

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

MCDR inspection REPORT

Bangalore regional office

Mine file No : KNT/BLR/FE/433/BNG

Mine code : 30KAR03154

- (i) Name of the Inspecting : **S21**) **H M Shivakumar**
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : N.Giridhar Rao - Dy.General Manager, C.Nagabushana -
Official with
Designation
- (iv) Date of Inspection : 18/03/2022
- (v) Prev.inspection date : 04/02/2020

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **S.M.BLOCK**
- (b) **Registration NO.** : **IBM/211/2011**
- (c) **Category** : A Fully Mechanised
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : KARNATAKA
- District : BELLARY
- Village : NARAYANPURA
- Taluka : SANDUR
- Post office : NARAYANPURA
- Pin Code : 583119
- FAX No. : 08392-260269 (F),
- E-mail : mhraomines@gmail.com
- Phone : 08392 - 260170, 260626, 93
- (f) **Police Station** : Torangallu
- (g) **First opening date** : 15/05/2006
- (h) **Weekly day of rest** : SUN
2. **Address for correspondance** : MR.ARUN CHIRANIA, NOM. OWNER,M/s M.Hanumantha Ra
H.NO 37, W.NO -17, PATEL NAGAR,Near Park
BELLARY - 583101.
3. (a) **Lease Number** : KAR1503
- (b) **Lease area** : 40.47
- (c) **Period of lease** : 20
- (d) **Date of Expiry** : 11/12/2025
4. **Mineral worked** : IRON ORE Main

5. Name and Address of the

Lessee : M. HANUMANTHA RAO
H.No-37, W.No-17,Ground
Floor Main Road, Near Park,
Patel Nagar, Ballari
BELLARY KARNATAKA
Phone:08392-260170
FAX :08392-260269

Owner : Arun Kumar Chirania, Partner M/s M.Hanumantha Rao
H.No-37, W.No-17, Ground
Floor Main Road, Near Park
Patel Nagar, Ballari
BELLARY KARNATAKA
Phone: 08392-260170, 2
FAX : 08392-260269

Mining Engineer

Name : M V Mahesh,Full Time
Qualification : B. Tech. in Mining
Appointment/ : 30/10/2017
Termination date

Geologist

Name : C. Nagabhushana,Full Time
Qualification : M.Sc. Geology
Appointment/ : 02/11/2017
Termination date

Manager

Name : K.V.Sreedhar
Qualification : Dip. in Mining
Appointment/ : 03/08/2006
Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Modif.of approved Mining Plan	31/08/2006
		Modif.of approved Mining Plan	10/01/2008
		Mining Scheme rule 12 MCDR1988	05/03/2013
		Modif.approved Mining Scheme	18/06/2014
		Mining Scheme rule 12 MCDR1988	03/03/2016
		MS modif under MCR 1960	07/09/2016
		MP modif under 17(3) MCR 2016	16/02/2018
		Modif.approved Mining Scheme	21/03/2018
		Modif.approved Mining Scheme	13/08/2019
		MP review under 17(1) MCR 2016	03/06/2020
		MP modif under 17(3) MCR 2016	20/01/2021
		MP review under 17(1) MCR 2016	03/02/2021

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal.	Nil.	10Nos- RC drilling 1No- DTH during 2018-19 with total meterage of 787 mts.
1b	Exploration over lease area for geological axis 1 or 2	G1, G2, & G3.	G1=8.21 Ha, G2=13.58 Ha & G3=2.75 Ha.	Nil.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No Proposal.	Nil.	APC Drilling & Construction Pvt Ltd & Rs. 28.25 lakhs during 2018-19.
1d	Balance area to be explored to bring Geological axis in 1 or 2	No Proposal.	Nil.	Nil.
1e	Balance reserve as on 01/04/20	Nil.	8657338 tonnes.	As per Annual Return submitted for the year 2020-21.
1f	General remarks of inspecting officers on geology, exploration etc			

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Western pit N1657800 - N1658010, E680120- E680245 & Eastern pit N1658015 - N1658275, E680165- E680395	Western pit N1657810 - N1658000, E680120 - E680250 & Eastern pit N1658020 - N1658275, E680180 - E680380.	Deviation in workings from the approved proposals. Violation issued.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches proposed in overburden and mineral	Separate benches maintained in overburden and mineral.	Western pit OB benches - 7& mineral bench - 1 Eastern pit OB benches - 4 & mineral bench - 1.

