

**INDIAN BUREAU OF MINES
MINES CONTROL AND CONSERVATION OF MINERAL DIVISION**

MCDR INSPECTION REPORT

Bangalore regional office

Mine file No : KNT/BLR/FE/437/BNG

Mine code : 30KAR03156

- (i) Name of the Inspecting : **R010**) **B.RAM MOHAN**
Officer and ID No.
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine : **SRI.P.SREENIVASA RAO, Dy GEN MANAGER, SRI.NARESH KAKU**
Official with
Designation
- (iv) Date of Inspection : 07/01/2014
- (v) Prev.inspection date : 22/04/2010

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **HADDINAPADE**
- (b) Category : A Mechanised
- (c) Type of Working : Opencast
- (d) Postal address
- State : KARNATAKA
- District : BELLARY
- Village : HULIKUNTA
- Taluka : SANDUR
- Post office : SANDUR
- Pin Code : 583119
- FAX No. : bkgsurveygeo@gmail.com
- E-mail : bk
- Phone : (08395) 252139
- (e) Police Station : SANDUR
- (f) First opening date : 14/03/2006
2. Address for : Sri B. Rudragouda
correspondance #2198,BKG house, K.H.B.Colony,
SANDUR - 583 119,Bellary District Karnataka
3. (a) Lease Number : KAR1504
- (b) Lease area : 54.22
- (c) Period of lease : 20
- (d) Date of Expiry : 13/03/2026
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : B.RUDRA GOUDA
 #2198,BKG house,
 K.H.B.Colony, SANDUR - 583
 119,Bellary District
 BELLARY KARNATAKA
 Phone:
 FAX :

Owner : B.RUDRA GOUDA
 #2198,BKG house,
 K.H.B.Colony, SANDUR - 583
 119,Bellary District
 BELLARY KARNATAKA
 Phone:
 FAX :

Mining Engineer

Name : NARESH KAKUMANU,Full Time
 Qualification : B.E.IN MINING
 Appointment/ : 01/12/2013
 Termination date

Manager

Name : P.SREENIVASA RAO
 Qualification : FCC, DIP IN MINING ENGINEER
 Appointment/ : 07/04/2006
 Termination date

6. Date of approval of Mining : 10/09/2012
 Plan/Scheme of Mining

PART - II : TECHNICAL DETAILS/COMMENTS**1. Details about Average employment :**

Maximum number of persons employed on any day during the year

Employment category	No.of employment	Av. yearly working days
DIRECT		
Managerial	39	
Supervisory	48	
CONTRACT		
Workers	154	

2. Community Development Plan (in and around the mines) : Proposed action and expenditure towards socio-economic development.

Action during the year	Expenditure in Rs. Lakhs for				Remarks
	previous year		current year		
	Proposed	Incurred	Proposed	Incurred	
General					
Health		1.34		1.79	
Sub total		1.34		1.79	
Infrastructure					
Roads		75.00		75.00	
Sub total		75.00		1.34	
Training		0.45		26.26	
Total		77.24		102.60	

3. Status of compliance of MCDR, 1988, including therewith the rectification of the outstanding violation of rules.

During the last inspection violation of rule 33(2) was pointed out on 20/05/2010 & the complied the same on 12/07/2010. During the current inspection violation of 13(1) regarding deviation in location of dumping of waste & non maintenance of environmental monitoring register and Rule 48 with respect to FormK were pointed out.

4. A note on the justification in case of suspension of mining operation under rule 13(2) or prohibition of deployment of any person under rule 56 of MCDR, 1988, if recommended.

No such recommendation is being made either under Rule 13(2) or 56 of MCDR 1988.

5. Scientific Mining

Items	Proposal	Actual work done	Remarks
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A. Exploration (Rule 13)

a.Type of prospecting : Core drilling and exploration i.e. pitting, drilling	8 nos 480 m(13-14)	9nos 430 m(13-14)	Drilling work under progress, So far 66 holes drilled . During 12-13 8 holes with 396 m drilled.)
b.Total area covered : 3 ha		3.16 ha	

B. Working (Rule 13)

a.Number and size of each pit (LxWxH)	: 450 x 180 x 61m	420 x 135 x 53.5m	
b.Bench size(LxWxH)length can be defined as regular/irregular	: 450 x 10 x 7	450 x 14 x 6.5	
c.Ore to waste ratio pit wise if possible otherwise for mine	: 1:0.06	1:0.02	Less ratio due to blending of low grade of 40 % fe.
d.Total area covered under excavation/pits	: 8.1 ha	5.7 ha	

C. Waste disposal (Rule 13)

a.Location of dumps	: North west	350 m below the proposed location .	Violation of Rule 13(1) has been pointed out less generation due to utilisation of low grade.
e.Yearly generation of waste quantity.	: 12-13-41000	13020	
b.Method of dumping whether advancing/retreat	: Retreating	West to East side wards.	
c.Total area covered under waste dump.	: 0.044HA	0.064 ha	
d.No.and size of each waste dump with No of steps/lift/bench	: 1 no 90 x 20 x 10	1 no 40 x 16 x 8m	

