



**The Deputy Director General of Forest (C),
Ministry of Environment, Forest and Climate Change,
Integrated Regional Office, (IRO) – Ranchi
2nd floor, Headquarter, Jharkhand State Housing Board Harmu Chowk,
Harmu Housing Colony, Argora, Jharkhand – 834002.**

Ref No. - JMB/ENV/~~DIG/37/252~~/2025
May 28th, 2025

Ref.: Environmental Clearance letter No.-J-11015/372/2010-IA.II(M)dated-30th September 2013.

SUB: Half Yearly Compliance Status Report of Environment Clearance conditions issued by MoEFCC, New Delhi to Digwadih Colliery, Tata Steel Limited, Dhanbad for the period October-24 to March-2025.

Dear Sir,

We are enclosing herewith compliance report for the period **October-24 to March-2025** for the EC granted vide letter no.- J-11015/372/2010-IA.II(M) dated-30th September 2013 issued by Ministry of Environment, Forest and Climate Change, New Delhi.

We trust the information furnished is in line with your requirement.

Thanking you,

Yours faithfully,

**Head (Planning)
Jharia Division, Tata Steel Ltd.**

Encl: As above.

Copy to: Member Secretary, CPCB, Eastern Zonal Office, Southend Conclave, 502, 5th Floor
1582, Rajdanga Main Road, Kolkata -700107.

Copy to: Member Secretary, JSPCB, T.A. Division Building (Ground Floor), H.E.C, Dhurwa,
Ranchi - 834004.

Copy to: Regional Officer, JSPCB, HIG -1 Sardar Patel Nagar, Housing Colony, Hirapur,
Dhanbad

TATA STEEL LIMITED

Jharia Collieries Jamadoba 828 112 Dhanbad India

Tel 91 326 2320263/2320265/2320267 Fax 91 326 2320268

Regd. Office Bombay House 24 Homi Mody Street Fort Mumbai 400 001

Tel 91 22 66658282 Fax 91 22 66657724

Corporate Identity Number L27100MH1907PLC000260 Website www.tatasteel.com

Your (**Half Yearly Compliance Report**) has been **Submitted** with following details

Proposal No	IA/JH/CMIN/19215/2010
Compliance ID	127995576
Compliance Number(For Tracking)	EC/M/COMPLIANCE/127995576/2025
Reporting Year	2025
Reporting Period	01 Jun(01 Oct - 31 Mar)
Submission Date	31-05-2025
RO/SRO Name	Shri Senthil Kumar Sampath
RO/SRO Email	agmu156@ifs.nic.in
State	JHARKHAND
RO/SRO Office Address	Integrated Regional Offices, Ranchi
Note:- SMS and E-Mail has been sent to Shri Senthil Kumar Sampath, JHARKHAND with Notification to Project Proponent.	

**Half Yearly Compliance Report
2025
01 Jun(01 Oct - 31 Mar)**

Acknowledgement

Proposal Name	Digwadih Colliery of M/s Tata Steel Ltd. for (Expansion from 0.38 MTPA to 0.6 MTPA in ML area 314.57 ha), dist. Dhanbad, Jharkhand				
Name of Entity / Corporate Office	Tata Steel Ltd.				
Village(s)	N/A				
District	DHANBAD				
Proposal No.	IA/JH/CMIN/19215/2010	Category	Coal Mining		
Plot / Survey / Khasra No.	N/A	Sub-District	N/A		
State	JHARKHAND	Entity's PAN	*****2803M		
MoEF File No.	J-11015/372/2010-IA.II (M)	Entity name as per PAN	UTSAV KASHYAP		

Compliance Reporting Details

Reporting Year	2025
Remarks (if any)	Half Yearly Compliance Submission for October'24 to March'25.
Reporting Period	01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Name of Entity / Corporate Office Tata Steel Ltd.

	Project Area as per EC Granted	Actual Project Area in Possession
Private	148.798	148.798
Revenue Land	13.652	13.652
Forest	0	0
Others	152.12	152.12
Total	314.57	314.57

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Raw Coal	Million Tons per Annum (MTPA)	N/A	0.6	0	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	The maximum production from the mines shall not exceed beyond that for which environmental clearance has been granted.
PPs Submission: Complied It is being strictly followed. The production from the colliery has been discontinued from February 2021.		Date: 30/05/2025
2	Statutory compliance	The impact on the Damodar river due to mining activity which is at a distance of 2 km be studied through a reputed 3rd Party and submitted to the SPCB and the regional office of the MoEF for monitoring.
PPs Submission: Complied The underground coal mines operated by Tata Steel Ltd are adjacent to the Damodar River. Other coal mines of BCCL and SAIL are also in close proximity to the river basin. Major source of pollution of Damodar River is the flow of industrial effluents and untreated sewage water into the river. A number of OB dumps lie close to the river banks causing the flow of sediments into the river. As per the hydrology study conducted by Indian School of Mines, Dhanbad, the impact of the underground mines of Tata Steel Ltd is minimal. This is due to the following reasons The mining activity does not require any diversion of river/streams or natural drain. As land profile does not change appreciably in case of underground mines with backfilling of mined out areas, there is no change in surface drainage till date and unlikely to occur in future. Surface water quality also does not undergo any change, as there is no discharge to surface drainage in dry season. In Monsoon, the excess mine water discharged gets mixed with storm water. Large settling tanks are available for storage and sedimentation of mine water before its discharge to conform to the norms. The industrial wastewater generated during vehicle washing from the central workshop catering to all the mines is treated in oil and grease trap followed by recycling of water. The two coal washeries of Tata Steel are operating on Zero Liquid discharge (ZLD) principle. Sewage water generated from our townships is treated in STP. For Sijua group, one STP of 200 KLD and another STP of 50 KLD has been installed in Bhelatand Colonies, 10 KLD has been installed at Sijua canteen and Bhelatand canteen individually. For Jamadoba group, 10 KLD STP/ETP installed in washery, Canteen, Garage and Hospital individually, other than that 60 KLD and 30 KLD installed at Digwadih Colony, 50 KLD installed at Railway Colony.		Date: 26/05/2025
3	Statutory compliance	Details of underground transportation of coal from mine to coal yard/ rail yard be submitted to the MoEF for record.
PPs Submission: Complied Coal from the mine is sent to the captive Jamadoba coal washery for beneficiation purpose through a network of underground conveyor belts. The detailed diagram of transportation network has already been submitted in earlier compliance reports.		Date: 26/05/2025
4	WASTE MANAGEMENT	Adequate care be taken to prevent sand spillages from the trucks/tippers.
PPs Submission: Complied The trucks that are being used for the transportation of sand are properly covered using tarpaulin sheets. Larger trucks have been engaged for reducing no of cycles. To ensure the compliance, every vehicle is checked as per vehicle checklist on PUC, Tyre /body condition, emission check at every entry point. Quality checks are done on trucks to ensure its health.		Date: 26/05/2025
5	WASTE MANAGEMENT	The test results of the study of leaching of heavy metals from bottom-ash be submitted to SPCB and the regional office of the MoEF for monitoring.

PPs Submission: Complied A study conducted in 2013 by Indian School of Mines Dhanbad to assess the leachability characteristics of fly ash and bottom ash samples taken from us has determined that the concentration of heavy metals in the leachates were invariably well below the permissible limits for discharge of effluents as per the Indian standards IS 2490 (1993). The test results have already been submitted in December-13 and also re-submitted in April-18.		Date: 26/05/2025
6	Corporate Environmental Responsibility	The CSR activities shall be need based and detailed CSR plan be prepared for implementation.
PPs Submission: Complied The CSR plan for each financial year is prepared by TSRDS (Tata Steel Rural Development Society) only after proper discussions to assess the needs have been held with the elected/ senior members of the communities where our CSR activities are to be undertaken.		Date: 26/05/2025
7	Corporate Environmental Responsibility	The detailed breakup of funds during 2012-13 be submitted to the MoEF for record. A social audit to be got done annually by a reputed institute and uploaded on the company's website.
PPs Submission: Complied The detailed breakup has already been submitted to MOEF. The Corporate Sustainability Reports viz. Integrated Reports are made annually for the company which is certified by an assurance agency. It also includes the Social Audit of the company. All the reports are uploaded on the Tata Steel website. Further, an internal Social audit is also conducted once in five years		Date: 26/05/2025
8	WASTE MANAGEMENT	There should be no OB dumps at the end of the mining.
PPs Submission: Complied Since this is an underground mine, it is not applicable.		Date: 26/05/2025
9	MISCELLANEOUS	Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structure, roads, and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures shall be taken to avoid loss of life and material. Cracks shall be effectively plugged with ballast and clayey soil/suitable material.
PPs Submission: Complied Regular monitoring of subsidence is done by Central Institute for Mining and Fuel Research, Dhanbad. According to the subsidence reports, the impact of subsidence is negligible since the underground mine workings are now at great depth and proper filling of voids through sand stowing is being done.		Date: 26/05/2025
10	Statutory compliance	If subsidence is found exceeding the permitted limits, then the landowners shall be adequately compensated with mutual agreement of the landowners.
PPs Submission: Complied It will be strictly followed.		Date: 26/05/2025
11	Statutory compliance	Mining shall be carried out as per statuette at a safe distance from the river/nallah flowing adjacent to the lease boundary.
PPs Submission: Complied Since this is an underground project, there is hardly any impact on the river/ nallah. The closest jore is at a distance of about 2kms from the mine office area. Therefore, no impact on the course of flow		Date: 26/05/2025

in the jore is anticipated.		
12	GREENBELT	High root density tree species shall be selected and planted over areas likely to be affected by subsidence.
PPs Submission: Complied Impact on land by subsidence has been found to be negligible as per the subsidence monitoring reports prepared by CIMFR, Dhanbad.		Date: 26/05/2025
13	Statutory compliance	Coal extraction shall also be optimized in areas where agricultural production is continuing. Some pillars shall be left below the agricultural land. No depillaring & coal extraction should be carried out below habitation, H.T. Lines & beneath road, water bodies.
PPs Submission: Complied It will be strictly followed.		Date: 26/05/2025
14	Statutory compliance	Subsidence shall be monitored closely and if subsidence is found exceeding the permitted limits, then the landowners shall be adequately compensated with mutual agreement with the landowners.
PPs Submission: Complied Regular monitoring of subsidence is being done by CIMFR, Dhanbad.		Date: 26/05/2025
15	GREENBELT	3-tier plantation should be developed 2 km stretch of road from the mine using native species.
PPs Submission: Complied Plantation along stretches of road has been done. 3-tier plantation is not feasible due to presence of private land around the periphery of colliery. However, plantation has been done on vacant plots and areas		Date: 26/05/2025
16	WATER QUALITY MONITORING AND PRESERVATION	Garland drains (size, gradient and length) around the safety areas such as mine shaft and low lying areas and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.
PPs Submission: Complied Garland drains of adequate size and gradient already exist around the colliery area to channelize the surface runoff. The details of size of garland drain mapped in surface plan has been submitted earlier in April-18.		Date: 26/05/2025
17	AIR QUALITY MONITORING AND PRESERVATION	The locations of monitoring stations in the Jharia Coalfields should be finalized in consultation with the Jharkhand State Pollution Control Board. The smoke/dust emission varies from source to source (fuel wood, coal, flyash from TPPs, silica from natural dust, etc). Mineralogical composition study should be undertaken on the composition of the suspended particulate matter (PM10 and PM2.5) in Jharia Coalfields and also quantified. These studies would help ascertain source and extent of the air pollution, based on which appropriate mitigative measures could be taken.
PPs Submission: Complied The locations of monitoring stations for our colliery have already been finalized in consultation with JSPCB, Dhanbad. The mineralogical composition study has been carried out by an independent laboratory (recognized by JSPCB and NABL) and the results are provided in Annexure II		Date: 26/05/2025

18	AIR QUALITY MONITORING AND PRESERVATION	Water sprinkling system shall be provided to check fugitive emissions from loading operations, conveyor system, haulage roads, transfer points, etc. Major approach roads shall be black topped and properly maintained.
PPs Submission: Complied Water spraying arrangement is present in the underground mines at all transfer points. Water spraying via tankers is done on sand transportation routes. Major approach roads have been black-topped and maintained regularly.		Date: 26/05/2025
19	AIR QUALITY MONITORING AND PRESERVATION	Transportation of coal from the mine to railway siding should be by 20T mechanically covered trucks.
PPs Submission: Complied Not applicable due to transportation of coal via underground belt conveyor network system directly to washery.		Date: 26/05/2025
20	GREENBELT	A progressive afforestation plan shall be prepared and implemented over the mine lease area acquired and shall include areas under green belt development, areas along roads, infrastructure, along ML boundary and township etc, by planting native species in consultation with the local DFO/Agriculture Department.
PPs Submission: Complied Tree plantation activities are carried out every year on the barren/ degraded areas, areas along road-side, infrastructure, etc of the colliery leasehold. Apart from these, fruit plants are distributed to employees and also to villagers, schools, institutions, etc. The environment department is responsible for implementing the afforestation plan which is prepared along with the mine management. High root density trees of native species are planted under annual plantation program and around 12313 Nos of saplings were planted in the FY25 and provided in Annexure I.		Date: 30/05/2025
21	WATER QUALITY MONITORING AND PRESERVATION	Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected shall be submitted to the MoEF&CC and to the CPCB quarterly within one month of monitoring.
PPs Submission: Complied The regular monitoring of groundwater level and quality is done as per the requirement. The groundwater quality report and groundwater level reports are provided in Annexure II.		Date: 26/05/2025
22	WATER QUALITY MONITORING AND PRESERVATION	Acid Water Treatment Plant, volume of water to be treated and disposal of brine should be provided.
PPs Submission: Complied Not applicable.		Date: 26/05/2025
23	WATER QUALITY MONITORING AND PRESERVATION	Mine discharge water outside the ML shall be monitored, particularly for TDS and treated to conform to prescribed levels before discharge into the natural environment.
PPs Submission: Complied There is one mine-water outlet point in the colliery which is regularly monitored by the Environmental Laboratory.		Date: 26/05/2025

24	WATER QUALITY MONITORING AND PRESERVATION	The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource, in case water table shows a declining trend. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
PPs Submission: Complied Most of the water pumped out during underground mining activity is re-circulated back into the mine for the purpose of stowing. Backfilling of mine voids by stowing is done using sand which is having the porosity to hold the underground water thus helping aquifer to retain the underground water. Further, there are a number of ponds existing on the surface of the mining lease which act as natural reservoirs for recharging ground water. These ponds/ tanks are regularly cleaned and maintained by our CSR department. As per the hydro-geological report, the variation in the ground water level is only seasonal. The water requirement of the nearby villages is being met by the company already. Now piped drinking water is being provided.		Date: 26/05/2025
25	Human Health Environment	Besides carrying out regular periodic health checkup of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health checkup for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmedabad within a period of one year and the results reported to this Ministry and to DGMS.
PPs Submission: Complied The periodic health checkup of the workers is done regularly by our Occupational Health Department, Tata Central Hospital, Jamadoba. We have a PME (Periodic Medical Examination) Centre approved by DGMS where 20 percentage of the workers identified from workforce engaged in active mining operations are subjected to full medical checkup including hearing impairment checkup, etc. These results are regularly submitted to DGMS as per mines rules. Some sample reports and as well as past records have been submitted in previous compliance reports.		Date: 26/05/2025
26	Statutory compliance	The mining in the existing mines would be phased out after expiry of the current mining lease and after reclamation of mined over area. The operating mines may be analyzed and monitored for compliance of conditions, having bearing with movement of wild life until such time they are closed/ phased out.
PPs Submission: Complied It is not applicable in our case.		Date: 26/05/2025
27	Corporate Environmental Responsibility	Project specific CSR for an amount of Rs 5/Tonne of coal production should be provided for the activities under CSR undertaken for the neighboring villages shall be for not less than Rs 10 per tonne of coal and the progress made thereon shall be uploaded by the company annually on the company website. Monitoring of the impacts of activities under CSR shall be carried out periodically.
PPs Submission: Complied The proposed CSR expenditure for the entire company is decided as per the new Company Rules. Once the CSR budget for company is fixed, a share of that amount is dedicated and utilized for implementing the CSR activities at our Jharia Division level. CSR data submitted is for Jharia Division which comprises all 5 collieries and 2 washeries. Jamadoba Washery, Digwadih Colliery and 6 and 7 Pits Colliery are adjacent to each other and fall under same leasehold area i.e. Jamadoba group of collieries. The core zone and buffer zone of all above units overlap to each other and in many cases, the villages are same where CSR work is going on. Therefore, we have a central budget for CSR which is managed by a team of experts who are dedicatedly involved in providing benefits and improving standard of living in over 50 plus villages and municipal wards. Hence, separate CSR expenditure for individual unit cannot be estimated. For calculation/ statutory reporting purpose, the consolidated CSR expenditure can be divided into unit-wise based on size of leasehold area of individual units. The progress report is uploaded every year on the company website. Internal social		Date: 30/05/2025

audits are carried out regularly to assess the impact of CSR activities.		
28	Statutory compliance	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.
PPs Submission: Complied Mine Closure Plan has been approved by Ministry of Coal, New Delhi. Details on deposition of closure cost in escrow account along with expenditure incurred for progressive closure is regularly submitted to Office of Coal controller. Final mine closure along with details of corpus fund will be submitted to MoEFCC 5 years in advance.		Date: 26/05/2025
29	Corporate Environmental Responsibility	Corporate Environment Responsibility: a)The Company shall have a well laid down Environment Policy approved by the Board of Directors. b)The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions. c)The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished. d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
PPs Submission: Complied The Company already has an Environment Policy approved by the Managing Director and it addresses all the issues mentioned. The status of adherence to the policy and compliance to Environmental laws and regulations is regularly discussed at higher levels. Any non-compliance noticed is corrected at divisional level. If any issue is beyond our control, it is brought to the notice of higher management. Moreover, Digwadih Colliery is IMS (Integrated Management System: Quality Management System, Environment Management System and OHSAS) certified unit addressing all environment aspects, impacts and needs and expectation of interested parties with respect to environment protection.		Date: 26/05/2025
General Conditions		
Sr.No.	Condition Type	Condition Details
1	MISCELLANEOUS	No change in technology and scope of working shall be made without prior approval of the MoEF.
PPs Submission: Complied It is being strictly followed. Board and Pillar method is being used for mining.		Date: 26/05/2025
2	MISCELLANEOUS	No change in the calendar plan including quantum of mineral coal and waste being produced shall be made.
PPs Submission: Complied It will be strictly followed.		Date: 26/05/2025
3	AIR QUALITY MONITORING AND PRESERVATION	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring PM10, PM2.5, SO2 and NOx. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals

