

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

Inspection under SDF for star rating of mines REPORT

Bangalore regional office

Mine file No : KNT/BLR/Fe-492/BNG

Mine code : 30KAR03183

- (i) Name of the Inspecting : **P005**) **C.PARAMESHWARAN**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri.Nishant Kr Sharma. Mines Manager.
Official with
Designation
- (iv) Date of Inspection : 08/11/2019
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **DEVADARI 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. : 022-42863000
E-mail : pandey.binay@jsw.in
Phone : 022-42861000
- (f) Police Station : Sandur
- (g) First opening date : 28/12/2018
- (h) Weekly day of rest : SUN
2. Address for : Lakshmipura Village
correspondance Sandur Taluk, Bellary
Karnataka
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 : B P PANDEY
M/S JSW STEEL LIMITED NANDI
IRON ORE MINE BELLARY
BELLARY KARNATAKA
Phone: 9448286155
FAX :

Manager
Name : Nishant Kumar Sharma
Qualification : B E (Mining)
Appointment/ :
Termination date

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 proposals, since it is a Auctioned mine from C category mine.	nil	As there is no scope to have any proposals, the lease was cancelled and put under C category as per the Hon, Ble Supreme court order.
1b	Exploration over lease area for geological axis 1 or 2	No proposals.	Nil	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposals.	Nil	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposals.	Nil	Nil
1e	Balance reserve as on 01/04/20	20.56MT as on 1.4.2019.	same as above 20.56MT as on 1.4.2019.	AS per the approved document 21.73Million tonnes of reserves & 23.30MT of reserves & resources. This need s to be checked.
1f	General remarks of inspecting officers on geology, exploration etc	The data prepared by the MECL & submitted to the state Govt.,	Yes as per the MECL datas are present as of now.	Yes no changes in the reserves/ resources.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	E/W 669537/669871 N/S 1665730/166607 0	E/W 669885/669568 N/S 1666120/1665790	Slight varition in the location co-ordinates indicated in the proposals & the actual.

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No proposals.	Nil	Nil, this is an old mine.
2c	Stripping ratio or ore to OB ratio	1:1.79	1:0.04	It is better stripping ratio compared to the proposed one.
2d	Quantity of topsoil generation in m3	No proposals.	Nil	At times, if any top soil occur during the course of mining, the same will be used for plantations purposes.
2e	Quantity of overburden generation in m3	10,43,293m3	58,914m3	Very less compared to the proposed, lagging in the development.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	proposals drawn.	Carrying out the work as per the proposals, except the quantity of Waste development.	20.56MT as on 1.4.2019.

Exploitation:

Sl.No.	Item	Proposals	Actual work	Remarks
3a	Number of pit proposed for production	One single pit.	One pit only.	work is progress in single pit.
3b	Quantity of ROM mineral production proposed	1165000t	1163958t	1042t less to the proposals.
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	No changes.
3d	Quantity of mineral reject generation	No proposals.	Nil	Nil
3e	Grade of mineral rejects generation and threshold value declared.	No proposals.	Nil	Nil
3f	Quantity of sub grade mineral generation.	No proposals.	Nil	Nil, if any thing of SG the same is used for the blending.

3g	Grade of sub grade mineral generation	No proposals.	Nil	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized.	Mechanized crushing & screening.	Same is practiced.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposals.	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Proposed for FM mining operations.	Obtained 106(2)(B) permission obtained from DGMS.	Yes carrying out mining operation as per the proposals.
3k	Provision of mining machineries in mineral benches	Given	Obtained 106(2)(B) permission obtained from DGMS.	yes same is followed.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Given 8m x 8m	8m x 8m benches width and heights.	It is being followed.
3m	Total area covered under excavation/pits	Given as 67.14 ha	as on date is 67.14 ha.	As per the approved document is different, i.e. 64.78 ha.
3n	Ore to OB ratio for the pit/mine during the year.	1:1.79	1:0.04	very good progress in the stripping ratio.
3o	Total area put in use under different heads at the end of year	100.54 ha	100.54 ha	Given as per the approved Mining Plan.
3p	Production of ROM mineral during the last five year period as applicable	2014-15 to 2017-18=Nil and 2018-19=1165000t.	2014-15 to 2017-18=Nil and 2018-19=1163958t	1042t difference in achieving the productions.
3q	General remarks of inspecting officers on method of mining etc.	Proposals drawn.	As per the approved document, the implementations in carrying out the work is satisfactory.	yes it is being carried out in accordance with the approved MP.

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dump only is proposed.	Only waste dump.	Yes only waste dump is being carried out, no top soil & MR.
4b	Location of topsoil, OB and mineral reject dumps	Between section S9-S9 and S12 to S12.	OB dump is between as per mine plan section S9-S9 and S12 to S12.	It is being followed.
4c	Number of dumps within lease area and outside of lease area	Proposed 03 dumps within the lease & nil outside the ML area.	Two existing dumps within the lease & one proposed dumps. No outside dumps.	same as above.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Given in the proposals.	All the dumps are outside the UPL.	Yes no dumps within the UPL.
4e	Number of active and alive dumps.	01 nos.	01 no. only.	no changes.
4f	Number of dead dumps.	02 numbers.	02 numbers only.	same as above.
4g	Number of dumps established.	01 dump.	01 dump stabilized.	yes as above.
4h	Whether Retaining wall or garland drain all along dumps are there.	given proposals.	yes it is provided.	it is present in the ML area.
4i	Length of Retaining wall or garland drain all along dumps	Given RW=465m, RW=190m & GD=192m GD=465m		yes it is done.
4j	Number of settling ponds	given 4 nos.	4 nos constructed.	it is being carried out.
4k	Specific comments of inspecting officer on waste dump management	Given as per the approved document.	work is being carried out.	satisfactory in the work done.

