

I/21061/2023

MCDR inspection REPORT

Bangalore regional office

Mine file No : KNT/CTD/Fe-56/BNG

Mine code : 30KAR07035

- (i) Name of the Inspecting : **S006**) **DR.SURESH PRASAD**
Officer and ID No.
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine : Mr. Nandan Bhandary - GM (Mines), Mr. Ramani K - DGM
Official with
Designation
- (iv) Date of Inspection : 15/09/2023
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BHOMMAN IRON ORE MINE**
- (b) **Registration NO.** : **IBM/432/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : KARNATAKA
District : CHITRADURGA
Village : BEDARABOMMANAHALLI,
Taluka : CHITRADURGA
Post office : BEHEEMASAMUDRA
Pin Code : 577520
FAX No. :
E-mail : sunil.singh@jsw.in
Phone : 9449598135
- (f) Police Station : Bheemasamudra
- (g) First opening date : 10/08/2020
- (h) Weekly day of rest : SUN
2. Address for : Bheemasamudra Village & Post
correspondance Chitradurga Taluk & District
577520
3. (a) Lease Number :
(b) Lease area :
(c) Period of lease :
(d) Date of Expiry :
4. Mineral worked : IRON ORE Main

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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 : Jayant Acharya ,Dy. Managing Director
 JSW Mining Office, Near
 Talur Cross Vidyanagar
 (Post), Toranagallu, Sandur
 Taluk,Bellary-Dist 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 : Srinivas N R,Full Time
 Qualification : B.E., Mining Engineering
 Appointment/ : 05/01/2022
 Termination date

Geologist

Name : Mr. Deepak Patil B.S.,,Full Time
 Qualification : M.Sc., Applied Geology
 Appointment/ : 10/08/2020
 Termination date

Manager

Name : K Ramani
 Qualification : BE Mining and FCMM
 Appointment/ : 21/04/2023
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	31/10/2019
Plan/Scheme of Mining	:	MP modif under 17(3) MCR 2016	19/01/2022
	:	MP modif under 17(3) MCR 2016	29/03/2023

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PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	NA	-
1b	Exploration over lease area for geological axis 1 or 2	NIL	18 Boreholes with cumulative drilling meterage of 1302 m	10 nos. of RC borehole with meterage of 650m and 8 nos. of Core Boreholes with meterage of 652 m.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NIL	Rs. 224.18 lakhs	-
1d	Balance area to be explored to bring Geological axis in 1 or 2	-	8.90 Ha	Total G1 Area=63.97 Ha. Non-Mineralized Area=29.63 Ha.
1e	Balance reserve as on 01/04/20	Minable Reserves- 80,038,377 Tonnes Geological Resources- 90,833,975 Tonnes	Minable Reserves- 79,520,277 Tonnes Geological Resources- 90,315,875 Tonnes	Proposals has been given as on 31.12.2022 as per the Approved Mining Plan Modification and Actual is given as per the submitted Annual Returns of 2022-23.
1f	General remarks of inspecting officers on geology, exploration etc		The banded iron formations in the lease area are dark blue in colour and fine-grained. The strike length of this main ore body is 1.2 km. There are two ore bands in the lease area, one major band & another small extension of major band on eastern part. Block wise bands are described below. Ore band No.1 - Average Length -1277m, Average Width - 450m, Average Depth - 55m. Ore Band-2- Average Length - 405m, Average Width - 155m, Average Depth - 40m.	Out of 93.60 Ha lease extent, 59 Ha is explored in G-1 level, 3.35 Ha in G-2 level, 5.37 Ha in G-3 level and 25.80 Ha is yet to be explored.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	E 631511 to E 631890 N 1570957 to N 1571728 Section No.- G-G' to U-U'	E 631515 to E 631883 N 1570960 to N 1571690 Section No.- G-G' to U-U'	The development of pit is concentrated mostly in SW part of the lease area extending into NW part also.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	-	-	-
2c	Stripping ratio or ore to OB ratio	1 : 0.04 in Tonnes	1 : 0.04 in Tonnes	As per the proposals.
2d	Quantity of topsoil generation in m3	-	-	Wherever topsoil found it is used for plantation.
2e	Quantity of overburden generation in m3	22751.67 m3	22519.44 m3	As per the proposals.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The Mine is developed with 2 active pits measuring. Pit -1 covering 44.99 Ha- 1080m x 485m x 145m & Pit-2 covering 1.36 Ha- 115m x 110m x 16m and systematically developed maintaining separate benches in OB and Mineral suitable to the type of deposit.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1	1	Pit Dimension (1277 m x 450 m)
3b	Quantity of ROM mineral production proposed	1000000 Tons	999995 Tons	Achieved 100% ROM Production
3c	Recovery of sailable/usable mineral from ROM production	100 %	100 %	-

