



**The Member Secretary
State Pollution Control Board, Odisha
Paribesh Bhawan
A/118, Nilakantha Nagar, Unit - VIII
Bhubaneswar - 751012**

MD/ ENV/1228/120/ 2024
Date: 26th September 2024

**Sub: Environmental Statement of Kalamang West (Northern Part) Iron Ore
Mines, M/s Tata Steel Limited for 2023-24.**

Dear Sir

Kindly find attach herewith the Environmental Statement in the prescribed format (Form V) as per "Environmental (Protection) Amendment Rules 1992" of our Kalamang West (Northern Part) Iron Ore Mines for your kind perusal.

Thanking you,

Yours faithfully
f: Tata Steel Limited

A handwritten signature in blue ink, appearing to read 'Abhinav', written over a horizontal line.

Area Manager (Environment), OMQ

Encl: As above

**Copy to: The Regional Officer, State Pollution Control Board, Near Hockey
Chowk, Panposh, Rourkela, Odisha 769004**

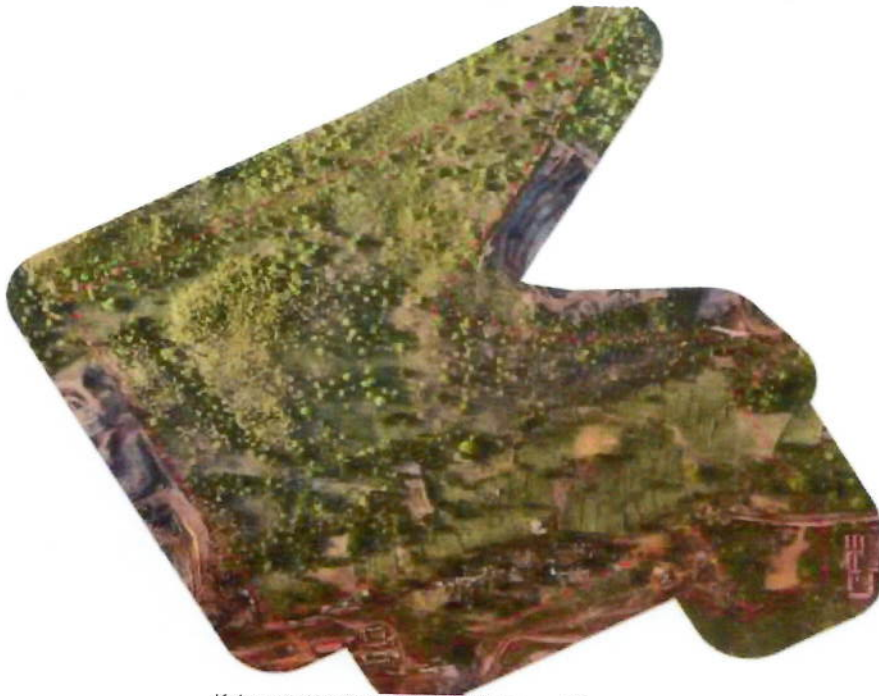
TATA STEEL LIMITED

Mines Division Noamundi 833 217 India
Tel 91 9234301340 Fax 91 6596 290737

Registered Office Bombay House 24 Homi Mody Street Fort Mumbai 400 001 India
Tel 91 22 66658282 Fax 91 22 66657724

Corporate Identity Number L27100MH1907PLC000260 Website www.tatasteel.com

ENVIRONMENT STATEMENT 2023-24



Kalamang West (Northern Part) Iron ore Mines

KALAMANG WEST (NORTHERN PART) IRON ORE MINE

TATA STEEL LIMITED

September 2024

FORM - V
(See Rule -14)

ENVIRONMENT STATEMENT FOR THE FINANCIAL YEAR ENDING THE 31st MARCH,
2024

KALAMANG WEST (NORTHERN PART) IRON ORE MINE, TATA STEEL LIMITED

PART-A

1	Name and address of the owner/ occupier of the industry, operation or process :	Mr. Dipak Behera, Chief (Kalamang West (Nothern Part) Iron Ore Mine) Kalamang West (Nothern Part) Iron Ore Mine Tata Steel ltd, Joda Dist.- Keonjhar, Odisha – 758034
	Nominated Owner :	Mr Subhransu Mishra, Mine Manager (Kalamang West (Nothern Part) Iron Ore Mine) Kalamang West (Nothern Part) Iron Ore Mine. Tata Steel Limited, Joda Dist.- Keonjhar, Odisha – 758034
2	Industry Category :	Mr. Atul Bhatnagar, General Manager, OMQ division, Administrative Building, Noamundi Iron Mine, Tata Steel Limited PO.: Noamundi, Dist.-West Singhbhum Jharkhand – 833217
3	Production Capacity* :	Mr T V Narendran, Managing Director & CEO, Tata Steel Limited, PO: Jamshedpur, Dist.: East Singhbhum, Jharkhand-831001
4	Year of Establishment :	Opencast Iron Ore Mining , Crushing & Screening (Major)
5	Date of last Environmental Statement submitted. :	Mining:- 2.95 MTPA Iron Ore
		Mine Operation has not started till date.
		NA