D. Production

b.Year wise production of last five year.	: 2009-10- 2000000 ton 2010-11- 180000 ton 2011-12- 2000000 ton 2012-13 -640000 ton 2013-14-640000 ton	2009-10- 182100 ton 2010-11- 1964800 ton 2011-12- 574820 ton 2012-13 -621205 ton 2013-14-581490 ton upto Dec2013	
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D. Reserve

a. Reserve position as per latest MP/MS and at the time of inspection.	: Approved SOM Proved(111)- 14.29 MT Probable (122) - 5.40 MT Possible (333) - 8.07 MT	As on date further exploration. Proved(111)- 19.57 MT Probable (122) - 1.03 MT Possible (333) - 7.28 MT
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RESERVE POSITION AS ON 01/04/2013**IRON ORE**

Category	Quantity in Tonnes	Grade
Proved	14290000	62-63%
Probable	5400000	62-63%
Possible	8070000	
Total	27760000	

PRODUCTION FOR THE PREVIOUS YEAR 2012 - 2013

Mineral	Production	Unit
IRON ORE	621205	TON

6. Conservation of Mineral - both quantitative and qualitative**Beneficiation (Rule 20 and 26)**

- Efforts for improving low grade and sub grade mineral. : Entire material is being sold by proper blending. Due to Scarcity of material such ore is in Demand by Domestic Industry.
- Efforts for improving percentage of recovery of ore. : Proper in pit Screening & Handling

Mineral Rule 15

- Percentage of recovery of ore pitwise w.r.t. ROM and total material : ROM - 100 %, Total material - 98%.
- Number of benches in ore and waste. : 12 benches in ore & 2 benches in waste. Even part of this waste which is saleable under present condition is being marketed after blending.

Sub/grd mineral/fines (Rule16)

- Qty of yearly generation and total qty available during inspection with grade : NIL
- Number and size of each stack : NIL
- Location of stacking. : NIL.
- Separate stacking from waste : About 5% of the production is generated as sub grade This is being sold directly or by blending with high grade ore depending on the demand.
- Total area covered for stacking : NIL

Exploration data as on 31/03/ 2013

No. of Boreholes	No. of Pits	No. of Trenches
8	0	0
66	0	0

OVERBURDEN HANDLED DURING PREVIOUS YEAR 2012 - 2013

Overburden/waste removed (in m3) : 6510

Utilisation of Sub Grade Mineral and Mineral Rejects

Generated	Utilised	Stacked	(In Ton.)
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7. Environment Management - both quantitative and qualitativ

A. Land environment

- a. Landscape. : The mining area falls in SM block of Kumarswamy range of Sandur Schist belt and is present towards northeast of SB halli mines of SMIORE and northwest of SB halli mines of MML. The area is situated on the top portions of the hill ridge running E-W, having moderate to steep slopes. The area has its highest elevation at about 1050m and lowest at about 750m above MSL. Northern trends of drainage pattern drain the slopes.
- b. Aesthetic environment : The mining is in the reserve forest, good amount of vegetation is observed in Surrounding area extensive plantation has been carried out within & outside lease area. Fruit bearing plantation has been done & well maintained, Air bone dust suppression is deployed which helps in maintain Aesthetic environment in the area.
- c. Soil and land use pattern : Use of fertilizer is minimum as there is natural vegetation. Ph varies from 7 to 7.3. Sand content ranges From 25%. Orgranic carbon in the range of 3-4%. N, P, K are found in moderate concentration generally no exclusive top soil cover exists.
- d. Agriculture : In the region there is no irrigation projects . Agriculture depends on rain water & Bore well water in some buffer zone areas. No agriculture is present within ML area.
- e. Forest(flora and fauna) : The area falls under the mixed deciduous subclassification. The dominant tree species found in the area are Anogeissus latifolia, Boswellia serrata, Cochlospermum religiosum, Firmiana colorata, Gardenia spp., Schleicheria oleosa, Wrightia tomentosa and Grewia tiliifolia.
The mine lease area falls within the reserved forest. During the present survey, 13 families comprising of 15 species of mammals exist.
- f. Vegetation : The vegetation occurring in the area belongs to Southern tropical dry deciduous forests. The canopy is open and the majority of the trees are leafless during the dry months. The flowering and fruiting are generally far advanced before the first flush of new leaves appears with the showers in April - May.
- h. Public building, places and monuments (protected, historical), place of worship and places of tourist : There are no public building, places & monuments in the lease area.

B Water environment.

