The Deputy Director General of Forests (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/LMSL/60/247/2025
May 28th, 2025

Ref.: Environmental Clearance letter No.-J-11015/426/2008-IA.II(M),Dated-27th February,2013.

SUB: Half Yearly Compliance Status Report of Environment Clearance conditions issued by MoEFCC, New Delhi to Lagla Mahal Sand Lease, 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-11015/426/2008-IA.II (M), Dated-27th February,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/MIN/20492/2011
Compliance ID	128150817
Compliance Number(For Tracking)	EC/M/COMPLIANCE/128150817/2025
Reporting Year	2025
Reporting Period	01 Jun(01 Oct - 31 Mar)
Submission Date	30-05-2025
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	Lagla and Mahal Sand Lease Mining Project of M/s. Tata Steel Ltd., located in Village Lagla and Mahal, Dist. Bokaro, Jharkjhand
Name of Entity / Corporate Office	Tata Steel Ltd.
Village(s)	N/A
District	BOKARO

Proposal No.	IA/JH/MIN/20492/2011
Plot / Survey / Khasra No.	N/A
State	JHARKHAND
MoEF File No.	J-11015/426/2008-IA.II(M)

Category	Non-Coal Mining
Sub-District	N/A
Entity's PAN	*****2803M
Entity name as per PAN	UTSAV KASHYAP

Compliance Reporting Details

Reporting Year	2025
Remarks (if any)	Half Yearly Compliance Submission for October 2024 to March 2025.
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	0	0
Revenue Land	0	0
Forest	0	0
Others	10.92	10.92
Total	10.92	10.92

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Sand	Million Tons per Annum (MTPA)	N/A	0.1	0	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	The project proponent shall obtain Consent to Establish and Consent to Operate from the Jharkhand State Pollution Control Board, and effectively implement all the conditions stipulated therein.
PPs Submission: Complied The Consent to Establish has been granted by JSPCB vide letter no. JSPCB/RO/DHN/CTO-9357577/2021/35 dated 25.03.2021. The current CTO is valid till 31.03.2026. All the conditions as stipulated in the consent are being complied with.		Date: 27/05/2025
2	Statutory compliance	The project proponent shall comply with section 3 of the Mines Act.
PPs Submission: Complied It is being complied.		Date: 27/05/2025
3	MISCELLANEOUS	Sand collection shall be done at the middle/ main stream and not at the bank of the river to avoid any change of the river course due to the project.
PPs Submission: Complied Sand excavation is done by leaving 1/5th of the width of the river intact for maintaining the embankment. It will be ensured that no change in the river course takes place.		Date: 27/05/2025
4	AIR QUALITY MONITORING AND PRESERVATION	Particulate level (PM2.5) shall be monitored regularly and the result placed in the public domain.
PPs Submission: Complied Monitoring of PM2.5 has been carried out in this period. The report is given as Annexure-I.		Date: 27/05/2025
5	GREENBELT	The project proponent shall identify the degraded area within the mine lease and undertake plantation/afforestation in the area identified by planting the native species.
PPs Submission: Complied The mine lease area is a riverbed. Hence, we approach the villagers and assist them in planting the native species as well as fruit plants in the villages. Some of the native species are Pipal, Ber, Jamun, Alostromia, Palash, Karanj, Kadamb etc.		Date: 27/05/2025
6	AIR QUALITY MONITORING AND PRESERVATION	Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out of haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
PPs Submission: Complied It is being complied. Water spraying is done on the transportation roads on regular basis. The ambient air quality is regularly monitored and analyses by own as well as by NABL and JSPCB recognized lab and conform to the prescribed standards. Reports are enclosed as Annexure-I.		Date: 27/05/2025

7	Statutory compliance	The project proponent shall undertake adequate safeguard measures during extraction of river bed material and ensure that due to this activity the hydrogeological regime of the surrounding area shall not be affected. Regular monitoring of ground water level and quality shall be carried out around the mine lease area by establishing a network of existing well and installing new piezometers during the mining operation. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office Bhubaneswar, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity, necessary corrective measures shall be carried out.

PPs Submission: Complied The extraction of sand is done with utmost care of the environment. There is no extraction of water as well as no change in river course involved hence there will be no impact on the hydrogeological regime. The monitoring report of the ground water level and quality is given as Annexure-I.	Date: 27/05/2025

8	WATER QUALITY MONITORING AND PRESERVATION	The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite of water (surface water and groundwater), if any, required for the project.

PPs Submission: Complied No water is required for the operation of project. Drinking water required by the workers is arranged by the company.	Date: 27/05/2025

9	MISCELLANEOUS	Appropriate mitigative measures shall be taken to prevent pollution of the river in consultation with the State Pollution Control Board. It shall be ensured that there is no leakage of oil and grease in the river from the vehicles used for transportation.

PPs Submission: Complied Adequate monitoring of the health of the vehicles used for transportation of sand is ensured to avoid any oil and grease leakage. Higher capacity trucks have been deployed. Without valid fitness certificates and PUC, the vehicles are not allowed to ply, and it is regularly checked.	Date: 27/05/2025

10	AIR QUALITY MONITORING AND PRESERVATION	Vehicular emissions shall be kept under control and regularly monitored. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.

PPs Submission: Complied The vehicles used are regularly checked and maintained. Only vehicles having PUC certificates are allowed. Transportation of sand is always done via tarpaulin-covered trucks which are optimally loaded. This is monitored whenever vehicles enter premises at weighbridge	Date: 27/05/2025

11	AIR QUALITY MONITORING AND PRESERVATION	No drilling and blasting operation shall be carried out.

PPs Submission: Complied Not applicable as it is a sand mining project.	Date: 27/05/2025

12	AIR QUALITY MONITORING AND	Mineral handling area shall be provided with the adequate number of high efficiency dust extraction system. Loading and unloading