		such as Hg, As, Ni, Cd, Cr, in RSPM etc. shall be carried out at least once in six months.
PPs Submission: Complied The Air quality monitoring stations are: (i)Jamadoba Group Office (Core Zone) (ii)New Village Colony, Jamadoba (Buffer Zone) (iii)Digwadih 12 No. Colony (Buffer Zone) (iv)6 and 7 Pits Kalimandir area (Buffer Zone) Monitoring of heavy metals in ambient air is being performed by an independent laboratory (recognized by JSPCB and NABL) on quarterly basis. The results are enclosed as Annexure II.		Date: 26/05/2025
4	AIR QUALITY MONITORING AND PRESERVATION	Data on ambient air quality (PM10, PM2.5, SO2 and NOx and heavy metals such as Hg, As, Ni, Cr, etc) and other monitoring data shall be regularly submitted to the Ministry including its Regional Office at Bhubaneswar and to the SPCB and the CPCB once in six months. Random verification of samples through analysis from independent laboratories recognised under the EP Rules, 1986 shall be furnished as part of the compliance report.
PPs Submission: Complied Ambient air quality report (PM10, PM 2.5, SO2 and NOx) for the period from Oct-24 to March-25 is attached as Annexure II. Additionally, third party monitoring is being done through a JSPCB and NABL recognized Laboratory for PM10, PM 2.5, SO2, NOx, CO, NH3, O3 and heavy metals (As, Ni, Cd and Cr). The results are enclosed as Annexure II.		Date: 26/05/2025
5	Noise Monitoring & Prevention	Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.
PPs Submission: Complied Regular noise survey is being conducted in the underground work environment. Workers are provided with ear-plugs/ muffs in high noise areas.		Date: 26/05/2025
6	WATER QUALITY MONITORING AND PRESERVATION	Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, and treated so as to conform to the standards including for heavy metals before discharge prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.
PPs Submission: Complied No industrial wastewater is generated in Digwadih Colliery premises. There is a central workshop and garage in Jamadoba where Effluent Treatment Plant having oil and grease trap facility has been provided.		Date: 26/05/2025
7	AIR QUALITY MONITORING AND PRESERVATION	Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of the mineral shall be covered with tarpaulins and optimally loaded.
PPs Submission: Complied Only the vehicles having valid PUC certificates are being allowed to operate for sand transportation. Coal transportation is done through underground belt network. Only sand transportation is done through trucks which are covered with tarpaulins as well as optimally loaded.		Date: 26/05/2025
8	Statutory compliance	Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with SPCB and data got analysed through a laboratory recognised under EP Rules, 1986.

PPs Submission: Complied We have a fully equipped Environment Cell Laboratory with qualified personnel. The monitoring and analysis is also done at regular intervals by a JSPCB and NABL accredited laboratory We have also installed a Continuous Ambient Air Quality Monitoring Station at Jamadoba for real time monitoring.		Date: 26/05/2025
9	Statutory compliance	Monitoring of outlet points should be carried out and records of same should be maintained and submitted to the Regional Office of the MOEF as part of the Compliance Report.
PPs Submission: Complied There is one mine-water outlet point in the colliery which is regularly monitored by the Environmental Laboratory. The analysis results have been provided as Annexure II.		Date: 26/05/2025
10	Human Health Environment	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed.
PPs Submission: Complied Persons working in dusty area have been provided with dust masks and have been given awareness training on safety and health aspects. Regular PME (Periodic Medical Examinations) are being done.		Date: 26/05/2025
11	MISCELLANEOUS	A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.
PPs Submission: Complied We have a separate Environmental Management Cell with qualified personnel. The reporting of Environmental Cell is directly to General Manager of the Division.		Date: 30/05/2025
12	Corporate Environmental Responsibility	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office at Bhubaneswar.
PPs Submission: Complied The Environment Cell has a separate fund for Environmental protection measures and for complying with legal requirements. The annual environmental expenditure for the financial year 2023-2024 is Rs. 321.33 lakhs.		Date: 26/05/2025
13	MISCELLANEOUS	The Project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at http://envfor.nic.in .
PPs Submission: Complied It has been complied with.		Date: 30/05/2025
14	Statutory compliance	A copy of the environmental clearance letter shall be marked to concerned Panchayat/Zila Parishad, Municipal Corporation or Urban Local Body and local NGO, if any, from whom any suggestion/representation has been received while processing the

		proposal. A copy of the clearance letter shall also be displayed on the company's website.
PPs Submission: Complied It has been complied with.		Date: 30/05/2025
15	Statutory compliance	A copy of the clearance letter shall be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.
PPs Submission: Complied It has been complied with.		Date: 26/05/2025
16	Statutory compliance	The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in the public domain. The monitoring data of environmental quality parameters (air, water, noise and soil) and critical pollutants such as PM10, PM2.5, SO2 and NOx (ambient and stack if any) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mines office and in corporate office and on the company's website.
PPs Submission: Complied The clearance letter has been uploaded on the company website. The compliance status (as Half-yearly compliance report) is being uploaded in company website. The display of information near the mines office has been done.		Date: 26/05/2025
17	Statutory compliance	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the MOEF, the respective Zonal offices of CPCB and the SPCB.
PPs Submission: Complied It is being complied		Date: 26/05/2025
18	Statutory compliance	The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.
PPs Submission: Complied It will be complied with.		Date: 26/05/2025
19	Statutory compliance	The environmental statement for each financial year ending 31st March in Form-V is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MOEF by E-mail.
PPs Submission: Complied The environmental statement for financial year 2023-24 has been submitted to JSPCB vide letter no.		Date:

JMB/ENV/ESSA/05/565/2024 on 27th September 2024 and it is also uploaded on the company website. The soft copy of Environment Statement is also sent to MOEF by email at ro.ranchi-mefgov.in.

26/05/2025

Visit Remarks

Last Site Visit Report Date:

N/A

Additional Remarks:

Note: This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.

HALF YEARLY COMPLIANCE REPORT

(PERIOD: OCTOBER'24 – MARCH'25)

DIGWADIH COLLIERY

(CAPACITY: EXPANSION FROM 0.38 TO 0.6 MTPA RAW COAL)
TEHSIL: JHARIA, DIST: DHANBAD, JHARKHAND



TATA STEEL LIMITED, JHARIA DIVISION

**P.O. - JAMADOBA, DIST. - DHANBAD,
STATE- JHARKHAND, PIN CODE – 828112**

**ENVIRONMENTAL CLEARANCE GRANTED VIDE LETTER NO. - J-
11015/372/2010-IA.II(M) DATED- 30.09.2013 ISSUED BY GOVT. OF INDIA,
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE, NEW
DELHI.**

Compliance status of Digwadih Colliery of M/s Tata Steel Ltd. for (Expansion from 0.38 MTPA to 0.6 MTPA in ML area 314.57 ha), dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/372/2010-IA.II (M) dated September 30, 2013

S. No.	Condition	Compliance Status
Specific Condition		
(i)	The maximum production from the mines shall not exceed beyond that for which environmental clearance has been granted.	It is being strictly followed. The production from the colliery has been discontinued from February 2021.
(ii)	The impact on the Damodar river due to mining activity which is at a distance of 2 km be studied through a reputed 3 rd Party and submitted to the SPCB and the regional office of the MoEF for monitoring.	<p>The underground coal mines operated by Tata Steel Ltd are adjacent to the Damodar River. Other coal mines of BCCL & SAIL are also in close proximity to the river basin. Major source of pollution of Damodar River is the flow of industrial effluents and untreated sewage water into the river. A number of OB dumps lie close to the river banks causing the flow of sediments into the river.</p> <p>As per the hydrology study conducted by Indian School of Mines, Dhanbad, the impact of the underground mines of Tata Steel Ltd is minimal. This is due to the following reasons</p> <ul style="list-style-type: none"> • The mining activity does not require any diversion of river/streams or natural drain. As land profile does not change appreciably in case of underground mines with backfilling of mined out areas, there is no change in surface drainage till date and unlikely to occur in future. • Surface water quality also does not undergo any change, as there is no discharge to surface drainage in dry season. In Monsoon, the excess mine water discharged gets mixed with storm water. • Large settling tanks are available for storage and sedimentation of mine water before its discharge to conform to the norms. The industrial wastewater generated during vehicle washing from the central workshop catering to all the mines is treated in oil and grease trap followed by recycling of water.

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		<ul style="list-style-type: none"> • The two coal washeries of Tata Steel are operating on Zero Liquid discharge (ZLD) principle. • Sewage water generated from our townships is treated in STP. For Sijua group, one STP of 200 KLD and another STP of 50 KLD has been installed in Bhelatand Colonies, 10 KLD has been installed at Sijua canteen and Bhelatand canteen individually. For Jamadoba group, 10 KLD STP/ETP installed in washery, Canteen, Garage and Hospital individually, other than that 60 KLD and 30 KLD installed at Digwadih Colony, 50 KLD installed at Railway Colony.
(iii)	Details of underground transportation of coal from mine to coal yard/ rail yard be submitted to the MoEF for record.	Coal from the mine is sent to the captive Jamadoba coal washery for beneficiation purpose through a network of underground conveyor belts. The detailed diagram of transportation network has already been submitted in earlier compliance reports.
(iv)	Adequate care be taken to prevent sand spillages from the trucks/tippers.	The trucks that are being used for the transportation of sand are properly covered using tarpaulin sheets. Larger trucks have been engaged for reducing no of cycles. To ensure the compliance, every vehicle is checked as per vehicle checklist on PUC, Tyre /body condition, emission check at every entry point. Quality checks are done on trucks to ensure its health.
(v)	The test results of the study of leaching of heavy metals from bottom-ash be submitted to SPCB and the regional office of the MoEF for monitoring.	A study conducted in 2013, by Indian School of Mines, Dhanbad to assess the leachability characteristics of fly ash and bottom ash samples taken from us, has determined that the concentration of heavy metals in the leachates were invariably well below the permissible limits for discharge of effluents as per the Indian standards IS 2490 (1993). The test results have already been submitted in December'13 and also re-submitted in April'18.

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(vi)	The CSR activities shall be need based and detailed CSR plan be prepared for implementation.	The CSR plan for each financial year is prepared by TSF (Tata Steel Foundation) only after proper discussions to assess the needs have been held with the elected/ senior members of the communities where our CSR activities are to be undertaken.
(vii)	The detailed breakup of funds during 2012-13 be submitted to the MoEF for record. A social audit to be got done annually by a reputed institute and uploaded on the company's website.	The detailed breakup has already been submitted to MOEF. The Corporate Sustainability Reports viz. Integrated Reports are made annually for the company which is certified by an assurance agency. It also includes the Social Audit of the company. All the reports are uploaded on the Tata Steel website. Further, an internal Social audit is also conducted once in five years
(viii)	There should be no OB dumps at the end of the mining.	Since this is an underground mine, it is not applicable.
(ix)	Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structure, roads, and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures shall be taken to avoid loss of life and material. Cracks shall be effectively plugged with ballast and clayey soil/suitable material.	Regular monitoring of subsidence is done by Central Institute for Mining and Fuel Research, Dhanbad. According to the subsidence reports, the impact of subsidence is negligible since the underground mine workings are now at great depth and proper filling of voids through sand stowing is being done.
(x)	If subsidence is found exceeding the permitted limits, then the landowners shall be adequately compensated with mutual agreement of the landowners.	It will be strictly followed.
(xi)	Mining shall be carried out as per statuette at a safe distance from the river/nallah flowing adjacent to the lease boundary.	Since this is an underground project, there is hardly any impact on the river/ nallah. The closest jore is at a distance of about 2kms from the mine office area. Therefore, no impact on the course of flow in the jore is anticipated.

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(xii)	High root density tree species shall be selected and planted over areas likely to be affected by subsidence.	Impact on land by subsidence has been found to be negligible as per the subsidence monitoring reports prepared by CIMFR, Dhanbad.
(xiii)	Coal extraction shall also be optimized in areas where agricultural production is continuing. Some pillars shall be left below the agricultural land. No depillaring & coal extraction should be carried out below habitation, H.T. Lines & beneath road, water bodies.	It will be strictly followed.
(xiv)	Subsidence shall be monitored closely and if subsidence is found exceeding the permitted limits, then the landowners shall be adequately compensated with mutual agreement with the landowners.	Regular monitoring of subsidence is being done by CIMFR, Dhanbad.
(xv)	3-tier plantation should be developed 2 km stretch of road from the mine using native species.	Plantation along stretches of road has been done. 3-tier plantation is not feasible due to presence of private land around the periphery of colliery. However, plantation has been done on vacant plots and areas
(xvi)	Garland drains (size, gradient and length) around the safety areas such as mine shaft and low lying areas and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.	Garland drains of adequate size and gradient already exist around the colliery area to channelize the surface runoff. The details of size of garland drain mapped in surface plan has been submitted earlier in April'18.
(xvii)	The locations of monitoring stations in the Jharia Coalfields should be finalized in consultation with the Jharkhand State Pollution Control Board. The smoke/dust emission varies from source to source (fuel wood, coal, flyash from TPPs, silica from natural dust, etc). Mineralogical composition study should be undertaken on the composition of the suspended particulate matter (PM10 and	The locations of monitoring stations for our colliery have already been finalized in consultation with JSPCB, Dhanbad. The mineralogical composition study has been carried out by an independent laboratory (recognized by JSPCB and NABL) and the results are provided in Annexure II

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	PM2.5) in Jharia Coalfields and also quantified. These studies would help ascertain source and extent of the air pollution, based on which appropriate mitigative measures could be taken.	
(xix)	Water sprinkling system shall be provided to check fugitive emissions from loading operations, conveyor system, haulage roads, transfer points, etc. Major approach roads shall be black topped and properly maintained.	Water spraying arrangement is present in the underground mines at all transfer points. Water spraying via tankers is done on sand transportation routes. Major approach roads have been black-topped and maintained regularly.
(xx)	Transportation of coal from the mine to railway siding should be by 20T mechanically covered trucks.	Not applicable due to transportation of coal via underground belt conveyor network system directly to washery.
(xxi)	A progressive afforestation plan shall be prepared and implemented over the mine lease area acquired and shall include areas under green belt development, areas along roads, infrastructure, along ML boundary and township etc, by planting native species in consultation with the local DFO/Agriculture Department.	Tree plantation activities are carried out every year on the barren/ degraded areas, areas along road-side, infrastructure, etc of the colliery leasehold. Apart from these, fruit plants are distributed to employees and also to villagers, schools, institutions, etc. The environment department is responsible for implementing the afforestation plan which is prepared along with the mine management. High root density trees of native species are planted under annual plantation program and around 12313 Nos of saplings were planted in the FY25 and provided in Annexure I .
(xxii)	Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected shall be submitted to the MoEF&CC and to the CPCB quarterly within one month of monitoring.	The regular monitoring of groundwater level and quality is done as per the requirement. The groundwater quality report & groundwater level reports are provided in Annexure II .

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(xxiii)	Acid Water Treatment Plant, volume of water to be treated and disposal of brine should be provided.	Not applicable.
(xxiv)	Mine discharge water outside the ML shall be monitored, particularly for TDS and treated to conform to prescribed levels before discharge into the natural environment.	There is one mine-water outlet point in the colliery which is regularly monitored by the Environmental Laboratory.
(xxv)	The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource, in case water table shows a declining trend. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.	<p>Most of the water pumped out during underground mining activity is re-circulated back into the mine for the purpose of stowing. Backfilling of mine voids by stowing is done using sand which is having the porosity to hold the underground water thus helping aquifer to retain the underground water.</p> <p>Further, there are a number of ponds existing on the surface of the mining lease which act as natural reservoirs for recharging ground water. These ponds/ tanks are regularly cleaned and maintained by our CSR department. As per the hydro-geological report, the variation in the ground water level is only seasonal.</p> <p>The water requirement of the nearby villages is being met by the company already. Now piped drinking water is being provided.</p>
(xxvi)	Besides carrying out regular periodic health checkup of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health checkup for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmedabad within a period of one year and the results reported to this Ministry and to DGMS.	The periodic health checkup of the workers is done regularly by our Occupational Health Department, Tata Central Hospital, Jamadoba. We have a PME (Periodic Medical Examination) Centre approved by DGMS where 20 % of the workers identified from workforce engaged in active mining operations are subjected to full medical checkup including hearing impairment checkup, etc. These results are regularly submitted to DGMS as per mines rules. Some sample reports and as well as past records have been submitted in previous compliance reports.
(xxvii)	The mining in the existing mines would be phased out after expiry of the current	It is not applicable in our case.

