

BFC



TSL/MoEF&CC/TS-26/2024-01/451

May 29, 2024

The Director(s)

Ministry of Environment, Forest & Climate Change,
Integrated Regional Office,
A/3, Chandrasekharapur,
Bhubaneswar-751023

Subject: Submission of half yearly EC compliance reports of 256 MW Power Plant of M/s. Tata Steel Limited, Meramandali for the period from October' 2023 to March' 2024.

Reference: EC vide letter No. J-13012/77/2011-IA-II(I); dated: 12.02.2015

Dear Sir,

With reference to the captioned subject and cited reference, we are herewith submitting six monthly compliance reports for the conditions stipulated in the Environmental Clearance of 256 MW power plant M/s. Tata Steel Limited, Meramandali for the period from October' 2023 to March' 2024 along with monitoring reports for your kind perusal.

The soft copies of the aforesaid compliance report are also being sent through mail to roez.bsr-mef@nic.in for your kind information and necessary record please. Also copy of 256 MW power plant EC compliance is being uploaded on MoEF&CC web site on portal <http://environmentalclearance.nic.in>.

Hope, the above are in line with the statutory requirements.

Thanking you

Yours faithfully,

For Tata Steel Limited

Anoop Srivastava
Chief Environment - TSM



- Copy to:**
1. The Zonal Officer, Central Pollution Control Board, Southern Conclave Block, 502, 5th & 6th Floors, 1582 Rajdanga Main Road, Kolkata – 700107.
 2. The Member Secretary, SPCB, Parivesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Odisha, Bhubaneswar-751012
 3. The Regional Officer, State Pollution Control Board, Angul, Odisha.

TATA STEEL LIMITED

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Compliance Status of Environmental Clearance of Expansion of existing 155 MW CPP by installation of (175 + 3X27) 256 MW Power Plant at Tata Steel Works, Meramandali, District Dhenkanal, Odisha vide MoEF&CC Letter no J-13012/77/2011-I-A. II (T) dated 12.02.2015 & its amendment dated 10.02.2020,13.08.2021 & 09.01.2023.

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SL.	STIPULATED CONDITIONS	COMPLIANCE STATUS
i	Vision document specifying prospective plan for the site shall be formulated and submitted to the RO of the Ministry within six months.	<ul style="list-style-type: none"> Vision, Mission and Environment Policy statements have been submitted to the Regional Office, MoEF&CC, BBSR along with the compliance report.
ii	Harnessing solar power within the premises of the plant particularly at available roof tops shall be carried out and status of implementation including actual generation of solar power shall be submitted along with half yearly monitoring report.	<ul style="list-style-type: none"> Power is being co-generated utilizing waste heat from DRI units through WHRBs. Additionally, coke oven and blast furnace gases are also used for generating green power through gas fired boilers utilizing renewal energy source. TERI has been engaged to carryout feasibility study for installation of solar power.
iii	Sulphur and ash contents in the imported coal to be used in the project shall not exceed 0.3% and 6% respectively at any given time. In case of variation of coal quality at any point of time, fresh reference shall be made to the Ministry for suitable amendments to environment clearance condition wherever necessary.	<ul style="list-style-type: none"> Not applicable. As presently gas-based power plant of capacity 165 MW has been commissioned. This plant does not consume coal hence, no ash is being generated. Amendments in environment clearance has been made on 13th Aug'21 for switching of fuel from dual firing (Coal + Mixed gas) to 100 % mixed gas firing.
iv	A long term study of radioactivity and heavy metals contents in coal to be used shall be carried out through a reputed institute and results thereof analyzed every two years and reported along with monitoring reports. Thereafter mechanism for an in-built continuous monitoring for radioactivity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.	<ul style="list-style-type: none"> Not applicable. As presently gas-based power plant of capacity 165 MW has been commissioned. This plant does not consume coal hence, no ash is being generated. Hence, no need no monitor Radioactivity and heavy metals contents in coal and ash.
v	A stack of 220 meter height shall be provided with continuous online monitoring equipments for SO _x , NO _x , PM ₁₀ and PM _{2.5} . Exit velocity of flue gases shall not be less than 22 m / sec. Mercury emissions from stack shall also be monitored on periodic basis.	<ul style="list-style-type: none"> Not applicable. As gas fired boiler has been commissioned instead of CFBC coal boiler. Chimney height 70 m and 40 m is attached to 60 TPH & 125 TPH and 250 TPH respectively. Online monitoring system has been installed for SO_x and NO_x in the stacks. Online data is

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		transmitted to SPCB and CPCB servers through RT-DAS.
vi	High efficiency ESPs shall be installed to ensure that particulate emission does not exceed 50 mg / Nm ³ . Adequate dust extraction system such as cyclones/bag filters and water spraying system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	<ul style="list-style-type: none"> • Not applicable. • As presently gas-based power plant of capacity 165 MW has been commissioned. This plant does not consume coal and particulate matter emission is very less. Hence, no requirement of ESPs.
vii	Adequate dust extraction system such as cyclones / bag filters and water spraying system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	<ul style="list-style-type: none"> • Not applicable. • As presently gas-based power plant of capacity 165 MW has been commissioned. Hence, no coal and ash handling and dust extraction system such as cyclones / bag filters and water spraying system not required.
viii	COC of at least 5.0 shall be adopted	<ul style="list-style-type: none"> • COC in the range of 7 -8 is maintained.
ix	Monitoring of surface water quantity and quality shall also be regularly conducted and records maintained. The monitoring data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of the flow of ground water and records maintained. Monitoring for heavy metals in ground water shall also be undertaken and results/findings submitted along with half yearly monitoring report.	<ul style="list-style-type: none"> • Monitoring of surface water and ground water is being carried out regularly. Monthly monitoring reports are being submitted to the SPCB, Odisha. Last monitoring report was submitted on 10th May 2024. • The summarized data is enclosed as Annexure - I.
x	A well designed rainwater harvesting system shall be put in place within six months, which shall comprise of rain water collection from the built up and open area in the plant premises and detailed records kept of the quantity of water harvested every year and its use.	<ul style="list-style-type: none"> • Earthen pond and HDPE pond have been constructed to harvest rainwater. This water is reused in the process when required. During the period Oct'23 to Mar'24, 75162 m³ of rainwater has been utilized in process. • Surface runoff water collected from DRI & RMHS area are channelized through drains into a series of storage pond for harvesting.
xi	No water bodies including natural drainage system in the area shall be disturbed due to activities associated	<ul style="list-style-type: none"> • No water body or natural drainage system is disturbed. Water body is kept as it is.

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	with the setting up / operation of the power plant.	
xii	Hydrogeology of the area shall be reviewed annually from an institute / organization of repute to assess impact of surface water and ground regime (especially around ash dyke). In case any deterioration is observed, specific mitigation measures shall be undertaken, and report / data of water quality monitored regularly and maintained shall be submitted to the Regional Office of the Ministry.	<ul style="list-style-type: none"> • Not applicable. • As presently gas-based power plant of capacity 165 MW has been commissioned. However, ground water level and quality are being monitored on quarterly basis and hydrogeology study is being carried out by IMMT, Bhubaneswar. The summary of the report is attached as Annexure- II.
xiii	Wastewater generated from the plant shall be treated before discharge to comply limits prescribed by the SPCB / CPCB.	<ul style="list-style-type: none"> • Wastewater generated from the plant is being treated in Effluent Treatment Plant • Treated effluent is being reused in slag granulation, greenery development and low-end application in Blast Furnace & Sinter Plant etc. • The water quality parameters are well within the limit as per the prescribed standard. • Water analysis report is enclosed as Annexure-I.
xiv	Additional soil for leveling of the proposed site shall be generated within the site (to the extent possible) so that natural drainage system of the area is protected and improved.	<ul style="list-style-type: none"> • No additional soil is required for leveling the site.
xv	Prior approval of the Ministry shall be obtained for Mine Void and abandoned stone quarry filling of fly ash based on the outcome of the pilot study for which permission was accorded to the existing units by the Ministry on 05.09.2013 subject to Hon'ble NGT's Order.	<ul style="list-style-type: none"> • We request to withdraw this condition as this is not applicable. We have communicated vide letter No. TSBSL/MoEF&CC/BS-01/2020-01/57 dtd.27.08.20.
xvi	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry. Mercury and other heavy metals (As, Cr, Pb etc) will be monitored in the bottom	<ul style="list-style-type: none"> • Not applicable. • As presently gas-based power plant of capacity 165 MW has been commissioned. This plant does not consume coal hence, no ash is being generated.

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	ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off in low lying areas.	
xvii	Fugitive emission of fly ash (dry or wet) shall be controlled such that no agricultural or non-agricultural land is affected. Damage to any land shall be mitigated and suitable compensation provided in consultation with the local panchayat.	<ul style="list-style-type: none"> • Not applicable. • As presently gas-based power plant of capacity 165 MW has been commissioned. This plant does not consume coal hence, no ash is being generated.
xviii	Ash pond shall be lined up with HDPE/LDPE lining or any other suitable material impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.	
xix	Green belt consisting of three tire of plantation of native species around plant and at least 50 m width shall be raised. Wherever 50 m width is not feasible a 20 m width shall be raised and adequate justification shall be submitted to the Ministry. Tree density shall not be less than 2500 trees per ha with survival rate not less than 80%. Only native species shall be planted and the green belt development shall be expedited.	<ul style="list-style-type: none"> • Green belt development is under progress in and around the plant complex by planting indigenous species as per CPCB guidelines. Till Mar'24, 33 % of area (This includes Plant, R&R and CSR) has been covered under green belt. Rapid afforestation using MiyaWaki method in consultation with IIT, Kharagpur has also been implemented along the boundary wall. • Plantation of saplings are done regularly based on the availability of vacant area. During the period Oct'23 to Mar'24, 6008 nos. of plant have been planted. Proper maintenance of green coverage is being ensured throughout the year.
xx	CSR schemes identified based on Public Hearing issues and need based assessment shall be implemented in consultation with the village panchayat and the District administration starting from the development of the project itself. As part of CSR, prior identification of local employable youth and eventual employment in the project after	<ul style="list-style-type: none"> • The peripheral development is being carried out based on socio economic survey and need based assessment. Based on this, company has provided the facilities of sanitation, drinking water, education, health care, road and communication facilities etc. in surrounding villages. • Various socio-economic development programs covering education, safe drinking

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	imparting relevant training shall be also undertaken. Company shall provide separate budget for community development activities and income generating program.	water, sports and health care etc. are undertaken in nearby villages. • Details breakup of CSR initiatives are enclosed as Annexure-III .
xxi	As committed, a minimum amount of Rs. 40.00 crore shall be earmarked for CSR activities for next five years. For proper and periodic monitoring of CSR activities, a CSR committee or a social audit committee or a suitable credible external agency shall be appointed. CSR activities shall also be evaluated by an independent external agency. This evaluation shall be both concurrent and final	• CSR department has been established to monitor the CSR activities. The CSR activities are based on need-based assessment.
xxii	For proper and periodic monitoring of CSR activities, a CSR committee or a social audit committee or a suitable credible external agency shall be appointed. CSR activities shall also be evaluated by an independent external agency. This evaluation shall be both concurrent and final.	• As per the revised companies Act, 2013 and its amendment, CSR committee has been formed. Evaluation of each specific CSR intervention/activities is monitored & evaluated by the CSR Committee. • Evaluation of the Impact of Corporate Social Responsibility Projects has been carried out by XIMB, Bhubaneswar.
xxiii	An Environmental Cell comprising of at least one expert in environment science/engineering, ecology, occupational health and social science, shall be created preferably at the project site itself and shall be headed by an officer of appropriate superiority and qualification. It shall be ensured that the Head of the Cell shall directly report to the Head of the Plant who would be accountable for implementation of environmental regulations and social impact improvement / mitigation measures.	• Environment Management Department has been established for implementation of stipulated environmental safeguards and control of pollution. • The head of the Environment department and other officers are having Environmental Science/Engineering qualification and adequate experience.

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A	General Conditions:	
i	Space for FGD shall be provided for future installation as may be required.	<ul style="list-style-type: none"> • Not applicable. • As presently gas-based power plant of capacity 165 MW has been commissioned. This plant does not consume coal hence, generation SO₂ is minimum. Hence, FGD is not required.
ii	The treated effluents conforming to the prescribed standards only shall be re-circulated and re-used within the plant. Arrangements shall be made that effluents and storm water do not get mixed	<ul style="list-style-type: none"> • Wastewater is treated in ETP. The treated effluent, conforming to the prescribed standards, are recycled, and reused for slag granulation, dust suppression and green area development.
iii	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt / plantation.	<ul style="list-style-type: none"> • STP of 100 m³ per day has been installed near Blast Furnace-I.
iv	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fire in coal yard especially during summer season. Copy of these measures with full details along with location on plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry.	<ul style="list-style-type: none"> • Not applicable. • As presently gas-based power plant of capacity 165 MW has been commissioned. This plant does not consume coal.
v	Storage facility for auxiliary liquid fuel such as LDO/HFO/LSHS shall be made in the plant area in consultation with the Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.	<ul style="list-style-type: none"> • Not applicable. • LDO/HFO/LSHS is not using for startup activities. Startup activities are being carried out by LPG or COG.
vi	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	<ul style="list-style-type: none"> • Adequate First aid and sanitation arrangements were made during construction phase of the plant and similar facilities are being maintained during operational phase also for the workers and employees.

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vii	Noise level emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 85 dB(A) from the source. For people working in the high noised areas, requisite PPEs like ear plugs/ear muffs etc shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric records and for treatment for any hearing loss including shifting to non-noisy/less noisy areas.	<ul style="list-style-type: none"> Silencers have been provided at boilers to control noise during steam venting. Necessary PPEs are being provided to all the workers working in noisy areas and periodic examination is being conducted for the workers engaged in noisy areas. Noise monitoring is carried out regularly in the work zone areas and reports are enclosed as Annexure-IV.
viii	Regular monitoring of ambient air ground level concentration of SO ₂ , NO _x , PM _{2.5} , PM ₁₀ and Hg shall be carried out in the impact zone and records maintained. If at any stage levels are found to exceed the prescribe limits, necessary control measures shall be provided immediately. The locations of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the regional office of the Ministry. The data shall also be put on the website of the Company.	<ul style="list-style-type: none"> Five manual ambient air quality monitoring stations have been set up in nearby villages for measuring ground level concentrations of PM₁₀, SO₂ and NO_x in consultation with SPCB, Odisha. EC compliance along with all report is being uploaded on the Company's website at http://www.tatasteel.com.
ix	Utilization of 100 % fly ash generated shall be made from 4 th year of operation. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.	<ul style="list-style-type: none"> Not applicable. As presently gas-based power plant of capacity 165 MW has been commissioned. This plant does not consume coal hence, no ash is being generated.
x	Provision shall be made for the housing of contractor workers (as applicable) within the site with all necessary infrastructure facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc.	<ul style="list-style-type: none"> Adequate arrangements of housing for construction workers were made during construction phase of the plant.

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xi	The project proponent shall advertise in at least two local news papers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environment clearance and copies of the clearance letters are available with the SPCB/Committee and may also be seen at website of the Ministry of Environment and Forests at http://envfor.nic.in	<ul style="list-style-type: none"> • Advertisements were circulated in The Telegraph (English daily) dated 15.02.2015 and the Samaya (Oriya daily) dated 15.02.2015. • A copy of the same was submitted to MoEF&CC vide our letter no. BSL/MoEF/BS-02/2015-09 dated 21.02.2015.
xii	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / 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 web site of the Company by the Proponent.	<ul style="list-style-type: none"> • Copy of the environment clearance was submitted to the concerned panchayat, Zila Parishad, District Industry Centre etc.
xiii	The proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of measured data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF, the respective zonal office of CPCB and the SPCB. The criteria pollutant levels namely SPM, RSPM (PM ₁₀ and PM _{2.5}) SO ₂ , NO _x (ambient as well as stack emission) shall be displayed at a convenient location near the main gate of the Company in the public domain.	<ul style="list-style-type: none"> • Status of compliance of the stipulated environment clearance conditions are being uploaded on website and are being sent to the Ministry, CPCB and SPCB. Results of online air quality monitoring are displayed electronically near the main gate. • The last half yearly compliance report was submitted vide letter no. TSL/MoEF&CC/BS-26/2023-02/395 dated 01.12.2023.
xiv	The environment statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the project proponent to the concerned	<ul style="list-style-type: none"> • The Environmental Statement in Form-V is being submitted to SPCB/CPCB/MOEF&CC regularly.

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	SPCB 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 environment clearance conditions and shall also be sent to the respective Regional Office of the Ministry by e-mail.	<ul style="list-style-type: none"> The Environment Statement for the FY 2022-23 was submitted vide letter no. TSL/SPCB/BS-03/2022-14/249, dated 25.09.2023.
xv	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of environment and Forests, its Regional Office, CPCB and SPCB. The project proponent shall upload the status of compliance of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional office of MoEF.	<ul style="list-style-type: none"> Six monthly reports on status of the implementation of the stipulated environmental safeguards are being submitted. Status of compliance with the environmental clearance conditions is being uploaded on the Company's website at http://www.tatasteel.com.
xvi	Regional office of the MoEF will monitor the implementation of the stipulated conditions. A complete set of documents including Environment Impact Assessment report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will upload the compliance status in their website and update the same from time to time at least six monthly basis. Criteria pollutants levels including NOx (from stack and ambient air) shall be displayed at the main gate of the power plant.	<ul style="list-style-type: none"> All the required documents have been already submitted to the Regional Office and will be made available during inspection. Compliance status is uploaded on the website and updated in every six months.
xvii	Separate funds shall be allocated for implementation of environmental protection measures along with item-	<ul style="list-style-type: none"> Adequate funds are being provided by the management for pollution control and to meet recurring costs. Environmental requirements

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	wise break-up. These shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.	<p>are given top priority for fund allocation and approval of capital projects.</p> <ul style="list-style-type: none"> • The funds earmarked for environment pollution control measures are not diverted for any other purpose. • The company has invested adequate capital expenditure to improve mix of clean power & also reduction of carbon emissions.
xviii	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the project authorities and the dates of land development work and commissioning of plant.	<ul style="list-style-type: none"> • Financial closure and financial approval will be communicated to the regional office and the Ministry of MoEF&CC.
xix	Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office / CPCB / SPCB who would be monitoring the compliance on environmental status.	<ul style="list-style-type: none"> • Full cooperation is extended to the Scientists/Officers from the Ministry / Regional Office / CPCB / SPCB who would be monitoring the compliance on environmental status.

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EC transfer from M/s Bhushan Steel Limited to Tata Steel BSL Limited		
SL	ADDITIONAL CONDITION	COMPLIANCE STATUS
i.	M/s Tata Steel BSL Ltd. (new incumbent) shall submit an application for amendment in EC for switching from 50% coal & 50% mix gases from Steel plant to 100% mix gases from steel plant for stipulation of adequate conditions on pollution control measures by the Ministry.	<ul style="list-style-type: none"> Amendment EC has been obtained for switching from 50% coal & 50% mixed gases from Steel plant to 100% mixed gases.
ii	The revised emission standards and specific water consumption as per the Ministry's Notification vide S.O.33.5 dated 17.12.2015 and subsequent amendments shall be complied with. The progress of implementation of new emission standards as per the extended timelines given by CPCB vide Order dated 16.04.2018 shall be submitted as part of compliance report.	<ul style="list-style-type: none"> The revised emission standards and specific water consumption as per the Ministry's Notification vide S.O.33.5 dated 17.12.2015 and subsequent amendments is being complied with.
iii	Details of quantity of water consumption, power generation and Specific water consumption shall be submitted as part of compliance report.	<ul style="list-style-type: none"> Water consumption, power generation and specific water consumption for the period Oct'23 to Mar'24 are given below. Power Generation: 528158 MWh Average Specific water consumption: 3.00 m³/MWh (BFPP-I: 3.39 m³/MWh & BFPP-II: 2.62 m³/MWh)
iv	The status of case (CC case No.16/2014) filed before Hon'ble Sub Divisional Judicial Magistrate, Dhenkanal against Shri Neeraj Singhal, M/s Bhushan Steel Ltd. shall also be communicated to the Ministry.	<ul style="list-style-type: none"> Case is sub-judice at Hon'ble Sub Divisional Judicial Magistrate, Dhenkanal and pending for Supply of Prosecution Report.

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Amendment Environment clearance of 256 MW power plant Letter no.: J-13012/77/2011-I-A. II (T) dated 13.08.2021		
SL	ADDITIONAL CONDITION	COMPLIANCE STATUS
1	Project Proponent shall submit Compliance report to Ministry Regional office within 6 months.	<ul style="list-style-type: none">• Certificate of compliance to Regional Office of MoEF& CC has already been communicated vide letter No.TSL/MoEF &CC/BS-26/2022-02/202 dtd. 13.05.22.

