

**INDIAN BUREAU OF MINES
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

MCDR inspection REPORT

Bangalore regional office

Mine file No : KNT/BLR/FE/490/BNG

Mine code : 30KAR03181

- (i) Name of the Inspecting : **S011**) **K.SRINIVAS**
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : Prakash M S Mines Manager, Aman Kumar, Mining Enginee
Official with
Designation
- (iv) Date of Inspection : 21/09/2021
- (v) Prev.inspection date : 16/02/2021

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **TUNGA IRON ORE MINES**
- (b) **Registration NO.** : **IBM/432/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : KARNATAKA
- District : BELLARY
- Village : HITTANAHALLI
- Taluka : SANDUR
- Post office : TARANAGAR
- Pin Code : 583275
- FAX No. :
- E-mail : sunil.singh@jsw
- Phone : 9448286155, 08395-245956
- (f) Police Station : BANNIHATTI
- (g) First opening date : 25/01/2018
- (h) Weekly day of rest : SUN
2. Address for : ITTANAHALLI VILLAGE, TARANAGAR
correspondance : SANDUR TALUK, BALLARI DISTRICT- 583119
3. (a) Lease Number :
- (b) Lease area :
- (c) Period of lease :
- (d) Date of Expiry :
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : JSW STEEL LIMITED
 JSW Mining office, Near
 Talur Cross Vidyanagar
 Post, Toranagallu Sandur,
 Bellary BELLARY KARNATAKA
 Phone:9448286155
 FAX :

Owner : M/S JSW STEEL LIMITED
 BELLARY KARNATAKA
 Phone:
 FAX :

Agent : SUNIL KUMAR SINGH
 JSW steel Ltd., Vijayanagar
 works, Vidyanagar Po,
 Bellari, Karnataka BELLARY
 KARNATAKA
 Phone: 9449598135
 FAX : 08395250132/142

Mining Engineer

Name : Aman Kumar, Full Time
 Qualification : B.Tech(Mining)
 Appointment/ : 19/01/2018
 Termination date

Geologist

Name : R S Desai, Full Time
 Qualification : M.Sc (Applied Geology)
 Appointment/ : 19/01/2018
 Termination date

Manager

Name : Prakash M S
 Qualification : B.Tech (Mining)
 Appointment/ : 22/05/2020
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining : MP under 16(1) of MCR 2016 17/02/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal	nil	-
1b	Exploration over lease area for geological axis 1 or 2	No proposal	nil	No proposals for the year 2020-21.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified	nil	-
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not specified	G3- 3.68ha	No proposals for the year 2020-21 to bring to G1 level.
1e	Balance reserve as on 01/04/20	-	-	The reserves as on 1.4.2021 is 48,52,929 tonnes.
1f	General remarks of inspecting officers on geology, exploration etc	-	-	There are no proposals for exploration for the year 2020-21.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Section S3-S3`to S7-S7`	Section S3-S3`to S7-S7`	-
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches proposed in OB and Mineral	Separate benches maintained in OB and Mineral	OB-1bench, Mineral-2 benches.
2c	Stripping ratio or ore to OB ratio	1: 1.46 (in tonnes)	1: 0.26 (in tonnes)	Violation issued.
2d	Quantity of topsoil generation in m3	No proposal	nil	-
2e	Quantity of overburden generation in m3	218931cu.m	38871cu.m	Violation issued

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	-	The development work has not been carried out as proposed. The violation has been pointed out.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	one pit proposed	one pit	-
3b	Quantity of ROM mineral production proposed	3,00,000 Tonnes	2,99,700 Tonnes	As per the AR for the year 2020-21.
3c	Recovery of sailable/usable mineral from ROM production	100 %	100 %	nil
3d	Quantity of mineral reject generation	No proposal	nil	-
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	nil	-
3f	Quantity of sub grade mineral generation.	No proposal	nil	-
3g	Grade of sub grade mineral generation	No proposal	nil	-
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized Method proposed for segregating from ROM	Mechanized Method adopted for segregating from ROM	Dry Crushing and screening 250 TPH.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	No such beneficiation study carried out.	-
3j	Provision of drilling and blasting in mineral benches	Provision of drilling & blasting is made in mineral benches.	Drilling & blasting carried out by combination of slurry and Nonel detonator.	-

