

**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/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.R. Nirmal Kumar,AGM,Mines Manager
Official with
Designation
- (iv) Date of Inspection : 26/11/2019
- (v) Prev.inspection date :

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 correspondance** : MYSORE MINERALS LTD,
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	Not Applicable	No backlogs.14 bore holes completed to a total depth of 483.50 Rmtrs & exploration completed on 30.06.2015
1b	Exploration over lease area for geological axis 1 or 2	G1-18.00Ha	G1-18.00Ha, G2-Nil, G3 - Nil	Mineralized area 18.00Ha, Non Mineralized area-118-94Ha. as per approved document
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No Proposal	Not applicable	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	Not applicable	-
1e	Balance reserve as on 01/04/20	-	5.08 Million Tons	As per the Annual Returns for the Year 2018-19
1f	General remarks of inspecting officers on geology, exploration etc			18.00 Ha. is mineralized area as per approved document. Exploration completed on 30.06.2015 by the agency M/s Soil Tech (India) Pvt. Ltd. Pune & cost incurred Rs.18.61 Lakhs

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Development was proposed in grids E-5406 to E-6504 & N-4574 to N-4931. The benches were proposed to be formed between 960 & 888 above MSL	Development work was carried out in grids E-5730 to E-6247 & N-4600 to N-4884 between 960 & 884 Mtrs level	Development work is in progress.Current year working started in September-2019
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in overburden & mineral proposed	Separate benches in overburden & Mineral Maintained	Top Soil-Nil, OB-3Nos. and Mineral Bench-9 nos.
2c	Stripping ratio or ore to OB ratio	1:1.23 (in Tonnes)	1:1.62(in Tonnes)	Bulk Density-2 tons/Cum
2d	Quantity of topsoil generation in m3	No proposal	NIL	No generation of top soil in the reporting year
2e	Quantity of overburden generation in m3	1184820 Metric Tons	165760 Metric Tons	Excess development done to keep pace with production
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			OB was excavted & rectification of violations issued earlier for selective mining was in progress

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 587.04m x 212.76m x 76m (LxWxD)
3b	Quantity of ROM mineral production proposed	960120MTs from mining pit & 99765MTs re-handling from dump D1	81778 MTs from pit, 20000MTs re-handling from dump D1, Total=101178MTs	Clarification sought for lower production .Violation issued.
3c	Recovery of sailable/usable mineral from ROM production	Recovery 90%	Recovery 90%	Nil

3d	Quantity of mineral reject generation	1113700-Mineral Reject, 14780-Minerals Rejects from dump re-handling	Waste from dump re-handling & waste from mining were placed in mineral reject as per the approved document	Mineral reject of the dump re-handling and waste material from mines were used for backfilling. Modified MP submitted & approved
3e	Grade of mineral rejects generation and threshold value declared.	+35% Fe for Hematite Siliceous	Nil	Nil
3f	Quantity of sub grade mineral generation.	No proposal	Not Applicable	-
3g	Grade of sub grade mineral generation	No proposal	Not Applicable	-
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	Not Applicable	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	Mining Machineries proposed: Excavator-5Nos., Wheel loader-3Nos., Dumpers/Tipper s 22Nos., water Tankers-8Nos., Crushing & Screening-2Nos., Rock Dill- 2Nos.	Excavator- 3Nos., Wheel Loader-1Nos., Dumper/Tipper-04Nos., Water Tanker-2Nos., Crushing & Screening- 1No. , Rock Drill- 1Nos.	As on date of inspection

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench Height 8Mtrs proposed	Actual Bench Height avg.8Mtrs and bench width Avg. 10Mtrs.	-
3m	Total area covered under excavation/pits	43.5 Ha.	43.5Ha.	The work is carried out within broken up area.
3n	Ore to OB ratio for the pit/mine during the year.	1:1.23	1:1.62	More development of the benches done at places.
3o	Total area put in use under different heads at the end of year	Opencast working-43.5Ha., Reclaimed & rehabilitated-17.75Ha, OB Dumps-23.29Ha., Infrastructure & roads-3.70Ha. untouched area-44.64Ha.	Opencast working-43.5Ha. Reclaimed & rehabilitated-17.75Ha. OB Dumps-17.65Ha., Infrastructure-6.70Ha., others-51.345Ha.	Working within the area as proposed
3p	Production of ROM mineral during the last five year period as applicable	2014-15 1.06MTPA, 2015-16 1.06MTPA, 2016-17- 1.06MTPA, 2017-18- 0.65MTPA, 2018-19- 0.65MTPA	2014-15 1060000MTPA 2015-16 1060000MTPA 2016-17 1020000MTPA 2017-18 492845MTPA 2018-19 101778MTPA	As per Hon'ble SCoI dated:14.12.2017 CEC monitoring committee reduced the production capacity from 1.06MTPA to 0.65MTPA for the period 2017-18 and directed continue with MPAP as per the R&R approval capacity i.e. 0.65MTPA for subsequent period & 492845Mts of production is achieved before the date of order in the year 2017-18.
3q	General remarks of inspecting officers on method of mining etc.			Violations issued for lower production. (-) 84% deviation from the proposal. Clarification sought on the matter

Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	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 area (D4) Northing-4927.74 to 5400 Easting - 4759.58 to 5278.88	Back filling area (D4) Northing -5165.08 to 5392.56 Easting-4884.57 to 5124.90	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	No change
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)	-
4f	Number of dead dumps.	2 Dumps are inactive (D2 & D1)	2 Dumps are inactive (D2 & D1)	-
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 & in progress	Retention wall & Garland Drains are constructed as per approved R&R & in progress
4i	Length of Retaining wall or garland drain all along dumps	Retention wall : Dump-D2-411 Mts, Dump-D3-1320mts, Dump-D4-885mts, Garland Drain: Dump-D2-411mts, Dump-D3-1320mts, Dump-D4-370mts	Retention wall : Dump-D2-411mts, Dump-D3-300mts, Dump-D4-20mts, Garland Drain: Dump-D2-454mts, Dump-D3-220mts, Dump-D4-370mts	Retention wall & Garland drains are constructed as per approved R&R Dump-D3-According to site condition, total 300Mtrs RW completed.Dump-D4 As present 200Mtrs RW is constructed remaining length is to be taken up.
4j	Number of settling ponds	No proposal	Nil	1No. settling tanks are constructed as per R&R in previous year

4k	Specific comments of inspecting officer on waste dump management	Waste dump management is satisfactory. All the waste generated from the mine & dump re-handling is back filled in the earmarked place as per the proposal
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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.	Part backfilling proposed	Before starting of backfilling the area was fully extracted of available mineral. 17.75Ha. already back filled in dump D2. Backfilling as per the approval.	-
5b	Area under backfilling of mined out area	1.65Ha.	2.38Ha.	2.38Ha. 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.	No change
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 as dump D2. In dump D4 backfilling is in progress.

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 July every year	Submitted for the year 2018-19 on 27.06.2019	-
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	1.00Ha in 2018-19	1.65Ha. back filled	Excess development done is backfilled
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	2000Nos of saplings	2050Nos. 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. Core zone: Air-3, Location, Noise-2, Location, water-1 Location Buffer zone: Air-7, Location, Noise-9 location, water-7	Monitoring done by SUMS Techno labs Pvt. Ltd., Hospet.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP activities were carried out as per the proposal. Environmental monitoring parameters was observed within the permissible limits.

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%	Different grade of mineral sorted (Fe) at the mine: 45% -50%, 50%-55%, 55%-60%,+65%	The Average Fines & Lumps ratio : 80:20
7d	Any beneficiation process at mines .	No Proposal	Not Applicable	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			The mechanized method adopted for mineral sorting with dry crushing and screening.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	No top soil is generated for its usage	Working in the broken area.
8b	Concurrent use or storage of topsoil	No proposal	No top soil is generated	Proposed to work within the broken up area for plan period
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate waste dump proposed for OB & backfilling, Stacking of fines & lumps separately	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)	No proposals in this plan period	Nil	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Within the mining lease - 2000Nos. outside the mining lease - Nil	Within the mining lease- 2050Nos. Outside the mining lease- Nil	Nil
8g	Survival rate	80%	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			Aesthetic beauty and greenery is maintained in and around the mine regular sprinkling of water is carried out

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 Oct-2019 Annual Returns submitted for the year 2018-19	Annual Report submitted on 31.05.2019 (for the year 2018-19)	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager. Sri.R.Nirmal Kumar Geologist : Sri.Rameshappa Mining Engineer : Sri.M.M.Shivakumara	Manager Mining & Mining Engineer were present during the course of inspection	

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- 17.65ha., occupied by plant, building, residential, welfare building & roads-6.70ha., other purpose (specify) (un-utilization area, EMP, back filling area) 51.34ha.,	Appears to be correct
9d	Scrutiny of Annual return on afforestation	WML-2050 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	1113700 Tons from mines & 14780 Tons of minerals Rejects from dump re-handling proposed in the document.Modified RMP submitted & approved
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM: opening stock- 162815Tons, production- 101778Tons, Closing Stock- 106300Tons dump working - Nil	Dump re-handling was proposed for the purpose of recovery of mineral which has not been reflected in annual returns.Corrected AR submitted

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of Production- Rs.299/Ton Ex-mine Price- Rs.2312.33/Ton sale Value (Lumps in Rs./Ton) : 55-58% Fe-2137, 58-60% Fe-2577, 60-62% Fe-2432, Sale Value (Fines in Rs./Ton) : 55-58% Fe-1965, 58-60% Fe-2322, 60-62% Fe-2443	Appears to be correct
9h	Scrutiny of Annual return on fixed assets	2.82 Crores including buildings, plant, machinery & transport equipment	Appears to be correct
9k	Scrutiny of Annual return on mining machineries	Excavator- 8Nos., Wheel Loader-5Nos., Dumper/Tipper- 20Nos., Water Tanker-9Nos., Crushing & Screening- 1No., Rockdill-2Nos.	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)	24/12/2019	11/02/2020		

Date :

(ARUN KUMAR)

Indian Bureau of Mines