LIST OF ENCLOSURES

Sl. No.	Enclosure	Details
1.	Annexure -I	Water Analysis Report
2.	Annexure -II	Hydrogeology Report
3.	Annexure -III	CSR Report
4.	Annexure -IV	Ambient & Work zone Noise Report

Summary of Surface Water Quality Analysis

(Period: From October 2023 to December 2023)

S.N	Parameter	Unit	Kishinda Nala		Lingra Nala		Brahamani River	
			U/S	D/S	U/S	D/S	U/S	D/S
1	pH Value	-	6.88-7.4	6.62-7.50	6.69-7.50	6.69-7.12	6.87-7.58	6.69-7.0
2	Colour	Hazen	BDL(DL:0.005)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)
3	Temperature	Deg C	25-25.4	25-25.2	25-25.2	25-25.2	25-25.2	25-25.2
4	Total Suspended Solids	mg/l	10.6-24.1	2.8-28.5	2.8-5.6	4.2-5.2	4.2-30.2	4.1-40.8
5	Arsenic as As	mg/l	BDL(DL:0.005)	BDL(DL:0.005)	BDL(DL:0.005)	BDL(DL:0.005)	BDL(DL:0.005)	BDL(DL:0.005)
6	BOD, 3days at 27°C	mg/l	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)	BDL(DL:2.0)
7	Boron as B	mg/l	BDL(DL:0.25)	BDL(DL:0.25)	BDL(DL:0.25)	BDL(DL:0.25)	BDL(DL:0.25)	BDL(DL:0.25)
8	Cadmium as Cd	mg/l	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)
9	Calcium as Ca	mg/l	24-64.64	24.48-40	40-40.8	40-40.8	16.6-24.48	16.6-24.48
10	Chlorides as Cl	mg/l	19.79-39.59	19.79-29.69	19.79-29.69	24.74-29.69	14.85-19.79	14.85-19.79
11	COD	mg/l	11.52-23	7.7-19.2	7.7-11.5	11.5-15.4	15.4-19.2	19.2-30.7
12	Copper (as Cu)	mg/l	BDL(DL:0.02)	BDL(DL:0.02)	BDL(DL:0.02)	BDL(DL:0.02)	BDL(DL:0.02)	BDL(DL:0.02)
13	Cyanide as CN	mg/l	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)

14	Fluoride as F-	mg/l	0.89-4.45	0.25-0.92	0.25-0.39	0.28-0.30	0.21-0.32	0.24-0.35
15	Hexa Chromium as Cr +6	mg/l	BDL(DL:.01)	BDL(DL:.01)	BDL(DL:.01)	BDL(DL:.01)	BDL(DL:.01)	BDL(DL:.01)
16	Iron as Fe	mg/l	0.34-3.1	0.08-1.8	0.08-0.28	0.28-0.30	0.18-2.59	0.16-3.07
17	Lead (as Pb)	mg/l	BDL(DL:0.005)	BDL(DL:0.005)	BDL(DL:0.005)	BDL(DL:0.005)	BDL(DL:0.005)	BDL(DL:0.005)
18	Manganese (as Mn)	mg/l	BDL(DL:0.02)	BDL(DL:0.02)	BDL(DL:0.02)	BDL(DL:0.02)	BDL(DL:0.02)	BDL(DL:0.02)
19	Mercury (as Hg)	mg/l	BDL(DL:0.0002)	BDL(DL:0.0002)	BDL(DL:0.0002)	BDL(DL:0.0002)	BDL(DL:0.0002)	BDL(DL:0.0002)
20	Nickel (as Ni)	mg/l	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
21	O&G	mg/l	BDL(DL:1.4)	BDL(DL:1.4)	BDL(DL:1.4)	BDL(DL:1.4)	BDL(DL:1.4)	BDL(DL:1.4)
22	Phenolic Comp	mg/l	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)
23	Phosphate as P	mg/l	0.08-0.16	0.08-0.1	0.1-0.11	BDL(DL:0.05)	0.08-0.12	0.11-0.15
24	RFC	mg/l	BDL(DL:0.1)	BDL(DL:0.1)	BDL(DL:0.1)	BDL(DL:0.1)	BDL(DL:0.1)	BDL(DL:0.1)
25	Selenium (as Se)	mg/l	BDL(DL:0.005)	BDL(DL:0.005)	BDL(DL:0.005)	BDL(DL:0.005)	BDL(DL:0.005)	BDL(DL:0.005)
26	TKN	mg/l	BDL(DL:.3)	BDL(DL:.3)	BDL(DL:.3)	BDL(DL:.3)	BDL(DL:.3)	BDL(DL:.3)
27	Zinc (as Zn)	mg/l	BDL(DL:0.02)	BDL(DL:0.02)	BDL(DL:0.02)	BDL(DL:0.02)	BDL(DL:0.02)	BDL(DL:0.02)

Summary of Surface Water Quality Analysis
(Period: From January 2024 to March 2024)

S.N	Parameter	Unit	Kishinda Nala		Lingra Nala		Brahamani River	
			U/S	D/S	U/S	D/S	U/S	D/S
1	pH Value	-	7.33 - 7.8	6.66 – 6.8	7.5 – 7.62	6.97 – 7.66	6.7 – 6.89	7.2 - 7.4
2	Colour	Hazen	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)
3	Temperature	Deg C	< 26	< 26	< 26	< 26	< 26	< 26
4	Total Suspended Solids	mg/l	2.8 - 14	3.1 -4.2	<2.5 – 3.4	3.5 – 4.9	3.8-5.2 – 4.9	3.5 – 4.8
5	Arsenic as As	mg/l	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)
6	BOD, 3days at 27°C	mg/l	BDL (DL:2.0)	BDL (DL:2.0)	BDL (DL:2.0)	BDL (DL:2.0)	BDL (DL:2.0)	BDL (DL:2.0)
7	Boron as B	mg/l	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)
8	Cadmium as Cd	mg/l	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)
9	Calcium as Ca	mg/l	47.52 – 80.8	47.52 – 72.72	39.6 – 60.6	47.52 – 60.6	4.9 – 20.2	15.84 – 20.2
10	Chlorides as Cl	mg/l	29.99 - 98.97	68.58 – 88.17	29.39 – 54.43	48.98 – 58.78	14.7 - 23.5	14.7 - 29.39
11	COD	mg/l	16 - 27	8 - 16	7.7 - 20	11.5 - 16	8.0 - 15.4	12 – 19.2
12	Copper (as Cu)	mg/l	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)
13	Cyanide as CN	mg/l	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)

14	Fluoride as F-	mg/l	BDL (DL:0.1	BDL (DL:0.1	BDL (DL:0.1	BDL (DL:0.1	BDL (DL:0.1	BDL (DL:0.1
15	Hexa Chromium as Cr +6	mg/l	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)
16	Iron as Fe	mg/l	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)
17	Lead (as Pb)	mg/l	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)
18	Manganese (as Mn)	mg/l	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)
19	Mercury (as Hg)	mg/l	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)
20	Nickel (as Ni)	mg/l	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)
21	O&G	mg/l	BDL (DL:1.4)	BDL (DL:1.4)	BDL (DL:1.4)	BDL (DL:1.4)	BDL (DL:1.4)	BDL (DL:1.4)
22	Phenolic Comp	mg/l	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)
23	Phosphate as P	mg/l	0.08 - 0.22	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)
24	RFC	mg/l	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)
25	Selenium (as Se)	mg/l	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)
26	TKN	mg/l	BDL (DL:0.3)	BDL (DL:0.3)	BDL (DL:0.3)	BDL (DL:0.3)	BDL (DL:0.3)	BDL (DL:0.3)
27	Zinc (as Zn)	mg/l	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)

Note: BDL: Below Detectable Limit; DL: Detectable Limit, U/S: Upstream D/S: Downstream

Source: Monitoring/ Analysis report of S.K. Mitra Private Limited and Environment Laboratory of TSM.

Summary of Treated Domestic Effluent Analysis

(Period: From October 2023 to March 2024)

S.N.	Location	Parameters in Range		
		pH	Suspended Solid in mg/l	BOD (3 days at 27°C) in mg/l
1.	Colony STP	7.0-7.56	12-56	3.1-28
2.	AEL STP	7.05-7.74	11-74	10-28
3.	BF-1 STP	6.88-7.85	<2.5-41	<2.0-10.7

Summary of Effluent Treatment Plant Analysis
(Period: From October 2023 to March 2024)

S.N	Location	Parameters in Range					
		pH	Suspended Solid in mg/l	Chemical Oxygen Demand in mg/l	BOD (3days at 27°C) in mg/l	Oil & Grease	Iron as Fe
1.	ETP-1 (Outlet)	6.90-7.98	2.6-54	<4.0-23	<2.0-5.4	<5	0.29-1.9
2.	ETP-2 (Outlet)	7.01-7.49	3.5-43	11-29	2.4-6.8	<5	0.23-0.56
3.	ETP-3 (Outlet)	6.8-8.32	3.7-59	16-64	3.7-19	<5	0.37-2.5
4.	CRM (ETP Outlet)	7.01-7.56	2.5-42	<4.0-180	<2.0-26.7	<5	0.22-1.1
5.	BF-1 (Thickener Outlet)	7.04-7.60	57-125	45-216	-	<5	3.5-94
6.	BF-2 (Thickener Outlet)	6.74-7.36	6.9-63	8-80	-	<5	0.21-1.6
7.	BOF (Thickener Outlet)	7.2-7.52	19-99	3.5-85	-	<5	10-48

S.N.	Location	Parameters in Range						
		pH	Suspended Solid in mg/l	Chemical Oxygen Demand in mg/l	BOD (3days at 27°C) in mg/l	Oil & Grease	TCN	Phenol
8.	Coke Oven-1 (BOD-1 Outlet)	6.69-7.86	3.7-77	28-190	7.2-26.7	<5.0	<0.02-0.18	0.17-0.48
9.	Coke Oven-2 (BOD-2 Outlet)	6.97-7.56	10-82	24-160	6.1-43	<5.0	<0.02-0.44	0.01-0.43

Summary of ground water level monitoring report inside plant premises

(Period: From October 2023 to March 2024)

S.N.	Location with description	Sample Code	Depth of Monitoring Bore Well	Longitude	Latitude
1	Colony near STP	GW-1	165ft	20°49.045'	85°15.734'
2	RMHS Near Wagon Tippler	GW-2	300ft	20°47.752'	85°15.993'
3	Near Blast Furnace-2	GW-3	162ft	20°47.25'	85°15.613'
4	Near Railway bridge	GW-4	156ft	20°48.920'	85°15.858'

Ground Water Quality Analysis

S.N.	Parameter	Unit	GW-2	GW-3	GW-4	GW-6	Standard as per IS-10500-2012
1	p H	-	6.74	7.20	6.90	6.7	6.5-8.5
2	Colour	Hazen	Colourless	Colourless	Colourless	Colourless	15
3	Odour	-	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	-
4	T. Hardness (as CaCO ₃)	mg/l	420	164.9	388	388	300
5	Calcium as Ca	mg/l	93.12	38.8	93.12	93.12	75
6	Magnesium as Mg	mg/l	37.25	16.3	37.25	37.25	30
7	Iron as Fe	mg/l	0.09	0.14	0.08	0.09	0.3
8	Chloride as Cl	mg/l	79.18	29.69	49.48	79.18	250
9	Fluoride as F-	mg/l	1.21	0.24	0.72	1.21	1
10	Dissolved solids	mg/l	560	196	490	560	500
11	Nitrate as NO ₃	mg/l	0.86	0.84	1.2	0.86	45
12	Chromium as Cr+6	mg/l					0.05
13	Alkalinity as CaCO ₃	mg/l	380	150	220	380	200

Summary of ground water level monitoring report inside plant premises

Ground Water Level
Period: March 2024

S.N	Location	Sample Code	Longitude	Latitude	Water Level from GL (m) BGL
					March'24
1	Kharagprasad	GW-01	20° 49.299'	85° 18.923'	4.2
2	Charadagadia	GW-02	20° 47.768'	85° 17.083'	7.5
3	Sibpur	GW-03	20° 46.941'	85° 14.394'	6.8
4	Kochilamada	GW-04	20° 47.541'	85° 16.802'	5.9
5	Galapada	GW-05	20° 48.142'	85° 18.600'	4.7
6	Motonga	GW-06	20° 48.143'	85° 18.599'	4.1
7	Narendrapur	GW-08	20° 49.483'	85° 15.530'	9.2
8	Khaliberena	GW-09	20° 46.946'	85° 14.396'	4.6
9	Ganthigadia	GW-10	20° 48.501'	85° 15.118'	2.2

November 2023

[illegible]

25	Cadmium as Cd	mg/l	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)
26	Cyanide as CN	mg/l	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
27	Lead as Pb	mg/l	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)
28	Mercury as Hg	mg/l	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)
29	Nickel (as Ni)	mg/l	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
30	Total Arsenic (as As)	mg/l	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)
31	E. coli	/100ml	Not Detected	Not Detected	Not Detected	Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

March 2024

S.N.	Parameters	unit	GW-01	GW-02	GW-03	GW-04	GW-05	GW-06	GW-07	GW-08	GW-9
1	pH	-	6.76	7.11	7.59	7.16	7.05	7.29	7.52	7.57	7.54
2	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Colour	mg/l	<5	<5	<5	<5	<5	<5	<5	<5	<5
4	Turbidity	N.T. U	3.45	1.7	2.70	0.75	1.19	1.66	7.75	1.10	4.71
5	Total Dissolved Solids (as TDS)	mg/l	277.0	1268.0	493	503	186.0	7.29	565.0	484.0	591.0
6	Aluminium as Al	mg/l	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
7	Anionic Surface-Active Agents as (MBAS)	mg/l	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)	BDL(DL:0.05)
8	Boron as B	mg/l	BDL(DL:0.25)	BDL(DL:0.25)	BDL(DL:0.25)	BDL(DL:0.25)	BDL(DL:0.25)	BDL(DL:0.25)	BDL(DL:0.25)	BDL(DL:0.25)	BDL(DL:0.25)
9	Calcium as Ca	mg/l	40.08	35.27	80.16	52.91	32.06	89.78	16.03	83.37	83.37
10	Chloride as Cl	mg/l	29	240.0	57.0	50.0	15.00	118.0	45.0	40.0	47.0
11	Copper as Cu	mg/l	0.012	0.007	0.014	0.011	0.032	0.005	0.008	0.018	0.013
12	Fluoride as F	mg/l	0.12	0.98	0.46	1.10	0.19	1.0	0.94	0.55	1.10
13	Residual Free Chlorine	mg/l	BDL(DL:0.1)	BDL(DL:0.1)	BDL(DL:0.1)	BDL(DL:0.1)	BDL(DL:0.1)	BDL(DL:0.1)	BDL(DL:0.1)	BDL(DL:0.1)	BDL(DL:0.1)
14	Iron as Fe	mg/l	0.228	0.125	0.157	0.238	0.989	0.153	0.172	0.339	0.301
15	Magnesium as Mg	mg/l	14.58	126.62	32.08	44.71	5.83	99.14	69.01	39.85	55.40
16	Manganese as Mn	mg/l	0.025	0.032	0.086	0.027	0.077	0.060	0.354	0.027	0.028
17	Mineral Oil	mg/l	BDL(DL:0.5)	BDL(DL:0.5)	BDL(DL:0.5)	BDL(DL:0.5)	BDL(DL:0.5)	BDL(DL:0.5)	BDL(DL:0.5)	BDL(DL:0.5)	BDL(DL:0.5)
18	Nitrate as NO3	mg/l	12.3	182.0	3.76	49.6	3.12	12.1	10.63	3.58	17.2

19	Phenolic Compounds as C ₆ H ₅ OH	mg/l	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)
20	Selenium as Se	mg/l	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)
21	Sulphate as SO ₄	mg/l	30.67	125.41	63.39	57.25	13.61	129.96	62.25	47.26	82.02
22	Total Alkalinity as CaCO ₃	mg/l	140	484	304	392	96	320	376	364	413
23	Total Hardness as CaCO ₃	mg/l	160	608.0	332.0	316.0	104.0	632.0	324.0	372.0	436.0
24	Zinc as Zn	mg/l	0.057	0.079	0.084	0.073	0.227	0.064	0.064	0.089	0.108
25	Cadmium as Cd	mg/l	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
26	Cyanide as CN	mg/l	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
27	Lead as Pb	mg/l	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
28	Mercury as Hg	mg/l	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)
29	Nickel (as Ni)	mg/l	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)
30	Total Arsenic (as As)	mg/l	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)
31	E. coli	/100ml	Not Detected	Not Detected	Not Detected	Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

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

CSIR-INSTITUTE OF MINERALS & MATERIALS TECHNOLOGY.

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Environmental Chemical Laboratory**Bhubaneswar, Odisha****(An NABL Accredited Laboratory)****TEST REPORT****Issued to: Tata Steel Limited, Meramandali****Date : 23.04.2024****Test Report No.03/2024-001****Sample Condition: In Plastic Jar****Sample quantity: 2 Litre****Sampling Method: APHA1060B****Source of Sample :Kisinda UP & Down stream****Sample Collected on: 01.03.2024****Letter Reference :****Sample Analysed on: 01.03.2024**

Sl No	Characteristics	Test Method As Per APHA	Kisinda UP- stream	Kisinda down stream	Standard as per Class C-IS 2296/CPCB/SPCB
1	pH Value	APHA 4500H+ B	7.98	7.97	6.0-9.0
2	Colour	APHA 2120 B, C	<5	<5	300 (max)
3	Electrical Conductivity, $\mu\text{S}/\text{cm}$	APHA 2510 B	950	995	--
4	Total Dissolved Solids, mg/l	APHA 2540 C	608.0	508.0	1500 (max)
5	Dissolved Oxygen, mg/l	APHA 2540 C	9.0	9.5	4 (min)
6	BOD (3) days at 27°C	APHA 5210 B	4.5	3.1	3 (max)
7	Chloride , mg/l	APHA 4500Cl- B	91.0	143.0	600 (max)
8	Fluoride as F , mg/l	APHA 4500F- C	3.20	1.80	1.5 (max)
9	Sulphates (SO_4) , mg/l	APHA 4500 SO42- E	186.76	140.18	400 (max)
10	Nitrate as NO_3 , mg/l	APH4500 NO_3 - E	3.62	9.10	50 (max)
11	Hexa Chromium as Cr^{+6} , mg/l	APHA 3500Cr B	0.009	0.008	0.05
12	Cyanide as CN , mg/l	APHA 4500 CN- C,D	<0.03	<0.03	0.05 (max)
13	Copper as Cu , mg/l	APHA 3111 B,C	0.013	0.006	1.5 (max)
14	Iron as Fe , mg/l	APHA 3500Fe, B	0.138	0.252	0.5 (max)
15	Cadmium as Cd , mg/l	APHA 3111 B,C	<0.001	<0.001	0.01 (max)
16	Selenium as Se, mg/l	APHA 3114 B	<0.001	<0.001	0.05 (max)

1 of 2**Laboratory: Acharya Vinay, Bhubaneswar, Odisha-751013. Tel: 0674-2379236, Mobile: 9760387460.****Senior Principal Scientist****E-Mail: dir@immt.res.in.****(Environmental Chemical Lab) (ISO17025:2017, NABL Lab)****Environmental & Sustainability NABL Accredited Lab/ISO/IEC 17025:2005.****CSIR-Institute of Minerals & Materials Technology****Bhubaneswar-751013, Odisha, INDIA**

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Environmental Chemical Laboratory

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TEST REPORT

17	Arsenic as As, mg/l	APHA 3114 B	<0.001	<0.001	0.2 (max)
18	Lead as Pb(max), mg/l	APHA 3111 B,C	<0.001	<0.001	0.1 (max)
19	Zinc as Zn(max), mg/l	APHA 3111 B,C	0.108	0.036	15 (max)
20	Sodium Absorption Ratio	By Calculation	6.57	9.72	--
21	Total Coliform	APHA 9221 B	172/100ml	542/100ml	5000
22	Fecal Coliform	APHA 9221 B	33/100ml	9/100ml	300
23	Manganese as Mn, mg/l		0.028	0.025	0.1
24	Sodium as Na, mg/l		49.99	66.18	
25	Potassium as K, mg/l		3.47	7.97	
26	Nickel as Ni, mg/l		0.004	0.007	0.02
27	Chemical Oxygen Demand, mg/l		20.0	16.0	
28	Free Ammonia, mg/l		<0.01	<0.01	0.5
29	Boron as B, mg/l		0.006	0.004	0.5

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TC-12319

TEST REPORT

Issued to: Tata Steel Limited, Meramandali

Date : 23.04.2024

Test Report No.03/2024-002

Sample Condition: In Plastic Jar

Sample quantity: 2 Litre

Sampling Method: APHA1060B

Source of Sample :Lingra UP & Down stream

Sample Collected on: 01.03.2024

Letter Reference :

Sample Analysed on: 01.03.2024

Sl No	Characteristics	Test Method As Per APHA	Lingra UP- stream	Lingra down stream	Standard as per Class C-IS 2296/CPCB/SPCB
1	pH Value	APHA 4500H+ B	8.38	7.77	6.0-9.0
2	Colour	APHA 2120 B, C	1.6	1.4	300 (max)
3	Electrical Conductivity, $\mu\text{S}/\text{cm}$	APHA 2510 B	431	708	--
4	Total Dissolved Solids, mg/l	APHA 2540 C	248	596.0	1500 (max)
5	Dissolved Oxygen, mg/l	APHA 2540 C	8.6	6.0	4 (min)
6	BOD (3) days at 27°C	APHA 5210 B	1.8	2.6	3 (max)
7	Chloride , mg/l	APHA 4500Cl- B	37.0	82.0	600 (max)
8	Fluoride as F , mg/l	APHA 4500F- C	0.63	1.60	1.5 (max)
9	Sulphates (SO_4) , mg/l	APHA 4500 SO42- E	11.38	65.43	400 (max)
10	Nitrate as NO_3 , mg/l	APH4500 NO_3 - E	2.54	10.8	50 (max)
11	Hexa Chromium as Cr^{+6} , mg/l	APHA 3500Cr B	0.016	0.022	0.05
12	Cyanide as CN , mg/l	APHA 4500 CN- C,D	<0.03	<0.03	0.05 (max)
13	Copper as Cu , mg/l	APHA 3111 B,C	0.016	0.007	1.5 (max)
14	Iron as Fe , mg/l	APHA 3500Fe, B	0.160	0.175	0.5 (max)
15	Cadmium as Cd , mg/l	APHA 3111 B,C	<0.001	<0.001	0.01 (max)

Dr. Arakshita Majhi

1 of 2

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Environmental Chemical Laboratory

Bhubaneswar, Odisha

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TC-12319



TEST REPORT

16	Selenium as Se, mg/l	APHA 3114 B	<0.001	<0.001	0.05 (max)
17	Arsenic as As, mg/l	APHA 3114 B	<0.001	<0.001	0.2 (max)
18	Lead as Pb(max), mg/l	APHA 3111 B,C	<0.001	<0.001	0.1 (max)
19	Zinc as Zn(max), mg/l	APHA 3111 B,C	0.035	0.079	15 (max)
20	Sodium Absorption Ratio	By Calculation	7.51	10.79	--
21	Total Coliform (CFU/ml)	APHA 9221 B	348/100ml	221/100ml	5000
22	Fecal Coliform (CFU/ml)	APHA 9221 B	14/100ml	7/100ml	300
23	Manganese as Mn, mg/l		0.028	0.032	0.1
24	Sodium as Na, mg/l		37.08	74.25	
25	Potassium as K, mg/l		2.84	11.52	
26	Nickel as Ni, mg/l		0.001	0.008	0.02
27	Chemical Oxygen Demand, mg/l		24.0	22.0	
28	Free Ammonia, mg/l		<0.01	<0.01	0.5
29	Boron as B, mg/l		0.004	0.001	0.5

Authorized Signatory

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CSIR-INSTITUTE OF MINERALS & MATERIALS TECHNOLOGY.