2c	Stripping ratio or ore to OB ratio	1:2.02	1:3.84	Nil. Violation letter issued for not maintaining the stripping ratio.
2d	Quantity of topsoil generation in m3	No Proposal.	Nil.	No top soil generated.
2e	Quantity of overburden generation in m3	398748 tonnes.	393498 tonnes.	Bulk : Ore 3.8 t/Cu.m and OB 2 t/Cu.m.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development was not in accordance with the approved RUMP and deviations were observed both laterally and vertically from the approved proposals. At places bench height and width were also not maintained and exceeding the approved proposals. Violation issued.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2 pits proposed for production.	Actual workings from 2 pits only.	Western Pit and Eastern Pit .
3b	Quantity of ROM mineral production proposed	2,26,000 tonnes.	143990 tonnes.	Violation issued for not achieving the proposed production.
3c	Recovery of sailable/usable mineral from ROM production	100 %	100 %	Nil.
3d	Quantity of mineral reject generation	No proposal	393498tonnes of mineral reject shown in Annual Return 2020-21.	Violation letter issued.
3e	Grade of mineral rejects generation and threshold value declared.	No proposal.	>15% to 25%Fe	shown in Annual Return 2020-21.

3f	Quantity of sub grade mineral generation.	No Proposal.	Nil.	No Sub Grade Generated.
3g	Grade of sub grade mineral generation	No Proposal.	Nil.	No Sub Grade Generated.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised method proposed for segregating from ROM.	Mechanised method adopted for segregating from ROM.	Dry Crushing & Screening. Capacity of Plant is 140 TPH.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal.	No such beneficiation study carried out during the year 2020-21.	Magnetitic ore beneficiation study carried out by CSIR-IMMT Bhubaneshwar in the past.
3j	Provision of drilling and blasting in mineral benches	Provision made for drilling & blasting in mineral benches.	Drilling & blasting carried out to win the Ore.	115 mm drilled Dia with 3mts spacing & 2.5mts burden with 10mts depth. Nonel in conjunction with slurry explosive is used for blasting.
3k	Provision of mining machineries in mineral benches	Excavator & Tipper combination proposed.	Excavator & Tipper combination is depleted to carry out the mining operations.	Machineries deployed Excavator : 06 Nos, Tippers : 10 Nos, Loaders : 03 Nos and water tankers : 02 Nos.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench Height of 10 mts and width 10 mts is proposed.	No	At places bench height & width are not maintained & violation issued.
3m	Total area covered under excavation/pits	9.90 Ha at the end of Plan period.	9.45 Ha at the end of reporting year.	Nil.
3n	Ore to OB ratio for the pit/mine during the year.	1:2.02	1:3.84	Violation issued.

3o	Total area put in use under different heads at the end of year	Area Under Mining: 9.99 Ha, Over Burden Dumps : 6.83 Ha, Mineral Storage : 0.06Ha, Roads: 2.00 Ha, Green Belt : 2.14 Ha, Mineral Separation Plant: 0.34 Ha, Area Under Biodiversity: 0.62 Ha at the end of plan period.	Area Under Mining :9.45 Ha, Over Burden Dumps : 7.34 Ha, Mineral Storage : 0.06Ha, Roads: 2.00 Ha, Green Belt : 2.14 Ha Mineral Separation Plant: 0.34 Ha, Area Under Biodiversity: 0.62 Ha at the end of reporting year.	Nil.
3p	Production of ROM mineral during the last five year period as applicable	2016-17: 100000 2017-18: 100000 2018-19: 144000 2019-20: 144000 2020-21: 226000 (in tonnes)	2016-17: 99990 2017-18: 99990 2018-19: 143990 2019-20: 143990 2020-21: 143990 (in tonnes)	Actual production is within the proposed limits.
3q	General remarks of inspecting officers on method of mining etc.			Mining & Development was not carried out as per the approved proposals and at places laterally & vertically worked beyond the approved limits & at places bench height & width not properly maintained. Violation issued.

