JSW Steel Limited

Regd. Office: JSW Centre
Bandra Kurla Complex,
Bandra (East), Mumbai – 400 051
CIN : L27102MH1994PLC152925
Phone : +91 22 4286 1000
Fax : +91 22 4286 3000
Website : www.jsw.in

No. JSW/S/CO/2025/431

Date: 19/09/2025

To,
The Member Secretary
State Pollution Control Board, Odisha
Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-8,
BHUBANESHWAR - 751012

Sub: - Submission of Environment Statement (Form-V) for the year 2024-25 in compliance of EC & CTO Condition for Gonua Iron Ore Mine of M/s JSW Steel Ltd.

Ref: - 1. Vested Environment Clearance Letter dated 21.12.2019 issued by SEIAA, Odisha.
2. Consent Order No 2941 vide letter no 4854/IND-I-CON-1539 dated 31.03.2024.

Dear Sir,

With reference to aforesaid subject, please find enclosed herewith the Environment Statement (Form-V) for the year 2024-25 in compliance of EC & CTO Condition for Gonua Iron Ore Mine of M/s JSW Steel Ltd.

Seeking your co-operation as always.

For JSW Steel Ltd

Vijay Kumar 19/9/25

Vijay Kumar
(Authorized Signatory)
Encl: As above

Copy to-

1. The Member Secretary, State Level Environment Impact Assessment Authority, 5RF-2/1, Acharya Vihar,Unit IX, OPTCL Colony, Anand Bazar, Bhoi Nagar, Bhubaneswar, Odisha 751022.

2. The Regional Officer, Regional Office, Rourkela, Office of the State Pollution Control Board, At- Near Panposh Hockey Chowk, AT/PO. - Panposh, Rourkela – 769 004, Dist –Sundargarh, Odisha

JSW Steel Limited Gonua Iron Ore Mine

ENVIRONMENTAL STATEMENT FOR GONUA IRON ORE MINE (FINANCIAL YEAR ENDING MARCH 31ST 2025)

PREPARED & SUBMITTED BY

Gonua Iron Ore Mine
Of M/s JSW Steel Ltd
Tehsil - Koira, District - Sundergarh
Odisha

Form V
(See Rule 14)
Environment Statement for the Financial Year ending the 31st March 2025

Part A

(i)	Name and address of the owner/occupier of the industry operation or process	Gonua Iron Ore of M/s JSW Steel Ltd in villages Gonua and Patabeda Tehsil Koira District Sundargarh, Odisha
(ii)	Industry Category Primary :- (STC Code) Secondary :- (SIC Code)	Red Category SIC (Standard Industrial Classification)- Code-1000 Industry Type- Metal Mining
(iii)	Production capacity: Units	Operating Mine of 1.20 MTPA iron ore production
(iv)	Year of establishment	Mining operation commenced from the 01.07.2020
(v)	Date of the last Environment Statement Submitted	16/09/2024

Part B
Water and Raw Material Consumption

(i)	Water consumption m3/d	
	Process (Spraying in Mine pit or Haul Road Dust Suppression or dry fog dust suppression) *	42 m3/day
	Cooling	Nil
	Domestic (Drinking purpose)	20 m3/day

Note: * Spraying in mine pit or haul road dust suppression is not exactly a process driven parameter, which is linked with the extent of haul road in usage during mining operation.
**Maximum Rain water collected in the mine pits being reused for dust suppression purpose.

Name of Product	**Process water consumption per unit of product output(cum/MT)**	
	During the previous financial year	**During the current financial year**
	(1)	**(2)**
Iron Ore	0.06	0.036

Raw material consumption: - Not Applicable

Name of raw material	**Name of products**	**Consumption of raw material per unit of output MT**	
		During the previous financial year	**During the current financial year**
Not Applicable			

Polluting Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw material used.

PART-C

Pollution discharged to environment/ unit of output

(Parameter as specified in the consent issued)

Pollutants	Qty. of pollutants discharged (mass/day)	Concentrations of pollutants in discharged (mass/volume)	Percentage of variation from prescribed standard with reason
(a) Air	There are no point sources of emissions or process stacks releasing pollutants into the environment. Ambient air quality is monitored at four core zone and four buffer zone locations in accordance with NAAQS-2009, and the results remain well within the prescribed standards. The consolidated environmental monitoring data for FY 2024-25 is enclosed as **Annexure-I**.		
(b) Water	No effluent is generated as no industrial process is involved in the mining operation. However, the surface run-off from the mine complies with all prescribed limits. An ETP with an Oil & Grease Trap with complete recirculation system is in place. The surface run off water quality is enclosed as **Annexure II.**		

