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MCDR inspection REPORT

Bangalore regional office

Mine file No : KNT/BLR/FE/497/BNG

Mine code : 30KAR03189

- (i) Name of the Inspecting : **S19**) **SANDEEP KUMAR SINGH**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Mr. Vallibashasab S - Manager (Mines), Mr. Som Nath Bi
Official with
Designation
- (iv) Date of Inspection : 05/12/2023
- (v) Prev.inspection date : 28/12/2022

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **DHARMA 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 : RAMGHAD
Taluka : SANDUR
Post office : SUSHEELANAGARA
Pin Code : 583119
FAX No. : Nil
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 : Ramghad Village, Susheelanagar Post
correspondance Sandur, Bellary
3. (a) Lease Number : ML NO 0013
- (b) Lease area : 43.58 Ha
- (c) Period of lease : 50 Years
- (d) Date of Expiry : 29/07/2070
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 : Shri Gajraj Singh Rathore,Nominated owner
JSW Mining office Near
Talur Cross, Vidyanagar
Works Po-Vidyanagar, Dist-
Ballari, Karnat BELLARY
KARNATAKA
Phone: 9448286017
EMAIL : gajraj.rathore@jsw.in

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

Mining Engineer

Name : MANJUNATHA,Full Time
Qualification : B E IN MINING
Appointment/ : 30/10/2020
Termination date

Geologist

Name : SOMNATH BISWAS,Full Time
Qualification : M.Sc., Applied Geology
Appointment/ : 19/05/2022
Termination date

Manager

Name : VALLIBASHASAB S
Qualification : FCC
Appointment/ : 01/03/2021
Termination date

6. Date of approval of Mining Plan/Scheme of Mining : MP modif under 17(3) MCR 2016 30/06/2023

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PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	10 exploratory boreholes proposed during year 2021-22	30 exploratory boreholes with total depth 1000 m drilling carried out during the year 2022-23	NIL
1b	Exploration over lease area for geological axis 1 or 2	No proposal	30 exploratory boreholes with total depth 1000 m drilling carried out during the year 2022-23	NIL
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	M/s. JSW Steel, Expenditure during the year 2022-23 was Rs. 70,31,124/-	Expenditure figures as reported by Lessee in AR 2022-23.
1d	Balance area to be explored to bring Geological axis in 1 or 2	G-1- 26.20 ha, Non mineralized area-17.38 ha (As per the last approved document dtd 30/06/2023)	G-1- 26.20 ha, Non mineralized area-17.38 ha.	NIL
1e	Balance reserve as on 01/04/20	10,420,014 tonnes of iron ore as on 1.04.2023. (HIO: Reserve Quantity-7601853 tonnes Average Grade-63.00% Fe For HSIO: Reserve Quantity-2818161 tonnes Average Grade-39.15% Fe.) as per the last approved document dated 30.06.2023.	10,420,014 tonnes of iron ore as on 1.04.2023. (HIO: Reserve Quantity-7601853 tonnes Average Grade-63.00% Fe For HSIO: Reserve Quantity-2818161 tonnes Average Grade-39.15% Fe.) as per the last approved document dated 30.06.2023.	The Lessee has given the Reserve/Resource figures in AR 2022-23 as per the old mine plan document dated 07/01/2020 since the modified mine plan document was approved on 30/06/2023.

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1f	General remarks of inspecting officers on geology, exploration etc	In the modified mining plan approved dtd 30/06/2023, 4 nos. of boreholes with total depth 320 metres proposed during year 2023-24 for the Geological sections where deeper continuity of the ore band is yet to be established.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	A1-A1', A2-A2', B-B', C-C', D-D', E-E'	The benches at Sec E-E' between 872 to 843 mRL, Eastern side have not been developed systematically maintaining bench height and width as per the proposal.	Violation issued under Rule 11(1) of MCDR 2017.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No topsoil generation. Separate benches proposed in OB & mineral.	Separate benches maintained in OB & mineral. The benches at Sec E-E' between 872 to 843 mRL, Eastern side have not been developed systematically maintaining bench height and width as per the proposal.	Violation issued under Rule 11(1) of MCDR 2017.
2c	Stripping ratio or ore to OB ratio	1: 0.54(in Tonnes) proposed	1: 0.49(in Tonnes)	ROM- 179915 tons Overburden- 44089 Cum~88178 tons.
2d	Quantity of topsoil generation in m3	No proposal	NIL	NIL
2e	Quantity of overburden generation in m3	48,900 Cum proposed	44089 Cum achieved.	NIL

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2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	The benches at Sec E-E' between 872 to 843 mRL, Eastern side have not been developed systematically maintaining bench height and width as per the proposal. Violation issued under Rule 11(1) of MCDR 2017.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1 pit proposed for Production.	Production is carried out from 1 pit	NIL
3b	Quantity of ROM mineral production proposed	179,915 tons proposed	179,915tons achieved	NIL
3c	Recovery of sailable/usable mineral from ROM production	100% proposed	100% achieved	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	Only Crushing & Screening proposed	Crushing & Screening carried out.	Crusher -250 TPH capacity. O/p Size 0 - 10 mm (Fines) 10-40 mm (Lumps).