	PRESERVATION	areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
PPs Submission: Complied Sand, being coarse in nature and having high moisture content, does not get air borne during gathering and transportation. Sand stored in the sand yards is transferred to underground voids through surface bunkers in a slurry form. However, dust control measures while transporting of sand is in place through water tanker, coverage of trucks and optimal loading.		Date: 27/05/2025
13	Human Health Environment	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
PPs Submission: Complied The workers are from the neighboring villages and hence new housing facilities are not required.		Date: 27/05/2025
14	Statutory compliance	The critical parameters such as RSPM (Particulate matter with size less than 10 micron i.e., PM10) and NOx in the ambient air within the impact zone shall be monitored periodically. Further, quality of discharge water shall also be monitored [(TDS, DO, PH, Fecal Coliform and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the company in public domain. The Circular No. J-20012/1/2006-IA.II(M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.
PPs Submission: Complied The monitoring of the air parameters has been done in this period. There is no use of water for mining operation hence there is no discharge. Details of air quality monitoring are given in Annexure-I. The monitoring reports are regularly uploaded on companies website along with half-yearly EC compliance reports.		Date: 27/05/2025
15	MISCELLANEOUS	The Company shall submit within 3 months their policy towards Corporate Environment Responsibility which should inter-alia provide for (i) Standard operating process / process to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions, (ii) Hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions and (iii) System of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders.
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. The environment management cell directly reports to General Manager and it is reviewed on weekly basis. We have an online system to monitor the statutory requirements and compliance in time. This is reviewed by Board of Directors at companies level.		Date: 27/05/2025
16	Human Health Environment	Periodical medical examination of the workers engaged in the

		project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.

PPs Submission: Complied As per our policy, PMEs (Periodical Medical Examination) are conducted at regular intervals.	Date: 27/05/2025

General Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and forests.

PPs Submission: Complied It is being complied with.	Date: 27/05/2025

2	Statutory compliance	No change in the calendar plan including excavation, quantum of sand from river bed and waste should be made.

PPs Submission: Complied It is being complied with.	Date: 27/05/2025

3	MISCELLANEOUS	Conservation measures for protection of flora and fauna in the core & buffer zone should be drawn up in consultation with the local forest and wildlife department and effectively implemented.

PPs Submission: Complied No rare species are found in the area.	Date: 27/05/2025

4	AIR QUALITY MONITORING AND PRESERVATION	At least four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10micron i.e., PM10) and NOx monitoring. Location of stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.

PPs Submission: Complied The monitoring stations have been established and monitoring jobs are being performed regularly. The ambient air quality analysis reports are attached as Annexure-I.	Date: 27/05/2025

5	AIR QUALITY MONITORING AND PRESERVATION	Data on ambient air quality [(RSPM(Particulate matter with size less than 10micron i.e., PM10) and NOx] should be regularly submitted to the Ministry including its regional office at Bhubaneswar and to the State Pollution Control Board/ Central Pollution Control Board once in six months.

PPs Submission: Complied It is being submitted as Annexure-I in this compliance report.	Date: 27/05/2025

6	AIR QUALITY MONITORING AND PRESERVATION	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.

	PPs Submission: Complied Sand, being coarse in nature and having high moisture content, does not get air borne during gathering and transportation. However, dust control measures while transporting of sand is in place through water tanker, coverage of trucks and optimal loading.	Date: 27/05/2025
7	Noise Monitoring & Prevention	Measures should be taken for control of noise levels below 85 dBA in work Environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.
	PPs Submission: Complied Proper PPEs are provided to all the workers.	Date: 27/05/2025
8	WATER QUALITY MONITORING AND PRESERVATION	Industrial waste water (Workshop and Waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422(E) dated 19th May 1993 and 31st December 1993 or as amended from time to time. Oil and Grease trap should be installed before discharge of Workshop effluents.
	PPs Submission: Complied No waste water generation will take place.	Date: 27/05/2025
9	Human Health Environment	Personnel working in dusty area should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspect. Occupational Health Surveillance programme of the worker should be undertaken periodically to observe any contraction due to exposure to dust and take corrective measures, if needed.
	PPs Submission: Complied It is being complied during operating hours.	Date: 27/05/2025
10	MISCELLANEOUS	A separate Environmental Management cell with suitable qualified personnel should be set-up under the control of a senior executive, who will report directly to the Head of the Organization.
	PPs Submission: Complied We have a separate Environmental Management Cell with qualified personnels. The reporting of Environmental Cell is directly to General Manager of the Division.	Date: 27/05/2025
11	MISCELLANEOUS	The funds earmarked for environmental protection measures should be kept in separate A/C and should not be diverted for other purposes. Year wise expenditure should be reported to this ministry and its regional office located at Bhubaneswar.
	PPs Submission: Complied Expenditure on Environmental Protection measures is monitored separately. It is provided in the Environment Statement every year. The annual expenditure for the financial year 2023-24 is Rs. 0.403 lakhs for water spraying activities on transport road, plantation and environment monitoring.	Date: 27/05/2025
12	MISCELLANEOUS	The project authorities should inform to the Regional Office located at Bhubaneswar regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
	PPs Submission: Complied The CTE and CTO of the project have been granted by JSPCB. The permission for lifting of sand from the river bed has also been granted by District Mining Officer, Bokaro.	Date: 27/05/2025

13	MISCELLANEOUS	The regional office of this ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The project authorities should extend full co-operation to the officer (s) of the regional office by furnishing the requisite Data/ information/ monitoring reports.

PPs Submission: Complied It will be complied with.	Date: 27/05/2025

14	Statutory compliance	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environment clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the MoEF, its Regional Office Bhubaneswar, the respective zonal office of CPCB and the SPCB. The proponent shall upload the status of compliance of the environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF, Bhubaneswar, the respective Zonal Officer of CPCB and the SPCB.

PPs Submission: Complied It is being complied with. We are uploading the compliance of October -2024 to March-2025 HY Compliance on PARIVESH Portal.	Date: 27/05/2025

15	Statutory compliance	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad/ Municipal Corporation, Urban local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

PPs Submission: Complied It has been complied with.	Date: 27/05/2025

16	Statutory compliance	The State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and the Collector’s Office / Tehsildar’s Office for 30 days.

PPs Submission: Complied The copy of clearance letter has been sent to JSPCB office and its compliance report is also submitted to JSPCB.	Date: 27/05/2025

17	Statutory compliance	The environmental statement for each financial year ending 31st March in Form-V as 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 put on the website of the company along with the status of compliance of environmental clearance conditions and also be sent to the respective Regional Office of the Ministry on Environment and Forests, Bhubaneswar by e-mail.

PPs Submission: Complied The environmental statement for financial year 2023-24 has been submitted to JSPCB on 27th September 2024 vide letter no. JMB/ENV/ESSA/05/562/2024 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.	Date: 27/05/2025

18	Statutory compliance	The project authorities should advertise at least in two local

		newspapers of the District or State in which the project is located and widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue 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 also at website of the Ministry of Environment and Forests at http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bhubaneswar.