PART- D **HAZARDOUS**

WASTES

(As specified under Hazardous Wastes / Management and Handling Rules, 1989)

Hazardous Wastes	Total Quantity (T)	
	During the previous financial year	**During the current financial year**
(a) From process	1.1 T	1.1 T
(b) From pollution control	Nil	Nil

PART- E

Solid Wastes

	Total Quantity	
	During the previous financial year	**During the current financial year**
(a) From process	Over Burden- 175000 cum	Over Burden- 29688 cum
(b) From pollution control	Not Applicable	Not Applicable
(c) (1) Quantity recycled or re-utilized within the unit	Nil	Nil
(2) Sold	Nil	Nil
(3) Disposed	OB is disposed at ear marked area in of the mine as per Approved Mine Plan.	OB is disposed at ear marked area in of the mine as per Approved Mine Plan.

PART-F

Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both the categories of wastes.

Solid Waste- Overburden of 29688 cum generated during the reporting period. The OB/Waste being disposed of at the earmarked area and after maturity same will be stabilized with plantation as per approved Mine Plan.

Hazardous Waste- Hazardous waste (Used/spent oil) of 1.1 T was generated during the reporting period. The hazardous waste was being stored in a hazardous waste shed made as per specifications laid by SPCB and was sold to a certified hazardous waste dealer.

PART-G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

Our aim is to preserve the long- term health of the natural environment affected by our operations. We set and achieve targets that promote efficient use of resources and include the reduction and prevention pollution.

Air Management-

Blasting Operation

- Controlled blasting method is in practice by restriction of explosive charge in the holes.
- Well-designed blast by effective stemming and use of milli second delay detonators, Proper blasting designing to see that the optimum breakage occurs.
- To control ground vibrations and arrest fly rocks, advanced initiation system is being used for blasting.
- Ground vibrations are also being monitored and the results are well within limits.

Excavation, Hauling and Crushing & Screening

- Dry fog system for crusher & screen plants are provided.
- Using sharp teeth for shovels and other soil excavation equipment, and their periodical replacements.
- Acoustic enclosures for operator cabin.
- Avoiding overloading of dumpers
- Provision of dust filters /masks to workers working at highly dust prone and affected areas
- Imparting sufficient training to operators on safety and Environmental parameters.

Transportation

- Regular water sprinkling is being carried out by engaging mobile water tankers on the mine benches, mine haul, loading and unloading points and transfer points for dust suppressions.
- Maintenance of haul road by regular grading is carried out through grader, dozer.
- Ensuring that all mineral trucks are covered by tarpaulin.
- Vehicular emissions controlled through regular and proper preventive maintenance schedules.
- It is ensured that there is no overloading of trucks by having Quick Dispatch system at the weigh bridge near the dispatch gate.

- Regular water sprinkling arrangements have been made on the transportation roads/public road through mobile water tankers.
- Tarpaulin Covering in Railway Wagons.

Wet Drilling and Dust Extractor System in Drilling Operation

Water Tanker Arrangement for Haul Road Dust Suppression

Dry Fog System in Mineral Handling Plants

Electronic Digital Display Board at Gonua Mine Gate

Water & OB Management

- Garland drains maintained of suitable size around mine area and dump with proper gradients to prevent rain water descent into active mine area.
- Settling ponds maintained to prevent flow of fine particles from OB / Waste dumps, check dams, parapet / retaining walls & garland drains.
- Usage of stored water in the settling ponds for watering of haul roads, vehicle washing and green belt development etc.
- De- silting of garland drains & settling ponds are being carried out at regular intervals.
- Maintenance of all the runoff management structures.

Coir Mats on Dump Slopes

GeoCoir Matting & Plantation

Garland Drain

Retaining wall

Series of Settling Pond

Dump Plantation

Plantation in Non-mineralized area

Vertiver Grass Plantation

Noise Management

- Providing sound proof operator's cabin for equipment like dumpers, shovel, tippers, etc.
- All HEMMs are monitored for any abnormal sound and rectified with due precaution by maintenance personnel.
- Providing workers with ear muffs & earplugs against high noise levels.
- Controlling the time of exposure of workers towards high noise areas.

PART-G

Additional measures/investment proposal for environment protection including abatement of pollution /prevention of pollution.

