

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

Mining Plan Modification REPORT

Bangalore regional office

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

Mine code : 30KAR03154

- (i) Name of the Inspecting : **A101**) **ARUN KUMAR**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : K.Venkatasreedhar - Mines Manager
Official with
Designation
- (iv) Date of Inspection : 23/12/2020
- (v) Prev.inspection date : 18/07/2019

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

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal	Nil	10 RC & 01 DTH drilled during 2018-19 with total meterage of 787
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	15.93 Ha needs to be explored.	24.54 Ha has been explored under different levels of exploration. Total Lease Area 40.47 Ha
1e	Balance reserve as on 01/04/20	Nil	8801328tonnes with average grade of 60% Fe.	As per Annual Return submitted for the year 2019-20.
1f	General remarks of inspecting officers on geology, exploration etc			10 RC & 01 DTH drilled during 2018-19 with total meterage of 787. 24.54 Ha has been explored under different levels of exploration

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Western pit N1657810 to N1657985, E680060 to E680250 & Eastern pit N1658010 to N1658275, E680170 to E680400.	Western pit N1657820 to N1658200, E679970 to E680265 & Eastern pit N1658040 to N1658275, E680220 to E680265.	Nil

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	1:3.61	1:3.85	Nil
2d	Quantity of topsoil generation in m3	No Proposal	Nil	No top soil generated.
2e	Quantity of overburden generation in m3	519914 tonnes	555030 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 carried out within the proposed grids as per the approved modified RMP.

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	workings proposed 2 pits only.	Actual workings from 2 pits only.	Nil
3c	Recovery of sailable/usable mineral from ROM production	100 %	100 %	Nil
3d	Quantity of mineral reject generation	No proposal.	555030 tonnes of mineral reject shown in Annual Return 2019-20.	Violation issued for clarification.
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	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 2019-20.	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 3 mts spacing & 2.5mts burden with 10 mts depth. Nonel in conjunction with slurry explosive were 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 : 05 Nos, Tippers : 08 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.	Bench Height of 8-10 mts and width of 8- 10 mts were maintained in western pit	Bench height of 10-12 mts maintained in the eastern pit. Violation issued
3m	Total area covered under excavation/pits	9.99 Ha at the end of Plan period.	9.14 Ha at the end of reporting year.	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1:3.61	1:3.85	Nil

3o	Total area put in use under different heads at the end of year	Area Under Mining: 9.99 Ha, Over Burden Dumps : 9.87 Ha, Mineral Storage : 0.82 Ha, 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 :9.14 Ha, Over BurdenDumps : 7.36 Ha, Area occupied by Buildings, residential, welfare buildings & Roads : 2.34 Ha, other purpose (Virgin Area), Green Belt : 2.82 Ha at the end of reporting year.	Nil
3p	Production of ROM mineral during the last five year period as applicable	2015-16: 100000 2016-17: 100000 2017-18: 100000 2018-19: 144000 2019-20:144000 (in tonnes)	2015-16: 100000 2016-17: 99990 2017-18: 99990 2018-19: 143990 2019-20:143990 (in tonnes)	Actual production is within the proposed limits.
3q	General remarks of inspecting officers on method of mining etc.			Opencast methods of mining were carried out in two pits with stripping ratio of 1: 3.85 with drilling & blasting & use of excavator tipper combination.

Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	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	Noproposal	Nil	Actual location of backfilling: N1657940 to N1658050, E680050 to 680135.

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
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Temporary backfilling proposed within the UPL.	Temporary backfilling were done in the western pit	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	Nil
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.	Nil
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall -15m, Garland drain- Nil	Constructed Retaining wall of 15m	Nil
4j	Number of settling ponds	No Proposal	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management			Backfilling were done in the western pit as proposed. Constructed Retaining wall of 15m.

