

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

Mining Plan Modification REPORT

Bangalore regional office

Mine file No : KNT/BLR/FE/414/BNG/VOL-I

Mine code : 30KAR03138

- (i) Name of the Inspecting : **S47**) **DR. Sudhakara T.L**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Shanmukhappa Mandal (Sr. Manager), Nandakumar H.M (Mi
Official with
Designation
- (iv) Date of Inspection : 02/03/2022
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **RAMANMALAI**
- (b) **Registration NO.** : **IBM/178/2011**
- (c) **Category** : **A Other than Fully Mech.**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **KARNATAKA**
- District : **BELLARY**
- Village : **RAMGAD**
- Taluka : **SANDUR**
- Post office : **SANDUR**
- Pin Code : **583119**
- FAX No. : **NIL**
- E-mail : **vescosdr@yahoo.com,Vescopd(**
- Phone : **9611786655, 08395260183**
- (f) **Police Station** : **SANDUR**
- (g) **First opening date** : **19/08/2002**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **VESCO HOUSE 2/138**
correspondance **BALLARI Rd SANDUR**
583119
3. (a) **Lease Number** : **KAR0344**
- (b) **Lease area** : **18.62**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **18/10/2012**
4. **Mineral worked** : **IRON ORE** **Main**

5. Name and Address of the

Lessee : VEERABHADRAPPA SANGAPPA & COMPANY
 # 2/138, BELLARY ROAD,
 HOSPET, BELLARY KARNATAKA
 Phone:08395-260120
 FAX :08395-260676

Owner : K S VINAYAK NOMINATED OWNER
 VESCO HOUSE 2/138, BELLARY
 RD SANDUR BELLARY KARNATAKA
 Phone: 08395260183
 FAX :

Agent : K S VINAYAK
 VESCO HOUSE 2/138, BELLARY
 RD SANDUR BELLARY KARNATAKA
 Phone: 08395260183
 FAX :

Mining Engineer

Name : IMRAN SHAIK, Full Time
 Qualification : BE MINING
 Appointment/ : 01/03/2013
 Termination date

Geologist

Name : S.MANDAL, Full Time
 Qualification : M.SC(MINERAL EXPLORATION)
 Appointment/ : 01/07/2012
 Termination date

Manager

Name : NANDAKUMAR H M
 Qualification : DIPLOMA IN MINING FCC
 Appointment/ : 26/09/2013
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Fresh under rule 22 MCR1960	08/12/1995
		Modif.of approved Mining Plan	06/03/2003
		Mining Scheme rule 12 MCDR1988	28/07/2006
		Mining Scheme rule 12 MCDR1988	01/10/2012
		Modif.approved Mining Scheme	31/12/2013
		Modif.of approved Mining Plan	24/02/2016
		Modif.of approved Mining Plan	16/09/2016

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposals.	NIL.	84 core boreholes were drilled to a total meterage of 5906.5m from 2003-04 to 2014-15.
1b	Exploration over lease area for geological axis 1 or 2	G1, G2 & G3= 42.59 Ha.	G1- 40.73 Ha, G2-1.86 Ha, G3-1.84 Ha.	8.73 Ha is non mineralized area.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposals.	NIL.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL.	1.84 Ha needs to be explored to bring into G2 level.	8.73 Ha of non mineralized area used for dumping.
1e	Balance reserve as on 01/04/20	29,927,459 tonnes as on 02/09/2020.	28,780,377 tonnes of reserves .	As per AR submitted for FY 2020-21.
1f	General remarks of inspecting officers on geology, exploration etc			Exploration proposals given in the last approved document dated 31/03/2022 to carryout the exploration in the entire mineralized area under G1 level.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N-1668850-1669720, E-659100-659750	N-1668850-1669720, E-659100-659750	Development carried out within the lease area at the proposed location.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in overburden and mineral proposed.	Separate benches maintained in overburden and mineral .	OB: 5 benches MB: 7 benches
2c	Stripping ratio or ore to OB ratio	1:0.42 Ore: 1100124 tonnes OB : 4,64,350 tonnes	1:0.35 Ore: 1100000 tonnes OB : 3,80,000 tonnes	For the FY 2020-21 3,80,000 (t) OB quantity achieved against proposal of 4,64,350 (t).