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	mining lease and after reclamation of mined over area. The operating mines may be analyzed and monitored for compliance of conditions, having bearing with movement of wild life until such time they are closed/ phased out.	
(xxviii)	Project specific CSR for an amount of Rs 5/Tonne of coal production should be provided for the activities under CSR undertaken for the neighboring villages shall be for not less than Rs 10 per tonne of coal and the progress made thereon shall be uploaded by the company annually on the company website. Monitoring of the impacts of activities under CSR shall be carried out periodically.	<p>The proposed CSR expenditure for the entire company is decided as per the new Company Rules. Once the CSR budget for company is fixed, a share of that amount is dedicated and utilized for implementing the CSR activities at our Jharia Division level.</p> <p>CSR data submitted is for Jharia Division which comprises all 5 collieries and 2 washeries. Jamadoba Washery, Digwadih Colliery and 6&7 Pits Colliery are adjacent to each other and fall under same leasehold area i.e. Jamadoba group of collieries. The core zone and buffer zone of all above units overlap to each other and in many cases, the villages are same where CSR work is going on. Therefore, we have a central budget for CSR which is managed by a team of experts who are dedicatedly involved in providing benefits and improving standard of living in over 50+ villages and municipal wards. Hence, separate CSR expenditure for individual unit cannot be estimated. For calculation/ statutory reporting purpose, the consolidated CSR expenditure can be divided into unit-wise based on size of leasehold area of individual units.</p> <p>The progress report is uploaded every year on the company website. Internal social audits are carried out regularly to assess the impact of CSR activities.</p>
(xxix)	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in	Mine Closure Plan has been approved by Ministry of Coal, New Delhi. Details on deposition of closure cost in escrow account along with expenditure incurred for progressive closure is regularly submitted to

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	advance of final mine closure for approval.	Office of Coal controller. Final mine closure along with details of corpus fund will be submitted to MoEF&CC 5 years in advance.
(xxx)	<p>Corporate Environment Responsibility:</p> <p>a)The Company shall have a well laid down Environment Policy approved by the Board of Directors.</p> <p>b)The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.</p> <p>c)The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.</p> <p>d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.</p>	<p>The Company already has an Environment Policy approved by the Managing Director and it addresses all the issues mentioned.</p> <p>The status of adherence to the policy and compliance to Environmental laws and regulations is regularly discussed at higher levels. Any non-compliance noticed is corrected at divisional level. If any issue is beyond our control, it is brought to the notice of higher management.</p> <p>Moreover, Digwadih Colliery is IMS (Integrated Management System: Quality Management System, Environment Management System and OHSAS) certified unit addressing all environment aspects, impacts and needs and expectation of interested parties with respect to environment protection.</p>

B.	GENERAL CONDITIONS	
(i)	No change in technology and scope of working shall be made without prior approval of the MoEF.	It is being strictly followed. Board and Pillar method is being used for mining.
(ii)	No change in the calendar plan including quantum of mineral coal and waste being produced shall be made.	It will be strictly followed.
(iii)	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for	The Air quality monitoring stations are:

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	monitoring PM10, PM2.5, SO2 and NOx. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, in RSPM etc. shall be carried out at least once in six months.	<p>(i) Jamadoba Group Office (Core Zone)</p> <p>(ii) New Village Colony, Jamadoba (Buffer Zone)</p> <p>(iii) Digwadih 12 No. Colony (Buffer Zone)</p> <p>(iv) 6&7 Pits Kalimandir area (Buffer Zone)</p> <p>Monitoring of heavy metals in ambient air is being performed by an independent laboratory (recognized by JSPCB & NABL) on quarterly basis. The results are enclosed as Annexure II.</p>
(iv)	Data on ambient air quality (PM10, PM2.5, SO2 and NOx and heavy metals such as Hg, As, Ni, Cr, etc) and other monitoring data shall be regularly submitted to the Ministry including its Regional Office at Bhubaneswar and to the SPCB and the CPCB once in six months. Random verification of samples through analysis from independent laboratories recognised under the EP Rules, 1986 shall be furnished as part of the compliance report.	Ambient air quality report (PM10, PM 2.5, SO2 and NOx) for the period from April'23 to Sep'23 is attached as Annexure II . Additionally, third party monitoring is being done through a JSPCB and NABL recognized Laboratory for PM10, PM 2.5, SO2, NOx, CO, NH3, O3 and heavy metals (As, Ni, Cd and Cr). The results are enclosed as Annexure II .
(v)	Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.	Regular noise survey is being conducted in the underground work environment. Workers are provided with ear-plugs/ muffs in high noise areas.
(vi)	Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, and treated so as to conform to the standards including for heavy metals before discharge prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.	No industrial wastewater is generated in Digwadih Colliery premises. There is a central workshop and garage in Jamadoba where Effluent Treatment Plant having oil and grease trap facility has been provided.

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(vii)	Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of the mineral shall be covered with tarpaulins and optimally loaded.	Only the vehicles having valid PUC certificates are being allowed to operate for sand transportation. Coal transportation is done through underground belt network. Only sand transportation is done through trucks which are covered with tarpaulins as well as optimally loaded.
(viii)	Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with SPCB and data got analysed through a laboratory recognised under EP Rules, 1986.	We have a fully equipped Environment Cell Laboratory with qualified personnel. The monitoring and analysis is also done at regular intervals by a JSPCB & NABL accredited laboratory We have also installed a Continuous Ambient Air Quality Monitoring Station at Jamadoba for real time monitoring.
(ix)	Monitoring of outlet points should be carried out and records of same should be maintained and submitted to the Regional Office of the MOEF as part of the Compliance Report.	There is one mine-water outlet point in the colliery which is regularly monitored by the Environmental Laboratory. The analysis results have been provided as Annexure II .
(x)	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed.	Persons working in dusty area have been provided with dust masks & have been given awareness training on safety & health aspects. Regular PME (Periodic Medical Examinations) are being done.
(xi)	A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.	We have a separate Environmental Management Cell with qualified personnel. The reporting of Environmental Cell is directly to General Manager of the Division.
(xii)	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be	The Environment Cell has a separate fund for Environmental protection measures and for complying with legal requirements. The annual environmental expenditure for the financial year 2023-2024 is Rs. 321.33 lakhs.

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	reported to this Ministry and its Regional Office at Bhubaneswar.	
(xiii)	The Project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at http://envfor.nic.in .	It has been complied with.
(xiv)	A copy of the environmental clearance letter shall be marked to concerned Panchayat/Zila Parishad, Municipal Corporation or Urban Local Body and local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on the company's website.	It has been complied with.
(xv)	A copy of the clearance letter shall be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.	It has been complied with.
(xvi)	The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in the public domain. The monitoring data of environmental quality parameters (air, water, noise and soil) and critical	The clearance letter has been uploaded on the company's website. The compliance status (as Half-yearly compliance report) is being uploaded in company's website. The display of information near the mine's office has been done.

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	pollutants such as PM10, PM2.5, SO2 and NOx (ambient and stack if any) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mines office and in corporate office and on the company's website.	
(xvii)	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the MOEF, the respective Zonal offices of CPCB and the SPCB.	It is being complied
(xviii)	The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	It will be complied with.
(xix)	The environmental statement for each financial year ending 31st March in Form-V is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MOEF by E-mail.	The environmental statement for financial year 2023-24 has been submitted to JSPCB vide letter no. JMB/ENV/ESSA/05/565/2024 on 27 th September 2024 and it is also uploaded on the company website. The soft copy of Environment Statement is also sent to MOEF by email at ro.ranchi-mef@gov.in.

Statement showing measures taken for increasing tree and forest cover

Plantation activities are carried out in the barren land of the colliery leasehold area to increase the green cover as well as in the washery premises. Care is taken to plant only the native species so that native ecosystem is preserved. Following are the details of mass plantation in our leasehold area of Jharia Division for greenery development.

Year	No. of trees planted
FY14	10195
FY15	15800
FY16	10000
FY17	10900
FY18	8500
FY19	10000
FY20	50235
FY21	3000
FY22	10005
FY23	25117
FY24	12452
FY25	12313

Glimpses of plantation activities for FY25:





Before



After



Before



After



Before



After



Before



After



Before



After



ADITI R&D SERVICES

Testing Laboratory

NABL ACCREDITED

(A Constituent Board of Quality Council of India)

ISO/IEC 17025:2017, ISO 9001:2015, ISO (OHSAS) 45001:2018 Certified

Plot No. - I-B-17 (P)
Sindri, Industrial Area,
P.O. - Domgarh, Dist. - Dhanbad
Jharkhand - 826107
Email ID: sindriaditi@gmail.com
Website: aditimdservices.com
Phone: 0326-2952377 (O),
Fax: 0326-2952377
Mobile: 09471358492, 09431512608

Ref. No.: - ARDS/24-25/AAQ/1

Date: 04/12/2024

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 26/11/2024 To 27/11/2024
- Date of Testing : 28/11/2024 To 02/12/2024
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – 6 & 7 PITS COLLIERY OFFICE				
	Avg. Ambient Temperature	25°C	Avg. Humidity	46%
Sl No.	Particulars	Value	NAAQ - CPCB STANDARD	
1.	Particulate Matter (PM ₁₀), µg/m ³	83.98	100 µg/m ³	
2.	Particulate Matter (PM _{2.5}), µg/m ³	48.49	60 µg/m ³	
3.	SO ₂ , µg/m ³	19.30	80 µg/m ³	
4.	NO ₂ , µg/m ³	28.15	80 µg/m ³	
5.	Ozone, µg/m ³	16.23	180 µg/m ³	
6.	NH ₃ , µg/m ³	13.49	400 µg/m ³	
7.	CO, mg/m ³	0.78	4 mg/m ³	
8.	Pb, µg/m ³	BDL	1 µg/m ³	
9.	As, ng/m ³	BDL	6 ng/m ³	
10.	Ni, ng/m ³	BDL	20 ng/m ³	
11.	Benzene, µg/m ³	BDL	5 µg/m ³	
12.	Benzoapyrene ng/m ³	BDL	1 ng/m ³	

NOTE: BDL - Below Detection Limit

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

Statements :

- The test report refers only to the particular item(s) submitted for testing.
- The test results reported in this report are valid at the time of and under the stated condition of measurement.
- This particular test report cannot be reproduced except in full, without prior written permission of Quality Manager of the laboratory.



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Testing Laboratory

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Phone: 0326-2952377 (O),
Fax: 0326-2952377
Mobile: 09471358492, 09431512608

Ref. No.: - ARDS/24-25/ AAQ/2

Date: 04/12/2024

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 26/11/2024 to 27/11/2024
- Date of Testing : 28/11/2024 to 02/12/2024
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – OFFICERS COLONY, 12 NO. DIGWADIH				
	Avg. Ambient Temperature	25°C	Avg. Humidity	46%
Sl No.	Particulars	Value	NAAQ - CPCB STANDARD	
1.	Particulate Matter (PM ₁₀), µg/m ³	76.58	100 µg/m ³	
2.	Particulate Matter (PM _{2.5}), µg/m ³	41.36	60 µg/m ³	
3.	SO ₂ , µg/m ³	18.73	80 µg/m ³	
4.	NO ₂ , µg/m ³	26.65	80 µg/m ³	
5.	Ozone, µg/m ³	16.76	180 µg/m ³	
6.	NH ₃ , µg/m ³	13.78	400 µg/m ³	
7.	CO, mg/m ³	0.71	4 mg/m ³	
8.	Pb, µg/m ³	BDL	1 µg/m ³	
9.	As, ng/m ³	BDL	6 ng/m ³	
10.	Ni, ng/m ³	BDL	20 ng/m ³	
11.	Benzene, µg/m ³	BDL	5 µg/m ³	
12.	Benzoapyrene ng/m ³	BDL	1 ng/m ³	

NOTE: BDL - Below Detection Limit

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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Mobile: 09471358492, 09431512608

Ref. No.: - ARDS/24-25/ AAQ/3

Date: 04/12/2024

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO. : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 25/11/2024 to 26/11/2024
- Date of Testing : 28/11/2024 to 02/12/2024
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – CENTRAL WORKSHOP AREA, JAMADOBA				
	Avg. Ambient Temperature	25°C	Avg. Humidity	46%
Sl No.	Particulars	Value	NAAQ - CPCB STANDARD	
1.	Particulate Matter (PM ₁₀), µg/m ³	86.84	100 µg/m ³	
2.	Particulate Matter (PM _{2.5}), µg/m ³	49.26	60 µg/m ³	
3.	SO ₂ , µg/m ³	21.78	80 µg/m ³	
4.	NO ₂ , µg/m ³	29.96	80 µg/m ³	
5.	Ozone, µg/m ³	18.84	180 µg/m ³	
6.	NH ₃ , µg/m ³	16.76	400 µg/m ³	
7.	CO, mg/m ³	0.94	4 mg/m ³	
8.	Pb, µg/m ³	BDL	1 µg/m ³	
9.	As, ng/m ³	BDL	6 ng/m ³	
10.	Ni, ng/m ³	BDL	20 ng/m ³	
11.	Benzene, µg/m ³	BDL	5 µg/m ³	
12.	Benzoapyrene ng/m ³	BDL	1 ng/m ³	

NOTE: BDL - Below Detection Limit

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/24-25/ AAQ/4

Date: 04/12/2024

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 25/11/2024 To 26/11/2024
- Date of Testing : 28/11/2024 to 02/12/2024
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – TATA CENTRAL HOSPITAL

	Avg. Ambient Temperature	25°C	Avg. Humidity	46%
Sl No.	Particulars	Value	NAAQ - CPCB STANDARD	
1.	Particulate Matter (PM ₁₀), µg/m ³	69.80	100 µg/m ³	
2.	Particulate Matter (PM _{2.5}), µg/m ³	38.75	60 µg/m ³	
3.	SO ₂ , µg/m ³	16.38	80 µg/m ³	
4.	NO ₂ , µg/m ³	26.58	80 µg/m ³	
5.	Ozone, µg/m ³	17.75	180 µg/m ³	
6.	NH ₃ , µg/m ³	15.63	400 µg/m ³	
7.	CO, mg/m ³	0.83	4 mg/m ³	
8.	Pb, µg/m ³	BDL	1 µg/m ³	
9.	As, ng/m ³	BDL	6 ng/m ³	
10.	Ni, ng/m ³	BDL	20 ng/m ³	
11.	Benzene, µg/m ³	BDL	5 µg/m ³	
12.	Benzoapyrene ng/m ³	BDL	1 ng/m ³	

NOTE: BDL - Below Detection Limit

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	<h3 style="margin:0;">TEST REPORT OF NOISE (AMBIENT) LEVEL MONITORING</h3>								
	Ref. No. & Date ARDS/24-25/NOISE/1 Date: 04/12/2024		NAME AND ADDRESS OF THE CLIENT M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED, JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)						
Date of Monitoring 25/11/2024 To 27/11/2024		Avg. Ambient Temperature (°C) 25	Average Humidity (%) 49	Weather Condition Clear	Status of the plant Running				
Work Order 4700126557/932 Date:- 29/05/2024									
MONITORING RESULTS									
Sl. No	Place of Monitoring	Day Time (6 AM to 10 PM) Avg. dB(A)			Night Time (10 PM to 6 AM) Avg. dB(A)			Noise level (Ambient standard) for Industrial Area as per CPCB Noise Pollution (Regulation and Control) (Amendment) Rules, 2000 notified vide S.O. 1046(E) Dt. 22.11.2020 Limit in dB(A) Leq	
		MAX	MIN	AVG. dB(A) Leq	MAX	MIN	AVERAGE dB(A) Leq	Day Time	Night Time
LOCATION								Industrial Area	Industrial Area
JAMADOBA GROUP									
1.	Central Workshop Area	57.9	54.3	56.46	49.6	42.1	47.3	75	70
2.	6 & 7 Pits Colliery Office	59.7	51.9	57.36	46.8	40.6	44.72		
								Residential Area	Residential Area
3.	Officer Colony 12 No. Digwadih	53.4	49.6	51.9	45.6	42.7	44.39	65	55
								Silence Zone	Silence Zone
4.	Tata Central Hospital	47.2	42.8	45.53	39.4	36.4	38.15	50	40


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Ref. No.: - ARDS/24-25/MINER./1


Date: 04/12/2024

TEST REPORT OF MINERALOGICAL COMPOSITION OF PARTICULATE MATTER

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO. : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 26/11/2024 and 27/11/2024
- Date of Testing : 28/11/2024 To 30/11/2024

TEST RESULTS

Sl No.	Particulars	Mineralogical Composition (%)			
		SiO ₂	FeO	Al ₂ O ₃	CaO
1.	Central Work Shop Area, Jamadoba	1.90	0.14	1.41	2.8
2.	Officer Colony 12 No. Digwadih	1.87	0.12	1.35	2.36


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Ref. No.: - ARDS/24-25/SW/1

Date: 04/12/2024

TEST REPORT OF SURFACE WATER

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024
- Sample Code : 1. Damodar River Up Stream
2. Damodar River Down Stream
- Date of Sample Collection: 27/11/2024
- Date of Testing : 28/11/2024 To 03/12/2024
- Test : pH, TDS, Turbidity, DO, BOD, Cl, F, SO₄

TEST RESULT

Sl. No.	PARAMETERS OF TEST	VALUE		Test Method
		Damodar River Up Stream	Damodar River Dn Stream	
1.	pH	7.2	7.3	IS-3025 (P-11): 1983
2.	Total Dissolved Solids, mg/l	410	428	IS-3025 (P-16): 1984
3.	Turbidity, NTU	2	2	IS-3025 (P-10):1984
4.	Dissolved Oxygen, mg/l	5.6	5.8	IS-3025 (P-38):1989
5.	Bio chemical Oxygen Demand, mg/l	1.6	1.9	IS-3025 (P-44):1994
6.	Chloride as Cl, mg/l	28	27.5	IS-3025 (P-32):1988
7.	Fluoride as F, mg/l	0.58	0.62	IS-3025 (P-60):2008
8.	Sulphate as SO ₄ , mg/l	65.0	60.4	IS-3025 (P-24):1986

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Ref. No.: - ARDS/24-25/MWD/1

Date: 04/12/2024

TEST REPORT OF MINE WATER DISCHARGE

- Name of the industry : M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED, JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024
- Sample Code :
 - 2 Pit Jamadoba Colliery
 - 3 Pit Jamadoba Colliery
 - 6 & 7 Pits Colliery
 - Digwadih Colliery
- Date of Sample Collection: 25/11/2024 To 26/11/2024
- Date of Testing : 28/11/2024 To 03/12/2024
- Test : pH, TDS, TSS, BOD, COD, OIL & GREASE.