(A Govt. of India Autonomous Body)
Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT



Issued to : TATA STEEL LIMITED, MERAMANDALI	Date : 23.04.2024
Test report No – 03/2024-003	
Source of Sample : Ganthigadia	Sample receiving Date : 01.03.2024
Type of Sample : well water	Sample Analysis Date : 01.03.2024

Sl No	Characteristics	Test Method (P) of IS:3025	Requirements as per IS 10500:2012(Latest Version)		Test Result
			Acceptable limit	Permissible Limit	
1.	Turbidity, NTU	Part 10	1	5	4.71
2.	pH@Temp° C	Part 11	6.5-8.5	No relaxation	7.54@25.0
3.	Total Dissolved Solids mg/L	Part 16	500	2000	591.0
4.	Total Hardness (as CaCO ₃),mg/L	Part 21	200	600	436.0
5.	Calcium as Ca, mg/L	Part 40	75	200	83.37
6.	Magnesium as Mg, mg/L	Part 46	30	100	55.40
7.	Alkalinity as CaCO ₃ , mg/L	Part 23	200	600	413.0
8.	Chloride as Cl, mg/L	Part 32	250	1000	47.0
9.	Sulfate as SO ₄ , mg/L	Part 24	200	400	82.02
10.	Fluoride as F, mg/L	Part 60	1.0	1.5	1.10
11.	Iron as Fe, mg/L	Part 53	0.3	No relaxation	0.301
12.	Copper as Cu, mg/L	Part 42	0.05	1.5	0.013
13.	Manganese as Mn, mg/L	APHA(PART 3111B)	0.1	0.3	0.028
14.	Zinc as Zn, mg/L	Part 49	5.0	15.0	0.108
15.	Lead as Pb, mg/L	Part 47	0.01	No relaxation	<0.001
16.	Cadmium as Cd, mg/L	Part 41	0.003	No relaxation	<0.001
17.	Chromium as Cr, mg/L	Part 52	0.05	No relaxation	<0.001
18.	Nickel as Ni, mg/l	Part 54	0.02	No relaxation	<0.001

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NOTES :

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4. Latest version of test methods used as per latest specification.
5. It is recommended that the acceptable limit is to be implemented. Values in excess of those mentioned in "acceptable limit" render the water not suitable, but still may be tolerated in the absence of an alternative source but up to the limits indicate under "permissible limit" in the absence of alternative sources, above which the source will have to be rejected.

Non NABL Test report – P.T.O

'End of Test Report'



CSIR-INSTITUTE OF MINERALS & MATERIALS TECHNOLOGY.

(A Govt. of India Autonomous Body)
Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT

Issued to : TATA STEEL LIMITED, MERAMANDALI	Date : 23.04.2024
Test report No -03/2024-003	
Source of Sample : Ganthigadia	Sample receiving Date : 01.03.2024
Type of Sample : well water	Sample Analysis Date : 01.03.2024

19.	*Color, Hazen units	Part 4	5	15	<5
20.	*Odour	Part 5	Agreeable	Agreeable	Agreeable
21.	*Conductivity, $\mu\text{S}/\text{cm}$	Part 14	-	-	1015
22.	*Total Suspended Solid, mg/l	Part 17	-	-	6.0
23.	*Nitrite as NO_2 , mg/L	Part 34	-	-	0.181
24.	*Nitrate as NO_3 , mg/L	Part 34	45	No relaxation	17.2
25.	Sodium, mg/l	Part 45	-	-	30.47
26.	Potassium, mg/l	Part 45	-	-	0.33
27.	Residual Free Chlorine, mg/l	Part 26	0.2	1.0	<0.1
28.	Arsenic as As, mg/l	Part 37	0.01	No relaxation	<0.001
29.	Total Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	542/100ml
30.	Fecal Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	39/100ml

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6. Testing parameters which are not set limitation has marked as "-".

'End of Test Report'

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Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT



Issued to : TATA STEEL LIMITED, MERAMANDALI	Date : 23.04.2024
Test report No – 03/2024-004	
Source of Sample : Khaliberena	Sample receiving Date : 01.03.2024
Type of Sample : well water	Sample Analysis Date : 01.03.2024

Sl No	Characteristics	Test Method (P) of IS:3025	Requirements as per IS 10500:2012(Latest Version)		Test Result
			Acceptable limit	Permissible Limit	
1.	Turbidity, NTU	Part 10	1	5	1.10
2.	pH@Temp° C	Part 11	6.5-8.5	No relaxation	7.57@25.0
3.	Total Dissolved Solids mg/L	Part 16	500	2000	484.0
4.	Total Hardness (as CaCO ₃),mg/L	Part 21	200	600	372.0
5.	Calcium as Ca, mg/L	Part 40	75	200	83.37
6.	Magnesium as Mg, mg/L	Part 46	30	100	39.85
7.	Alkalinity as CaCO ₃ , mg/L	Part 23	200	600	364.0
8.	Chloride as Cl, mg/L	Part 32	250	1000	40.0
9.	Sulfate as SO ₄ , mg/L	Part 24	200	400	47.26
10.	Fluoride as F, mg/L	Part 60	1.0	1.5	0.55
11.	Iron as Fe, mg/L	Part 53	0.3	No relaxation	0.339
12.	Copper as Cu, mg/L	Part 42	0.05	1.5	0.018
13.	Manganese as Mn, mg/L	APHA(PART 3111B)	0.1	0.3	0.027
14.	Zinc as Zn, mg/L	Part 49	5.0	15.0	0.089
15.	Lead as Pb, mg/L	Part 47	0.01	No relaxation	<0.001
16.	Cadmium as Cd, mg/L	Part 41	0.003	No relaxation	<0.001
17.	Chromium as Cr, mg/L	Part 52	0.05	No relaxation	<0.001
18.	Nickel as Ni, mg/l	Part 54	0.02	No relaxation	<0.001

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Non NABL Test report – P.T.O

'End of Test Report'



CSIR-INSTITUTE OF MINERALS & MATERIALS TECHNOLOGY.

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Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT

Issued to : TATA STEEL LIMITED, MERAMANDALI

Date : 23.04.2024

Test report No -03/2024-004

Source of Sample : Khaliberena

Sample receiving Date : 01.03.2024

Type of Sample : well water

Sample Analysis Date : 01.03.2024

19.	*Color, Hazen units	Part 4	5	15	<5
20.	*Odour	Part 5	Agreeable	Agreeable	Agreeable
21.	*Conductivity, $\mu\text{S}/\text{cm}$	Part 14	-	-	845
22.	*Total Suspended Solid, mg/l	Part 17	-	-	12.0
23.	*Nitrite as NO_2 , mg/L	Part 34	-	-	0.045
24.	*Nitrate as NO_3 , mg/L	Part 34	45	No relaxation	3.58
25.	Sodium, mg/l	Part 45	-	-	36.57
26.	Potassium, mg/l	Part 45	-	-	0.67
27.	Residual Free Chlorine, mg/l	Part 26	0.2	1.0	<0.1
28.	Arsenic as As, mg/l	Part 37	0.01	No relaxation	<0.001
29.	Total Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	542/100ml
30.	Fecal Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	2/100ml

Authorized Signatory


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'End of Test Report'



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(A Govt. of India Autonomous Body)
Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT



Issued to : TATA STEEL LIMITED, MERAMANDALI	Date : 23.04.2024
Test report No – 03/2024-005	
Source of Sample : SARAPA	Sample receiving Date : 01.03.2024
Type of Sample : well water	Sample Analysis Date : 01.03.2024

Sl No	Characteristics	Test Method (P) of IS:3025	Requirements as per IS 10500:2012(Latest Version)		Test Result
			Acceptable limit	Permissible Limit	
1.	Turbidity, NTU	Part 10	1	5	13.28
2.	pH@Temp° C	Part 11	6.5-8.5	No relaxation	6.80@25.0
3.	Total Dissolved Solids mg/L	Part 16	500	2000	1390
4.	Total Hardness (as CaCO ₃),mg/L	Part 21	200	600	580.0
5.	Calcium as Ca, mg/L	Part 40	75	200	136.27
6.	Magnesium as Mg, mg/L	Part 46	30	100	58.32
7.	Alkalinity as CaCO ₃ , mg/L	Part 23	200	600	216.0
8.	Chloride as Cl, mg/L	Part 32	250	1000	425.0
9.	Sulfate as SO ₄ , mg/L	Part 24	200	400	157.45
10.	Fluoride as F, mg/L	Part 60	1.0	1.5	0.39
11.	Iron as Fe, mg/L	Part 53	0.3	No relaxation	0.471
12.	Copper as Cu, mg/L	Part 42	0.05	1.5	0.021
13.	Manganese as Mn, mg/L	APHA(PART 3111B)	0.1	0.3	1.004
14.	Zinc as Zn, mg/L	Part 49	5.0	15.0	0.147
15.	Lead as Pb, mg/L	Part 47	0.01	No relaxation	<0.001
16.	Cadmium as Cd, mg/L	Part 41	0.003	No relaxation	<0.001
17.	Chromium as Cr, mg/L	Part 52	0.05	No relaxation	<0.001
18.	Nickel as Ni, mg/l	Part 54	0.02	No relaxation	<0.001

Authorized Signatory

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Non NABL Test report – P.T.O

'End of Test Report'



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(A Govt. of India Autonomous Body)
Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT

Issued to : TATA STEEL LIMITED, MERAMANDALI

Date : 23.04.2024

Test report No -03/2024-005

Source of Sample : SARAPA

Sample receiving Date : 01.03.2024

Type of Sample : well water

Sample Analysis Date : 01.03.2024

19.	*Color, Hazen units	Part 4	5	15	<5
20.	*Odour	Part 5	Agreeable	Agreeable	Agreeable
21.	*Conductivity, $\mu\text{S}/\text{cm}$	Part 14	-	-	1663
22.	*Total Suspended Solid, mg/l	Part 17	-	-	26.0
23.	*Nitrite as NO_2 , mg/L	Part 34	-	-	0.121
24.	*Nitrate as NO_3 , mg/L	Part 34	45	No relaxation	28.2
25.	Sodium, mg/l	Part 45	-	-	108.29
26.	Potassium, mg/l	Part 45	-	-	0.93
27.	Residual Free Chlorine, mg/l	Part 26	0.2	1.0	<0.1
28.	Arsenic as As, mg/l	Part 37	0.01	No relaxation	<0.001
29.	Total Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	2/100ml
30.	Fecal Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	2/100ml

Authorized Signatory



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'End of Test Report'



CSIR-INSTITUTE OF MINERALS & MATERIALS TECHNOLOGY.

(A Govt. of India Autonomous Body)
Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT



Issued to : TATA STEEL LIMITED, MERAMANDALI	Date : 23.04.2024
Test report No – 03/2024-006	
Source of Sample : SIBAPUR	Sample receiving Date : 01.03.2024
Type of Sample : well water	Sample Analysis Date : 01.03.2024

Sl No	Characteristics	Test Method (P) of IS:3025	Requirements as per IS 10500:2012(Latest Version)		Test Result
			Acceptable limit	Permissible Limit	
1.	Turbidity, NTU	Part 10	1	5	2.70
2.	pH@Temp° C	Part 11	6.5-8.5	No relaxation	7.59@25.0
3.	Total Dissolved Solids mg/L	Part 16	500	2000	493.0
4.	Total Hardness (as CaCO ₃),mg/L	Part 21	200	600	332.0
5.	Calcium as Ca, mg/L	Part 40	75	200	80.16
6.	Magnesium as Mg, mg/L	Part 46	30	100	32.08
7.	Alkalinity as CaCO ₃ , mg/L	Part 23	200	600	304.0
8.	Chloride as Cl, mg/L	Part 32	250	1000	57.0
9.	Sulfate as SO ₄ , mg/L	Part 24	200	400	63.39
10.	Fluoride as F, mg/L	Part 60	1.0	1.5	0.46
11.	Iron as Fe, mg/L	Part 53	0.3	No relaxation	0.157
12.	Copper as Cu, mg/L	Part 42	0.05	1.5	0.014
13.	Manganese as Mn, mg/L	APHA(PART 3111B)	0.1	0.3	0.086
14.	Zinc as Zn, mg/L	Part 49	5.0	15.0	0.084
15.	Lead as Pb, mg/L	Part 47	0.01	No relaxation	<0.001
16.	Cadmium as Cd, mg/L	Part 41	0.003	No relaxation	<0.001
17.	Chromium as Cr, mg/L	Part 52	0.05	No relaxation	<0.001
18.	Nickel as Ni, mg/l	Part 54	0.02	No relaxation	<0.001

Authorized Signatory

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Non NABL Test report – P.T.O

'End of Test Report'



CSIR-INSTITUTE OF MINERALS & MATERIALS TECHNOLOGY.

(A Govt. of India Autonomous Body)
Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT

Issued to : TATA STEEL LIMITED, MERAMANDALI

Date : 23.04.2024

Test report No -03/2024-006

Source of Sample : SIBAPUR

Sample receiving Date : 01.03.2024

Type of Sample : well water

Sample Analysis Date : 01.03.2024

19.	*Color, Hazen units	Part 4	5	15	<5
20.	*Odour	Part 5	Agreeable	Agreeable	Agreeable
21.	*Conductivity, $\mu\text{S}/\text{cm}$	Part 14	-	-	669
22.	*Total Suspended Solid, mg/l	Part 17	-	-	4.0
23.	*Nitrite as NO_2 , mg/L	Part 34	-	-	0.026
24.	*Nitrate as NO_3 , mg/L	Part 34	45	No relaxation	3.76
25.	Sodium, mg/l	Part 45	-	-	19.62
26.	Potassium, mg/l	Part 45	-	-	16.89
27.	Residual Free Chlorine, mg/l	Part 26	0.2	1.0	<0.1
28.	Arsenic as As, mg/l	Part 37	0.01	No relaxation	<0.001
29.	Total Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	542/100ml
30.	Fecal Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	14/100ml

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'End of Test Report'

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Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT



Issued to : TATA STEEL LIMITED, MERAMANDALI	Date : 23.04.2024
Test report No – 03/2024-007	
Source of Sample : CHARADA	Sample receiving Date : 01.03.2024
Type of Sample : well water	Sample Analysis Date : 01.03.2024

Sl No	Characteristics	Test Method (P) of IS:3025	Requirements as per IS 10500:2012(Latest Version)		Test Result
			Acceptable limit	Permissible Limit	
1.	Turbidity, NTU	Part 10	1	5	1.70
2.	pH@Temp° C	Part 11	6.5-8.5	No relaxation	7.11@25.0
3.	Total Dissolved Solids mg/L	Part 16	500	2000	1268.0
4.	Total Hardness (as CaCO ₃),mg/L	Part 21	200	600	608.0
5.	Calcium as Ca, mg/L	Part 40	75	200	35.27
6.	Magnesium as Mg, mg/L	Part 46	30	100	126.62
7.	Alkalinity as CaCO ₃ , mg/L	Part 23	200	600	484.0
8.	Chloride as Cl, mg/L	Part 32	250	1000	240.0
9.	Sulfate as SO ₄ , mg/L	Part 24	200	400	125.41
10.	Fluoride as F, mg/L	Part 60	1.0	1.5	0.98
11.	Iron as Fe, mg/L	Part 53	0.3	No relaxation	0.125
12.	Copper as Cu, mg/L	Part 42	0.05	1.5	0.007
13.	Manganese as Mn, mg/L	APHA(PART 3111B)	0.1	0.3	0.032
14.	Zinc as Zn, mg/L	Part 49	5.0	15.0	0.079
15.	Lead as Pb, mg/L	Part 47	0.01	No relaxation	<0.001
16.	Cadmium as Cd, mg/L	Part 41	0.003	No relaxation	<0.001
17.	Chromium as Cr, mg/L	Part 52	0.05	No relaxation	<0.001
18.	Nickel as Ni, mg/l	Part 54	0.02	No relaxation	<0.001

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Non NABL Test report – P.T.O

'End of Test Report'



CSIR-INSTITUTE OF MINERALS & MATERIALS TECHNOLOGY.

(A Govt. of India Autonomous Body)
Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT

Issued to : TATA STEEL LIMITED, MERAMANDALI			Date : 23.04.2024		
Test report No –03/2024-007					
Source of Sample : CHARADA			Sample receiving Date : 01.03.2024		
Type of Sample : well water			Sample Analysis Date : 01.03.2024		
19.	*Color, Hazen units	Part 4	5	15	<5
20.	*Odour	Part 5	Agreeable	Agreeable	Agreeable
21.	*Conductivity, µs/cm	Part 14	-	-	1772
22.	*Total Suspended Solid, mg/l	Part 17	-	-	6.0
23.	*Nitrite as NO ₂ ,mg/L	Part 34	-	-	0.556
24.	*Nitrate as NO ₃ , mg/L	Part 34	45	No relaxation	182.0
25.	Sodium, mg/l	Part 45	-	-	167.48
26.	Potassium, mg/l	Part 45	-	-	5.61
27.	Residual Free Chlorine, mg/l	Part 26	0.2	1.0	<0.1
28.	Arsenic as As, mg/l	Part 37	0.01	No relaxation	<0.001
29.	Total Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	221/100ml
30.	Fecal Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	4/100ml

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Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT



Issued to : TATA STEEL LIMITED, MERAMANDALI	Date : 23.04.2024
Test report No – 03/2024-008	
Source of Sample : KOCHILAMARA	Sample receiving Date : 01.03.2024
Type of Sample : well water	Sample Analysis Date : 01.03.2024

Sl No	Characteristics	Test Method (P) of IS:3025	Requirements as per IS 10500:2012(Latest Version)		Test Result
			Acceptable limit	Permissible Limit	
1.	Turbidity, NTU	Part 10	1	5	0.75
2.	pH@Temp° C	Part 11	6.5-8.5	No relaxation	7.16@25.0
3.	Total Dissolved Solids mg/L	Part 16	500	2000	503
4.	Total Hardness (as CaCO ₃),mg/L	Part 21	200	600	316.0
5.	Calcium as Ca, mg/L	Part 40	75	200	52.91
6.	Magnesium as Mg, mg/L	Part 46	30	100	44.71
7.	Alkalinity as CaCO ₃ , mg/L	Part 23	200	600	392.0
8.	Chloride as Cl, mg/L	Part 32	250	1000	50.0
9.	Sulfate as SO ₄ , mg/L	Part 24	200	400	57.25
10.	Fluoride as F, mg/L	Part 60	1.0	1.5	1.10
11.	Iron as Fe, mg/L	Part 53	0.3	No relaxation	0.238
12.	Copper as Cu, mg/L	Part 42	0.05	1.5	0.011
13.	Manganese as Mn, mg/L	APHA(PART 3111B)	0.1	0.3	0.027
14.	Zinc as Zn, mg/L	Part 49	5.0	15.0	0.073
15.	Lead as Pb, mg/L	Part 47	0.01	No relaxation	<0.001
16.	Cadmium as Cd, mg/L	Part 41	0.003	No relaxation	<0.001
17.	Chromium as Cr, mg/L	Part 52	0.05	No relaxation	<0.001
18.	Nickel as Ni, mg/l	Part 54	0.02	No relaxation	<0.001

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Non NABL Test report – P.T.O

'End of Test Report'



CSIR-INSTITUTE OF MINERALS & MATERIALS TECHNOLOGY.