3k	Provision of mining machineries in mineral benches	Provision of mining machineries made Excavator- 4 Water tanker-7 Tippers - 11, Hydraulic Drill - 1 wheel loader - 2	Machineries deployed Excavator- 4 Water tanker- 2 Tippers - 7 Hydraulic drill - 1 wheel loader - 1	-
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed Bench width- 8m Bench Height- 8m	Bench width- 8m Bench Height- 8m maintained	-
3m	Total area covered under excavation/pits	8.16ha at the end of Plan Period(2021-22).	6.69 Ha covered under excavation/pit	As reported in AR 2020-21.
3n	Ore to OB ratio for the pit/mine during the year.	1: 1.46 (in tonnes)	1: 0.26 (in tonnes)	-
3o	Total area put in use under different heads at the end of year	Mining- 8.16 Ha Infrastructure and roads- 0.94 Ha Waste Dumps- 13.57 Green Belt and R & R structures - 1.93 at the end of the plan period(2021-22)	Covered under current opencast workings- 6.69 Ha Waste Disposal-11.16ha Occupied by Plants, buildings, residential, welfare buildings and roads -0.7ha' Others purpose(Green belt safety zone, R&R and future mining - 14.13 Ha	-
3p	Production of ROM mineral during the last five year period as applicable	2017-18: 3,00,000 2018-19 :3,00,000 2019-20 :3,00,000 2020-21: 3,00,000 (in tonnes)	2017-18: 2,73,983 2018-19 :2,99,993 2019-20 :2,99,997 2020-21: 2,99,700 (in tonnes)	Mine operations started on 25.01.2018(2017-18).

3q	General remarks of inspecting officers on method of mining etc.	-	-	The mining operations have been carried out as per the proposals.
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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping of Overburden is proposed.	Separate dumping of Overburden is maintained.	-
4b	Location of topsoil, OB and mineral reject dumps	OB Dump Proposed in between the sections S1-S1` and S2-S2`	OB Dumping in between the sections S1-S1` and S2-S2`	-
4c	Number of dumps within lease area and outside of lease area	1 proposed Dump and 1 dead dump within the mining lease.	1 proposed Dump and 1 dead dump within the mining lease	-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	The proposed dump outside the UPL and Parts of dead Dump is within UPL.	The proposed dump outside the UPL and Parts of dead Dump is within UPL.	-
4e	Number of active and alive dumps.	Active Dump-1	Active Dump-1	-
4f	Number of dead dumps.	one	one	-
4g	Number of dumps established.	Not specified	nil	-
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal for the year 2020-21	nil	-
4i	Length of Retaining wall or garland drain all along dumps	No proposal for the year 2020-21	nil	-
4j	Number of settling ponds	No proposal for the year 2020-21.	nil	-
4k	Specific comments of inspecting officer on waste dump management	-	-	Waste dumping has been carried out as per the proposals.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No proposal	nil	No area in completely mined out during this plan period.
5b	Area under backfilling of mined out area	No proposal	nil	-
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	nil	No Topsoil Generation
5d	Total area fully reclaimed and rehabilitated	No proposal	nil	-
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	There are no backfilling proposals.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Submission of Annual report on PMCP under rule 26(2)	Annual PMCP Report for Year 2020-21 is submitted to IBM Office on 06.07.21	-
6b	Area available for rehabilitation (ha) .	Not specified	nil	-
6c	afforestation done (ha).	Not specified.	0.11ha in the green belt	-
6d	No. of saplings planted during the year	20000(Gap filling,Green belt& Old dump)	40425(Gap filling,Green belt& Old dump)with 99% survival rate.	-