TEST RESULT

Sl. No.	PARAMETERS OF TEST	VALUE				Test Method
		2 Pit Jamadoba Colliery	3 Pit Jamadoba Colliery	6 & 7 Pits Colliery	Digwadih Colliery	
1.	pH,	7.5	7.7	7.5	7.4	IS-3025 (P-11):1983
2.	Total Dissolved Solids, mg/l	865	839	915	790	IS-3025 (P-16):1984
3.	Total Suspended Solids, mg/l	39	42	46	38	IS-3025(P-17): 1984
4.	Bio chemical Oxygen Demand, mg/l	2.2	3.4	2.9	2.7	IS-3025 (P-4):1994
5.	Chemical Oxygen Demand, mg/l	66	72	62	69	IS-3025 (P-8):2006
6.	Oil & Grease, mg/l	BDL	0.9	0.8	BDL	IS-3025 (P-39):2021

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Ref. No.: - ARDS/24-25/STP/1

Date: 04/12/2024

TEST REPORT OF SEWAGE

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024
- Sample Code :
 - 1. STP Outlet- Railway Colony
 - 2. STP Outlet -Digwadih 12 No Officers Colony
 - 3. STP Outlet -Digwadih 12 No. Supervisor flat
 - 4. STP Outlet- Jmb. Canteen
 - 5. STP Outlet- JCPP Canteen
- Date of Sample Collection: 25/11/2024 To 26/11/2024
- Date of Testing : 28/11/2024 To 03/12/2024
- Test : pH, TDS, TSS, BOD, COD, OIL & GREASE,
and Fecal Coliform.

TEST RESULT

Sl. No.	PARAMETERS OF TEST	VALUE					Test Method
		STP Outlet Railway Colony	STP Outlet Digwadih 12 No Officers Colony	STP Outlet Digwadih 12 No. Supervisor or flat	STP Outlet Jmb. Canteen	STP Outlet- JCPP Canteen	
1.	pH,	7.9	7.8	7.8	7.6	7.5	IS-3025(P-11):1983
2.	Total Dissolved Solids, mg/l	855	850	910	812	710	IS-3025(P-16):1984
3.	Total Suspended Solids, mg/l	39	42	46	38	42	IS-3025(P-17):1984
4.	Bio chemical Oxygen Demand, mg/l	3.2	5.9	7.4	2.8	6.4	IS-3025(P-44):1994
5.	Chemical Oxygen Demand, mg/l	88	79	90	65	70	IS-3025(P-58):2006
6.	Oil & Grease, mg/l	1.0	0.7	0.9	0.9	0.8	IS-3025(P-39):2021
7.	Fecal Coliform (FC) (MPN/100ml)	720	620	592	570	518	IS - 1622


Sr. Chemist
Aditi R&D Services




Technical Manager
Aditi R&D Services, Sindri


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Ref. No.: - ARDS/24-25/ETP/1				Date: 04/12/2024	
<u>TEST REPORT OF EFFLUENT</u>					
<ul style="list-style-type: none">Name of the industry : M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024Sample Code : 1. E.T.P. Outlet T.C.H. 2. E.T.P. Outlet GarageDate of Sample Collection: 25/11/2024 To 26/11/2024Date of Testing : 28/11/2024 To 03/12/2024Test : pH, TDS, TSS, BOD, COD, OIL & GREASE.					
<u>TEST RESULT</u>					
Sl. No.	PARAMETERS OF TEST	VALUE		Test Method	
		E.T.P. Outlet T.C.H.	E.T.P. Outlet Garage		
1.	pH,	8.2	8.0	IS-3025 (P-11): 1983	
2.	Total Dissolved Solids, mg/l	788	895	IS-3025 (P-16): 1984	
3.	Total Suspended Solids, mg/l	39	43	IS-3025(P-17) : 1984	
4.	Bio chemical Oxygen Demand, mg/l	2.4	7.2	IS-3025 (P-44):1994	
5.	Chemical Oxygen Demand, mg/l	58	89	IS-3025 (P-58):2006	
6.	Oil & Grease, mg/l	0.9	2.4	IS-3025 (P-39):2021	

Note : BDL - Below Detection Limit


Sr. Chemist
Aditi R&D Services




Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/24-25/DW/1

Date: 04/12/2024

TEST REPORT OF DRINKING WATER

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024
- Sample Code :
 - 1. Canteen- Jamadoba Colliery
 - 2. Canteen- Jamadoba Washery
 - 3. Canteen- Digwadih Colliery
 - 4. Canteen- 6&7 Pits Colliery
- Date of Sample Collection: 07.08.2024 To 09.08.2024
- Date of Testing : 10.08.2024 To 16.08.2024
- Test :
Colour, Odour, Taste, Turbidity, pH, Total Hardness, Iron, Chloride, Res. Free chlorine, Total Dissolved Solids, Calcium, Copper, Manganese, Sulphate, Nitrate, Fluoride, Phenolic Compound, Mercury, Cadmium, Arsenic, Cyanide, Lead, Zinc, Total Coliform, Total Chromium, Mineral Oil, Alkalinity, Aluminium & Boron.

TEST RESULT

Sl. No	PARAMETERS OF TEST	VALUE				IS as per IS 10500:2012		Test Method
		Canteen-Jamadoba Colliery	Canteen-Jamadoba Washery	Canteen Digwadih Colliery	Canteen- 6&7 Pits Colliery	Desirab le	Permi ssible	
1.	Colour, (Hazen Unit)	1	1	1	1	5.00	15.0	IS 3025 (P-4):2021
2.	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeabl e	Agree able	IS 3025 (P-5):2018
3.	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeabl e	Agree able	IS 3025 (P-7):2017
4.	Turbidity, NTU	1.0	0.8	0.2	3.0	1.0	5.0	IS 3025 (P-10):1984
5.	pH	7.52	7.76	7.92	7.80	6.5-8.5	No. Relax.	IS-3025 (P-11):1983
6.	Total Hardness as CaCO ₃ , mg/l	400	580	540	304	200	600	IS 3025 (P-21):2009
7.	Chloride as Cl, mg/l	65.77	80.81	67.65	33.82	250	1000	IS 3025 (P-32):1988
8.	Res. Free chlorine as Cl ₂ mg/l	NIL	NIL	NIL	NIL	0.20	1.0	IS 3025 (P-26):2021
9.	Total Dissolved Solids, mg/l	535	540	595	280	500	2000	IS 3025 (P-16):1984
10.	Calcium as CaCO ₃ , mg/l	188	160	128	136	75	200	IS 3025 (P-40):1991
11.	Copper as Cu, mg/l	BDL	BDL	BDL	BDL	0.05	1.5	IS 3025 (P-42):1992

Continued on Page 2

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Fax: 0326-2952377
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- 2 -

Sl. No.	PARAMETERS OF TEST	VALUE				IS as per IS 10500:1991		Test Method
		Canteen-Jamadoba Colliery	Canteen Jamadoba Washery	Canteen Digwadih Colliery	Canteen - 6&7 Pits Colliery	Desirable	Permissible	
12.	Manganese as Mn, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.10	0.30	IS 3025 (P-59):2006
13.	Sulphate as SO ₄ , mg/l	48.10	41.70	51.4	42.6	200	400	IS 3025 (P-24):1986
14.	Nitrate as NO ₃ , mg/l	3.3	5.6	4.9	4.2	45	No. Relax	IS 3025 (P-34):1988
15.	Fluoride as F, mg/l	0.34	0.30	0.32	0.37	1.0	1.5	IS 3025 (P-60):2008
16.	Phenolic Compound as (C ₆ H ₅ OH) mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.001	0.002	IS 3025 (P-43):1992
17.	Mercury as Hg, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.001	No. Relax	IS 3025 (P-48):1994
18.	Cadmium as Cd, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.003	No. Relax	IS 3025 (P-41):1992
19.	Arsenic as As, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.01	No. Relax	IS 3025 (P-37):1988
20.	Cyanide as CN, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.05	No. Relax	IS 3025 (P-27):1986
21.	Lead as Pb, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.01	No. Relax	IS 3025 (P-47):1994
22.	Zinc as Zn, mg/l,	0.12	0.18	0.23	0.16	5	15	IS 3025 (P-42):1992
23.	Total Coliform, No./100ml	Absent	Absent	Absent	Absent	Absent	Absent	IS 3025 (P-49):1994
24.	Total Chromium as Cr, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.05	No. Relax	IS 3025 (P-52):2003
25.	Mineral Oil, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.5	No. Relax	IS 3025 (P-39):1989
26.	Alkalinity as CaCO ₃ , mg/l,	424	388	400	568	200	600	IS 3025 (P-23):1983
27.	Aluminium as Al, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.03	0.2	IS 3025 (P-55):2003
28.	Boron as B, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.5	1.0	IS 3025 (P-57):2005

NOTE: BDL - Below Detection Limit


Sr. Chemist
Aditi R&D Services




Technical Manager
Aditi R&D Services, Sindri

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	<h2 style="margin:0;">ADITI R&D SERVICES</h2> <h3 style="margin:0;">Testing Laboratory</h3> <p style="margin:0;">NABL ACCREDITED</p> <p style="margin:0;">(A Constituent Board of Quality Council of India)</p> <p style="margin:0;">ISO/IEC 17025:2017, ISO 9001:2015, ISO (OHSAS) 45001:2018 Certified</p>		Plot No. - I-B-17 (P) Sindri, Industrial Area, P.O. - Domgarh, Dist. - Dhanbad Jharkhand - 826107 Email ID: sindriaditi@gmail.com Website: aditimdservices.com Phone: 0326-2952377 (O), Fax: 0326-2952377 Mobile: 09471358492, 09431512608							
	Ref. No.: - ARDS/24-25/GW/1 Date: 04/12/2024									
	<h3 style="margin:0;">TEST REPORT OF GROUND WATER</h3>									
<ul style="list-style-type: none"> • Name of the industry : M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED, JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND) • Work Order Ref. NO. : 4700126557/932 Date:- 29/05/2024 • Sample Code : <ul style="list-style-type: none"> 1. Purnadih (Jorapokhar) 2. Digwadih 10 No F&J. 3. Kali Mela Kali Mandir 4. Upper Dungari 5. Kenduadih Basti 6. 6&7 Pits (Ayodhya Nagri) • Date of Sample Collection : 25/11/2024 to 26/11/2024 • Date of Testing : 28/11/2024 To 04/12/2024 • Test : Colour, Odour, Taste, Turbidity, pH, Total Hardness, Iron, Chloride, Res. Free chlorine, Total Dissolved Solids, Calcium, Copper, Manganese, Sulphate, Nitrate, Fluoride, Phenolic Compound, Mercury, Cadmium, Arsenic, Cyanide, Lead, Zinc, Total Coliform, Chromium, Mineral Oil, Alkalinity, Aluminium & Boron. 										
<h3 style="margin:0;">TEST RESULT</h3>										
Sl. No	PARAMETER S OF TEST	VALUE						IS as per IS 10500:1991		Test Method
		Purnadih	Digwadih 10 NoF&J.	Kali Mela KaliMandir	Upper Dungari	Kenduadih Basti	6 & 7Pit (Ayodhya Nagri)	Desir - able	Permi- ssible	
1.	Colour, (Hazen Unit)	2	1	2	2	1	1	5	15	IS 3025 (P-4):2021
2.	Temperature °C	25	24	25	24	25	24	-	-	-
3.	Electrical Conductivity, µmhos/cm	1414	1390	1070	590	780	810	-	-	-
4.	Total Dissolved Solids, mg/l	710	680	513	539	577	510	500	2000	IS 3025(P-16):1984
5.	pH	7.9	7.8	7.4	7.7	7.3	7.8	6.5-8.5	No Relax	IS-3025(P-11):1983
6.	Total Hardness as CaCO ₃ , mg/l	575	480	496	336	380	362	200	600	IS 3025(P-21):2009
7.	Calcium as Ca, mg/l	155.2	163.4	95	144	78	67.5	75	200	IS 3025(P-40):1991
8.	Magnesium as Mg, mg/l	50.4	20.2	62.8	48.2	43.5	48.4	30	100	IS 3025(P-46):1994
9.	Chloride as Cl, mg/l	347.69	199	107.12	30.02	35.70	57.2	250	1000	IS 3025(P-32):1988
10.	Fluoride as F, mg/l	0.42	0.32	0.39	0.50	0.40	0.38	1.0	1.5	IS 3025(P-60):2008
Continued on Page -2										
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	<p style="margin:0;">- 2 -</p>									

Sl. No	PARAMETERS OF TEST	VALUE						IS as per IS 10500:1991		Test Method
		Purnadih	Digwadih 10 NoF&J.	KaliMela KaliMandir	Upper Dungari	Kenduadi h Basti	6 & 7Pit (Ayodhya Nagri)	Desir-able	Perm is-sible	
11	Sulphate as SO ₄ , mg/l	47.2	53.4	59.0	52.0	54.80	39.2	200	400	IS 3025(P-24):1986
12	Nitrate as NO ₃ , mg/l	7.2	7.9	8.4	7.5	8.0	7.8	45	No. Relax	IS 3025(P-34):1988
13	Alkalinity as CaCO ₃ , mg/l,	15.0	16.0	5.8	4.8	7.0	418	200	600	IS 3025(P-23):1983
14	Lead as Pb, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	0.01	No. Relax	IS 3025(P-47):1994
15	Zinc as Zn, mg/l,	0.19	0.12	0.13	0.2	0.18	0.19	5	15	IS 3025(P-42):1992
16	Iron a Fe, mg/l	0.13	0.20	0.24	0.22	0.25	0.12	1.0	No. Relax	IS 3025(P-53):2003
17	Copper as Cu, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	0.05	1.5	IS3025 (P-42):1992
18	Mercury as Hg, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	0.001	No. Relax	IS 3025(P-48):1994
19	Cadmium as Cd, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	0.003	No. Relax	IS 3025(P-41):1992
20	Nickel as Ni, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	0.02	No. Relax	IS 3025(P-37):1992
21	Arsenic as As, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	0.01	No. Relax	IS 3025(P-37):1988
22	Cyanide as CN, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	0.05	No. Relax	IS 3025(P-27):1986
23	Total Chromium as Cr, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	0.05	No. Relax	IS 3025(P-52):2003

NOTE: BDL - Below Detection Limit


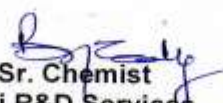



Sr. Chemist
 Aditi R&D Services




Technical Manager
 Aditi R&D Services, Sindri

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TEST REPORT OF AMBIENT AIR QUALITY																																																																											
<ul style="list-style-type: none">Name of the industry : M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024Date of Sample Collection : 12/02/2025 To 13/02/2025Date of Testing : 14/02/2025 To 18/02/2025Test Procedure : As per IS-5182																																																																											
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LOCATION – 6 & 7 PITS COLLIERY OFFICE																																																																											
<table border="1"><thead><tr><th colspan="2">Avg. Ambient Temperature</th><th>29°C</th><th>Avg. Humidity</th><th>28%</th></tr><tr><th>Sl No.</th><th>Particulars</th><th>Value</th><th colspan="2">NAAQ - CPCB STANDARD</th></tr></thead><tbody><tr><td>1.</td><td>Particulate Matter (PM₁₀), µg/m³</td><td>79.78</td><td colspan="2">100 µg/m³</td></tr><tr><td>2.</td><td>Particulate Matter (PM_{2.5}), µg/m³</td><td>46.06</td><td colspan="2">60 µg/m³</td></tr><tr><td>3.</td><td>SO₂, µg/m³</td><td>18.33</td><td colspan="2">80 µg/m³</td></tr><tr><td>4.</td><td>NO₂, µg/m³</td><td>26.74</td><td colspan="2">80 µg/m³</td></tr><tr><td>5.</td><td>Ozone, µg/m³</td><td>15.42</td><td colspan="2">180 µg/m³</td></tr><tr><td>6.</td><td>NH₃, µg/m³</td><td>12.81</td><td colspan="2">400 µg/m³</td></tr><tr><td>7.</td><td>CO, mg/m³</td><td>0.74</td><td colspan="2">4 mg/m³</td></tr><tr><td>8.</td><td>Pb, µg/m³</td><td>BDL</td><td colspan="2">1 µg/m³</td></tr><tr><td>9.</td><td>As, ng/m³</td><td>BDL</td><td colspan="2">6 ng/m³</td></tr><tr><td>10.</td><td>Ni, ng/m³</td><td>BDL</td><td colspan="2">20 ng/m³</td></tr><tr><td>11.</td><td>Benzene, µg/m³</td><td>BDL</td><td colspan="2">5 µg/m³</td></tr><tr><td>12.</td><td>Benzoapyrene ng/m³</td><td>BDL</td><td colspan="2">1 ng/m³</td></tr></tbody></table>						Avg. Ambient Temperature		29°C	Avg. Humidity	28%	Sl No.	Particulars	Value	NAAQ - CPCB STANDARD		1.	Particulate Matter (PM ₁₀), µg/m ³	79.78	100 µg/m ³		2.	Particulate Matter (PM _{2.5}), µg/m ³	46.06	60 µg/m ³		3.	SO ₂ , µg/m ³	18.33	80 µg/m ³		4.	NO ₂ , µg/m ³	26.74	80 µg/m ³		5.	Ozone, µg/m ³	15.42	180 µg/m ³		6.	NH ₃ , µg/m ³	12.81	400 µg/m ³		7.	CO, mg/m ³	0.74	4 mg/m ³		8.	Pb, µg/m ³	BDL	1 µg/m ³		9.	As, ng/m ³	BDL	6 ng/m ³		10.	Ni, ng/m ³	BDL	20 ng/m ³		11.	Benzene, µg/m ³	BDL	5 µg/m ³		12.	Benzoapyrene ng/m ³	BDL	1 ng/m ³	
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ADITI R&D SERVICES

Testing Laboratory
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Ref. No.: - ARDS/24-25/ AAQ/2

Date: 19/02/2025

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 12/02/2025 to 13/02/2025
- Date of Testing : 14/02/2025 to 18/02/2025
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – OFFICERS COLONY, 12 NO. DIGWADIH				
	Avg. Ambient Temperature	29°C	Avg. Humidity	28%
Sl No.	Particulars	Value	NAAQ - CPCB STANDARD	
1.	Particulate Matter (PM ₁₀), µg/m ³	72.75	100 µg/m ³	
2.	Particulate Matter (PM _{2.5}), µg/m ³	39.29	60 µg/m ³	
3.	SO ₂ , µg/m ³	17.79	80 µg/m ³	
4.	NO ₂ , µg/m ³	25.32	80 µg/m ³	
5.	Ozone, µg/m ³	15.92	180 µg/m ³	
6.	NH ₃ , µg/m ³	13.09	400 µg/m ³	
7.	CO, mg/m ³	0.67	4 mg/m ³	
8.	Pb, µg/m ³	BDL	1 µg/m ³	
9.	As, ng/m ³	BDL	6 ng/m ³	
10.	Ni, ng/m ³	BDL	20 ng/m ³	
11.	Benzene, µg/m ³	BDL	5 µg/m ³	
12.	Benzoapyrene ng/m ³	BDL	1 ng/m ³	