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 OB proposed.	Separate dumping OB Maintained.	Nil.

4b	Location of topsoil, OB and mineral reject dumps	location of OB N1657840 to N1658170, E680000 to 680230.	location of OB N1657920 to N1658170, E680000 to 680150.	Nil.
4c	Number of dumps within lease area and outside of lease area	Within the lease area -3 Nos, Outside ML area : Nil	Within the lease area -3 Nos, Outside ML area : Nil	Nil.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Temporary dumps proposed within the UPL.	Temporary dumps are carried out within the UPL.	Nil.
4e	Number of active and alive dumps.	Active dumps - 1	Active dumps - 1	Nil.
4f	Number of dead dumps.	Dead dumps - 2	Dead dumps - 2	
4g	Number of dumps established.	2	2	Stabilized by coir matting & plantation.
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall & garland drain proposed all along the dump.	Retaining wall & garland drain constructed all along the dump.	
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall -50m, Garland drain- Nil	Retaining wall -50m, Garland drain- Nil	
4j	Number of settling ponds	No Proposal.	Nil.	
4k	Specific comments of inspecting officer on waste dump management			Waste management is satisfactorily by carrying out plantation on inactive dumps & protective measures like construction of toe wall & garland drains are carried out.

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 extraction of mineral from mined out area and temporary backfilling proposed.	Temporary backfilling carried out in part extraction of mineral from mined out area.	Nil.

5b	Area under backfilling of mined out area	Temporary backfilling in part extraction of mineral from mined out area about 3.10Ha.	Temporary backfilling in part extraction of mineral from mined out area about 2.53Ha.	Nil.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No Proposal.	At this stage no area is available for reclamation & rehabilitation.	
5d	Total area fully reclaimed and rehabilitated	No Proposal.	At this stage no area is available for reclamation & rehabilitation.	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Temporary backfilling of the mined out pit as proposed is done. However minor lagging from the proposed extent is observed.

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).	Annual report on PMCP submitted on time and correctly.	Yes Submitted.	Date of Submission 30.06.2021.
6b	Area available for rehabilitation (ha) .	No Proposal.	Nil.	
6c	afforestation done (ha).	Area of 0.12 Ha.	Area of 1.00 Ha is carried out.	Dump slope & Gap fill.
6d	No. of saplings planted during the year	200nos.	800Nos.	Plantation carried out with in ML Area.
6e	Cumulative no .of plants	Total 20612 nos.	Total 22432 nos.	Plantation carried out with in ML Area & outside Lease area with overall survival rate of 60%.

6f	Any other method of rehabilitation	No Proposal.	Nil.	It is proposed to reclaim & rehabilitate dumps after is maturity during the conceptual stage a total area of 40.47 Ha is proposed to be afforested as apart of reclamation.
6g	Cost incurred on watch and care during the year	Rs.225928	Rs.269184.00 amount spent on plantation.	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No Proposal.	Nil.	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No Proposal.	Nil.	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No Proposal.	Nil.	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Proposal.	Nil.	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No Proposal.	Nil.	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No Proposal.	Nil.	

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No Proposal.	Nil.	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No Proposal.	Nil.	
6p	Compliance of environmental monitoring (core zone and buffer zone)	9 Air Monitoring stations (core zone 5stations & buffer zone 4 stations), 9 Water sampling stations (Ground water 8 samples), 9 Noise Monitoring stations (core zone 4stations & buffer zone 5 stations), 5 Soil sampling stations (core zone 1station & buffer zone 4 stations)	9 Air Monitoring stations (core zone 5stations & buffer zone 4 stations), 9 Water sampling stations (Ground water 8 samples), 9 Noise Monitoring stations (core zone 4stations & buffer zone 5 stations), 5 Soil sampling stations (core zone 1station & buffer zone 4 stations)	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			The compliance of proposed PMCP activities are found to be satisfactory and Monitoring of Environmental parameters are done regularly.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Sorting within lease area.	Sorting within lease area.	