PPs Submission: Complied It has been complied with.	Date: 27/05/2025

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)

LAGLA MAHAL SAND LEASE

(CAPACITY: 0.1 MTPA RIVER BED SAND)
VILLAGE: LAGLA & MAHAL, DIST: BOKARO, JHARKHAND

TATA STEEL LIMITED, JHARIA DIVISION

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

ENVIRONMENTAL CLEARANCE GRANTED VIDE LETTER NO. - J-11015/426/2008-IA.II(M) DATED- 27.02.2013 ISSUED BY GOVT. OF INDIA, MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE, NEW DELHI.

Compliance status of Environmental Clearance of Lagla and Mahal Sand Lease Mining project of M/s Tata Steel Ltd., Village Lagla and Mahal, dist. Bokaro, Jharkhand vide MoEFCC Letter no J-11015/426/2008-IA.II (M) dated February 27, 2013

S. No.	Condition	Compliance Status
Specific Condition		
(i)	The project proponent shall obtain Consent to Establish and Consent to Operate from the Jharkhand State Pollution Control Board, and effectively implement all the conditions stipulated therein.	The Consent to Establish has been granted by JSPCB vide letter no. JSPCB/RO/DHN/CTO-9357577/2021/35 dated 25.03.2021. The current CTO is valid till 31.03.2026. All the conditions as stipulated in the consent are being complied with.
(ii)	The project proponent shall comply with section 3 of the Mines Act.	It is being complied.
(iii)	Sand collection shall be done at the middle/ main stream and not at the bank of the river to avoid any change of the river course due to the project.	Sand excavation is done by leaving 1/5th of the width of the river intact for maintaining the embankment. It will be ensured that no change in the river course takes place.
(iv)	Particulate level (PM2.5) shall be monitored regularly and the result placed in the public domain.	Monitoring of PM2.5 has been carried out in this period. The report is given as **Annexure-I.**
(v)	The project proponent shall identify the degraded area within the mine lease and undertake plantation/afforestation in the area identified by planting the native species.	The mine lease area is a riverbed. Hence, we approach the villagers and assist them in planting the native species as well as fruit plants in the villages. Some of the native species are Pipal, Ber, Jamun, Alostromia, Palash, Karanj, Kadamb etc.
(vi)	Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out of haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	It is being complied. Water spraying is done on the transportation roads on regular basis. The ambient air quality is regularly monitored and analyses by own as well as by NABL and JSPCB recognized lab and conform to the prescribed standards. Reports are enclosed as **Annexure-I**.
(vii)	The project proponent shall undertake adequate safeguard measures during extraction of river bed material and	The extraction of sand is done with utmost care of the environment. There is no extraction of water as well as no change in

	ensure that due to this activity the hydrogeological regime of the surrounding area shall not be affected. Regular monitoring of ground water level and quality shall be carried out around the mine lease area by establishing a network of existing well and installing new piezometers during the mining operation. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office Bhubaneswar, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity, necessary corrective measures shall be carried out.	river course involved hence there will be no impact on the hydrogeological regime. The monitoring report of the ground water level and quality is given as **Annexure-I.**
(viii)	The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite of water (surface water and groundwater), if any, required for the project.	No water is required for the operation of project. Drinking water required by the workers is arranged by the company.
(ix)	Appropriate mitigative measures shall be taken to prevent pollution of the river in consultation with the State Pollution Control Board. It shall be ensured that there is no leakage of oil and grease in the river from the vehicles used for transportation.	Adequate monitoring of the health of the vehicles used for transportation of sand is ensured to avoid any oil & grease leakage. Higher capacity trucks have been deployed. Without valid fitness certificates and PUC, the vehicles are not allowed to ply, and it is regularly checked.

(x)	Vehicular emissions shall be kept under control and regularly monitored. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.	The vehicles used are regularly checked and maintained. Only vehicles having PUC certificates are allowed. Transportation of sand is always done via tarpaulin-covered trucks which are optimally loaded. This is monitored whenever vehicles enter premises at weighbridge
(xi)	No drilling and blasting operation shall be carried out.	Not applicable as it is a sand mining project.
(xii)	Mineral handling area shall be provided with the adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.	Sand, being coarse in nature and having high moisture content, does not get air borne during gathering & transportation. Sand stored in the sand yards is transferred to underground voids through surface bunkers in a slurry form. However, dust control measures while transporting of sand is in place through water tanker, coverage of trucks and optimal loading.
(xiii)	Periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.	As per our policy, PME's (Periodical Medical Examination) are conducted at regular intervals.
(xiv)	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	The workers are from the neighboring villages and hence new housing facilities are not required.
(xv)	The critical parameters such as RSPM (Particulate matter with size less than 10 micron i.e., PM10) and NOx in the ambient air within the impact zone shall be monitored periodically. Further, quality of discharge water shall also be monitored [(TDS, DO,	The monitoring of the air parameters has been done in this period. There is no use of water for mining operation hence there is no discharge. Details of air quality monitoring are given in **Annexure-I.** The monitoring reports are regularly uploaded on company's

	PH, Fecal Coliform and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the company in public domain. The Circular No. J-20012/1/2006-IA.II(M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.	website along with half-yearly EC compliance reports.
(xvi)	The Company shall submit within 3 months their policy towards Corporate Environment Responsibility which should inter-alia provide for (i) Standard operating process / process to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions, (ii) Hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions and (iii) System of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders.	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. The environment management cell directly reports to General Manager and it is reviewed on weekly basis. We have an online system to monitor the statutory requirements and compliance in time. This is reviewed by Board of Directors at company's level.