NOTE: BDL - Below Detection Limit

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/24-25/ AAQ/3

Date: 19/02/2025

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO. : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 11/02/2025 to 12/02/2025
- Date of Testing : 14/02/2025 to 18/02/2025
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – CENTRAL WORKSHOP AREA , JAMADOBA				
	Avg. Ambient Temperature	29°C	Avg. Humidity	28%
Sl No.	Particulars	Value	NAAQ - CPCB STANDARD	
1.	Particulate Matter (PM ₁₀), µg/m ³	82.45	100 µg/m ³	
2.	Particulate Matter (PM _{2.5}), µg/m ³	46.79	60 µg/m ³	
3.	SO ₂ , µg/m ³	20.69	80 µg/m ³	
4.	NO ₂ , µg/m ³	28.46	80 µg/m ³	
5.	Ozone, µg/m ³	17.89	180 µg/m ³	
6.	NH ₃ , µg/m ³	15.92	400 µg/m ³	
7.	CO, mg/m ³	0.89	4 mg/m ³	
8.	Pb, µg/m ³	BDL	1 µg/m ³	
9.	As, ng/m ³	BDL	6 ng/m ³	
10.	Ni, ng/m ³	BDL	20 ng/m ³	
11.	Benzene, µg/m ³	BDL	5 µg/m ³	
12.	Benzoapyrene ng/m ³	BDL	1 ng/m ³	

NOTE: BDL - Below Detection Limit

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/24-25/ AAQ/4

Date: 19/02/2025

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 11/02/2025 To 12/02/2025
- Date of Testing : 14/02/2025 to 18/02/2025
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – TATA CENTRAL HOSPITAL

Avg. Ambient Temperature		29°C	Avg. Humidity	28%
Sl No.	Particulars	Value	NAAQ - CPCB STANDARD	
1.	Particulate Matter (PM ₁₀), µg/m ³	66.31	100 µg/m ³	
2.	Particulate Matter (PM _{2.5}), µg/m ³	36.81	60 µg/m ³	
3.	SO ₂ , µg/m ³	15.56	80 µg/m ³	
4.	NO ₂ , µg/m ³	25.06	80 µg/m ³	
5.	Ozone, µg/m ³	16.86	180 µg/m ³	
6.	NH ₃ , µg/m ³	14.85	400 µg/m ³	
7.	CO, mg/m ³	0.79	4 mg/m ³	
8.	Pb, µg/m ³	BDL	1 µg/m ³	
9.	As, ng/m ³	BDL	6 ng/m ³	
10.	Ni, ng/m ³	BDL	20 ng/m ³	
11.	Benzene, µg/m ³	BDL	5 µg/m ³	
12.	Benzoapyrene ng/m ³	BDL	1 ng/m ³	

NOTE: BDL - Below Detection Limit


Sr. Chemist
Aditi R&D Services




Technical Manager
Aditi R&D Services, Sindri

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Testing Laboratory

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TEST REPORT OF NOISE (AMBIENT) LEVEL MONITORING

Ref. No. & Date				NAME AND ADDRESS OF THE CLIENT							
ARDS/24-25/NOISE/1 Date: 19/02/2025				M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED, JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)							
Date of Monitoring											
11/02/2025 To 13/02/2025				Avg. Ambient Temperature (°C)		Average Humidity (%)		Weather Condition		Status of the plant	
Work Order 4700126557/932 Date:- 29/05/2024				29		30		Clear		Running	
MONITORING RESULTS											
Sl. No	Place of Monitoring	Day Time (6 AM to 10 PM) Avg. dB(A)			Night Time (10 PM to 6 AM) Avg. dB(A)			Noise level (Ambient standard) for Industrial Area as per CPCB Noise Pollution (Regulation and Control) (Amendment) Rules, 2000 notified vide S.O. 1046(E) Dt. 22.11.2020 Limit in dB(A) Leq			
		MAX	MIN	AVG. dB(A) Leq	MAX	MIN	AVERAGE dB(A) Leq	Day Time	Night Time		
JAMADOBA GROUP								Industrial Area	Industrial Area		
1.	Central Workshop Area	62.68	57.01	60.71	52.08	44.21	49.73	75	70		
2.	6 & 7 Pits Colliery Office	60.79	54.49	58.69	49.14	42.63	47.01				
								Residential Area	Residential Area		
3.	Officer Colony 12 No. Digwadih	56.07	58.87	57.69	47.88	44.83	46.62	65	55		
								Silence Zone	Silence Zone		
4.	Tata Central Hospital	48.56	49.5	49.06	41.37	38.22	40.07	50	40		

[Signature]
Sr. Chemist
Aditi R&D Services



[Signature]
Technical Manager
Aditi R&D Services, Sindri

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Mobile: 09471358492, 09431512608

Ref. No.: - ARDS/24-25/MINER./1

Date: 19/02/2025

TEST REPORT OF MINERALOGICAL COMPOSITION OF PARTICULATE MATTER

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO. : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 12/02/2025 and 13/02/2025
- Date of Testing : 14/02/2025 To 18/02/2025

TEST RESULTS

Sl No.	Particulars	Mineralogical Composition (%)			
		SiO ₂	FeO	Al ₂ O ₃	CaO
1.	6 & 7 Pits Colliery Office	1.81	0.13	1.34	2.70
2.	Tata Central Hospital	1.78	0.11	1.28	2.24


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Ref. No.: - ARDS/24-25/SW/1

Date: 19/02/2025

TEST REPORT OF SURFACE WATER

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024
- Sample Code : 1. Damodar River Up Stream
2. Damodar River Down Stream
- Date of Sample Collection: 11/02/2025
- Date of Testing : 14/02/2025 To 18/02/2025
- Test : pH, TDS, Turbidity, DO, BOD, Cl, F, SO₄

TEST RESULT

Sl. No.	PARAMETERS OF TEST	VALUE		Limit as per IS 2296 Class - C	Test Method
		Damodar River Up Stream	Damodar River Dn Stream		
1.	pH	7.9	7.6	6.5 -8.5	IS-3025 (P-11): 1983
2.	Total Dissolved Solids, mg/l	434	532	1500	IS-3025 (P-16): 1984
3.	Turbidity, NTU	1	1	-	IS-3025 (P-10):1984
4.	Dissolved Oxygen, mg/l	5.1	5.2	4.0 (Min)	IS-3025 (P-38):1989
5.	Bio chemical Oxygen Demand, mg/l	1.7	2.2	3.0	IS-3025 (P-44):1994
6.	Chloride as Cl, mg/l	44.6	36.8	600 (Max.)	IS-3025 (P-32):1988
7.	Fluoride as F, mg/l	0.4	0.4	1.5	IS-3025 (P-60):2008
8.	Sulphate as SO ₄ , mg/l	28.2	24.6	400	IS-3025 (P-24):1986


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Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/24-25/MWD/1

Date: 21/02/2025

TEST REPORT OF MINE WATER DISCHARGE

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024
- Sample Code : 1. 2 Pit Jamadoba Colliery
2. 3 Pit Jamadoba Colliery
3. 6 & 7 Pits Colliery
4. Digwadih Colliery
- Date of Sample Collection: 11/02/2025 To 12/02/2025
- Date of Testing : 14/02/2025 To 18/02/2025
- Test : pH, TDS, TSS, BOD, COD, OIL & GREASE.

TEST RESULT

Sl. No.	PARAMETERS OF TEST	VALUE				Limit as per IS-2296 Class B (For Bathing)	Test Method
		2 Pit Jamadoba Colliery	3 Pit Jamadoba Colliery	6 & 7 Pits Colliery	Digwadih Colliery		
1.	pH,	7.9	7.6	7.9	7.8	6.5-8.5	IS-3025 (P-11): 1983
2.	Total Dissolved Solids, mg/l	1209	897	624	987	-	IS-3025 (P-16): 1984
3.	Total Suspended Solids, mg/l	22	25	27	29	-	IS-3025(P-17) : 1984
4.	Bio chemical Oxygen Demand, mg/l	2.0	1.6	1.5	2.4	3	IS-3025 (P-44):1994
5.	Chemical Oxygen Demand, mg/l	96	84	78	110	-	IS-3025 (P-58):2006
6.	Oil & Grease, mg/l	2.1	1.9	1.6	1.2	-	IS-3025 (P-39):2021

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/24-25/ETP/1

Date: 19/02/2025

TEST REPORT OF EFFLUENT

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024
- Sample Code : 1. E.T.P. Outlet T.C.H.
2. E.T.P. Outlet Garage
- Date of Sample Collection: 11/02/2025 To 12/02/2025
- Date of Testing : 14/02/2025 To 18/02/2025
- Test : pH, TDS, TSS, BOD, COD, OIL & GREASE.

TEST RESULT

Sl. No.	PARAMETERS OF TEST	VALUE		General Standard for discharge of Environmental Pollutants, Inland Surface water by the MoEF&C	Test Method
		E.T.P. Outlet T.C.H.	E.T.P. Outlet Garage		
1.	pH,	8.5	8.3	5.5-9.0	IS-3025 (P-11): 1983
2.	Total Dissolved Solids, mg/l	845	715	-	IS-3025 (P-16): 1984
3.	Total Suspended Solids, mg/l	26	65	100	IS-3025(P-17) : 1984
4.	Bio chemical Oxygen Demand, mg/l	5.0	7.0	30	IS-3025 (P-44):1994
5.	Chemical Oxygen Demand, mg/l	40	56	250	IS-3025 (P-58):2006
6.	Oil & Grease, mg/l	1.6	3.2	10	IS-3025 (P-39):2021

Note : BDL - Below Detection Limit

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/24-25/DW/1

Date: 21/02/2025

TEST REPORT OF DRINKING WATER

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024
- Sample Code : 1. Canteen- Jamadoba Colliery
2. Canteen- Jamadoba Washery
3. Canteen- Digwadih Colliery
4. Canteen- 6&7 Pits Colliery
- Date of Sample Collection: 11/02/2025 To 12/02/2025
- Date of Testing : 14/02/2025 To 20/02/2025
- Test :
Colour, Odour, Taste, Turbidity, pH, Total Hardness, Iron, Chloride, Res. Free chlorine, Total Dissolved Solids, Calcium, Copper, Manganese, Sulphate, Nitrate, Fluoride, Phenolic Compound, Mercury, Cadmium, Arsenic, Cyanide, Lead, Zinc, Total Coliform, Total Chromium, Mineral Oil, Alkalinity, Aluminium & Boron.

TEST RESULT

Sl. No	PARAMETERS OF TEST	VALUE				IS as per IS 10500:2012		Test Method
		Canteen-Jamadoba Colliery	Canteen-Jamadoba Washery	Canteen Digwadih Colliery	Canteen- 6&7 Pits Colliery	Desirab le	Permi ssible	
1.	Colour, (Hazen Unit)	1	1	1	1	5.00	15.0	IS 3025 (P-4):2021
2.	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeabl e	Agree able	IS 3025 (P-5):2018
3.	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeabl e	Agree able	IS 3025 (P-7):2017
4.	Turbidity, NTU	2	2	1	1	1.0	5.0	IS 3025 (P-10):1984
5.	pH	7.8	7.7	7.9	7.9	6.5-8.5	No. Relax.	IS-3025 (P-11):1983
6.	Total Hardness as CaCO ₃ , mg/l	583.8	567.0	441.0	344.4	200	600	IS 3025 (P-21):2009
7.	Chloride as Cl, mg/l	71.8	74.0	75.0	40.7	250	1000	IS 3025 (P-32):1988
8.	Res. Free chlorine as Cl ₂ mg/l	NIL	NIL	NIL	NIL	0.20	1.0	IS 3025 (P-26):2021
9.	Total Dissolved Solids, mg/l	792	840	752	418	500	2000	IS 3025 (P-16):1984
10.	Calcium as Ca, mg/l	80.6	65.5	57.1	68.8	75	200	IS 3025 (P-40):1991
11.	Copper as Cu, mg/l	BDL	BDL	BDL	BDL	0.05	1.5	IS 3025 (P-42):1992

Continued on Page 2



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- 2 -

Sl. No.	PARAMETERS OF TEST	VALUE				IS as per IS 10500:1991		Test Method
		Canteen-Jamadoba Colliery	Canteen Jamadoba Washery	Canteen Digwadih Colliery	Canteen - 6&7 Pits Colliery	Desirable	Permissible	
12.	Manganese as Mn, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.10	0.30	IS 3025 (P-59):2006
13.	Sulphate as SO ₄ , mg/l	35.6	37.8	34.8	38.6	200	400	IS 3025 (P-24):1986
14.	Nitrate as NO ₃ , mg/l	5.4	5.3	5.2	5.0	45	No. Relax	IS 3025 (P-34):1988
15.	Fluoride as F, mg/l	0.3	0.4	0.2	0.2	1.0	1.5	IS 3025 (P-60):2008
16.	Phenolic Compound as (C ₆ H ₅ OH) mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.001	0.002	IS 3025 (P-43):1992
17.	Mercury as Hg, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.001	No. Relax	IS 3025 (P-48):1994
18.	Cadmium as Cd, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.003	No. Relax	IS 3025 (P-41):1992
19.	Arsenic as As, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.01	No. Relax	IS 3025 (P-37):1988
20.	Cyanide as CN, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.05	No. Relax	IS 3025 (P-27):1986
21.	Lead as Pb, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.01	No. Relax	IS 3025 (P-47):1994
22.	Zinc as Zn, mg/l,	2	3	2	2	5	15	IS 3025 (P-42):1992
23.	Total Coliform, No./100ml	Absent	Absent	Absent	Absent	Absent	Absent	IS 3025 (P-49):1994
24.	Total Chromium as Cr, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.05	No. Relax	IS 3025 (P-52):2003
25.	Mineral Oil, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.5	No. Relax	IS 3025 (P-39):1989
26.	Alkalinity as CaCO ₃ , mg/l,	448	424	400	184	200	600	IS 3025 (P-23):1983
27.	Aluminium as Al, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.03	0.2	IS 3025 (P-55):2003
28.	Boron as B, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.5	1.0	IS 3025 (P-57):2005

NOTE: BDL - Below Detection Limit

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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TEST REPORT OF STACK EMISSION

Ref. No & Dt.	NAME AND ADDRESS OF THE CLIENT			
ARDS/23-24/S/1 Date: 20/02/2025	M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED, JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)			
Date of Sample Collection				
14/02/2025				
Date of Testing	Nature of Sampling Collection: ISO – KINETIC SAMPLING			
17/02/2025 to 18/02/2025	Weather condition	Status of the Plant	Ambient Temperature (°C)	R.Humidity (%)
	Clear	Running	28	49

GENERAL INFORMATION

1.	Nature of the Plant	M.S.
2.	Capacity of DG Set	2.0+2.0+2.0 MVA (6.0 MVA)
3.	Location	Central Workshop Area, Jamadoba
4.	No. of Stack	1
5.	Stack Height from G.L. in Meter	30
6.	Inner Shape & Size of Stack (in meter)φ	2.5
7.	Stack attached to	DG Set
8.	Type of Fuel used	HSD

GASEOUS EMISSION ANALYSIS RESULTS

Sl. No	Particulars	Method	Value	As per CPCB STANDARD mg/Nm ³
1.	Flue gas temperature (°C)	IS : 11255 (Part-3)	103	–
2.	Velocity of flue gas (m/sec)	IS : 11255 (Part-3)	9.2	–
3.	Flow Rate of Flue gas (Nm ³ /Hr)	IS : 11255 (Part-3)	128903.11	–
4.	Concentration of Particulate Matter (mg/ Nm ³) at 15% O ₂	IS : 11255 (Part-1)	62.36	75
5.	Concentration of SOX as SO ₂ (mg/ Nm ³) at 15% O ₂	IS : 11255 (Part-2)	54.76	–
6.	Concentration of NOX as NO ₂ (mg/ Nm ³) at 15% O ₂	IS : 11255 (Part-7)	126.41	360
7.	Non Methane Hydrocarbon (NMHC) at 15% O ₂	IS : 13270	46.79	100
8.	Carbon Monoxide (CO) (mg/Nm) ³	IS : 13270	37.2	150

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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TEST REPORT OF NOISE (AMBIENT) LEVEL MONITORING

Ref. No. & Date	NAME AND ADDRESS OF THE CLIENT			
ARDS/23-24/N/S/1 Date: 20/02/2025	M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED, JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)			
Date of Monitoring				
12/02/2025	Avg. Ambient Temperature (°C)	Average Humidity (%)	Weather Condition	Status of the plant
Work Order 4700092573/932 Dt. 20.07.2021	28	49	Clear	Running
MONITORING RESULTS				

Sl. No	Place of Monitoring	Day Time (6 AM to 10 PM) dB(A)		Noise level (Ambient standard) for Industrial Area as per CPCB Noise Pollution (Regulation and Control) (Amendment) Rules , 2000 notified vide S.O. 1046(E) Dt. 22.11.2020 Limit in dB(A) Leq	
				Day Time	Night Time
LOCATION		MAX	MIN	Industrial Area	Industrial Area
JAMADOBA GROUP					
Central Workshop Area Jamadoba near DG Set		71.2	66.4	75	70

Remarks: Noise level is well within the standard specified limit for Industrial Area.



