	Fine Rs.1,300/-	2 food samples are conforming.  2 water samples not conforming with standards.
19.12.2023	Balughat, Deogaon, Panposh	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 17	Sample collected-21 (water samples: 3) (MFTL)  Food destroyed: 9 kgs approx. Improvement notice and notice to license are issued	Fine Rs.1,200/-	MFTL samples are conforming.  SFTL sample for microbial test results are awaited.
20.12.2023	Timber Colony, Gopabandhupali, Railway Colony, Madhusudanpalli	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 22	Sample collected-35 (water samples: 7) (MFTL)  Food destroyed: 10 kgs approx.  Improvement notice and notice to license are issued	Fine Rs.2,000/-	MFTL samples are conforming.  5 water samples not conforming with standards.

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-72-

21.12.2023	Diesel Colony, Tilkanagar, Bondamunda, Uditnagar, Powehouse Road, Civil Township	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 38	Sample collected: 23 (water samples: 12)  Food destroyed: 4 kgs approx.  Notice to license are issued	Fine Rs. 1,000/-	MFTL samples are conforming.  9 water samples not conforming with standards.
22.12.2023	Basanti Colony, Sector 7, Gandhi Road, MS Marg, Uditnagar	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 31	Sample collected: 41 (water samples: 11)  Food destroyed: 2 kgs approx.  Notice to license are issued	Fine Rs. 2,000/-	MFTL samples are conforming.  4 water samples not conforming with standards.
23.12.2023	STI Chowk, Civil Township, Kalinga Vihar, Chhend, Panposh	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 31	Sample collected: 33 (water samples: 8)  Food destroyed: 2 kgs approx.  Notice to license are issued	Fine Rs. 1,000/-	MFTL samples are conforming.  All water samples are conforming with standards.
24.12.2023	Fertilizer, Balijodi, Bondamunda	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 25	Sample collected: 21 (water samples: 3)  Food destroyed: 2 kgs approx.  Notice to license are issued	Fine Rs. 1,500/-	MFTL samples are conforming.  All water samples are conforming with standards.
25.12.2023	Ambagan Market, Gajapati Market, Sector 5	Fast food centers including Tiffin Stalls, panipuri	Sample collected: 25 (water samples: 2)	Fine Rs. 1,000/-	MFTL samples are conforming.

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-73-

		stalls, snacks centers etc. - 17	Food destroyed: 5 kgs approx. Notice to license are issued		1 water sample not conforming with standards.
26.12.2023	Civil Township	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 19	Sample collected: 21 (water samples: 6) Food destroyed: 2 kgs approx. Notice to license are issued	Fine Rs.1,200/-	MFTL samples are conforming. All water samples are conforming with standards.
27.12.2023	Koelnagar, Kalinga Vihar, Chhend, Civil Township	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 21	Sample collected: 24 (water samples: 9) Food destroyed: 6 kgs approx. Notice to license are issued	Fine Rs.4,000/-	MFTL samples are conforming. All water samples are conforming with standards.
28.12.2023	Timber Colony, Gopabandhupalli, Railway Colony, Basanti Colony, Uditnagar, Chhend	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 26	Sample collected: 26 (water samples: 3) Food destroyed: 2 kgs approx. Notice to license are issued	Fine Rs.1,300/-	MFTL samples are conforming. All water samples are conforming with standards.
29.12.2023	Madhusudan Marg, Station Road	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 17	Sample collected: 21 (MFTL) Food destroyed: 2 kgs approx.	Nil	MFTL samples are conforming. All water samples are conforming

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-74-

30.12.2023	Sector 8, 9	Fast food centers including Tiffin Stalls, panipuri stalls, snacks centers etc. - 10	Notice to license are issued Sample collected: 8 (water samples: 2) Notice to license are issued	Nil	with standards. All water samples are conforming with standards.
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Designated Officer FSSAI  
Rourkela Municipal Corporation



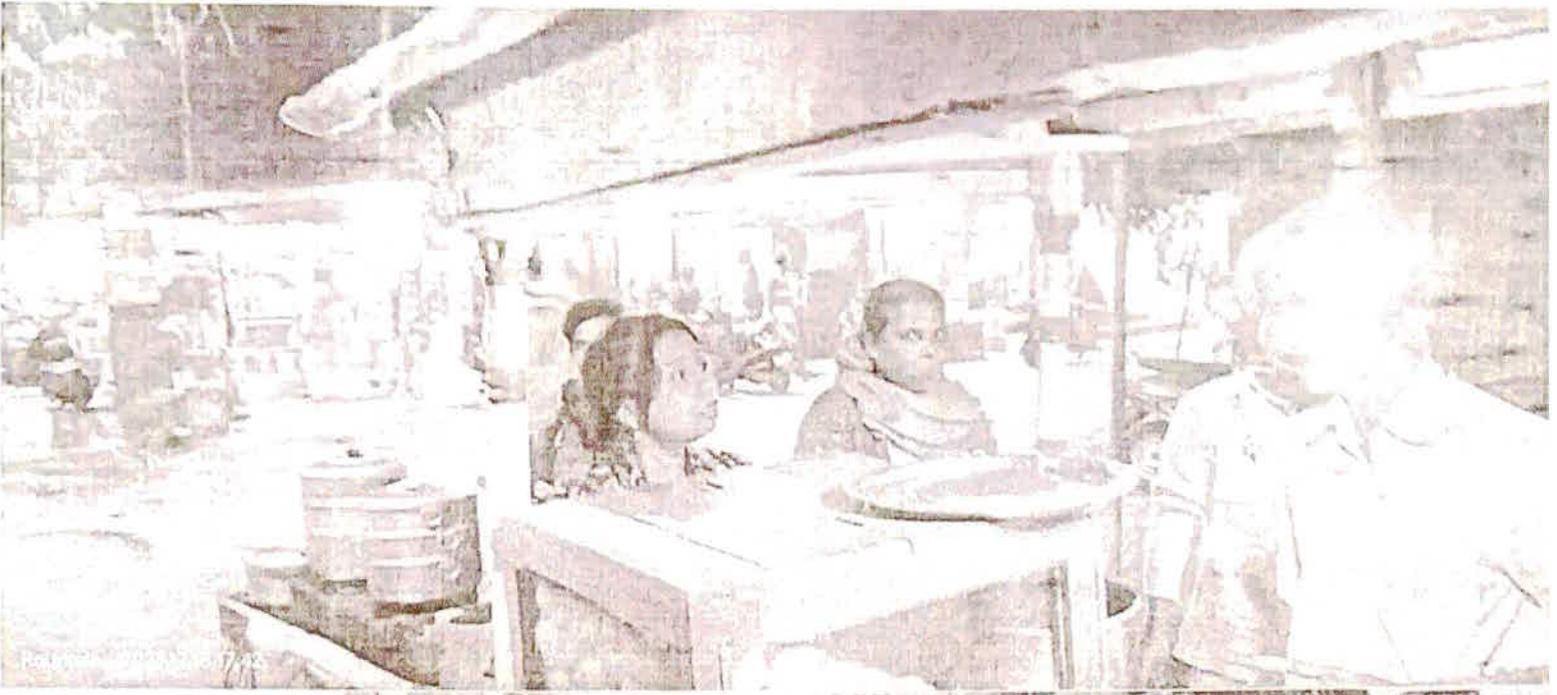
Health Officer  
Rourkela Municipal Corporation  
Rourkela

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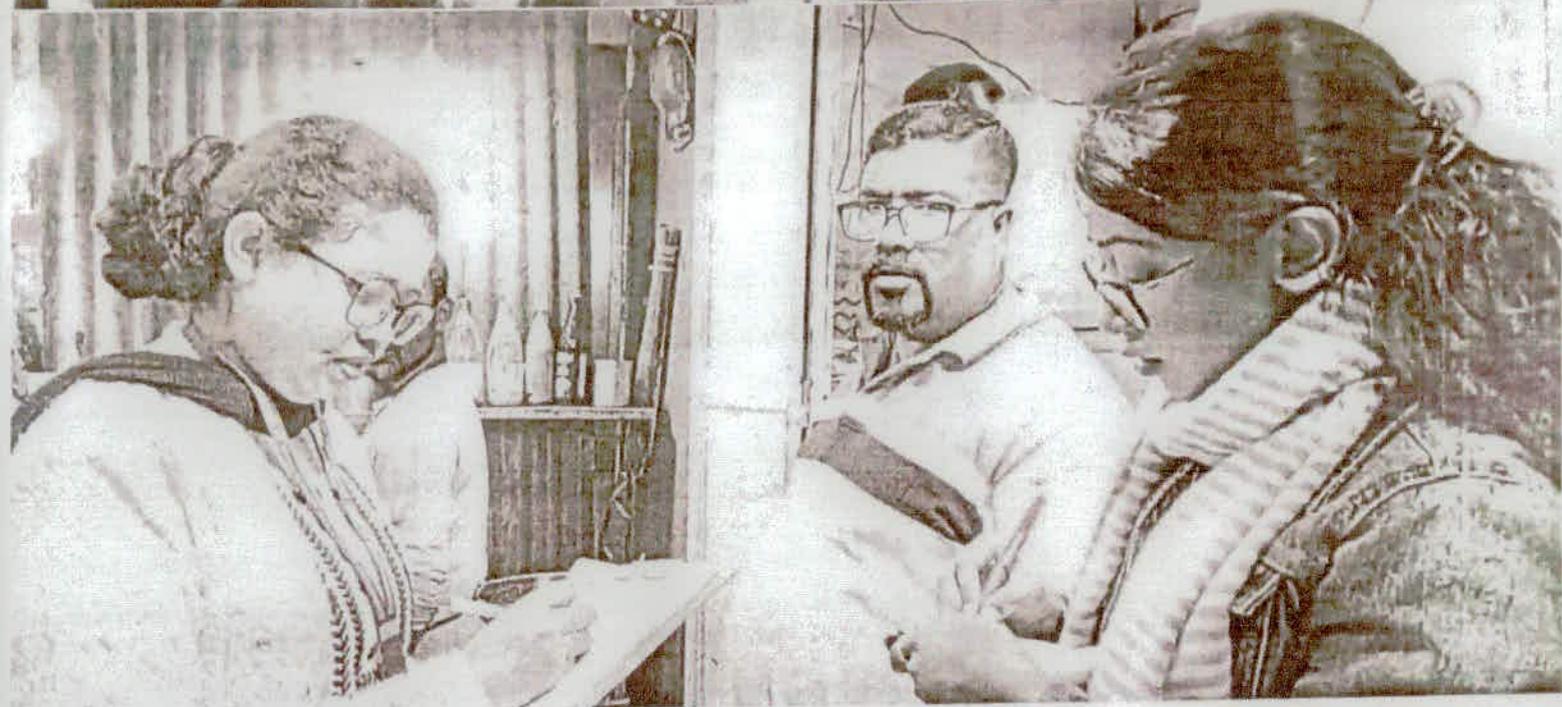
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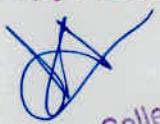