B.	**GENERAL CONDITIONS**	
(i)	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and forests.	It is being complied with.
(ii)	No change in the calendar plan including excavation, quantum of sand	It is being complied with.

	from river bed and waste should be made.	
(iii)	Conservation measures for protection of flora and fauna in the core & buffer zone should be drawn up in consultation with the local forest and wildlife department and effectively implemented.	No rare species are found in the area**.**
(iv)	At least four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10micron i.e., PM10) and NOx monitoring. Location of stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	The monitoring stations have been established and monitoring jobs are being performed regularly. The ambient air quality analysis reports are attached as **Annexure-I.**
(v)	Data on ambient air quality [(RSPM(Particulate matter with size less than 10micron i.e., PM10) and NOx] should be regularly submitted to the Ministry including its regional office at Bhubaneswar and to the State Pollution Control Board/ Central Pollution Control Board once in six months.	It is being submitted as **Annexure-I** in this compliance report.
(vi)	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	Sand, being coarse in nature and having high moisture content, does not get air borne during gathering & transportation. However, dust control measures while transporting of sand is in place through water tanker, coverage of trucks and optimal loading.
(vii)	Measures should be taken for control of noise levels below 85 dBA in work Environment. Workers engaged in	Proper PPE's are provided to all the workers.

	operations of HEMM, etc. should be provided with ear plugs / muffs.	
(viii)	Industrial waste water (Workshop and Waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422(E) dated 19th May 1993 and 31st December 1993 or as amended from time to time. Oil and Grease trap should be installed before discharge of Workshop effluents.	No waste water generation will take place.
(ix)	Personnel working in dusty area should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspect. Occupational Health Surveillance programme of the worker should be undertaken periodically to observe any contraction due to exposure to dust and take corrective measures, if needed.	It is being complied during operating hours.
(x)	A separate Environmental Management cell with suitable qualified personnel should be set-up under the control of a senior executive, who will report directly to the Head of the Organization.	We have a separate Environmental Management Cell with qualified personnel's. The reporting of Environmental Cell is directly to General Manager of the Division.
(xi)	The funds earmarked for environmental protection measures should be kept in separate A/C and should not be diverted for other purposes. Year wise expenditure should be reported to this ministry and its regional office located at Bhubaneswar.	Expenditure on Environmental Protection measures is monitored separately. It is provided in the Environment Statement every year. The annual expenditure for the financial year 2023-24 is Rs. 0.403 lakhs for water spraying activities on transport road, plantation and environment monitoring.
(xii)	The project authorities should inform to the Regional Office located at Bhubaneswar regarding date of financial closures and final approval of the project by the concerned authorities	The CTE and CTO of the project have been granted by JSPCB. The permission for lifting of sand from the river bed has also been granted by District Mining Officer, Bokaro.

	and the date of start of land development work.	
(xiii)	The regional office of this ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The project authorities should extend full co-operation to the officer (s) of the regional office by furnishing the requisite Data/ information/ monitoring reports.	It will be complied with.
(xiv)	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environment clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the MoEF, its Regional Office Bhubaneswar, the respective zonal office of CPCB and the SPCB. The proponent shall upload the status of compliance of the environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF, Bhubaneswar, the respective Zonal Officer of CPCB and the SPCB.	It is being complied with. We are uploading the compliance of October -2024 to March-2025 HY Compliance on PARIVESH Portal.
(xv)	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad/ Municipal Corporation, Urban local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	It has been complied with.
(xvi)	The State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District	The copy of clearance letter has been sent to JSPCB office and its compliance report is also submitted to JSPCB.

	Industry Centre and the Collector's Office / Tehsildar's Office for 30 days.	
(xvii)	The environmental statement for each financial year ending 31st March in Form-V as 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 put on the website of the company along with the status of compliance of environmental clearance conditions and also be sent to the respective Regional Office of the Ministry on Environment and Forests, Bhubaneswar by e-mail.	The environmental statement for financial year 2023-24 has been submitted to JSPCB on 27th September 2024 vide letter no. JMB/ENV/ESSA/05/562/2024 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.
(xviii)	The project authorities should advertise at least in two local newspapers of the District or State in which the project is located and widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue 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 also at website of the Ministry of Environment and Forests at http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bhubaneswar.	It has been complied with.

Annexure- I

Ambient Air Quality and Ground Water Quality Report (Period – October'24 to March'25)

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

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

Ref. No.: - ARDS/24-25/AAQ/1 Date: 30/11/2024

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : TATA STEEL JHARIA DIVISION
  TATA STEEL COLLIERY
  (SAND LEASE AREA, BHOJUDIH)
  DIST. – DHANBA D (JHARKHAND)
- Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 22/11/2024 To 23/11/2024
- Date of Testing : 25/11/2024 To 27/11/2024
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – ICCHAR HIGH SCHOOL				
	Avg. Ambient Temperature	25^0C	Avg. Humidity	52%
Sl No.	Particulars	Value	CPCB STANDARD	
1.	Particulate Matter (PM_{10}), µg/m³	73.97	100 µg/m³	
2.	Particulate Matter ($PM_{2.5}$), µg/m³	43.64	60 µg/m³	
3.	SO_2, µg/m³	18.81	80 µg/m³	
4.	NO_2, µg/m³	27.76	80 µg/m³	
5.	*Ozone*, µg/m³	17.12	180 µg/m³	
6.	NH_3, µg/m³	19.65	400 µg/m³	
7.	CO, mg/m³	0.79	4 mg/m³	
8.	Pb, µg/m³	BDL	1 µg/m³	
9.	As, ng/m³	BDL	6 ng/m³	
10.	Ni, ng/m³	BDL	20 ng/m³	
11.	Benzene, µg/m³	BDL	5 µg/m³	
12.	Benzoapyrene ng/m³	BDL	1 ng/m³	

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/2 Date: 30/11/2024

TEST REPORT OF AMBIENT AIR QUALITY

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  TATA STEEL COLLIERY
  (SAND LEASE AREA, BHOJUDIH)
  DIST. - DHANBAD (JHARKHAND)
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- Date of Sample Collection : 22/11/2024 To 23/11/2024
- Date of Testing : 25/11/2024 To 27/11/2024
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – LAGLA GRAM PANCHYAT				
	Avg. Ambient Temperature	25^0C	Avg. Humidity	52%
Sl No.	Particulars	Value	CPCB STANDARD	
1.	Particulate Matter (PM_{10}), µg/m³	64.28	100 µg/m³	
2.	Particulate Matter ($PM_{2.5}$), µg/m³	38.44	60 µg/m³	
3.	SO_2, µg/m³	16.75	80 µg/m³	
4.	NO_2, µg/m³	26.74	80 µg/m³	
5.	*Ozone*, µg/m³	16.86	180 µg/m³	
6.	NH_3, µg/m³	14.38	400 µg/m³	
7.	CO, mg/m³	0.52	4 mg/m³	
8.	Pb, µg/m³	BDL	1 µg/m³	
9.	As, ng/m³	BDL	6 ng/m³	
10.	Ni, ng/m³	BDL	20 ng/m³	
11.	Benzene, µg/m³	BDL	5 µg/m³	
12.	Benzoapyrene ng/m³	BDL	1 ng/m³	

