

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

Mining Plan Modification REPORT

Goa regional office

Mine file No : MAH/SDG/FE-6/GOA

Mine code : 30MSH28004

- (i) Name of the Inspecting : **K07**) **KRISHNENDU CHATTERJEE**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : S/SHRI. P.SRINEEVASA RAO, MM & RIYAZAHMED BARUDWALE,
Official with
Designation
- (iv) Date of Inspection : 04-MAR-22
- (v) Prev.inspection date : 09-OCT-20

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **REDI BLOCK I 94.70.60HECT**
- (b) **Registration NO.** : **IBM/585/2011**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **MAHARASHTRA**
- District : **SINDHUDURG**
- Village : **REDI**
- Taluka : **VENGURLA**
- Post office : **REDI**
- Pin Code : **416517**
- FAX No. : **0831-2426487**
- E-mail : **gogte.minerals@gmail.com**
- Phone : **0831-2407756**
- (f) **Police Station** : **Redi**
- (g) **First opening date** : **01-JAN-58**
- (h) **Weekly day of rest** : **SUN**
2. **Address for correspondance** : **VILLAGE - REDI,**
TALUKA - VENGURLA,
DISTRICT - SINDHUDURG
3. (a) **Lease Number** : **MSH0040**
- (b) **Lease area** : **94.71**
- (c) **Period of lease** : **50**
- (d) **Date of Expiry** : **01-NOV-56**
4. **Mineral worked** : **IRON ORE** **Main**

5. Name and Address of the

Lessee : GOGTE MINERALS
Arvind B. Gogte GOGTE
MINERALS 146, TILAKWADI,
BELGAUM KARNATAKA
Phone:0831-2426487
FAX :0831-2426487

Owner : ARVIND B. GOGTE
GOGTE MINERALS 146,
TILAKWADI, BELGAUM
KARNATAKA
Phone: 0831-2426487
FAX : 0831-2426487

Agent : SHRI. V.NARAYAN PRASAD
REDI IRON ORE MINES,
SINDHUDURG MAHARASHTRA
Phone:
FAX :

Mining Engineer

Name : R. Purushothaman,Full Time
Qualification : B. E. (Mining)
Appointment/ : 14-AUG-12
Termination date

Geologist

Name : Riyazahmed Barudwale,Full Time
Qualification : MSc. Geologogy
Appointment/ : 25-FEB-19
Termination date

Manager

Name : P Sreenivasha Rao
Qualification : BE-Mining
Appointment/ : 21-DEC-18
Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Renewal under rule 24 MCR1960	27-JUL-07
		Mining Scheme rule 12 MCDR1988	25-FEB-13
		MP modif under MCR 1960	19-JAN-16
		MP modif under 17(3) MCR 2016	31-MAR-20
		MP modif under 17(3) MCR 2016	12-NOV-20
		MP review under 17(1) MCR 2016	10-MAR-21

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	07 nos. of borehole proposed during 2020-21	06 Boreholes drilled in FY 2020-21 and 03 nos. boreholes drilled in F.Y. 2021-22 upto 28.02.2022.	Exploration is found ongoing in F.Y. 2021-22.
1b	Exploration over lease area for geological axis 1 or 2	G1 proposed.	Area covered under G1: 35.29 Ha. & G2: 0.70 Ha.	Non mineralized area 58.71 Ha.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	M/s Gogte Minerals (In-house)	Exploration agency: M/s Gogte Minerals (In-house) Exploration Cost: 4.78 lakhs in F.Y. 2020-21.	Exploration expenditure in 2021-22 reported as apprx. Rs. 7.0 Lakhs (up to Feb. 22).
1d	Balance area to be explored to bring Geological axis in 1 or 2	G1 Proposed.	Most of the mineralized area has been covered under G1.	
1e	Balance reserve as on 01/04/20		UNFC Cat. 111: 4.967 million tonnes. Cat. 122 : 0.267 million tonnes. Total Reserves: 5.234 million tonnes. Quality: 37.50% to 58.67% Fe and 5.32% to 41.94% SiO ₂ .	As on 28.02.2022; Total Reserve mentioned as per the approved Mod. RMP dated 23.03.2022.
1f	General remarks of inspecting officers on geology, exploration etc			So far, the ML area has been explored by the lessee under G1 & G2 level by drilling with 97 nos. of core boreholes and 8 nos. of non-core boreholes. Total meterage drilled is 8327.41m. Most of the mineralized area has been explored under G1 stage.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	200N to 620N & 20E to 550E.	200N to 620N & 20E to 550E during 2020-21	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in ore and OB proposed.	Separate benches in ore and OB have been maintained.	
2c	Stripping ratio or ore to OB ratio	1: 4.2	1:3.25 in F.Y 2020-21	
2d	Quantity of topsoil generation in m3	No proposal	Nil	
2e	Quantity of overburden generation in m3	773,675 m3	597,514 m3	BD: 2 tonnes/m3
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Violation of rule11 (1) was issued earlier to the lessee dated 23.07.2021 for less handling/development of waste during 2020-21. In compliance thereof, additional waste handling/development has been on-going in F.Y. 2021-22. 1.339 million tonnes of waste handling has been reported in F.Y. 2021-22 (upto 28.02.2022).

