

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

Check up inspection REPORT

Bangalore regional office

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

Mine code : 30KAR07035

- (i) Name of the Inspecting : **J103**) **V. JAYAKRISHNA BABU**
Officer and ID No.
- (ii) Designation : Controller of Mines
- (iii) Accompanying mine : Mr. Santosh Kumar - Manager (Mines) Mr. Srinivas N.R
Official with
Designation
- (iv) Date of Inspection : 12/05/2022
- (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

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 : DR. VINOD NOWAL
 DY.MANAGING DIRECTOR, M/S
 JSW STEEL LIMITED, NANDI
 IRON ORE MINE, BELLARY
 BELLARY KARNATAKA
 Phone: 9448286155
 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/ : 12/10/2020
 Termination date

Geologist

Name : Mr. Deepak Patil B.S., Full Time
 Qualification : M.Sc., Applied Geology
 Appointment/ : 16/07/2012
 Termination date

Manager

Name : Santosh Kumar
 Qualification : FCC
 Appointment/ : 02/02/2022
 Termination date

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

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	NA	Proposed in FY 2022-23 of Plan Period.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NIL	NA	--
1d	Balance area to be explored to bring Geological axis in 1 or 2	--	--	Total G1 Area=59.00 Ha. G2 Area=03.53 Ha. G3 Area=05.37 Ha. G4 Area=Nil Non-Mineralized Area=25.70 Ha.
1e	Balance reserve as on 01/04/20	Minable Reserves- 66,056,508 Tonnes Geological Resources- 75,185,195 Tonnes (as per Approval of "Modification to the Approved Mining Plan" updated as on 01-10-2021)	Minable Reserves- 65,493,924 Tonnes Geological Resources- 74,622,611 Tonnes	From 1st Oct 2021 to 31st March 2022 total Production is 562584 MT.
1f	General remarks of inspecting officers on geology, exploration etc			The area covered under mineral storage reported as 26.36 Ha need to be covered under gap exploration to prove that it is non mineralised. This can be done only after clearing the old mineral stocks piled up in ML area.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	E 631511 to E 631678 N 1571200 to N 1571734 Section No.- G-G' to P-P'	E 631511 to E 631678 N 1571200 to N 1571734 Section No.- G-G' to P-P'	--
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	--	--	--
2c	Stripping ratio or ore to OB ratio	1 : 0.036 in Tonnes	1 : 0.034 in Tonnes	--
2d	Quantity of topsoil generation in m3	--	--	Wherever topsoil found it is used for plantation
2e	Quantity of overburden generation in m3	20904 m3	17372 m3	---
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Satisfactory despite of space constrain for dumping overburden waste.

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	858407 Tons	Due to space constrain at mine head production achieved only 858407 MT
3c	Recovery of sailable/usable mineral from ROM production	100 %	100 %	
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
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	No Proposal	Nil	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-0 Wheel loader-3	Deployed Mining Machineries: Excavators-4 Tippers-14 Drill-0 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	46.43 Ha	46.43 Ha	--
3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.036	1 : 0.034	--

3o	Total area put in use under different heads at the end of year	Mining-46.43 Ha Waste Dumps- 9.93 Ha. Infrastructure - 0.72 Ha Roads-2.37 Ha Greenbelt- 2.95 Bio-Diversity- 4.84 Others-26.36 Ha (Mineral storage, Existing Engineering measures & Unused area) Total - 93.60 Ha	Mining-46.43 Ha Waste Dumps- 9.93 Ha Infrastructure-0.72 Ha Roads-2.37 Ha Greenbelt- 2.95 Bio-Diversity-4.84 Others-26.36 Ha. (Mineral storage, Existing Engineering measures & Unused area) Total - 93.60 Ha	
3p	Production of ROM mineral during the last five year period as applicable	2020-21:1000000 2021-22: 1000000 (in tonnes)	2020-21:836994. 2021-22: 858407 (in tonnes)	Due to space constraint at mine head production achieved only 858407 MT
3q	General remarks of inspecting officers on method of mining etc.			The production achieved is slightly less (-15%) than the proposal. Proper planning & execution of waste dumping is to be done to achieve targetted production of IMTPA.