Gonua Environmental Protection Measures Expenditure (head wise breakup) incurred from in FY 2024-25 is given below-

Expenditure Incurred on Environmental Protection Measures for the Financial Year 2024-25		
Sl No	**Expenditure head -Particulars**	**Gonua**
1	Construction of Retaining walls	172800
2	Construction of Garland drains, desiltation of settling ponds	105000
3	Geotextile works for dump stabilization	-
5	Greenbelt development- Pit digging, plantation and maintenance	798280
6	Operation of Road sweeping machines	-
7	Operation of fixed sprinklers	-
8	Operation of mobile sprinklers	1816820
9	Use of chemical dust suppressants in sprinkling	118000
10	Online air quality monitoring	493065.36
11	Environment monitoring through NABL Accredited third party	927522
12	Installation of Sewage treatment Plant	-
13	Study conducted on hydrogeology from CGWA Accredited Agency	250000
14	Nursery Development	-
15	Landscape development	212300
16	Environmental Awareness Programmes	350000
17	Flowmeter calibration and stamping	21000
18	Drip irrigation for plantation	-
Total		5264787.36

PART-H

Any other particular for improving the quality of the environment.

Company is committed for prevention/abatement of pollution and minimize adverse environmental impacts of the business by ensuring continual improvement of environmental performance, and complying to the relevant environmental and other legislation, regulation & other requirements.

The mine has already been certified with ISO-14001 (Environment Management System), ISO-9001 (Quality Management System) and OHSAS 45001 (Occupational Health and Safety Assessment Series) and maintaining the systems satisfactorily.

Environmental Monitoring

Regular monitoring of air quality parameters important and crucial environmental parameters is of immense importance to assess the status of environment during plants operation. With the knowledge of baseline conditions, the monitoring program can serve as an indicator for any deterioration in environmental conditions due to operation of the plants and suitable preventive steps could be taken in time to safeguard the environment. Monitoring is as important as that of control of pollution since the efficiency of control measures can only be determined by monitoring.

The environmental attributes being monitored are as given below

- Air Pollution and Meteorological Aspects
- Surface and Ground Water Quality
- Noise Levels
- Soil Quality

AAQ Station Near Pump House

CAAQMS Near Pump House

Ground Water Level

Annexure I

Consolidated Air Quality Monitoring Data of FY 2024-2025

GONUA IRON ORE MINES										
AAQ DATA FOR THE PERIOD APRIL 2024 TO MARCH 2025										
	PM10 [µg/m3]		PM2.5 [µg/m3]		SO2 [µg/m3]		NO2 [µg/m3]		CO [mg/m3]	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
CORE ZONE										
Near Mines Office	76.8	35.1	29.2	10.6	19.7	9.3	19.8	10.2	0.64	0.33
Entry & Exit Gate (Gate No02)	77	35.1	25.7	11.1	19.7	9.2	22.9	10.2	0.65	0.33
Pillar No 22 & 23	77	37.3	25.4	11.8	19.9	9.6	19	10.1	0.64	0.34
Dispensary Hutting area	77	32.1	26.6	11.2	19.6	9	23.7	10.1	0.64	0.33
BUFFER ZONE										
KHANDBANDH VILLAGE	73.5	29.3	23.5	8.2	19.7	9.1	19.2	9.6	0.54	0.3
PALASA VILLAGE	73.8	29.3	23.4	8.7	19.6	9.1	18.5	9.2	0.57	0.3
SARGIGHAR VILLAGE	68.6	29.3	22.7	9.1	19.5	8.9	19.6	9.5	0.53	0.3
MALDA VILLAGE	68.7	29.2	23.3	8.1	19.5	9.1	17.9	9.1	0.52	0.3
NAAQ (24 hourly standard)	**100 [µg/m3]**		**60 [µg/m3]**		**80 [µg/m3]**		**80 [µg/m3]**		**2 [mg/m3] (8 hourly)**	

Annexure II

ECOMEN MINING PVT. LTD
(Formerly known as Ecomen Laboratories Pvt. Ltd.)
Second Floor Hall, House No. B-1/8, Sector-H, Aliganj, Lucknow - 226 024
Phone No. : 0522 - 4079201/2746282
E-mail: contactus@ecomen.in, Website: www.ecomen.in, CIN - U74210UP1989PTC010601, GSTIN : 09AAACE6076H1ZI
TC-12751