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Single pit proposed.	Single pit working in 2020-21.	Dimension of the working pit: 800m x 590m x 106m
3b	Quantity of ROM mineral production proposed	368,000 tonnes during 2020-21	367,965 tonnes achieved in 2020-21	
3c	Recovery of sailable/usable mineral from ROM production	100% recovery of ROM proposed.	100% recovery of ROM	

3d	Quantity of mineral reject generation	No proposal	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	Not applicable	
3f	Quantity of sub grade mineral generation.	No proposal	Nil	
3g	Grade of sub grade mineral generation	No proposal	Not applicable.	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised mining proposed.	Mechanised mining adopted	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Nil	
3j	Provision of drilling and blasting in mineral benches	No proposal for drilling and blasting.	No drilling and blasting.	
3k	Provision of mining machineries in mineral benches	Proposed with hydraulic excavators and dumpers. combinations.	Hydraulic excavators and dumpers combinations.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	6m bench height proposed.	Average bench height of 6m is maintained.	
3m	Total area covered under excavation/pits	30.6 Ha.	30.7 Ha.	As per the submitted AR of F.Y 2020-21.
3n	Ore to OB ratio for the pit/mine during the year.	1: 4.2	1:3.25	

3o	Total area put in use under different heads at the end of year	Area under mining: 30.6 Ha Waste Dump: 29.42 Ha. Infrastructures & Road: 6.42 Ha.	Area under mining: 30.7 Ha Waste Dump: 28.70 Ha. Infrastructures & Road: 6.11 Ha	
3p	Production of ROM mineral during the last five year period as applicable	2017-18: 368,000 2018-19: 368,000 2019-20: 368,000 2020-21: 368,000 2021-22: 368,000 (in tonnes)	2017-18: 367,846 2018-19: 367,963 2019-20: 367,700 2020-21: 367,965 2021-22: 248,643 upto 28.02.2022 (in tonnes)	
3q	General remarks of inspecting officers on method of mining etc.			Mechanized open cast mining method being followed with Excavator & dumper combination. To avoid local failure and wash-off of pit benches due to rain water during monsoon, bottom of the mine pit benches are covered with silpaulin. Also, rain water diversion arrangement from the catchment area to pit bottom through pipeline and garland drains have been made.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Dumping of OB waste proposed.	Separate dumping of OB waste being carried out.	

4b	Location of topsoil, OB and mineral reject dumps	Within ML area.	OB dumps area located within ML area.	
4c	Number of dumps within lease area and outside of lease area	5 nos. within ML area.	5 nos. within ML area.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	4 nos. outside UPL and 1 no. inside UPL proposed.	4 nos. outside UPL and 1 no. (temporary dump) inside UPL.	
4e	Number of active and alive dumps.	03 active dumps proposed.	03 nos. active dumps in 2020-21.	
4f	Number of dead dumps.	02 nos.	02 nos.	
4g	Number of dumps established.	No proposal	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposed	Yes retaining walls are present along the dumps.	
4i	Length of Retaining wall or garland drain all along dumps	700m retaining wall and garland drain proposed along the periphery of the dumps.	873m retaining wall and garland drain constructed during 2020-21. 350m retaining wall and garland drain constructed in 2021-22 (up to 28.02.2022).	
4j	Number of settling ponds	No proposal	03 nos. of settling ponds constructed so far.	
4k	Specific comments of inspecting officer on waste dump management			Dumping of waste was carried out as per the approved RMP proposals in 2020-21.

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 as the mine pit was not matured for backfilling.	
5b	Area under backfilling of mined out area	No proposal	Nil	

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Nil	
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Mine pit was not matured for backfilling since mineral persists at the bottom of mine workings.