*As per Environmental Clearance

PART-B

Water and Raw Material Consumption

(i) Water Consumption:

<u>Consumption Head:</u>	<u>2023-24</u> <u>(in Cu.m/day) (Annual Average)</u>
Process	0
Spraying in mine pit, services	0
Domestic	0
<u>Name of the product</u>	<u>Process water consumption per product (m3/MT)</u>
Iron Ore	0

This is a proposed mechanised iron ore mine. The iron ore processing is dry crushing and screening only. Dust suppression at C&S plant will be carried out through a scientific way using dry fog system, thus reducing the requirement of water to very minimum level.

ii) Raw Material Consumption

The following items have been consumed/ utilized:

Name of Raw Materials	Consumption of Raw Material
	During current financial year (2023-24)
High Speed Diesel	0
Lubricants	0
Grease	0
Explosive of all types (Explosive, codex, detonator)	0
Gas	0
Tyres	0
Drill rods	0
Electricity Consumed	0
Electricity Generated	NA

*Mine operation has not started.

PART-C POLLUTION DISCHARGED TO ENVIROMENT/ UNIT OF OUTPUT (Parameters as specified in the consent issued)

Pollutants	Quantity of Pollutants discharged (mass / day)	Concentration of Pollutants discharges (mass / day)	Percentage of variation from prescribed standards with reasons
a) Water	Mining operation is yet to start. Thus, no ETP and STP is installed at site at present. However, provision of installation of the same is planned & under progress. Treated water from STP and ETP will be reused for water sprinkling purpose as well as horticulture purpose. Zero effluent discharge shall be maintained. Water quality report for surface water is attached as Annexure-1		
b) Air	The Kalamang West (Northern Part) Iron Mine is a proposed opencast iron mine with crushing & screening plant. The air quality in the form of fugitive, dust fall, ambient, respirable has been measured and monitored regularly and is well within limits. Air monitoring is being conducted in core & buffer zone. 3 continuous ambient air quality monitoring stations with PM ₁₀ , PM _{2.5} , SO _x , NO _x , (NO ₂ & NO) & CO parameters has been planned to be installed. The results of air quality monitoring is attached as Annexure-2.		

PART-D

HAZARDOUS WASTES

As specified under the Hazardous & Other Waste (Management & Trans boundary Movement) Rules, 2016 and amendment thereof

Hazardous Wastes	Total Quantity
	During previous financial year (2023-24)
(a) From Process <ul style="list-style-type: none"> • Used Oil • Waste containing Oil • Lead Bering residues (Batteries etc) • Rejected & used hose pipes 	NA
ii) From Pollution Control Facility <ul style="list-style-type: none"> • Waste oil from oil & grease separation pit • Sludge from oil and grease separation pit 	All the Hazardous waste generated will be disposed as per law. Nil (Included in process)

**Mine operation has not started.*

PART-E SOLID WASTES

Solid wastes from Kalamang West (Northern Part) Iron ore mines are Overburden/rejects removed during mining operations. All the materials overburden will be stacked at designated place inside the mine as per the approved Mine Plan. However, other solid waste (scrap material, used conveyor belts, tyres etc.) from mining activity will be stored at designated place.

Sources	Total Quantity
	During previous financial year (2023-24)
a) From Process <ul style="list-style-type: none"> • From mining as Overburden • Rejects 	NIL
b) From Pollution Control Facility	
c) i. Quantity recycled or reutilized within the unit ii. Quantity sold <ul style="list-style-type: none"> • General Office waste iii. Quantity disposed <ul style="list-style-type: none"> • Mining overburden 	

**Mine operation has not started.*

PART-F

PLEASE SPECIFY THE CHARACTERISTICS (IN TERMS OF COMPOSITION AND QUANTUM) OF HAZARDOUS AS WELL AS SOLID WASTES AND INDICATE DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES

The Kalamang West (Northern Part) Iron Ore Mine has not started operation till date. The used oil will be generated from HEMM maintenance, which are used in mining operations. The used oil will be disposed to authorized agency for recycling and reuse. The hazardous waste such as used batteries is sold to authorized agency.