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3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	NIL	NIL
3j	Provision of drilling and blasting in mineral benches	Drilling and Blasting is proposed	Deep hole Drilling and Blasting is being carried. Drilling is done with drill of 105 mm dia. and slurry explosive used in conjunction with delay detonators.	Drill-105 mm dia. Explosive-Slurry Explosive.
3k	Provision of mining machineries in mineral benches	Mining Machineries proposed.	Excavators-1.8 Cum-1 nos. 1 Cum-1 no., 0.8 Cum-2 nos., 0.26 Cum-1 no. Wheel Loader- 2.3 Cum-1 no., 3.2 Cum- 1no. Tippers-14 Cum-5 nos. Drill-102 mm-1 no. Water tanker-8 KL-3 nos.	As reported in AR 2022-23.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed Bench Height- 8m for both OB & Mineral as per the last approved mine plan document.	The benches at Sec E-E' between 872 to 843 mRL, Eastern side have not been developed systematically maintaining bench height and width as per the proposal.	Violation issued under Rule 11(1) of MCDR 2017.
3m	Total area covered under excavation/pits	22.69 Ha as per the last approved mine plan document	22.69 Ha (As on 01.04.2023)	As reported in AR 2022-23.
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.54 (in Tonnes) proposed	1: 0.49 (in Tonnes)	ROM- 179915 tons Overburden- 44089 Cum-88178 tons.
3o	Total area put in use under different heads at the end of year	Mining- 22.69 Ha O/B Dumps- 13.25 Ha Infra & roads- 1.79 ha (as per the last approved document)	Mining- 22.69 Ha O/B Dumps- 13.25 Ha Infra & roads-1.79 ha (As on 1.04.2023)	As reported in AR 2022-23.

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3p	Production of ROM mineral during the last five year period as applicable	2020-21: 179,982 2021-22: 179,928 2022-23: 179,915 (In tons)	2020-21: 179,982 2021-22: 179,928 2022-23: 179,915 (In tons)	Mine operations started in 2020-21
3q	General remarks of inspecting officers on method of mining etc.			The benches at Sec E-E' between 872 to 843 mRL, Eastern side have not been developed systematically maintaining bench height and width as per the proposal. Violation issued under Rule 11(1) of MCDR 2017.

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	OB Dump Location: N 1674649 to 1674956 E 655755 to 655979 (AD-2)	The lifts/stages have not been maintained in the waste dump (AD-2) between Sec K-K' to L-L' from 900-886 mRL as per the proposal. Also, the top mRL of waste dump AD-2 has gone beyond the proposed maximum vertical limit of 900 mRL till 905 mRL at Sec-L-L' (N-1674909 E-655832).	Violation issued under Rule 11(1) of MCDR 2017.
4c	Number of dumps within lease area and outside of lease area	6 dumps within lease (AD-1, AD-2, ID-1, ID-2, ID-3 & ID-4)	6 dumps within lease (AD-1, AD-2, ID-1, ID-2, ID-3 & ID-4)	NIL

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4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	A part of inactive dump ID-4 comes under UPL as per the current exploration data	A part of inactive dump ID-4 comes under UPL as per the current exploration data	NIL
4e	Number of active and alive dumps.	One Active dump (AD-2)	One Active dump (AD-2)	NIL
4f	Number of dead dumps.	5 Inactive Dumps (ID-1, ID-2, ID-3, ID-4 & AD-1)	5 Inactive Dumps (ID-1, ID-2, ID-3, ID-4 & AD-1)	NIL
4g	Number of dumps established.	No proposal	NIL	NIL
4h	Whether Retaining wall or garland drain all along dumps are there.	No RW & GD construction proposals for 2022-23. Existing Retaining wall and garland drain maintenance proposed	Existing Retaining walls and garland drains constructed maintained.	NIL
4i	Length of Retaining wall or garland drain all along dumps	No RW & GD construction proposals for 2022-23. Existing Retaining wall and garland drain maintenance proposed	Existing Retaining walls and garland drains constructed maintained.	NIL
4j	Number of settling ponds	No proposal	NIL	NIL

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4k	Specific comments of inspecting officer on waste dump management			The lifts/stages have not been maintained in the waste dump (AD-2) between Sec K-K' to L-L' from 900-886 mRL as per the proposal. Also, the top mRL of waste dump AD-2 has gone beyond the proposed maximum vertical limit of 900 mRL till 905 mRL at Sec- L-L' (N-1674909 E-655832). Violation issued under Rule 11(1) of MCDR 2017.
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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	NIL
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 proposals.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	To be submitted before 1st of July Every year.	Annua PMCP report for the year 2022-23 submitted within timeline	NIL
6b	Area available for rehabilitation (ha) .	0.516 ha plantation proposed on Inactive dump (ID-1)	0.71 ha plantation carried out.	As reported in Annual PMCP report 2022-23.
6c	afforestation done (ha).	0.516 ha plantation proposed on Inactive dump (ID-1)	0.71 ha plantation carried out.	As reported in Annual PMCP report 2022-23.
6d	No. of saplings planted during the year	1290 nos. of saplings proposed within lease area.	5364 nos. of saplings planted within the lease area	As reported in AR 2022-23
6e	Cumulative no .of plants	Not specified	13,154 nos. of cumulative plants within the lease area as on 1.04.2023	As reported in AR 2022-23
6f	Any other method of rehabilitation	Implementation of Bio-engineering measures for Surface Water and Dump Management as per Approved R&R Plan.	Bio-engineering measures for Surface Water and Dump Management as per Approved R&R Plan are being implemented.	--
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