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	1.72Ha.	1.80Ha.	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.			Temporary backfilling were carried out in the western pit after partial extraction of mineral

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 by 1st June every year	Annual report on PMCP submitted	Submitted on 30.06.2020.
6b	Area available for rehabilitation (ha) .	No Proposal	Nil	Nil
6c	afforestation done (ha).	Area of 0.12 Ha is proposed	Area of 2.00 Ha is carried out	Gap plantation on Dumps & Road side
6d	No. of saplings planted during the year	Total 192 nos is Proposed.	Total 12417 Nos of plantation is carried out.	Plantation carried out with in ML Area: 9420 Nos And outside Lease area : 2997 Nos with survival rate of 60%.
6e	Cumulative no .of plants	Total 11142nos is proposed.	Total 23367nos of plantation is carried out.	Nil
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	Total cost Rs.9600.00 is proposed.	Total cost of Rs.620850.00 amount spent on plantation.	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	Proposed for Voids temporarily backfilling. (200 X 100 X 70)	Voids available were temporarily backfilled which shall be remanded before continuing mining at a later stage. (200 X 100 X 55)	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No Proposal	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation 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)	Environmental monitoring proposed in core zone & buffer zone	Environmental monitoring carried out in core zone & buffer zone. Parameters were observed to be within the limits.	Environmental monitoring is carried out by Mineral engineering services, Bellary
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP activities as proposed were being carried out. Monitoring of environmental parameters was done regularly.

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 the lease area.	ROM dispatched after crushing and screening as per proposal	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical method proposed for mineral sorting	Mechanical method adopted by dry crushing & screening.	Dry crushing & screening
7c	Different grade of mineral sorted out at mines.	45%Fe to 55%Fe 55%Fe to 62%Fe	45%Fe to 55%Fe 55%Fe to 62%Fe	Nil
7d	Any beneficiation process at mines	No proposal	Nil	nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mineral conservation is taken care. Low grade minerals are blended with high grade to meet the market requirement.

Environment:

Sl.No.	Item	Proposals	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	Nil	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Temporary backfilling proposed.	Temporary backfilled 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	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)	Available	Within Mining Lease-9420 Saplings & Outside Mining Lease-2997 saplings @60% survival	Nil
8g	Survival rate	Not specified	60%	Nil
8h	Water sprinkling on roads to control airborne dust	Proposed for Water sprinkling on roads to control airborne dust	Water sprinkling done regularly on roads to control airborne dust	2 No of water tanker deployed
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in and around the mine was good as lessee has carried out afforestation, water sprinkling and other environmental protective measures as per Modified RMP.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted upto Nov.2020 A.R. submitted upto2019-2020	AR submitted on 01.07.2020	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer - M.V.Mahesh Geologist - C.Nagabushana Manager - K.Venkatasreedhar	Same officers accompanied during the course of inspection	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered current workings - 9.14Ha. Used for waste disposal - 7.36 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	Within Mining Lease-9420 Saplings & Outside Mining Lease-2997 saplings @60% survival	Appears to be correct	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	555030 tonnes, >15to 25 Fe %	555030 Tons is the OB quantity handled in the year which was backfilled	Violation issued
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM - Opening Balance-16999 Tonnes, Production-143990tonnes, Closing Balance-66990 Tonnes	Appears to be correct	

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Average Sale value Rs 1848.50 per ton. for lumps & for Fines is Rs.1992.94 per ton. EX mine Price/Ton (Lumps) Below 55% Fe : Rs.1381.00, 55 to 58% Fe: Rs.1845.00, 58% to 60% Fe : Rs.2714.00, 60% to below 62% Fe:Rs1734, 62% to below 65% Fe: Rs 2173 EX mine Price/Ton (Fines): 55 to 58% Fe: Rs.1701.00, 58% to 60% Fe : Rs.1890.00, 60% to below 62% Fe:Rs1890, 62% to below 65% Fe: Rs 2312	Appears to be correct
9h	Scrutiny of Annual return on fixed assets	Rs. 31475324 including industrial, plant, machinery & transport equipment	Appears to be correct
9k	Scrutiny of Annual return on mining machineries	Back Hoe Excavators - 05 Nos. Wheel loader - 3Nos. Tippers - 8 Nos. Water tankers - 2No.	Appears to be correct

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)	04/02/2021			
MCDR17	Rule 45(7)(a)	04/02/2021			

Date :

(ARUN KUMAR)

Indian Bureau of Mines