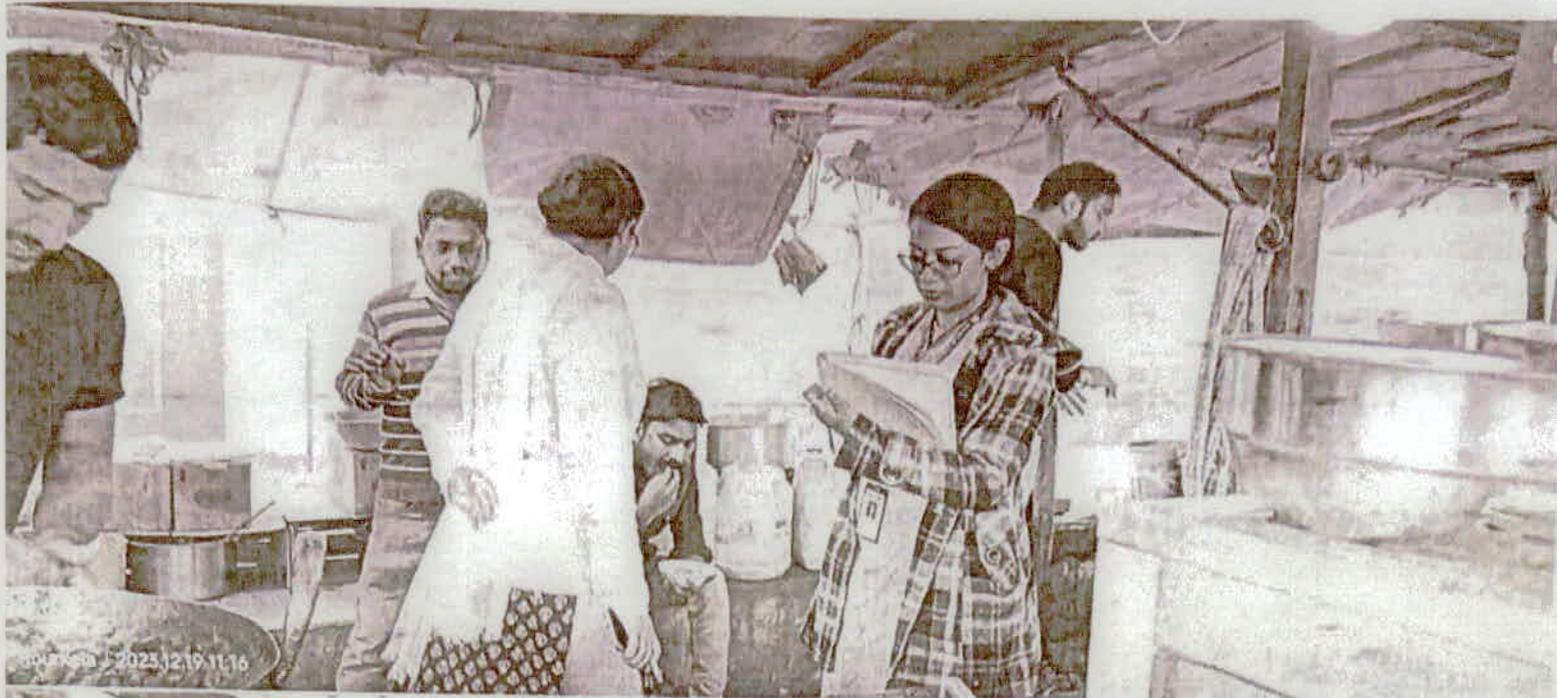
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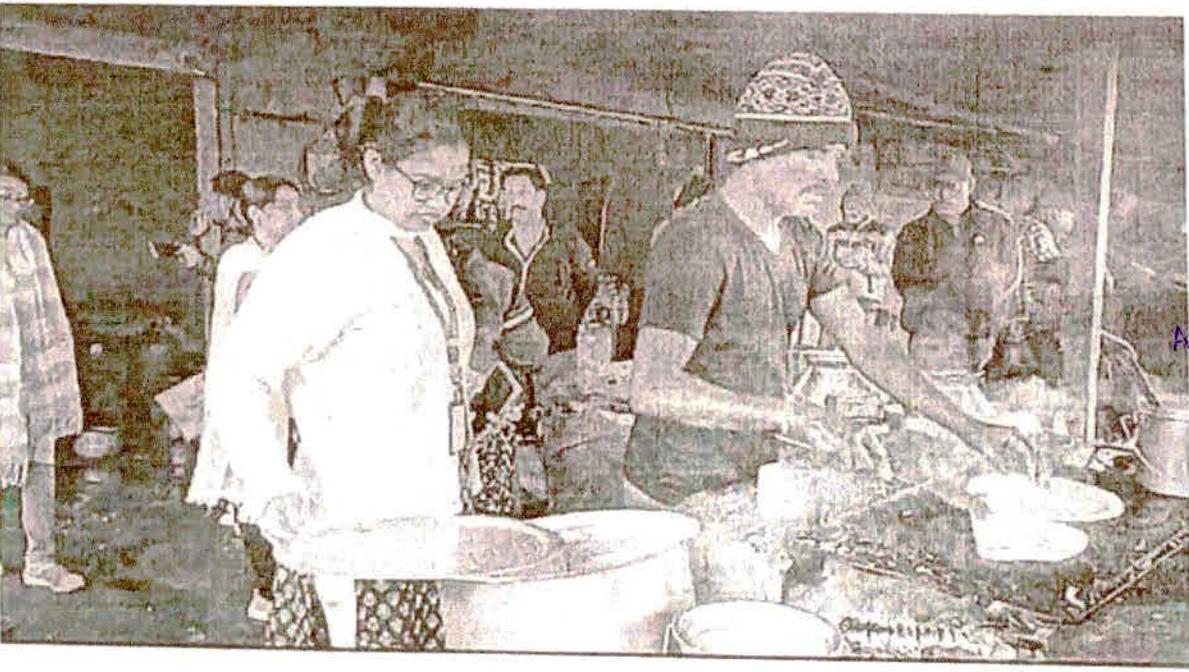
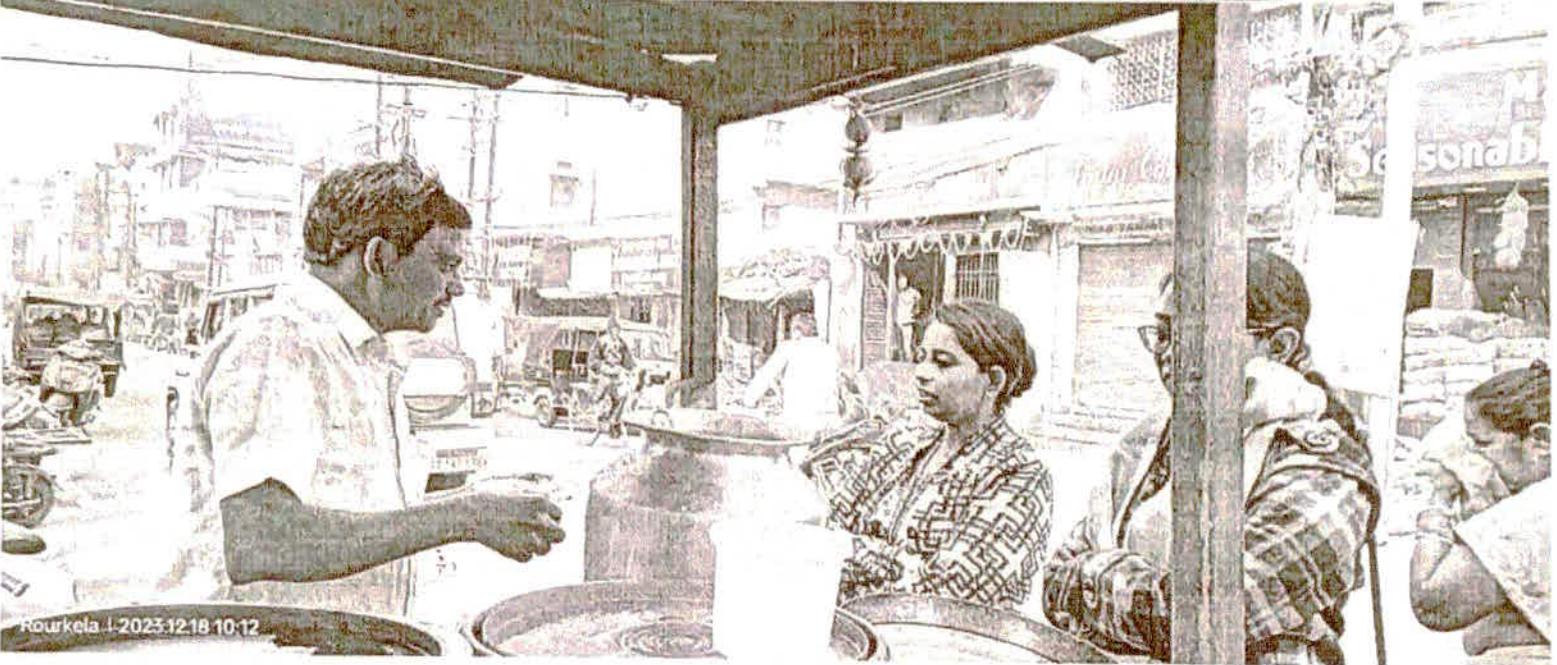
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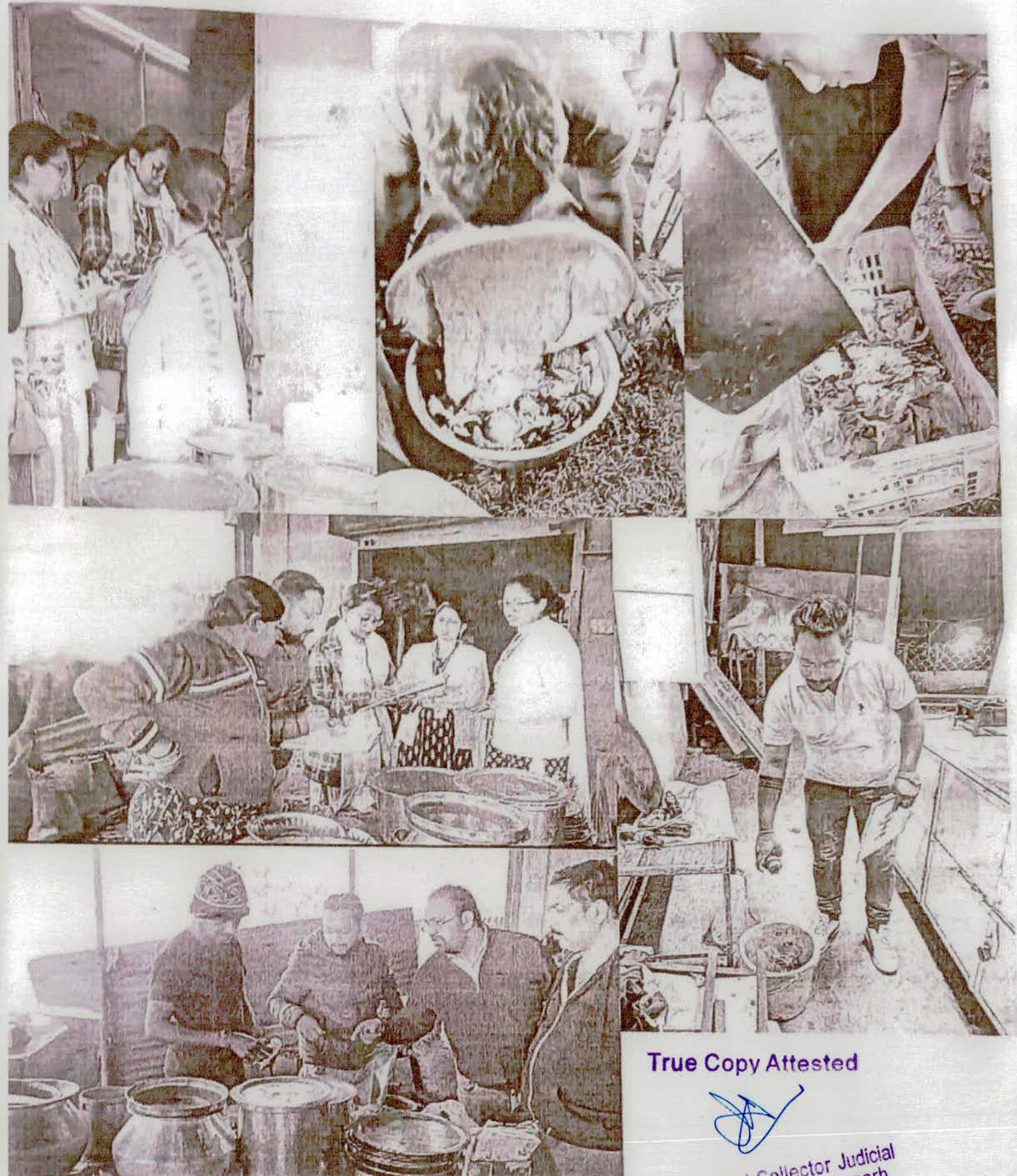
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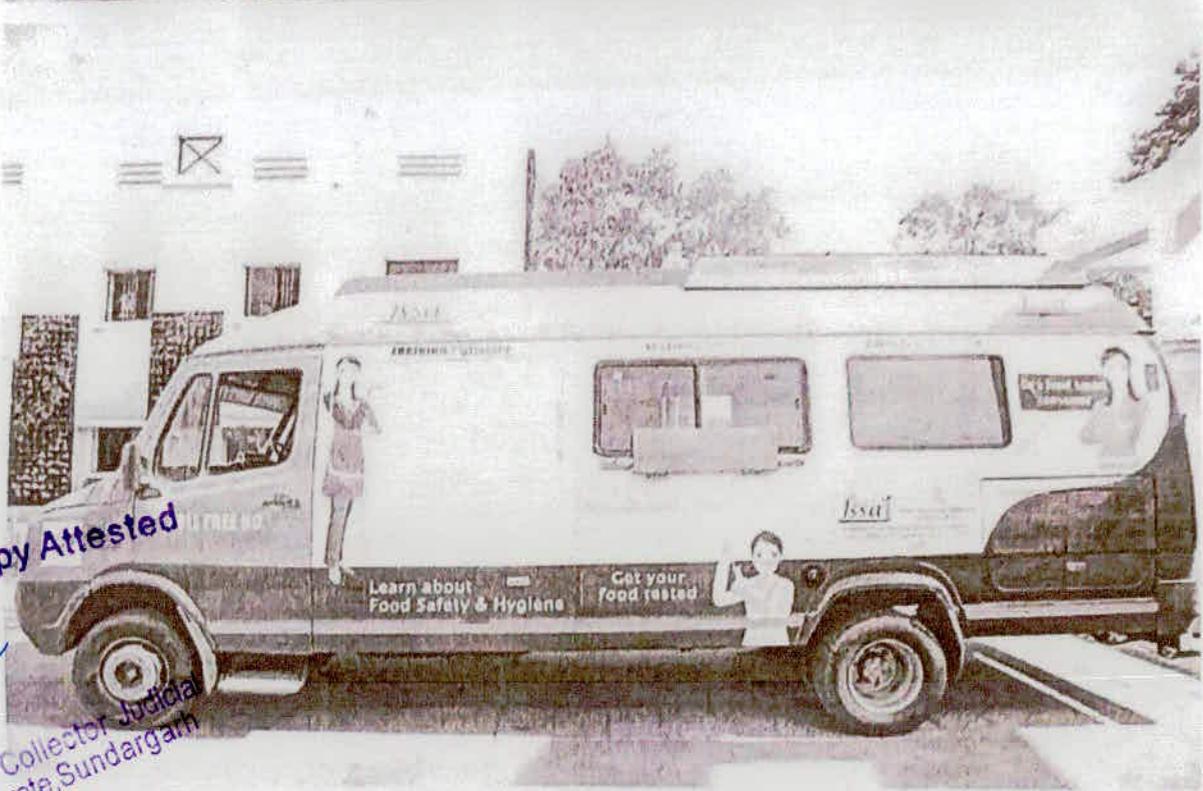
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Sl No	Water sampling Location	Latitude	Longitude	Parameters
1.	Baikuntha Ghat Ghat Intake point, INLET RMC	22.266775	84.898640	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
2.	Baikuntha Ghat Koel River Main Stream	22.267836	84.885988	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
3.	WATCO, Koelnagar Tap Water, Supply outlet Water	22.266936	84.886605	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
4.	WATCO, Jhirpani, Tap Supply Sampling Point	22.274322	84.899127	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
5.	Main Stream of Koel River at Jhirpani WATCO intake point	22.275449	84.899883	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
6.	WATCO Section-III, Koel Nagar overhead tank water	22.256608	84.890007	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
7.	WATCO Sakti Nagar overhead tank water Supply	22.256710	84.898906	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
8.	SAIL Water Treatment plant	22.255872	84.885165	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
9.	Koel U/s, Baikunthaghat, Sail Intake Point	22.268209	84.883350	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
10.	55 MLD Water Treatment Plant Outlet	22.220543	84.809875	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
11.	Plant Site Road Tap Water	22.222686	84.855423	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
12.	Nala Road Supply Tap Water	22.223180	84.860499	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
13.	Oram Pada Udit Nagar Tap Water	22.221596	84.842933	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
14.	Kisantola Panposh Basti Tap Water	22.244661	84.802449	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
15.	18 MLD Intake Pump House at Panposh	22.221987	84.802789	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
16.	25 MLD Intake Pump House at Panposh	22.222257	84.802345	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
17.	43 MLD Supply water PumpHouse	22.222379	84.806613	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
18.	Vedvyas Water Intake of WATCO Plant	22.236415	84.797172	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC
19.	Vedvyas Water Treatment Plant of Watco	22.233479	84.795737	PH, TDS, BOD, COD, TDS, O&G, No3 as N, F, TC, FC

**True Copy Attested**

  
 Assistant Collector Judicial  
 Collectorate, Sundargarh

Oct, 2023



FAX : 2562822/2560955  
 TEL : 2564033/2563294  
 EPABX : 2561909/2562847  
 E-mail : [paribesh1@ospcbord.org](mailto:paribesh1@ospcbord.org)  
 Website : [www.ospcbord.org](http://www.ospcbord.org)

## STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST, ENVIRONMENT & CLIMATE CHANGE, GOVERNMENT OF ODISHA]

Paribesh Bhawan, A/118 Nilakanthanagar, Unit-VII,

Bhubaneswar - 751 012

(CENTRAL LABORATORY)

No. 17113 / VI-SC (LEM) Misc 38/2023-24 Dt. 01-11-2023 /

To

The Regional Officer,  
 State Pollution Control Board, Odisha,  
 Rourkela

Sub : Test Report of wastewater sample collected from 40 MLD STP outlet of Rourkela Municipal Corporation constructed by OWSSB - reg.

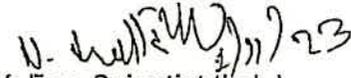
Ref : Your Letter No. Nil

Sir,

With reference to the above, please find enclosed herewith the test report of wastewater sample submitted to the Central Laboratory on dt. 11.10.2023 by your office, collected from 40 MLD STP outlet of Rourkela Municipal Corporation constructed by OWSSB.

Encl : OS/507/11/2023

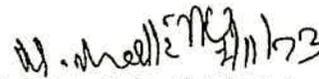
Yours faithfully,

  
 Chief Env. Scientist (Lab.)

Memo No. 17114 / dt. 01-11-2023 /

Copy forwarded to the Chief Executive Officer, WATCO, Bhubaneswar for kind information.

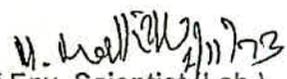
Encl : As above

  
 Chief Env. Scientist (Lab.)

Memo No. 17115 / dt. 01-11-2023 /

Copy forwarded to the Sri Mitrasen Majhi, CES, SPC Board, Odisha Bhubaneswar for kind information.

Encl : As above

  
 Chief Env. Scientist (Lab.)

**True Copy Attested**

  
 Assistant Collector Judicial  
 Collectorate, Sundargarh

OK



-84-

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)

### TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/507/11/2023
- 3 (i) Date : 01.11.2023
4. Sample Submitted By : Sri Sudeep Kumar Behera Field Asst.,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : Nil
6. Date of sample receipt : 11.10.2023
7. Sample Description :
  - (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
  - (ii) Group : Pollution and Environment (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Wastewater (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 11.10.2023 – 31.10.2023
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/Regulatory Limits (G.S.R. 1265 (E) Dt.13.10.2017)*	Test Method	Sample of outlet of 40 MLD STP of Rourkela Municipal Corporation constructed by OWSSB
				Others/ Oct - 23/ WW/1424
				40 MLD STP outlet of Rourkela Municipal Corporation constructed by OWSSB
				Results
1.	pH	6.5-9.0	4500-H-B, APHA, 24 <sup>th</sup> Edn, 2023	7.1
2.	Total Suspended Solids (TSS), mg/L	<100	5000-D, APHA, 24 <sup>th</sup> Edn, 2023	<10.0
3.	Dissolved Oxygen (DO), mg/L	-	4500-O-C, APHA, 24 <sup>th</sup> Edn, 2023	7.1
4.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	30	IS 3025 Part 44 (2023)	3.2
5.	Chemical Oxygen Demand (COD), mg/L	-	5200-B, APHA, 24 <sup>th</sup> Edn, 2023	32.0
6.	Total Coliform (TC), MPN/100 ml	-	9221-B, APHA, 24 <sup>th</sup> Edn, 2023	<1.8
7.	Fecal Coliform (FC), MPN/100 ml	<1000	9221-E, APHA, 24 <sup>th</sup> Edn, 2023	<1.8

\* Effluent discharge standard for sewage treatment plants, Applicable for Sl. No. Others/Oct-23/WW/1424

11. Deviation from Test Method, if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
  - (a) Date of Sampling :
  - (b) Method Used\* :
  - (c) Name of Sampler with Designation :

Final Test Report

Authorised Signatory (Biological) (Mrs. Nishiprava Pattanaik, AES) 
 Authorised Signatory (Water/wastewater) (Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)
  
 Board Analyst (Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

- (i) The results stated above relate only to the items tested.

True Copy Attested

Assistant Collector Judicial  
 Collectorate, Sundargarh

Oct, 2023



FAX : 2562822/2560955  
TEL : 2564033/2563294  
EPABX : 2561909/2562847  
E-mail : [paribesh1@ospceboard.org](mailto:paribesh1@ospceboard.org)  
Website : [www.ospceboard.org](http://www.ospceboard.org)

**STATE POLLUTION CONTROL BOARD, ODISHA**

[DEPARTMENT OF FOREST, ENVIRONMENT & CLIMATE CHANGE, GOVERNMENT OF ODISHA]  
Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII,

Bhubaneswar - 751 012

(CENTRAL LABORATORY)

No. 523 /

VI-SC (LEM) Proj-321/22-23

Dt. 09.01.2024 /

To

By email

The Regional Officer,  
State Pollution Control Board, Odisha,  
Rourkela

Sub : Test Reports of water sample received under NWMP for the month of October, 2023

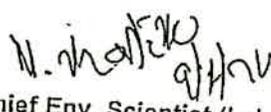
Ref : Your letter No. 4340 dated 10.10.2023

Sir,

With reference to the above cited letter, please find enclosed herewith the test reports of water samples submitted to the Central Laboratory on 11.10.2023, collected under NWMP under your jurisdiction, for the month of October, 2023.

Encl : (i) NS/357/11/2023  
(ii) NS/358/11/2023

Yours faithfully,

  
Chief Env. Scientist (Lab.)

Central Laboratory address: Plot No.-B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar -751024 E-mail: [centrallab@ospceboard.org](mailto:centrallab@ospceboard.org)

True Copy Attested

  
Assistant Collector Judicial  
Collectorate, Sundargarh



**CENTRAL LABORATORY  
STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)

**TEST REPORT**

- 1 ULR No. : ----
- 2 (i) Report No. : NS/357/11/2023
- 3 (i) Date : 15.11.2023
- 2 (ii) Amendment No : ---
- 3 (ii) Amendment Date : ---
- 4 Sample Submitted By : Sri S.K.Behera, FA  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
- 5 Reference Letter No. : 4340 dated 10.10.2023
- 6 Date of sample receipt : 11.10.2023
- 7 Sample Description :
  - (i) Discipline : Chemical Testing And Biological Testing (Biological Testing, Chemical testing)
  - (ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Surface water (Surface water/ Ground water/ Wastewater Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
- 8 Analysis Starting Date-Analysis Completion Date : 11.10.2023 – 02.11.2023
- 9 If uncertainty is desired by Customer : No
- 10 Analysis Results :

(Attach separate sheet if necessary)

Sl No	Parameter, Unit	Standards/ Regulatory Limits Applicable for Sl.No (NS/Oct-23/SW/154 - NS/Oct-23/SW/163)			Test Method	NS/Oct-23/SW/154	NS/Oct-23/SW/155
		IS:2296-1982,Class-'C'*	IS:2296-1982,Class-'B'**	G.S.R.742(E) dt. 25.09.2000***		Sundargarh	Sankha U/S
						Results	
1.	pH	6.5-8.5	6.5-8.5	6.5-8.5	4500-H'-B, APHA, 24 <sup>th</sup> Edn., 2023	6.8	6.7
2.	Electrical Conductivity (EC), $\mu$ S/cm	-	-	-	2510 B, APHA, 24 <sup>th</sup> Edn., 2023	135	125
3.	Dissolved Oxygen (DO), mg/L	4,min	5,min	5 or more	4500-O-C, APHA, 24 <sup>th</sup> Edn., 2023	6.4	6.1
4.	Biochemical Oxygen Demand (BOD), mg/L	3,max	3,max	3 or less	IS 3025: Part 44 (2023)	1.6	1.1
5.	Chemical Oxygen Demand (COD), mg/L	-	-	-	5220 B APHA, 24 <sup>th</sup> Edn., 2023	12.0	8.0
6.	Total Alkalinity (T.Alk.) , mg/L	-	-	-	2320 B, APHA, 24 <sup>th</sup> Edn., 2023	56	32
7.	Phenolphthalein Alkalinity (P.Alk.) ,mg/L	-	-	-		< 5	< 5
8.	Total Hardness (TH), mg CaCO <sub>3</sub> /L	-	-	-	2340-C, APHA, 24 <sup>th</sup> Edn., 2023	48	40
9.	Calcium Hardness (CaH), mg CaCO <sub>3</sub> /L	-	-	-	3500-Ca-B, APHA, 24 <sup>th</sup> Edn., 2023	32	28
10.	Calcium (Ca), mg/L	-	-	-		12.83	11.22
11.	Magnesium Hardness (MgH), mg CaCO <sub>3</sub> /L	-	-	-	3500-Mg-B, APHA, 24 <sup>th</sup> Edn., 2023	16	12
12.	Magnesium (Mg), mg/L	-	-	-		3.89	2.92
13.	Sodium (Na) , mg/L	-	-	-	3500-Na B, APHA, 24 <sup>th</sup> Edn., 2023	8.46	6.13
14.	Potassium (K), mg/L	-	-	-	3500 K-B, APHA, 24 <sup>th</sup> Edn., 2023	1.24	1.47

True Copy Attested

*D.H. Mishra*  
11/11/23

*Leatradu*  
11/11/2023

*M. Mohanty*  
11/11/23 (Cont..)

