

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

Mining Plan Modification REPORT

Bangalore regional office

Mine file No : KNT/BLR/FE/376/BNG

Mine code : 30KAR03103

- (i) Name of the Inspecting : **A101**) **ARUN KUMAR**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Sri.H.J.Basavarajappa - Mines Manager
Official with
Designation
- (iv) Date of Inspection : 23/12/2020
- (v) Prev.inspection date : 26/04/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **THIMMAPPANAGUDI**
- (b) **Registration NO.** : **IBM/4369/2011**
- (c) **Category** : A Fully Mechanised
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : KARNATAKA
- District : BELLARY
- Village : KRISHNA NAGAR
- Taluka : SANDUR
- Post office : VIDYA NAGAR
- Pin Code :
- FAX No. : 080-25583172 (F),ningappaag
- E-mail : info.mml@nic.in,hdrajuchna
- Phone : 080-25580373, 9845300022 (I
- (f) **Police Station** : Sandur
- (g) **First opening date** : 27/12/1985
- (h) **Weekly day of rest** : SUN
2. **Address for** : MYSORE MINERALS LTD,
correspondance TTMC BUILDING A BLOCK 5th FLOOR
BMTc SHANTINAGAR BANGALORE - 560027.
3. (a) **Lease Number** : KAR0200
- (b) **Lease area** : 136.27
- (c) **Period of lease** : 20
- (d) **Date of Expiry** : 26/12/2025
4. **Mineral worked** : IRON ORE Main

5. Name and Address of the

Lessee : MYSORE MINERALS LTD
 TTMC BUILDING A BLOCK 5th
 FLOOR BMTc SHANTINAGAR
 BANGALORE KARNATAKA
 Phone:080-25580373
 FAX :080-25580372

Owner : S.ZIAULLAH, IAS
 # 39,M.G.ROAD,BANGALORE,
 KARNATAKA-560001.
 BANGALORE KARNATAKA
 Phone: 08395-60401,080
 FAX : 080-25583172, 0

Agent : H.D.RAJU
 BELLARY KARNATAKA
 Phone: 9448303626
 FAX :

Manager
 Name : H.D.RAJU
 Qualification : DIP (MINING) & FCC
 Appointment/ : 01/08/2012
 Termination date

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	29/02/2000
Plan/Scheme of Mining		Modif.of approved Mining Plan	27/12/2001
		Mining Scheme rule 12 MCDR1988	05/02/2004
		Modif.approved Mining Scheme	12/09/2005
		Mining Scheme rule 12 MCDR1988	23/03/2006
		Modif.approved Mining Scheme	02/12/2008
		Mining Scheme rule 12 MCDR1988	10/08/2012
		Modif.approved Mining Scheme	06/01/2015
		Mining Scheme rule 12 MCDR1988	28/03/2016
		Modif.approved Mining Scheme	16/05/2019

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal	Nil	14 bore holes completed to a total depth of 483.50 mts in FY 2014-15 & 2015-16.
1b	Exploration over lease area for geological axis 1 or 2	G1,G2	G1-41.53Ha, G2-2.00 Ha	Non Mineralized area-93.41Ha as per approved document.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No Proposal	Nil	Exploration completed on 30.06.2015 by the agency M/s soil Tech (India) Pvt. Ltd., Pune & cost incurred Rs.18.61 Lakhs
1d	Balance area to be explored to bring Geological axis in 1 or 2	No Proposal	2.00 Ha	To bring to G1 level
1e	Balance reserve as on 01/04/20	Nil	Proved :4.30 MillionTonnes, Probable : 0.36Million Tonnes with 45% Fe	As per the Annual Returns for the Year 2019-20
1f	General remarks of inspecting officers on geology, exploration etc			14 bore holes completed to a total depth of 483.50 mts in FY 2014-15 & 2015-16. It was observed that 7 core bore holes were drilled without proposal. Clarification sought.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Development was proposed in grids E-5403 to E-6437 & N-4608 to N-4877.	Development work was carried out in grids E-5425 to E-6404 & N-4608 to N-4802	Working was carried out in between 960 & 892 above MSL

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in overburden & mineral proposed	Separate benches maintained in overburden & Mineral	OB-3Nos. and Mineral Bench-6 nos.
2c	Stripping ratio or ore to OB ratio	1:3.88 (in Tonnes)	1:1.94 (in Tonnes)	Violation issued
2d	Quantity of topsoil generation in m3	No proposal	Nil	Nil
2e	Quantity of overburden generation in m3	2259234 Tonnes	819339 Tonnes	(Bulk Density considered for ore is 2.88 & waste 2.5 tons/Cum). Violation issued
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Less development carried out distorting the stripping ratio. Violation issued