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6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on 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)	Regular Environmental Monitoring of Core and Buffer zone is proposed.	Environmental Monitoring is being carried out. Environmental monitoring report of Jan-23 available. All parameters within limit.	Parameters which are being Monitored: (Air, Noise, Surface water quality, Ground water & Dust)
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP measures implemented inside the mine as per the proposal

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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Only Crushing & Screening proposed	Crushing & Screening carried out within the Lease area	Crusher -250 TPH capacity. O/p Size 0 - 10 mm (Fines) 10-40 mm (Lumps).
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Only Dry crushing and screening proposed.	Fines Fe 51-55% Fe 55-58% Lumps Fe 55-58% Fe 58-60% (Production grade range for the year 2022-23)	As reported in AR 2022-23.
7c	Different grade of mineral sorted out at mines.	Only Dry crushing and screening proposed.	Fines Fe 51-55% Fe 55-58% Lumps Fe 55-58% Fe 58-60% (Production grade range for the year 2022-23)	As reported in AR 2022-23.
7d	Any beneficiation process at mines .	No Proposal	NIL	NIL
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mineral conservation activities carried out inside the mine as per the proposal.

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

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8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dump for overburden is proposed at Waste dump AD-2	Separate dumping of overburden is being carried out at waste dump AD-2. The lifts/stages have not been maintained in the waste dump (AD-2) between Sec K-K' to L-L' from 900-886 mRL as per the proposal. Also, the top mRL of waste dump AD-2 has gone beyond the proposed maximum vertical limit of 900 mRL till 905 mRL at Sec-L-L' (N-1674909 E-655832).	Violation issued under Rule 11(1) of MCDR 2017.
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)	Not specified	13,154 nos. of cumulative plants within the lease area as on 1.04.2023	As reported in AR 2022-23
8g	Survival rate	80 % proposed	89% achieved within lease area	As reported in AR 2022-23.
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:3 nos. Capacity: 8 KL.

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8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The lifts/stages have not been maintained in the waste dump (AD-2) between Sec K-K' to L-L' from 900-886 mRL as per the proposal. Also, the top mRL of waste dump AD-2 has gone beyond the proposed maximum vertical limit of 900 mRL till 905 mRL at Sec- L-L' (N-1674909 E-655832). Violation issued under Rule 11(1) of MCDR 2017.
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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, 2023, Submitted on 09.11.2023 A.R. Submitted up to: Year 2022-23, submitted on 30.06.2023.	M.R. Submitted up to: October, 2023, Submitted on 09.11.2023 A.R. Submitted up to: Year 2022-23, submitted on 30.06.2023.	NIL
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: Manjunatha Geologist: Somnath Biswas Minemanager: Vallibasha Sab S	Appears to be correct	NIL
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Mining- 22.69 Ha O/B Dumps- 13.25 Ha Infrastructure & roads-1.79 ha	Appears to be correct	NIL

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9d	Scrutiny of Annual return on afforestation	Achieved Within Mine Lease: 5364 Survival Rate- 89%	Appears to be correct	NIL
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL	Appears to be correct	NIL
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM: O/s -0 ton, Production - 1,79,915 tons, C/s - 0 ton Graded Ore O/s- 17,428 tons Production- 1,79,915 tons Despatch- 1,97,342.97 tons C/s- 0.03 ton.	Appears to be correct	NIL
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Lumps: Fe>55-58%- 3533.17 Rs/T Fe>58-60%- 4663.86 Rs/T Fines: Fe>51-55%- 1186.00 Rs/T Fe>55-58%- 2649.50 Rs/T	Appears to be correct	NIL
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets: Rs 158899173/- including industrial, plant and machinery and capitalized expenditure	Appears to be correct	NIL

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9k	Scrutiny of Annual return on mining machineries	Excavators-1.8 Appears to be correct Cum-1 nos. 1 Cum-1 no., 0.8 Cum-2 nos., 0.26 Cum-1 no. Wheel Loader- 2.3 Cum-1 no., 3.2 Cum- 1no. Tippers-14 Cum-5 nos. Drill-102 mm-1 no. Water tanker-8 KL-3 nos.	NIL
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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 11(1)	15/12/2023			

Date :**(SANDEEP KUMAR SINGH)**

Indian Bureau of Mines