*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh

-87-

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits Applicable for Sl.No (NS/Oct-23/SW/154 - NS/Oct-23/SW/163)			Test Method	NS/Oct- 23/SW/154	NS/Oct- 23/SW/155
		IS:2296- 1982,Class- 'C'	IS:2296- 1982,Class- 'B'	G.S.R.742(E) dt. 25.09.2000***		Sundargarh	Sankha U/S
						Results	
15.	Boron (B), mg/L	-	-	-	4500-B-B APHA, 24 <sup>th</sup> Edn., 2023	0.190	0.106
16.	Sodium Absorption Ratio (SAR)	-	-	-	IS 2296 (1982)	0.53	0.42
17.	Percentage Sodium (% Na)	-	-	-		27.06	24.14
18.	Chloride (Cl <sup>-</sup> ), mg/L	600,max	-	-	4500-Cl B, APHA, 24 <sup>th</sup> Edn., 2023	8.0	6.0
19.	Sulphate (SO <sub>4</sub> <sup>2-</sup> ),mg/L	400,max	-	-	4500-SO <sub>4</sub> <sup>2-</sup> E, APHA, 24 <sup>th</sup> Edn., 2023	9.54	25.54
20.	Total Dissolved Solids (TDS), mg/L	1500,max	-	-	2540 C, APHA, 24 <sup>th</sup> Edn., 2023	88	84
21.	Total Fixed Solids (TFS), mg/L	-	-	-	2540 E, APHA, 24 <sup>th</sup> Edn., 2023	72	68
22.	Ammonical Nitrogen (NH <sub>3</sub> -N) mg/L	-	-	-	4500-NH <sub>3</sub> -B followed by 4500- NH <sub>3</sub> -C, APHA 24 <sup>th</sup> Edn . 2023	0.56	1.12
23.	Total Kjeldahl Nitrogen (TKN), mg/L	-	-	-	4500-Norg C. APHA, 24 <sup>th</sup> Edn . 2023	NA	NA
24.	Nitrite-N (NO <sub>2</sub> <sup>-</sup> - N), mg/L	-	-	-	4500-NO <sub>2</sub> <sup>-</sup> -B, APHA, 24 <sup>th</sup> Edn., 2023	<0.02	<0.02
25.	Nitrate-N (NO <sub>3</sub> <sup>-</sup> - N), mg/L	-	-	-	4500 NO <sub>3</sub> <sup>-</sup> - E APHA, 24 <sup>th</sup> Edn., 2023	0.373	0.319
26.	Nitrate (NO <sub>3</sub> <sup>-</sup> ), mg/L	50,max	-	-		1.652	1.411
27.	Phosphate-P (PO <sub>4</sub> <sup>3-</sup> - P), mg/L	-	-	-	4500-P-D APHA, 24 <sup>th</sup> Edn., 2023	< 0.05	<0.05
28.	Turbidity, NTU	-	-	-	2130 B, APHA, 24 <sup>th</sup> Edn., 2023	21	31
29.	Fluoride (F <sup>-</sup> ), mg/L	1.5,max	1.5,max	-	4500-F-C, APHA, 24 <sup>th</sup> Edn., 2023	0.15	0.14
30.	Total Suspended Solids (TSS), mg/L	-	-	-	2540-D, APHA, 24 <sup>th</sup> Edn., 2023	24	37
31.	Hexavalent Chromium (Cr(VI), mg/L)	0.05,max	-	-	3500-Cr-B APHA, 24 <sup>th</sup> Edn., 2023	0.004	0.007
32.	Total Coliform (TC), MPN/100 ml	5000,max	500,max	-	9221-B APHA, 24 <sup>th</sup> Edn., 2023	1300	2400
33.	Faecal Coliform (FC), MPN/ 100 ml	-	-	500 (desirable) 2500 (permissible)	9221-E, APHA, 24 <sup>th</sup> Edn . 2023	330	790
34.	Fecal StreptoCocci (FS), MPN/100ml	-	-	100 (desirable) 500 (permissible)	9230 B, APHA, 24 <sup>th</sup> Edn., 2023	NA	NA
35.	Free Ammonia-N, mg/L	-	-	-	IS 2488: Part 4, 1974	0	0

True Copy Attested

  
 Assistant Collector Judicial  
 Collectorate, Sundargarh  
 15/11/2023

Learned  
 15/11/2023

15/11/23

(Cont..)

- 88 -

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits Applicable for Sl.No (NS/Oct-23/SW/154 - NS/Oct-23/SW/163)			Test Method	NS/Oct- 23/SW/154	NS/Oct- 23/SW/155
		IS:2296- 1982,Class- 'C'	IS:2296- 1982,Class- 'B'	G.S.R.742(E) dt. 25.09.2000***		Sundargarh	Sankha U/S
						Results	
36.	Iron (Fe), mg/L	-	-	-	3500Fe-B, APHA, 24 <sup>th</sup> Edn., 2023	1.031	1.786
37.	Mercury(Hg),mg/L	-	-	-	3112B, APHA, 24 <sup>th</sup> Edn., 2023	0.00031	0.00046
38.	Total Chromium (T.Cr), mg/L	-	-	-	3030G followed by 3500 Cr-B, APHA 23 <sup>rd</sup> Edn., 2017	0.006	0.019

Sl. No.	Parameter, Unit	NS/Oct- 23/SW/156	NS/Oct- 23/SW/157	NS/Oct- 23/SW/158	NS/Oct- 23/SW/159	NS/Oct- 23/SW/160	NS/Oct- 23/SW/161	NS/Oct- 23/SW/162	NS/Oct- 23/SW/163
		Koel U/s	Panposh U/s	Panposh D/s	Rourkela D/s Jalda	Rourkela FD/s Attaghat	Rourkela FD/s Birtola	Bonaigarh	Guradih Nallah
Results									
1	pH	6.8	6.9	6.6	6.7	6.8	6.9	7.1	7.1
2	Electrical Conductivity (EC), $\mu\text{S/cm}$	140	126	270	176	174	140	138	450
3	Dissolved Oxygen (DO), mg/L	7.8	7.1	7.0	6.7	6.1	7.9	6.8	6.8
4	Biochemical Oxygen Demand (BOD), mg/L	1.3	1.5	4.8	4	1.8	1.5	1.9	5.7
5	Chemical Oxygen Demand (COD),mg/L	8.0	8.0	16.0	16.0	12.0	12.0	12.0	32.0
6	Total Alkalinity (T.Alk.), mg/L	40	44	56	56	52	48	44	140
7	Phenolphthalein Alkalinity (P.Alk.),mg/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
8	Total Hardness (TH), mg $\text{CaCO}_3/\text{L}$	52	44	80	60	60	52	48	152
9	Calcium Hardness (CaH), mg $\text{CaCO}_3/\text{L}$	36	32	60	40	40	36	32	116
10	Calcium (Ca), mg/L	14.43	12.83	24.05	16.03	16.03	14.43	12.83	46.49
11	Magnesium Hardness (MgH), mg $\text{CaCO}_3/\text{L}$	16	12	20	20	20	16	16	36
12	Magnesium (Mg), mg/L	3.89	2.92	4.86	4.86	4.86	3.89	3.89	8.75
13	Sodium (Na) , mg/L	6.00	6.27	12.64	7.57	8.24	6.14	5.98	26.35
14	Potassium (K), mg/L	1.48	1.57	6.32	2.73	2.48	1.58	1.61	14.70
15	Boron (B), mg/L	0.130	0.139	0.168	0.182	0.202	0.110	0.096	0.389
16	Sodium Absorption Ratio (SAR)	0.36	0.41	0.61	0.42	0.46	0.37	0.38	0.93
17	Percentage Sodium (% Na)	19.49	22.86	23.78	20.58	22.09	19.81	20.62	25.12

True Copy Attested

*D. H. Sankha*  
Assistant Collector Judicial  
Collectorate, Sundargarh

*L. Patra*  
10.11.2023

*W. Sankha*  
10.11.23 (Cont..)

-89-

Sl No.	Parameter, Unit	NS/Oct-23/SW/156	NS/Oct-23/SW/157	NS/Oct-23/SW/158	NS/Oct-23/SW/159	NS/Oct-23/SW/160	NS/Oct-23/SW/161	NS/Oct-23/SW/162	NS/Oct-23/SW/163
		Koel U/s	Panposh U/s	Panposh D/s	Rourkela D/s Jalda	Rourkela FD/s Attaghat	Rourkela FD/s Birtola	Bonaigarh	Guradih Nallah
Results									
18.	Chloride (Cl <sup>-</sup> ), mg/L	6.0	6.0	12.0	8.0	10.0	6.0	6.0	32.0
19.	Sulphate (SO <sub>4</sub> <sup>2-</sup> ), mg/L	27.36	16.27	44.00	26.54	20.29	15.91	12.64	51.81
20.	Total Dissolved Solids (TDS), mg/L	96	84	156	112	108	84	80	288
21.	Total Fixed Solids (TFS), mg/L	84	64	128	92	92	72	64	236
22.	Ammonical Nitrogen (NH <sub>3</sub> -N) mg/L	0.56	0.56	1.68	1.12	0.56	0.56	0.56	2.24
23.	Total Kjeldahl Nitrogen (TKN), mg/L	NA	NA	NA	NA	NA	NA	NA	NA
24.	Nitrite-N (NO <sub>2</sub> <sup>-</sup> - N), mg/L	<0.02	0.030	0.189	0.119	0.350	<0.02	<0.02	0.274
25.	Nitrate-N (NO <sub>3</sub> <sup>-</sup> - N), mg/L	1.296	<0.3	3.421	0.644	0.462	<0.3	0.322	6.969
26.	Nitrate (NO <sub>3</sub> <sup>-</sup> ), mg/L	5.739	<1.329	15.150	2.854	2.044	<1.329	1.427	30.861
27.	Phosphate-P (PO <sub>4</sub> <sup>3-</sup> - P), mg/L	<0.05	<0.05	0.061	<0.05	<0.05	<0.05	<0.05	0.097
28.	Turbidity, NTU	55	32	50	60	50	33	45	6.5
29.	Fluoride (F <sup>-</sup> ), mg/L	0.16	0.12	0.13	0.16	0.17	0.32	0.28	0.24
30.	Total Suspended Solids (TSS), mg/L	76	29	90	113	101	81	77	26
31.	Hexavalent Chromium (Cr(VI), mg/L)	0.006	0.006	0.009	0.010	0.012	0.004	0.009	0.006
32.	Total Coliform (TC), MPN/100 ml	1700	2400	54000	22000	3500	790	2800	>160000
33.	Faecal Coliform (FC), MPN/100 ml	790	490	17000	7900	460	170	1300	35000
34.	Fecal Streptococci (FS), MPN/100ml	NA	NA	70	49	17	<1.8	NA	49
35.	Free Ammonia-N, mg/L	0	0	0	0	0	0	0.003	0.011
36.	Iron (Fe), mg/L	2.138	5.005	3.370	3.144	6.865	5.256	3.496	4.577
37.	Mercury(Hg), mg/L	0.00046	0.00031	0.00031	0.00046	0.00062	0.00046	0.00031	0.00046
38.	Total Chromium (T.Cr), mg/L	0.010	0.012	0.016	0.019	0.021	0.013	0.015	0.010

NA : Not analysed

\* IS:2296-1982, Class-'C' - Drinking Source with conventional treatment and disinfection .

\*\* IS: 2296-1982, Class-'B'- Outdoor bathing (organized) .

\*\*\* G.S.R.742(E) dt. 25.09.2000 - Primary water quality criteria for bathing water .

True Copy Attested

*Attanaita*  
12/02/23

Assistant Collector Judicial  
Collectorate, Sundargarh

*Uamdi*  
15.11.2023

*D. N. Singh*  
15/11/23

(Cont..)

-90-

- 11 Deviation from Test Method, if any :
- 12 If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes.

(a) Date of Sampling :

(b) Method Used\* :

-----End of Test Report-----

*Pattanaik*  
15/11/2022

*Usharani*  
15-11-2023

*N. Mallick*  
15/11/23

Authorised Signatory  
(Biological)  
(Mrs. Nishiprava Pattanaik, AES)

Authorised Signatory  
(Water/wastewater)  
(Dr. (Mrs.) Usharani Patnaik, Addl. Chief Env. Scientist)

Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

- (i) The results stated above relate only to the items tested.
- (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.
- (iii) The laboratory is not responsible for the authenticity of photocopied Test Reports.
- (iv) The Test Item will not be retained for more than 15 days from the date of issue of Test Report except in case as required by applicable Regulation.

Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/11B, Nilakanthnagar, Unit-VIII, Bhubaneswar - 751012, FAX: 2562022/2560955  
TEI: 2564033/2563294 EPAUX: 2561909/2562047. E-mail: [paribesh1@spcbord.org](mailto:paribesh1@spcbord.org) Website: [www.spcbord.org](http://www.spcbord.org)

True Copy Attested

Assistant Collector Judicial  
Collectorate, Sundargarh

Nov., 2023

-91-



FAX : 2562822/2560955  
 TEL : 2564033/2563294  
 EPABX : 2561909/2562847  
 E-mail : [paribesh1@ospnboard.org](mailto:paribesh1@ospnboard.org)  
 Website : [www.ospnboard.org](http://www.ospnboard.org)

## STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST, ENVIRONMENT & CLIMATE CHANGE, GOVERNMENT OF ODISHA]

Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII,

Bhubaneswar - 751 012

(CENTRAL LABORATORY)

No. 852 /

VI-SC (LEM)Proj-321/22-23

Dt. 19.01.2024 /

By email

To

The Regional Officer,  
 State Pollution Control Board, Odisha,  
 Rourkela

Sub : Test Reports of water sample received under NWMP for the month of November, 2023

Ref : Your letter No. 4790/NWMP/01 dated 14.11.2023

Sir,

With reference to the above cited letter, please find enclosed herewith the test reports of water samples submitted to the Central Laboratory on 15.11.2023, collected under NWMP under your jurisdiction, for the month of November, 2023.

Encl : NS/399/12/2023

Yours faithfully,

*V. Mahapatra*  
 19/1/24  
 Chief Env. Scientist (Lab.)

Central Laboratory address: Plot No.-B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
 Bhubaneswar -751024 E-mail: [centrallab@ospnboard.org](mailto:centrallab@ospnboard.org)

**True Copy Attested**

*[Signature]*  
 Assistant Collector Judicial  
 Collectorate, Sundargarh



# CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospncboard.org](mailto:centrallab@ospncboard.org)

OSPCB/CNL/F0718

237

## TEST REPORT

Page 1 of 4

1. ULR No. : \_\_\_\_\_  
 2 (i). Report No. : NS/399/12/2023  
 3 (i) Date : 13.12.2023  
 2 (ii) Amendment No : ---  
 3 (ii) Amendment Date : ---

4. Sample Submitted By : Sri S.K.Behera, FA  
(Name and address) Regional Office, SPCB, Odisha, Rourkela

5. Reference Letter No. : 4790/NWMP/01 dated 14.11.2023

6. Date of sample receipt : 15.11.2023

7. Sample Description :

(i) Discipline : Chemical Testing  
And Biological Testing  
(Biological Testing,  
Chemical testing)

(ii) Group : Water  
(Water/ Pollution and Environment  
/ Atmospheric Pollution/ Soil and  
Hazardous Waste)

(iii) Sub Group : Surface water

(Surface water/ Ground water/ Wastewater  
Effluent/ Ambient Air/ Stack/ Soil and  
Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 15.11.2023 – 05.12.2023

9. If uncertainty is desired by Customer : No

10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits Applicable for Sl.No (NS/Nov-23/SW/121 - NS/Nov-23/SW/130)			Test Method	NS/NOV-23/SW/121	NS/NOV-23/SW/122
		IS:2296-1982, Class-'C'	IS:2296-1982, Class-'B'	G.S.R.742(E) dt. 25.09.2000***		Sundargarh	Sankha U/s
						Results	
1.	pH	6.5-8.5	6.5-8.5	6.5-8.5	4500-H'-B, APHA, 24 <sup>th</sup> Edn., 2023	7.2	7.3
2.	Electrical Conductivity (EC), $\mu$ S/cm	-	-	-	2510 B, APHA, 24 <sup>th</sup> Edn., 2023	173	148
3.	Dissolved Oxygen (DO), mg/L	4,min	5,min	5 or more	4500-O-C, APHA, 24 <sup>th</sup> Edn., 2023	7.8	6.6
4.	Biochemical Oxygen Demand (BOD), mg/L	3,max	3,max	3 or less	IS 3025: Part 44 (2023)	1.3	1.1
5.	Chemical Oxygen Demand (COD), mg/L	-	-	-	5220 B APHA, 24 <sup>th</sup> Edn., 2023	12.0	7.8
6.	Total Alkalinity (T.Alk.), mg/L	-	-	-	2320 B, APHA, 24 <sup>th</sup> Edn., 2023	80	64
7.	Phenolphthalein Alkalinity (P.Alk.), mg/L	-	-	-	2340-C, APHA, 24 <sup>th</sup> Edn., 2023	<5	<5
8.	Total Hardness (TH), mg CaCO <sub>3</sub> /L	-	-	-	3500-Ca-B, APHA, 24 <sup>th</sup> Edn., 2023	64	60
9.	Calcium Hardness (CaH), mg CaCO <sub>3</sub> /L	-	-	-	3500-Mg-B, APHA, 24 <sup>th</sup> Edn., 2023	44	40
10.	Calcium (Ca), mg/L	-	-	-	3500-Na B, APHA, 24 <sup>th</sup> Edn., 2023	17.64	16.03
11.	Magnesium Hardness (MgH), mg CaCO <sub>3</sub> /L	-	-	-	3500-K-B, APHA, 24 <sup>th</sup> Edn., 2023	20	20
12.	Magnesium (Mg), mg/L	-	-	-	3500-Na B, APHA, 24 <sup>th</sup> Edn., 2023	4.86	4.86
13.	Sodium (Na), mg/L	-	-	-	3500-K-B, APHA, 24 <sup>th</sup> Edn., 2023	11.56	7.29
14.	Potassium (K), mg/L	-	-	-	3500-K-B, APHA, 24 <sup>th</sup> Edn., 2023	1.41	1.66

*Pattarai*  
12.12.23

*Yathali*  
2.12.23

*D. J. K.* (Cont.,)

