

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

**Mining Plan Modification REPORT**

**Bangalore regional office**

**Mine file No :** KNT/BLR/FE/496/BNG

**Mine code :** 30KAR03188

- (i) Name of the Inspecting : **A101** ) **ARUN KUMAR**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine :  
Official with  
Designation
- (iv) Date of Inspection : 18/11/2020
- (v) Prev.inspection date :

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **NARAYANA 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 : BELLARY  
Village :  
Taluka :  
Post office :  
Pin Code :  
FAX No. :  
E-mail : sunil.singh@jsw.in  
Phone : 9449598135
- (f) Police Station : Sandur
- (g) First opening date : 25/09/2020
- (h) Weekly day of rest : SUN
2. Address for : Narayanpura Village, Deogiri Post  
correspondance Sandur, Bellary
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:  
FAX :

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

6. Date of approval of Mining :  
Plan/Scheme of Mining

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal	Nil	Mine Started on 25.09.2020 by the existing lessee. Total 70 Boreholes have been drilled by Previous lessee
1b	Exploration over lease area for geological axis 1 or 2	G1 & G2	G1-40.92 Ha,G2-3.08 Ha	Total mineralized area:44.0 Ha
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Nil	Rs.128.88 Lakhs by previous lessee.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not specified	Nil	Total 1.78 Ha (G2 Level) is to be explored on G1 Level.
1e	Balance reserve as on 01/04/20	Nil	Total Iron Ore reserves G1 +G2) - 21,465815 T with grade of +35%Fe Manganese Ore (Mn ?10%) -476,430 T	As per Approved Mining Plan
1f	General remarks of inspecting officers on geology, exploration etc			The mine has been taken in auction. Mine Started on 25.09.2020 by the existing lessee. Total 70 Boreholes had been drilled by Previous lessee.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Proposed Location of Development-N 1657956 to 1658655, E 677610 to 678276	Actual Location of Development-N 1657956 to 1658655, E 677610 to 678276	Mine has been recently opened. Section A-A' to I-I'. Working RL-935m to 862m

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in overburden and mineral proposed	Separate benches maintained in overburden and mineral	Topsoil - NIL Overburden- 6 Mineral-5
2c	Stripping ratio or ore to OB ratio	1: 0.07	1: 0.25	Till October 2020
2d	Quantity of topsoil generation in m3	No proposal	Nil	No generation of top soil
2e	Quantity of overburden generation in m3	76356 Tons	31680 Tons of waste handled upto Oct.2020	Bulk Density (t/m3): Iron Ore- 3, Mn Ore-2.6 & OB/Waste-2.0
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development of the pit was carried out as per the approved document. Mine Started on 25.09.2020

#### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit proposed	Working carried out in 1 pit only	Approximate dimension of the pit: L- 1595m, Width-238m, Depth- 100 m
3b	Quantity of ROM mineral production proposed	1111831 Metric Tonnes	125650 Metric Tonnes	Production till October 2020
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	Nil
3d	Quantity of mineral reject generation	No proposal	Nil	Nil
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	Nil	Nil
3f	Quantity of sub grade mineral generation.	No proposal	Nil	Nil
3g	Grade of sub grade mineral generation	No proposal	Nil	Nil

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised method proposed for segregating from ROM	Mechanised 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	Nil
3j	Provision of drilling and blasting in mineral benches	Provision of Drilling and Blasting is proposed for mineral benches.	Drilling has been carried out of 1069 m. No Blasting has been carried out yet.	25% of the total material handling requires drilling & Blasting
3k	Provision of mining machineries in mineral benches	Hydraulic excavator & tipper combination proposed	Mining operation carried out using excavator & tipper	Machinery deployed on the date of inspection:Excavators- 3, Tippers- 15,Drill-1,Wheel Loaders-4
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench Height- 8m Bench Width- 8m	Bench Height- 8m Bench Width- 8m	Nil
3m	Total area covered under excavation/pits	44 Ha at the start of plan period	44 Ha- Total broken up area	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.07	1: 0.25	Mine Started on 25.09.2020
3o	Total area put in use under different heads at the end of year	Area under mining-44 Ha,OB Dump- 13.27 Ha,Mineral stock-4.15 Ha,Building & roads-4.43 Ha,Green belt- 3.38 Ha,Crushing & scrrening plant -4.26 Ha,Biodiversit y area -10.55 Ha, others & unused area- 23.47 Ha at the end of plan period	Area under mining-44 Ha,OB Dump-10.34 Ha,Mineral stock-4.15 Ha,Building & roads-4.43 Ha,Green belt-3.38 Ha,Crushing & scrrening plant -4.26 Ha,Biodiversity area - 10.55 Ha, others & unused area-26.40 at the start of plan period Ha at the end of plan period	Mine Started on 25.09.2020

3p	Production of ROM mineral during the last five year period as applicable	2020-21: 1111831 Metric Tonnes	2020-21: 125650 Metric Tonnes	Mine Started on 25.09.2020
3q	General remarks of inspecting officers on method of mining etc.			Opencast method of mining using excavator tipper combination carried out as per proposal