- a. Surface water : The lease area does not contain any springs, rivers or perennial streams.
- b. Ground water : The ground water table is not encountered in the workings. Water table in the area is generally at 650R.L where as the present working level at 840R.L.
- c. Quality of water : The company has undertaken water quality analysis through KSPCB approved Laboratory within & Surrounding of lease area.

C. Air environment

- a. Noise : The noise levels are found to be within prescribed CPCB norms. In core zone during Dec 13 the value was varying from 60.5 to 79.4 while in villages of buffer zone the minimum was 44.6 dB(A) and maximum was 58.5 dB(A).
- b. Air : SPM (Pm 10 & Pm2.5), RPM, SO₂, NO₂ & CO values were found to be well within the Ambient air quality standards prescribed by CPCB. The max SPM of 2.5micro size was 34 in core zone while the minimum was 21 during Nov 13. In Buffer zone the SPM was found in the range of 17-23 microgramms/cubm.
- c. Climatic condition : Continuous Air monitoring is done in 7 locations in core & Buffer zone. All the parameters are found within the permissible limits. The maximum & minimum temp values are 36 to 18 deg C.

D. Socio economic environment

- a. Social and demographic profile. : Within 10 km radius from mine lease area there are thirteen villages and part of township of Sandur extent in the study area. The demographic profile of the villages and the part of Sandur town coming under the buffer zone . The sex ratio works out to 960 female per 1000 male. The people of these villages are mainly depended on mining and allied activities & agriculture.
- b. Recommending health and safety. : Clinic in the village with full time doctor, free medicine, ambulance service provided, Regular health camps conducted at village level. Protective Safety appliances are being issued to employees.
- c. Human settlement : The lease area is devoid of any Human settlement.
- d. Recreational facility. : Recreational Facility like Cinema theatre, Play ground ,community hall available at Sandur where most of the employees reside.

7.1 Comments on the steps taken by the lessee towards maintaining environment and monitoring of environmental parameters to ensure the qualitative improvement in the environment and ecology.

<u>Water Management</u>					
Season	Station type	Station name	Parameter	Value	
				Actual	Excess
Winter	Colony	Yeshwanthanagar village	Calcium (as Ca)	104	29
Winter	Colony	Yeshwanthanagar village	TDS	563	63

<u>Air data for excess parameters</u>					
Season	Station name	Type of area	Parameter	Value	
				Actual	Excess

<u>PLANTATION DURING THE PREVIOUS YEAR</u>			<u>2012 - 2013</u>		
Within lease area			Outside lease area		
Area	Trees planted	Survival rate	Area	Trees planted	Survival rate
	27634	90		2782	90

TOP SOIL MANAGEMENT
Quantity as on 31/03/2013

8. Scrutiny of annual returns on cost of production, reserve, production, pit mouth value, stock, land use pattern and fixed assets.

The annual return for the 2012-13 has been scrutinised and the following observations were made:

Opening stock is - ROM is NIL, 79187 tonnes(Processed ore).

Production - 621205tonnes.

PMV of Lumps an average of Rs 3800-4500.Fines Rs 1600-3300 for grades 55 to 62%.

Closing stock - 569563 tonnes.

Cost of operation is - Rs 993.50/- .

Despatches - 130829 tonnes.

Mineral rejects - 32025 MT.

Land use pattern - Forest area degraded of pits , dumps etc.

Reserves - Proved(111) - 13.67 Possible - 8.07 M.T , Total - 27.76 MT.

PART - III : PERFORMANCE OF MINE OWNER
(In case of lease expiring within 2 years - as per guidelines)

a. Compliance of terms and conditions of lease deed.

Not applicable as lease is expiring in 2026.

b. Compliance of the provisions of MCDR, 88 and advise given.

c. Conduct with regard to adoption of safety measures and forest wealth, ecology and environment in the mining lease area.

d. Whether the mine owner has carried out exploration and exploitation on the basis on surface mapping, pitting, trenching and core drilling taking in to consideration the mode of occurrences of mineral deposit.

e. Whether production from mining area is commensurate with the reserves and the long term progress of utilization of mineral.

f. Whether adequate investment has been made by the lessee on the development of mine on mining machinery, operational and administrative building, residential accommodation for the employees.

g. Measures taken by the lessee for protection of environment and ecology.

h. In case leases where the mineralisation tends to exhaust within the present period, the status of closing operation in phases and the special issues including human issues to be addressed at the time of closing of mine.

PART - IV : PROPOSALS FOR FURTHER ACTION FOR :

Indian Bureau of Mines (any issue related to CGPB, SGPB, Assistance, Consultancy, Annual Programme and studies, etc.)

NIL

State Government (Illegal mining, mining dispute, infrastructure, Mineral based industry, Mineral policy, etc.)

NIL

The Central Government (Infrastructure, Development, Mineral policy and Legislation, Mineral based industry, etc.)

NIL

Date :

(B.RAM MOHAN)

Indian Bureau of Mines