True Copy Attested

Assistant Collector Judicial  
Collectorate, Sundargarh

-93-

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits Applicable for Sl.No (NS/Nov-23/SW/121 - NS/Nov-23/SW/130)			Test Method	NS/NOV- 23/SW/121	NS/NOV- 23/SW/122
		IS:2296- 1982,Class- 'C'	IS:2296- 1982,Class- 'B'	G.S.R.742(E) dt. 25.09.2000***		Sundargarh	Sankha U/s
						Results	
15.	Boron (B), mg/L	-	-	-	4500-B-B APHA, 24 <sup>th</sup> Edn., 2023	0.146	0.203
16.	Sodium Absorption Ratio (SAR)	-	-	-	IS :2296 (1982)	0.63	0.41
17.	Percentage Sodium (% Na)	-	-	-		27.64	20.33
18.	Chloride (Cl <sup>-</sup> ), mg/L	600,max	-	-	4500-Cl B, APHA, 24 <sup>th</sup> Edn., 2023	12.0	12.0
19.	Sulphate (SO <sub>4</sub> <sup>2-</sup> ),mg/L	400,max	-	-	4500-SO <sub>4</sub> <sup>2-</sup> E, APHA, 24 <sup>th</sup> Edn., 2023	6.80	12.40
20.	Total Dissolved Solids (TDS), mg/L	1500,max	-	-	2540 C, APHA, 24 <sup>th</sup> Edn., 2023	104	96
21.	Total Fixed Solids (TFS), mg/L	-	-	-	2540 E, APHA, 24 <sup>th</sup> Edn., 2023	88	84
22.	Ammonical Nitrogen (NH <sub>3</sub> -N) mg/L	-	-	-	4500-NH <sub>3</sub> -B followed by 4500- NH <sub>3</sub> -C, APHA, 24 <sup>th</sup> Edn., 2023	0.56	0.56
23.	Total Kjeldahl Nitrogen (TKN), mg/L	-	-	-	4500-Norg C, APHA, 24 <sup>th</sup> Edn., 2023	1.68	3.36
24.	Nitrite-N (NO <sub>2</sub> <sup>-</sup> -N), mg/L	-	-	-	4500-NO <sub>2</sub> <sup>-</sup> -B, APHA, 24 <sup>th</sup> Edn., 2023	<0.02	<0.02
25.	Nitrate-N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	-	-	4500 NO <sub>3</sub> <sup>-</sup> E APHA, 24 <sup>th</sup> Edn., 2023	0.762	0.384
26.	Nitrate (NO <sub>3</sub> <sup>-</sup> ), mg/L	50,max	-	-		3.376	1.701
27.	Phosphate-P (PO <sub>4</sub> <sup>3-</sup> -P), mg/L	-	-	-	4500-P-D APHA, 24 <sup>th</sup> Edn., 2023	<0.05	<0.05
28.	Turbidity, NTU	-	-	-	2130 B, APHA, 24 <sup>th</sup> Edn., 2023	2.3	1.8
29.	Fluoride (F <sup>-</sup> ), mg/L	1.5,max	1.5,max	-	4500-F-C, APHA, 24 <sup>th</sup> Edn., 2023	0.37	0.28
30.	Total Suspended Solids (TSS), mg/L	-	-	-	2540-D, APHA, 24 <sup>th</sup> Edn., 2023	21	14
31.	Total Coliform (TC), MPN/100 ml	5000,max	500,max	-	9221-B APHA, 24 <sup>th</sup> Edn., 2023	3300	1400
32.	Faecal Coliform (FC), MPN/ 100 ml	-	-	500 (desirable) 2500 (permissible)	9221-E, APHA, 24 <sup>th</sup> Edn., 2023	1700	490
33.	Fecal StreptoCocci (FS), MPN/100ml	-	-	100 (desirable) 500 (permissible)	9230 B, APHA, 24 <sup>th</sup> Edn., 2023	NA	NA
34.	Free Ammonia-N, mg/L	-	-	-	IS 2488: Part 4, 1974	0.006	0.007
35.	Saprobic Index (SI)	-	-	-	Bio monitoring of water bodies using benthic macro invertebrates CPCB	NA	NA
36.	Diversity Index (DI)	-	-	-		NA	NA
37.	Class	-	-	-		NA	NA

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*DH...*  
Assistant Collector Judicial  
Collectorate, Sundargarh

*Ganesh*  
13.12.2023

*W. Mallik*  
13/12/23 (Cont..)

-94-

Sl. No.	Parameter, Unit	NS/NOV-23/SW/123	NS/NOV-23/SW/124	NS/NOV-23/SW/125	NS/NOV-23/SW/126	NS/NOV-23/SW/127	NS/NOV-23/SW/128	NS/NOV-23/SW/129	NS/NOV-23/SW/130
		Koel U/s	Panposh U/s	Panposh D/s	Rourkela D/s Jalda	Rourkela FD/s Attaghat	Rourkela FD/s Birtola	Bonaigarh	Guradh Nallah
Results									
1.	pH	7.2	7.3	7.3	7.4	7.4	7.5	7.5	7.6
2.	Electrical Conductivity (EC), $\mu\text{S}/\text{cm}$	203	172	410	222	230	204	195	430
3.	Dissolved Oxygen (DO), mg/L	7.3	6.6	6.5	7.2	7.8	8.0	8.5	6.8
4.	Biochemical Oxygen Demand (BOD), mg/L	1.2	1.5	4.3	4	2.8	2	1.5	5.7
5.	Chemical Oxygen Demand (COD), mg/L	7.8	7.8	31.0	27.0	16.0	12.0	12.0	39.0
6.	Total Alkalinity (T. Alk.), mg/L	92	72	72	76	72	76	84	84
7.	Phenolphthalein Alkalinity (P. Alk.), mg/L	<5	<5	<5	<5	<5	<5	<5	<5
8.	Total Hardness (TH), mg $\text{CaCO}_3/\text{L}$	80	68	136	76	80	88	92	140
9.	Calcium Hardness (CaH), mg $\text{CaCO}_3/\text{L}$	60	44	96	56	52	56	64	112
10.	Calcium (Ca), mg/L	24.05	17.64	38.48	22.44	20.84	22.44	25.65	44.89
11.	Magnesium Hardness (MgH), mg $\text{CaCO}_3/\text{L}$	20	24	40	20	28	32	28	28
12.	Magnesium (Mg), mg/L	4.86	5.83	9.72	4.86	6.80	7.78	6.80	6.80
13.	Sodium (Na), mg/L	8.85	8.50	30.70	11.31	11.37	9.19	9.09	34.94
14.	Potassium (K), mg/L	1.57	1.78	22.20	4.41	3.95	2.39	2.33	14.20
15.	Boron (B), mg/L	0.236	0.222	0.288	0.189	0.208	0.255	0.189	0.283
16.	Sodium Absorption Ratio (SAR)	0.43	0.45	1.14	0.56	0.55	0.43	0.41	1.28
17.	Percentage Sodium (% Na)	19.00	20.82	28.88	23.15	22.52	17.99	17.22	32.44
18.	Chloride ( $\text{Cl}^-$ ), mg/L	12.0	14.0	48.0	16.0	20.0	18.0	14.0	58.0
19.	Sulphate ( $\text{SO}_4^{2-}$ ), mg/L	9.10	11.00	86.00	17.40	20.80	14.30	15.10	74.50
20.	Total Dissolved Solids (TDS), mg/L	120	108	292	132	136	128	128	292
21.	Total Fixed Solids (TFS), mg/L	96	96	240	120	124	112	120	264
22.	Ammonical Nitrogen ( $\text{NH}_3\text{-N}$ ), mg/L	0.56	0.56	1.68	0.56	0.56	0.56	0.56	2.24
23.	Total Kjeldahl Nitrogen (TKN), mg/L	4.48	2.8	4.48	3.92	1.68	2.8	2.8	5.6
24.	Nitrite-N ( $\text{NO}_2\text{-N}$ ), mg/L	<0.02	<0.02	<0.02	0.892	0.507	<0.02	0.046	0.442

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(Cont..)

*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh

*[Signature]*  
13.12.2023

*[Signature]*  
19/12/23

-95-

Sl. No.	Parameter, Unit	NS/NOV-23/SW/123	NS/NOV-23/SW/124	NS/NOV-23/SW/125	NS/NOV-23/SW/126	NS/NOV-23/SW/127	NS/NOV-23/SW/128	NS/NOV-23/SW/129	NS/NOV-23/SW/130
		Koel U/s	Panposh U/s	Panposh D/s	Rourkela D/s Jaida	Rourkela FD/s Attaghat	Rourkela FD/s Birtola	Bonaigarh	Guradh Nallah
Results									
25.	Nitrate-N (NO <sub>3</sub> <sup>-</sup> - N), mg/L	0.396	0.442	6.194	3.411	2.363	0.598	0.629	0.728
26.	Nitrate (NO <sub>3</sub> <sup>-</sup> ), mg/L	1.753	1.959	27.432	15.104	10.464	2.646	2.784	3.222
27.	Phosphate-P (PO <sub>4</sub> <sup>3-</sup> - P), mg/L	<0.05	<0.05	0.107	0.092	<0.05	<0.05	<0.05	0.072
28.	Turbidity, NTU	1.4	1.9	55	2	1.6	1.7	2.8	6.9
29.	Fluoride (F <sup>-</sup> ), mg/L	0.22	0.22	0.36	0.34	0.26	0.23	0.33	0.78
30.	Total Suspended Solids (TSS), mg/L	20	24	140	29	25	26	20	19
31.	Total Coliform (TC), MPN/100 ml	4900	2400	54000	35000	2400	1700	1100	92000
32.	Faecal Coliform (FC), MPN/ 100 ml	2300	490	24000	13000	790	490	330	24000
33.	Fecal StreptoCocci (FS), MPN/100ml	NA	NA	320	130	13	5	NA	170
34.	Free Ammonia-N, mg/L	0.006	0.007	0.021	0.008	0.008	0.011	0.011	0.050
35.	Saprobic Index (SI)	NA	NA	5	5.33	NA	NA	NA	NA
36.	Diversity Index (DI)	NA	NA	0.65	0.86	NA	NA	NA	NA
37.	Class	NA	NA	C	C	NA	NA	NA	NA

NA : Not analysed

- \* IS:2296-1982, Class-'C' - Drinking Source with conventional treatment and disinfection .  
 \*\* IS: 2296-1982, Class-'B'- Outdoor bathing (organized) .  
 \*\*\* G.S.R.742(E) dt. 25.09.2000 - Primary water quality criteria for bathing water .

11. Deviation from Test Method , if any :  
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
 If Yes,

(a) Date of Sampling :

(b) Method Used\* :

-----End of Test Report-----

*Ashwini*  
 13/12/2023  
 Authorised Signatory  
 (Biological)  
 (Mrs.Nishiprava Pattanaik, AES)

*Usharani*  
 13.12.2023  
 Authorised Signatory  
 (Water/Wastewater)  
 (Dr.(Mrs.) Usharani Patnaik, Addl.Chief Env.Scientist)

*Niranjan*  
 13/12/23  
 Board Analyst  
 (Mr. Niranjan Mallick, Chief Env.Scientist)

Note :

- (i) The results stated above relate only to the items tested.  
 (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.  
 (iii) The laboratory is not responsible for the authenticity of photocopied Test Reports.  
 (iv) The Test Item will not be retained for more than 15 days from the date of issue of Test Report except in case as required by applicable Regulation.

Head Office: State Pollution Control Board, Orissa, Panchsiri Bhawan, A/110, Nilakanthnagar, Unit-VIII, Bhubaneswar - 751 012, FAX: 2562022/2560955  
 TEL: 2564033/2563294 EPABX: 2561909/2562047, E-mail: [parlucsl1@spcbor.org](mailto:parlucsl1@spcbor.org) Website: [www.spcbor.org](http://www.spcbor.org)

**True Copy Attested**

*[Signature]*  
 Assistant Collector Judicial  
 Collectorate, Sundargarh



NOV., 2023



FAX : 2562822/2560955  
 TEL : 2564033/2563294  
 EPABX : 2561909/2562847  
 E-mail : [paribesh1@ospboard.org](mailto:paribesh1@ospboard.org)  
 Website : [www.ospboard.org](http://www.ospboard.org)

## STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST, ENVIRONMENT & CLIMATE-CHANGE, GOVERNMENT OF ODISHA]  
 Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII,

Bhubaneswar - 751 012

(CENTRAL LABORATORY)

No. 18754 /

VI-SC (LEM) Misc 38/2023-24

Dt. 28.11.2023 /

To

✓  
 The Regional Officer,  
 State Pollution Control Board, Odisha,  
 Rourkela

○ Sub : Test Report of wastewater samples collected from 40 MLD STP outlet & inlet of Rourkela Municipal Corporation constructed by OWSSB - reg.

Ref : Your Letter No. Nil

Sir,

With reference to the above, please find enclosed herewith the test report of wastewater sample submitted to the Central Laboratory on dt.15.11.2023 by your office, collected from 40 MLD STP outlet & inlet of Rourkela Municipal Corporation constructed by OWSSB.

Encl : OS/549/11/2023

Yours faithfully,

*[Signature]*  
 Chief Env. Scientist (Lab.)

*PJS (RBS)*  
*[Signature]*  
 Memo No. \_\_\_\_\_ / dt. \_\_\_\_\_

Copy forwarded to the Chief Executive Officer, WATCO, Bhubaneswar for kind information.

Encl : As above

Chief Env. Scientist (Lab.)

Memo No. \_\_\_\_\_ / dt. \_\_\_\_\_

Copy forwarded to the Sri Mitrasen Majhi, CES, SPC Board, Odisha Bhubaneswar for kind information.

Encl : As above

Chief Env. Scientist (Lab.)

Central Laboratory address: Plot No.-B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
 Bhubaneswar -751024 E-mail: [centrallab@ospboard.org](mailto:centrallab@ospboard.org)

**True Copy Attested**

*[Signature]*  
 Assistant Collector Judicial  
 Collectorate, Sundargarh



- 97 -

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)

### TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/549/11/2023
- 3 (i) Date : 28.11.2023
4. Sample Submitted By : Sri Sanjib Kullu , Field Asst.,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : Nil
6. Date of sample receipt : 15.11.2023
7. Sample Description :
  - (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
  - (ii) Group : Pollution and Environment (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Wastewater (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 15.11.2023 – 24.11.2023
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/Regulatory Limits (G.S.R. 1265 (E) Dt.13.10.2017) *	Test Method	Samples of 40 MLD STP of Rourkela Municipal Corporation constructed by OWSSB	
				Others/ Nov - 23/ WW/1725	Others/ Nov - 23/ WW/1726
				40 MLD STP outlet of Rourkela Municipal Corporation constructed by OWSSB	40 MLD STP inlet of Rourkela Municipal Corporation constructed by OWSSB
				Results	
1.	pH	6.5-9.0	4500-H* -B, APHA, 24 <sup>th</sup> Edn., 2023	7.4	7.2
2.	Total Suspended Solids (TSS), mg/L	<100	2540 D, APHA, 24 <sup>th</sup> Edn., 2023	14.0	19.0
3.	Dissolved Oxygen (DO), mg/L	-	4500-O-C, APHA, 24 <sup>th</sup> Edn., 2023	3.1	1.4
4.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	30	IS 3025: Part 44 (2023)	4.7	8.0
5.	Chemical Oxygen Demand (COD), mg/L	-	5220 B, APHA, 24 <sup>th</sup> Edn., 2023	19.0	39.0
6.	Total Coliform (TC), MPN/100 ml	-	9221-B, APHA, 24 <sup>th</sup> Edn., 2023	<1.8	>160000
7.	Fecal Coliform (FC), MPN/100 ml	<1000	9221-E, APHA, 24 <sup>th</sup> Edn., 2023	<1.8	54000

\* Effluent discharge standard for sewage treatment plants, Applicable for Sl. No. Others/Nov -23/WW/1725

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
- (a) Date of Sampling : (b) Method Used\* :
- (c) Name of Sampler with Designation :

-----End of Test Report-----

*Nishiprava*  
28/11/2023  
Authorized Signatory  
(Biological)

*Usharani*  
26-11-2023  
Authorized Signatory  
(Water/wastewater)

*Niranjan Mallick*  
28/11/23  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

(Mrs. Nishiprava Pattanaik, AES) (Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

**Note :**

- (i) The results stated above relate only to the items tested.
- (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.
- (iii) The laboratory is not responsible for the authenticity of photocopied Test Reports.
- (iv) The Test Item will not be retained for more than 15 days from the date of issue of Test Report except in case as required by applicable Regulation.

Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII, Bhubaneswar - 751 012, FAX : 2562822/2560955  
TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospcbboard.org](mailto:paribesh1@ospcbboard.org) Website : [www.ospcbboard.org](http://www.ospcbboard.org)

**True Copy Attested**

*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh

DEC, 2023

-98-



FAX : 2562822/2560955  
 TEL : 2564033/2563294  
 EPABX : 2561909/2562847  
 E-mail : [paribesh1@ospboard.org](mailto:paribesh1@ospboard.org)  
 Website : [www.ospboard.org](http://www.ospboard.org)

## STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST, ENVIRONMENT & CLIMATE CHANGE, GOVERNMENT OF ODISHA]

Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII,

Bhubaneswar - 751 012

(CENTRAL LABORATORY)

No. 857 /

VI-SC (LEM)Proj-321/22-23

Dt. 19.01.2024 /

By email

To

The Regional Officer,  
 State Pollution Control Board, Odisha,  
 Rourkela

Sub : Test Reports of water sample received under NWMP for the month of December, 2023

Ref : Your letter No. 5089 dated 05.12.2023

Sir,

With reference to the above cited letter, please find enclosed herewith the test reports of water samples submitted to the Central Laboratory on 06.12.2023, collected under NWMP under your jurisdiction, for the month of December, 2023.

Encl : NS/416/12/2023

Yours faithfully,

*U. Mallik*  
 19/1/24  
 Chief Env. Scientist (Lab.)

