

MCDR INSPECTION REPORT

Name of the Mine: Katamati Iron Mine , of Tata Steel Limited,
30ORI08035

Name of the Inspecting Officer : Shri B L Gurjar, RCOM &
Shri Sanjay Kumar Mahapatra, AME

Name of the accompanying official: Shri Shirish Shekhar, Mine Agent ,
Shri Ajay Kumar Goyal, Mines Manager

Date of Inspection: 23.06.2023.

S N	Particulars	Details
1	Name of the Mine	Katamati Iron Mine
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total Lease Area (ha)– 403.3238 ha i) Forest area(ha): 360.01 ha ii) Private land(ha): 0.0769 ha iii) Revenue land (ha): 43.2369 ha IV) Others (Pahar, Nala etc.):
3	Mine code	30ORI08035
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/4376/2011
5	Name of the lessee, Address, phone, email and fax number	Tata Steel Limited, 24 Homi Mody Street, Fort. Mumbai - 400001, Ph No.: 9262699402 Fax: 06767-272010 Email id: gm.office@tatasteel.com
6	Village	Deojhar
7	Taluka/Mandal	Joda
8	District	Kendujhar
9	Pin code	758034
10	State	Odisha
11	Post office	Deojhar
12	Nearest police station	Joda
13	Nearest Railway station	Noamundi
14	Date of Grant of Mining Lease	17.01.1933
15	Date of Execution	07.12.1934
16	Date of first Renewal, if applicable and its period & expiry	21.11.1973 w.e.f. 17.01.1963 to 16.01.1983, 20 years
17	Date of second Renewal, if applicable and its period & expiry	24.10.1983 w.e.f. 17.01.1983 to 16.01.2003, 20 years
18	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Lease period extended till 31.03.2030. Supplementary Lease Deed executed on 27.11.2016.
19	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Mr. T. V. Narendran P.O: Bistupur, Dist: East Singhbhum, Jharkhand- 831001, Phone No: 06596-233706 Email id: gm.office@tatasteel.com , Date of appointment: 01.11.2013
20	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Mr. Shirish Shekhar, Katamati Iron Mine, At/PO; Deojhar Dist: Keonjhar

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		Phone No: - 7209003547 s.shekhar@tatasteel.com
21	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Date of appointment: 16.08.2021 Shri Ajay Kumar Goyal, Katamati Iron Mine, At/PO; Deojhar Dist: Keonjhar Phone No:- 9040095639 ajay.goyal@tatasteel.com Date of appointment: 10.10.2022
22	Name of the Mining Engineer & Geologist, Qualification, and total experience	Mining engineer Qualification Date of appointment Address phone/email Shri Ajay Kumar Goyal, Katamati Iron Mine, At/PO; Deojhar Dist: Keonjhar Phone No:- 9040095639 ajay.goyal@tatasteel.com Date of appointment: 10.10.2022
		Geologist Qualification Date of appointment Address phone/email Mr. Mithun Mukherjee, MSc. & M tech (Applied Geology), Total Experience:20 years, Katamati Iron Mine, At/PO; Deojhar Dist: Keonjhar Phone No: - 7091193855, mithunm@tatasteel.com Date of appointment – 15.05.2019
23	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes
24	Date of Approval of Review of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Approval of Review of Mining Plan Vide Letter No.-MSM/FM/16-ORI/BHU/2017-18/2012 dated 09.11.2017. Approval of Modification of Review of Mining Plan Vide Letter No-MRMP/A/06/ORI/BHU/2020-21 dated 13.07.2020
25	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Approval of Review of Mining Plan Vide Letter No.-MSM/FM/16-ORI/BHU/2017-18/2012 dated 09.11.2017.
26	Mineral(s) granted in lease and proved for mining	Iron Ore
27	Method of Mining(Open cast, Underground)	Open cast
28	Category (Fully Mechanised, Others or Manual)	Fully Mechanized (Category "A")
29	Captive/Non-Captive	Captive

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Exploration

S.N.	Item	Proposed	Actual work	Remarks
1a	Proposal of previous year (2022-23)	0	54	
1b	Exploration over lease area for Geological axis 1 or 2.	69 ha	49 ha	Remaining 20 ha mineralised area in G3 as on 01.04.23
1c	Exploration Agency & Expenditure in lakh Rupees during the year	-	Tata Steel Limited. 173.77 lakhs	-

Exploration Status

Area	G1	G2	G3	Total
Mineralised	173.19	56.86	19.8600	249.9100
Non-mineralised	22.55	67.77	63.0938	153.4138
Total	195.74	124.63	82.9538	403.3238

1d Balance area to be explored to bring Geological axis in 1 or 2

0 19.86 ha

1e Balance reserves as on 01.04.2023

- 85.67 Million Tonnes

Category	Qty	Grade
111	44.39	Fe>58%
121	24.78	Fe>45%
122	16.50	
Total	85.67	Fe>45%

1f General remarks of inspecting officer on geology, exploration etc.