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical.	Mechanical.	Dry crushing & Screening.
7c	Different grade of mineral sorted out at mines.	45%Fe - 55%Fe 55%Fe - 62%Fe	45%Fe - 55%Fe 55%Fe - 62%Fe	NIL
7d	Any beneficiation process at mines .	No.	No.	NIL
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mineral Conservation is taken care by blending the low grade ore with high grade & dispatching the market requirement grade.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No Proposal.	No top soil generated.	Nil.
8b	Concurrent use or storage of topsoil	No Proposal.	No top soil generated.	Nil.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Temporary backfilling is proposed.	Temporary backfilling is carried out in the western pit.	Nil.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not Proposed.	Nil.	Nil.

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not Proposed.	Nil.	Nil.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Available	Within ML 10,300, Outside ML Saplings @60% Survival rate.	- 12,100,
8g	Survival rate	Not Specified.	70 %	
8h	Water sprinkling on roads to control airborne dust	Proposed for Water sprinkling on roads to control airborne dust.	Water sprinkling on roads to control airborne dust.	2 nos of Water Tankers are deployed.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Asthetic beauty in & around the mine is good. Lessee has carried out afforestation within & outside the lease and sprinkling on haulage roads & other protective measures are carried out regularly as per the approved MP.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted upto 28-02-2022 A.R. submitted upto 2020-2021 on 30/06/2021		

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer - M.V.Mahesh Geologist - C.Nagabushana Manager - K.V.Sreedhar	Same officers accompanied during the inspection.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered current workings - 9.45Ha. Used for waste disposal - 7.34 Ha. Occupied by plant, buildings, residential, welfare buildings & roads - 2.34Ha. Other purpose (Virgin area, Green Belt) - 2.82 Ha.	Appears to be correct.	
9d	Scrutiny of Annual return on afforestation	Number of trees planted - 2020 Survival rate in percentage - 70%	Appears to be correct.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No Proposals	393498tonnes >15Fe% to <25 Fe % &>2FeO	Violation issued
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening Stock - 66990 ROM production - 143990tonnes, Closing Stock - 27990 tonnes.	Appears to be correct.	

- 9g Scrutiny of Annual return on sale value, Ex. Mine price and production cost Sale value Rs.540447719, EX mine Price as per grade wise for Lumps
58-60%Fe :
Rs.3336.83,
60- 62%Fe :
Rs.3570.71 &
62 -65%Fe :
2458.30 Fines:
55-58%Fe
:Rs.1886.85,
58-60%Fe :
Rs.2252.58,
60-62%Fe :
Rs.3899.78,
62-65%Fe :
Rs.2285.78 and
Production
cost per ton
Rs.1973.00 Appears to be correct.
- 9h Scrutiny of Annual return on fixed assets Rs. 47806629 Appears to be correct.
- 9k Scrutiny of Annual return on mining machineries 1) Back hoe - 0.9 m3 - 1No. Appears to be correct.
2) Back hoe - 1.20 m3 - 1No.
3) Back hoe - 1.60 m3 - 3Nos.
4) Back hoe - 2.40 m3 - 1No.
5) Wheel loader - 2.50 m3 - 3Nos.
6) Tipper - 15 m3 - 7Nos.
7) Tipper - 10 m3 - 3Nos.
8) Water tanker - 8000 liter - 1No.
9) Water tanker - 12000 liter - 1No.
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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)	01/06/2022			
MCDR17	Rule 45(7)(a)	01/06/2022			

Date :

(H M Shivakumar)

Indian Bureau of Mines