(A Govt. of India Autonomous Body)
Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT

Issued to : TATA STEEL LIMITED, MERAMANDALI

Date : 23.04.2024

Test report No -03/2024-008

Source of Sample : KOCHILAMARA

Sample receiving Date : 01.03.2024

Type of Sample : well water

Sample Analysis Date : 01.03.2024

19.	*Color, Hazen units	Part 4	5	15	<5
20.	*Odour	Part 5	Agreeable	Agreeable	Agreeable
21.	*Conductivity, $\mu\text{S}/\text{cm}$	Part 14	-	-	869
22.	*Total Suspended Solid, mg/l	Part 17	-	-	2.0
23.	*Nitrite as NO_2 , mg/L	Part 34	-	-	0.115
24.	*Nitrate as NO_3 , mg/L	Part 34	45	No relaxation	49.6
25.	Sodium, mg/l	Part 45	-	-	89.2
26.	Potassium, mg/l	Part 45	-	-	0.55
27.	Residual Free Chlorine, mg/l	Part 26	0.2	1.0	<0.1
28.	Arsenic as As, mg/l	Part 37	0.01	No relaxation	<0.001
29.	Total Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	542/100ml
30.	Fecal Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	14/100ml

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Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT



Issued to : TATA STEEL LIMITED, MERAMANDALI	Date : 23.04.2024
Test report No – 03/2024-009	
Source of Sample : KHARAGPRASAD	Sample receiving Date : 01.03.2024
Type of Sample : well water	Sample Analysis Date : 01.03.2024

Sl No	Characteristics	Test Method (P) of IS:3025	Requirements as per IS 10500:2012(Latest Version)		Test Result
			Acceptable limit	Permissible Limit	
1.	Turbidity, NTU	Part 10	1	5	3.45
2.	pH@Temp° C	Part 11	6.5-8.5	No relaxation	6.76@25.0
3.	Total Dissolved Solids mg/L	Part 16	500	2000	277.0
4.	Total Hardness (as CaCO ₃),mg/L	Part 21	200	600	160.0
5.	Calcium as Ca, mg/L	Part 40	75	200	40.08
6.	Magnesium as Mg, mg/L	Part 46	30	100	14.58
7.	Alkalinity as CaCO ₃ , mg/L	Part 23	200	600	140.0
8.	Chloride as Cl, mg/L	Part 32	250	1000	29.0
9.	Sulfate as SO ₄ , mg/L	Part 24	200	400	30.67
10.	Fluoride as F, mg/L	Part 60	1.0	1.5	0.12
11.	Iron as Fe, mg/L	Part 53	0.3	No relaxation	0.228
12.	Copper as Cu, mg/L	Part 42	0.05	1.5	0.012
13.	Manganese as Mn, mg/L	APHA(PART 3111B)	0.1	0.3	0.025
14.	Zinc as Zn, mg/L	Part 49	5.0	15.0	0.057
15.	Lead as Pb, mg/L	Part 47	0.01	No relaxation	<0.001
16.	Cadmium as Cd, mg/L	Part 41	0.003	No relaxation	<0.001
17.	Chromium as Cr, mg/L	Part 52	0.05	No relaxation	<0.001
18.	Nickel as Ni, mg/l	Part 54	0.02	No relaxation	<0.001

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Non NABL Test report – P.T.O

'End of Test Report'



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(A Govt. of India Autonomous Body)
Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT

Issued to : TATA STEEL LIMITED, MERAMANDALI				Date : 23.04.2024	
Test report No –03/2024-009					
Source of Sample : KHARAGPRASAD				Sample receiving Date : 01.03.2024	
Type of Sample : well water				Sample Analysis Date : 01.03.2024	
19.	*Color, Hazen units	Part 4	5	15	<5
20.	*Odour	Part 5	Agreeable	Agreeable	Agreeable
21.	*Conductivity, µs/cm	Part 14	-	-	450
22.	*Total Suspended Solid, mg/l	Part 17	-	-	3.0
23.	*Nitrite as NO ₂ ,mg/L	Part 34	-	-	0.048
24.	*Nitrate as NO ₃ , mg/L	Part 34	45	No relaxation	12.3
25.	Sodium, mg/l	Part 45	-	-	9.84
26.	Potassium, mg/l	Part 45	-	-	10.33
27.	Residual Free Chlorine, mg/l	Part 26	0.2	1.0	<0.1
28.	Arsenic as As, mg/l	Part 37	0.01	No relaxation	<0.001
29.	Total Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	348/100ml
30.	Fecal Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	10/100ml

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Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT



Issued to : TATA STEEL LIMITED, MERAMANDALI	Date : 23.04.2024
Test report No – 03/2024-0010	
Source of Sample : MOTANGA	Sample receiving Date : 01.03.2024
Type of Sample : well water	Sample Analysis Date : 01.03.2024

Sl No	Characteristics	Test Method (P) of IS:3025	Requirements as per IS 10500:2012(Latest Version)		Test Result
			Acceptable limit	Permissible Limit	
1.	Turbidity, NTU	Part 10	1	5	1.66
2.	pH@Temp° C	Part 11	6.5-8.5	No relaxation	7.29@25.0
3.	Total Dissolved Solids mg/L	Part 16	500	2000	676.0
4.	Total Hardness (as CaCO ₃),mg/L	Part 21	200	600	632.0
5.	Calcium as Ca, mg/L	Part 40	75	200	89.78
6.	Magnesium as Mg, mg/L	Part 46	30	100	99.14
7.	Alkalinity as CaCO ₃ , mg/L	Part 23	200	600	320.0
8.	Chloride as Cl, mg/L	Part 32	250	1000	118.0
9.	Sulfate as SO ₄ , mg/L	Part 24	200	400	129.96
10.	Fluoride as F, mg/L	Part 60	1.0	1.5	1.0
11.	Iron as Fe, mg/L	Part 53	0.3	No relaxation	0.153
12.	Copper as Cu, mg/L	Part 42	0.05	1.5	0.005
13.	Manganese as Mn, mg/L	APHA(PART 3111B)	0.1	0.3	0.060
14.	Zinc as Zn, mg/L	Part 49	5.0	15.0	0.064
15.	Lead as Pb, mg/L	Part 47	0.01	No relaxation	<0.001
16.	Cadmium as Cd, mg/L	Part 41	0.003	No relaxation	<0.001
17.	Chromium as Cr, mg/L	Part 52	0.05	No relaxation	<0.001
18.	Nickel as Ni, mg/l	Part 54	0.02	No relaxation	<0.001

Authorized Signatory

Dr. Arakshita Majhi
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Non NABL Test report – P.T.O

'End of Test Report'



CSIR-INSTITUTE OF MINERALS & MATERIALS TECHNOLOGY.

(A Govt. of India Autonomous Body)
Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT

Issued to : TATA STEEL LIMITED, MERAMANDALI	Date : 23.04.2024
Test report No – 03/2024-0010	
Source of Sample : MOTANGA	Sample receiving Date : 01.03.2024
Type of Sample : well water	Sample Analysis Date : 01.03.2024

19.	*Color, Hazen units	Part 4	5	15	<5
20.	*Odour	Part 5	Agreeable	Agreeable	Agreeable
21.	*Conductivity, $\mu\text{S}/\text{cm}$	Part 14	-	-	1275
22.	*Total Suspended Solid, mg/l	Part 17	-	-	2.0
23.	*Nitrite as NO_2 , mg/L	Part 34	-	-	0.039
24.	*Nitrate as NO_3 , mg/L	Part 34	45	No relaxation	12.1
25.	Sodium, mg/l	Part 45	-	-	69.8
26.	Potassium, mg/l	Part 45	-	-	1.33
27.	Residual Free Chlorine, mg/l	Part 26	0.2	1.0	<0.1
28.	Arsenic as As, mg/l	Part 37	0.01	No relaxation	<0.001
29.	Total Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	17/100ml
30.	Fecal Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	2/100ml

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(A Govt. of India Autonomous Body)
Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT



Issued to : TATA STEEL LIMITED, MERAMANDALI	Date : 23.04.2024
Test report No – 03/2024-011	
Source of Sample : GALPADA	Sample receiving Date : 01.03.2024
Type of Sample : well water	Sample Analysis Date : 01.03.2024

Sl No	Characteristics	Test Method (P) of IS:3025	Requirements as per IS 10500:2012(Latest Version)		Test Result
			Acceptable limit	Permissible Limit	
1.	Turbidity, NTU	Part 10	1	5	1.19
2.	pH@Temp° C	Part 11	6.5-8.5	No relaxation	7.05@25.0
3.	Total Dissolved Solids mg/L	Part 16	500	2000	186.0
4.	Total Hardness (as CaCO ₃),mg/L	Part 21	200	600	104.0
5.	Calcium as Ca, mg/L	Part 40	75	200	32.06
6.	Magnesium as Mg, mg/L	Part 46	30	100	5.83
7.	Alkalinity as CaCO ₃ , mg/L	Part 23	200	600	96.0
8.	Chloride as Cl, mg/L	Part 32	250	1000	15.00
9.	Sulfate as SO ₄ , mg/L	Part 24	200	400	13.61
10.	Fluoride as F, mg/L	Part 60	1.0	1.5	0.19
11.	Iron as Fe, mg/L	Part 53	0.3	No relaxation	0.989
12.	Copper as Cu, mg/L	Part 42	0.05	1.5	0.032
13.	Manganese as Mn, mg/L	APHA(PART 3111B)	0.1	0.3	0.077
14.	Zinc as Zn, mg/L	Part 49	5.0	15.0	0.227
15.	Lead as Pb, mg/L	Part 47	0.01	No relaxation	<0.001
16.	Cadmium as Cd, mg/L	Part 41	0.003	No relaxation	<0.001
17.	Chromium as Cr, mg/L	Part 52	0.05	No relaxation	<0.001
18.	Nickel as Ni, mg/l	Part 54	0.02	No relaxation	<0.001

Authorized Signatory

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Non NABL Test report – P.T.O

'End of Test Report'



CSIR-INSTITUTE OF MINERALS & MATERIALS TECHNOLOGY.

(A Govt. of India Autonomous Body)
Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT

Issued to : TATA STEEL LIMITED, MERAMANDALI

Date : 23.04.2024

Test report No – 03/2024-011

Source of Sample : GALPADA

Sample receiving Date : 01.03.2024

Type of Sample : well water

Sample Analysis Date : 01.03.2024

19.	*Color, Hazen units	Part 4	5	15	<5
20.	*Odour	Part 5	Agreeable	Agreeable	Agreeable
21.	*Conductivity, $\mu\text{S}/\text{cm}$	Part 14	-	-	248
22.	*Total Suspended Solid, mg/l	Part 17	-	-	2.0
23.	*Nitrite as NO_2 , mg/L	Part 34	-	-	0.024
24.	*Nitrate as NO_3 , mg/L	Part 34	45	No relaxation	3.12
25.	Sodium, mg/l	Part 45	-	-	7.72
26.	Potassium, mg/l	Part 45	-	-	0.44
27.	Residual Free Chlorine, mg/l	Part 26	0.2	1.0	<0.1
28.	Arsenic as As, mg/l	Part 37	0.01	No relaxation	<0.001
29.	Total Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	141/100ml
30.	Fecal Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	2/100ml

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Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT



Issued to : TATA STEEL LIMITED, MERAMANDALI	Date : 23.04.2024
Test report No – 03/2024-012	
Source of Sample : ETAPA	Sample receiving Date : 01.03.2024
Type of Sample : well water	Sample Analysis Date : 01.03.2024

Sl No	Characteristics	Test Method (P) of IS:3025	Requirements as per IS 10500:2012(Latest Version)		Test Result
			Acceptable limit	Permissible Limit	
1.	Turbidity, NTU	Part 10	1	5	123
2.	pH@Temp° C	Part 11	6.5-8.5	No relaxation	7.11@25.0
3.	Total Dissolved Solids mg/L	Part 16	500	2000	586.0
4.	Total Hardness (as CaCO ₃),mg/L	Part 21	200	600	328.0
5.	Calcium as Ca, mg/L	Part 40	75	200	16.03
6.	Magnesium as Mg, mg/L	Part 46	30	100	69.98
7.	Alkalinity as CaCO ₃ , mg/L	Part 23	200	600	188.0
8.	Chloride as Cl, mg/L	Part 32	250	1000	85.0
9.	Sulfate as SO ₄ , mg/L	Part 24	200	400	1.98
10.	Fluoride as F, mg/L	Part 60	1.0	1.5	1.00
11.	Iron as Fe, mg/L	Part 53	0.3	No relaxation	2.522
12.	Copper as Cu, mg/L	Part 42	0.05	1.5	0.016
13.	Manganese as Mn, mg/L	APHA(PART 3111B)	0.1	0.3	2.715
14.	Zinc as Zn, mg/L	Part 49	5.0	15.0	0.212
15.	Lead as Pb, mg/L	Part 47	0.01	No relaxation	<0.001
16.	Cadmium as Cd, mg/L	Part 41	0.003	No relaxation	<0.001
17.	Chromium as Cr, mg/L	Part 52	0.05	No relaxation	<0.001
18.	Nickel as Ni, mg/L	Part 54	0.02	No relaxation	<0.001

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Non NABL Test report – P.T.O

'End of Test Report'



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Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT

Issued to : TATA STEEL LIMITED, MERAMANDALI

Date : 23.04.2024

Test report No – 03/2024-012

Source of Sample : ETAPA

Sample receiving Date : 01.03.2024

Type of Sample : well water

Sample Analysis Date : 01.03.2024

19.	*Color, Hazen units	Part 4	5	15	10
20.	*Odour	Part 5	Agreeable	Agreeable	Agreeable
21.	*Conductivity, $\mu\text{S}/\text{cm}$	Part 14	-	-	962
22.	*Total Suspended Solid, mg/l	Part 17	-	-	56.0
23.	*Nitrite as NO_2 , mg/L	Part 34	-	-	0.053
24.	*Nitrate as NO_3 , mg/L	Part 34	45	No relaxation	3.94
25.	Sodium, mg/l	Part 45	-	-	123.9
26.	Potassium, mg/l	Part 45	-	-	17.19
27.	Residual Free Chlorine, mg/l	Part 26	0.2	1.0	<0.1
28.	Arsenic as As, mg/l	Part 37	0.01	No relaxation	<0.001
29.	Total Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	542/100ml
30.	Fecal Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	120/100ml

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Bhubaneswar, Odisha
TEST REPORT



Issued to : TATA STEEL LIMITED, MERAMANDALI	Date : 23.04.2024
Test report No – 03/2024-013	
Source of Sample : NARENDRAPUR	Sample receiving Date : 01.03.2024
Type of Sample : well water	Sample Analysis Date : 01.03.2024

Sl No	Characteristics	Test Method (P) of IS:3025	Requirements as per IS 10500:2012(Latest Version)		Test Result
			Acceptable limit	Permissible Limit	
1.	Turbidity, NTU	Part 10	1	5	7.75
2.	pH@Temp° C	Part 11	6.5-8.5	No relaxation	7.52@25.0
3.	Total Dissolved Solids mg/L	Part 16	500	2000	565.0
4.	Total Hardness (as CaCO ₃),mg/L	Part 21	200	600	324.0
5.	Calcium as Ca, mg/L	Part 40	75	200	16.03
6.	Magnesium as Mg, mg/L	Part 46	30	100	69.01
7.	Alkalinity as CaCO ₃ , mg/L	Part 23	200	600	376.0
8.	Chloride as Cl, mg/L	Part 32	250	1000	45.0
9.	Sulfate as SO ₄ , mg/L	Part 24	200	400	62.25
10.	Fluoride as F, mg/L	Part 60	1.0	1.5	0.94
11.	Iron as Fe, mg/L	Part 53	0.3	No relaxation	0.172
12.	Copper as Cu, mg/L	Part 42	0.05	1.5	0.008
13.	Manganese as Mn, mg/L	APHA(PART 3111B)	0.1	0.3	0.354
14.	Zinc as Zn, mg/L	Part 49	5.0	15.0	0.064
15.	Lead as Pb, mg/L	Part 47	0.01	No relaxation	<0.001
16.	Cadmium as Cd, mg/L	Part 41	0.003	No relaxation	<0.001
17.	Chromium as Cr, mg/L	Part 52	0.05	No relaxation	<0.001
18.	Nickel as Ni, mg/l	Part 54	0.02	No relaxation	<0.001

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Non NABL Test report – P.T.O

'End of Test Report'



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(A Govt. of India Autonomous Body)
Environmental Chemical Laboratory
Bhubaneswar, Odisha
TEST REPORT

Issued to : TATA STEEL LIMITED, MERAMANDALI

Date : 23.04.2024

Test report No – 03/2024-013

Source of Sample : NARENDRAPUR

Sample receiving Date : 01.03.2024

Type of Sample : well water

Sample Analysis Date : 01.03.2024

19.	*Color, Hazen units	Part 4	5	15	<5
20.	*Odour	Part 5	Agreeable	Agreeable	Agreeable
21.	*Conductivity, $\mu\text{S}/\text{cm}$	Part 14	-	-	964
22.	*Total Suspended Solid, mg/l	Part 17	-	-	8.0
23.	*Nitrite as NO_2 , mg/L	Part 34	-	-	0.089
24.	*Nitrate as NO_3 , mg/L	Part 34	45	No relaxation	10.63
25.	Sodium, mg/l	Part 45	-	-	75.36
26.	Potassium, mg/l	Part 45	-	-	3.39
27.	Residual Free Chlorine, mg/l	Part 26	0.2	1.0	<0.1
28.	Arsenic as As, mg/l	Part 37	0.01	No relaxation	<0.001
29.	Total Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	542/100ml
30.	Fecal Coliform by MPN	IS 1622 RA 2019	Shall not be detectable in 100ml sample	No relaxation	120/100ml

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Environmental Chemical Laboratory

Bhubaneswar, Odisha

(An NABL Accredited Laboratory)



TC-12319

TEST REPORT

Issued to: Tata Steel Limited, Meramandali

Date : 23.04.2024

Test Report No.03/2024-014

Sample Condition: In Plastic Jar

Sample quantity: 2 Litre

Sampling Method: APHA1060B

Source of Sample :

Sample Collected on: 01.03.2024

Letter Reference :

Sample Analysed on: 01.03.2024

Sl No	Characteristics	Test Method As Per APHA	Discharge to Lingra	Sepage water	Standard as per Class C-IS 2296/CPCB/SPCB
1	pH Value	APHA 4500H+ B	7.46	8.03	6.0-9.0
2	Colour	APHA 2120 B, C	1.3	4.6	300 (max)
3	Electrical Conductivity, $\mu\text{S}/\text{cm}$	APHA 2510 B	1485	1549	--
4	Total Dissolved Solids, mg/l	APHA 2540 C	967.0	1056.0	1500 (max)
5	Dissolved Oxygen, mg/l	APHA 2540 C	7.2	6.7	4 (min)
6	BOD (3) days at 27°C	APHA 5210 B	5.2	2.1	3 (max)
7	Chloride , mg/l	APHA 4500Cl- B	264.0	120.0	600 (max)
8	Fluoride as F , mg/l	APHA 4500F- C	9.8	2.0	1.5 (max)
9	Sulphates (SO_4) , mg/l	APHA 4500 SO42- E	169.0	478.0	400 (max)
10	Nitrate as NO_3 , mg/l	APH4500 NO_3 - E	86.4	3.57	50 (max)
11	Hexa Chromium as Cr^{+6} , mg/l	APHA 3500Cr B	0.009	0.014	0.05
12	Cyanide as CN , mg/l	APHA 4500 CN- C,D	<0.03	<0.03	0.05 (max)
13	Copper as Cu , mg/l	APHA 3111 B,C	0.014	0.019	1.5 (max)
14	Iron as Fe , mg/l	APHA 3500Fe, B	0.152	0.089	0.5 (max)
15	Cadmium as Cd , mg/l	APHA 3111 B,C	<0.001	<0.001	0.01 (max)

1 of 2

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TEST REPORT

16	Selenium as Se, mg/l	APHA 3114 B	<0.001	<0.001	0.05 (max)
17	Arsenic as As, mg/l	APHA 3114 B	<0.001	<0.001	0.2 (max)
18	Lead as Pb(max), mg/l	APHA 3111 B,C	<0.001	<0.001	0.1 (max)
19	Zinc as Zn(max), mg/l	APHA 3111 B,C	0.086	0.071	15 (max)
20	Sodium Absorption Ratio	By Calculation	16.43	12.84	--
21	Total Coliform (CFU/ml)	APHA 9221 B			5000
22	Fecal Coliform (CFU/ml)	APHA 9221 B			300
23	Manganese as Mn, mg/l		0.009	0.012	0.1
24	Sodium as Na, mg/l		125.68	126.71	
25	Potassium as K, mg/l		40.59	3.69	
26	Nickel as Ni, mg/l		0.008	0.005	0.02
27	Chemical Oxygen Demand, mg/l		48.0	32.0	
28	Free Ammonia, mg/l		<0.01	<0.01	0.5
29	Boron as B, mg/l		0.007	0.014	0.5

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TATA Steel Meramandali

Sl no	Location	Depth
S-1	Kisinda UP Stream- Surface water	
S-2	Ganthigadia – Ground water	2.2 metre
S-3	Khaliberena – Ground water	4.6 metre
S-4	Lingra UP Stream- Surface water	
S-5	Sarapa – Ground water	1.8 metre
S-6	Sibapur – Ground water	6.8 Metre
S-7	Charada – Ground water	7.5 Metre
S-8	Kochilamara – Ground water	5.9 metre
S-9	Kharag Prasad – Ground water	4.2 metre
S-10	Motonga – Ground water	4.1 Metre
S-11	Galpada – Ground water	4.7 metre
S-12	Lingara Down stream Surface water	
S-13	Kisinda Down Stream Surface water	
S-14	Etaapa – Ground water	8.2 metre
S-15	Narendrapur – Ground water	9.2 Metre