During the year 2022-23 total 54 bore holes drilled. In G3 category 20ha are there.

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Development

S.N.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	<p style="text-align: center;">Pit-1</p> PIT No-2 PIT No- 3	Pit-1	During inspection, it is observed that one quarry is developed.. Other 02 quarries were not operated during the year 2022-23.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Yes	Yes	
2c	Stripping ratio or ore to OB ratio	1:0.04	1:0.07	
2d	Quantity of topsoil generation in m ³	Nil	515.2 m ³	
2e	Quantity of overburden/waste generation in m ³	600000	599432.8	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	1. Violation letter was issued vide letter No : MCDR-MiFLOMn/8/2023-BBS-IBM_RO dated 28.06.2023 as it was proposed for production from three (03) nos of pits (quarry) during the year 2022-23. During inspection it is observed that the entire production carried from one quarry. Other 02 quarries were not operated during the year 2022-23		

Exploitation

S.N.	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	3	1	During inspection it is observed that one quarry is developed. Other 02 quarries

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				were not operated during the year 2022-23.
3b	Quantity of Iron ore production proposed	13.50 MT	7.58 MT	Production achieved as per CTO.
3c	Recovery of salable/usable mineral from ROM production	10.70 MT	6.88 MT	
3d	Quantity of mineral reject generation	2.80 MT	0.70 MT	
3e	Grade of mineral reject generation and threshold value declared	Mineral Reject Grade: $\geq 45\%$ to $< 58\%$	Avg. Mineral Reject Fe %: 55.19	
3f	Quantity of sub-grade mineral generation	2.80 MT	0.70 MT	
3g	Grade of sub-grade mineral generation	Mineral Reject Grade: $\geq 45\%$ to $< 58\%$	Avg. Mineral Reject Fe %: 55.19	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised method adopted for segregating from ROM	Mechanized method	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Yes	Yes	Mineral Reject is blended with ROM for the purpose of mineral conservation
3j	Provision of drilling & blasting in mineral benches	Deep Hole Drilling Dia:- 150/165 mm Depth:- 12 m Spacing:- 5 Burden:- 4 Explosive used:- SME	Deep Hole Drilling Dia:- 150/165 mm Depth:- 12 m Spacing:- 5 Burden:- 4 Explosive used:- SME	
3k	Provision of mining machineries in mineral benches	Proposed Machineries	Actual	
		Dumper 15	Dumper 1	
		Shovel 4	Shovel 3	
		Loader 3	Loader 1	
		Drill 4	Drill 3	
		Dozer 2	Dozer 2	
		Grader 1	Grader 1	
		Water tanker 2	Water tanker 2	
3l	Whether height of benches in overburden and	Yes	Yes	

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	mineral suitable for method of mining proposed in MP/SOM		
3m	Total area covered under excavation/pits	144.180 Ha	92.832 Ha
3n	Ore to OB ratio for the pit/mine during the year	1:0.04	1:0.07
3o	Total area put in use under different heads at the end of year	241.195	158.232
	Production of ROM mineral during last five-year period, as applicable		
	Year- 2018-19	6800000	5026960
3p	Year- 2019-20	8000000	4823218
	Year- 2020-21	8000000	4965635
	Year- 2021-22	10620000	4525979
	Year- 2022-23	13500000	7581611
3q	General remarks of inspecting officer on method of mining etc.	Use of Crushing and Screening plant to segregate feed based on their sizes. Further ROM from Katamati Iron Mines is sent to mineral beneficiation plants at Noamundi for grade wise segregation. Violation letter was issued vide letter No : MCDR-MiFLOMn/8/2023-BBS-IBM_RO dated 28.06.2023 as it is observed that the entire production carried from one quarry against proposal from 03 quarry. Other 02 quarries were not operated during the year 2022-23	

Solid Waste Management-Dumping

S.N	Item	Proposals for, 2022-23	Actual work during 2022-23	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Yes	Yes	
4b	Location of topsoil, OB & mineral reject dumps	Waste Dump - 2 Mineral Reject Dump-1	Waste Dump - 2 Mineral Reject Dump-1	
4c	Number of dumps within lease area and outside lease area	Within Lease Area: Waste Dump-2 Mineral Reject-1	Within Lease Area: Waste Dump-2 Mineral Reject-1	

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4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Within Lease Area: Waste Dump-1 Mineral Reject-1	Within Lease Area: Waste Dump-1 Mineral Reject-1	
4e	Number of active & alive dumps	Active dumps: Waste Dump-2 Mineral Reject-1	Active dumps: Waste Dump-2 Mineral Reject-1	
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps stabilized	Nil	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there	As per proposal	As per proposal	
4i	Length of Retaining wall or garland drain all along dump	Toe wall- 609m Garland drain- 609m	Toe wall- 612m Garland drain- 609m	
4j	Number of settling ponds	Nil	1	Near Metso O/s C&S Plant
4k	Specific comments of inspecting officer on waste dump management	Waste dump -2 is partially stabilized by plantation. Retaining wall or garland drain has been made as proposed. No dumping outside the lease area.		