TEST REPORT

FORMAT NO. ECO/QS/FORMAT/07

NAME & ADDRESS OF CUSTOMER:	**Gonua Iron Ore Mines of M/s JSW Steel Ltd.**	**ULR No.**	**TC127512400000398F**
		Test Report No.	**ECO/LAB/SW/0089/0398/09/2024**
		Issue Date of Test Report	**08.10.2024**
Type of Sample	Surface Water		
Sample Registration No.	0089	**Name of Location**	Mine Runoff Work Shop area
Sampling Method	APHA	**Sample Collected By**	EMPL Representative
Date of Sample Collection	26.09.2024	**Time of Sample Collection**	-
Date of Sample Received	26.09.2024	**Time of Sample Received**	05:30 PM
Start Date of Analysis	26.09.2024	**End Date of Analysis**	08.10.2024
Laboratory Environmental Condition	Temperature: 27 ± 2 °C	**Sample Quantity**	As Per Requirement
	Humidity: 56 %	**Sample ID Code**	ECO/LAB/0398/09/2024

S. No.	TESTS	Unit	PROTOCOL	DETECTION RANGE	RESULT	INDIAN STANDARDS as IS-2296(C)
23.	Colour	Hazen	APHA,23rd Ed. : 2017, 2120 B	5 -100	15.0	300
24.	pH	-	APHA,23rd Ed. : 2017, 4500H+A+B	2 - 12	7.72	6.5-8.5
25.	Total Suspended Solids as TSS	mg/l	APHA,23rd Ed. : 2017, 2540D	5-5000	34.0	-
26.	Total Dissolved Solids as TDS	mg/l	APHA,23rd Ed. : 2017, 2540-C	5 - 5000	256.0	1500
27.	Biochemical Oxygen Demand as BOD	mg/l	IS-3025 Part-44,1993	1 -1000	2.5	3.0
28.	Chemical Oxygen Demand as COD	mg/l	APHA,23rd Ed. : 2017, 5220 A+C	1-1000	16.0	-
29.	Oil & Grease as O&G	mg/l	APHA, 24th Ed. : 20235520 A+D	5-600	BDL	0.1
30.	Dissolved Oxygen as DO	mg/l	APHA,23rd Ed. : 2017, 4500 A+C	1 -15	6.2	4
31.	Chloride as Cl	mg/l	APHA,23rd Ed. : 2017, 4500 Cl A+B	5 - 1000	28.0	600
32.	Sulphate as SO_4	mg/l	APHA,23rd Ed. : 2017, 4500-SO42- E	1 - 250	18.2	400
33.	Nitrate Nitrogen as NO_3	mg/l	APHA,23rd Ed. : 2017, 4500-NO3 2- E	5 - 100	5.12	50
34.	Fluoride as F	mg/l	APHA,23rd Ed. : 2017, 4500-C	0.05 -10	0.13	1.5
35.	Iron as Fe	mg/l	APHA,23rd Ed. : 2017, 3500 Fe B	0.02-50	0.09	50.0
36.	Arsenic as As	mg/l	APHA,23rd Ed. : 2017, 3111 A+B	0.01-2	BDL	0.2
37.	Hexavalent Chromium as Cr^{+6}	mg/l	APHA,23rd Ed. : 2017, 3111 A+B	0.05-20	BDL	0.05
38.	Copper as Cu	mg/l	APHA,23rd Ed. : 2017, 3111 A+B	0.05-5	BDL	1.5
39.	Zinc as Zn	mg/l	APHA,23rd Ed. : 2017, 3111 A+B	0.02-50	0.02	15
40.	Phenolic Compound as C_6H_5OH	mg/l	APHA,23rd Ed. : 2017, 5530 A+C	0.05 - 10	BDL	0.005
41.	Anionic Detergent as MBAS	mg/l	APHA,23rd Ed. : 2017, 5540 A+C	0.01-5	BDL	1.0
42.	Lead as Pb	mg/l	APHA,23rd Ed. : 2017, 3111 A+B	0.01-1	BDL	0.1
43.	Cadmium as Cd	mg/l	APHA,23rd Ed. : 2017, 3111 A+B	0.002-2	BDL	0.01
44.	Total coliform	MPN /100 ml	APHA,23rd Ed. : 2017, 9221 A+B	1.8	120.0	5000

Statement of Conformity: The above tested parameters confirm as per **INDIAN STANDARDS as IS-2296(C)** limits for above tested parameters and the results are related to the sample tested

Note: - BDL- Below Detection Limit.

Verified By
Technical Manager

Authorized By
Quality Manager

ecoMen

ECOMEN MINING PVT. LTD

(Formerly known as Ecomen Laboratories Pvt. Ltd.)