Dr. Ananta Kumar
 Environmental Chemist
 Environmental & Sustainability Dept.
 CSIR-Institute of Minerals & Materials Technology
 Bhubaneswar-751013, Odisha, INDIA

CSR EXPENDITURE AND ACTIVITY HIGHLIGHTS
(Around Tata Steel Ltd. Meramandali)

Period: From April'23 to March'24

PROGRAM HEAD	Expenditure (Rupees) in Lakh	MAJOR INTERVENTIONS/REMARKS
Health & drinking wtr	327.43	Public Health Unit; Rishta; Dengue/Malaria control, Cataract, Non communicable disease control
Education	912.85	PISCI culture, Lemon grass, SRI farming
Livelihood	173.55	Odapada pond renovation work. 9 acre
Infrastructure & misc.	792.16	Installation of tubewells; deep bore wells, pipeline system and water supply through tanker
Sports	50.80	School infrastructure; Education project: QUEST
Empowerment	94.48	WEE Project
Ethnicity	2.38	Volleyball coaching
Relief fund	0.03	Odia New year celebration (Maha Bisuva Sankranti)
TOTAL	2353.68	

Environment Laboratory TATA Steel Meramandali, Odisha

Ref.No. EMD/LAB/2023-24/138
Dt. 07.11.2023

S.N	Name of the unit	Location	Noise level in dB(A)		
			Min	Max	Leq
1	BF-2 Cast House	Control room	56.1	60.1	58.4
2	BF-2 Stock House	Near B F-2 Furnace area	80.7	83.8	82.2
3	Lime Plant	Control room office	48.4	59.3	56.7
4	BF PP-1 Boiler-03	Inside office building	59.0	66.6	61.9
5	Gas fired boiler 250 TPH Area	Near Control room office	55.4	69.3	58.7
		Office and Control Room	51.8	75.2	62.4
6	DRI	KILN NO-1, Near 1& 2 control room office	51.3	63.3	54.9
		KILN NO-3, Near 3& 4 control room office	51.6	61.6	52.7
		KILN NO-5, Near 5& 6 control room office	51.3	63.7	53.7
		KILN NO-7, Near 7& 8 control room office	51.5	73	58.2
		KILN NO-8, Near 9&10 control room office	51.4	77.9	60.1
7	BF-1 Cast House	Near B F-1 Furnace	81.1	82.6	80.8
8	BF-1 Stock House	BF-1 Office	48.9	60.2	58.7
		Near CRM Mill Complex Area	78.9	86.8	84.5
		Near I.L.L	SD	SD	SD
		Near ETP area	SD	SD	SD
		Near GP-1 Zinc Pot	SD	SD	SD
		Near GP-2 Zinc Pot	82.9	86.4	84.8
		Near GP-3 Zinc Pot	85.1	90	87.5
		Colour Coating Line	83.2	91.5	87.5
9	CRM	Mill-1	85.5	90.6	88.7
		Mill-2	51.2	58.4	56.3
		Mill-3	85.3	95.4	88.6
		CRM Plant Office	78.1	90.5	83.3
		ECL	85.9	89.4	86.9
		CRCA	SD	SD	SD
		SPM	78.9	86.8	84.5
		RGM	SD	SD	SD
10	Sinter Plant-1	9 m office room	56.7	70.3	62.8
		15 m office	69.3	80.7	71.1
		19 m office	55.0	71.2	63.7
		Store area	70.0	77.7	71
		Electrical office	54.4	64.4	55.6
11	Coke Oven-1	Control room office	53.4	85.5	55.7
12	Sinter Plant-02	Laboratory	50.3	58.3	54.5
13	Sinter Plant-03	Control Room Area	58	82.8	64.6
		Control Room Area	57.6	80.3	63.9
14	BOF Shop	BOF office area	54.7	69.9	59.5
		Near Wage bridge area	68.7	80.5	73.6

Environment Laboratory TATA Steel Meramandali, Odisha

120

15	SMS-2-FES-1&2	Booster House (ID Fan)	80.3	91.2	84.8
		Near Control room Area	51.2	79.8	60.5
		Near RHF Office area (Pulpit)	68.7	76.5	69.3
		Near Roll Shop area	80.2	84.1	83.4
16	HSM	Near HSM Quality Lab area	46.2	50.2	48.3
		DC pulpit office area	48.2	58.4	55.8
		FM area	85.9	88.5	86.5
		Near DC sampling Station	84.8	86.2	85.6
17	Coke Oven-2	Control Room Office	59.7	63.3	60.2
18	BFPP-2 Boiler-3	Control room	58.9	67.4	60.2
19	Oxygen Plant-02	Control Room Office	43.6	50.2	48.7
20	BB Plant	BB Plant Office	48.9	53.6	50.2
21	RMPP	Control Room Office	48.9	51.2	50.7
23	Coal Washery	Lab & Office Area	43.1	48.5	47.2
24	IBMD	New Sarpa MRP-II (Operator Cabin)	41.2	48.2	45.3
25	IBMD	Office & Operator Cabin (Old MRP)	43.6	48.2	45.3

N: B- All employees are provided ear plug / earmuff in noise prone areas.

A.K. Pradhan
Section I/C

Tushar Konisomal
Lab Manager (Lab)

M. Jeyaraj
Sr. Area Manager (Lab I/C)

...End Report...

Page 2 of 2

Environment Laboratory
TATA Steel Meramandali, Odisha

121

Ref.No. EMD/LAB/2023-24/0140
Dt.07.11.2023

S.N	Location	Monitoring Date	Noise Level dB(A) Leq (Day time)	Standard dB(A) Leq(Day Time)	Noise Level dB(A) Leq (Night time)	Standard dB(A) Leq(Night Time)
1	Colony	10.10.2023	52.8	55.0	42.3	45.0
2	Coke Oven-2	13.10.2023	65.1	75.0	58.1	70.0
3	AEL	25.10.2023	64.2	75.0	57.8	70.0

A.K. Pradhan
Section I/C

Tusar Kishor Samal
Sr. Manager (Lab)

Mani feyee Deb
Sr. Area Manager (Lab I/C)

...End Report...

50

Environment Laboratory
TATA Steel Meramandali, Odisha

Ref.No. EMD/LAB/2023-24/143
Dt.08.12.2023

S.N	Location	Monitoring Date	Noise Level dB(A) Leq (Day time)	Standard dB(A) Leq(Day Time)	Noise Level dB(A) Leq (Night time)	Standard dB(A) Leq(Night Time)
1	Colony	10.11.23	52.6	55.0	48.8	45.0
2	Coke Oven-2	16.11.23	63.1	75.0	56.8	70.0
3	AEL	21.11.23	64.2	75.0	76.6	70.0

A.K. Pradhan.
Section I/C

for Somendra Das
Manager (Lab)

Maiti Jayendra Das
Sr. Area Manager (Lab I/C)

...End Report...

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Environment Laboratory TATA Steel Meramandali, Odisha

15	SMS-2-FES-1&2	Booster House (ID Fan)	78.4	81.3	80.6
		Near Control room Area	58.6	73.1	62.7
		Near RHF Office area (Pulpit)	52.5	79.2	67.7
		Near Roll Shop area	79.1	84.9	83.0
16	HSM	Near HSM Quality Lab area	40.3	48.2	46.1
		DC pulpit office area	44.3	49.2	47.8
		FM area	84.9	90.0	86.9
		Near DC sampling Station	84.3	86.9	85.1
17	Coke Oven-2	Control Room Office	48.6	68.6	53.6
18	BFPP-2 Boiler-3	Control room	46.2	50.3	49.1
19	Oxygen Plant-02	Control Room Office	53.6	59.4	55.8
20	BB Plant	BB Plant Office	45.1	50.0	48.3
21	RMPP	Control Room Office	51.0	83.8	60.0
22	Coal washery	Lab & Office area	72.3	84.1	75.0
23	RMHS	RMHS Office	54.7	77.7	67.5
24	IBMD	New Sarpa MRP-II (Operator Cabin)	51.5	75.6	62.8
25		Office & Operator Cabin (Old MRP)	54.4	67.9	56.5

N: B- All employees are provided ear plug / earmuff in noise prone areas.

A.K. Pradhan
Section (I/C)

for Somnath Das
Manager (Lab)

Maitrayee Das
Sr. Area Manager (Lab I/C)

...End Report...

Page 2 of 2

Environment Laboratory

TATA Steel Meramandali, Odisha

52

Ref.No. EMD/LAB/2023-24/141
Dt.08.12.2023

S.N	Name of the unit	Location	Noise level in dB(A)		
			Min	Max	Leg
1	BF-2 Cast House	Control room	45.7	50.3	48.3
		Near B F-2 Furnace area	80.7	84.3	82.1
2	BF-2 Stock House	Control room office	45.2	48.3	46.1
3	Lime Plant	Inside office building	57.0	68.7	60.2
4	BF PP-1 Boiler-03	Near Control room office	44.7	51.3	48.9
5	Gas fired boiler 250 TPH Area	Office and Control Room	48.2	56.9	50.3
6	DRI	KILN NO-1, Near 1& 2 control room office	50.9	85.5	60
		KILN NO-3, Near 3& 4 control room office	48.3	56.9	51.4
		KILN NO-5, Near 5& 6 control room office	50.1	60.4	53.3
		KILN NO-7, Near 7& 8 control room office	45.9	51.3	48.3
		KILN NO-8, Near 9&10 control room office	48.3	55.4	50.1
7	BF-1 Cast House	Near B F-1 Furnace	80.3	83.0	81.5
8	BF-1 Stock House	BF-1 Office	43.9	48.3	47.3
9	CRM	Near CRM Mill Complex Area	78.0	80.7	79.4
		Near T.L.L	SD	SD	SD
		Near ETP area	82.6	86.1	84.0
		Near GP-1 Zinc Pot	85.0	92.1	87.1
		Near GP-2 Zinc Pot	84.5	90.9	87.1
		Near GP-3 Zinc Pot	SD	SD	SD
		Colour Coating Line	80.5	97.5	84.1
		Mill-1	SD	SD	SD
		Mill-2	84.1	92.3	88.4
		Mill-3	84.6	90.4	86.5
		CRM Plant Office	43.5	49.3	45.4
		ECL	86.0	92.3	88.9
		CRCA	77.9	89.2	81.2
		SPM	86.7	91.4	89.0
		RGM	77.4	86.9	80.8
10	Sinter Plant-1	9 m office room	66.9	84.2	73.1
		15 m office	60.9	70.0	65.4
		19 m office	50.7	60.1	58.9
		Store area	77.1	80.2	78.2
		Electrical office	48.9	50.1	49.0
11	Coke Oven-1	Control room office	55.8	79.8	58.3
		Laboratory	54.6	60.6	55.8
12	Sinter Plant-02	Control Room Area	45.1	48.3	45.1
13	Sinter Plant-03	Control Room Area	42.3	49.0	44.8
14	BOF Shop	BOF office area	45.3	48.3	47.1
		Near Wage bridge area	78.5	81.6	80.3

Mitra S. K. Private Limited

Address of Laboratory :

Building No. P-48, Udayan Industrial Estate,
3, Pagladanga Road, Kolkata 700015
West Bengal
Tel : +91 7044036120
Email: udayanlab@mitrask.com



TC-6950



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ULR: TC-695023000008246F



TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/RPD64J

Date :

02/12/2023

Sample No. :

MSKNB/ED/2023-24/11/X43020

Date of receipt of sample:

28/11/2023

Date(s) of performance:

28/11/2023 - 02/12/2023

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	24/11/2023
5. Place of sampling	CAAOMS 7 (Material Gate)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Mr. Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/RPD64J

Sample No. : MSKNB/ED/2023-24/11/X43020

RESULT

Chemical				
Sl No	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	72.0
2	Leq dB(A) night	dB(A)	IS 9989	69.2

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By

Signature

Name : Mr. Bansi Jena

Designation : Executive Chemist

Authorized Signatory

Signature

Name : Mr. Bansi Jena

Designation : Executive Chemist

The results relate only to the item(s) tested

This Test Report shall not be reproduced except in full, without the permission of Mitra S.K. Private Limited.

The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 7 days from the date of issue of the Test Report

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report

The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Spoiled food) shall be retained for 15 days from the date of issue of the Test Report

Head Office: Service Centre (8th Floor), 74B, A.J.C. Bose Road, Kolkata - 700016, West Bengal, India

Tel : 91 33 40143000 / 22650007 Fax : 91 33 22650008

Email : info@mitrask.com Website : www.mitrask.com



Mitra S. K. Private Limited

Address of Laboratory :

Building No. P- 48, Udayan Industrial Estate,
3, Pagladanga Road, Kolkata 700015
West Bengal
Tel. : +91 7044036120
Email: udayantab@mitrask.com



TC-6960



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ULR: TC-695023000038245F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/VAD64Z

Date :

02/12/2023

Sample No. :

MSKNB/ED/2023-24/11/2M302U

Date of receipt of sample:

28/11/2023

Date(s) of performance:

28/11/2023 - 02/12/2023

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	24/11/2023
5. Place of sampling	CAAQMS 6(Wagon Tippler)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Mr. Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/VAD64Z

Sample No. : MSKNB/ED/2023-24/11/2M302U

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	72.5
2	Leq dB(A) night	dB(A)	IS 9989	68.7

Opinion : NA

Statement of Conformity NA

— END —

Reviewed By

Signature

Name : Mr. Bang Juna

Designation : Executive Chemist

Authorized Signatory

Signature

Name : Mr. Bang Juna

Designation : Executive Chemist

The results relate only to the item(s) tested

This Test Report shall not be reproduced except in full, without the permission of Mitra S. K. Private Limited.

The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 7 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Sox, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

Head Office: Service Centre (6th Floor): 74B, A. J. C. Bose Road, Kolkata - 700015, West Bengal, India
Tel : 91 33 40143000 / 22650007 Fax : 91 33 22650006
Email : info@mitrask.com Website : www.mitrask.com

Mitra S. K. Private Limited

Address of Laboratory :

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3, Pagladanga Road, Kolkata 700015
West Bengal
Tel. : +91 7044036120
Email: udayanlab@mitrask.com



TC-6950

Doc: MSK/GEN/1947



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ULR: TC-695023000008241F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/1AD045

Date :

02/12/2023

Sample No. :

MSKNB/ED/2023-24/11/NA302Y

Date of receipt of sample:

25/11/2023

Date(s) of performance:

25/11/2023 - 02/12/2023

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	22/11/2023
5. Place of sampling	CAAQMS 1(Colony)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Mr. Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/1AD645

Sample No. : MSKNB/ED/2023-24/11/NA302Y

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	71.7
2	Leq dB(A) night	dB(A)	IS 9989	67.3

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature

Name : Mr. Banal Jena

Designation : Executive Chemist

Authorized Signatory:

Signature

Name : Mr. Banal Jena

Designation : Executive Chemist

This results relate only to the item(s) tested.

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The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

Head Office: Shreeji Centre (6th Floor), 74B, A.J.C. Bose Road, Kolkata - 700016, West Bengal, India

Tel. : 91 33 40143000 / 22650007 Fax : 91 33 22680008
Email : info@mitrask.com Website : www.mitrask.com

Mitra S. K. Private Limited

Address of Laboratory :

Building No. P- 48, Udayan Industrial Estate,
3, Pagladanga Road, Kolkata 700015
West Bengal
Tel. : +91 7044036120
Email: udayanlab@mitrask.com



TC-6950

Doc: MSK/GEN/1A/27



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ULR: TC-695023000007976F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/7PCBFQ

Date :

21/11/2023

Sample No. :

MSKNB/ED/2023-24/11/UH1E55

Date of receipt of sample:

18/11/2023

Date(s) of performance:

16/11/2023 - 21/11/2023

Location of performance of

Permanent Facility

Reference No. & Date :

3000148655/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	13/11/2023
5. Place of sampling	Ceagms-2(AEL)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Mr. Chinmaya Biswal
9. Field Equipments Used	MSK/BSSR/FIELD/SLM-01

Report No. : MSKPL/ED/2023-24/7PCBFQ

Sample No. : MSKNB/ED/2023-24/11/UH1E55

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	71.3
2	Leq dB(A) night	dB(A)	IS 9989	68.0

Opinion : NA

Statement of Conformity NA

— END —

Reviewed By:

Signature :

Name : Mr. Dinesh Jena

Designation : Executive Chemist

Authorized Signatory:

Signature :

Name : Mr. Bagesh Jena

Designation : Executive Chemist

The results relate only to the item(s) tested.

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The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for microbiological analysis (Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) if month from the date of issue of the Test Report.

The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

Head Office: Service Centre (5th Floor), 74B, A.J.C. Bose Road, Kolkata - 700016, West Bengal, India.
Tel. : 91 33 40143000 / 22650007 Fax : 91 33 22650008
Email : info@mitrask.com Website : www.mitrask.com

Mitra S. K. Private Limited

Address of Laboratory :

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Tel. : +91 7044036120
Email: udayanlab@mitrask.com



TC-6950

DIN: MSK/GEN/15017



Scan for Portal

ULR: TC-695023000007970F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDI, DHENKANAL
ODISHA India Pin 759120

Report No. :

MSKPL/ED/2023-24/JQCB39

Date :

21/11/2023

Sample No. :

MSKNB/ED/2023-24/11/QV1C7Z

Date of receipt of sample:

14/11/2023

Date(s) of performance:

14/11/2023 - 21/11/2023

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	10/11/2023
5. Place of sampling	Casqms-4(HSM Water Complex)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Mr. Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/JQCB39

Sample No. : MSKNB/ED/2023-24/11/QV1C7Z

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	71.7
2	Leq dB(A) night	dB(A)	IS 9989	69.9

Opinion : NA

Statement of Conformity NA

-----END-----

Reviewed By

Signature

Name : Mr. Banerjee

Designation : Executive Chemist

Authorized Signatory

Signature

Name : Mr. Bipin Jana

Designation : Executive Chemist

The results relate only to the item(s) tested.

This Test Report shall not be reproduced except in full, without the permission of Mitra S. K. Private Limited.

The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

Head Office: Strachey Centre (3rd Floor), 74B, A. J. C. Bose Road, Kolkata - 700016, West Bengal, India

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Environment Laboratory
TATA Steel Meramandali, Odisha

Ref.No. EMD/LAB/2023-24/0146
Dt.- 01.01.2024

AMBIENT NOISE MONITORING
TATA STEEL Ltd. (Dec' 23)

S.N	Location	Monitoring Date	Noise Level dB(A) Leq (Day time)	Standard dB(A) Leq(Day Time)	Noise Level dB(A) Leq (Night time)	Standard dB(A) Leq(Night Time)
1	Colony	29.12.23	53.9	55.0	53.3	45.0
2	Coke Oven-2	16.12.23	62.8	75.0	58.9	70.0
3	AEL	22.12.23	64.2	75.0	57.9	70.0

Sambatta D L
Section I/C

Res. Somal
SOS Manager (Lab)

Maib. Syee D L
Sr .Manager (Lab I/C)

...End Report...

Environment Laboratory TATA Steel Meramandali, Odisha

64

Ref.No. EMD/LAB/2023-24/0144
Dt- 05.01.2024

TATA Steel Meramandali, Odisha
Environment Laboratory

S.N	Name of the unit	Location	Noise level in dB(A)		
			Min	Max	Leg
1	BF-2 Cast House	Control room	51.1	62.1	55.9
		Near B F-2 Furnace area	79.3	82.1	80.7
2	BF-2 Stock House	Control room office	51.3	57.0	52.7
3	Lime Plant	Inside office building	55.3	78.5	64.2
4	BF PP-1 Boiler-03	Near Control room office	45.6	65.9	60.7
5	Gas fired boiler 250 TPH Area	Office and Control Room	44.8	68.3	59.0
6	DRI	KILN NO-1, Near 1& 2 control room office	60.2	69.3	64.4
		KILN NO-3, Near 3& 4 control room office	62.4	68.7	65.3
		KILN NO-5, Near 5& 6 control room office	61.0	71.7	63.6
		KILN NO-7, Near 7& 8 control room office	61.4	78.0	65.5
		KILN NO-8, Near 9&10 control room office	62.2	73.6	65.6
7	BF-1 Cast House	Near B F-1 Furnace	75.3	97.3	79.6
8	BF-1 Stock House	BF-1 Office	43.7	50.3	48.9
9	CRM	Near CRM Mill Complex Area	75.6	84.6	78.2
		Near T.L.L	SD	SD	SD
		Near ETP area	79.0	82.5	80.1
		Near GP-1 Zinc Pot	SD	SD	SD
		Near GP-2 Zinc Pot	87.0	90.4	87.8
		Near GP-3 Zinc Pot	85.8	88.4	87.2
		Colour Coating Line	84.6	86.6	85.6
		Mill-1	85.3	90.7	86.6
		Mill-2	85.4	88.7	86.7
		Mill-3	SD	SD	SD
		CRM Plant Office	48.1	55.6	49.8
		ECL	SD	SD	SD
		CRCA	77.4	84.7	79.8
		SPM	86.6	89.6	88.0
		RGM	79.3	88.7	83.0
10	Sinter Plant-1	9 m office room	63.8	74.8	71.9
		15 m office	51.7	78.6	64.3
		19 m office	61.4	83.3	72.4
		Store area	74.9	78.4	76.9
		Electrical office	51.5	78.3	67.7
11	Coke Oven-1	Control room office	45.3	62.7	60.0
		Laboratory	49.8	50.4	57.6
12	Sinter Plant-02	Control Room Area	49.6	57.7	51.0
13	Sinter Plant-03	Control Room Area	63.6	83.5	66.6
14	BOF Shop	BOF office area	51.7	79.7	65.0
		Near Wage bridge area	69.5	79.8	73.0


Environment Laboratory TATA Steel Meramandali, Odisha

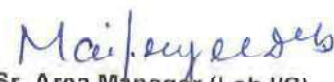
65

15	SMS-2-FES-1&2	Booster House (ID Fan)	80.1	91.0	84.3
		Near Control room Area	60.3	72.1	64.8
		Near RHF Office area (Pulpit)	73.5	82.7	75.4
		Near Roll Shop area	75.8	86.7	81.6
16	HSM	Near HSM Quality Lab area	50.1	60.1	58.4
		DC pulpit office area	61.3	81.0	67.4
		FM area	86.3	95.9	88.6
		Near DC sampling Station	78.4	102.4	85.7
17	Coke Oven-2	Control Room Office	62.7	75.2	65.8
18	BF-PP-2 Boiler-3	Control room	50.8	60.9	58.4
19	Oxygen Plant-02	Control Room Office	55.4	65.3	62.9
20	BB Plant	BB Plant Office	74.4	81.3	80.7
21	RMPP	Control Room Office	52.6	82.0	69.8
22	Coal washery	Lab & Office area	54.6	72.8	58.6
23	RMHS	RMHS Office	54.1	59.0	56.1
24	IRMD	New Sarpa MRP-II (Operator Cabin)	48.5	55.9	51.3
25		Office & Operator Cabin (Old MRP)	51.6	58.9	54.9

N: B- All employees are provided ear plug / earmuff in noise prone areas.