Sr. Technician
Aditi R&D Services







Technical-Manager
Aditi R&D Services, Sindri

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ADITI R&D SERVICES Testing Laboratory NABL ACCREDITED (A Constituent Board of Quality Council of India) ISO/IEC 17025:2017, ISO 9001:2015, ISO (OHSAS) 45001:2018 Certified		Plot No. - I-B-17 (P) Sindri, Industrial Area, P.O. - Domgarh, Dist. - Dhanbad Jharkhand - 828107 Email ID: sindriaditi@gmail.com Website: aditimdservices.com Phone: 0326-2952377 (O), Fax: 0326-2952377 Mobile: 09471358492, 09431512608						
Ref. No.: ARDS/24-25/STP/1		Date: 21/02/2025						
TEST REPORT OF SEWAGE								
• Name of the industry :		M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)						
• Work Order Ref. NO.:		4700126557/932 Date:- 29/05/2024						
• Sample Code :		1. STP Outlet- Railway Colony 2. STP Outlet -Digwadih 12 No Officers Colony 3. STP Outlet -Digwadih 12 No. Supervisor flat 4. STP Outlet- Jmb. Canteen 5. STP Outlet- JCPP Canteen						
• Date of Sample Collection:		11/02/2025 To 12/02/2025						
• Date of Testing :		14/02/2025 To 18/02/2025						
• Test :		pH, TDS, TSS, BOD, COD, OIL & GREASE, and Fecal Coliform, Total Nitrogen, Total Phosphorous.						
TEST RESULT								
Sl. No.	PARAMETERS OF TEST	VALUE					As per MoEF&CC Notification for Sewage Treatment Plant	Test Method
		STP Outlet Railway Colony	STP Outlet Digwadih 12 No Officers Colony	STP Outlet Digwadih 12 No. Supervisor flat	STP Outlet Jmb. Canteen	STP Outlet- JCPP Canteen		
1.	pH,	7.6	8.1	7.8	7.6	8.3	5.5-9.0.	IS-3025(P-11):1983
2.	Total Dissolved Solids, mg/l	1306.5	916.5	1144	1105	760.5	-	IS-3025(P-16):1984
3.	Total Suspended Solids, mg/l	12	10	20	15	19	20	IS-3025(P-17):1984
4.	Bio chemical Oxygen Demand, mg/l	8.2	6.5	8.0	9.0	9.8	10	IS-3025(P-44):1994
5.	Chemical Oxygen Demand, mg/l	30	45	48	48.8	47.6	50	IS-3025(P-58):2006
6.	Oil & Grease, mg/l	1.3	1.5	1.9	2.3	2.5	-	IS-3025(P-39):2021
7.	Fecal Coliform (FC) (MPN/100ml)	125	116	122	128	136	Desirable 100 & Permissible 230	IS - 1622
8.	Total Nitrogen as N, mg/l	8.2	7.7	8.9	7.8	8.0	10	IS - 3025 (P-34):1988
9.	Total Phosphorus as P, mg/l	0.68	0.65	0.69	0.74	0.71	10	IS - 3025 (P-31):1988
Sr. Chemist Aditi R&D Services				Technical Manager Aditi R&D Services, Sindri				
Statements :								
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2. The test results reported in this report are valid at the time of and under the stated condition of measurement.								
3. This particular test report cannot be reproduced except in full, without prior written permission of Quality Manager of the laboratory.								

	<h2 style="margin:0;">ADITI R&D SERVICES</h2> <h3 style="margin:0;">Testing Laboratory</h3> <p style="margin:0;">NABL ACCREDITED</p> <p style="margin:0;">(A Constituent Board of Quality Council of India)</p> <p style="margin:0;">ISO/IEC 17025:2017, ISO 9001:2015, ISO (OHSAS) 45001:2018 Certified</p>		Plot No. - I-B-17 (P) Sindri, Industrial Area, P.O.- Domgarh, Dist.- Dhanbad Jharkhand - 828107 Email ID: sindriaditi@gmail.com Website: aditimdservices.com Phone: 0326-2952377 (O), Fax: 0326-2952377 Mobile: 09471358492, 09431512608						
	Ref. No.: - ARDS/23-24/GW/1		Date: 21/02/2025						
	<h3 style="margin:0;">TEST REPORT OF GROUND WATER</h3>								
<ul style="list-style-type: none"> Name of the industry : M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND) Work Order Ref. NO. : 4700126557/932 Date:- 29/05/2024 Sample Code : <ul style="list-style-type: none"> 1. Jorapokhar Kustand 2. Bhowra 13 No. 3. Mohalbani Basti 4. Lower Dungari 5. Jamadoba 3 No. Date of Sample Collection : 11/02/2025 to 12/02/2025 Date of Testing : 14/02/2025 to 20/02/2025 Test : Colour, Odour, Taste, Turbidity, pH, Total Hardness, Iron, Chloride, Res. Free chlorine, Total Dissolved Solids, Calcium, Copper, Manganese, Sulphate, Nitrate, Fluoride, Phenolic Compound, Mercury, Cadmium, Arsenic, Cyanide, Lead, Zinc, Total Coliform, Chromium, Mineral Oil, Alkalinity, Aluminium & Boron. 									
<h3 style="margin:0;">TEST RESULT</h3>									
Sl. No	PARAMETERS OF TEST	VALUE					IS as per IS 10500:1991		Test Method
		Jorapokhar Kustand	Bhowra 13 No.	Mohalbani Basti	Lower Dungari	Jamadoba 3 No	Desirable	Permissible	
1.	Colour, (Hazen Unit)	2	2	2	2	1	5	15	IS 3025 (P-4):2021
2.	Temperature °C	27	28	27	28	27	-	-	-
3.	Electrical Conductivity, µmhos/cm	2030	730	1030	660	840	-	-	-
4.	Total Dissolved Solids, mg/l	1308	460	650	415	546	500	2000	IS 3025(P-16):1984
5.	pH	7.8	7.5	7.1	6.7	7.3	6.5-8.5	No Relax	IS-3025(P-11):1983
6.	Total Hardness as CaCO ₃ , mg/l	399	281.4	340.2	298.2	310	200	600	IS 3025(P-21):2009
7.	Calcium as Ca, mg/l	124	86.6	116.0	67.2	80.4	75	200	IS 3025(P-40):1991
8.	Magnesium as Mg, mg/l	21.4	16.2	12.0	31.2	26.2	30	100	IS 3025(P-46):1994
9.	Chloride as Cl, mg/l	248	64	106.7	85.3	72.6	250	1000	IS 3025(P-32):1988
10.	Fluoride as F, mg/l	0.2	0.2	0.5	0.2	0.1	1.0	1.5	IS 3025(P-60):2008
Continued on Page -2									
<div style="display: flex; justify-content: space-between; align-items: center;"> 1 <div style="text-align: right;">   </div> </div>									
Statements : 1. The test report refers only to the particular item(s) submitted for testing. 2. The test results reported in this report are valid at the time of and under the stated condition of measurement. 3. This particular test report cannot be reproduced except in full, without prior written permission of Quality Manager of the laboratory.									



ADITI R&D SERVICES
Testing Laboratory
NABL ACCREDITED
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ISO/IEC 17025:2017, ISO 9001:2015, ISO (OHSAS) 45001:2018 Certified

Plot No. - I-B-17 (P)
Sindri, Industrial Area,
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Website: aditirndservices.com
Phone: 0326-2952377 (O),
Fax: 0326-2952377
Mobile: 09471358492, 09431512608

Sl. No	PARAMETERS OF TEST	VALUE					IS as per IS 10500:1991		Test Method
		Jorapokhar Kustand	Bhowra 13 No.	Mohalbani Basti	Lower Dungari	Jamado ba 3 No	Desir - able	Permis - sible	
11	Sulphate as SO ₄ , mg/l	45.5	40.6	50.6	45.2	56.4	200	400	IS 3025(P-24):1986
12.	Nitrate as NO ₃ , mg/l	4.9	4.8	5.6	4.8	4.9	45	No. Relax	IS 3025(P-34):1988
13.	Alkalinity as CaCO ₃ , mg/l,	676	252	236	168	268	200	600	IS 3025(P-23):1983
14.	Lead as Pb, mg/l	B.D.L	B.D.L	B.D.L	B.D.L.	B.D.L.	0.01	No. Relax	IS 3025(P-47):1994
15.	Zinc as Zn, mg/l,	3	3	3	2	2	5	15	IS 3025(P-42):1992
16.	Iron a Fe, mg/l	0.17	0.15	0.15	0.17	0.18	1.0	No. Relax	IS 3025(P-53):2003
17.	Copper as Cu, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L.	0.05	1.5	IS3025 (P-42):1992
18.	Mercury as Hg, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L.	0.001	No. Relax	IS 3025(P-48):1994
19.	Cadmium as Cd, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L.	0.003	No. Relax	IS 3025(P-41):1992
20.	Nickel as Ni, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L.	0.02	No. Relax	IS 3025(P-37):1992
21.	Arsenic as As, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L.	0.01	No. Relax	IS 3025(P-37):1988
22.	Cyanide as CN, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L.	0.05	No. Relax	IS 3025(P-27):1986
23.	Total Chromium as Cr, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L.	0.05	No. Relax	IS 3025(P-52):2003

NOTE: BDL - Below Detection Limit


Sr. Chemist
Aditi R&D Services




Technical Manager
Aditi R&D Services, Sindri

Statements :

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TATA STEEL LIMITED
JHARIA DIVISION

Area. Manager, Digwadih Colliery
Area. Manager, 6 & 7 Pits Colliery
Head, Jamadoba Coal Washery
CMO, Tata Central Hospital, Jamadoba

Ref: JMB/ENV/LAB/02/ 687 / 24

Date: 12/11/2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in **JAMADOBA GROUP** in the month of **OCTOBER'2024**. The results are as given below.

Core zone (as per Ambient Air quality standards for coal mines notified vide notification G.S.R. 742(E) dated-25.09.2000

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO ₂ 24 Hourly Limit-120 µg/m ³	NO _x 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	04.10.24	Cloudy	190.7	66.3	17.8	20.5

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM ₁₀ 24 Hourly Limit-100 µg/m ³	PM _{2.5} 24 Hourly Limit- 60 µg/m ³	SO ₂ 24 Hourly Limit-80 µg/m ³	NO _x 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	03.10.24	Cloudy	70.6	35.8	16.5	19.2
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	07.10.24	Clear	86.3	42.8	17.2	20.8
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	08.10.24	Clear	80.1	40.7	18.6	21.1
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	09.10.24	Clear	76.2	38.5	15.4	18.3

Note: PM₁₀ - Less than 10-micron Particulate Matter
PM_{2.5} - Less than 2.5-micron Particulate Matter
µg - Microgram

This is for your information and necessary action please.


Lab. Assistant (Environment)


Area Manager (Environment)

TATA STEEL LIMITED
JHARIA DIVISION

Area Manager, Jamadoba Colliery
Area. Manager, Digwadih Colliery
Area. Manager, 6 & 7 Pits Colliery
Head, Jamadoba Coal Washery
CMO, Tata Central Hospital, Jamadoba

Ref: JMB /ENV /LAB /02 / 770 / 24

Date: 09/12/2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in **JAMADOBA GROUP** in the month of **NOVEMBER'2024**. The results are as given below.

Core zone (as per Ambient Air quality standards for coal mines notified vide notification G.S.R. 742(E) dated-25.09.2000

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO ₂ 24 Hourly Limit-120 µg/m ³	NO _x 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	12.11.24	Clear	216.9	84.6	15.2	17.0

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM ₁₀ 24 Hourly Limit-100 µg/m ³	PM _{2.5} 24 Hourly Limit- 60 µg/m ³	SO ₂ 24 Hourly Limit-80 µg/m ³	NO _x 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	12.11.24	Clear	90.2	54.6	19.7	22.3
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	12.11.24	Clear	82.5	41.3	16.1	18.4
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	13.11.24	Clear	78.4	37.5	17.8	20.4
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	13.11.24	Clear	80.6	39.2	18.3	21.7

Note: PM₁₀ - Less than 10-micron Particulate Matter
PM_{2.5} - Less than 2.5-micron Particulate Matter
µg - Microgram

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Lab. Assistant (Environment)


Manager (Environment)

TATA STEEL LIMITED
JHARIA DIVISION

Area Manager, Jamadoba Colliery
Area. Manager, Digwadih Colliery
Area. Manager, 6 & 7 Pits Colliery
Head, Jamadoba Coal Washery
CMO, Tata Central Hospital, Jamadoba

Ref: JMB /ENV /LAB /02 / 910 /24

Date: 31/12/2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in **JAMADOBA GROUP** in the month of **DECEMBER'2024**. The results are as given below.

Core zone (as per Ambient Air quality standards for coal mines notified vide notification G.S.R. 742(E) dated-25.09.2000)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO ₂ 24 Hourly Limit-120 µg/m ³	NO _x 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	06.12.24	Clear	248.9	82.5	16.8	18.3

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM ₁₀ 24 Hourly Limit-100 µg/m ³	PM _{2.5} 24 Hourly Limit- 60 µg/m ³	SO ₂ 24 Hourly Limit-80 µg/m ³	NO _x 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	06.12.24	Clear	88.7	47.5	17.2	19.1
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	06.12.24	Clear	80.6	39.7	18.2	20.3
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	10.12.24	Clear	76.2	32.1	15.9	17.2
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	10.12.24	Clear	92.5	51.8	19.7	22.4

Note: PM₁₀ - Less than 10-micron Particulate Matter
PM_{2.5} - Less than 2.5-micron Particulate Matter
µg - Microgram

This is for your information and necessary action please.


Lab. Assistant (Environment)


Manager (Environment)

TATA STEEL LIMITED
JHARIA DIVISION

Area Manager, Jamadoba Colliery
Area. Manager, Digwadih Colliery
Area. Manager, 6 & 7 Pits Colliery
Head, Jamadoba Coal Washery
CMO, Tata Central Hospital, Jamadoba

Ref: JMB /ENV /LAB /02 / 44 / 25
Date: 3 / 01 / 2025

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in **JAMADOBA GROUP** in the month of **JANUARY'2025**. The results are as given below.

Core zone (as per Ambient Air quality standards for coal mines notified vide notification G.S.R. 742(E) dated-25.09.2000

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO ₂ 24 Hourly Limit-120 µg/m ³	NO _x 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	07.01.25	Clear	239.5	80.3	17.2	20.4

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM ₁₀ 24 Hourly Limit-100 µg/m ³	PM _{2.5} 24 Hourly Limit- 60 µg/m ³	SO ₂ 24 Hourly Limit-80 µg/m ³	NO _x 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	07.01.25	Clear	86.5	42.1	16.8	18.3
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	07.01.25	Clear	82.1	40.3	15.9	17.6
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	08.01.25	Clear	70.8	30.9	17.3	19.5
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	08.01.25	Clear	90.4	46.7	18.2	21.3

Note: PM₁₀ - Less than 10-micron Particulate Matter
PM_{2.5} - Less than 2.5-micron Particulate Matter
µg - Microgram

This is for your information and necessary action please.


Lab. Assistant (Environment)


Manager (Environment)

TATA STEEL LIMITED
JHARIA DIVISION

Area Manager, Jamadoba Colliery
Area. Manager, Digwadih Colliery
Area. Manager, 6 & 7 Pits Colliery
Head, Jamadoba Coal Washery
CMO, Tata Central Hospital, Jamadoba

Ref: JMB /ENV /LAB /02 / 89 / 25
Date: 28/02/2025

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in **JAMADOBA GROUP** in the month of **FEBRUARY'2025**. The results are as given below.

Core zone (as per Ambient Air quality standards for coal mines notified vide notification G.S.R. 742(E) dated-25.09.2000

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO ₂ 24 Hourly Limit-120 µg/m ³	NO _x 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	11.02.25	Clear	231.7	84.6	18.3	21.7

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM ₁₀ 24 Hourly Limit-100 µg/m ³	PM _{2.5} 24 Hourly Limit- 60 µg/m ³	SO ₂ 24 Hourly Limit-80 µg/m ³	NO _x 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	11.02.25	Clear	78.9	37.2	15.0	17.2
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	11.02.25	Clear	80.6	39.5	17.2	19.1
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	12.02.25	Clear	76.2	33.1	16.4	18.5
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	12.02.25	Clear	87.5	42.2	19.2	22.4

Note: PM₁₀ - Less than 10-micron Particulate Matter
PM_{2.5} - Less than 2.5-micron Particulate Matter
µg - Microgram

This is for your information and necessary action please.


Lab. Assistant (Environment)


Manager (Environment)

TATA STEEL LIMITED
JHARIA DIVISION

Area Manager, Jamadoba Colliery
Area. Manager, Digwadih Colliery
Area. Manager, 6 & 7 Pits Colliery
Head, Jamadoba Coal Washery
CMO, Tata Central Hospital, Jamadoba

Ref: JMB /ENV /LAB /02 / 153 / 25

Date: 07/04 / 2025

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in **JAMADOBA GROUP** in the month of **MARCH'2025**. The results are as given below.

Core zone (as per Ambient Air quality standards for coal mines notified vide notification G.S.R. 742(E) dated-25.09.2000

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO ₂ 24 Hourly Limit-120 µg/m ³	NO _x 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	05.03.25	Clear	247.6	86.2	19.1	22.6

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM ₁₀ 24 Hourly Limit-100 µg/m ³	PM _{2.5} 24 Hourly Limit- 60 µg/m ³	SO ₂ 24 Hourly Limit-80 µg/m ³	NO _x 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	05.03.25	Clear	92.4	51.6	18.2	21.7
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	05.03.25	Clear	84.5	42.3	16.8	18.3
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	06.03.25	Clear	78.6	36.5	15.1	17.4
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	06.03.25	Clear	83.1	40.9	17.8	20.1

Note: PM₁₀ - Less than 10-micron Particulate Matter
PM_{2.5} - Less than 2.5-micron Particulate Matter
µg - Microgram

This is for your information and necessary action please.