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.	As per proposal dumping is carried out.
4b	Location of topsoil, OB and mineral reject dumps	OB Dump Proposal: E 632298 to E 632345 N 1571486 to N 1571546 Section O-O'	OB Dump Location: E 632298 to E 632345 N 1571486 to N 1571546 Section O-O'	--

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	--
4g	Number of dumps established.	Nil	Nil	--
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Yes	--
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			Proper measures should be taken for stablization of old/active dumps.

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.	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, Top soil generates, will be Stacked & Utilizing for Plantation
5d	Total area fully reclaimed and rehabilitated	NIL	NA	--
5e	General remarks of inspecting officers on backfilling and reclamation etc.			No backfilling as the area is not matured yet for 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 2021-22 will be prepared and submitted to IBM Office before 30.06.2022.	PMCP report submitted.
6b	Area available for rehabilitation (ha) .	Not Proposed	NA	--
6c	afforestation done (ha).	NIL	NA	Safety Zone is completely covered in vegetation.
6d	No. of saplings planted during the year	1000 (Gap filling, Green belt & Old Dump) (proposed as per previous Approved Mining Plan)	2000	As proposed in the mine plan, previous and present year plantation work has been completed in FY 2021-22, we have planted 1200 nos. in the dump slope & near SST gap plantation. Since enough area was not available 800 nos. avenue plantation is also carried outside the ML Boundary
6e	Cumulative no .of plants	2000 nos	2000 nos	--

6f	Any other method of rehabilitation	NIL	NA	--
6g	Cost incurred on watch and care during the year	1.5 Lakhs	2.0 Lakhs	Including plants
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	--

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.			Satisfactory.

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	Mechanical	Dry Screening Method. Plant Capacity-400 TPH
7c	Different grade of mineral sorted out at mines.	YES	Fe <55%	--

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			Periodical audit of dry Screening plant of 400 TPD is to be done. Mineral beneficiation possibilities needs to explored by sending samples to RODL, IBM Bangalore.

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	--

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Safety zone is 2000 completely covered in Vegetation. No. Of plantation proposed: 1000 green belt/gap plantation		As proposed in the mine plan, previous and present year plantation work has been completed in FY 2021-22.
8g	Survival rate	80%	80%	--
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			Satisfactory

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 April 2022: Submitted on 09.05.2022		
		A.R. submitted up to FY 2020-21: Submitted on 29.06.2021. (FY 2021-22 will be submitted before 30.06.2022).		
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		Mining Engineer- Srinivas N.R. Geologist- Deepak Patil B.S. Manager- Santosh Kumar.	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Already exploited: 46.43 Ha Working: 0.0 Ha Waste Dump: 9.93 Ha Roads & Infrastructure: 3.09 Ha. Others: 34.15 Ha. (Mineral storage, Safety zone, Bio-Diversity, Existing Engineering measures & Unused area) Total Area: 93.60 Ha	
9d	Scrutiny of Annual return on afforestation	Plantation within Lease: 1200 nos. Plantation outside Lease: 800 nos. Survival Rate: 80%	
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: 391599.10 T Production: 858407.00 T Closing Stock: 509493.82 T	Annual Returns not yet submitted will be complied with in the due date.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Lumps Fe 0-55% : 221 Rs./T Fines Fe 0-55% : 344 Rs./T	Annual Returns not yet submitted will be complied with in the due date.
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets: Rs.32,21,89,985. Depreciation on Fixed Assets: Rs.1,16,86,225.	Annual Returns not yet submitted will be complied with in the due date.
9k	Scrutiny of Annual return on mining machineries	Back Hoe Loader- 1 Screening Plant-1 Tipper-14 Water Tanker (8 kl & 10 kl)-5 Wheel Loader- 3 Generator -5 Shovel- 4 Jeep/Tractor- 4	Annual Returns not yet submitted will be complied with in the due date.

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

Date :

(V. JAYAKRISHNA BABU)

Indian Bureau of Mines