Section (I/C)


Gr Manager (Lab)


Sr. Area Manager (Lab I/C)

...End Report...

Page 2 of 2



Mitra S. K. Private Limited

Address of Laboratory :

Building No. P- 48, Udayan Industrial Estate,
3, Pagladanga Road, Kolkata 700015
West Bengal
Tel. : +91 7044036120
Email: udayanlab@mitrasak.com



TC-6950



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ULR: TC-69502400000093F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/1 PEC2W

Date :

03/01/2024

Sample No. :

MSKNB/ED/2023-24/12/CV57AD

Date of receipt of sample:

26/12/2023

Date(s) of performance:

29/12/2023 - 03/01/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample (if any)	NA
4. Date of sampling	27/12/2023
5. Place of sampling	Caaqma-4 (IIGM Water Complex)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Ranjit Pradhan
9. Field Equipments Used	N/A

Report No. : MSKPL/ED/2023-24/1PEC2W

Sample No. : MSKNB/ED/2023-24/12/CV57AD

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	72.1
2	Leq dB(A) night	dB(A)	IS 9989	67.6

Opinion : NA

Statement of Conformity : NA

----- END -----

Reviewed By:

Signature :

Name : Mr. Bansi Jana

Designation : Executive Chemist

Authorized Signatory:

Signature :

Name : Mr. Bansi Jana

Designation : Executive Chemist

The results relate only to the item(s) tested.

This Test Report shall not be reproduced except in full, without the permission of Mitra S.K. Private Limited.

The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Mitra S. K. Private Limited

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3, Pagladanga Road, Kolkata 700015
West Bengal
Tel. : +91 7044036120
Email: udayanlab@mitrask.com



TC-6950

Doc: MSK/GEN/1907



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ULR: TC-695024000000091F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

Date :

Sample No. :

Date of receipt of sample:

Date(s) of performance:

Location of performance of

Reference No. & Date :

Discipline:

MSKPL/ED/2023-24/C6EC2S

03/01/2024

MSKNB/ED/2023-24/12/XN57AU

29/12/2023

29/12/2023 - 03/01/2024

Permanent Facility

3030148695/A05. Date - 15/12/2022

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	26/12/2023
5. Place of sampling	Caaqms-3(CRM)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Ranjit Pradhan
9. Field Equipments Used	N/A

Report No. : MSKPL/ED/2023-24/C6EC2S

Sample No. : MSKNB/ED/2023-24/12/XN57AU

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	71.2
2	Leq dB(A) night	dB(A)	IS 9989	67.5

Opinion : NA

Statement of Conformity NA

— END —

Reviewed By:

Signature :

Name : Mr. Ranjit Pradhan

Designation : Executive Chemist

Authorized Signatory

Signature

Name : Mr. Ranjit Pradhan

Designation : Executive Chemist

The results relate only to the item(s) tested.

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The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCRI guidelines & (Air) 1 month from the date of issue of the Test Report.

The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Mitra S. K. Private Limited

Address of Laboratory :

Building No. P- 48, Udayan Industrial Estate,
3, Pagladanga Road, Kolkata 700016
West Bengal
Tel. : 91 7044030120
Email: udayanlab@mitrask.com



TC-6950

Doc: MSK/GEN/19/07



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ULR: TC 695024000000238F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/LREC3A

Date :

05/01/2024

Sample No. :

MSKNB/ED/2023-24/12/ZC61BF

Date of receipt of sample:

01/01/2024

Date(s) of performance:

01/01/2024 - 05/01/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	29/12/2023
5. Place of sampling	Coke Oven-1 Laboratory
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	N/A

Report No. : MSKPL/ED/2023-24/LREC3A

Sample No. : MSKNB/ED/2023-24/12/ZC61BF

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	58.8

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By

Signature

Name : Mr. Bansi Jana

Designation : Executive Chemist

Authorized Signatory

Signature

Name : Mr. Bansi Jana

Designation : Executive Chemist

The results relate only to the item(s) tested.

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The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report. The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Mitra S. K. Private Limited

Address of Laboratory :

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3, Pagladanga Road, Kolkata 700015
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Tel : +91 9044038120
Email: udayanlab@mitrask.com



TC-8950

69
Doc: MSK/GEN/15/07



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ULR: TC-695024000000237F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/NPEC3E

Date :

05/01/2024

Sample No. :

MSKNB/ED/2023-24/12/KN61D3

Date of receipt of sample:

01/01/2024

Date(s) of performance:

01/01/2024 - 05/01/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	29/12/2023
5. Place of sampling	Coke Oven-1 Control Room Office
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaye Biswal
9. Field Equipments Used	N/A

Report No. : MSKPL/ED/2023-24/NPEC3E

Sample No. : MSKNB/ED/2023-24/12/KN61D3

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	68.0

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature :

Name : Mr. Banasi Jana

Designation : Executive Chemist

Authorized Signatory:

Signature :

Name : Mr. Banasi Jana

Designation : Executive Chemist

The results relate only to the item(s) tested.

This Test Report shall not be reproduced except in full, without the permission of Mitra S.K. Private Limited.

The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Solid, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report. The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Mitra S. K. Private Limited

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West Bengal
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Email: udayanlab@mitrask.com



TC-6950



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ULR: TC-695024000000238F



TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/A6EC3G

Date :

05/01/2024

Sample No. :

MSKNB/ED/2023-24/12/J161FW

Date of receipt of sample:

01/01/2024

Date(s) of performance:

01/01/2024 - 05/01/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	28/12/2023
5. Place of sampling	Coke Oven-1 Near Battery-2 Area
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chiranjaya Biswal
9. Field Equipments Used	N/A

Report No. : MSKPL/ED/2023-24/A6EC3G

Sample No. : MSKNB/ED/2023-24/12/J161FW

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	84.1

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature :

Name : Mr. Baral Jana

Designation : Executive Chemist

Authorized Signatory:

Signature :

Name : Mr. Baral Jana

Designation : Executive Chemist

The results relate only to the item(s) tested.

This Test Report shall not be reproduced except in full, without the permission of Mitra S. K. Private Limited.

The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

Head Office: Shree Centre (5th Floor) 74B, A J C Bose Road, Kolkata - 700016, West Bengal, India.
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Email : info@mitrask.com Website : www.mitrask.com

Mitra S. K. Private Limited

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3, Pagladanga Road, Kolkata 700015
West Bengal
Tel. : +91 7044036120
Email: udayanlab@mitrask.com



TC-6950



Scan for Portal

ULR: TC-695024000000235F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA, India Pin 759129

Report No. :

MSKPL/ED/2023-24/HZEC3X

Date :

05/01/2024

Sample No. :

MSKNB/ED/2023-24/12/BL61EU

Date of receipt of sample:

01/01/2024

Date(s) of performance:

01/01/2024 - 05/01/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	29/12/2023
5. Place of sampling	Coke Oven-1 Near Battery-1 Area
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	N/A

Report No. : MSKPL/ED/2023-24/HZEC3X

Sample No. : MSKNB/ED/2023-24/12/BL61EU

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	85.1

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature

Name : Mr. Bimal Jana

Designation : Executive Chemist

Authorized Signatory

Signature

Name : Mr. Bimal Jana

Designation : Executive Chemist

The results relate only to the item(s) tested.

This Test Report shall not be reproduced except in full, without the permission of Mitra S. K. Private Limited.

The retained part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The retained part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

The retained part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

Head Office: Service Centre (5th Floor), 74B, A.J.C. Bose Road, Kolkata - 700016, West Bengal, India.
Tel.: 91 30 40143000 / 2265-0007 Fax: 91 30 2265-0000
Email: info@mitrask.com Website: www.mitrask.com

Mitra S. K. Private Limited

Address of Laboratory :

Building No. P- 49, Udayan Industrial Estate,
3, Pagladanga Road, Kolkata 700016
West Bengal
Tel : 91 7044030120
Email: udayanlab@mitrask.com



IC-6950



Scan for Portal

ULR: TC-695024000000234F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

Date :

Sample No. :

Date of receipt of sample:

Date(s) of performance:

Location of performance of

Reference No. & Date :

Discipline:

MSKPL/ED/2023-24/N8EC39

05/01/2024

MSKNB/ED/2023-24/12/0L61CE

01/01/2024

01/01/2024 - 05/01/2024

Permanent Facility

3000148695/A06, Date - 15/12/2022

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample (if any)	NA
4. Date of sampling	29/12/2023
5. Place of sampling	Coke Oven-1 Near Stone Cutter Building Area
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	N/A

Report No. : MSKPL/ED/2023-24/N8EC39

Sample No. : MSKNB/ED/2023-24/12/0L61CE

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	83.6

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature :

Name : Mr. Bani Jana

Designation : Executive Chemist

Authorized Signatory:

Signature :

Name : Mr. Bani Jana

Designation : Executive Chemist

The results relate only to the item(s) tested.

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The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per GPCB guideline & (Air) 1 month from the date of issue of the Test Report. The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Mitra S. K. Private Limited

Address of Laboratory :

Building No. P- 48, Udayan Industrial Estate,
3, Pagladanga Road, Kolkata 700015
West Bengal
Tel : +91 7044035120
Email: udayanlab@mitrask.com



TC-6950



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ULR: TC-695024000000233F



TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/DBEC32

Date :

05/01/2024

Sample No. :

MSKNB/ED/2023-24/12/C361BG

Date of receipt of sample:

30/12/2023

Date(s) of performance:

30/12/2023 - 05/01/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	28/12/2023
5. Place of sampling	Caaqms-5(Coke Oven-2)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BB3R/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/DBEC32

Sample No. : MSKNB/ED/2023 24/12/C361BG

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	71.6
2	Leq dB(A) night	dB(A)	IS 9989	68.4

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature :

Name : Mr. Banal Jana

Designation : Executive Chemist

Authorized Signatory:

Signature :

Name : Mr. Banal Jana

Designation : Executive Chemist

The results relate only to the item(s) tested.

This Test Report shall not be reproduced except in full, without the permission of Mitra S. K. Private Limited.

The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 10 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Environment Laboratory

TATA Steel Limited, Meramandali, Odisha

Ref.No. EMD/LAB/2023-24/0147
Dt.07.02.2024

Noise level in dB(A)
at various locations of the plant

S.N	Name of the unit	Location	Noise level in dB(A)		
			Min	Max	Leq
1	BF-2 Cast House	Control room	57.4	61.2	59.4
		Near B F-2 Furnace area	78.2	89.4	80.7
2	BF-2 Stock House	Control room office	55.4	62.3	58.7
3	Lime Plant	Inside office building	55.5	71.7	59.4
4	BF PP-1 Boiler-03	Near Control room office	65.5	89.5	73.3
5	Gas fired boiler 250 TPH Area	Office and Control Room	54.9	63.8	58.4
6	DRI	KILN NO-1, Near 1& 2 control room office	57.4	64.2	61.7
		KILN NO-3, Near 3& 4 control room office	49.9	65	59.5
		KILN NO-5, Near 5& 6 control room office	44.5	63.2	58.2
		KILN NO-7, Near 7& 8 control room office	46.3	74.7	63
		KILN NO-8, Near 9&10 control room office	46.2	69	58.6
7	BF-1 Cast House	Near B F-1 Furnace	78.5	86.5	80.3
8	BF-1 Stock House	BF-1 Office	60.2	66.2	63.5
9	CRM	Near CRM Mill Complex Area	66.4	83.8	74
		Near T.L.L	82	89.6	86.3
		Near ETP area	77.6	85.6	82.9
		Near GP-1 Zinc Pot	85.1	90.9	87.2
		Near GP-2 Zinc Pot	85	90.8	87.6
		Near GP-3 Zinc Pot	85.4	89.3	87.6
		Colour Coating Line	82.9	87.2	84.5
		Mill-1	81.8	96.8	85.7
		Mill-2	84.1	88.6	86.8
		Mill-3	SD	SD	SD
		CRM Plant Office	49	52.6	51.3
		ECL	86.6	89.2	88.2
		CRCA	78.4	85.2	82.6
		SPM	84.8	98.7	88.9
		RGM	78.7	86.2	82.2
10	Sinter Plant-1	9 m office room	48.3	74	55.5
		15 m office	50.3	67	56.3
		19 m office	61.3	83.3	75.1
		Store area	78	81.3	79.3
		Electrical office	51.4	85.1	73.4
11	Coke Oven-1	Control room office	60.8	71.9	62.8
		Laboratory	54.5	60	57.4
12	Sinter Plant-02	Control Room Area	56.3	62.8	58.4
13	Sinter Plant-03	Control Room Area	54.9	60.3	57.8
14	BOF Shop	BOF office area	53.5	82.8	70.8
		Near Wage bridge area	71.4	90.7	75.8

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Environment Laboratory TATA Steel Limited, Meramandali, Odisha

15	SMS-2-FES-1&2	Booster House (ID Fan)	81.2	86.2	84.1
		Near Control room Area	56.2	67.8	61.3
16	HSM	Near RHF Office area (Pulpit)	81.7	91.1	84.1
		Near Roll Shop area	75.1	82.7	77.5
		Near HSM Quality Lab area	55.9	63.2	60.3
		DC pulpit office area	61.7	86.8	66.5
		FM area	87.5	98.1	90.4
		Near DC sampling Station	76.3	92.4	80.4
17	Coke Oven-2	Control Room Office	48.5	72.4	60.8
18	BFPP-2 Boiler-3	Control room	63	86.2	72.1
19	Oxygen Plant-02	Control Room Office	56.3	81.9	63.3
20	BB Plant	BB Plant Office	55.2	64.1	59.8
21	RMPP	Control Room Office	53.3	71.2	56.2
22	Coal washery	Lab & Office area	53.1	82.9	60.4
23	RMHS	RMI IS Office	50.7	74.3	57.4
24	IBMD	New Sarpa MRP II (Operator Cabin)	54.1	60.2	58.3
25		Office & Operator Cabin (Old MRP)	58.4	69.3	60.4

N: B- All employees are provided ear plug / earmuff in noise prone areas.

T.K. Samal.
Section (I/C)

M. S.
Manager (Lab)
(*Upendra Kumar M.*)
...End Report...

Sr. Area Manager (Lab I/C)

Page 2 of 2

Environment Laboratory
TATA Steel Limited, Meramandali, Odisha

Ref.No. EMD/LAB/2023-24/0149
Dt.- 07.02.2024

AMBIENT NOISE MONITORING
TATA STEEL Ltd. (January' 2024)

S.N	Location	Monitoring Date	Noise Level dB(A) Leq (Day time)	Standard dB(A) Leq(Day Time)	Noise Level dB(A) Leq (Night time)	Standard dB(A) Leq(Night Time)
1	Colony	05.01.2024	50.5	55.0	43.6	45.0
2	Coke Oven-2	19.01.2024	59.2	75.0	58.6	70.0
3	AEL	12.01.2024	67.7	75.0	58.0	70.0

A.K. Pradhan.
Section (I/C)


Manager (Lab)


Sr. Area Manager

...End Report...

Mitra S. K. Private Limited

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TC-6950

Doc: MSK/CE-1507



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ULR: TC-695024000001066F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL,
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/810CA7

Date :

24/01/2024

Sample No. :

MSKNB/ED/2023-24/01/FN254C

Date of receipt of sample:

18/01/2024

Date(s) of performance:

18/01/2024 - 24/01/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A03, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	15/01/2024
5. Place of sampling	Caaqms-1(Colony)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/810CA7

Sample No. : MSKNB/ED/2023-24/01/FN254C

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	63.3
2	Leq dB(A) night	dB(A)	IS 9989	59.7

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By

Signature

Name

Mr. Bangs Jaha

Designation

Executive Chemist

Authorized Signatory

Signature

Name

Mr. Bangs Jaha

Designation

Executive Chemist

The results relate only to the sample(s) tested.

This Test Report shall not be reproduced except in full, without the permission of Mitra S. K. Private Limited.

The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report. The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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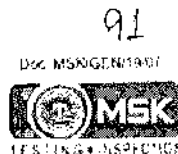
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West Bengal
Tel. : +91 7044036120
Email: udayanlab@mitrask.com



TC-6050



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ULR: TC-695024000001340F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/G10FFK

Date :

29/01/2024

Sample No. :

MSKNB/ED/2023-24/01/VWZ7AU

Date of receipt of sample:

20/01/2024

Date(s) of performance:

20/01/2024 - 29/01/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	17/01/2024
5. Place of sampling	Caaqms-2(AEL)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/G10FFK

Sample No. : MSKNB/ED/2023-24/01/VWZ7AU

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	67.3
2	Leq dB(A) night	dB(A)	IS 9989	62.0

Opinion : NA

Statement of Conformity : NA

— END —

Reviewed By:

Signature :

Name

Mr. Jyoti Jena

Designation :

Executive Chemist

Authorized Signatory:

Signature

Name

Mr. Jyoti Jena

Designation

Executive Chemist

The results relate only to the item(s) tested.

This Test Report shall not be reproduced except in full, without the permission of Mitra S. K. Private Limited.

The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Address of Laboratory :

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West Bengal
Tel. : +91 7044035120
Email: udayanlab@mitrask.com



TC-6950



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TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/010FFZ

Date :

29/01/2024

Sample No. :

MSKNB/ED/2023-24/01/9935CA

Date of receipt of sample:

20/01/2024

Date(s) of performance:

20/01/2024 - 29/01/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	18/01/2024
5. Place of sampling	Cnagms-4(HSM Water Complex)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinnmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/010FFZ

Sample No. : MSKNB/ED/2023-24/01/9935CA

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	67.1
2	Leq dB(A) night	dB(A)	IS 9989	66.3

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By

Signature

Name : Mr. Biswajit Jana

Designation : Executive Chemist

Authorized Signatory

Signature

Name : Mr. Biswajit Jana

Designation : Executive Chemist

The results relate only to the item(s) tested.

This Test Report shall not be reproduced except in full, without the permission of Mitra S. K. Private Limited.

The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 7 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per GPCB guideline & (Air) 3 month from the date of issue of the Test Report.

The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Mitra S. K. Private Limited

Address of Laboratory :

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West Bengal
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Email: udayanlab@mitrask.com



TC-6950



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ULR: TC-695024000001372F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL,
ODISHA India Pin 759129

Report No. :

Date :

Sample No. :

Date of receipt of sample:

Date(s) of performance:

Location of performance of

Reference No. & Date :

Discipline:

MSKPL/ED/2023-24/V10FF4

30/01/2024

MSKNB/ED/2023-24/01/ST3C8B

24/01/2024

24/01/2024 - 30/01/2024

Permanent Facility

3000148895/A06, Date - 15/12/2022

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	22/01/2024
5. Place of sampling	Caagms-5(Coke Oven-2)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/V10FF4

Sample No. : MSKNB/ED/2023-24/01/ST3C8B

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	70.4
2	Leq dB(A) night	dB(A)	IS 9989	65.0

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By

Signature :

Name : Mr. Baral Jana

Designation : Executive Chemist

Authorized Signatory

Signature :

Name : Mr. Baral Jana

Designation : Executive Chemist

The results relate only to the item(s) tested.