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 Proposals.	Nil	Nil

5b	Area under backfilling of mined out area	No Proposals.	Nil	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No Proposals.	used for afforestation purposes for the saplings which are planted all along the road sides.	Yes it is done.
5d	Total area fully reclaimed and rehabilitated	No Proposals.	Nil	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	No Proposals.	Nil	nil, the mine is started back filling in the old pits.

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).	No proposals.	This being the auctioned block & not regular mine.	started on 19/1/2019
6b	Area available for rehabilitation (ha) .	No Proposals.	nil	nilo
6c	afforestation done (ha).	15.94 Ha Plantation over dump area 3.59 Ha Over Green belt area	1.9 Ha (WML Green belt area) 0.7 Ha (Over dump area)	outside ML area done plantations is 0.70 ha area.
6d	No. of saplings planted during the year	No proposls.	1900 nos within the Ml & 700 nos outside Ml area.	Done as above.
6e	Cumulative no .of plants	not proposed.	1900 nos within the Ml & 700 nos outside Ml area.	same as above.
6f	Any other method of rehabilitation	Construction of R & R structures proposed by ICFRE and Approved by CEC	Construction of R & R structures proposed by ICFRE and Approved by CEC	as above and no changes.

6g	Cost incurred on watch and care during the year	No proposals.	Nil	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposals.	Nil	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposals.	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No proposals.	No	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposals.	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposals.	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposals.	Nil	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposals.	Nil	Nil

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposals.	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed monitoring on regular interval month wise.	Environmental and Ground water monitoring has been done through regular interval by consultant and the reports are submitted to Environmental Officer, KSPCB.	same as above.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Given	the mine is in the begining of the mining operation after auctioned. The lease need to be worked with appropriate planning to exploit the materials at profit and plan to go for back filling.	Now it is difficult to comment on the mine.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Proposed.	yes it is being carried out.	yes it is done.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Given mechanized.	Mechanized method.	yes mechanized method.
7c	Different grade of mineral sorted out at mines.	proposed at the sites.	same is being done at the mine.	yes done.
7d	Any beneficiation process at mines	No proposals as on date	nil	nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Given for scietific & systematic working.	Systematic and scientific work is being practiced.	yes it is done.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	proposed for small quantity.	Though the mine is started after auctioed, but this is an old mine and it is broken already in majority.	Top soil is rare.
8b	Concurrent use or storage of topsoil	No proposals.	nil	nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate Dump for Waste / OB	Separate Dump for Waste / OB as per the location proposed in the mining plan.	Only for waste dump & not for the top soil & MR.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposals.	Nil	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposals.	Nil	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Green Belt development across safety zone No. Of plantation:	Plantation across the safety zone has been created to develop green belt 1900 Nos (incl. of safety zone, Afforestation along the approach road etc.)	same as above
8g	Survival rate	given 92%	92%	No changes.
8h	Water sprinkling on roads to control airborne dust	Given	Yes water sprinkling is being done in the mine as per the observations.	yes it is done.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	New auctioned mine by the company JSW.	Yes the mine is being well maintained and continuing their operations to the satisfactions.	yes it is done.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Submitted the MR & AR for the year 2018-19.	Submitted as per the format of the returns.	satisfactory.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given as per the format	Mines manager- S/Shri..N.K. Sharma, Venu Gopal-Mining engineer, Nataraj.B-Geologist.	yes present in the mine.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given as per the returns format	All under forest land- Already exploited & abandoned by OC mine=55.71 ha, current working=9.070ha, waste dump=3.63 ha & plant buildings=1.00ha, others(R & R works, safety zone & future mining area=31.13 ha.	under the present excavations it is given not correctly, 64.78 ha & 67.14 ha. besides, the area indicated for back filling & temporary dump in the approved MP, given specifically in the para 8.6 para it is not reflected in this.
9d	Scrutiny of Annual return on afforestation	Given	within the lease 108 saplings with 99%, and outside the lease is 600 nos with 95% survival rate.	but in the report sheet it is given 92%.survival.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	given	Nil no generation of MR & nil grade.	nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	given	OS=Nil, Production =11,63,958.51 tonnes, closing stock=634,920.91tonnes.	The mine is in the begining of the operations.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	given	The ex-mine price is for lumps Rs. 255.63 for the grade of 58 to 60 & 60 to 62%Fe. also for fines 55-58% Fe. This is the captive mines.& hence no sale value.The cost of production is Rs. 560.76/t of ore.	The mines comes under captives.
9h	Scrutiny of Annual return on fixed assets	given in the returns.	Rs. 47,500,803/-	same as above.
9k	Scrutiny of Annual return on mining machineries	given in the returns as per the format.	Reported all the machineries which are under use in the mines and observed during the inspection of the mines.	yes satisfactory.

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
Rule 11(1)	30/01/2020				
MCDR17 Rule 31(2)	30/01/2020				
MCDR17 Rule 31(4)	30/01/2020				
MCDR17 Rule 45(5)(k)	30/01/2020				

Date :

(C.PARAMESHWARAN)

Indian Bureau of Mines