2d	Quantity of topsoil generation in m3	No proposal.	NIL.	There is no top soil generation as the mining work is carried out within the broken up area.
2e	Quantity of overburden generation in m3	4,64,350 tonnes.	3,80,000 tonnes.	Bulk density: Ore- 2.5 Waste-1.8
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Mine Benches are developed systematically as proposed and development carried out within the proposed extent with minor deviation in Ore to OB ratio.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1 Pit proposed.	Working carried out in 1 pit only.	Approximate dimension of the pit L- 1380m, Width-190m, Depth-95 m
3b	Quantity of ROM mineral production proposed	1100124 tonnes.	11,00,000 tonnes.	(For the FY 2021-22) 10,76,400 (t) achieved against proposal of 11,00,000 (t).
3c	Recovery of sailable/usable mineral from ROM production	95%	98%	
3d	Quantity of mineral reject generation	No Proposal.	NIL.	16130 tonnes of BHQ (Fe- 35 % to 45%) is stored separately in during 2018-19.
3e	Grade of mineral rejects generation and threshold value declared.	Fe 35% to <45% for HSIO & +45% Fe for Iron Ore	Fe 35% to <45% for HSIO & +45% Fe for Iron Ore	<35% Fe will be dumped in waste dump & +35% Fe is blended with High grade ore production.
3f	Quantity of sub grade mineral generation.	No Proposal.	NIL.	

3g	Grade of sub grade mineral generation	No Proposal.	NIL.	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method proposed for segregating from ROM.	Mechanized method adopted for segregating from ROM.	Dry Crushing (150 TPH) & Screening (250TPH).
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No Proposal.	No such study carried out.	
3j	Provision of drilling and blasting in mineral benches	Drilling & blasting proposed in mineral benches.	10% of production & development is used for drilling & blasting, mostly in BHQ.	10% of the total volume proposed for drilling & blasting.
3k	Provision of mining machineries in mineral benches	Hydraulic excavator & tipper combination proposed.	Mining operation carried out using excavator & tipper (10/20 tonnes).	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height- 7 to 7.5m, Width- 8m	YES Height- 7 to 7.5m, Width- 8m	
3m	Total area covered under excavation/pits	30.502 ha at the end of plan period.	28.319 ha at the end of reporting year (2021-22).	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.42	1:0.35	
3o	Total area put in use under different heads at the end of year	Pit- 28.16 Ha Dump- 7.61 Ha Buildings & roads -1.27 Ha Others-16.12 Ha	Pit- 28.319 Ha Dump- 7.61 Ha Buildings & roads-1.27 Ha Others-15.961 Ha	
3p	Production of ROM mineral during the last five year period as applicable	2017-18: 1.10 MT 2018-19: 1.10 MT 2019-20: 1.10 MT 2020-21: 1.10 MT	2017-18: 1.10 MT 2018-19: 1.10 MT 2019-20: 1.10 MT 2020-21: 1.10 MT	(For the FY 2021-22) 1.0764 MT of Ore achieved against 1.10124 MT proposed.

3q	General remarks of inspecting officers on method of mining etc.	Mining operation carried out using drilling, blasting, excavator & tipper. Low grade iron ore has been blended with high grade ore and sold through e-auction.
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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 for OB proposed.	Separate dumping for OB carried out.	No top soil, Mineral Reject exists. Separate dumping of OB done as proposed.
4b	Location of topsoil, OB and mineral reject dumps	N-1668730-1669100, E-659730-659830	N-1668730-1669100, E-659730-659830	OB dumping carried out at the proposed location.
4c	Number of dumps within lease area and outside of lease area	WML : 1 dump OML : NIL	Within Mining lease : 1 dump Outside Mining lease : NIL	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	OB Dump proposed outside the UPL.	OB dumped outside the UPL on the south-western side of the ML area.	Southwestern side away from UPL.
4e	Number of active and alive dumps.	1	1	
4f	Number of dead dumps.	No proposal.	NIL.	
4g	Number of dumps established.	No proposal.	NIL.	
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall & garland drain proposed all along dumps.	Retaining wall & garland drain are constructed all along the dumps observed.	
4i	Length of Retaining wall or garland drain all along dumps	RW-75 mtrs GD- 75 mtrs	RW-75 mtrs GD- 75 mtrs	Retaining wall proposal of Year 2021-22 79 mtrs is achieved.
4j	Number of settling ponds	No proposal.	NIL.	3 SST constructed in the past & is maintained.

4k	Specific comments of inspecting officer on waste dump management			Dumping carried out at the proposed location. Retaining wall observed along the toe of the dump. Rehabilitation by coir matting & plantation for the part of the dump observed.
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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.	No proposal.	NIL.	Mineral is not exhausted 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.			

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).	PMCP report to be submitted by 1st July every year.	PMCP report is submitted .	Submitted on 08.07.2020 (2020-21).