NOTE: BDL - Below Detection Limit

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Aditi R&D Services

Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/24-25/ AAQ/3 Date: 30/11/2024

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : TATA STEEL JHARIA DIVISION
  TATA STEEL COLLIERY
  (SAND LEASE AREA, BHOJUDIH)
  DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO. : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 22/11/2024 To 23/11/2024
- Date of Testing : 25/11/2024 To 27/11/2024
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – SAHARJURI SCHOOL				
	Avg. Ambient Temperature	25^0C	Avg. Humidity	52%
Sl No.	Particulars	Value	CPCB STANDARD	
1.	Particulate Matter (PM_{10}), µg/m³	62.79	100 µg/m³	
2.	Particulate Matter ($PM_{2.5}$), µg/m³	37.71	60 µg/m³	
3.	SO_2, µg/m³	15.48	80 µg/m³	
4.	NO_2, µg/m³	26.96	80 µg/m³	
5.	*Ozone*, µg/m³	18.20	180 µg/m³	
6.	NH_3, µg/m³	14.88	400 µg/m³	
7.	CO, mg/m³	0.62	4 mg/m³	
8.	Pb, µg/m³	BDL	1 µg/m³	
9.	As, ng/m³	BDL	6 ng/m³	
10.	Ni, ng/m³	BDL	20 ng/m³	
11.	Benzene, µg/m³	BDL	5 µg/m³	
12.	Benzoapyrene ng/m³	BDL	1 ng/m³	

NOTE: BDL - Below Detection Limit

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Aditi R&D Services

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Ref. No.: - ARDS/24-25/ AAQ/4 Date: 30/11/2024

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : TATA STEEL JHARIA DIVISION
  TATA STEEL COLLIERY
  (SAND LEASE AREA, BHOJUDIH)
  DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 22/11/2024 To 23/11/2024
- Date of Testing : 25/11/2024 To 27/11/2024
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – RAILWAY COLONY , BHOJUDIH				
	Avg. Ambient Temperature	25^0C	Avg. Humidity	52%
Sl No.	Particulars	Value	CPCB STANDARD	
1.	Particulate Matter (PM_{10}), µg/m³	73.20	100 µg/m³	
2.	Particulate Matter ($PM_{2.5}$), µg/m³	42.75	60 µg/m³	
3.	SO_2, µg/m³	18.58	80 µg/m³	
4.	NO_2, µg/m³	28.76	80 µg/m³	
5.	*Ozone*, µg/m³	20.81	180 µg/m³	
6.	NH_3, µg/m³	16.43	400 µg/m³	
7.	CO, mg/m³	0.78	4 mg/m³	
8.	Pb, µg/m³	BDL	1 µg/m³	
9.	As, ng/m³	BDL	6 ng/m³	
10.	Ni, ng/m³	BDL	20 ng/m³	
11.	Benzene, µg/m³	BDL	5 µg/m³	
12.	Benzoapyrene ng/m³	BDL	1 ng/m³	

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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:30/11/2024	TATA STEEL JHARIA DIVISION TATA STEEL COLLIERY (SAND LEASE AREA, BHOJUDIH) DIST. - DHANBAD (JHARKHAND)			
Date of Monitoring	Avg. Ambient Temperature (°C)	Average Humidity (%)	Weather Condition	Status of the plant
22/11/2024 To 23/11/2024	25	52	Clear	Not in operational
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	
								Day Time	Night Time
LOCATION	SAND LEASE AREA	MAX	MIN	AVG. dB(A) Leq	MAX	MIN	AVERAGE dB(A) Leq	Residential Area	Residential Area
1.	Lagla Gram Panchayat	64.8	50.4	61.94	49.6	43.8	47.6	65.00	55.00
2.	Saharjuri School	61.7	58.2	60.29	54.7	44.5	52.09		
3.	Icchar High School	59.8	52.7	57.56	43.8	35.4	41.38		
4.	Railway Colony, Bhojudih	60.8	50.3	58.16	48.9	40.3	46.45		

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Ref. No.: - ARDS/24-25/MINER./1 Date: 30/11/2024

TEST REPORT OF MINERALOGICAL COMPOSITION OF PARTICULATE MATTER

- Name of the industry : TATA STEEL JHARIA DIVISION
  TATA STEEL COLLIERY
  (SAND LEASE AREA, BHOJUDIH)
  DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO. : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 23/11/2024
- Date of Testing : 25/11/2024 To 27/11/2024

TEST RESULTS

Sl No.	Particulars	Mineralogical Composition (%)			
		SiO_2	FeO	Al_2O_3	CaO
1.	Lagala Gram Panchayat	1.46	0.05	0.18	1.92
2.	Saharjuri School	1.37	0.04	0.16	1.84

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Ref. No.: - ARDS/24-25/SW/1 Date: 30/11/2024

TEST REPORT OF SURFACE WATER

- Name of the industry : TATA STEEL JHARIA DIVISION
  TATA STEEL COLLIERY
  (SAND LEASE AREA, BHOJUDIH)
  DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO. : 4700126557/932 Date:- 29/05/2024
- Sample Code : 1. Gowai River (Up Stream)
  2. Gowai River (Dn. Stream)
  3. Izri River (Up Stream)
  4. Izri River (Dn. Stream)
- Date of Sample Collection : 23/11/2024
- Date of Testing : 25/11/2024 To 29/11/2024
- Test : pH, TDS, Turbidity, DO, BOD, C l, F, SO_4

TEST RESULT

Sl. No.	PARAMETERS OF TEST	VALUE				Test Method
		Gowai River (Up Stream)	Gowai River (Dn. Stream)	Izri River (Up Stream)	Izri River (Dn. Stream)	
1.	pH	8.0	7.9	7.8	7.9	IS-3025 (P-11): 1983
2.	Total Dissolved Solids, mg/l	295	206	300	304	IS-3025 (P-16): 1984
3.	Turbidity, NTU	1.6	1.5	2.6	3.6	IS-3025 (P-10):1984
4.	Dissolved Oxygen ,mg/l	5.1	5.3	5.4	4.6	IS-3025 (P-38):1989
5.	Bio chemical Oxygen Demand, mg/l	1.2	1.9	0.8	2.0	IS-3025 (P-44):1994
6.	Chloride as Cl, mg/l	21.33	325	25.21	23.27	IS-3025 (P-32):1988
7.	Fluoride as F, mg/l	0.08	0.06	0.04	0.05	IS-3025 (P-60):2008
8.	Sulphate as SO_4, mg/l	32.5	29.7	39.5	38.5	IS-3025 (P-24):1986