Lab. Assistant (Environment)


Manager (Environment)

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Colliery
Head, Jamadoba Coal Washery
Sr. Manager, Digwadih Colliery
Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 64/ 24

Dated: 01/11/2024

Re: Ambient Noise Level Report

We wish to inform you that Ambient Noise Level Monitoring was carried out in **JAMADOBA GROUP** in the month of **OCTOBER'2024**. The results are as given below:

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	24.10.24	42.2	44.5	43.4	34.3	36.7	35.5
2	New Village Colony, Jamadoba	24.10.24	43.5	45.7	44.6	35.7	37.8	36.8
3	6&7 Pits Kalimandir Colony	24.10.24	42.4	44.7	43.6	34.5	36.4	35.5
4	Digwadih 10 No. Colony	24.10.24	43.1	45.6	44.4	35.3	37.5	36.4

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	24.10.24	53.4	56.7	55.1	45.2	48.4	46.8
2	2 Pit Top Kalimandir, Jamadoba	24.10.24	52.1	55.4	53.8	44.3	47.6	46.0
3	Weigh Bridge, Digwadih	24.10.24	49.7	52.6	51.2	41.5	44.7	43.1
4	Canteen Complex, Digwadih	24.10.24	46.4	47.7	47.1	38.1	40.3	39.2
5	Head Office Complex, Digwadih	24.10.24	46.2	48.5	47.4	38.4	40.6	39.5
6	Check Post Security Gate, 6&7 Pits	24.10.24	50.5	53.8	52.2	42.7	45.9	44.3
7	Canteen Complex, 6&7 Pits	24.10.24	46.3	47.6	47.0	38.5	40.7	39.6
8	Fan house- Nitrogen Plant, 6&7 Pits	24.10.24	72.3	73.5	72.9	64.2	65.6	64.9
9	Joota Gate, JCPP	24.10.24	58.8	61.9	60.4	50.6	53.4	52.0
10	Main Gate Stores, JCPP	24.10.24	53.6	56.4	55.0	45.4	48.6	47.0
11	Railway Siding Yard, JCPP	24.10.24	50.4	53.7	52.1	42.7	45.4	44.1

Analysis: All the values are within permissible limit.

This is for your information please.


Lab. Assistant (Environment)


Area Manager (Environment)

Copy to: Specialist (OH). TCH

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Colliery
Head, Jamadoba Coal Washery
Sr. Manager, Digwadih Colliery
Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 731 /24
Dated: 04 /12/ 2024

Re: Ambient Noise Level Report

We wish to inform you that Ambient Noise Level Monitoring was carried out in **JAMADOBA GROUP** in the month of **NOVEMBER'2024**. The results are as given below:

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	22.11.24	42.4	44.7	43.6	34.7	36.5	35.6
2	New Village Colony, Jamadoba	22.11.24	43.1	45.3	44.2	35.3	37.6	36.5
3	6&7 Pits Kalimandir Colony	22.11.24	42.3	44.5	43.4	34.5	36.3	35.4
4	Digwadih 10 No. Colony	22.11.24	43.5	45.7	44.6	35.2	37.4	36.3

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	22.11.24	51.5	54.8	53.2	43.3	46.5	44.9
2	2 Pit Top Kalimandir, Jamadoba	22.11.24	50.3	53.5	51.9	42.4	45.7	44.1
3	Weigh Bridge, Digwadih	22.11.24	48.4	50.7	49.6	40.2	42.5	41.4
4	Canteen Complex, Digwadih	22.11.24	44.2	46.4	45.3	36.5	38.6	37.6
5	Head Office Complex, Digwadih	22.11.24	44.1	46.3	45.2	36.3	38.5	37.4
6	Check Post Security Gate, 6&7 Pits	22.11.24	50.4	52.6	51.5	42.6	44.8	43.7
7	Canteen Complex, 6&7 Pits	22.11.24	44.4	46.7	45.6	36.2	38.6	37.4
8	Fan house- Nitrogen Plant, 6&7 Pits	22.11.24	72.2	73.4	72.8	64.2	65.7	65.0
9	Joota Gate, JCPP	22.11.24	56.5	59.7	58.1	48.7	51.9	50.3
10	Main Gate Stores, JCPP	22.11.24	52.4	55.6	54.0	44.5	47.8	46.2
11	Railway Siding Yard, JCPP	22.11.24	50.1	53.3	51.7	42.3	45.4	43.9

Analysis: All the values are within permissible limit.

This is for your information please.


Lab. Assistant (Environment)


Manager (Environment)

Copy to: Specialist (OH). TCH

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Colliery
Head, Jamadoba Coal Washery
Sr. Manager, Digwadih Colliery
Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 817/24

Dated: 31/12/2024

Re: Ambient Noise Level Report


We wish to inform you that Ambient Noise Level Monitoring was carried out in **JAMADOBA GROUP** in the month of **DECEMBER'2024**. The results are as given below:

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	20.12.24	42.2	44.5	43.4	34.4	36.7	35.6
2	New Village Colony, Jamadoba	20.12.24	44.3	45.7	45.0	36.5	38.8	37.7
3	6&7 Pits Kalimandir Colony	20.12.24	42.7	44.6	43.7	34.3	36.5	35.4
4	Digwadih 10 No. Colony	20.12.24	43.1	45.3	44.2	35.6	37.9	36.8


S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	20.12.24	52.2	55.6	53.9	44.5	47.8	46.2
2	2 Pit Top Kalimandir, Jamadoba	20.12.24	50.5	53.7	52.1	42.1	45.5	43.8
3	Weigh Bridge, Digwadih	20.12.24	48.2	50.4	49.3	40.3	42.6	41.5
4	Canteen Complex, Digwadih	20.12.24	44.7	45.6	45.2	36.2	38.4	37.3
5	Head Office Complex, Digwadih	20.12.24	44.4	46.5	45.5	36.5	38.7	37.6
6	Check Post Security Gate, 6&7 Pits	20.12.24	51.3	53.2	52.3	43.1	45.3	44.2
7	Canteen Complex, 6&7 Pits	20.12.24	44.6	45.4	45.0	36.4	38.7	37.6
8	Fan house- Nitrogen Plant, 6&7 Pits	20.12.24	72.3	73.5	72.9	64.4	65.6	65.0
9	Joota Gate, JCPP	20.12.24	57.4	60.7	59.1	49.5	52.8	51.2
10	Main Gate Stores, JCPP	20.12.24	51.6	54.9	53.3	43.2	46.5	44.9
11	Railway Siding Yard, JCPP	20.12.24	50.3	53.6	52.0	42.5	45.7	44.1

Analysis: All the values are within permissible limit.

This is for your information please.


Lab. Assistant (Environment)

Copy to: Specialist (OH). TCH


Manager (Environment)

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Colliery
Head, Jamadoba Coal Washery
Sr. Manager, Digwadih Colliery
Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 51 /25

Dated: 31 /01 / 2025

Re: Ambient Noise Level Report

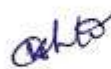
We wish to inform you that Ambient Noise Level Monitoring was carried out in **JAMADOBA GROUP** in the month of **JANUARY'2025**. The results are as given below:

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	13.01.25	41.7	43.4	42.6	33.5	35.8	34.7
2	New Village Colony, Jamadoba	13.01.25	42.5	44.6	43.6	34.3	36.5	35.4
3	6&7 Pits Kalimandir Colony	13.01.25	42.3	44.5	43.4	34.6	36.8	35.7
4	Digwadih 10 No. Colony	13.01.25	43.6	45.8	44.7	35.4	37.6	36.5

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	13.01.25	52.6	55.8	54.2	44.5	47.7	46.1
2	2 Pit Top Kalimandir, Jamadoba	13.01.25	51.4	54.6	53.0	43.2	46.4	44.8
3	Weigh Bridge, Digwadih	13.01.25	49.7	51.5	50.6	41.6	43.8	42.7
4	Canteen Complex, Digwadih	13.01.25	45.2	47.5	46.4	37.3	39.6	38.5
5	Head Office Complex, Digwadih	13.01.25	44.8	46.6	45.7	36.5	38.7	37.6
6	Check Post Security Gate, 6&7 Pits	13.01.25	52.5	54.8	53.7	44.7	46.8	45.8
7	Canteen Complex, 6&7 Pits	13.01.25	44.1	46.3	45.2	36.3	38.5	37.4
8	Fan house- Nitrogen Plant, 6&7 Pits	13.01.25	72.4	73.6	73.0	64.5	65.7	65.1
9	Joota Gate, JCPP	13.01.25	56.7	59.9	58.3	48.4	51.6	50.0
10	Main Gate Stores, JCPP	13.01.25	52.5	55.7	54.1	44.2	47.5	45.9
11	Railway Siding Yard, JCPP	13.01.25	51.4	54.5	53.0	43.5	46.7	45.1

Analysis: All the values are within permissible limit.

This is for your information please.


Lab. Assistant (Environment)


Manager (Environment)

Copy to: Specialist (OH). TCH

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Colliery
Head, Jamadoba Coal Washery
Sr. Manager, Digwadih Colliery
Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 102/25

Dated: 28/02/2025

Re: Ambient Noise Level Report


We wish to inform you that Ambient Noise Level Monitoring was carried out in **JAMADOBA GROUP** in the month of **FEBRUARY'2025**. The results are as given below:

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	26.02.25	44.8	46.5	45.7	36.4	38.6	37.5
2	New Village Colony, Jamadoba	26.02.25	42.4	44.6	43.5	34.6	36.8	35.7
3	6&7 Pits Kalimandir Colony	26.02.25	48.4	50.2	49.3	40.3	42.5	41.4
4	Digwadih 10 No. Colony	26.02.25	45.6	47.7	46.7	37.5	39.8	38.7

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	26.02.25	56.5	59.7	58.1	48.3	51.5	49.9
2	2 Pit Top Kalimandir, Jamadoba	26.02.25	52.2	55.1	53.7	44.5	47.7	46.1
3	Weigh Bridge, Digwadih	26.02.25	50.4	52.6	51.5	42.2	44.5	43.4
4	Canteen Complex, Digwadih	26.02.25	48.6	50.4	49.5	40.4	42.7	41.6
5	Head Office Complex, Digwadih	26.02.25	43.2	45.5	44.4	35.5	37.6	36.6
6	Check Post Security Gate, 6&7 Pits	26.02.25	50.1	53.3	51.7	42.3	45.5	43.9
7	Canteen Complex, 6&7 Pits	26.02.25	47.4	49.6	48.5	39.6	41.8	40.7
8	Fan house- Nitrogen Plant, 6&7 Pits	26.02.25	61.7	63.8	62.8	53.4	52.6	53.0
9	Joota Gate, JCPP	26.02.25	59.3	62.5	60.9	51.2	54.4	52.8
10	Main Gate Stores, JCPP	26.02.25	54.6	57.7	56.2	46.4	49.5	48.0
11	Railway Siding Yard, JCPP	26.02.25	52.1	55.3	53.7	44.5	47.7	46.1

Analysis: All the values are within permissible limit.

This is for your information please.


Lab. Assistant (Environment)

Copy to: Specialist (OH). TCH


Manager (Environment)

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Colliery
Head, Jamadoba Coal Washery
Sr. Manager, Digwadih Colliery
Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 149 /25

Dated: 07/04/2025

Re: Ambient Noise Level Report

We wish to inform you that Ambient Noise Level Monitoring was carried out in **JAMADOBA GROUP** in the month of **MARCH'2025**. The results are as given below:

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	24.03.25	42.3	44.6	43.5	34.5	36.7	35.6
2	New Village Colony, Jamadoba	24.03.25	43.5	45.8	44.7	35.3	37.5	36.4
3	6&7 Pits Kalimandir Colony	24.03.25	46.7	48.5	47.6	38.4	40.7	39.6
4	Digwadih 10 No. Colony	24.03.25	44.5	46.7	45.6	36.7	38.9	37.8

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	24.03.25	57.2	60.5	58.9	49.4	52.7	51.1
2	2 Pit Top Kalimandir, Jamadoba	24.03.25	51.4	54.7	53.1	43.1	46.3	44.7
3	Weigh Bridge, Digwadih	24.03.25	49.8	51.6	50.7	41.5	43.7	42.6
4	Canteen Complex, Digwadih	24.03.25	48.3	50.2	49.3	40.4	42.5	41.5
5	Head Office Complex, Digwadih	24.03.25	42.6	44.7	43.7	34.3	36.6	35.5
6	Check Post Security Gate, 6&7 Pits	24.03.25	50.3	52.5	51.4	42.5	44.8	43.7
7	Canteen Complex, 6&7 Pits	24.03.25	48.2	50.1	49.2	40.1	42.4	41.3
8	Fan house- Nitrogen Plant, 6&7 Pits	24.03.25	58.4	60.3	59.4	50.6	52.7	51.7
9	Joota Gate, JCPP	24.03.25	60.2	63.5	61.9	52.4	55.6	54.0
10	Main Gate Stores, JCPP	24.03.25	52.7	55.6	54.2	44.5	47.8	46.2
11	Railway Siding Yard, JCPP	24.03.25	52.4	54.7	53.6	44.2	46.5	45.4

Analysis: All the values are within permissible limit.

This is for your information please.


Lab. Assistant (Environment)


Manager (Environment)

Copy to: Specialist (OH). TCH

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- **October'24 to March'25**)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Area Manager, Jamadoba Colliery
Area Manager, Digwadih Colliery
Area Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / **681** / 2024

Dated - **12/11** / 2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **OCTOBER'2024**.
The results are as given below:

S. No	Location (Final Discharge Point) (Mine's Water)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	24.10.24	05:05 PM	30	7.7	20	773	2.4	68	0.5
2	3 Pit Jamadoba Colliery	24.10.24	04:50 PM	31	7.2	16	793	2.5	56	0.3
3	2 Incline Jamadoba Colliery	24.10.24	04:15 PM	No Discharge						
4	6 & 7 Pits Colliery	24.10.24	02:20 PM	30	7.3	14	724	2.8	92	0
5	Digwadih Colliery	24.10.24	02:40 PM	No Discharge						

All the parameters are within the limit, and you are requested to maintain the same.
This is for your information and necessary action please.


Lab.Assistant (Environment)


Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- **October'24 to March'25**)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant
Area Manager Jamadoba Colliery
Area Manager Digwadih Colliery

Ref. No. - JMB / ENV / LAB / 03 / **680** / 2024

Dated - **12/11** / 2024

Sub: STP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **OCTOBER'2024**.
The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	STP, Jmb. Canteen- Inlet	24.10.24	12:30 PM	27	7.8	145	1024	31.8	290	2.5
2	STP, Jmb. Canteen- Outlet	24.10.24	12:35 PM	26	7.5	24	726	7.0	84	0.7
3	STP, JCPP Canteen- Inlet	24.10.24	01:40 PM	27	7.9	137	924	32.9	306	3.7
4	STP, JCPP Canteen- Outlet	24.10.24	01:45 PM	26	7.6	20	654	5.2	70	0.4
5	STP, Railway Colony- Inlet	24.10.24	03:45 PM	28	8.4	178	1067	34.8	319	3.1
6	STP, Railway Colony-Outlet	24.10.24	03:50 PM	27	8.1	36	953	6.9	52	1.4
7	STP, Digwadih 12 No. Officer's colony-Inlet	24.10.24	03:15 PM	27	8.0	117	921	33.7	284	2.9
8	STP, Digwadih 12 No. Officer's colony- Outlet	24.10.24	03:20 PM	26	7.7	39	637	4.6	102	1.3
9	STP, Digwadih 12 No. Supervisor flat -Inlet	24.10.24	02:55 PM	27	7.8	122	974	29.8	332	3.2
10	STP, Digwadih 12 No. Supervisor flat -Outlet	24.10.24	03:00 PM	26	7.6	18	735	6.2	64	0.9

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

Emahato.

Lab.Assistant (Environment)

Umish

Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- **October'24 to March'25**)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant
Area Manager Jamadoba Colliery
C.M.O, TCH, Jamadoba

Ref. No. - JMB / ENV / LAB / 03 / 682 / 2024

Dated - 12/11 / 2024

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **OCTOBER'2024**.
The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	ETP, TCH- Inlet	24.10.24	02:00 PM	27	8.3	98	742	28.2	260	1.5
2	ETP, TCH- Outlet	24.10.24	02:05 PM	26	8.1	19	675	6.4	52	0.3
3	ETP, Garage- Inlet	24.10.24	12:45 PM	27	8.2	161	972	31.2	326	3.8
4	ETP, Garage- Outlet	24.10.24	12:50 PM	26	7.8	34	816	7.2	94	1.6
5	Final Settling Pond JCPP	24.10.24	04:35 PM	Dry Pond						

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.


Lab.Assistant (Environment)


Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- October'24 to March'25)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant
Area Manager Jamadoba Colliery
C.M.O, TCH, Jamadoba

Ref. No. - JMB / ENV / LAB / 03 / 766 / 2024

Dated - 09/12 / 2024

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **NOVEMBER'2024**.
The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	ETP, TCH- Inlet	22.11.24	12:25 PM	28	8.4	116	736	27.8	294	1.8
2	ETP, TCH- Outlet	22.11.24	12:30 PM	27	8.2	26	658	5.2	48	0.7
3	ETP, Garage- Inlet	22.11.24	01:30 PM	27	8.1	139	928	29.1	316	4.1
4	ETP, Garage- Outlet	22.11.24	01:35 PM	26	7.9	27	821	6.9	102	1.7
5	Final Settling Pond JCPP	22.11.24	09:55 AM	Dry Pond						

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.



Lab.Assistant (Environment)



Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- **October'24 to March'25**)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Area Manager, Jamadoba Colliery
Area Manager, Digwadih Colliery
Area Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / 768 / 2024

Dated - 09 / 12 / 2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **NOVEMBER'2024**.
The results are as given below:

S. No	Location (Final Discharge Point) (Mine's Water)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	22.11.24	09:25 AM	No Discharge						
2	3 Pit Jamadoba Colliery	22.11.24	09:40 AM	30	7.5	23	806	2.9	68	0.6
3	2 Incline Jamadoba Colliery	22.11.24	10:15 AM	No Discharge						
4	6 & 7 Pits Colliery	22.11.24	12:10 PM	31	7.7	32	789	2.6	74	0.4
5	Digwadih Colliery	22.11.24	11:50 AM	No Discharge						

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.