Solid Waste Management-Backfilling

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	5.58	1.94 ha	Violation issued vide letter dated 28.06.2023
5b	Area under backfilling of mined out area	5.58 ha	1.94 ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Yes	Yes	
5d	Total area fully reclaimed & rehabilitated	Nil	Nil	
5e	General remarks of inspecting officer on backfilling, reclamation etc.	Violation letter was issued vide letter No : MCDR-MiFLOMn/8/2023-BBS-IBM_RO dated 28.06.2023 as It was proposed for back filling of mined out area over an area of 5.58 ha , only during inspection it is observed that, 1.94 ha area has been back filled.		

Progressive Mine Closure Plan

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23E(2). Details should be given in the format as given in Annexure-20.	Yes	Yes	
6b	Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	No Proposal	Nil	
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L * B * D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	5.58 ha	1.94 ha	Back filling over an area of 1.94 ha carried.
6d	Compliance of Rehabilitation of waste land/ Dump Management within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	Dump Management i) 5000 Nos ii) 2 ha iii) Plantation	Dump Management i) 7580 Nos ii) 3.03 Ha iii) Plantation	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Yes	Monitoring both at core zone and buffer zone	Monitoring both at core zone and buffer zone
6f	General remarks of inspecting officer on PMCP compliance &	Violation letter was issued vide letter No : MCDR-MiFLOMn/8/2023-BBS-IBM_RO dated 28.06.2023 as		

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progressive closure operations It was proposed for back filling of mined out area over an area of 5.58 ha , only during inspection it is observed that, 1.94 ha area has been back filled

Mineral Conservation

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Proposal for ROM despatch.	ROM dispatched.	ROM from Katamati is fed to the Wet Beneficiati on Plant and Dry Processing plant situated at Noamundi Iron Mine. Royalty is being paid at highest grade.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	NA	NA	
7c	Different grade of mineral sorted out at mines	NA	NA	
7d	Any beneficiation process at mines	Dry Crushing and Screening	Dry Crushing and Screening	ROM from Katamati is fed to the Wet Beneficiati on Plant and Dry Processing plant situated at Noamundi Iron Mine.
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	ROM from Katamati is fed to the Wet Beneficiation Plant and Dry Processing plant situated at Noamundi Iron Mine		

Environment

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes	Yes	
8b	Concurrent use or storage of topsoil	Topsoil generated is utilized in plantation	Topsoil generated is utilized in	

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				plantation
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Yes	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Yes	Yes	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps, etc.)	Yes	Yes	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	5000 saplings to be planted	7580 saplings planted	
8g	Survival rate	Nil	85%	
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	Fixed as well as mobile water sprinkler
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Environmental protection by plantation carried. Fixed and mobile water sprinkler used.		

Compliance of Rule 45

S.N	Item	COMMENTS	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to May 2023 in time. A.R. for 2022-23 was not due for submission on date of inspection. Hence scrutiny OF Annual Return for 2022-23 not carried during inspection.	
	General remarks of inspecting officer	Violation letter was issued vide letter No : MCDR-MiFLOMn/8/2023-BBS-IBM_RO dated 28.06.2023 as in the Annual Return for the year 2021-22 it was reported that the Ex-mines price is Rs 2116 , the Ex-mines price has been reported as Rs 874.75/- only for the month of May 2023. Reason for such huge difference in reporting of ex-mines price could not be explained	

10. Drone Survey Information and data thereof. Drone data submitted in the on-line portal. To be scrutinized after 07.07.2023 after activation for downloading of the submitted drone data.

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Rule No	Nature of violations observed
<u>Rule 11(1)</u>	<p>Mining operations in the mining lease are not being carried out in accordance with as per the proposal given in approved Modification of review of Mining plan dated 13.07.2020 to the extent given below;</p> <p>i) It has been proposed for production from Three (03) nos of pits (quarry) during the year 2022-23. However during inspection it is observed that the entire production carried from one quarry. Other 02 quarries were not operated during the year 2022-23.</p> <p>ii) It was proposed for back filling of mined out area over an area of 5.58 ha.</p>
<u>Rule 45</u>	<p>In the Annual Return for the year 2021-22 it was reported that the Ex-mines price is Rs 2116/-. However on scrutiny of monthly return for the month of May 2023, during inspection it is observed that, the Ex-mines price has been reported as Rs 874.75/- only. Reason for such huge difference in reporting of ex-mines price could</p>

(B L GURJAR)
Regional Controller of Mines