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Aditi R&D Services

Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/24-25/AAQ/1 Date: 23/02/2025

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  TATA STEEL COLLIERY
  (SAND LEASE AREA, BHOJUDIH)
  DIST. – DHANBA D (JHARKHAND)
- Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 17/02/2025 To 18/02/2025
- Date of Testing : 19/02/2025 To 22/02/2025
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – ICCHAR HIGH SCHOOL				
	Avg. Ambient Temperature	30°C	Avg. Humidity	21%
Sl No.	Particulars	Value	CPCB STANDARD	
1.	Particulate Matter (PM_{10}), µg/m³	70.27	100 µg/m³	
2.	Particulate Matter ($PM_{2.5}$), µg/m³	41.46	60 µg/m³	
3.	SO_2, µg/m³	17.87	80 µg/m³	
4.	NO_2, µg/m³	26.37	80 µg/m³	
5.	*Ozone*, µg/m³	16.26	180 µg/m³	
6.	NH_3, µg/m³	18.67	400 µg/m³	
7.	CO, mg/m³	0.75	4 mg/m³	
8.	Pb, µg/m³	BDL	1 µg/m³	
9.	As, ng/m³	BDL	6 ng/m³	
10.	Ni, ng/m³	BDL	20 ng/m³	
11.	Benzene, µg/m³	BDL	5 µg/m³	
12.	Benzoapyrene ng/m³	BDL	1 ng/m³	

NOTE: BDL - Below Detection Limit

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Aditi R&D Services

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Aditi R&D Services, Sindri

ADITI R&D SERVICES P.O.- DOMGARH DHANBAD SINDRI INDUSTRIAL AREA

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

Date: 23/02/2025

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- Work Order Ref. NO. : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 17/02/2025 To 18/02/2025
- Date of Testing : 19/02/2025 To 22/02/2025
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – LAGLA GRAM PANCHYAT				
	Avg. Ambient Temperature	30°C	Avg. Humidity	212%
Sl No.	Particulars	Value	CPCB STANDARD	
1.	Particulate Matter (PM_{10}), µg/m³	61.07	100 µg/m³	
2.	Particulate Matter ($PM_{2.5}$), µg/m³	36.52	60 µg/m³	
3.	SO_2, µg/m³	15.91	80 µg/m³	
4.	NO_2, µg/m³	25.40	80 µg/m³	
5.	*Ozone*, µg/m³	16.02	180 µg/m³	
6.	NH_3, µg/m³	13.66	400 µg/m³	
7.	CO, mg/m³	0.49	4 mg/m³	
8.	Pb, µg/m³	BDL	1 µg/m³	
9.	As, ng/m³	BDL	6 ng/m³	
10.	Ni, ng/m³	BDL	20 ng/m³	
11.	Benzene, µg/m³	BDL	5 µg/m³	
12.	Benzoapyrene ng/m³	BDL	1 ng/m³	

NOTE: BDL - Below Detection Limit

Sr. Chemist
Aditi R&D Services

ADITI R&D SERVICES P.O. DOMGARH DHANBAD SINDRI INDUSTRIAL AREA

Technical Manager
Aditi R&D Services, Sindri

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Annexure- I

Ambient Air Quality and Ground Water Quality Report (Period – October'24 to March'25)

ADITI R&D SERVICES

Testing Laboratory

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

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Mobile: 09471358492, 09431512608

Ref. No.: - ARDS/24-25/ AAQ/3 Date: 23/02/2025

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : TATA STEEL JHARIA DIVISION
  TATA STEEL COLLIERY
  (SAND LEASE AREA, BHOJUDIH)
  DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO. : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 17/02/2025 To 18/02/2025
- Date of Testing : 19/02/2025 To 22/02/2025
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – SAHARJURI SCHOOL				
	Avg. Ambient Temperature	30°C	Avg. Humidity	21%
Sl No.	Particulars	Value	CPCB STANDARD	
1.	Particulate Matter (PM_{10}), µg/m³	59.65	100 µg/m³	
2.	Particulate Matter ($PM_{2.5}$), µg/m³	35.82	60 µg/m³	
3.	SO_2, µg/m³	14.71	80 µg/m³	
4.	NO_2, µg/m³	25.61	80 µg/m³	
5.	*Ozone*, µg/m³	17.29	180 µg/m³	
6.	NH_3, µg/m³	14.14	400 µg/m³	
7.	CO, mg/m³	0.59	4 mg/m³	
8.	Pb, µg/m³	BDL	1 µg/m³	
9.	As, ng/m³	BDL	6 ng/m³	
10.	Ni, ng/m³	BDL	20 ng/m³	
11.	Benzene, µg/m³	BDL	5 µg/m³	
12.	Benzoapyrene ng/m³	BDL	1 ng/m³	

NOTE: BDL - Below Detection Limit

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Aditi R&D Services, Sindri

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Ref. No.: - ARDS/24-25/ AAQ/4 Date: 23/02/2025

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : TATA STEEL JHARIA DIVISION
  TATA STEEL COLLIERY
  (SAND LEASE AREA, BHOJUDIH)
  DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 17/02/2025 To 18/02/2025
- Date of Testing : 19/02/2025 To 22/02/2025
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – RAILWAY COLONY , BHOJUDIH				
	Avg. Ambient Temperature	30°C	Avg. Humidity	21%
Sl No.	Particulars	Value	CPCB STANDARD	
1.	Particulate Matter (PM_{10}), µg/m³	69.54	100 µg/m³	
2.	Particulate Matter ($PM_{2.5}$), µg/m³	40.61	60 µg/m³	
3.	SO_2, µg/m³	17.65	80 µg/m³	
4.	NO_2, µg/m³	27.32	80 µg/m³	
5.	*Ozone*, µg/m³	19.77	180 µg/m³	
6.	NH_3, µg/m³	15.61	400 µg/m³	
7.	CO, mg/m³	0.74	4 mg/m³	
8.	Pb, µg/m³	BDL	1 µg/m³	
9.	As, ng/m³	BDL	6 ng/m³	
10.	Ni, ng/m³	BDL	20 ng/m³	
11.	Benzene, µg/m³	BDL	5 µg/m³	
12.	Benzoapyrene ng/m³	BDL	1 ng/m³	