This Test Report shall not be reproduced in full, without the permission of Mitra S. K. Private Limited.
The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.
The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Mitra S. K. Private Limited

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3, Pagiadanga Road, Kolkata 700015
West Bengal
Tel : +91 7044036120
Email: udayanlab@midrask.com



TC-6950



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ULR: TC-695024000001343F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

Date :

Sample No. :

Date of receipt of sample:

Date(s) of performance:

Location of performance of

Reference No. & Date :

Discipline:

MSKPL/ED/2023-24/610FFR

29/01/2024

MSKNB/ED/2023-24/01/P235CA

22/01/2024

22/01/2024 - 29/01/2024

Permanent Facility

3000148695/A06, Date - 15/12/2022

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	19/01/2024
5. Place of sampling	Caaqms-6(Wagon Tippler)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/610FFR

Sample No. : MSKNB/ED/2023-24/01/P235CA

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	66.1
2	Leq dB(A) night	dB(A)	IS 9989	64.1

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By

Signature :

Name : Mr. Nitro Jana

Designation : Executive Chemist

Authorized Signatory:

Signature :

Name : Mr. Nitro Jana

Designation : Executive Chemist

The results relate only to the item(s) tested.

This Test Report shall not be reproduced except in full, without the permission of Mitra S.K. Private Limited.
The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.
The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Email : info@midrask.com Website : www.mitrask.com

Page 1 of 1

Mitra S. K. Private Limited

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West Bengal
Tel : +91 7044036120
Email: udayanlab@mitrask.com



TC-6950



Scan for Portal

ULR: TC-695024000001344F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/010FF4

Date :

29/01/2024

Sample No. :

MSKNB/ED/2023-24/01/5F35EU

Date of receipt of sample:

22/01/2024

Date(s) of performance:

22/01/2024 - 29/01/2024

Location of performance of

Permanent Facility

Reference No. & Date :

300014B895/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	20/01/2024
5. Place of sampling	Casqma-7 (Material Gate)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/010FF4

Sample No. : MSKNB/ED/2023-24/01/5F35EU

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	70.3
2	Leq dB(A) night	dB(A)	IS 9989	67.7

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature

Name : Mr. Ranajit Jana

Designation : Executive Chemist

Authorized Signatory

Signature

Name : Mr. Ranajit Jana

Designation : Executive Chemist

The results relate only to the item(s) tested

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The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline 3. (Air) 1 month from the date of issue of the Test Report.

The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

Head Office: Strachy Centre (5th Floor), T40, A.J.C. Bose Road, Kolkata - 700015, West Bengal, India
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Environment Laboratory
TATA Steel Meramandali, Odisha

Ref.No. EMD/LAB/2023-24/0150
Dt.06.03.2024

AMBIENT NOISE MONITORING
TATA STEEL Ltd. (Feb' 24)

S.N	Location	Monitoring Date	Noise Level dB(A) Leq (Day time)	Standard dB(A) Leq(Day Time)	Noise Level dB(A) Leq (Night time)	Standard dB(A) Leq(Night Time)
1	Colony	16.02.24	51.2	55.0	43.8	45.0
2	Coke Oven-2	02.02.24	58.0	75.0	56.2	70.0
3	AEL	09.02.24	58.6	75.0	57.6	70.0

A.K. Padhan.
Section (I/C)

[Signature]
Manager (Lab)

[Signature]
Sr.Area Manager

...End Report...

Environment Laboratory

TATA Steel Meramandali, Odisha

64

Ref.No. EMD/LAB/2023-24/0151
Dt.06.03.2024

NOISE MONITORING REPORT
TATA STEEL Ltd. (February 2024)

S.N	Name of the unit	Location	Noise level in dB(A)		
			Min	Max	Leq
1	BF-2 Cast House	Control room	58	65.9	59.8
		Near B F-2 Furnace area	77.9	83	79.9
2	BF-2 Stock House	Control room office	56.3	66.8	57.4
3	Lime Plant	Inside office building	55.6	75.4	59.7
4	BF PP-1 Boiler-03	Near Control room office	63.5	74.4	65.9
5	Gas fired boiler 250 TPH Area	Office and Control Room	64.3	81.2	68.5
6	DRI	KILN NO-1, Near 1& 2 control room office	58	66.2	62.3
		KILN NO-3, Near 3& 4 control room office	54.3	60.2	59.9
		KILN NO-5, Near 5& 6 control room office	51.6	68.6	61.1
		KILN NO-7, Near 7& 8 control room office	49.9	70.8	62.2
		KILN NO-8, Near 9&10 control room office	51.2	70.2	60.4
7	BF-1 Cast House	Near B F-1 Furnace	72.4	79.4	73.6
8	BF-1 Stock House	BF-1 Office	52.9	80.3	59.9
9	CRM	Near CRM Mill Complex Area	64.7	83.6	73
		Near T.L.L	79.7	98.4	88.6
		Near ETP area	78.2	88.9	83
		Near GP-1 Zinc Pot	84.1	91.3	87.2
		Near GP-2 Zinc Pot	86.3	94.3	88.7
		Near GP-3 Zinc Pot	85.9	89.1	87.1
		Colour Coating Line	81.3	90.7	84.9
		Mill-1	83.4	89.5	85.8
		Mill-2	84	96.6	87.1
		Mill-3	85.4	89.2	86.8
		CRM Plant Office	52.4	62.7	58.8
		ECL	86.5	90.1	88.4
		CRCA	SD	SD	SD
		SPM	82.9	88	86.9
		RGM	77.5	89	80.6
10	Sinter Plant-1	9 m office room	56.4	62.8	57.8
		15 m office	55.5	81.2	62.9
		19 m office	72.5	77	74.3
		Store area	75.8	84.3	81.1
		Electrical office	52.8	75	69.2
11	Coke Oven-1	Control room office	55.9	73.6	61.2
		Laboratory	56.8	65.1	58.2
12	Sinter Plant-02	Control Room Area	62.1	72.3	60.3
13	Sinter Plant-03	Control Room Area	51.7	61.3	58.5
14	BOF Shop	BOF office area	50.4	75.1	60.9
		Near Wage bridge area	74.2	87.6	77.6

Environment Laboratory TATA Steel Meramandali, Odisha

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15	SMS-2-FES-1&2	Booster House (ID Fan)	81.8	86.7	84.5
		Near Control room Area	78.7	83.6	81.4
		Near RHF Office area (Pulpit)	79.5	88	81.8
16	HSM	Near Roll Shop area	78.1	88.5	81
		Near HSM Quality Lab area	54.7	60.3	58.9
		DC pulpit office area	52.9	62.4	60.5
		FM area	86.6	92.6	89.3
		Near DC sampling Station	81.7	84.9	83.7
17	Coke Oven-2	Control Room Office	49.9	62.4	58.9
18	BFPP-2 Boiler-3	Control room	65.7	76.4	69.2
19	Oxygen Plant-02	Control Room Office	57.2	74.9	63.5
20	BB Plant	BB Plant Office	55.1	60	58.9
21	RMPP	Control Room Office	51.5	78.6	59.4
22	Coal washery	Lab & Office area	49.9	73.9	56.2
23	RMHS	RMHS Office	49.7	58.9	57.9
24	IBMD	New Sarpa MRP-II (Operator Cabin)	55.2	67.4	58.8
25		Office & Operator Cabin (Old MRP)	52.7	60.4	57.4

N: B- All employees are provided ear plug / earmuff in noise prone areas.

A.K. Pradhan
Section (I/C)

[Signature]
Manager (Lab)

[Signature]
Sr. Area Manager

...End Report...

Page 2 of 2

Mitra S. K. Private Limited

Address of Laboratory :

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West Bengal
Tel : +91 7044036120
Email: udayanlab@mitrask.com



TC-6950



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ULR: TC-695024000003765F

TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

JH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
DISHA India Pin 759129

Report No. :

Date :

Sample No. :

Date of receipt of sample:

Date(s) of performance:

Location of performance of

Reference No. & Date :

Discipline:

MSKPL/ED/2023-24/N13C1U

07/03/2024

MSKNB/ED/2023-24/03/GN953H

02/03/2024

02/03/2024 - 07/03/2024

Permanent Facility

3000148695/A06, Date - 15/12/2022

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	29/02/2024
5. Place of sampling	Sinter Plant 1- 9m office room
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/N13C1U

Sample No. : MSKNB/ED/2023-24/03/GN953H

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	76.2

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature

Name : Mr. Banal Jana

Designation : Executive Chemist

Authorized Signatory:

Signature

Name : Mr. Banal Jana

Designation : Executive Chemist

The results relate only to the item(s) tested

This Test Report shall not be reproduced except in full, without the permission of Mitra S.K. Private Limited.

The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report. The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Mitra S. K. Private Limited

Address of Laboratory :

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West Bengal
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Email: udayanlab@mitrask.com



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ULR: TC-695024000003765F



TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

IH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
INDIA India Pin 759129

Report No. :

Date :

Sample No. :

Date of receipt of sample:

Date(s) of performance:

Location of performance of

Reference No. & Date :

Discipline:

MSKPL/ED/2023-24/K13C1D

07/03/2024

MSKNB/ED/2023-24/03/49L52J

02/03/2024

02/03/2024 - 07/03/2024

Permanent Facility

3000148695/A06, Date - 15/12/2022

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	29/02/2024
5. Place of sampling	IBMD- office & operator (old MRP)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/K13C1D

Sample No. : MSKNB/ED/2023-24/03/49L52J

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	62.2

Opinion : NA

Statement of Conformity : NA

— END —

Reviewed By:

Signature :

Name : Mr. Banal Jana

Designation : Executive Chemist

Authorized Signatory:

Signature :

Name : Mr. Banal Jana

Designation : Executive Chemist

Results relate only to the item(s) tested

This Test Report shall not be reproduced except in full, without the permission of Mitra S.K. Private Limited.

A reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

A reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report. A reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

Head Office: Shyams Centre (5th Floor), 74B, A.J.C. Bose Road, Kolkata - 700016, West Bengal, India
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Mitra S. K. Private Limited

Address of Laboratory :

Building No. P- 48, Udayan Industrial Estate,
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West Bengal
Tel : +91 7044036120
Email: udayanlab@mitrask.com



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ULR: TC-695024000003764F



TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

1H-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/C13C1V

Date :

07/03/2024

Sample No. :

MSKNB/ED/2023-24/03/0NN54F

Date of receipt of sample:

02/03/2024

Date(s) of performance:

02/03/2024 - 07/03/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	29/02/2024
5. Place of sampling	IBMD-New sarpa MRP-II (Operator cabin)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/C13C1V

Sample No. : MSKNB/ED/2023-24/03/0NN54F

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	61.1

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature

Name : Mr. Banshi Jais

Designation : Executive Chemist

Authorized Signatory:

Signature

Name : Mr. Banshi Jais

Designation : Executive Chemist

We results relate only to the item(s) tested.

Our Test Report shall not be reproduced except in full, without the permission of Mitra S. K. Private Limited.

We reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

We reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report. We reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Mitra S. K. Private Limited

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West Bengal
Tel. : +91 7044036120
mail: udayanlab@mitrask.com



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ULR: TC-695024000003763F



TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

H-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
DISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/913C18

Date :

07/03/2024

Sample No. :

MSKNB/ED/2023-24/02/PV4D4N

Date of receipt of sample:

02/03/2024

Date(s) of performance:

02/03/2024 - 07/03/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

we hereby certify that the following sample submitted by the customer has been analyzed with the following results:

Group	Atmospheric Pollution
Description of sample	Noise
Unique Identification of sample(if any)	NA
Date of sampling	28/02/2024
Place of sampling	Caaqms-7(Material Gate)
Environmental conditions during sampling & Transport	NA
Sampling Plan & Method used	IS 9989:1981
Identification of the personnel performing sampling by MSK	Chinmaya Biswal
Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/913C18

Sample No. : MSKNB/ED/2023-24/02/PV4D4N

RESULT

Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	68.9
2	Leq dB(A) night	dB(A)	IS 9989	66.9

Conclusion : NA

Statement of Conformity : NA

-----END-----

Reviewed By:

Signature

Name : Mr. Banal Jana

Designation : Executive Chemist

Authorized Signatory

Signature

Name : Mr. Banal Jana

Designation : Executive Chemist

Results relate only to the item(s) tested.

Test Report shall not be reproduced except in full, without the permission of Mitra S.K. Private Limited.

Reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

Reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report. Reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Mitra S. K. Private Limited

Address of Laboratory :

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West Bengal
Tel : +91 7044036120
mail: udayanlab@mitrask.com



TC-6950



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ULR: TC-695024000003574F

TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

IH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

Date :

Sample No. :

Date of receipt of sample:

Date(s) of performance:

Location of performance of

Reference No. & Date :

Discipline:

MSKPL/ED/2023-24/X13C1R

06/03/2024

MSKNB/ED/2023-24/02/NN4CCS

01/03/2024

01/03/2024 - 06/03/2024

Permanent Facility

3000148695/A06, Date - 15/12/2022

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	28/02/2024
5. Place of sampling	Caaqms-3(CRM)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/X13C1R

Sample No. : MSKNB/ED/2023-24/02/NN4CCS

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	68.9
2	Leq dB(A) night	dB(A)	IS 9989	66.9

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature

Name : Mr. Bansi Jana

Designation : Executive Chemist

Authorized Signatory:

Signature

Name : Mr. Bansi Jana

Designation : Executive Chemist

The results relate only to the item(s) tested

This Test Report shall not be reproduced except in full, without the permission of Mitra S.K. Private Limited.

The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 7 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.
The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Email : info@mitrask.com Website : www.mitrask.com

Mitra S. K. Private Limited

Address of Laboratory :

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West Bengal
Tel : +91 7044036120
mail: udayanlab@mitrask.com



TC-6950



Scan for Portal

ULR: TC-695024000003534F

TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

H-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
DISHA India Pin 759129

Report No. :

Date :

Sample No. :

Date of receipt of sample:

Date(s) of performance:

Location of performance of

Reference No. & Date :

Discipline:

MSKPL/ED/2023-24/U13C1C

06/03/2024

MSKNB/ED/2023-24/02/JW490B

28/02/2024

28/02/2024 - 06/03/2024

Permanent Facility

3000148695/A06, Date - 15/12/2022

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

Group	Atmospheric Pollution
Description of sample	Noise
Unique Identification of sample(if any)	NA
Date of sampling	26/02/2024
Place of sampling	Caaqms-2(AEL)
Environmental conditions during sampling & Transport	NA
Sampling Plan & Method used	IS 9989:1981
Identification of the personnel performing sampling by MSK	Chinmaya Biswal
Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/U13C1C

Sample No. : MSKNB/ED/2023-24/02/JW490B

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	65.1
2	Leq dB(A) night	dB(A)	IS 9989	61.6

Opinion : NA

Statement of Conformity NA

-----END-----

Reviewed By:

Signature

Name : Mr. Banaji Jana

Designation : Executive Chemist

Authorized Signatory:

Signature

Name : Mr. Banaji Jana

Designation : Executive Chemist

We results relate only to the item(s) tested

This Test Report shall not be reproduced except in full, without the permission of Mitra S. K. Private Limited.

A reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

A reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report. A reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

Head Office: Shreeji Centre (5th Floor), 74B, A. J. C. Bose Road, Kolkata - 700016, West Bengal, India
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Email : info@mitrask.com Website : www.mitrask.com

Mitra S. K. Private Limited

Address of Laboratory :

Building No. P- 48, Udayan Industrial Estate,
1, Pagladanga Road, Kolkata 700015
West Bengal
Tel : +91 7044035120
Email: udayanlab@mitrask.com



TC-6950



Scan for Portal

ULR: TC-695024000003165F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

JH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/E1364N

Date :

29/02/2024

Sample No. :

MSKNB/ED/2023-24/02/YC400D

Date of receipt of sample:

24/02/2024

Date(s) of performance:

24/02/2024 - 29/02/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	22/02/2024
5. Place of sampling	RMHS - RMHS Office
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/E1364N

Sample No. : MSKNB/ED/2023-24/02/YC400D

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	63.5

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By

Signature

Name : Mr. Bansi Jaria

Designation : Executive Chemist

Authorized Signatory:

Signature

Name : Mr. Bansi Jaria

Designation : Executive Chemist

The results relate only to the item(s) tested.

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The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Solid, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Mitra S. K. Private Limited

Address of Laboratory :

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West Bengal
Tel. : +91 7044036120
Email: udayanlab@mitrask.com



TC-6950



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ULR: TC-695024000003164F

TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

1H-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
JODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/Y1363H

Date :

29/02/2024

Sample No. :

MSKNB/ED/2023-24/02/Y73FDD

Date of receipt of sample:

24/02/2024

Date(s) of performance:

24/02/2024 - 29/02/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	22/02/2024
5. Place of sampling	110 MW power Plant- Boiler 7
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/Y1363H

Sample No. : MSKNB/ED/2023-24/02/Y73FDD

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	83.9

Conclusion : NA

Statement of Conformity : NA

— END —

Reviewed By:

Signature :

Name : Mr. Barshi Jana

Designation : Executive Chemist

Authorized Signatory:

Signature :

Name : Mr. Barshi Jana

Designation : Executive Chemist

Results relate only to the item(s) tested

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Reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

Reserved part of sample(s) for chemical analysis (Sol, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

Reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Tel. : +91 7044036120
Email: udayanlab@mitrask.com



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ULR: TC-695024000003163F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

VH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/41363E

Date :

29/02/2024

Sample No. :

MSKNB/ED/2023-24/02/NT3FCB

Date of receipt of sample:

24/02/2024

Date(s) of performance:

24/02/2024 - 29/02/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/AD6, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	22/02/2024
5. Place of sampling	CRM -ECL
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/41363E

Sample No. : MSKNB/ED/2023-24/02/NT3FCB

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	84.1

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By

Signature

Name Mr. Bapsi Jana

Designation Executive Chemist

Authorized Signatory

Signature

Name Mr. Bapsi Jana

Designation Executive Chemist

The results relate only to the item(s) tested.

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The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report. The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Email: udayanlab@mitrask.com



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TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

4H-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

Date :

Sample No. :

Date of receipt of sample:

Date(s) of performance:

Location of performance of

Reference No. & Date :

Discipline:

MSKPL/ED/2023-24/G13632

29/02/2024

MSKNB/ED/2023-24/02/MJ3FB4

24/02/2024

24/02/2024 - 29/02/2024

Permanent Facility

3000148695/A06, Date - 15/12/2022

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	22/02/2024
5. Place of sampling	Coke oven 2 control room office
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/G13632

Sample No. : MSKNB/ED/2023-24/02/MJ3FB4

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	49.8

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature

Name : Mr. Bapi Jana

Designation : Executive Chemist

Authorized Signatory

Signature

Name : Mr. Bapi Jana

Designation : Executive Chemist

Results relate only to the item(s) tested.

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is reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

is reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per GPCB guideline & (Air) 1 month from the date of issue of the Test Report.
is reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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ULR: TC-695024000003161F

TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

JH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/M135F3

Date :

29/02/2024

Sample No. :

MSKNB/ED/2023-24/02/GN3FEB

Date of receipt of sample:

24/02/2024

Date(s) of performance:

24/02/2024 - 29/02/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	22/02/2024
5. Place of sampling	Coke oven 1 laboratory
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/M135F3

Sample No. : MSKNB/ED/2023-24/02/GN3FEB

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	58.0

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature

Name : Mr. Basu Jana

Designation : Executive Chemist

Authorized Signatory:

Signature

Name : Mr. Basu Jana

Designation : Executive Chemist

The results relate only to the item(s) tested.