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).	Proposed	Submitted for F.Y. 2020-21 on 30.06.2021.	
6b	Area available for rehabilitation (ha) .	No proposal	Nil	
6c	afforestation done (ha).	5.54 Ha.	8.54 Ha. so far including gap filling.	As stated by the lessee representative.
6d	No. of saplings planted during the year	10,000 nos. proposed.	14,386 nos. inside the ML area during 2020-21.	
6e	Cumulative no .of plants	Not specified.	Apprx. 96,000 nos. within ML area.	Carried out along the slopes of the waste dumps and 7.5m safety zone areas.
6f	Any other method of rehabilitation	No proposal	Nil	
6g	Cost incurred on watch and care during the year	No proposal	Rs. 3.08 Lakhs during 2020-21.	As reported in the submitted Annual Report.

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	Not applicable
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Not applicable
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No proposal	Not applicable
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Not applicable
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Not applicable
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal	Not applicable
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	Not applicable
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Not applicable

6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodic monitoring Proposed.	Environmental monitoring is carried out periodically and parameters are found within stipulated limit.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP compliance & progressive closure operations are found to be carried out as per the approved proposals. To avoid local failure and wash-off of pit benches during monsoon, rain water diversion arrangement from the catchment area to pit bottom through pipeline and garland drains has been made. Gobian walls are also constructed at pit bottom benches.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting and sizing of ROM proposed within the ML area.	Grade wise sorting and sizing of ROM.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanized	Mechanized	
7c	Different grade of mineral sorted out at mines.	Proposed for all +35% Fe Ore.	Below 55% Fe to 58-60% Fe (Lumps and Fines).	
7d	Any beneficiation process at mines	No proposal	Nil except dry crushing and screening of ROM.	

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Crushing and dry screening of ROM has been carried out for grade wise sorting of ore.
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	Nil	ML area is devoid of top soil.
8b	Concurrent use or storage of topsoil	No proposal	Not applicable.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No proposal	Not applicable.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Mine pit is not matured for backfilling.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed during conceptual stage.	Not applicable as of now.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Proposed	Apprx. 96,000 nos. along the slopes of the waste dumps and 7.5m safety zone areas.	
8g	Survival rate	Not specified.	70%	As mentioned ion the AR

8h	Water sprinkling on roads to control airborne dust	Proposed by using water tanker.	2 nos. of water tankers arrangement for water sprinkling on mine roads have been made.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty around the mining area is good.

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 Feb. 2022 & A.R. Submitted up to 2020-2021	M.R.s are submitted regularly in 2020-21 and 2021-22 (up to Feb-22)	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: Shri Purushothaman R Geologist: Shri Riyazahmed Barudwale Manager: Shri P. Sreenivasa Rao	Mining Engineer: Shri Purushothaman R Geologist: Shri Riyazahmed Barudwale Manager: Shri P. Sreenivasa Rao	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under mining: 30.7 Ha Waste Dump: 28.70 Ha. Infrastructure s & Road: 6.11 Ha	No change.	
9d	Scrutiny of Annual return on afforestation	14386 plants	14386 plants	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	No mineral reject generation during 2020-21	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM closing stock: 29007.040 tonnes	Actual was also same at that time as per mine dispatch register.	

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine price (Per Tonne) : Lumps 55% to below 58%: Rs. 2646.32 Lumps 58% to below 60%: Rs. 2443.91 Fines 55% to below 58%: Rs. 2576.12 Fines 58% to below 60%: Rs. 2188.49 Cost of Production: Rs. 1060.91/ tonne	Violation issued earlier on dated 23.07.2021 since ex-mine price of higher grade of iron ore were reported lesser than the lower grade of iron ore. This violation is compiled on dated 30.11.2021.
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets: Rs. 48347847/-	Mentioned in the AR.
9k	Scrutiny of Annual return on mining machineries	Ripper Dozer: 1 Dozer: 2 Back Hoe: 5 Wheel Loader: 4 Water tankers: 2 Tipper: 50 Dumper: 10 Pumps: 2 nos.	Ripper Dozer: 1 Dozer: 2 Back Hoe: 5 Wheel Loader: 4 Water tankers: 2 Tipper: 50 Dumper: 10 Pumps: 2 nos.

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 :

(KRISHNENDU CHATTERJEE)

Indian Bureau of Mines