NOTE: BDL - Below Detection Limit

Sr. Chemist
Aditi R&D Services

ADITI R&D SERVICES P.O. DOMGARH DHANBAD SINDRI INDUSTRIAL AREA

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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	TATA STEEL JHARIA DIVISION TATA STEEL COLLIERY (SAND LEASE AREA, BHOJUDIH) DIST. - DHANBAD (JHARKHAND)			
Date of Monitoring	Avg. Ambient Temperature (°C)	Average Humidity (%)	Weather Condition	Status of the plant
17/02/2025 To 18/02/2025	30	21	Clear	Not in operational
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	
								Day Time	Night Time
LOCATION	SAND LEASE AREA	MAX	MIN	AVG. dB(A) Leq	MAX	MIN	AVERAGE dB(A) Leq	Residential Area	Residential Area
1.	Lagla Gram Panchayat	61.56	47.88	58.73	47.12	41.61	45.26	65.00	55.00
2.	Saharjuri School	58.61	55.29	57.26	46.50	33.63	43.71		
3.	Icchar High School	56.81	47.78	54.31	41.61	38.28	40.26		
4.	Railway Colony, Bhojudih	58.71	51.96	56.53	51.96	42.27	49.39		

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Ref. No.: - ARDS/24-25/MINER./1 Date: 21/02/2025

TEST REPORT OF MINERALOGICAL COMPOSITION OF PARTICULATE MATTER

- Name of the industry : TATA STEEL JHARIA DIVISION
  TATA STEEL COLLIERY
  (SAND LEASE AREA, BHOJUDIH)
  DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO. : 4700126557/932 Date:- 29/05/2024
- Date of Sample Collection : 18/02/2025
- Date of Testing : 19/02/2025 To 20/02/2025

TEST RESULTS

Sl No.	Particulars	Mineralogical Composition (%)			
		SiO_2	FeO	Al_2O_3	CaO
1.	Icchar High School	1.38	0.095	0.17	1.82
2.	Railway Colony, Bhojudih	1.30	0.093	0.15	1.75

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Ambient Air Quality and Ground Water Quality Report (Period – October'24 to March'25)

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Ref. No.: - ARDS/24-25/SW/1 Date: 25/02/2025

TEST REPORT OF SURFACE WATER

- Name of the industry : TATA STEEL JHARIA DIVISION
  TATA STEEL COLLIERY
  (SAND LEASE AREA, BHOJUDIH)
  DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO. : 4700126557/932 Date:- 29/05/2024
- Sample Code : 1. Gowai River (Up Stream)
  2. Gowai River (Dn. Stream)
  3. Izri River (Up Stream)
  4. Izri River (Dn. Stream)
- Date of Sample Collection : 17/02/2025
- Date of Testing : 19/02/2025 To 24/02/2025
- Test : pH, TDS, Turbidity, DO, BOD, C l, F, SO_4

TEST RESULT

Sl. No.	PARAMETERS OF TEST	VALUE				Limit as per IS 2296 Class - C	Test Method
		Gowai River (Up Stream)	Gowai River (Dn. Stream)	Izri River (Up Stream)	Izri River (Dn. Stream)		
1.	pH	7.6	7.8	7.6	7.5	6.5 - 8.5	IS-3025 (P-11): 1983
2.	Total Dissolved Solids, mg/l	322	312	395	402	1500 (Max.)	IS-3025 (P-16): 1984
3.	Turbidity, NTU	1	1	1	1	-	IS-3025 (P-10):1984
4.	Dissolved Oxygen ,mg/l	5.2	5.2	4.9	4.8	4.0 (Min)	IS-3025 (P-38):1989
5.	Bio chemical Oxygen Demand, mg/l	1.4	1.8	1.8	1.9	3.0	IS-3025 (P-44):1994
6.	Chloride as Cl, mg/l	60.1	50.4	83.3	81.4	600 (Max.)	IS-3025 (P-32):1988
7.	Fluoride as F, mg/l	0.3	0.3	0.2	0.2	1.5	IS-3025 (P-60):2008
8.	Sulphate as SO_4, mg/l	26.7	29.5	32.7	29.5	400	IS-3025 (P-24):1986

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Annexure- I

Ambient Air Quality and Ground Water Quality Report (Period – October'24 to March'25)

Ambient Air Quality Analysis Report

Period- October'24 to December'24

Name of Industry : Lagla Mahal Sand Mining Project No. of sampling points : 4

Sampling Location	Date of Sampling/ Weather Condition		
	October'24	November'24	December'24
Mahal School Near Izri River	23.10.2024/ Cloudy	28.11.2024/ Clear	18.12.2024/ Clear
Lagla Gram Panchayat	23.10.2024/ Cloudy	28.11.2024/ Clear	18.12.2024/ Clear
Bagula School	24.10.2024/ Cloudy	29.11.2024/ Clear	19.12.2024/ Clear
Shahar Juri School	24.10.2024/ Cloudy	29.11.2024/ Clear	19.12.2024/ Clear

Location	Latitude/ Longitude	Date	PM_{10}	$PM_{2.5}$	SO_2	NOx
			PM_{10} Level : 24 Hourly Limit-100µg/m^3	$PM_{2.5}$ Level : 24 Hourly Limit-60µg/m^3	SOx Level: 24 Hourly Limit-80µg/m^3	NOx Level: 24 Hourly Limit-80µg/m^3
Mahal School Near Izri River	23°38'06.1'N / 86°23'41.2" E	23.10.2024	66.3	35.2	16.5	22.6
		28.11.2024	67.6	36.7	15.8	20.3
		18.12.2024	62.5	33.4	15.2	19.5
Lagla Gram Panchayat	23°37'21.3" N/ 86°23'35.3" E	23.10.2024	65.8	37.6	16.4	22.7
		28.11.2024	72.3	39.5	16.7	21.5
		18.12.2024	63.5	32.7	15.3	18.7
Bagula School	23°36'27.3" N/ 86°21'59.7" E	24.10.2024	65.7	33.5	17.5	20.2
		29.11.2024	67.8	35.7	15.2	18.7
		19.12.2024	64.2	33.8	16.4	17.4
Shahar Juri School	23°36'26.6" N/ 86°20'58.9" E	24.10.2024	71.3	37.8	17.3	19.5
		29.11.2024	69.6	41.3	18.3	21.3
		19.12.2024	63.5	34.6	15.6	17.8
Minimum			62.5	41.3	18.3	17.4
Maximum			71.3	32.7	15.2	22.7
Average			66.68	35.98	16.35	20.02