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit proposed	Actual mining carried out in one pit	Approximate dimension of the pit L-975m x W-260m x H-64m
3b	Quantity of ROM mineral production proposed	582451MTs from mining pit & 67548MTs re-handling from dump D1	383997MTs from mining pit & 37486MTs re-handling	Nil
3c	Recovery of sailable/usable mineral from ROM production	Recovery 90%	Recovery 90%	Nil
3d	Quantity of mineral reject generation	No Proposal	Nil	Nil
3e	Grade of mineral rejects generation and threshold value declared.	+35% Fe for Hematite Siliceous	Nil	All low grade material is blended with high grade
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	Mechanized method proposed for segregation from ROM	Mechanized method adopted for segregation from ROM	Dry crushing & Screening was done
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	Deep hole Drilling & Blasting is proposed for removal of hard strata in overburden & mineral benches.	Drilling & Blasting carried out in hard strata. Direct excavation in fines ore and clay benches.	40% of the total material handled is blasted in the mine
3k	Provision of mining machineries in mineral benches	Excavator tipper combination proposed	Mining was carried out with excavator & tipper combination	Mining Machineries used on the day of inspection: Excavator-3Nos., Wheel loader-1Nos., Dumpers/Tippers 6Nos., water Tankers-2Nos.,
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench Height of 8Mtrs proposed	Actual bench height of 8 Mts (avg) & bench width of 8 mts (avg)	Nil
3m	Total area covered under excavation/pits	44.31 Ha at the end of plan period.	43.5Ha at the end of reporting year	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1:3.88	1:1.94	Violation issued

3o	Total area put in use under different heads at the end of year	Area under mining-44.31 Ha,Active dump-3.0Ha,Re handling Dump 1-3.40 Ha, Backfilled area-18.00 Ha, Mineral storage-3.00 Ha,Infrastruct ure-.70 Ha,Roads-3.00 Ha,Others-7.41 Ha	Opencast working-43.5Ha. Reclaimed & rehabilitated-17.75Ha. OB Dumps-13.00Ha., Infrastructure-3.70Ha., others-58.99Ha at the end of reporting year	Nil
3p	Production of ROM mineral during the last five year period as applicable	2015-16- 1060000 2016-17- 1060000 2017-18- 650000 2018-19- 650000 2019-20- 650000 2020-21 650000	2015-16 1060000 2016-17- 1020000 2017-18- 492845 2018-19- 101778 2019-20- 421483 2020-21- 334529 upto Nove-2020)	All units in Tons. Actual production is within the proposed production limits.
3q	General remarks of inspecting officers on method of mining etc.			Open cast method of mining with excavator tipper combination along with deep hole drilling & blasting was carried out.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	OB generated was proposed to be backfilled	OB & mineral reject is backfilled in dump No.D4	No top soil generation and overburden dumped in back fill dump (D4)
4b	Location of topsoil, OB and mineral reject dumps	Back filling proposed	Back filling was carried out in D4	The entire rejection material was back filled in Dump D4
4c	Number of dumps within lease area and outside of lease area	Within lease area -4Nos. Outside the lease area - Nil	Within lease area -4Nos. Outside the lease area - Nil	Nil

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumps are proposed outside the UPL	Dumping were done outside the UPL	In the reporting year only backfilling done
4e	Number of active and alive dumps.	2 dumps are active (D4 & D3)	2 dumps are active (D4 & D3)	Nil
4f	Number of dead dumps.	2 Dumps are inactive (D2 & D1)	2 Dumps are inactive (D2 & D1)	Nil
4g	Number of dumps established.	2 Dumps (D2 & D1)	2 Dumps (D2 & D1)	Stabilized with plantation and partially coir matting
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall and garland drain all along the dump proposed	Part of the retaining wall & garland drain constructed	Retention wall & Garland Drains are constructed as per approved R&R
4i	Length of Retaining wall or garland drain all along dumps	Retention wall :415M, Garland Drain:415M	No RW & GD drain constructed as proposed	Violation issued
4j	Number of settling ponds	No proposal	Nil	1No. settling tanks constructed as per approved R&R in the past.
4k	Specific comments of inspecting officer on waste dump management			Backfilling was carried out at the earmarked place as proposed. Violation issued for not constructing the retaining wall & garland drain.

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.	Part backfilling proposed	Before starting of backfilling the area was fully extracted of available mineral. 17.75Ha already back filled in dump D2.	Backfilling was carried out at the earmarked place as proposed
5b	Area under backfilling of mined out area	6.75Ha.	3.27Ha.	3.27Ha. utilized in Dump-D4

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	No generation of top soil	Mining operations are proposed to work within the broken up area. Hence no generation of top soil
5d	Total area fully reclaimed and rehabilitated	17.75Ha.	17.75Ha.	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Before starting of backfilling, the area was fully extracted of available mineral. 17.75Ha already back filled in dump D2.