6e	Cumulative no .of plants	Not specified	41515saplings within the lease area. 1117 Outside lease area.	As reported by the lessee during the inspection.
6f	Any other method of rehabilitation	Implementation of Engineering Measures for Surface Water and Dump Management as per Approved R&R Plan.	Engineering Measures for Surface Water and Dump Management as per Approved R&R Plan have been implemented.	-
6g	Cost incurred on watch and care during the year	Not Specified	Cost of Plantation inside the lease area- 2.16 Lacs	-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	nil	No area is completely mined out in this plan period.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	nil	-
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No proposal	nil	-
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	nil	-
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	nil	-
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal	nil	-

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	nil	-
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	nil	-
6p	Compliance of environmental monitoring (core zone and buffer zone)	Regular Environmental Monitoring of Core and Buffer zone is proposed.	Environmental Monitoring of Core and Buffer zone is being carried out on regular basis.	Monitoring Agency- Ecomen Laboratories Parameters which are being Monitored: Ambient Air Quality Ambient Noise Surface Water Quality Dust Fall Measurement Noise Monitoring (Personal Exposure) Stack Monitoring Personal Dust Monitoring Fugitive Dust Monitoring Ground Water Quality
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	As against the proposal of 20000saplings, 40425saplings planted during the year 2020-21as reported in the AR2020-21.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting proposed within lease area.	Grade wise sorting is done within lease area.	-

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical sorting	Mechanical	Dry Crushing and Screening Method Plant Capacity-250 TPH
7c	Different grade of mineral sorted out at mines.	Grade-wise sorting proposed	Grade-wise sorting is done within the lease area.	Grade-wise sorting is done within the lease area, stacking outside the lease area.
7d	Any beneficiation process at mines .	No Proposal	No beneficiation process in mines	-
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-	-	The conservation activities are carried out inside the lease as per the proposals.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No Topsoil Generation.	No Topsoil generated during operations.	-
8b	Concurrent use or storage of topsoil	No proposal	nil	-
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dump for overburden is proposed.	Separate dumping of overburden is maintained.	-
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	nil	-

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	nil	-
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	20000(Gap filling,Green belt& Old dump)	40425(Gap filling,Green belt& Old dump)with 99% survival rate.	-
8g	Survival rate	Not Specified	99%	-
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on road is proposed to control airborne dust.	Water tankers have been deployed for sprinkling on roads to control airborne dust.	No. of Water Tankers:2 Capacity: 9000 Liters.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-	-	There is no change in aesthetic beauty in and around mines area.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to August 2021: Submitted on 10.09.21 A.R. Submitted up to FY 20-21 Submitted on 30.06.21	-	-
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer- Aman Kumar Geologist- R.S.Desai Manager- Prakash M.S	All officials present during the inspection.	-

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current opencast workings- 6.69 Ha Waste Disposal- 11.16ha Occupied by Plants, buildings, residential, welfare buildings and roads -0.7ha' Others purpose(Green belt safety zone, R&R and future mining - 14.13 Ha	Appears to be correct.	-
9d	Scrutiny of Annual return on afforestation	Plantation Within Lease - 40425 nos. Survival Rate: 99%	Appears to be correct	-
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No Mineral Reject Generation	Appears to be correct.	-
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening Stock- 0.0 T Production:299 700 T Closing Stock- 0.0T	Appears to be correct.	-
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production - Rs617/-per tonne. Ex-mine price -Rs 732.57 for lumps and Rs 585.35 for fines per tonne.	In case of Captive mines, the Ex-mine price per tonne is the per unit cost of production. This mine is a captive mine.	The Ex-mine price reported in Part-VI (3) has not been reported correctly.Violation issued.

9k	Scrutiny of Annual return on mining machineries	Machineries deployed Excavator- 4 Water tanker- 2 Tippers - 7 Hydraulic drill - 1 wheel loader - 1	Appears to be correct.	-
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Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed			Show cause position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17 Rule 11(1)	13/10/2021				
Rule 11(4)	13/10/2021				
Rule 45(7)	13/10/2021	13/12/2021			

Date :

(K.SRINIVAS)

Indian Bureau of Mines