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3d	Quantity of mineral reject generation	NIL	NA	-
3e	Grade of mineral rejects generation and threshold value declared.	NA	NA	-
3f	Quantity of sub grade mineral generation.	NIL	NA	-
3g	Grade of sub grade mineral generation	NA	NA	-
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized Method for ROM Segregation	Mechanized Method for ROM Segregation	Dry Screening Plant - 400 TPH Metso Screening Plant-250 TPH
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No Proposal	No such beneficiation study has been carried out.	-
3j	Provision of drilling and blasting in mineral benches	1358 Meters	1358 Meters	106 (2) (B) Permission obtained from DGMS as per MMR 1961.
3k	Provision of mining machineries in mineral benches	Proposed Mining Machineries: Excavators-4 Tippers-10 Drill-1 Wheel loader-3	Deployed Mining Machineries: Excavators-4 Tippers-14 Drill-1 Wheel loader-3	-
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench Height - 6m Bench Width - 8m	Bench Height - 6m Bench Width - 8m	-
3m	Total area covered under excavation/pits	46.71 Ha	46.71 Ha	Proposals has been given as per the Approved Mining Plan Modification and Actual is given as per the submitted Annual Returns of 2022-23.

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3n	Ore to OB ratio for the pit/mine during the year.	1: 0.04	1: 0.04	-
3o	Total area put in use under different heads at the end of year	Mining-46.71 Ha Waste Dumps-11.21 Ha Infrastructure-0.12 Ha Roads-2.38 Ha Others-33.18 Ha. (Mineral storage, Existing Engineering measures, Green Belt area, Bio-diversity area & Unused area) Total - 93.60 Ha	Mining-46.71 Ha Waste Dumps-11.21 Ha Infrastructure-0.12 Ha Roads-2.38 Ha Others-33.18 Ha. (Mineral storage, Existing Engineering measures, Green Belt area, Bio-diversity area & Unused area) Total - 93.60 Ha	Proposals has been given as per the Approved Mining Plan Modification and Actual is given as per the submitted Annual Returns of 2022-23
3p	Production of ROM mineral during the last five year period as applicable	2020-21:1000000 T 2021-22:1000000 T 2022-23:1000000 T	2020-21:836994 T. 2021-22:858407 T 2022-23:999995 T	-
3q	General remarks of inspecting officers on method of mining etc.			The Mine is Open Cast Mechanized Mine developed with 2 active pits measuring Pit -1 covering 44.99 Ha-1080m x 485m x 145m & Pit-2 covering 1.36 Ha-115m x 110m x 16m and systematically developed maintaining separate benches in OB and Mineral suitable to the type of deposit.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dump for Overburden is Proposed	Separate dump for Overburden is being carried out.	Yes.

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4b	Location of topsoil, OB and mineral reject dumps	OB Dump Proposal: E 632280 to E 632351 N 1571480 to N 1571593 Section N-N' to O-O'	OB Dump Location: E 632283 to E 632348 N 1571480 to N 1571590 Section N-N' to O-O'	OB dumps are located within the proposed locations.
4c	Number of dumps within lease area and outside of lease area	Within Lease area: 01 Nos. (Proposed Active Dump) Outside - Nil	Within Lease area: 01 Nos. (Proposed Active Dump) Outside - Nil	-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposed Dump- Outside Ultimate Pit Limit.	Proposed Dump- Outside Ultimate Pit Limit.	-
4e	Number of active and alive dumps.	Active Dump-1	Active Dump-1	-
4f	Number of dead dumps.	NIL	NIL	There are 3 dead dumps existing within the Mining Lease.
4g	Number of dumps established.	NIL	NIL	NIL
4h	Whether Retaining wall or garland drain all along dumps are there.	YES	YES	The retaining wall and garland drain is existing which is done by Erstwhile Lessee and is being maintained.
4i	Length of Retaining wall or garland drain all along dumps	NIL	NA	No proposals as per Approved Modification to the Approved Mining Plan.
4j	Number of settling ponds	0	0	-
4k	Specific comments of inspecting officer on waste dump management			There are 3 Dead dumps and one active dump within the mining lease which are satisfactorily managed with all the engineering measures for it safety.