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).	To be submitted before 1st July every year	Submitted for the year 2019-20 on 05.06.2020	Nil
6b	Area available for rehabilitation (ha) .	No Proposal	Nil	Nil
6c	afforestation done (ha).	No Proposal	Nil	Nil
6d	No. of saplings planted during the year	No Proposal	Nil	Nil
6e	Cumulative no .of plants	No Proposal	Nil	Nil
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	6.75Ha	3.27Ha. back filled	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Back filling proposed by mining waste & dump re-handling waste	Backfilling was carried out by mining waste & dump re-handling waste	Back filling was under progress
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	1500Nos of saplings	1500Nos. of saplings planted	Plantation on the surface of the back filled area in dump D4
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)	Environmental monitoring proposed in the core zone & buffer zone	Environmental monitoring carried out in the core zone & buffer zone regularly.	Monitoring done by SUMS Techno labs Pvt. Ltd., Hospet. All the environmental parameters were observed to be within the permissible limits
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP activities including plantation were carried out as per the proposal

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 done within lease area	-10mm of Fines, 10-20mm of C'ore, 20-40mm of Lumps with a grade of +55%Fe
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical Sorting and sizing proposed	Mechanical Sorting and sizing done within the ML area	Dry crushing & Screening adopted
7c	Different grade of mineral sorted out at mines.	Different grade of mineral sorted (Fe): 45%-50%, 50%-55% , 55% -60% , 60% - 65% , +65%, +45% - 65%	Different grade of mineral sorted (Fe) at the mine: Fines: 0-55% Fe, 55-58% Fe, 58-60% Fe, 60-62% Fe Lumps: Below 55%, 55-58% Fe	The Average Fines & Lumps ratio : 80:20
7d	Any beneficiation process at mines	No Proposal	No such study carried out	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mechanized method adopted for mineral sorting with dry crushing & screening.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	No top soil generated	Working in the broken area.
8b	Concurrent use or storage of topsoil	No proposal	Nil	Proposed to work within the broken up area for plan period
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Backfilling proposed	Over burden/waste dumped in the D4(Backfilling)	2 dump yard identified for dumping of waste material namely D4(backfilling)& D3
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	OB/Waste generated is proposed for back filling the mineral exhausted pit	OB/Waste generated is carried out for back filling the mineral exhausted pit	Back filling is under progress
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Backfilling proposed in the already mined out pit	Backfilling carried out as per proposal	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Within the mining lease- 1500Nos. outside the mining lease - Nil	Within the mining lease- 1500Nos. outside the mining lease -Nil	Nil
8g	Survival rate	80% Survival rate	80% Survival rate	Nil
8h	Water sprinkling on roads to control airborne dust	Sprinkling on haul roads proposed to control the air borne dust	Sprinkling on haul roads is carried out regularly to control the dust generated during various mining activities	9 Tankers with a capacity of 8000 Ltrs are utilized for sprinkling of water for dust suppression, plantation & drinking purpose

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The aesthetic beauty in and around the mine is good as lease has carried out afforestation and other environmental protective measures as per the proposals.
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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 Nov - 2020 Annual Returns submitted for the year 2019-20	Annual Report submitted on 26.06.2020 (for the year 2019-20)	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager: Sri.R.Nirmalkumar Geologist :Sri.Rameshappa a Mining Eng. Sri.M.M.Shivakumara	Sri.H.J.Basavarajappa - Mines Manager & Sri.Rameshappa- Geologist were present during the course of inspection	Violation issued for non appointment of mining engineer

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current (O/C) working- 43.5ha., Reclaimed & Rehabilitated- 17.75ha., Used for waste disposal- 13.00ha., occupied by plant, building, residential ,welfare building & roads-3.70ha., other purpose (specify) (un-utilization area, EMP, back filling area) 58.99ha.,	Appears to be correct	
9d	Scrutiny of Annual return on afforestation	WML-1500 Nos. appears to be correct of sampling & 80% survival rate OML-NIL	Appears to be correct	
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	ROM: Opening stock- 106300Tons, Production- 421483Tons, Closing Stock- 137671Tons Dump Re-handling working : Opening stock- 1503033Tons, Production - Nil Closing Stock- 1465547Tons	A quantity of 37486MTs ROM recovered from dump re-handling and added/blended with open cast working ROM and stocked for Processing.	Violation issued for not reflecting the dump production

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of Production- Rs.739/Ton Lumps: Ex-mine Price-Rs. 1553/Ton 0-55% Fe Rs.2497/Ton 55-58% Fe Fines: Rs.891/Ton 0- 55% Fe , Rs.1647/Ton 55-58 % Fe Rs. 1854/Ton 58-60% Fe	Appears to be correct
9h	Scrutiny of Annual return on fixed assets	3.59 Crores including buildings, plant, machinery & transport equipment	Appears to be correct
9k	Scrutiny of Annual return on mining machineries	Excavator- 7Nos., Wheel Loader-3Nos., Dumper/Tipper- 18Nos., Water Tanker-6Nos., Crushing & Screening- 3Nos., Rockdrill-1No	Appears to be correct

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
MCDR17	Rule 11(1)	09/02/2021			
MCDR17	Rule 26(1)	09/02/2021			
MCDR17	Rule 45(7)(a)	09/02/2021			
MCDR17	Rule 55(1)(3)	09/02/2021			

Date :

(ARUN KUMAR)

Indian Bureau of Mines