### 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 being carried out.	Nil
4b	Location of topsoil, OB and mineral reject dumps	Overburden Dump Location- N 1657266 to 1657464, E 678176 to 678347	Actual Overburden Dump Location- N 1657266 to 1657464, E 678176 to 678347	Nil
4c	Number of dumps within lease area and outside of lease area	Within Lease Area- 6 Outside lease- NIL	Within Lease Area- 6 Outside lease- NIL	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside the Ultimate Pit Limit	Outside the Ultimate Pit Limit	Nil
4e	Number of active and alive dumps.	2	1	Dumping was in progress in one dump
4f	Number of dead dumps.	5	5	Nil
4g	Number of dumps established.	5	5	Stabilized by the previous lessee
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall & Garland drain is proposed along the PD.	Yet to be constructed.	Mine Started on 25.09.2020
4i	Length of Retaining wall or garland drain all along dumps	Garland Drain- 265m Retaining wall- 260m	Yet to be constructed.	Mine Started on 25.09.2020

4j	Number of settling ponds	One SST proposed	Yet to be constructed.	Mine Started on 25.09.2020
4k	Specific comments of inspecting officer on waste dump management			Mine Started on 25.09.2020. Waste dumping was carried out as per the proposal

#### 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	Mineral is not exhausted for backfilling
5b	Area under backfilling of mined out area	No proposal	Nil	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Nil	Nil
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.			No backfilling & reclamation of dug out pit carried out as there was no proposal and the mine Started on 25.09.2020

#### 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).	Mine started on 25.09.2020.	Not applicable	Nil

6b	Area available for rehabilitation (ha) .	No proposal	Nil	Nil
6c	afforestation done (ha).	0.676 Ha	Yet to be carried out	Mine Started on 25.09.2020
6d	No. of saplings planted during the year	1675 saplings	Plantation was in progress	Mine Started on 25.09.2020
6e	Cumulative no .of plants	1675 saplings	Yet to be carried out	Mine Started on 25.09.2020
6f	Any other method of rehabilitation	No proposal	Nil	Nil
6g	Cost incurred on watch and care during the year	No proposal	Nil	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No proposal	Nil	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No proposal	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Nil	Nil



6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal	Nil	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Environment monitoring is proposed for Core and Buffer Zone.	Environment monitoring is being carried out monthly in Core and Buffer Zone.	Env. parameters were observed to be within the permissible limit.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Mine Started on 25.09.2020 & PMCP activities is yet to be carried out.

---

#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting is proposed within lease area.	Grade wise sorting is done within lease area.	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical Sorting	Mechanical Sorting	Dry Crushing & Screening
7c	Different grade of mineral sorted out at mines.	Lumps & fines proposed to be sorted out	Grade wise sorting is done in lease area.	Nil
7d	Any beneficiation process at mines	No proposal	No such beneficiation carried out in the mines	Nil

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	There was no mineral conservation issue as ore above the threshold value was utilized by blending.
----	--	--

---

**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	Nil	Nil
8b	Concurrent use or storage of topsoil	No proposal	Nil	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposal for Separate dumping of Overburden	Separate dumping of Overburden is carried out.	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Nil	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Nil	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Baseline information on existence of plantation available.	Very Dense, natural, mixed species plantations exists in the green belt area.	Nil
8g	Survival rate	Not specified	Nil	Mine Started on 25.09.2020

8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul roads proposed to control airborne dust.	Water tankers are deployed to control the airborne dust on haul roads and screening plant.	3 nos. of water tanker each of 10,000 liters capacity.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in & around the mine area was good as the previous lessee had carried out afforestation & environmental protection measures were in place.

---

#### 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 - October, 2020 A.R. - Nil	Mine Started on 25.09.2020	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Nil	Mallikarjuna SHM- Mine Manager (AGM) Paramesh K M - Mining Engineer (Assistant Manager, Mines) Jagadeesha B S- Geologist (Assistant Manager, Mines)	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Nil	Area under mining-44 Ha,OB Dump-10.34 Ha,Mineral stock-4.15 Ha,Building & roads-4.43 Ha,Green belt-3.38 Ha,Crushing & screening plant -4.26 Ha,Biodiversity area - 10.55 Ha, others & unused area-26.40 at the start of plan period Ha	
9d	Scrutiny of Annual return on afforestation	Nil	Nil	Mine Started on 25.09.2020
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil	

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Nil	125650 Metric Tonnes stocked	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Nil	Nil	Captive mine.Mine Started on 25.09.2020
9h	Scrutiny of Annual return on fixed assets	Nil	Nil	
9k	Scrutiny of Annual return on mining machineries	Nil	Machinery deployed on the date of inspection: Excavators- 3 Tippers- 15 Drill-1 Wheel Loaders-4	

---

**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

**Date :****(ARUN KUMAR)**

Indian Bureau of Mines