Solid Waste Management - Backfilling:

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Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	NIL	NA	No area is completely mined out in this plan period.
5b	Area under backfilling of mined out area	NIL	NA	No area is completely mined out in this plan period.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NIL	NA	If any encountered Top soil will be Stacked & Utilizing for Plantation purpose.
5d	Total area fully reclaimed and rehabilitated	NIL	NA	-
5e	General remarks of inspecting officers on backfilling and reclamation etc.			No area/mine pit is completely mined out for carrying out backfilling and reclamation.

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 23E(2)	Annual PMCP Report for Year 2022-23 is submitted on 30.06.2023 to IBM Office.	-
6b	Area available for rehabilitation (ha) .	Not Proposed	NA	-
6c	afforestation done (ha).	0.4	0.51	Plantation has been carried out in Dump slopes and Gap filling plantation.
6d	No. of saplings planted during the year	500 (Gap filling, green belt & Old Dump) (proposed as per previous Approved Mining Plan)	510	Plantation completed as per Proposal.

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6e	Cumulative no .of plants	2500 no's	2510 no's	Appears to be correct.
6f	Any other method of rehabilitation	NIL	NA	-
6g	Cost incurred on watch and care during the year	1.5 Lakhs	2.0 Lakhs	Cost including plants appears to be in order.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	NIL	NA	No area is completely mined out in this plan period.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NIL	NA	No area is completely mined out in this plan period.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	NIL	NA	No area is completely mined out in this plan period.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NIL	NA	No area is completely mined out in this plan period.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NIL	NA	No area is completely mined out in this plan period.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NIL	NA	-
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NIL	NA	-

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6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NIL	NA	-
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.			All the proposed PMCP activities are satisfactorily carried out during the Reporting Year.

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.	Grade wise and size wise sorting is done within the Mining Lease.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	Dry Screening Method. Plant Capacity-400 TPH
7c	Different grade of mineral sorted out at mines.	YES	Fe >35%	-

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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			Low grade ores are suitably blended with higher grade ores to bring it to marketable grade thereby taking care of Mineral Conservation aspects.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	NIL	NA	-
8b	Concurrent use or storage of topsoil	NIL	NA	-
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate Dump for overburden / Waste is proposed.	Separate dumping of overburden is being carried out.	-
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NIL	NA	-
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NIL	NA	-

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8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Safety zone is 510 completely covered in Vegetation. No. Of plantation proposed: 500 green belt/gap plantation		As proposed in the mine plan, plantation work has been completed in FY 2022-23.
8g	Survival rate	90%	85%	Appears to be correct.
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 Tanker: 05 Capacity: 8000 & 10000 Liters
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic Beauty in and around the mines is satisfactory with plantations done by the lessee and surrounding forest 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 2023. Submitted on 08.09.2023 A.R. submitted up to FY 2022-23: Submitted on 30.06.2023.		
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer- Srinivas N.R. Geologist- Deepak Patil B.S. Manager- Ramani K	The reported officers were present at site on the day of inspection.	

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9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Mining-46.71 Ha Waste Dumps-11.21 Ha Infrastructure -0.12 Ha Roads-2.38 Ha Others-33.18 Ha. (Mineral storage, Existing Engineering measures, Green Belt area, Bio-diversity area & Unused area) Total - 93.60 Ha	In Order.	
9d	Scrutiny of Annual return on afforestation	Plantation within Lease: 500 nos. Plantation outside Lease: 10 nos. Survival Rate: 85%	Appears to be correct.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No Mineral Reject Generated		
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening Stock: 509493.820 T Production: 999995.000 T Closing Stock: 177982.470 T	In Order	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Lumps Fe 51-55%: 2127.35 Rs./T Fines Fe 51-55% : 1164.10 Rs./T		Data as per the Annual Returns submitted for the FY 2022-23
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets: Rs 31,30,06,438 Depreciation on Fixed Assets: Rs.59,84,030	Depreciation of Fixed assets are not properly accounted for arriving at cost of production per tonne.	Data as per the Annual Returns submitted for the FY 2022-23

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9k	Scrutiny of Annual return on mining machineries	Back Hoe Loader- 2 Screening Plant-1 Tipper-18 Water Tanker (8 kl & 10 kl)-5 Wheel Loader- 3 Generator -5 Shovel- 6 Jeep/Tractor- 4	The reported machineries were found deployed on the day of inspection.	Data as per the Annual Returns submitted for the Fy 2022-23
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Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed			Show couse position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17 Rule 45(7)(a)	25/10/2023		MCDR17 Rule 45(7)	25/10/2023	

Date :**(DR.SURESH PRASAD)**

Indian Bureau of Mines