Second Floor Hall, House No. B-1/8, Sector-H, Aliganj, Lucknow - 226 024

Phone No. : 0522 - 4079201/2746282

E-mail: contactus@ecomen.in, Website: www.ecomen.in, CIN - U74210UP1989PTC010601, GSTIN : 09AAACE6076H1ZI

TC-12751

TEST REPORT

FORMAT NO. ECO/QS/FORMAT/07

NAME & ADDRESS OF CUSTOMER:	**Gonua Iron Ore Mines of M/s JSW Steel Ltd.**	**ULR No.**	**TC127512400000399F**
		Test Report No.	**ECO/LAB/SW/0089/0399/09/2024**
		Issue Date of Test Report	**08.10.2024**
Type of Sample	Surface Water		
Sample Registration No.	0089	**Name of Location**	Mine Runoff Screen Plant
Sampling Method	APHA	**Sample Collected By**	EMPL Representative
Date of Sample Collection	26.09.2024	**Time of Sample Collection**	-
Date of Sample Received	26.09.2024	**Time of Sample Received**	05:30 PM
Start Date of Analysis	26.09.2024	**End Date of Analysis**	08.10.2024
Laboratory Environmental Condition	Temperature: 27 ± 2 °C	**Sample Quantity**	As Per Requirement
	Humidity: 56 %	**Sample ID Code**	ECO/LAB/0399/09/2024

S. No.	TESTS	Unit	PROTOCOL	DETECTION RANGE	RESULT	INDIAN STANDARDS as IS-2296(C)
1.	Colour	Hazen	APHA,23rd Ed. : 2017, 2120 B	5 -100	20.0	300
2.	pH	-	APHA,23rd Ed. : 2017, 4500H+A+B	2 - 12	7.23	6.5-8.5
3.	Total Suspended Solids as TSS	mg/l	APHA,23rd Ed. : 2017, 2540D	5-5000	23.3	-
4.	Total Dissolved Solids as TDS	mg/l	APHA,23rd Ed. : 2017, 2540-C	5 - 5000	234.0	1500
5.	Biochemical Oxygen Demand as BOD	mg/l	IS-3025 Part-44,1993	1 -1000	2.4	3.0
6.	Chemical Oxygen Demand as COD	mg/l	APHA,23rd Ed. : 2017, 5220 A+C	1-1000	20.0	-
7.	Oil & Grease as O&G	mg/l	APHA, 24th Ed. : 20235520 A+D	5-600	BDL	0.1
8.	Dissolved Oxygen as DO	mg/l	APHA,23rd Ed. : 2017, 4500 A+C	1 -15	6.4	4
9.	Chloride as Cl	mg/l	APHA,23rd Ed. : 2017, 4500 Cl A+B	5 - 1000	22.0	600
10.	Sulphate as SO_4	mg/l	APHA,23rd Ed. : 2017, 4500-SO42- E	1 - 250	13.8	400
11.	Nitrate Nitrogen as NO_3	mg/l	APHA,23rd Ed. : 2017, 4500-NO3 2- E	5 - 100	5.25	50
12.	Fluoride as F	mg/l	APHA,23rd Ed. : 2017, 4500-C	0.05 -10	0.14	1.5
13.	Iron as Fe	mg/l	APHA,23rd Ed. : 2017, 3500 Fe B	0.02-50	0.12	50.0
14.	Arsenic as As	mg/l	APHA,23rd Ed. : 2017, 3111 A+B	0.01-2	BDL	0.2
15.	Hexavalent Chromium as Cr^{+6}	mg/l	APHA,23rd Ed. : 2017, 3111 A+B	0.05-20	BDL	0.05
16.	Copper as Cu	mg/l	APHA,23rd Ed. : 2017, 3111 A+B	0.05-5	BDL	1.5
17.	Zinc as Zn	mg/l	APHA,23rd Ed. : 2017, 3111 A+B	0.02-50	0.11	15
18.	Phenolic Compound as C_6H_5OH	mg/l	APHA,23rd Ed. : 2017, 5530 A+C	0.05 - 10	BDL	0.005
19.	Anionic Detergent as MBAS	mg/l	APHA,23rd Ed. : 2017, 5540 A+C	0.01-5	BDL	1.0
20.	Lead as Pb	mg/l	APHA,23rd Ed. : 2017, 3111 A+B	0.01-1	BDL	0.1
21.	Cadmium as Cd	mg/l	APHA,23rd Ed. : 2017, 3111 A+B	0.002-2	BDL	0.01
22.	Total coliform	MPN /100 ml	APHA,23rd Ed. : 2017, 9221 A+B	1.8	90.0	5000

Statement of Conformity: The above tested parameters confirm as per **INDIAN STANDARDS as IS-2296(C)** limits for above tested parameters and the results are related to the sample tested

Note: - BDL- Below Detection Limit.

Verified By

Technical Manager

Authorized By

Quality Manager