The other solid waste in the form of overburden and sub-grade mineral are stocked in designated place.

PART-G

IMPACT OF POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION

- For conservation of natural resources, high efficiency HEMM will be used with adequate maintenance so as to reduce the fuel consumption. Zero effluent discharge will be maintained.
- For ground water augmentation, various rainwater harvesting structures will be developed in future in the buffer zone which will harvest the groundwater.
- Scientific mining along with mixing of ore of different grades for conservation & common boundary mining will be practiced for conservation of mineral.

PART-H

ADDITIONAL MEASURES/ INVESTMENT PROPOSAL FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT OF POLLUTION, PREVENTION OF POLLUTION

Mine operation has not started till date. Below mentioned are some measures proposed for abatement of pollution.

- Settling ponds will be conducted for storage of surface runoff.
- Construction of toe walls, garland drains along with check dams will be done for arresting silts from overburden dumps.
- Awareness programme such as World Environment day, Biodiversity Day, Swachhata pakhwada, Earth Day was organised for creating awareness of people.
- In addition, Tata Steel Foundation (TSF) is engaged in peripheral developmental activities in villages around the mine. The projects of the Society include irrigation and agricultural extension projects, plantation programmes, creation of SAVE FOREST groups, civic amenities development, medical care and health education, rural sports and skill development, rural cultural promotion etc.

PART-I

ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF THE ENVIRONMENT

- The Company is having a full-fledged Environmental Management Department with personnel from different backgrounds to take care of all environmental aspects relating to mines of Tata Steel. This department has in house capabilities for monitoring various environmental parameters and suggesting to the management necessary abatement measures.
- Various awareness programs throughout the year conducted in the area which included celebration of World Environment Day, World Water Day, Mine Environment & Mineral Conservation Week, World Bio-diversity Week, Annual Flower & Vegetable Show etc. In which environment conservation models, current & future proposals are made, environment messages through Nukkad natak, poems, slogans, swachhata drive has been conducted every year.

Rishi Raj Kashyap

Manager (Environment), Kalamang

WATER QUALITY DATA 2023-24
Kalamang West (Northern Part) Iron Ore Mine
(Annual Average)

SURFACE WATER			
Parameters	Sona river Upstream	Sona river Downstream	Standard
pH	8.07	7.95	6.0-9.0
DO (mg/l)	6.68	6.3	>4.0
TSS (mg/l)	32	28	-
BOD 5 days (mg/l)	2.70	2.59	30
COD (mg/l)	8.07	7.42	-
Iron (mg/l)	0.41	0.35	0.5

Note: BDL – Below detection limit.



AIR QUALITY DATA 2023-24
Annual Average Air quality of Kalamang Iron ore Mine of FY'24

Pollutants	Concentration of pollutants ($\mu\text{g}/\text{m}^3$)	Standards ($\mu\text{g}/\text{m}^3$)
AAQ-1		
1. PM ₁₀	70.08	100
2. PM _{2.5}	30.81	60
3. SO ₂	13.41	80
4. NO _x	25.86	80
5. CO	0.58	4*
AAQ-2		
1. PM ₁₀	62.17	100
2. PM _{2.5}	24.94	60
3. SO ₂	11.61	80
4. NO _x	23.19	80
5. CO	0.53	4*
AAQ-3		
1. PM ₁₀	52.07	100
2. PM _{2.5}	19	60
3. SO ₂	8.38	80
4. NO _x	19.4	80
5. CO	BDL	4*
AAQ-4		
1. PM ₁₀	55.9	100
2. PM _{2.5}	22.8	60
3. SO ₂	10.3	80
4. NO _x	21	80
5. CO	BDL	4*
AAQ-5		
1. PM ₁₀	55.4	100
2. PM _{2.5}	22	60
3. SO ₂	10.2	80
4. NO _x	19.4	80
5. CO	BDL	4*
AAQ-6		
1. PM ₁₀	51.5	100
2. PM _{2.5}	18.6	60
3. SO ₂	8.85	80
4. NO _x	18.8	80
5. CO	BDL	4*
AAQ-7		
1. PM ₁₀	55.5	100
2. PM _{2.5}	21.3	60
3. SO ₂	10.4	80
4. NO _x	21.25	80
5. CO	BDL	4*

*BDL – Below detective limit

Alina