

**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/414/BNG/VOL-I

Mine code : 30KAR03138

- (i) Name of the Inspecting : **278**) **KRISHNENDU CHATTERJEE**
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : Shri. S. Mandal Geologist.
Official with
Designation
- (iv) Date of Inspection : 03/09/2018
- (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:
 FAX :

Owner : VEERABHADRAPPA SANGAPPA & COMPANY
 NO.2/138, BELLARY ROAD,
 SANDUR, BELLARY KARNATAKA
 Phone:
 FAX :

Agent : K S NAGARAJ
 VESCO HOUSE 2/138 BALLARI
 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/ :
 Termination date

Manager

Name : NANDAKUMAR H M
 Qualification :
 Appointment/ : 26/09/2013
 Termination date

6. Date of approval of Mining :
 Plan/Scheme of Mining

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal	Nil	
1b	Exploration over lease area for geological axis 1 or 2	G1 and G2	G1 and G2 covered 42.59 Ha.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Total expenditure Rs. 14766,250/- against 84 nos. of drilled boreholes.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	G1	G1 and G2.	7.61 Ha. of non-mineralized area used for waste dumping.
1e	Balance reserve as on 01/04/20	No proposal	Total reserve (UNFC Cat. 111 and 122) : 28026,000 tonnes BHQ (+35% Fe) reserve: 4406,437 tonnes	
1f	General remarks of inspecting officers on geology, exploration etc		84 nos. of core boreholes has been drilled in the ML area so far with total meterage of 5906m. 6 nos. of core boreholes has been proposed during F.Y. 2018-19 by the lessee.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N 1668931 to 1669510 E 659260 TO 659550	N 1668931 to 1669510 E 659260 TO 659550	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	In OB: 2 benches In ore : 11 benches	In OB: 2 benches In ore : 11 benches	
2c	Stripping ratio or ore to OB ratio	1: 0.19	1: 0.12	Recovery% of ROM from top laterite was increased during F.Y. 2017-18.

2d	Quantity of topsoil generation in m3	No proposal	Nil
2e	Quantity of overburden generation in m3	107754 m3	63850 m3
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		No deviation in respect of pit development was observed during the course of inspection dated 03.09.2018.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Single pit	Single pit measuring 1400m(L) X 190m (W)X 85m (D).	
3b	Quantity of ROM mineral production proposed	1.10 million tonnes during F.Y. 2017-18	1.10 million tonnes achieved.	
3c	Recovery of sailable/usable mineral from ROM production	95% recovery of ROM	100% recovery of ROM	
3d	Quantity of mineral reject generation	No proposal	Nil	11500 tonnes BHQ (+35 to 45% Fe) seperately stacked during F.Y 2017-18
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	Nil	
3f	Quantity of sub grade mineral generation.	No proposal	Nil	
3g	Grade of sub grade mineral generation	No proposal	Not Applicable.	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method	Mechanized method	

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Nil
3j	Provision of drilling and blasting in mineral benches	Proposed	Drilling and blasting adopted
3k	Provision of mining machineries in mineral benches	Proposed	Mining machineries were deployed in mineral benches.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height : 7.5 m Bench width : 8m	Bench height : 7.5 m Bench width : 8m
3m	Total area covered under excavation/pits	26.7 Ha.	26.6 Ha. area under excavation
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.19	1:0.12
3o	Total area put in use under different heads at the end of year	41.95 Ha. at the end of F.Y. 2020-21	36.44 Ha. during F.Y. 2017-18
3p	Production of ROM mineral during the last five year period as applicable	2013-14: 0.59 2014-15: 0.59 2015-16: 0.59 2016-17: 1.10 2017-18: 1.10 in million tonnes	2013-14: 0.58 2014-15: 0.58 2015-16: 0.58 2016-17: 0.84 2017-18: 1.10 in million tonnes
3q	General remarks of inspecting officers on method of mining etc.		No deviation in respect of mineral exploitation was observed.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping proposed for waste	Found to be maintained.	
4b	Location of topsoil, OB and mineral reject dumps	N 1668650 to 1669050 E 659550 to 659905	N 1668650 to 1669050 E 659550 to 659905	
4c	Number of dumps within lease area and outside of lease area	1 dump within ML proposed	1 dump within ML	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	South- western side of the ML area	South- western side, 200m away from the UPL. area	
4e	Number of active and alive dumps.	1 active dump	1 active dump	
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.	Yes, proposed as per the approved R & R Plan.	Found to be constructed.	
4i	Length of Retaining wall or garland drain all along dumps	75 m of reatining wall during F.Y. 2017-18	75 m retaining wall constructed along the base of the active dump.	So far 1088m of retaining wall and 387m of garland drain was constructed along the active dump.
4j	Number of settling ponds	No proposal during F.Y. 2017-18	Nil.	
4k	Specific comments of inspecting officer on waste dump management		Step-wise waste dumping with maximum height of 10m for each terrace is proposed; but during the course of inspection it was found that active waste dump was not suitably terraced and stabilized. violation of rule 11(1) of MCDR,2017 was issued to the lessee dated 28.09.2018.	