Lab.Assistant (Environment)


Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- **October'24 to March'25**)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant
Area Manager Jamadoba Colliery
Area Manager Digwadih Colliery

Ref. No. - JMB / ENV / LAB / 03 / 767 / 2024

Dated - 09/12/2024

Sub: STP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **NOVEMBER'2024**.
The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	STP, Jmb. Canteen- Inlet	22.11.24	01:10 PM	27	8.0	137	916	34.6	316	2.6
2	STP, Jmb. Canteen- Outlet	22.11.24	01:15 PM	26	7.7	31	694	6.9	72	0.5
3	STP, JCPP Canteen- Inlet	22.11.24	12:50 PM	27	8.1	126	896	33.1	294	3.4
4	STP, JCPP Canteen- Outlet	22.11.24	12:55 PM	26	7.8	34	672	6.2	108	0.6
5	STP, Railway Colony- Inlet	22.11.24	10:35 AM	28	8.2	156	1025	33.2	332	2.9
6	STP, Railway Colony-Outlet	22.11.24	10:40 AM	27	8.0	27	876	7.1	85	1.3
7	STP, Digwadih 12 No. Officer's colony-Inlet	22.11.24	11:05 AM	28	8.1	124	936	34.1	310	3.2
8	STP, Digwadih 12 No. Officer's colony- Outlet	22.11.24	11:10 AM	27	7.8	21	716	5.4	54	1.0
9	STP, Digwadih 12 No. Supervisor flat - Inlet	22.11.24	11:25 AM	27	8.0	167	963	32.5	296	3.5
10	STP, Digwadih 12 No. Supervisor flat -Outlet	22.11.24	11:30 AM	26	7.7	26	769	5.8	78	1.2

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.


Lab.Assistant (Environment)


Manager (Environment)

TATA STEEL LIMITED
JHARIA DIVISION

Well Water Quality Report of Jamadoba Group for the month of NOVEMBER'2024

JAMADOBA GROUP

S.No	Date	Location	Time	Depth in meter	pH	Electrical Conductivity $\mu\text{S/m}$
1	22.11.24	Purnadih (Jorapokhar)	01:15 PM	4.13	7.3	1243
2	22.11.24	Bhowra 13 No	12:55 PM	1.27	7.4	1014
3	22.11.24	Mohalbani Basti	02:25 PM	2.13	7.3	1041
4	22.11.24	Digwadih 10 No F & J	12:10 PM	1.52	7.1	1639
5	22.11.24	Kalimela Shivmandir	11:05 AM	0.98	7.2	917
6	22.11.24	Kalimela Kalimandir	11:20 AM	3.13	7.5	1358
7	22.11.24	Lower Dungari	10:45 AM	3.67	7.3	725
8	22.11.24	Upper Dungari	10:25 AM	1.72	7.2	756
9	22.11.24	Pattia Basti	10:00 AM	3.48	7.0	894
10	22.11.24	Kenduadih Basti	09:35 AM	1.32	7.2	972
11	22.11.24	Jorapokhar Kushtand	01:55 PM	3.84	7.4	1637
12	22.11.24	6&7 Pits (Ayodhya Nagri)	11:45 AM	1.76	7.2	1242
13	22.11.24	Jorapokhar Basti Chhattand	12:25 PM	1.13	7.4	1384
14	22.11.24	Jorapokhar Babu Basa	01:30 PM	2.11	7.1	1169


Lab.Assistant (Environment)


Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- **October'24 to March'25**)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant
Area Manager Jamadoba Colliery
C.M.O, TCH, Jamadoba

Ref. No. - JMB / ENV / LAB / 03 / 2 / 2024

Dated - 31 / 12 / 2024

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **DECEMBER'2024**.
The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	ETP, TCH- Inlet	20.12.24	12:30 PM	26	8.3	164	816	29.1	264	1.4
2	ETP, TCH- Outlet	20.12.24	12:35 PM	25	8.1	39	786	4.9	54	0.5
3	ETP, Garage- Inlet	20.12.24	01:35 PM	25	8.3	142	941	30.5	310	3.6
4	ETP, Garage- Outlet	20.12.24	01:40 PM	24	8.0	32	894	7.1	88	1.6
5	Final Settling Pond JCPP	20.12.24	09:55 AM	Dry Pond						

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.



Lab.Assistant (Environment)



Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- **October'24 to March'25**)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Area Manager, Jamadoba Colliery
Area Manager, Digwadih Colliery
Area Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / / 2024

Dated - / / 2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **DECEMBER'2024**
The results are as given below:

S. No	Location (Final Discharge Point) (Mine's Water)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	20.12.24	09:30 AM	No Discharge						
2	3 Pit Jamadoba Colliery	20.12.24	09:45 AM	32	7.7	36	837	3.4	42	0.9
3	2 Incline Jamadoba Colliery	20.12.24	10:20 AM	No Discharge						
4	6 & 7 Pits Colliery	20.12.24	12:15 PM	30	7.5	21	912	2.8	68	0.8
5	Digwadih Colliery	20.12.24	11:55 AM	No Discharge						

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.


Lab.Assistant (Environment)


Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- **October'24 to March'25**)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant
Area Manager Jamadoba Colliery
Area Manager Digwadih Colliery

Ref. No. - JMB / ENV / LAB / 03 / 813 / 2024

Dated - 31 / 12 / 2024

Sub: STP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **DECEMBER'2024**
The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	STP, Jmb. Canteen- Inlet	20.12.24	01:15 PM	25	7.9	126	924	35.7	338	2.9
2	STP, Jmb. Canteen- Outlet	20.12.24	01:20 PM	24	7.6	34	810	4.8	65	0.9
3	STP, JCPP Canteen- Inlet	20.12.24	12:55 PM	25	8.0	135	873	32.4	284	3.5
4	STP, JCPP Canteen- Outlet	20.12.24	01:00 PM	24	7.5	29	712	6.4	72	0.8
5	STP, Railway Colony- Inlet	20.12.24	10:40 AM	26	8.1	143	987	30.1	294	3.5
6	STP, Railway Colony-Outlet	20.12.24	10:45 AM	25	7.9	22	855	5.2	87	1.0
7	STP, Digwadih 12 No. Officer's colony-Inlet	20.12.24	11:10 AM	26	8.0	167	987	36.4	316	3.7
8	STP, Digwadih 12 No. Officer's colony- Outlet	20.12.24	11:15 AM	25	7.7	36	845	5.9	79	0.8
9	STP, Digwadih 12 No. Supervisor flat - Inlet	20.12.24	11:30 AM	25	8.2	128	1016	34.0	284	3.7
10	STP, Digwadih 12 No. Supervisor flat -Outlet	20.12.24	11:35 AM	24	7.8	31	910	7.2	90	0.9

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.


Lab.Assistant (Environment)


Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- **October'24 to March'25**)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant
Area Manager Jamadoba Colliery
C.M.O, TCH, Jamadoba

Ref. No. - JMB / ENV / LAB / 03 / 31 / 2025

Dated - 31 / 01 / 2025

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **JANUARY'2025**.
The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	ETP, TCH- Inlet	13.01.25	10:45 AM	27	8.2	108	824	28.6	276	1.6
2	ETP, TCH- Outlet	13.01.25	10:50 AM	26	8	32	774	5.1	72	0.4
3	ETP, Garage- Inlet	13.01.25	01:20 PM	26	8.1	135	976	31.3	284	3.8
4	ETP, Garage- Outlet	13.01.25	01:25 PM	25	7.9	29	872	6.8	76	1.2
5	Final Settling Pond JCPP	13.01.25	09:50 AM	Dry Pond						

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.


Lab.Assistant (Environment)


Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- **October'24 to March'25**)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Area Manager, Jamadoba Colliery
Area Manager, Digwadih Colliery
Area Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / 30 / 2025

Dated - 31 / 01 / 2025

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **JANUARY'2025**.
The results are as given below:

S. No	Location (Final Discharge Point) (Mine's Water)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	13.01.25	09:20 AM	No Discharge						
2	3 Pit Jamadoba Colliery	13.01.25	09:35 AM	32	7.6	23	796	3.2	72	0.7
3	2 Incline Jamadoba Colliery	13.01.25	10:05 AM	No Discharge						
4	6 & 7 Pits Colliery	13.01.25	11:10 AM	30	7.7	21	874	2.5	62	0.5
5	Digwadih Colliery	13.01.25	12:15 PM	32	7.8	36	916	2.7	80	0

All the parameters are within the limit, and you are requested to maintain the same.
This is for your information and necessary action please.


Lab.Assistant (Environment)


Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- **October'24 to March'25**)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant
Area Manager Jamadoba Colliery
Area Manager Digwadih Colliery

Ref. No. - JMB / ENV / LAB / 03 / 29 / 2025

Dated - 31/01/2025

Sub: STP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **JANUARY'2025**.
The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	STP, Jmb. Canteen- Inlet	13.01.25	01:05 PM	26	8.1	122	918	34.8	332	3.1
2	STP, Jmb. Canteen- Outlet	13.01.25	01:10 PM	25	7.8	25	779	4.5	84	0.7
3	STP, JCPP Canteen- Inlet	13.01.25	12:40 PM	26	7.9	164	857	31.2	296	3.2
4	STP, JCPP Canteen- Outlet	13.01.25	12:45 PM	25	7.6	26	772	5.7	102	0.3
5	STP, Railway Colony- Inlet	13.01.25	10:25 AM	27	8.3	128	971	32.2	319	3.8
6	STP, Railway Colony-Outlet	13.01.25	10:30 AM	26	8.0	36	832	5.8	98	1.2
7	STP, Digwadih 12 No. Officer's colony-Inlet	13.01.25	11:30 AM	27	8.0	141	974	34.2	260	3.5
8	STP, Digwadih 12 No. Officer's colony- Outlet	13.01.25	11:35 AM	26	7.6	34	836	5.7	62	0.2
9	STP, Digwadih 12 No. Supervisor flat - Inlet	13.01.25	11:50 AM	26	8.1	152	987	33.6	324	3.8
10	STP, Digwadih 12 No. Supervisor flat -Outlet	13.01.25	11:55 AM	25	7.9	22	896	6.9	106	0.7

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.


Lab.Assistant (Environment)


Manager (Environment)

TATA STEEL LIMITED
JHARIA DIVISION

Well Water Quality Report of Jamadoba Group for the month of JANUARY'2025

JAMADOBA GROUP

S.No	Date	Location	Time	Depth in meter	pH	Electrical Conductivity $\mu\text{S/m}$
1	24.01.25	Purnadih (Jorapokhar)	09:55 AM	4.45	7.2	1236
2	24.01.25	Bhowra 13 No	10:15 AM	1.82	7.3	1024
3	24.01.25	Mohalbani Basti	02:10 PM	2.46	7.4	1082
4	24.01.25	Digwadih 10 No F & J	10:40 AM	1.95	7.5	1726
5	24.01.25	Kalimela Shivmandir	01:30 PM	1.13	7.3	908
6	24.01.25	Kalimela Kalimandir	01:45 PM	3.47	7.4	1339
7	24.01.25	Lower Dungari	01:10 PM	3.85	7.2	762
8	24.01.25	Upper Dungari	12:45 PM	1.98	7.4	768
9	24.01.25	Pattia Basti	12:25 PM	3.72	7.2	905
10	24.01.25	Kenduadih Basti	12:05 PM	1.67	7.3	968
11	24.01.25	Jorapokhar Kushtand	11:20 AM	4.15	7.2	1708
12	24.01.25	6&7 Pits (Ayodhya Nagri)	11:40 AM	1.97	7.3	1216
13	24.01.25	Jorapokhar Basti Chhattand	10:55 AM	1.27	7.2	1372
14	24.01.25	Jorapokhar Babu Basa	09:40 AM	2.21	7.4	1176

P. Mahabo.

Lab.Assistant (Environment)

Chmsh

Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- **October'24 to March'25**)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant
Area Manager Jamadoba Colliery
C.M.O, TCH, Jamadoba

Ref. No. - JMB / ENV / LAB / 03 / *87* / 2025

Dated - *28/02* / 2025

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **FEBRUARY'2025**.
The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	ETP, TCH- Inlet	26.02.25	10:50 AM	28	8.2	135	914	29.8	294	1.3
2	ETP, TCH- Outlet	26.02.25	10:55 AM	27	7.9	29	846	5.6	72	1.0
3	ETP, Garage- Inlet	26.02.25	01:25 PM	27	8.0	163	872	30.2	306	3.1
4	ETP, Garage- Outlet	26.02.25	01:30 PM	26	7.8	33	715	7.2	74	1.7
5	Final Settling Pond JCPP	26.02.25	09:55 AM	Dry Pond						

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

P. Mahato

Lab.Assistant (Environment)

Umesh

Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- **October'24 to March'25**)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Area Manager, Jamadoba Colliery
Area Manager, Digwadih Colliery
Area Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / *85* / 2025
Dated - *28/02/2025*

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **FEBRUARY'202**
The results are as given below:

S. No	Location (Final Discharge Point) (Mine's Water)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	26.02.25	09:25 AM	No Discharge						
2	3 Pit Jamadoba Colliery	26.02.25	09:40 AM	30	7.5	20	896	2.1	86	1.2
3	2 Incline Jamadoba Colliery	26.02.25	10:10 AM	No Discharge						
4	6 & 7 Pits Colliery	26.02.25	11:15 AM	No Discharge						
5	Digwadih Colliery	26.02.25	12:20 PM	No Discharge						

All the parameters are within the limit, and you are requested to maintain the same.
This is for your information and necessary action please.


Lab.Assistant (Environment)


Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- October'24 to March'25)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant
Area Manager Jamadoba Colliery
Area Manager Digwadih Colliery

Ref. No. - JMB / ENV / LAB / 03 / 86 / 2025

Dated - 28/02/2025

Sub: STP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of FEBRUARY'2025
The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	STP, Jmb. Canteen- Inlet	26.02.25	01:10 PM	27	8.0	154	998	36.1	320	?
2	STP, Jmb. Canteen- Outlet	26.02.25	01:15 PM	26	7.6	38	906	8.7	98	1.4
3	STP, JCPP Canteen- Inlet	26.02.25	12:45 PM	28	8.1	132	836	33.4	327	2.9
4	STP, JCPP Canteen- Outlet	26.02.25	12:50 PM	27	7.8	25	760	7.4	144	1.7
5	STP, Railway Colony- Inlet	26.02.25	10:30 AM	28	8.0	167	1036	35.4	336	3.4
6	STP, Railway Colony-Outlet	26.02.25	10:35 AM	27	7.6	41	996	8.9	82	1.5
7	STP, Digwadih 12 No. Officer's colony-Inlet	26.02.25	11:35 AM	28	8.2	127	1016	33.1	290	3.8
8	STP, Digwadih 12 No. Officer's colony- Outlet	26.02.25	11:40 AM	27	8.0	32	910	6.5	68	1.3
9	STP, Digwadih 12 No. Supervisor flat - Inlet	26.02.25	11:55 AM	27	8.2	173	1038	31.9	296	2.9
10	STP, Digwadih 12 No. Supervisor flat -Outlet	26.02.25	12:05 PM	26	7.8	39	987	7.8	84	1.9

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

P. Mahabo.

Lab.Assistant (Environment)

Umesh

Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- **October'24 to March'25**)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant
Area Manager Jamadoba Colliery
C.M.O, TCH, Jamadoba

Ref. No. - JMB / ENV / LAB / 03 / 145 / 2025

Dated - 07/04/2025

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **MARCH'2025**.
The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	ETP, TCH- Inlet	24.03.25	02:00 PM	27	8.3	147	935	31.7	286	2.1
2	ETP, TCH- Outlet	24.03.25	02:05 PM	26	8.0	39	822	5.2	98	1.2
3	ETP, Garage- Inlet	24.03.25	12:45 PM	27	8.1	163	867	29.5	316	3.5
4	ETP, Garage- Outlet	24.03.25	12:50 PM	26	7.9	24	754	6.8	106	1.3
5	Final Settling Pond JCPP	24.03.25	04:35 PM	Dry Pond						

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.



Lab.Assistant (Environment)



Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- **October'24 to March'25**)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Area Manager, Jamadoba Colliery
Area Manager, Digwadih Colliery
Area Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / 147 / 2025

Dated - 07/04/2025

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **MARCH'2025**.
The results are as given below:

S. No	Location (Final Discharge Point) (Mine's Water)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	24.03.25	05:05 PM	No Discharge						
2	3 Pit Jamadoba Colliery	24.03.25	04:50 PM	32	7.6	26	874	2.3	84	1.4
3	2 Incline Jamadoba Colliery	24.03.25	04:15 PM	No Discharge						
4	6 & 7 Pits Colliery	24.03.25	02:20 PM	No Discharge						
5	Digwadih Colliery	24.03.25	02:40 PM	No Discharge						

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.


Lab.Assistant (Environment)


Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- October'24 to March'25)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant
Area Manager Jamadoba Colliery
Area Manager Digwadih Colliery

Ref. No. - JMB / ENV / LAB / 03 / 146 / 2025
Dated - 07/04 / 2025

Sub: STP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **MARCH'2025**. The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	STP, Jmb. Canteen- Inlet	24.03.25	12:30 PM	28	7.9	133	954	35.2	316	3.9
2	STP, Jmb. Canteen- Outlet	24.03.25	12:35 PM	27	7.5	28	872	7.2	116	0.8
3	STP, JCPP Canteen- Inlet	24.03.25	01:40 PM	28	8.0	143	824	35.1	298	3.5
4	STP, JCPP Canteen- Outlet	24.03.25	01:45 PM	27	7.7	31	728	6.9	112	1.4
5	STP, Railway Colony- Inlet	24.03.25	03:45 PM	27	8.1	141	936	36.8	328	3.6
6	STP, Railway Colony-Outlet	24.03.25	03:50 PM	26	7.7	21	872	8.2	86	1.0
7	STP, Digwadih 12 No. Officer's colony-Inlet	24.03.25	03:15 PM	27	8.0	164	974	35.5	312	2.9
8	STP, Digwadih 12 No. Officer's colony- Outlet	24.03.25	03:20 PM	26	7.8	27	873	6.4	114	1.5
9	STP, Digwadih 12 No. Supervisor flat - Inlet	24.03.25	02:55 PM	27	7.9	135	1024	33.1	260	2.5
10	STP, Digwadih 12 No. Supervisor flat -Outlet	24.03.25	03:00 PM	26	7.6	34	946	7.3	94	1.2

All the parameters are within the limit, and you are requested to maintain the same.
This is for your information and necessary action please.


Lab.Assistant (Environment)


Manager (Environment)