Area Manager (Environment)

Annexure- I

Ambient Air Quality and Ground Water Quality Report (Period – October'24 to March'25)

Ambient Air Quality Analysis Report

Period- January'25 to March'25

Name of Industry : Lagla Mahal Sand Mining Project No. of sampling points : 4

Sampling Location	Date of Sampling/ Weather Condition		
	January'25	February'25	March'25
Mahal School Near Izri River	23.01.2025/ Clear	20.02.2025/ Clear	26.03.2025/ Clear
Lagla Gram Panchayat	23.01.2025/ Clear	20.02.2025/ Clear	26.03.2025/ Clear
Bagula School	24.01.2025/ Clear	21.02.2025/ Clear	27.03.2025/ Clear
Shahar Juri School	24.01.2025/ Clear	21.02.2025/ Clear	27.03.2025/ Clear

Location	Latitude/ Longitude	Date	PM_{10}	$PM_{2.5}$	SO_2	NOx
			PM_{10} Level: 24 Hourly Limit-100µg/m^3	$PM_{2.5}$ Level: 24 Hourly Limit-60µg/m^3	SOx Level: 24 Hourly Limit-80µg/m^3	NOx Level: 24 Hourly Limit-80µg/m^3
Mahal School Near Izri River	23°38'06.1'N / 86°23'41.2" E	23.01.2025	64.3	34.6	16.3	21.2
		20.02.2025	65.4	36.5	15.4	19.8
		26.03.2025	62.7	33.5	16.2	19.6
Lagla Gram Panchayat	23°37'21.3" N/ 86°23'35.3" E	23.01.2025	65.6	35.4	15.3	21.4
		20.02.2025	68.3	38.5	17.5	19.7
		26.03.2025	63.6	32.3	15.8	18.4
Bagula School	23°36'27.3" N/ 86°21'59.7" E	24.01.2025	64.3	33.4	16.9	17.8
		21.02.2025	65.2	34.3	17.2	16.5
		27.03.2025	63.4	32.8	16.3	18.2
Shahar Juri School	23°36'26.6" N/ 86°20'58.9" E	24.01.2025	68.7	34.8	15.7	19.3
		21.02.2025	69.8	36.2	17.4	17.6
		27.03.2025	64.6	33.8	14.2	16.2
Minimum			62.7	32.3	14.2	16.2
Maximum			69.8	38.5	17.5	21.4
Average			65.49	34.68	16.18	18.81

Area Manager (Environment)

Annexure- I

Ambient Air Quality and Ground Water Quality Report (Period – October'24 to March'25)

Ground Water Quality Analysis

Ground water level fluctuation in and around Core & Buffer zone area of sand mining lease
Post- Monsoon Season- November'24

S.No	Date	Location	Time	Sample Parameter		
				Depth in meter (m)	pH	Electrical Conductivity, µS/m
1	20.11.2024	Premsinghdih	10:25AM	2.12	7.2	605
2	20.11.2024	Lagla	11:40AM	2.09	7.3	485
3	20.11.2024	Alakdih	11:00AM	1.45	7.2	518
4	20.11.2024	Joradih	12:45 PM	2.12	7.1	560
5	20.11.2024	SEB Quarters	11:50 AM	2.12	7.2	643
6	20.11.2024	Kargali	02:45PM	2.18	7.3	475
7	20.11.2024	Kumargora	01:20PM	1.35	7.2	575
8	20.11.2024	Bhojudih	01:30PM	1.30	7.1	553
9	20.11.2024	Mahal	12:18PM	1.42	7.2	512
10	20.11.2024	Sudamdih	02:15 PM	1.58	7.1	587

Winter Season- January'25

S.No.	Date	Location	Time	Sample Parameter		
				Depth in meter (m)	pH	Electrical Conductivity, µS/m
1	30.01.2025	Premsinghdih	10:15AM	2.55	7.3	607
2	30.01.2025	Lagla	11:42AM	2.45	7.2	525
3	30.01.2025	Alakdih	10:58AM	2.21	7.1	535
4	30.01.2025	Joradih	01:50PM	2.58	7.2	568
5	30.01.2025	SEB Quarters	11:22AM	2.62	7.1	642
6	30.01.2025	Kargali	01:55PM	2.59	7.2	510
7	30.01.2025	Kumargora	11:40PM	1.85	7.2	609
8	30.01.2025	Bhojudih	12:58PM	1.69	7.1	612
9	30.01.2025	Mahal	12:18PM	1.92	7.2	532
10	30.01.2025	Sudamdih	12:12PM	2.09	7.1	578

Area Manager (Environment)

Annexure- I

Ambient Air Quality and Ground Water Quality Report (Period – October'24 to March'25)

Surface Water Quality Analysis

S.No.	Location	Sampling Date	Sampling Time	Temp	pH	TSS	BOD	Oil & Grease
				< 40^{0}C	**5.5 - 9.0**	**100 mg/l**	**30 mg/l**	**10 mg/l**
1.	River Gowai Up Sttream	11.03.2025	10:30AM	28.4	7.7	25	2.2	0.6
2.	River Damodar Down Stream	11.03.2025	10:50AM	29.2	7.6	24	2.1	0.7
3.	Lagla (Pond)	11.03.2025	01:35 PM	27.5	7.4	22	2.3	0.3
4.	Alakhdih(Pond)	11.03.2025	01:46 PM	28.3	7.5	23	2.7	0.4
5.	Joradih (Pond)	11.03.2025	11:55 AM	25.7	7.4	24	2.5	0.3
6.	SEB Quarters (Pond)	11.03.2025	11:20 AM	29.4	7.6	22	2.4	0.2
7.	Kargali (Pond)	11.03.2025	12:40AM	28.5	7.5	23	2.5	0.1
8.	Kumargora (Pond)	11.03.2025	01:00 PM	27.3	7.4	21	2.6	0.3
9.	Bhojudih (Pond)	11.03.2025	12:35 PM	28.2	7.5	23	2.3	0.2

Area Manager (Environment)