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No proposal	Mining pit was not matured for backfilling as mineral is still persisting at pit bottom.
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.		This chapter is not applicable for this ML as mineral was persisting at bottom of the working pit.

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).	Proposed	Submitted on 31.08.2018	
6b	Area available for rehabilitation (ha) .	No proposal	Nil	
6c	afforestation done (ha).	1 Ha.	4 Ha.	
6d	No. of saplings planted during the year	500 nos. proposed	2600 nos. planted	
6e	Cumulative no .of plants	Not specified.	Planted along the green belt areas.	
6f	Any other method of rehabilitation	No proposal	Nil	
6g	Cost incurred on watch and care during the year	Rs. 25,000 proposed	Rs. 25,000 incurred	

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	No waste land within ML
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	Not applicable.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Not applicable.

6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed	Carried out on monthly basis.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		No deviation w.r.t Progressive Mine Closure Plan was observed during the course of MCDR inspection.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM proposed for crushing followed by dry screening.	No change.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanized crushing and screening.	Mechanized crushing and screening.	
7c	Different grade of mineral sorted out at mines.	Not specified.	+10 mm to -40 mm +10mm : 60 to 64.5% Fe -10mm : 58 to 63.5% Fe.	
7d	Any beneficiation process at mines	Dry process by mobile crusher and screening.	Dry process by mobile crusher and screening.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		No deviation w.r.t mineral conservation was observed during the course of MCDR inspection.	

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	No top soil generation during F.Y 2017-18.	

8b	Concurrent use or storage of topsoil	No proposal	Not applicable.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes proposed.	Waste and mineral rejects were stacked separately.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposed during conceptual stage.	Not applicable as of now.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed during Final Mine Closure	Not applicable as ore not exhausted at pit bottom.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Entire ML is located at Ramgad reserve forest, there was proposal of plantation 500 nos. of saplings in 1.0 Ha. area within ML during 2017-18.	2600 nos. of sapling planted during 2017-18 along the green belt zone and other un-used area within ML.
8g	Survival rate	85%	70 to 80%
8h	Water sprinkling on roads to control airborne dust	Proposed	Carried out by mobile water tankers and fixed water sprinklers.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		No deviation w.r.t environment monitoring was observed during the course of MCDR inspection, found to be carried out as per the approved R & R plan.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns		M.R. Submitted up to Sept. 2018, A.R. Submitted up to 2017- 2018
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mines manager: Shri NANDAKUMAR H.M Mining Engineer: IMRAN SHAIK Geologist: SHANMUKHAPPA MANDAL	No change.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area covered by Opencast mining -26.7 ha Dumps- 4.3 ha Infrastructure and road -1.27 ha Others-20.76 ha	Appear to be correct
9d	Scrutiny of Annual return on afforestation	2600 nos. within ML	No change.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	No mineral reject generation during F.Y. 2017-18 (+45% Fe).
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Closing stock at Mine-head: Nil Dump working stock: 1575 tonnes	No change.

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Avg. Sale value Lumps: Rs. 2976.7/ tonne Avg. Sale value fines: Rs. 2412.3/ tonne Avg. Ex. mine price of Lumps: Rs. 2935.6/ tonne Avg. Ex. mine price of Fines: Rs. 2323.8/ tonne Production cost: Rs. 555.36/tonne	Appear to be correct.
9h	Scrutiny of Annual return on fixed assets	Rs. 270.02 lakhs.	Fixed assets includes office building, plant and Mining machinery including transport equipment located within ML.
9k	Scrutiny of Annual return on mining machineries	Hydraulic Shovel: 5 nos., Tippers: 14 nos., Wheel loaders: 3 nos. Water tanker: 5 nos. Rock drill: 1 nos.	No change in mining machineries.

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)	01/10/2018			
MCDR17	Rule 35(2)	01/10/2018			

Date :

(KRISHNENDU CHATTERJEE)

Indian Bureau of Mines