6b	Area available for rehabilitation (ha) .	No proposal.	0.19 ha Part of Active Dump is rehabilitated by plantation.	0.30 Ha of area is rehabilitated by coir mat for the FY 2021-22.
6c	afforestation done (ha).	1.00 Ha.	0.50 ha avenue plantation outside lease & 0.19 Ha dump plantation.	
6d	No. of saplings planted during the year	500 No's.	1086 Nos. (Seedlings) 14100 Nos. (Agave suckers).	During the year 2021-22 seedlings on dump terrace bottom & gap plantation, Avenue plantation observed.
6e	Cumulative no .of plants	----	7869 seedlings 47100 Agave suckers.	
6f	Any other method of rehabilitation	No proposal.	NIL.	
6g	Cost incurred on watch and care during the year	No proposal.	NIL.	
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)	Environmental monitoring proposed in Core & Buffer zone.	Environmental monitoring carried out in Core & Buffer zone. Monitoring carried out by Cosmo Laboratory Ballari.	Buffer Zone SO2-80 No2-80 Pm10-100 Pm2.5- 60 Core Zone Air-(So2-15.75, No2-13.5 mg/cum) Pm10-64.75 Pm2.5- 14.37 Water- (TDS- 191mg/l) Soil-(pH-8.24)
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			The PMCP activities have been implemented in mines as per the proposal. Also R & R activities carried out as per the ICFRE recommendation in the Mine site.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting proposed in the lease area.	Grade wise sorting done in the lease area.	Fines & Lumps are dispatched after dry screening.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical sorting proposed.	Mechanical method adopted for gradewise sorting.	Dry Crushing (150 TPH) & Screening (250TPH).
7c	Different grade of mineral sorted out at mines.	Lumps: +10mm to -40mm Fe- 60-64% & Fines: -10mm Fe- 58-63%	Lumps: +10mm to -40mm Fe 62% to below 65% 2,28,000 tonnes Fines: -10mm Fe 60% to below 62% : 140000 tonnes Fe 62% to below 65%: 732000	Size-wise (lumps & fines) and Grade wise sorting done at mine site.
7d	Any beneficiation process at mines .	No proposal.	NIL.	Mobile dry crushing & screening carried out for size sorting.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mobile dry crushing & screening carried out for size sorting. Size-wise (lumps & fines) and grade-wise sorting is done at Mine site.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal.	NIL.	No Generation of top soil.
8b	Concurrent use or storage of topsoil	No proposal.	NIL.	Top soil generated has been used for plantation.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dump for overburden proposed.	Separate dump of overburden maintained as proposed.	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal.	NIL.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal.	NIL.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	500 saplings.	1086 saplings, 14100 Agave suckers.	(For the FY 2021-22) 40 no's of seedlings planted inside ML & 277 No's Avenue plantation outside lease. 3000 no's of Agave suckers on waste dump.
8g	Survival rate	85 %	80%	As per Annual Return 2020-21.
8h	Water sprinkling on roads to control airborne dust	Water sprinklings on haul roads proposed to control air borne dust.	Regular water sprinkling is carried out to control the air borne dust on haul roads & screening plant.	5 no' of water tanker(6000 to 12000 litres) capacity along with water mist arrangement.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The aesthetic beauty in and around the mine looks very good. Greenery developed around the safety zone.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		M.R. Submitted A.R. Submitted upto 2020-21 on 22/06/2021	Annual Return and Monthly return submitted within stipulated time.

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mines Manager: Nandakumar HM Mining Engineer: Imran Shaik Geologist: Shanmukhappa Mandal	Same officers were present during the course of inspection.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit- 28.16 Ha Dump- 7.61 Ha Buildings, road-1.27 ha Others-16.12 Ha	Appears to be correct.	
9d	Scrutiny of Annual return on afforestation	15186 planted during the year Survival rate 80%	Appears to be correct.	Plantation observed in the safety zone.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL.	NIL.	No Beneficiation.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM: Opening Balance- NIL Production: 11.0 lakhs tonnes Closing balance- NIL Dump Working: Opening Balance- 1575(t) Production: NIL Closing balance- 1575 (t)	Appears to be correct.	

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale Value Lumps -4277.53 ?/ton, Fines -3470.45 ?/ ton Ex-mine price Lumps - 62-65%Fe: Rs. 6550.04/ ton Fines 60-62%Fe: Rs. 4104 / ton, 62-65%Fe: Rs. 4353.51/ ton Production cost 670.45 ?/ ton	Appears to be correct.	As per the annual returns of 2020-21.
9h	Scrutiny of Annual return on fixed assets	Rs. 2,50,85,791 including plant & machinery	Appears to be correct.	Rs. 46,98,915/- Is considered as depreciation of fixed assets.
9k	Scrutiny of Annual return on mining machineries	Excavator- 5 No' Wheel loader - 3 No' Tipper - 11 No' Rock Drill- 1 No' Crusher- 1 No' Back Hoe- 2 No'	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

Date :

(DR. Sudhakara T.L)

Indian Bureau of Mines