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The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per GPCB guideline & (Air) 1 month from the date of issue of the Test Report. The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Address of Laboratory :

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West Bengal
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Email: udayanlab@mitrask.com



TC-6950



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ULR: TC-695024000003160F

TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

4H-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/A135FU

Date :

29/02/2024

Sample No. :

MSKNB/ED/2023-24/02/4C3FFA

Date of receipt of sample:

24/02/2024

Date(s) of performance:

24/02/2024 - 29/02/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06. Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	22/02/2024
5. Place of sampling	Coke oven 1 control room office
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/A135FU

Sample No. : MSKNB/ED/2023-24/02/4C3FFA

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	60.0

Opinion : NA

Statement of Conformity NA

— END —

Reviewed By:

Signature

Name

Mr. Rajat Jana

Designation : Executive Chemist

Authorized Signatory

Signature

Name

Mr. Baran Jana

Designation

Executive Chemist

he results relate only to the item(s) tested

his Test Report shall not be reproduced except in full, without the permission of Mitra S. K. Private Limited

he reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report

he reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report

he reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report

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Mitra S. K. Private Limited

Doc: MSK/GEN/19/07



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Email: udayanlab@mitrask.com



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ULR: TC-695024000002554F

TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

4-55, NARENDRAPUR, MERAMANDI, DHENKANAL
DISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/C1249Y

Date :

17/02/2024

Sample No. :

MSKNB/ED/2023-24/02/BF13EC

Date of receipt of sample:

12/02/2024

Date(s) of performance:

12/02/2024 - 17/02/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date : 16/12/2022

Discipline:

Chemical

I hereby certify that the following sample Drawn by us has been analyzed with the following results:

Group	Atmospheric Pollution
Description of sample	Noise
Unique Identification of sample(if any)	NA
Date of sampling	10/02/2024
Place of sampling	BF 1 cast house near BF 1 furnace
Environmental conditions during sampling & Transport	NA
Sampling Plan & Method used	IS 9989:1981
Identification of the personnel performing sampling by MSK	Chinmaya Biswal
Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/C1249Y

Sample No. : MSKNB/ED/2023-24/02/BF13EC

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	81.4

Conclusion : NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature

Mr. Baran Jena
Executive Chemist

Authorized Signatory

Signature

Mr. Baran Jena
Executive Chemist

Results relate only to the item(s) tested

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reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.
reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.
reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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West Bengal
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Email: udayanlab@mitrask.com



TC-6950



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ULR: TC-695024000002553F

TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

H-55, NARENDRAPUR, MERAMANDI, DHENKANAL
DISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/H1249H

Date :

17/02/2024

Sample No. :

MSKNB/ED/2023-24/02/6P140H

Date of receipt of sample:

12/02/2024

Date(s) of performance:

12/02/2024 - 17/02/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

Group	Atmospheric Pollution
Description of sample	Noise
Unique Identification of sample(if any)	NA
Date of sampling	10/02/2024
Place of sampling	DRI-Near 5&6 control room office
Environmental conditions during sampling & Transport	NA
Sampling Plan & Method used	IS 9989:1981
Identification of the personnel performing sampling by MSK	Chinmaya Biswal
Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/H1249H

Sample No. : MSKNB/ED/2023-24/02/6P140H

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	56.2

Conclusion : NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature

Mr. Bahai Jana

Signature Executive Chemist

Authorized Signatory

Signature

Mr. Bahai Jana

Designation Executive Chemist

Results relate only to the item(s) tested

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Reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

Reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

Reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Email: udayanlab@mitrask.com



TC-6950

Doc. MSK/GEN/19/07



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ULR: TC-695024000002552F

TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

H-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
DISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/R1249P

Date :

17/02/2024

Sample No. :

MSKNB/ED/2023-24/02/6G13F7

Date of receipt of sample:

12/02/2024

Date(s) of performance:

12/02/2024 - 17/02/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

Group	Atmospheric Pollution
Description of sample	Noise
Unique Identification of sample(if any)	NA
Date of sampling	10/02/2024
Place of sampling	DRI-Near 3&4 control room office
Environmental conditions during sampling & Transport	NA
Sampling Plan & Method used	IS 9989:1981
Identification of the personnel performing sampling by MSK	Chinmaya Biswal
Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/R1249P

Sample No. : MSKNB/ED/2023-24/02/6G13F7

RESULT

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	52.5

Conclusion : NA

Statement of Conformity : NA

----- END -----

Viewed By:

Signature

Name : Mr. Binai Jana

Designation : Executive Chemist

Authorized Signatory

Signature

Name : Mr. Binai Jana

Designation : Executive Chemist

Results relate only to the item(s) tested.

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Reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

Reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.
Reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Email: udayanlab@mitrask.com



TC-6950



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ULR: TC-695024000002551F

TEST REPORT

Name & Address of Customer :

ATA STEEL LTD

H-55, NARENDRAPUR, MERAMANDI, DHENKANAL
DISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/W1249P

Date :

17/02/2024

Sample No. :

MSKNB/ED/2023-24/02/AG13CQ

Date of receipt of sample:

12/02/2024

Date(s) of performance:

12/02/2024 - 17/02/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

we hereby certify that the following sample Drawn by us has been analyzed with the following results:

Group	Atmospheric Pollution
Description of sample	Noise
Unique Identification of sample(if any)	NA
Date of sampling	10/02/2024
Place of sampling	DRI-Near 1&2 control room office
Environmental conditions during sampling & Transport	NA
Sampling Plan & Method used	IS 9989:1981
Identification of the personnel performing sampling by MSK	Chinmaya Biswal
Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/W1249P

Sample No. : MSKNB/ED/2023-24/02/AG13CQ

RESULT

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	60.6

Conclusion : NA

Statement of Conformity NA

----- END -----

Viewed By :

nature

me Mr. Bansi Jana

signature Executive Chemist

Authorized Signatory

Signature

Name Mr. Bansi Jana

Designation Executive Chemist

Results relate only to the item(s) tested

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Reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

Reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

Reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

Lab Office: Service Centre (5th Floor), 74B, A.J.C. Bose Road, Kolkata - 700016, West Bengal, India.

Tel : 91 33 40143000 / 22650007 Fax : 91 33 22650008

Email : info@mitrask.com Website : www.mitrask.com

Mitra S. K. Private Limited

Address of Laboratory :

Building No. P-46, Udayan Industrial Estate,
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West Bengal
Tel. : +91 7044036120
Email: udayanlab@mitrask.com



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TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

IH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/Q12494

Date :

17/02/2024

Sample No. :

MSKNB/ED/2023-24/02/2313DC

Date of receipt of sample:

12/02/2024

Date(s) of performance:

12/02/2024 - 17/02/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
1. Description of sample	Noise
1. Unique Identification of sample(if any)	NA
1. Date of sampling	10/02/2024
1. Place of sampling	BFPP 1 Boiler -3-near control room office
1. Environmental conditions during sampling & Transport	NA
1. Sampling Plan & Method used	IS 9989:1981
1. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
1. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/Q12494

Sample No. : MSKNB/ED/2023-24/02/2313DC

RESULT

Chemical

Sl No	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	47.6

Opinion: NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature

Name : Mr. Binai Jana

Designation : Executive Chemist

Authorized Signatory

Signature

Name : Mr. Binai Jana

Designation : Executive Chemist

The results relate only to the item(s) tested.

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A reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

A reserved part of sample(s) for microbiological analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

A reserved part of sample(s) for microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

Head Office: Shree Centre (5th Floor), 74B, A.J.C. Bose Road, Kolkata - 700016, West Bengal, India

Tel : 91 33 40143000 / 22650007 Fax : 91 33 22650006

Email : info@mitrask.com Website : www.mitrask.com

Mitra S. K. Private Limited

Address of Laboratory :

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West Bengal
Tel : +91 7044036120
Email: udayanlab@mitrask.com



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ULR: TC-695024000002924F



TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

1H-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/312C1D

Date :

23/02/2024

Sample No. :

MSKNB/ED/2023-24/02/U2363X

Date of receipt of sample:

19/02/2024

Date(s) of performance:

19/02/2024 - 23/02/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06. Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	17/02/2024
5. Place of sampling	BB Plant Office
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/312C1D

Sample No. : MSKNB/ED/2023-24/02/U2363X

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	47.7

Opinion : NA

Statement of Conformity : NA

----- END -----

Reviewed By:

Signature :

Name : Mr. Bagesh Jena

Designation : Executive Chemist

Authorized Signatory:

Signature :

Name : Mr. Bagesh Jena

Designation : Executive Chemist

The results relate only to the item(s) tested

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A reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

A reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

A reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Mitra S. K. Private Limited

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West Bengal
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Email: udayanlab@mitrask.com



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TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

#H-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

Date :

Sample No. :

Date of receipt of sample:

Date(s) of performance:

Location of performance of

Reference No. & Date :

Discipline:

MSKPL/ED/2023-24/D12C1T

23/02/2024

MSKNB/ED/2023-24/02/KG3629

19/02/2024

19/02/2024 - 23/02/2024

Permanent Facility

3000148695/AD6, Date - 15/12/2022

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	17/02/2024
5. Place of sampling	RMPP Control room office
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/D12C1T

Sample No. : MSKNB/ED/2023-24/02/KG3629

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	64.2

Opinion : NA

Statement of Conformity NA

— END —

Reviewed By

Signature

Name: Mr. Bansi Jana

Designation: Executive Chemist

Authorized Signatory

Signature

Name: Mr. Bansi Jana

Designation: Executive Chemist

The results relate only to the item(s) tested.

This Test Report shall not be reproduced except in full, without the permission of Mitra S. K. Private Limited.

The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Basted Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

IH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/E12C1F

Date :

23/02/2024

Sample No. :

MSKNB/ED/2023-24/02/JK3613

Date of receipt of sample:

19/02/2024

Date(s) of performance:

19/02/2024 - 23/02/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	17/02/2024
5. Place of sampling	Sinter Plant 3-control room area
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/E12C1F

Sample No. : MSKNB/ED/2023-24/02/JK3613

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	47.1

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature

Name : Mr. Biswajit Jana

Designation : Executive Chemist

Authorized Signatory

Signature

Name : Mr. Biswajit Jana

Designation : Executive Chemist

The results relate only to the item(s) tested.

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The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report. The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

IH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/A12C0K

Date :

23/02/2024

Sample No. :

MSKNB/ED/2023-24/02/9G3602

Date of receipt of sample:

19/02/2024

Date(s) of performance:

19/02/2024 - 23/02/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample (if any)	NA
4. Date of sampling	17/02/2024
5. Place of sampling	DRI near 9&10 control room office
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/A12C0K

Sample No. : MSKNB/ED/2023-24/02/9G3602

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	50.0

Opinion : NA

Statement of Conformity : NA

----- END -----

Reviewed By

Signature

Name : Mr. Baran Jana

Designation : Executive Chemist

Authorized Signatory

Signature

Name : Mr. Baran Jana

Designation : Executive Chemist

These results relate only to the item(s) tested

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A reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

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Email : info@mitrask.com Website : www.mitrask.com

Mitra S. K. Private Limited

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West Bengal
Tel : +91 7044036120
Email: udayanlab@mitrask.com



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ULR: TC-695024000002920F

TEST REPORT

Name & Address of Customer :

ATA STEEL LTD.

IH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
JODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/112C0B

Date :

23/02/2024

Sample No. :

MSKNB/ED/2023-24/02/0935FQ

Date of receipt of sample:

19/02/2024

Date(s) of performance:

19/02/2024 - 23/02/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	17/02/2024
5. Place of sampling	DRI near 7&8 control room office
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/112C0B

Sample No. : MSKNB/ED/2023-24/02/0935FQ

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Average dB(A)	dB(A)	IS 9989	47.7

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature

Name: Mr. Banaji Jana

Designation: Executive Chemist

Authorized Signatory

Signature

Name: Mr. Banaji Jana

Designation: Executive Chemist

The results relate only to the item(s) tested.

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A reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

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Tel : 91 33 40143000 / 22650007 Fax : 91 33 22650008
Email : info@mitrask.com Website : www.mitrask.com

65

Environment Laboratory
TATA Steel Meramandali, Odisha

Ref.No. EMD/LAB/2023-24/0155
Dt. 01.04.2024

AMBIENT NOISE MONITORING
TATA STEEL Ltd. (March' 24)

S.N	Location	Monitoring Date	Noise Level dB(A) Leq (Day time)	Standard dB(A) Leq(Day Time)	Noise Level dB(A) Leq (Night time)	Standard dB(A) Leq(Night Time)
1	Colony	01.03.2024	53.3	55.0	44.1	45.0
2	Coke Oven-2	15.03.2024	59.0	75.0	58.3	70.0
3	AEL	23.03.2024	69.1	75.0	68.1	70.0

A.K. Pradhan
Section (I/C)

H. Ch
Manager (Lab)

S. Jena
Sr. Area Manager

...End Report...

page 1 of 1

Environment Laboratory

TATA Steel Meramandali, Odisha

66

Ref.No. EMD/LAB/2023-24/0154
Dt. 01.04.2024

S.N	Name of the unit	Location	Noise level in dB(A)		
			Min	Max	Leq
1	BF-2 Cast House	Control room	54.2	61.4	58.9
		Near B F-2 Furnace area	78.8	81.7	80.0
2	BF-2 Stock House	Control room office	55.1	60.3	59.1
3	Lime Plant	Inside office building	56.2	71.1	60.1
4	BF PP-1 Boiler-03	Near Control room office	54.2	63.0	60.0
5	Gas fired boiler 250 TPH Area	Office and Control Room	57.0	61.2	59.3
		KILN NO-1, Near 1& 2 control room office	57.7	68.0	61.8
		KILN NO-3, Near 3& 4 control room office	58.2	75.1	62.2
6	DRI	KILN NO-5, Near 5& 6 control room office	55.6	70.2	59.8
		KILN NO-7, Near 7& 8 control room office	50.1	72.2	60.4
		KILN NO-8, Near 9&10 control room office	55.9	62.3	61.0
7	BF-1 Cast House	Near B F-1 Furnace	78.9	84.0	81.0
8	BF-1 Stock House	BF-1 Office	49.3	62.4	58.8
		Near CRM Mill Complex Area	66.2	80.2	75.1
		Near T.L.L	77.9	92.9	85.4
		Near ETP area	81.7	83.5	82.6
		Near GP-1 Zinc Pot	SD	SD	SD
		Near GP-2 Zinc Pot	SD	SD	SD
		Near GP-3 Zinc Pot	85.7	90.7	87.1
		Colour Coating Line	SD	SD	SD
9	CRM	Mill-1	83.8	89.6	87.0
		Mill-2	SD	SD	SD
		Mill-3	84.6	87.8	85.1
		CRM Plant Office	53.4	62.8	59.1
		ECL	84.8	94.5	87.2
		CRCA	84.8	87.9	85.8
		SPM	84.2	87.9	85.5
		RCM	76.8	87.8	79.3
		9 m office room	56.8	69.4	58.1
		15 m office	57.3	74.3	60.4
		19 m office	70.1	79.1	71.5
		Store area	74.4	84.6	79.2
		Electrical office	58.4	78	68.3
11	Coke Oven-1	Control room office	54.2	61.4	60.0
		Laboratory	53.3	58.5	57.3
12	Sinter Plant-02	Control Room Area	61.3	74.2	62.4
13	Sinter Plant-03	Control Room Area	55.6	72.3	59.9
		BOF office area	51.1	74.1	62.5
14	BOF Shop	Near Wage bridge area	76.1	82.8	78.9

Environment Laboratory TATA Steel Meramandali, Odisha

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15	SMS-2-FES-1&2	Booster House (ID Fan)	82.3	85.4	84.3
		Near Control room Area	79.1	82.4	80.0
		Near RHF Office area (Pulpit)	80.1	87.2	81.2
		Near Roll Shop area	79.4	86.4	80.6
16	HSM	Near HSM Quality Lab area	57.2	67.1	60.2
		DC pulpil office area	65	76.5	68.3
		FM area	87.2	90.2	88.9
		Near DC sampling Station	82.2	85.9	84.1
17	Coke Oven-2	Control Room Office	54.7	63.0	59.6
18	BFPP-2 Boiler-3	Control room	44.3	60.5	58.8
19	Oxygen Plant-02	Control Room Office	56.9	69.2	62.2
20	BB Plant	BB Plant Office	53.5	79.4	60.6
21	RMPP	Control Room Office	55.4	61.0	59.0
22	Coal washery	Lab & Office area	56.4	61.0	58.7
23	RMHS	RMHS Office	55.3	59.0	58.1
24	IBMD	New Sarpa MRP-II (Operator Cabin)	48.6	60.2	59.1
25		Office & Operator Cabin (Old MRP)	54.7	60.0	58.1

N: B- All employees are provided ear plug / earmuff in noise prone areas.

A.K. Pradhan
Section I/C

M. Das
Manager (Lab)

S. Sanyal
Sr. Area Manager

...End Report...

Page 2 of 2

Mitra S. K. Private Limited

Address of Laboratory :

Building No. P- 48, Udayan Industrial Estate,
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West Bengal
Tel : +91 7044036120
Email: udayanlab@mitrask.com



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TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/0148ED

Date :

15/03/2024

Sample No. :

MSKNB/ED/2023-24/03/WV176T

Date of receipt of sample:

11/03/2024

Date(s) of performance:

11/03/2024 - 15/03/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	07/03/2024
5. Place of sampling	Caagms-1(Colony)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/0148ED

Sample No. : MSKNB/ED/2023-24/03/WV176T

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	69.4
2	Leq dB(A) night	dB(A)	IS 9989	59.3

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By

Signature

Name

Mr. Rajal Jena

Designation

Executive Chemist

Authorized Signatory

Signature

Name

Mr. Rajal Jena

Designation

Executive Chemist

The results relate only to the item(s) tested.

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The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Solid, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Mitra S. K. Private Limited

Address of Laboratory :

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Email: udayanlab@mitrask.com



TC-6850

Doc. MSK/GEN/1207



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ULR: TC-68502400004644F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/J1517G

Date :

19/03/2024

Sample No. :

MSKNB/ED/2023-24/03/41212G

Date of receipt of sample:

14/03/2024

Date(s) of performance:

14/03/2024 - 19/03/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148685/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique identification of sample(if any)	NA
4. Date of sampling	12/03/2024
5. Place of sampling	Caaqms-2(AEL)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/J1517G

Sample No. : MSKNB/ED/2023-24/03/41212G

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	70.1
2	Leq dB(A) night	dB(A)	IS 9989	63.4

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By

Signature

Name

Designation

Mr. Rishi Jana

Executive Chemist

Authorized Signatory

Signature

Name

Designation

Mr. Rishi Jana

Executive Chemist

The results relate only to the item(s) tested.

This Test Report shall not be reproduced except in full, without the permission of Mitra S. K. Private Limited.

The reserved part of sample(s) for chemical analysis (Non - perishable sample(s): Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Solid, Sealed & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s): Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

Head Office: Shreeji Centre (6th Floor), 74B, A.J.C. Dose Road, Kolkata - 700016, West Bengal, India

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Email: udayanlab@mitrask.com



TC-6950

Doc: MSK/GEN/1907



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ULR: TC-695024000003826F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDU, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/E1467K

Date :

08/03/2024

Sample No. :

MSKNB/ED/2023-24/03/HK45AF

Date of receipt of sample:

04/03/2024

Date(s) of performance:

04/03/2024 - 08/03/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique identification of sample(if any)	NA
4. Date of sampling	02/03/2024
5. Place of sampling	Caaqms-5(Coke Oven-2)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/E1467K

Sample No. : MSKNB/ED/2023-24/03/HK45AF

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	70.3
2	Leq dB(A) night	dB(A)	IS 9989	61.0

Opinion : NA

Statement of Conformity NA

-----END-----

Reviewed By:

Signature :

Name : Mr. Bansi Jana

Designation : Executive Chemist

Authorized Signatory

Signature :

Name : Mr. Bansi Jana

Designation : Executive Chemist

The results relate only to the item(s) tested.

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The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

The reserved part of sample(s) for Microbiological analysis (Non - perishable sample(s) Food, Sterile Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Email: udayanlab@mitrask.com



TC-6950

Doc: MSK/GFN/10/07



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ULR: TC-69502400004359F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD.

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/F 1491W

Date :

15/03/2024

Sample No. :

MSKNB/ED/2023-24/03/45176J

Date of receipt of sample:

12/03/2024

Date(s) of performance:

12/03/2024 - 15/03/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	09/03/2024
5. Place of sampling	Cargms-6(Wagon Tippler)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/F 1491W

Sample No. : MSKNB/ED/2023-24/03/45176J

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	65.3
2	Leq dB(A) night	dB(A)	IS 9989	60.2

Opinion : NA

Statement of Conformity : NA

----- END -----

Reviewed By:

Signature

Name : Mr. Baral Jena

Designation : Executive Chemist

Authorized Signatory:

Signature

Name : Mr. Baral Jena

Designation : Executive Chemist

The results relate only to the item(s) tested.

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The retained part of sample(s) for chemical analysis (Non - perishable sample(s): Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The retained part of sample(s) for chemical analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCB guideline & (Air) 1 month from the date of issue of the Test Report.

The retained part of sample(s) for Microbiological analysis (Non - perishable sample(s): Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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Doc: MSK/GEN/18/07



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Email: udayanlab@mitrask.com



TC-6950



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ULR: TC-695024000047C0F

TEST REPORT

Name & Address of Customer :

TATA STEEL LTD

NH-55, NARENDRAPUR, MERAMANDLI, DHENKANAL
ODISHA India Pin 759129

Report No. :

MSKPL/ED/2023-24/P15174

Date :

20/03/2024

Sample No. :

MSKNB/ED/2023-24/03/KK24BR

Date of receipt of sample:

15/03/2024

Date(s) of performance:

15/03/2024 - 20/03/2024

Location of performance of

Permanent Facility

Reference No. & Date :

3000148695/A06, Date - 15/12/2022

Discipline:

Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Atmospheric Pollution
2. Description of sample	Noise
3. Unique Identification of sample(if any)	NA
4. Date of sampling	13/03/2024
5. Place of sampling	Ceacms-7(Material Gate)
6. Environmental conditions during sampling & Transport	NA
7. Sampling Plan & Method used	IS 9989:1981
8. Identification of the personnel performing sampling by MSK	Chinmaya Biswal
9. Field Equipments Used	MSK/BBSR/FIELD/SLM-03

Report No. : MSKPL/ED/2023-24/P15174

Sample No. : MSKNB/ED/2023-24/03/KK24BR

RESULT

Chemical				
Sl No.	Parameter	UOM	Method	Result
1	Leq dB(A) day	dB(A)	IS 9989	64.2
2	Leq dB(A) night	dB(A)	IS 9989	60.2

Opinion : NA

Statement of Conformity NA

----- END -----

Reviewed By:

Signature :

Name : Mr. Binai Jais

Designation : Executive Chemist

Authorized Signatory:

Signature :

Name : Mr. Binai Jais

Designation : Executive Chemist

The results relate only to the item(s) tested

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The reserved part of sample(s) for chemical analysis (Non - perishable sample(s) Food, Water) shall be retained for 15 days from the date of issue of the Test Report. Perishable sample(s) shall be retained 2 days from the date of issue of the Test Report.

The reserved part of sample(s) for microbiological analysis (Soil, Solid & Liquid Waste) shall be retained for 15 days as per CPCRI guideline & (Air) 1 month from the date of issue of the Test Report.

The reserved part of sample(s) for microbiological analysis (Non - perishable sample(s) Food, Sealed Water, Sealed food) shall be retained for 15 days from the date of issue of the Test Report.

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