**True Copy Attested**

*[Signature]*  
 Assistant Collector Judicial  
 Collectorate, Sundargarh

Central Laboratory address: Plot No.-B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
 Bhubaneswar -751024 E-mail: [centrallab@ospboard.org](mailto:centrallab@ospboard.org)



-99-

OSPCB/CNL/F0718

**CENTRAL LABORATORY**  
**STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)

**TEST REPORT**

Page 1 of 4

1. ULR No. : -----
- 2 (i). Report No. : NS/416/12/2023
- 3 (i) Date : 22.12.2023
- 2 (ii) Amendment No : ---
- 3 (ii) Amendment Date : ---
4. Sample Submitted By : Sri S.K.Behera, FA  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 5089 dated 05.12.2023
6. Date of sample receipt : 06.12.2023
7. Sample Description :
- (i) Discipline : Chemical Testing And Biological Testing  
(Biological Testing, Chemical testing)
- (ii) Group : Water  
(Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
- (iii) Sub Group : Surface water  
(Surface water/ Ground water/ Wastewater Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 06.12.2023 – 18.12.2023
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits Applicable for Sl.No (NS/Dec-23/SW/30 - NS/Dec-23/SW/39)			Test Method	NS/Dec-23/SW/30	NS/Dec-23/SW/31
		IS:2296-1982, Class-'C'	IS:2296-1982, Class-'B'	G.S.R.742(E) dt. 25.09.2000***		Sundargarh	Sankha U/s
1.	pH	6.5-8.5	6.5-8.5	6.5-8.5	4500-H*-B, APHA, 24 <sup>th</sup> Edn., 2023	7.4	7.4
2.	Electrical Conductivity (EC), $\mu$ S/cm	-	-	-	2510 B, APHA, 24 <sup>th</sup> Edn., 2023	163	166
3.	Dissolved Oxygen (DO), mg/L	4,min	5,min	5 or more	4500-O-C, APHA, 24 <sup>th</sup> Edn., 2023	8.1	8.4
4.	Biochemical Oxygen Demand (BOD), mg/L	3,max	3,max	3 or less	IS 3025: Part 44 (2023)	1.4	1.3
5.	Chemical Oxygen Demand (COD), mg/L	-	-	-	5220 B APHA, 24 <sup>th</sup> Edn., 2023	11.0	7.3
6.	Total Alkalinity (T.Alk.), mg/L	-	-	-	2320 B, APHA, 24 <sup>th</sup> Edn., 2023	76	68
7.	Phenolphthalein Alkalinity (P.Alk.), mg/L	-	-	-	2340-C, APHA, 24 <sup>th</sup> Edn., 2023	<5	<5
8.	Total Hardness (TH), mg CaCO <sub>3</sub> /L	-	-	-	3500-Ca-B, APHA, 24 <sup>th</sup> Edn., 2023	40	40
9.	Calcium Hardness (CaH), mg CaCO <sub>3</sub> /L	-	-	-	3500-Mg-B, APHA, 24 <sup>th</sup> Edn., 2023	16.03	16.03
10.	Calcium (Ca), mg/L	-	-	-	3500-Mg-B, APHA, 24 <sup>th</sup> Edn., 2023	20	24
11.	Magnesium Hardness (MgH), mg CaCO <sub>3</sub> /L	-	-	-	3500-Na B, APHA, 24 <sup>th</sup> Edn., 2023	4.86	5.83
12.	Magnesium (Mg), mg/L	-	-	-	3500-Na B, APHA, 24 <sup>th</sup> Edn., 2023	7.85	14.80
13.	Sodium (Na), mg/L	-	-	-	3500 K-B, APHA,		
14.	Potassium (K), mg/L	-	-	-			

**True Copy Attested**

*(Signature)*  
Assistant Collector Judicial  
Collectorate, Sundargarh

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits Applicable for Sl.No (NS/Nov-23/SW/121 - NS/Nov-23/SW/130)			Test Method	NS/Dec- 23/SW/30	NS/Dec- 23/SW/31
		IS:2296- 1982,Class- 'C'	IS:2296- 1982,Class- 'B'	G.S.R.742(E) dt. 25.09.2000***		Sundargarh	Sankha U/s
						Results	
15.	Boron (B), mg/L	-	-	-	4500-B-B APHA, 24 <sup>th</sup> Edn., 2023	0.160	0.157
16.	Sodium Absorption Ratio (SAR)	-	-	-	IS :2296 (1982)	0.44	0.80
17.	Percentage Sodium (% Na)	-	-	-		21.58	32.62
18.	Chloride (Cl <sup>-</sup> ), mg/L	600,max	-	-	4500-Cl B, APHA, 24 <sup>th</sup> Edn., 2023	8.0	18.0
19.	Sulphate (SO <sub>4</sub> <sup>2-</sup> ),mg/L	400,max	-	-	4500-SO <sub>4</sub> <sup>2-</sup> E, APHA, 24 <sup>th</sup> Edn., 2023	7.20	6.40
20.	Total Dissolved Solids (TDS), mg/L	1500,max	-	-	2540 C, APHA, 24 <sup>th</sup> Edn., 2023	96	108
21.	Total Fixed Solids (TFS), mg/L	-	-	-	2540 E, APHA, 24 <sup>th</sup> Edn., 2023	84	96
22.	Ammonical Nitrogen (NH <sub>3</sub> -N) mg/L	-	-	-	4500-NH <sub>3</sub> -B followed by 4500- NH <sub>3</sub> -C, APHA, 24 <sup>th</sup> Edn., 2023	0.56	0.56
23.	Total Kjeldahl Nitrogen (TKN), mg/L	-	-	-	4500-Norg C, APHA, 24 <sup>th</sup> Edn., 2023	4.7	5.04
24.	Nitrite-N (NO <sub>2</sub> <sup>-</sup> -N), mg/L	-	-	-	4500-NO <sub>2</sub> <sup>-</sup> -B, APHA, 24 <sup>th</sup> Edn., 2023	< 0.02	< 0.02
25.	Nitrate-N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	-	-	4500 NO <sub>3</sub> <sup>-</sup> - E APHA, 24 <sup>th</sup> Edn., 2023	0.378	0.366
26.	Nitrate (NO <sub>3</sub> <sup>-</sup> ), mg/L	50,max	-	-		1.675	1.622
27.	Phosphate-P (PO <sub>4</sub> <sup>3-</sup> - P), mg/L	-	-	-	4500-P-D APHA, 24 <sup>th</sup> Edn., 2023	< 0.05	< 0.05
28.	Turbidity, NTU	-	-	-	2130 B, APHA, 24 <sup>th</sup> Edn., 2023	2.3	4.6
29.	Fluoride (F <sup>-</sup> ), mg/L	1.5,max	1.5,max	-	4500-F-C, APHA, 24 <sup>th</sup> Edn., 2023	0.37	0.24
30.	Total Suspended Solids (TSS), mg/L	-	-	-	2540-D, APHA, 24 <sup>th</sup> Edn., 2023	11	11
31.	Total Coliform (TC), MPN/100 ml	5000,max	500,max	-	9221-B APHA, 24 <sup>th</sup> Edn., 2023	700	2200
32.	Faecal Coliform (FC), MPN/ 100 ml	-	-	500 (desirable) 2500 (permissible)	9221-E, APHA, 24 <sup>th</sup> Edn., 2023	220	790
33.	Fecal StreptoCocci (FS), MPN/100ml	-	-	100 (desirable) 500 (permissible)	9230 B, APHA, 24 <sup>th</sup> Edn., 2023	NA	NA
34.	Free Ammonia-N, mg/L	-	-	-	IS 2488: Part 4, 1974	0.008	0.008

(Cont.,)

Attester  
22/12/2023

Clearance  
22.12.2023

N. K. Mishra  
20/12/23

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Assistant Collector Judicial  
Collectorate, Sundargarh

-101-

Sl. No.	Parameter, Unit	NS/Dec-23/SW/32	NS/Dec-23/SW/33	NS/Dec-23/SW/34	NS/Dec-23/SW/35	NS/Dec-23/SW/36	NS/Dec-23/SW/37	NS/Dec-23/SW/38	NS/Dec-23/SW/39
		Koel U/s	Panposh U/s	Panposh D/s	Rourkela D/s Jajda	Rourkela FD/s Attaghat	Rourkela FD/s Birtola	Bonaigarh	Guradih Nallah
1.	pH	7.5	7.5	7.4	7.5	7.7	7.7	7.8	7.6
2.	Electrical Conductivity (EC), $\mu\text{S}/\text{cm}$	220	182	348	228	210	211	186	440
3.	Dissolved Oxygen (DO), mg/L	7.4	7.6	4.2	4.8	7.1	7.6	8.8	6.8
4.	Biochemical Oxygen Demand (BOD), mg/L	1.2	1.3	4.2	3.8	2.5	2.3	1.8	5.3
5.	Chemical Oxygen Demand (COD), mg/L	7.3	7.3	18.0	15.0	11.0	11.0	7.3	22.0
6.	Total Alkalinity (T.Aik.), mg/L	100	64	112	100	92	84	76	156
7.	Phenolphthalein Alkalinity (P.Aik.), mg/L	<5	<5	<5	<5	<5	<5	<5	<5
8.	Total Hardness (TH), mg $\text{CaCO}_3/\text{L}$	76	64	124	72	80	84	64	136
9.	Calcium Hardness (CaH), mg $\text{CaCO}_3/\text{L}$	56	44	92	52	52	56	52	100
10.	Calcium (Ca), mg/L	22.44	17.64	36.87	20.84	20.84	22.44	20.84	40.08
11.	Magnesium Hardness (MgH), mg $\text{CaCO}_3/\text{L}$	20	20	32	20	28	28	12	36
12.	Magnesium (Mg), mg/L	4.86	4.86	7.78	4.86	6.80	6.80	2.92	8.75
13.	Sodium (Na), mg/L	10.80	13.36	19.68	17.68	12.12	9.8	9.85	25.28
14.	Potassium (K), mg/L	1.80	5.22	5.84	4.12	3.54	3.18	2.94	18.20
15.	Boron (B), mg/L	0.147	0.129	0.316	0.193	0.190	0.212	0.128	0.310
16.	Sodium Absorption Ratio (SAR)	0.54	0.73	0.77	0.91	0.59	0.47	0.54	0.94
17.	Percentage Sodium (% Na)	23.07	29.13	24.55	33.22	23.76	19.50	24.01	25.65
18.	Chloride ( $\text{Cl}^-$ ), mg/L	10.0	22.0	38.0	20.0	12.0	16.0	14.0	34.0
19.	Sulphate ( $\text{SO}_4^{2-}$ ), mg/L	8.90	7.60	18.60	<5	11.40	9.40	12.20	27.30
20.	Total Dissolved Solids (TDS), mg/L	148	120	204	136	128	128	116	252
21.	Total Fixed Solids (TFS), mg/L	136	104	168	124	116	116	104	220
22.	Ammonical Nitrogen ( $\text{NH}_3\text{-N}$ ), mg/L	0.56	0.56	1.68	1.12	1.12	0.56	0.56	1.12
23.	Total Kjeldahl Nitrogen (TKN), mg/L	3.92	2.8	4.48	3.92	3.92	2.24	2.24	5.6
24.	Nitrite-N ( $\text{NO}_2^- \text{-N}$ ), mg/L	<0.02	<0.02	0.470	1.021	<0.02	0.186	0.048	0.636

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Assistant Collector Judicial  
Collectorate, Sundargarh

- 102 -

Sl. No.	Parameter, Unit	NS/Dec-23/SW/32	NS/Dec-23/SW/33	NS/Dec-23/SW/34	NS/Dec-23/SW/35	NS/Dec-23/SW/36	NS/Dec-23/SW/37	NS/Dec-23/SW/38	NS/Dec-23/SW/39
		Koel U/s	Panposh U/s	Panposh D/s	Rourkela D/s Jalda	Rourkela FD/s Attaghat	Rourkela FD/s Birtola	Bonaigarh	Guradih Nallah
<b>Results</b>									
25.	Nitrate-N (NO <sub>3</sub> <sup>-</sup> - N), mg/L	0.341	0.358	0.737	1.259	2.101	1.489	0.737	1.101
26.	Nitrate (NO <sub>3</sub> <sup>-</sup> ), mg/L	1.508	1.587	3.262	5.577	9.303	6.594	3.262	4.875
27.	Phosphate-P (PO <sub>4</sub> <sup>3-</sup> - P), mg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.071
28.	Turbidity, NTU	4.8	4.4	3.6	4.1	4.3	1.2	1.3	3.8
29.	Fluoride (F), mg/L	0.23	0.28	0.29	0.32	0.33	0.37	0.40	0.29
30.	Total Suspended Solids (TSS), mg/L	12	11	16	18	21	< 10	< 10	27
31.	Total Coliform (TC), MPN/100 ml	4900	1300	92000	35000	330	130	130	54000
32.	Faecal Coliform (FC), MPN/ 100 ml	2300	330	24000	7900	78	13	13	11000
33.	Faecal StreptoCocci (FS), MPN/100ml	NA	NA	49	23	<1.8	<1.8	NA	23
34.	Free Ammonia-N, mg/L	0.011	0.011	0.025	0.022	0.034	0.017	0.020	0.025

NA : Not analysed

- \* IS:2296-1982, Class-'C' – Drinking Source with conventional treatment and disinfection .
- \*\* IS: 2296-1982, Class-'B'- Outdoor bathing (organized) .
- \*\*\* G.S.R.742(E) dt. 25.09.2000 – Primary water quality criteria for bathing water .

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,

(a) Date of Sampling :

(b) Method Used\* :

End of Test Report

*Nishprava*  
22/12/2023

Authorised Signatory  
(Biological)

(Mrs. Nishprava Pattanaik, AES)

*Usharani*  
22/12/2023

Authorised Signatory  
(Water/wastewater)

(Dr. (Mrs.) Usharani Patnaik, Addl. Chief Env. Scientist)

*Niranjan*  
22/12/2023

Board Analyst

(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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- (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.
- (iii) The laboratory is not responsible for the authenticity of photocopied Test Reports.
- (iv) The Test Item will not be retained for more than 15 days from the date of issue of Test Report except in case as required by applicable Regulation.

Head Officer State Pollution Control Board, District, Paribesh Bhawan, A/118, Nilakanthnagar, Unit-VIII, Bhubaneswar - 751 012, FAX: 2562822/2560955  
TEL: 2564033/2563294 EPABX: 2561909/2562847, E-mail: paribesh1@spcb.ori.org Website: www.spcb.ori.org

**True Copy Attested**

*[Signature]*  
Assistant Collector Judicial  
Collectorate Sundargarh



Dec, 2023

-103-

FAX : 2562822/2560955  
 TEL : 2564033/2563294  
 EPABX : 2561909/2562847  
 E-mail : [paribesh1@ospcboard.org](mailto:paribesh1@ospcboard.org)  
 Website : [www.ospcboard.org](http://www.ospcboard.org)

## STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST, ENVIRONMENT & CLIMATE CHANGE, GOVERNMENT OF ODISHA]  
 Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII,  
 Bhubaneswar - 751 012

(CENTRAL LABORATORY)

No. 19784 /

VI-SC (LEM) Misc 38/2023-24

Dt. 15.12.2023 /

To

✓  
 The Regional Officer,  
 State Pollution Control Board, Odisha,  
 Rourkela



Sub: Test Report of wastewater samples collected from 40 MLD STP outlet & inlet of Rourkela Municipal Corporation constructed by OWSSB - reg.

Ref: Your Letter No. Nil

Sir,

With reference to the above, please find enclosed herewith the test report of wastewater sample submitted to the Central Laboratory on dt.06.12.2023 by your office, collected from 40 MLD STP outlet & inlet of Rourkela Municipal Corporation constructed by OWSSB.

Encl: OS/608/12/2023

Yours faithfully,

*M. Mohanty*  
 13/12/23  
 Chief Env. Scientist (Lab.)

Memo No. \_\_\_\_\_ / dt. \_\_\_\_\_ /

Copy forwarded to the Chief Executive Officer, WATCO, Bhubaneswar for kind information.

Encl: As above

Chief Env. Scientist (Lab.)

Memo No. \_\_\_\_\_ / dt. \_\_\_\_\_ /

Copy forwarded to the Sri Mitrasen Majhi, CES, SPC Board, Odisha Bhubaneswar for kind information.

Encl: As above

Chief Env. Scientist (Lab.)

**True Copy Attested**

*[Signature]*  
 Assistant Collector Judicial  
 Collectorate, Sundargarh

Central Laboratory address: Plot No.-B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
 Bhubaneswar -751024 E-mail: [centrallab@ospcboard.org](mailto:centrallab@ospcboard.org)



- 104 -

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)

### TEST REPORT

Page 1 of 1

1. ULR No. : -----  
 2 (i). Report No. : OS/608/12/2023  
 3 (i) Date : 13.12.2023  
 4. Sample Submitted By : Sri S.K Behera, Field Asst.,  
 (Name and address) Regional Office, SPCB, Odisha, Rourkela  
 5. Reference Letter No. : Nil  
 6. Date of sample receipt : 06.12.2023  
 7. Sample Description :

- 2(ii). Amendment No : ---  
 3(ii) Amendment Date : ---

- (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)  
 (ii) Group : Pollution and Environment (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)  
 (iii) Sub Group : Wastewater (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 06.12.2023 – 12.12.2023

9. If uncertainty is desired by Customer : No

10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/Regulatory Limits (G.S.R. 1265 (E) Dt.13.10.2017) *	Test Method	Samples of 40 MLD STP of Rourkela Municipal Corporation constructed by OWSSB	
				Others/ Dec - 23/ WW/1868	Others/ Dec - 23/ WW/1869
				Results	
1.	pH	6.5-9.0	4500-H <sup>-</sup> -B, APHA, 24 <sup>th</sup> Edn., 2023	6.6	6.5
2.	Total Suspended Solids (TSS), mg/L	<100	2540 D, APHA, 24 <sup>th</sup> Edn., 2023	<10.0	66.0
3.	Dissolved Oxygen (DO), mg/L	-	4500-O-C, APHA, 24 <sup>th</sup> Edn., 2023	7.2	<0.3
4.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	30	IS 3025: Part 44 (2023)	2.5	58.0
5.	Chemical Oxygen Demand (COD), mg/L	-	5220 B, APHA, 24 <sup>th</sup> Edn., 2023	15.0	129.0
6.	Total Coliform (TC), MPN/100 ml	-	9221-B, APHA, 24 <sup>th</sup> Edn., 2023	79	>160000
7.	Fecal Coliform (FC), MPN/100 ml	<1000	9221-E, APHA, 24 <sup>th</sup> Edn., 2023	33	>160000

\* Effluent discharge standard for sewage treatment plants, Applicable for Sl. No. Others/Dec -23/WW/1868

11. Deviation from Test Method , if any :  
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
 If Yes,  
 (a) Date of Sampling : (b) Method Used\* :  
 (c) Name of Sampler with Designation :

-----End of Test Report-----

*Pattanaik*  
13/12/2023

Authorised Signatory  
(Biological)

(Mrs. Nishiprava Pattanaik, AES)

*Usharani*  
13.12.2023

Authorised Signatory  
(Water/Wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

*N. Mallick*  
13/12/23

Board Analyst

(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

- (i) The results stated above relate only to the items tested.  
 (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.  
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Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII, Bhubaneswar - 751 012, FAX : 2562822/2560955  
 TEL: 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospcbboard.org](mailto:paribesh1@ospcbboard.org) Website : [www.ospcbboard.org](http://www.ospcbboard.org)

**True Copy Attested**

*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh



-105-

**CENTRAL LABORATORY  
STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospceboard.org](mailto:centrallab@ospceboard.org)

OSPCB/CNL/F0718



**TEST REPORT**

Page 1 of 1

1. ULR No. : TC127402400000006F  
 2 (i). Report No. : OS/99/02/2024  
 3 (i) Date : 20.02.2024

- 2(ii). Amendment No : ---  
 3(ii) Amendment Date : ---

4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela

5. Reference Letter No. : 616 dt.13.02.2024

6. Date of sample receipt : 13.02.2024

7. Sample Description :

(i) Discipline : Chemical Testing

(Biological Testing,  
Chemical testing)

(ii) Group : Water

(Water/ Pollution and Environment  
/ Atmospheric Pollution/ Soil and  
Hazardous Waste)

(iii) Sub Group : Surface water

(Surface water/ Ground water/ Drinking  
water / Wastewater/ Effluent/ Ambient Air/  
Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 -19.02.2024

9. If uncertainty is desired by Customer : No

10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *	Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
				Others/ Feb - 24/ SW/269 Baikuntha Ghat Intake point, INLET RMC
				Results
1.	pH	6.5-8.5	4500-H* -B, APHA, 23 <sup>rd</sup> Edn., 2017	6.6
2.	Total Suspended Solids (TSS), mg/L	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	16.0
3.	Total Dissolved Solids (TDS), mg/L	1500, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	92.0
4.	Dissolved Oxygen (DO), mg/L	4, min	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	10.8
5.	Biochemical Oxygen Demand (BOD, 3 days at 27° C), mg/L	3, max	IS 3025: Part 44	1.2
6.	Chemical Oxygen Demand (COD), mg/L	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	7.8
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.307
8.	Fluoride (F) mg/L	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.24

\* Tolerance limit for inland surface water subject to pollution (IS : 2296-1982), for Class 'C'  
(Drinking source with conventional treatment and disinfection)

11. Deviation from Test Method , if any :

12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,

(a) Date of Sampling :

(b) Method Used\* :

(c) Name of Sampler with Designation :

-----End of Test Report-----

*Usharani Patnaik*  
20.2.2024

Authorised Signatory  
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

*Niranjan Mallick*  
20/2/24

Board Analyst

(Mr. Niranjan Mallick, Chief Env. Scientist)

Note :

(i) The results stated above relate only to the items tested.

(ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.

(iii) The laboratory is not responsible for the authenticity of photocopied Test Reports.

(iv) The Test Item will not be retained for more than 15 days from the date of issue of Test Report except in case as required by applicable Regulation.

Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII, Bhubaneswar - 751 012, FAX : 2562822/2560955  
 TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospceboard.org](mailto:paribesh1@ospceboard.org) Website : [www.ospceboard.org](http://www.ospceboard.org)

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*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh



-106-

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)

### TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/100/02/2024
- 3 (i) Date : 20.02.2024
- 2(ii). Amendment No : ---
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
- (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
- (ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
- (iii) Sub Group : Surface water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *	Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
				Others/ Feb - 24/ SW/269 Baikuntha Ghat Intake point, INLET RMC
				Results
1.	Free Residual Chlorine (R.Cl), mg/L	-	4500 Cl-B, APHA, 23 <sup>rd</sup> Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	5000, max	9221-B, APHA, 23 <sup>rd</sup> Edn., 2017	1300
3.	Fecal Coliform (FC), MPN/100 ml	-	9221-E, APHA, 23 <sup>rd</sup> Edn., 2017	330

\* Tolerance limit for inland surface water subject to pollution (IS : 2296-1982), for Class 'C'  
(Drinking source with conventional treatment and disinfection)

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
- (a) Date of Sampling : (b) Method Used\* :
- (c) Name of Sampler with Designation :

-----End of Test Report-----

*Nishprava Pattanaik*  
20/02/2024  
Authorised Signatory  
(Biological)

(Mrs. Nishprava Pattanaik, AES)

*Usharani Patnaik*  
20.02.2024  
Authorised Signatory  
(Water/wastewater)

(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*Niranjan Mallick*  
20/02/24  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII, Bhubaneswar – 751 012, FAX : 2562822/2560955  
TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospcbboard.org](mailto:paribesh1@ospcbboard.org) Website : [www.ospcbboard.org](http://www.ospcbboard.org)

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*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh



-107-

**CENTRAL LABORATORY**  
**STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospceboard.org](mailto:centrallab@ospceboard.org)

OSPCB/CNL/F0718



**TEST REPORT**

Page 1 of 1

1. ULR No. : TC127402400000007F  
 2 (i). Report No. : OS/101/02/2024  
 3 (i) Date : 20.02.2024  
 4. Sample Submitted By : Sri A. Sahoo, JSA,  
 (Name and address) Regional Office, SPCB, Odisha, Rourkela  
 5. Reference Letter No. : 616 dt.13.02.2024  
 6. Date of sample receipt : 13.02.2024  
 7. Sample Description :

- 2(ii). Amendment No : ---  
 3(ii) Amendment Date : ---

(i) Discipline : Chemical Testing  
 (Biological Testing,  
 Chemical testing)

(ii) Group : Water  
 (Water/ Pollution and Environment  
 / Atmospheric Pollution/ Soil and  
 Hazardous Waste)

(iii) Sub Group : Surface water  
 (Surface water/ Ground water/ Drinking  
 water / Wastewater/ Effluent/ Ambient Air/  
 Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19 .02.2024  
 9. If uncertainty is desired by Customer : No  
 10. Analysis Results :  
 (Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits * (IS : 2296-1982)	Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
				Others/ Feb - 24/SW/270 Baikuntha Ghat Koel River Main Stream
				Results
1.	pH	6.5-8.5	4500-H <sup>+</sup> -B, APHA, 23 <sup>rd</sup> Edn., 2017	6.7
2.	Total Suspended Solids (TSS), mg/L	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	11.0
3.	Total Dissolved Solids (TDS), mg/L	1500, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	120.0
4.	Dissolved Oxygen (DO), mg/L	4, min	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	9.4
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	3, max	IS 3025: Part 44	1.1
6.	Chemical Oxygen Demand (COD), mg/L	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	7.8
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.398
8.	Fluoride (F <sup>-</sup> ) mg/L	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.19

\* Tolerance limit for inland surface water subject to pollution (IS : 2296-1982), for Class 'C'  
 (Drinking source with conventional treatment and disinfection)

11. Deviation from Test Method , if any :  
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
 If Yes,  
 (a) Date of Sampling : (b) Method Used\* :  
 (c) Name of Sampler with Designation :

-----End of Test Report-----

*Usharani Patnaik*  
 no: 2-2024  
 Authorised Signatory  
 (Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

*D. Mallick*  
 Board Analyst  
 (Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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 (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.  
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Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII, Bhubaneswar - 751 012, FAX : 2562822/2560955  
 TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospceboard.org](mailto:paribesh1@ospceboard.org), Website : [www.ospceboard.org](http://www.ospceboard.org)

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*[Signature]*  
 Assistant Collector Judicial  
 Collectorate, Sundargarh



- 108 -

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospboard.org](mailto:centrallab@ospboard.org)

### TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/102/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
  - (ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Surface water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits * (IS : 2296-1982)	Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
				Others/ Feb - 24/SW/270 Baikuntha Ghat Koel River Main Stream
				Results
1.	Free Residual Chlorine (R.Cl), mg/L	-	4500 Cl-B, APHA, 23 <sup>rd</sup> Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	5000, max	9221-B, APHA, 23 <sup>rd</sup> Edn., 2017	4900
3.	Fecal Coliform (FC), MPN/100 ml	-	9221-E, APHA, 23 <sup>rd</sup> Edn., 2017	780

\* Tolerance limit for inland surface water subject to pollution (IS : 2296-1982), for Class 'C' (Drinking source with conventional treatment and disinfection)

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,  
(a) Date of Sampling : (b) Method Used\* :  
(c) Name of Sampler with Designation :

-----End of Test Report-----

*Pattanaik*  
20/02/2024  
Authorised Signatory  
(Biological)  
(Mrs. Nishiprava Pattanaik, AES)

*Patnaik*  
20-2-2024  
Authorised Signatory  
(Water/wastewater)  
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*N. Mallik*  
20/02/24  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

#### Note :

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TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospboard.org](mailto:paribesh1@ospboard.org) Website : [www.ospboard.org](http://www.ospboard.org)

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Assistant Collector Judicial  
Collectorate, Sundargarh



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**CENTRAL LABORATORY**  
**STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospboard.org](mailto:centrallab@ospboard.org)

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**TEST REPORT**

Page 1 of 1

1. ULR No. : TC127402400000008F
- 2 (i). Report No. : OS/103/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing  
(Biological Testing, Chemical testing)
  - (ii) Group : Water  
(Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Drinking water  
(Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/271
1.	pH	6.5-8.5	No relaxation	4500-H <sup>+</sup> -B, APHA 23 <sup>rd</sup> Edn., 2017	6.8
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	<10
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	104.0
	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	10.3
4.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	-	-	IS 3025: Part 44	1.6
5.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	12.0
6.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.329
7.	Fluoride (F) mg/L	1.0	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.19

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
  - (a) Date of Sampling :
  - (b) Method Used\* :
  - (c) Name of Sampler with Designation :

-----End of Test Report-----

*Usharani Patnaik*  
20.2.2024  
Authorised Signatory  
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

*N. Niranjan Mallick*  
20/2/24  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospboard.org](mailto:paribesh1@ospboard.org) Website : [www.ospboard.org](http://www.ospboard.org)

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Assistant Collector Judicial  
Collectorate, Sundargarh



-110-

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)

### TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/104/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
  - (ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW/271
					WATCO, Koelnagar Tap Water, Supply outlet water
					<b>Results</b>
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 <sup>rd</sup> Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
  - (a) Date of Sampling :
  - (b) Method Used\* :
  - (c) Name of Sampler with Designation :

-----End of Test Report-----

*N. Nishprava*  
20/2/2024  
Authorised Signatory  
(Biological)  
(Mrs. Nishprava Pattanaik, AES)

*Usharani Patnaik*  
20-2-2024  
Authorised Signatory  
(Water/wastewater)  
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*N. Niranjan Mallick*  
20/2/24  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII, Bhubaneswar - 751 012, FAX : 2562822/2560955  
TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospcbboard.org](mailto:paribesh1@ospcbboard.org) Website : [www.ospcbboard.org](http://www.ospcbboard.org)

**True Copy Attested**

*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh



- 111 -

**CENTRAL LABORATORY  
STATE POLLUTION CONTROL BOARD, ODISHA**

OSPCB/CNL/F0718

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospboard.org](mailto:centrallab@ospboard.org)



**TEST REPORT**

Page 1 of 1

1. ULR No. : TC127402400000009F  
 2 (i). Report No. : OS/105/02/2024  
 3 (i) Date : 20.02.2024  
 2(ii). Amendment No : ---  
 3(ii) Amendment Date : ---  
 4. Sample Submitted By : Sri A. Sahoo, JSA,  
 (Name and address) Regional Office, SPCB, Odisha, Rourkela  
 5. Reference Letter No. : 616 dt.13.02.2024  
 6. Date of sample receipt : 13.02.2024  
 7. Sample Description :  
 (i) Discipline : Chemical Testing  
 (Biological Testing,  
 Chemical testing)  
 (ii) Group : Water  
 (Water/ Pollution and Environment  
 / Atmospheric Pollution/ Soil and  
 Hazardous Waste)  
 (iii) Sub Group : Drinking water  
 (Surface water/ Ground water/ Drinking  
 water / Wastewater/ Effluent/ Ambient Air/  
 Stack/ Soil and Hazardous Waste)  
 8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024  
 9. If uncertainty is desired by Customer : No  
 10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DWI/272
					WATCO, Jhirpani Tap Supply Sampling point
					<b>Results</b>
1.	pH	6.5-8.5	No relaxation	4500-H* -B, APHA, 23 <sup>rd</sup> Edn., 2017	6.7
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	11.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	108.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	9.5
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	-	-	IS 3025: Part 44	1.2
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	7.8
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.396
8.	Fluoride (F) mg/L	1.0	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.19

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :  
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
 If Yes,  
 (a) Date of Sampling : (b) Method Used\* :  
 (c) Name of Sampler with Designation :

-----End of Test Report-----

*Usharani Patnaik*  
 20.2.2024  
 Authorised Signatory  
 (Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

*N. Niranjan Mallick*  
 Board Analyst  
 (Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

- (i) The results stated above relate only to the items tested.  
 (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.  
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Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII, Bhubaneswar - 751 012, FAX : 2562822/2560955  
 TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospboard.org](mailto:paribesh1@ospboard.org) Website : [www.ospboard.org](http://www.ospboard.org)

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*[Signature]*  
 Assistant Collector Judicial  
 Collectorate, Sundargarh



-112-

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospboard.org](mailto:centrallab@ospboard.org)

### TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/106/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
  - (ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW/272
					WATCO, Jhirpani , Tap Supply Sampling point
					<b>Results</b>
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 <sup>rd</sup> Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,  
(a) Date of Sampling : (b) Method Used\* :  
(c) Name of Sampler with Designation :

-----End of Test Report-----

*Pattanaik*  
20/02/2024  
Authorised Signatory  
(Biological)

(Mrs. Nishiprava Pattanaik, AES)

*Usharani*  
20.2.2024  
Authorised Signatory  
(Water/wastewater)

(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*N. Mallick*  
20/2/24  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII, Bhubaneswar - 751 012, FAX : 2562822/2560955  
TEL: 2564033/2563294 EPABX: 2561909/2562847, E-mail: [paribesh1@ospboard.org](mailto:paribesh1@ospboard.org) Website: [www.ospboard.org](http://www.ospboard.org)

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*[Signature]*

Assistant Collector Judicial  
Collectorate, Sundargarh



-113-

**CENTRAL LABORATORY  
STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospceboard.org](mailto:centrallab@ospceboard.org)

OSPCB/CNL/F0718



**TEST REPORT**

Page 1 of 1

1. ULR No. : TC127402400000010F  
 2 (i). Report No. : OS/107/02/2024  
 3 (i) Date : 20.02.2024  
 4. Sample Submitted By : Sri A. Sahoo, JSA,  
 (Name and address) Regional Office, SPCB, Odisha, Rourkela  
 5. Reference Letter No. : 616 dt.13.02.2024  
 6. Date of sample receipt : 13.02.2024  
 7. Sample Description :

(i) Discipline : Chemical Testing  
 (Biological Testing,  
 Chemical testing)

(ii) Group : Water  
 (Water/ Pollution and Environment  
 / Atmospheric Pollution/ Soil and  
 Hazardous Waste)

(iii) Sub Group : Surface water  
 (Surface water/ Ground water/ Drinking  
 water / Wastewater/ Effluent/ Ambient Air/  
 Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024  
 9. If uncertainty is desired by Customer : No  
 10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits * (IS : 2296-1982)	Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
				Others/ Feb - 24/SW/273 Main Stream of Koel River at Jhirpani WATCO intake point Results
1.	pH	6.5-8.5	4500-H <sup>+</sup> -B, APHA, 23 <sup>rd</sup> Edn., 2017	6.8
2.	Total Suspended Solids (TSS), mg/L	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	14.0
3.	Total Dissolved Solids (TDS), mg/L	1500, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	112.0
4.	Dissolved Oxygen (DO), mg/L	4, min	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	9.4
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	3, max	IS 3025: Part 44	1.1
6.	Chemical Oxygen Demand (COD), mg/L	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	7.8
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.354
8.	Fluoride (F <sup>-</sup> ) mg/L	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.18

\* Tolerance limit for inland surface water subject to pollution (IS : 2296-1982), for Class 'C' (Drinking source with conventional treatment and disinfection)

11. Deviation from Test Method , if any :  
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
 If Yes,

(a) Date of Sampling : (b) Method Used\* :  
 (c) Name of Sampler with Designation :

-----End of Test Report-----

*Usharani Patnaik*  
20.2.2024

Authorised Signatory  
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

*Niranjan Mallick*  
20.2.2024

Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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 TEL: 2564033/2563294 EPABX: 2561909/2562847. E-mail: [paribesh1@ospceboard.org](mailto:paribesh1@ospceboard.org) Website: [www.ospceboard.org](http://www.ospceboard.org)

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*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh



-114-

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospboard.org](mailto:centrallab@ospboard.org)

### TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/108/02/2024
- 3 (i) Date : 20.02.2024
- 2(ii). Amendment No : ---
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
- (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
- (ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
- (iii) Sub Group : Surface water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :
- (Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits * (IS : 2296-1982)	Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
				Others/ Feb - 24/ SW/273
				Main Stream of Koel River at Jhirpani WATCO intake point
				Results
1.	Free Residual Chlorine (R.Cl), mg/L	-	4500 Cl-B, APHA, 23 <sup>rd</sup> Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	5000, max	9221-B, APHA, 23 <sup>rd</sup> Edn., 2017	350
3.	Fecal Coliform (FC), MPN/100 ml	-	9221-E, APHA, 23 <sup>rd</sup> Edn., 2017	13

\* Tolerance limit for inland surface water subject to pollution (IS : 2296-1982), for Class 'C' (Drinking source with conventional treatment and disinfection)

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
- (a) Date of Sampling : (b) Method Used\* :
- (c) Name of Sampler with Designation :

-----End of Test Report-----

*Pattanaik*  
20/02/2024  
Authorized Signatory  
(Biological)  
(Mrs. Nishprava Pattanaik, AES)

*Usharani*  
20.2.2024  
Authorized Signatory  
(Water/wastewater)  
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*N. Mallick*  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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TEL: 2564033/2563294 EPABX: 2561909/2562847, E-mail: [paribesh1@ospboard.org](mailto:paribesh1@ospboard.org) Website: [www.ospboard.org](http://www.ospboard.org)

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Assistant Collector Judicial  
Collectorate, Sundargarh



-115-

OSPCB/CNLJF0718

**CENTRAL LABORATORY  
STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)



**TEST REPORT**

Page 1 of 1

1. ULR No. : TC127402400000011F
- 2 (i). Report No. : OS/109/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing  
(Biological Testing,  
Chemical testing)
  - (ii) Group : Water  
(Water/ Pollution and Environment  
/ Atmospheric Pollution/ Soil and  
Hazardous Waste)
  - (iii) Sub Group : Drinking water  
(Surface water/ Ground water/ Drinking  
water / Wastewater/ Effluent/ Ambient Air/  
Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/274
					WATCO Section – III, Koel Nagar over head tank water
					Results
1.	pH	6.5-8.5	No relaxation	4500-H <sup>+</sup> -B, APHA, 23 <sup>rd</sup> Edn., 2017	6.9
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	<10
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	112.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	12.8
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	-	-	IS 3025: Part 44	1.6
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	12.0
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.309
8.	Fluoride (F) mg/L	1.0	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.20

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
  - (a) Date of Sampling :
  - (b) Method Used\* :
  - (c) Name of Sampler with Designation :

-----End of Test Report-----

*Usharani Patnaik*  
20.2.2024  
Authorised Signatory  
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

*Niranjan Mallick*  
20.2.2024  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

- (i) The results stated above relate only to the items tested.
- (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.
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Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakanthnagar, Unit-VIII, Bhubaneswar – 751 012. FAX : 2562822/2560955  
TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospcbboard.org](mailto:paribesh1@ospcbboard.org) Website : [www.ospcbboard.org](http://www.ospcbboard.org)

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Assistant Collector Judicial  
Collectorate, Sundargarh



-116-

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospboard.org](mailto:centrallab@ospboard.org)

### TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/110/02/2024
- 2(ii). Amendment No : ---
- 3 (i) Date : 20.02.2024
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
  - (ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW/274
					WATCO Section – III, Koel Nagar over head tank water
					<b>Results</b>
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 <sup>rd</sup> Edn., 2017	1.33
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,  
(a) Date of Sampling : (b) Method Used\* :  
(c) Name of Sampler with Designation :

-----End of Test Report-----

*Atharash*  
20/02/2024  
Authorised Signatory  
(Biological)  
(Mrs. Nishprava Pattanaik, AES)

*Central*  
20.2.2024  
Authorised Signatory  
(Water/wastewater)  
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*U. Niranjan Mallick*  
20/2/24  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

- (i) The results stated above relate only to the items tested.
- (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.
- (iii) The laboratory is not responsible for the authenticity of photocopied Test Reports.
- (iv) The Test Item will not be retained for more than 15 days from the date of issue of Test Report except in case as required by applicable Regulation.

Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII, Bhubaneswar – 751 012, FAX : 2562822/2560955  
TEL: 2564033/2563294 EPABX : 2561909/2562847, E-mail: [paribesh1@ospboard.org](mailto:paribesh1@ospboard.org) Website : [www.ospboard.org](http://www.ospboard.org)

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*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh



-117-

**CENTRAL LABORATORY  
STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospceboard.org](mailto:centrallab@ospceboard.org)

OSP/PCB/CNL/F0718



**TEST REPORT**

Page 1 of 1

1. ULR No. : TC127402400000012F
- 2 (i). Report No. : OS/111/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing  
(Biological Testing, Chemical testing)
  - (ii) Group : Water  
(Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Drinking water  
(Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/275
					WATCO Sakti Nagar overhead tank water supply
					<b>Results</b>
1.	pH	6.5-8.5	No relaxation	4500-H <sup>-</sup> -B, APHA, 23 <sup>rd</sup> Edn., 2017	6.8
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	11.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	116.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	7.9
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	-	-	IS 3025: Part 44	1.2
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	7.8
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.329
8.	Fluoride (F) mg/L	1.0	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.18

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
  - (a) Date of Sampling :
  - (b) Method Used\* :
  - (c) Name of Sampler with Designation :

-----End of Test Report-----

*Usharani Patnaik*  
20.02.2024  
Authorised Signatory  
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

*Niranjan Mallick*  
20.02.2024  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

- (i) The results stated above relate only to the items tested.
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TEL: 2564033/2563294 EPABX : 2561909/2562847, E-mail: [paribesh1@ospceboard.org](mailto:paribesh1@ospceboard.org) Website: [www.ospceboard.org](http://www.ospceboard.org)

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*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh



-118-

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospcboard.org](mailto:centrallab@ospcboard.org)

### TEST REPORT

Page 1 of 1

1. ULR No. : ----
- 2 (i). Report No. : OS/112/02/2024
- 2(ii). Amendment No. : ---
- 3 (i) Date : 20.02.2024
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
  - (ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW /275
					WATCO Sakti Nagar overhead tank water supply
					<b>Results</b>
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 <sup>rd</sup> Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
  12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
- (a) Date of Sampling : (b) Method Used\* :
- (c) Name of Sampler with Designation :

-----End of Test Report-----

*Nishiprava*  
20/02/2024  
Authorised Signatory  
(Biological)  
(Mrs. Nishiprava Pattanaik, AES)

*Usharani*  
20.2.2024  
Authorised Signatory  
(Water/wastewater)  
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*Niranjan*  
20/02/2024  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

#### Note :

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TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospcboard.org](mailto:paribesh1@ospcboard.org) Website : [www.ospcboard.org](http://www.ospcboard.org)

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Collectorate, Sundargarh



-119-

**CENTRAL LABORATORY**  
**STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
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E-mail: [centrallab@ospboard.org](mailto:centrallab@ospboard.org)

OSPCB/CNL/F0718



**TEST REPORT**

Page 1 of 1

1. ULR No. : TC127402400000013F
- 2 (i). Report No. : OS/113/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing  
(Biological Testing,  
Chemical testing)
  - (ii) Group : Water  
(Water/ Pollution and Environment  
/ Atmospheric Pollution/ Soil and  
Hazardous Waste)
  - (iii) Sub Group : Drinking water  
(Surface water/ Ground water/ Drinking  
water / Wastewater/ Effluent/ Ambient Air/  
Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/276
					SAIL Water Treatment plant
					Results
1.	pH	6.5-8.5	No relaxation	4500-H* -B, APHA, 23 <sup>rd</sup> Edn., 2017	6.8
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	12.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	136.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	8.7
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	-	-	IS 3025: Part 44	1.1
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	7.8
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.375
8.	Fluoride (F) mg/L	1.0	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.17

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
  - (a) Date of Sampling :
  - (b) Method Used\* :
  - (c) Name of Sampler with Designation :

-----End of Test Report-----

*Central Lab*  
*20.2.2024*

Authorised Signatory  
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

*Niranjan Mallick*  
*20/2/24*

Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospboard.org](mailto:paribesh1@ospboard.org) Website : [www.ospboard.org](http://www.ospboard.org)

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*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh



-120-

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospboard.org](mailto:centrallab@ospboard.org)

### TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/114/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
 

(i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)	(ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)	(iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
---	---	---
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW /276
					SAIL Water treatment plant
					<b>Results</b>
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 <sup>rd</sup> Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,  
(a) Date of Sampling : (b) Method Used\* :  
(c) Name of Sampler with Designation :

-----End of Test Report-----

*N. Nishiprava*  
20/02/2024  
Authorised Signatory  
(Biological)  
(Mrs. Nishiprava Pattanaik, AES)

*U. Usharani*  
20-2-2024  
Authorised Signatory  
(Water/wastewater)  
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*N. Niranjan Mallick*  
20/02/2024  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospboard.org](mailto:paribesh1@ospboard.org) Website : [www.ospboard.org](http://www.ospboard.org)

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*(Signature)*  
Assistant Collector Judicial  
Collectorate, Sundargarh



-121-

OSPCB/CNL/F0718

**CENTRAL LABORATORY**  
**STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)



**TEST REPORT**

Page 1 of 1

1. ULR No. : TC127402400000014F
- 2 (i). Report No. : OS/115/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing  
(Biological Testing, Chemical testing)
  - (ii) Group : Water  
(Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Surface water  
(Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits * (IS : 2296-1982)	Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
				Others/ Feb - 24/SW/277
				Results
1.	pH	6.5-8.5	4500-H <sup>-</sup> -B, APHA, 23 <sup>rd</sup> Edn., 2017	6.9
2.	Total Suspended Solids (TSS), mg/L	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	13.0
3.	Total Dissolved Solids (TDS), mg/L	1500, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	104.0
4.	Dissolved Oxygen (DO), mg/L	4, min	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	8.6
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	3, max	IS 3025: Part 44	1.2
6.	Chemical Oxygen Demand (COD), mg/L	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	7.8
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.321
8.	Fluoride (F <sup>-</sup> ) mg/L	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.17

\* Tolerance limit for inland surface water subject to pollution (IS : 2296-1982), for Class 'C' (Drinking source with conventional treatment and disinfection)

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
  - (a) Date of Sampling :
  - (b) Method Used\* :
  - (c) Name of Sampler with Designation :

-----End of Test Report-----

Authorised Signatory  
 (Water/wastewater)  
 (Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

Board Analyst  
 (Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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TEL : 2564033/2563294 EPABX : 2561909/2562847. E-mail : [paribesh1@ospcbboard.org](mailto:paribesh1@ospcbboard.org) Website : [www.ospcbboard.org](http://www.ospcbboard.org)

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 Collectorate, Sundargarh



-122-

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**CENTRAL LABORATORY**  
**STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospcboard.org](mailto:centrallab@ospcboard.org)

**TEST REPORT**

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/116/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
  - (ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Surface water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits * (IS : 2296-1982)	Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
				Others/ Feb - 24/SW /277 Koel U/s, Baikunthaghat, SAIL Intake point
				Results
1.	Free Residual Chlorine (R.Cl), mg/L	-	4500 Cl-B, APHA, 23 <sup>rd</sup> Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	5000, max	9221-B, APHA, 23 <sup>rd</sup> Edn., 2017	7900
3.	Fecal Coliform (FC), MPN/100 ml	-	9221-E, APHA, 23 <sup>rd</sup> Edn., 2017	1700

\* Tolerance limit for inland surface water subject to pollution (IS : 2296-1982), for Class 'C' (Drinking source with conventional treatment and disinfection)

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
  - (a) Date of Sampling :
  - (b) Method Used\* :
  - (c) Name of Sampler with Designation :

-----End of Test Report-----

*N. Pattanaik*  
20/02/2024  
Authorised Signatory  
(Biological)

(Mrs. Nishprava Pattanaik, AES)

*U. Patnaik*  
20.2.2024  
Authorised Signatory  
(Water/wastewater)

(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*M. Niranjan Mallick*  
20/02/2024  
Board Analyst

(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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- (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.
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- (iv) The Test Item will not be retained for more than 15 days from the date of issue of Test Report except in case as required by applicable Regulation.

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TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospcboard.org](mailto:paribesh1@ospcboard.org) Website : [www.ospcboard.org](http://www.ospcboard.org)

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*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh



-123-

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**CENTRAL LABORATORY**  
**STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)



**TEST REPORT**

Page 1 of 1

1. ULR No. : TC127402400000015F
- 2 (i). Report No. : OS/117/02/2024
- 3 (i) Date : 20.02.2024
- 2(ii). Amendment No : ---
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing  
(Biological Testing, Chemical testing)
  - (ii) Group : Water  
(Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Drinking water  
(Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/278
					55 MLD Water Treatment plant outlet
					<b>Results</b>
1.	pH	6.5-8.5	No relaxation	4500-H <sup>-</sup> -B, APHA, 23 <sup>rd</sup> Edn., 2017	6.8
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	<10
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	112.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	10.0
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	-	-	IS 3025: Part 44	1.3
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	7.8
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.393
8.	Fluoride (F <sup>-</sup> ) mg/L	1.0	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.18

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,  
(a) Date of Sampling : (b) Method Used\* :  
(c) Name of Sampler with Designation :

-----End of Test Report-----

20.02.2024

Authorised Signatory  
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

Board Analyst

(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

- (i) The results stated above relate only to the items tested.
- (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.
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- (iv) The Test Item will not be retained for more than 15 days from the date of issue of Test Report except in case as required by applicable Regulation.

Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII, Bhubaneswar - 751 012, FAX : 2562822/2560955  
TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospcbboard.org](mailto:paribesh1@ospcbboard.org) Website : [www.ospcbboard.org](http://www.ospcbboard.org)

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Assistant Collector Judicial  
Collectorate, Sundargarh



-124-

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

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Bhubaneswar - 751 024  
E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)

### TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/118/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
  - (ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW /278
					55 MLD Water Treatment plant outlet
					<b>Results</b>
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 <sup>rd</sup> Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
- (a) Date of Sampling : (b) Method Used\* :
- (c) Name of Sampler with Designation :

-----End of Test Report-----

*Atharv*  
20/2/2024

Authorised Signatory  
(Biological)  
(Mrs. Nishprava Pattanaik, AES)

*Usharani*  
20.2.2024

Authorised Signatory  
(Water/wastewater)  
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*M. Niranjan Mallick*  
20/2/24

Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

- (i) The results stated above relate only to the items tested.
- (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.
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TEL: 2564033/2563294 EPABX: 2561909/2562847, E-mail: [paribesh1@ospcbboard.org](mailto:paribesh1@ospcbboard.org) Website: [www.ospcbboard.org](http://www.ospcbboard.org)

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Assistant Collector Judicial  
Collectorate, Sundargarh



-125-

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)



### TEST REPORT

Page 1 of 1

1. ULR No. : TC12740240000016F  
 2 (i). Report No. : OS/119/02/2024  
 3 (i) Date : 20.02.2024

- 2(ii). Amendment No : ---  
 3(ii) Amendment Date : ---

4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela

5. Reference Letter No. : 616 dt.13.02.2024

6. Date of sample receipt : 13.02.2024

7. Sample Description :

(i) Discipline : Chemical Testing  
(Biological Testing,  
Chemical testing)

(ii) Group : Water  
(Water/ Pollution and Environment  
/ Atmospheric Pollution/ Soil and  
Hazardous Waste)

(iii) Sub Group : Drinking water  
(Surface water/ Ground water/ Drinking  
water / Wastewater/ Effluent/ Ambient Air/  
Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024

9. If uncertainty is desired by Customer : No

10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/279
					Plant site Road Tap Water
					Results
1.	pH	6.5-8.5	No relaxation	4500-H* -B, APHA, 23 <sup>rd</sup> Edn., 2017	6.7
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	12.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	96.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	2.2
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	-	-	IS 3025: Part 44	1.2
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	7.8
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.422
8.	Fluoride (F) mg/L	1.0	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.17

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :

12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,

- (a) Date of Sampling : (b) Method Used\* :  
 (c) Name of Sampler with Designation :

-----End of Test Report-----

*Leatna*  
20.2.2024  
Authorised Signatory  
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

*M. Niranjan Mallick*  
20/2/24  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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 TEL: 2564033/2563294 EPABX: 2561909/2562847, E-mail: [paribesh1@ospcbboard.org](mailto:paribesh1@ospcbboard.org), Website: [www.ospcbboard.org](http://www.ospcbboard.org)

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*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh



-126-

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)

### TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/120/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
- (i) Discipline : Chemical Testing and Biological Testing  
(Biological Testing, Chemical testing)
- (ii) Group : Water  
(Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
- (iii) Sub Group : Drinking water  
(Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW /279
					Plant Site Road Tap Water
					<b>Results</b>
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 <sup>rd</sup> Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
- (a) Date of Sampling : (b) Method Used\* :
- (c) Name of Sampler with Designation :

-----End of Test Report-----

*Nishiprava Pattanaik*  
20/02/2024

Authorised Signatory  
(Biological)  
(Mrs. Nishiprava Pattanaik, AES)

*Usharani Patnaik*  
20-2-2024

Authorised Signatory  
(Water/wastewater)  
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*Niranjan Mallick*  
20/02/2024

Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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TEL: 2564033/2563294 EPABX: 2561909/2562847, E-mail: [paribesh1@ospcbboard.org](mailto:paribesh1@ospcbboard.org) Website: [www.ospcbboard.org](http://www.ospcbboard.org)

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*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh



-127-

**CENTRAL LABORATORY  
STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospboard.org](mailto:centrallab@ospboard.org)

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**TEST REPORT**

Page 1 of 1

1. ULR No. : TC12740240000017F  
 2 (i). Report No. : OS/121/02/2024  
 3 (i) Date : 20.02.2024  
 4. Sample Submitted By : Sri A. Sahoo, JSA,  
 (Name and address) Regional Office, SPCB, Odisha, Rourkela  
 5. Reference Letter No. : 616 dt.13.02.2024  
 6. Date of sample receipt : 13.02.2024  
 7. Sample Description :

(i) Discipline : Chemical Testing  
 (Biological Testing,  
 Chemical testing)

(ii) Group : Water  
 (Water/ Pollution and Environment  
 / Atmospheric Pollution/ Soil and  
 Hazardous Waste)

(iii) Sub Group : Drinking water  
 (Surface water/ Ground water/ Drinking  
 water / Wastewater/ Effluent/ Ambient Air/  
 Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024  
 9. If uncertainty is desired by Customer : No  
 10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/280
					Results
1.	pH	6.5-8.5	No relaxation	4500-H <sup>+</sup> -B, APHA, 23 <sup>rd</sup> Edn., 2017	6.8
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	11.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	100.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	10.4
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	-	-	IS 3025: Part 44	1.1
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	7.8
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.321
8.	Fluoride (F <sup>-</sup> ) mg/L	1.0	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.16

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :  
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
 If Yes,  
 (a) Date of Sampling : (b) Method Used\* :  
 (c) Name of Sampler with Designation :

-----End of Test Report-----

*Usharani Patnaik*  
 20.02.2024  
 Authorised Signatory  
 (Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

*Niranjan Mallick*  
 Board Analyst  
 (Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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 (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.  
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 TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospboard.org](mailto:paribesh1@ospboard.org) Website : [www.ospboard.org](http://www.ospboard.org)

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*[Signature]*  
 Assistant Collector Judicial  
 Collectorate, Sundargarh



-128-

**CENTRAL LABORATORY  
STATE POLLUTION CONTROL BOARD, ODISHA**

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Bhubaneswar - 751 024  
E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)

**TEST REPORT**

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/122/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
  - (ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW /280
					Nala Road, Supply Tap Water
					<b>Results</b>
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 <sup>rd</sup> Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
  - (a) Date of Sampling :
  - (b) Method Used\* :
  - (c) Name of Sampler with Designation :

-----End of Test Report-----

*Nishiprava Pattanaik*  
20/02/2024  
Authorised Signatory  
(Biological)  
(Mrs. Nishiprava Pattanaik, AES)

*Usharani Patnaik*  
20/02/2024  
Authorised Signatory  
(Water/wastewater)  
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*Niranjan Mallick*  
20/02/2024  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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- (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.
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TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail: [paribesh1@ospcbboard.org](mailto:paribesh1@ospcbboard.org) Website : [www.ospcbboard.org](http://www.ospcbboard.org)

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Assistant Collector Judicial  
Collectorate, Sundargarh



-129-

OSPCB/CNL/F0718

**CENTRAL LABORATORY  
STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospcboard.org](mailto:centrallab@ospcboard.org)



**TEST REPORT**

Page 1 of 1

1. ULR No. : TC127402400000018F
- 2 (i). Report No. : OS/123/02/2024
- 3 (i) Date : 20.02.2024
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
 

(i) Discipline : Chemical Testing (Biological Testing, Chemical testing)	(ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)	(iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
--	--	--
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/281 Oram Pada Udit Nagar Tap Water
					<b>Results</b>
1.	pH	6.5-8.5	No relaxation	4500-H <sup>+</sup> -B, APHA, 23 <sup>rd</sup> Edn., 2017	6.9
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	12.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	116.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	8.6
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	-	-	IS 3025: Part 44	1.8
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	12.0
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.389
8.	Fluoride (F <sup>-</sup> ) mg/L	1.0	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.18

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method, if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
 

(a) Date of Sampling :	(b) Method Used* :
(c) Name of Sampler with Designation :	

-----End of Test Report-----

*Usharani*  
20.2.2024

Authorised Signatory  
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

*Niranjan Mallick*  
20/2/2024

Board Analyst

(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

- (i) The results stated above relate only to the items tested.
- (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.
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TEL: 2564033/2563294 EPABX: 2561909/2562847, E-mail: [paribesh1@ospcboard.org](mailto:paribesh1@ospcboard.org) Website: [www.ospcboard.org](http://www.ospcboard.org)

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*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh





-131-

OSPCB/CNL/F0718

**CENTRAL LABORATORY  
STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)



**TEST REPORT**

Page 1 of 1

1. ULR No. : TC127402400000020F
- 2 (i). Report No. : OS/127/02/2024
- 2 (ii). Amendment No : ---
- 3 (i) Date : 20.02.2024
- 3 (ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing  
(Biological Testing, Chemical testing)
  - (ii) Group : Water  
(Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Drinking water  
(Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/283 Kishantola Panposh Basti Tap Water
					<b>Results</b>
1.	pH	6.5-8.5	No relaxation	4500-H <sup>+</sup> -B, APHA, 23 <sup>rd</sup> Edn., 2017	6.9
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	13.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	124.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	9.6
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	-	-	IS 3025: Part 44	1.2
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	7.8
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.377
8.	Fluoride (F) mg/L	1.0	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.17

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
  - (a) Date of Sampling :
  - (b) Method Used\* :
  - (c) Name of Sampler with Designation :

-----End of Test Report-----

*Usharani Patnaik*  
20.2.2024  
Authorised Signatory  
(Water/Wastewater)  
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*M. Niranjan Mallick*  
20/02/2024  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

- (i) The results stated above relate only to the items tested.
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Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/11B, Nilakanthanagar, Unit-VIII, Bhubaneswar - 751 012, FAX: 2562822/2560955  
TEL: 2564033/2563294 EPABX: 2561909/2562847. E-mail: [paribesh1@ospcbboard.org](mailto:paribesh1@ospcbboard.org) Website: [www.ospcbboard.org](http://www.ospcbboard.org)

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*[Signature]*

Assistant Collector Judicial  
Collectorate, Sundargarh



-132-

**CENTRAL LABORATORY  
STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)

**TEST REPORT**

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/128/02/2024
- 2(ii). Amendment No : ---
- 3 (i) Date : 20.02.2024
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
  - (ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW /283 Kishantola Panposh Basti Tap Water
					<b>Results</b>
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 <sup>rd</sup> Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8(Absent)

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,  
(a) Date of Sampling : (b) Method Used\* :  
(c) Name of Sampler with Designation :

-----End of Test Report-----

*Nishiprava*  
20/02/2024  
Authorised Signatory  
(Biological)  
(Mrs. Nishiprava Pattanaik, AES)

*Usharani*  
20.2.2024  
Authorised Signatory  
(Water/wastewater)  
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*Niranjan*  
20/02/2024  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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TEL : 2564033/2563294 EPABX: 2561909/2562847, E-mail: [paribesh1@ospcbboard.org](mailto:paribesh1@ospcbboard.org) Website : [www.ospcbboard.org](http://www.ospcbboard.org)

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*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh



- 133 -

**CENTRAL LABORATORY**  
**STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospceboard.org](mailto:centrallab@ospceboard.org)

OSPCB/CNL/F0718



**TEST REPORT**

Page 1 of 1

1. ULR No. : TC12740240000021F
- 2 (i). Report No. : OS/129/02/2024
- 2(ii). Amendment No : ---
- 3 (i) Date : 20.02.2024
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing  
(Biological Testing, Chemical testing)
  - (ii) Group : Water  
(Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Drinking water  
(Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/284
					18 MLD Intake Pump House at Panposh
					<b>Results</b>
1.	pH	6.5-8.5	No relaxation	4500-H* -B, APHA, 23 <sup>rd</sup> Edn., 2017	6.9
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	18.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	128.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	9.3
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	-	-	IS 3025: Part 44	1.1
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	7.8
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.402
8.	Fluoride (F <sup>-</sup> ) mg/L	1.0	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.16

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
  - (a) Date of Sampling :
  - (b) Method Used\* :
  - (c) Name of Sampler with Designation :

-----End of Test Report-----

20.2.2024  
 Authorised Signatory  
 (Water/wastewater)  
 (Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

Board Analyst  
 (Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII, Bhubaneswar - 751 012, FAX : 2562822/2560955  
 TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospceboard.org](mailto:paribesh1@ospceboard.org) Website : [www.ospceboard.org](http://www.ospceboard.org)

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Assistant Collector Judicial  
 Collectorate, Sundargarh



-134-

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospcb.org](mailto:centrallab@ospcb.org)

### TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/130/02/2024
- 2(ii). Amendment No : ---
- 3 (i) Date : 20.02.2024
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
  - (ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW /284
					18 MLD Intake Pump House at Panposh
					<b>Results</b>
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 <sup>rd</sup> Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 <sup>rd</sup> Edn., 2017	23
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 <sup>rd</sup> Edn., 2017	23

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
  12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
- (a) Date of Sampling : (b) Method Used\* :
- (c) Name of Sampler with Designation :

-----End of Test Report-----

*Nishiprava*  
20/02/2024  
Authorised Signatory  
(Biological)  
(Mrs. Nishiprava Pattanaik, AES)

*Usharani*  
20-2-2024  
Authorised Signatory  
(Water/wastewater)  
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*Niranjan*  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospcb.org](mailto:paribesh1@ospcb.org) Website : [www.ospcb.org](http://www.ospcb.org)

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Collectorate, Sundargarh



-135-

OSPCB/CNL/F0718

**CENTRAL LABORATORY  
STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospboard.org](mailto:centrallab@ospboard.org)



**TEST REPORT**

Page 1 of 1

1. ULR No. : TC127402400000022F
- 2 (i). Report No. : OS/131/02/2024
- 3 (i) Date : 20.02.2024
- 2(ii). Amendment No : ---
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing  
(Biological Testing, Chemical testing)
  - (ii) Group : Water  
(Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Drinking water  
(Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/285
					25 MLD Intake Pump House at Panposh
					<b>Results</b>
1.	pH	6.5-8.5	No relaxation	4500-H* -B, APHA, 23 <sup>rd</sup> Edn., 2017	6.8
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	17.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	112.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	9.0
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	-	-	IS 3025: Part 44	1.2
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	7.8
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.305
8.	Fluoride (F) mg/L	1.0	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.15

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
  - (a) Date of Sampling :
  - (b) Method Used\* :
  - (c) Name of Sampler with Designation :

-----End of Test Report-----

Patnaik  
20.2.2024

Authorised Signatory  
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

M. Mallick

Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII, Bhubaneswar - 751 012, FAX : 2562822/2560955  
TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospboard.org](mailto:paribesh1@ospboard.org) Website : [www.ospboard.org](http://www.ospboard.org)

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Assistant Collector Judicial  
Collectorate, Sundargarh



-136-

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)

### TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/132/02/2024
- 2(ii). Amendment No : ---
- 3 (i) Date : 20.02.2024
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
  - (ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW /285
					25 MLD Intake Pump House at Panposh
					<b>Results</b>
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 <sup>rd</sup> Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 <sup>rd</sup> Edn., 2017	23
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 <sup>rd</sup> Edn., 2017	23

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,  
(a) Date of Sampling : (b) Method Used\* :  
(c) Name of Sampler with Designation :

-----End of Test Report-----

*N. Pattanaik*  
20/02/2024

Authorised Signatory  
(Biological)  
(Mrs. Nishiprava Pattanaik, AES)

*U. Patnaik*  
20.2.2024

Authorised Signatory  
(Water/wastewater)  
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*N. Mallick*  
20/2/24

Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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- (ii) This report shall not be reproduced in full or in part without written approval from the In-charge of the Central Laboratory.
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Head Office: State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII, Bhubaneswar - 751 012, FAX : 2562822/2560955  
TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospcbboard.org](mailto:paribesh1@ospcbboard.org) Website : [www.ospcbboard.org](http://www.ospcbboard.org)

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*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh



- 137 -

OSPCB/CNL/F0718

**CENTRAL LABORATORY**  
**STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)



**TEST REPORT**

Page 1 of 1

1. ULR No. : TC127402400000023F  
 2 (i). Report No. : OS/133/02/2024  
 3 (i) Date : 20.02.2024  
 2(ii). Amendment No : ---  
 3(ii) Amendment Date : ---  
 4. Sample Submitted By : Sri A. Sahoo, JSA,  
 (Name and address) Regional Office, SPCB, Odisha, Rourkela  
 5. Reference Letter No. : 616 dt.13.02.2024  
 6. Date of sample receipt : 13.02.2024  
 7. Sample Description :  
 (i) Discipline : Chemical Testing (ii) Group : Water (iii) Sub Group : Drinking water  
 (Biological Testing, (Water/ Pollution and Environment (Surface water/ Ground water/ Drinking  
 Chemical testing) / Atmospheric Pollution/ Soil and water / Wastewater/ Effluent/ Ambient Air/  
 Hazardous Waste) Stack/ Soil and Hazardous Waste)  
 8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024  
 9. If uncertainty is desired by Customer : No  
 10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/286
					43 MLD Supply Water at Panposh
					<b>Results</b>
1.	pH	6.5-8.5	No relaxation	4500-H <sup>-</sup> -B, APHA, 23 <sup>rd</sup> Edn., 2017	7.1
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	13.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	180.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	9.1
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	-	-	IS 3025: Part 44	1.6
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	12.0
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.307
8.	Fluoride (F) mg/L	1.0	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.15

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :  
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
 If Yes,  
 (a) Date of Sampling : (b) Method Used\* :  
 (c) Name of Sampler with Designation :

-----End of Test Report-----

*Usharani Patnaik*  
20.2.2024

Authorised Signatory  
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

*Niranjan Mallick*

Board Analyst

(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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 TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospcbboard.org](mailto:paribesh1@ospcbboard.org) Website : [www.ospcbboard.org](http://www.ospcbboard.org)

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*[Signature]*

Assistant Collector Judicial  
Collectorate, Sundargarh



- 138 -

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024  
E-mail: [centrallab@ospcboard.org](mailto:centrallab@ospcboard.org)

### TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/134/02/2024
- 2(ii). Amendment No : ---
- 3 (i) Date : 20.02.2024
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
  - (i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)
  - (ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)
  - (iii) Sub Group : Drinking water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits*		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/ DW /286
					43 MLD Supply Water at Panposh
					<b>Results</b>
1.	Free Residual Chlorine (R.Cl), mg/L	0.2, min	1.0, min	4500 Cl-B, APHA, 23 <sup>rd</sup> Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	Shall not be detectable in any 100 ml sample		9221-B, APHA, 23 <sup>rd</sup> Edn., 2017	23
3.	Fecal Coliform (FC), MPN/100 ml			9221-E, APHA, 23 <sup>rd</sup> Edn., 2017	<1.8 (Absent)

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
- (a) Date of Sampling : (b) Method Used\* :
- (c) Name of Sampler with Designation :

-----End of Test Report-----

*A. Pattanaik*  
20/02/2024  
Authorised Signatory  
(Biological)  
(Mrs. Nishiprava Pattanaik, AES)

*U. Patnaik*  
20.2.2024  
Authorised Signatory  
(Water/wastewater)  
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*M. Niranjan Mallick*  
20/2/24  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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TEL: 2564033/2563294 EPABX: 2561909/2562847, E-mail: [paribesh1@ospcboard.org](mailto:paribesh1@ospcboard.org) Website: [www.ospcboard.org](http://www.ospcboard.org)

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*[Signature]*  
Assistant Collector Judicial  
Collectorate, Sundargarh



-139-

**CENTRAL LABORATORY**  
**STATE POLLUTION CONTROL BOARD, ODISHA**

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)

OSPCB/CNL/F0718



**TEST REPORT**

Page 1 of 1

1. ULR No. : TC12740240000026F
- 2 (i). Report No. : OS/139/02/2024
- 2(ii). Amendment No : ---
- 3 (i) Date : 20.02.2024
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
 

(i) Discipline : Chemical Testing (Biological Testing, Chemical testing)	(ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)	(iii) Sub Group : Surface water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
--	--	---
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits * (IS : 2296-1982)	Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
				Others/ Feb - 24/SW/289 Vedvyas Water Intake of WATCO Plant Results
1.	pH	6.5-8.5	4500-H <sup>+</sup> -B, APHA, 23 <sup>rd</sup> Edn., 2017	7.1
2.	Total Suspended Solids (TSS), mg/L	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	20.0
3.	Total Dissolved Solids (TDS), mg/L	1500, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	124.0
4.	Dissolved Oxygen (DO), mg/L	4, min	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	9.5
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	3, max	IS 3025: Part 44	1.4
6.	Chemical Oxygen Demand (COD), mg/L	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	7.8
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.389
8.	Fluoride (F) mg/L	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.17

\* Tolerance limit for inland surface water subject to pollution (IS : 2296-1982), for Class 'C' (Drinking source with conventional treatment and disinfection)

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
 

(a) Date of Sampling :	(b) Method Used* :
(c) Name of Sampler with Designation :	

-----End of Test Report-----

*Usharani Patnaik*  
20-2-2024  
Authorised Signatory  
(Water/wastewater)  
(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

*M. Niranjan Mallick*  
20/2/24  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

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TEL : 2564033/2563294 EPABX : 2561909/2562847, E-mail : [paribesh1@ospcbboard.org](mailto:paribesh1@ospcbboard.org), Website : [www.ospcbboard.org](http://www.ospcbboard.org)

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Assistant Collector Judicial  
Collectorate, Sundargarh



-140-

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
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E-mail: [centrallab@ospcboard.org](mailto:centrallab@ospcboard.org)

### TEST REPORT

Page 1 of 1

1. ULR No. : -----
- 2 (i). Report No. : OS/140/02/2024
- 2(ii). Amendment No : ---
- 3 (i) Date : 20.02.2024
- 3(ii) Amendment Date : ---
4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela
5. Reference Letter No. : 616 dt.13.02.2024
6. Date of sample receipt : 13.02.2024
7. Sample Description :
 

(i) Discipline : Chemical Testing and Biological Testing (Biological Testing, Chemical testing)	(ii) Group : Water (Water/ Pollution and Environment / Atmospheric Pollution/ Soil and Hazardous Waste)	(iii) Sub Group : Surface water (Surface water/ Ground water/ Drinking water / Wastewater/ Effluent/ Ambient Air/ Stack/ Soil and Hazardous Waste)
--	--	---
8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024
9. If uncertainty is desired by Customer : No
10. Analysis Results :  
(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *  (IS : 2296-1982)	Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
				Others/ Feb - 24/ SW /289 Vedvyas Water Intake of WATCO Plant  Results
1.	Free Residual Chlorine (R.Cl), mg/L	-	4500 Cl-B, APHA, 23 <sup>rd</sup> Edn., 2017	<0.04
2.	Total Coliform (TC), MPN/100 ml	5000, max	9221-B, APHA, 23 <sup>rd</sup> Edn., 2017	7900
3.	Fecal Coliform (FC), MPN/100 ml	-	9221-E, APHA, 23 <sup>rd</sup> Edn., 2017	3300

\* Tolerance limit for inland surface water subject to pollution (IS : 2296-1982), for Class 'C'  
(Drinking source with conventional treatment and disinfection)

11. Deviation from Test Method , if any :
12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
If Yes,
- (a) Date of Sampling : (b) Method Used\* :
- (c) Name of Sampler with Designation :

-----End of Test Report-----

*Antarika*  
20/02/2024  
Authorized Signatory  
(Biological)  
(Mrs. Nishiprava Pattanaik, AES)

*Usharani*  
20.2.2024  
Authorized Signatory  
(Water/wastewater)  
(Dr. (Mrs) Usharani Patnaik, Addl. Chief Env. Scientist)

*M. Niranjan Mallick*  
20/2/24  
Board Analyst  
(Mr. Niranjan Mallick, Chief Env. Scientist)

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Assistant Collector Judicial  
Collectorate, Sundargarh



-141-

## CENTRAL LABORATORY STATE POLLUTION CONTROL BOARD, ODISHA

OSPCB/CNL/F0718

Plot No. B-59/2 & 59/3, Chandaka Industrial Estate, Patia,  
Bhubaneswar - 751 024

E-mail: [centrallab@ospcbboard.org](mailto:centrallab@ospcbboard.org)



### TEST REPORT

Page 1 of 1

1. ULR No. : TC12740240000027F  
 2 (i). Report No. : OS/141/02/2024  
 3 (i) Date : 20.02.2024  
 2(ii). Amendment No : ---  
 3(ii) Amendment Date : ---

4. Sample Submitted By : Sri A. Sahoo, JSA,  
(Name and address) Regional Office, SPCB, Odisha, Rourkela

5. Reference Letter No. : 616 dt.13.02.2024

6. Date of sample receipt : 13.02.2024

7. Sample Description :

(i) Discipline : Chemical Testing  
(Biological Testing,  
Chemical testing)

(ii) Group : Water  
(Water/ Pollution and Environment  
/ Atmospheric Pollution/ Soil and  
Hazardous Waste)

(iii) Sub Group : Drinking water  
(Surface water/ Ground water/ Drinking  
water / Wastewater/ Effluent/ Ambient Air/  
Stack/ Soil and Hazardous Waste)

8. Analysis Starting Date-Analysis Completion Date : 13.02.2024 – 19.02.2024

9. If uncertainty is desired by Customer : No

10. Analysis Results :

(Attach separate sheet if necessary)

Sl. No.	Parameter, Unit	Standards/ Regulatory Limits *		Test Method	Joint sampling in the matter of O.A no.- 25/2004/EZ
		Requirement (Acceptable limit)	Permissible limit in the absence of alternate source		Others/ Feb - 24/DW/290
					Vedvyas Water Treatment Plant of WATCO
					Results
1.	pH	6.5-8.5	No relaxation	4500-H <sup>+</sup> -B, APHA, 23 <sup>rd</sup> Edn., 2017	7.1
2.	Total Suspended Solids (TSS), mg/L	-	-	2540 D, APHA, 23 <sup>rd</sup> Edn., 2017	11.0
3.	Total Dissolved Solids (TDS), mg/L	500, max	2000, max	2540 C, APHA, 23 <sup>rd</sup> Edn., 2017	132.0
4.	Dissolved Oxygen (DO), mg/L	-	-	4500-O-C, APHA, 23 <sup>rd</sup> Edn., 2017	8.6
5.	Biochemical Oxygen Demand (BOD, 3 days at 27 <sup>o</sup> C), mg/L	-	-	IS 3025: Part 44	1.2
6.	Chemical Oxygen Demand (COD), mg/L	-	-	5220 B, APHA, 23 <sup>rd</sup> Edn., 2017	16.0
7.	Nitrate as N (NO <sub>3</sub> <sup>-</sup> -N), mg/L	-	-	4500 - NO <sub>3</sub> <sup>-</sup> -E, APHA, 23 <sup>rd</sup> Edn., 2017	0.328
8.	Fluoride (F) mg/L	1.0	1.5	4500-F-C, APHA, 23 <sup>rd</sup> Edn., 2017	0.16

\* Drinking water specification, IS 10500: 2012

11. Deviation from Test Method , if any :  
 12. If Sampling Conducted by the Central Laboratory, Yes/ No. - No  
 If Yes,  
 (a) Date of Sampling : (b) Method Used\* :  
 (c) Name of Sampler with Designation :

-----End of Test Report-----

*Patnaik*  
20.2.2024  
Authorised Signatory  
(Water/wastewater)

(Dr. (Mrs)Usharani Patnaik, Addl. Chief Env. Scientist)

*N. Niranjan Mallick*  
Board Analyst

(Mr. Niranjan Mallick, Chief Env. Scientist)

**Note :**

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 TEL: 2564033/2563294 EPABX: 2561909/2562847, E-mail: [paribesh1@ospcbboard.org](mailto:paribesh1@ospcbboard.org) Website: [www.ospcbboard.org](http://www.ospcbboard.org)

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Assistant Collector Judicial  
Collectorate, Sundargarh

