

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

MCDR INSPECTION REPORT

Goa regional office

Mine file No : KNT/BJP/DOL/1/GOA

Mine code : 19KAR05002

- (i) Name of the Inspecting : **P015**) **B A PATIL**
Officer and ID No.
- (ii) Designation : Assistant Mining Geologis
- (iii) Accompanying mine : SRI GANAPATHI MINES MANAGER
Official with
Designation
- (iv) Date of Inspection : 10/06/2014
- (v) Prev.inspection date : 09/08/2011

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **NIRALAKERI (1.85HA)**
- (b) Category : A Other Mechanised
- (c) Type of Working : Opencast
- (d) Postal address
State : KARNATAKA
District : BAGALKOT
Village : NIRALAKERI
Taluka : BAGALKOT
Post office : NIRALAKERI
Pin Code : 587205
FAX No. : 080-5583172
E-mail :
Phone : 080-5580373, 5580374
- (e) Police Station : BAGALKOT
- (f) First opening date : 17/05/1975
2. Address for : MINES MANAGER
correspondance MYSORE MINERALS LTD,
PO:NERALKERE DIST:BAGALKOT.-587111.
3. (a) Lease Number : KAR0827
- (b) Lease area : 61.53
- (c) Period of lease : 20
- (d) Date of Expiry : 10/08/2015
4. Mineral worked : DOLOMITE Main

5. Name and Address of the

Lessee : MYSORE MINERALS LIMITED
 NO:39, MAHATMA GANDHI ROAD
 BANGLORE URBAN KARNATAKA
 Phone:080-25583173, 25583174
 FAX :080-25583172

Owner : M Maheshwar Rao
 M/S. MYSORE MINERALS LTD
 BMTC SHANTINAGAR,
 TTMSBUILDING 5 TH FLOOR A
 BLOCK SHANTINAGAR BANG
 BELGAUM KARNATAKA
 Phone:
 FAX :

Agent : SHANKARALINGAIAH
 BRINDAVAN SECTOR NAVANAGAR,
 63/3 BAGALKOT KARNATAKA
 Phone: 08354-235117, 9731328141
 FAX : 08354-235117

Mining Engineer

Name : N.C.THIMMAIAH, Full Time
 Qualification : SSLC, Foreman Cert. and IInd Class MM Ce
 Appointment/ : 23/02/2003 09/06/2004
 Termination date

Manager

Name : MOHMMAD RAFIQ K BAGWAN
 Qualification : DIP IN MNING, SCMMC
 Appointment/ : 16/07/2007
 Termination date

Manager

Name : SHRI M. SHIVA RAMAIAH
 Qualification : S.S.L.C. WITH FORE MANS CERTIFICATE
 Appointment/ : 18/10/2000 22/02/2003
 Termination date

Manager

Name : S.A.BANSODE
 Qualification : Dip. in Mining, II CLASS MM Certi.
 Appointment/ : 09/06/2004 16/07/2007
 Termination date

6. Date of approval of Mining : 03/06/2014
 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	2
Supervisory	4
Others	9
Ministrial	3
Workers	41

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					
Infrastructure					
	Sub total				
	Sub total				
	Total				

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

Earlier mine was inspected on 09.08.2011 under MCDR-88. Violation of rule 13(1) s MCDR-88 was pointed out for not undertaking exploration by drilling 7 borehole in the year 2010- 11. Mine was suspended on 17.01.2013 for non compliance. The lessee had undertaken the exploration and suspension of mining operations was revoked on 01.05.2013. As a result of instant inspection violation of rule 13(1) were observed for not achieving target in respect of exploration for the year 2011-12 and rule 42(1)(c) for not appointing mining engineer. The violation of rule 13(1) has not been pointed out to the since in SOM for the period from 2014-15 & 105-16 (up to lease period) and approved on 03.06.2014, this aspect has been reviewed and lessee has proposed to drill total 18 boreholes during the above period.

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.

Violation of rule 13(1) has not been pointed to the lessee. Hence it nit applicable.

5. Scientific Mining

Items	Proposal	Actual work done	Remarks
A. Exploration (Rule 13)			
a.Type of prospecting : and exploration i.e. pitting, drilling	2010-11 - 8 boreholes of 60m depth. 2011-12 - 8 boreholes of 60m depth.	Violation of rule 13(1) was issued to the lessee as aresult of inspection dated 09.08.2011 and mining operations were suspended.The lessee carried exploration in the form boreholes during 2013-14 by drilling 7 boreholes with a toatl meterage of 433m. Subsequently suspension was revoked.	
b.Total area covered :	About 25 ha (Cummulative)	About 18 Ha (cummulative)	
B. Working (Rule 13)			
a.Number and size of each pit (LxWxH)	Pit-1: 660m x 96m x 15m	Opt-1: 482m x 96m x 18m	
b.Bench size(LxWxH)length can be defined as regular/irregular	: Regular with 3m height.	Regular with 3 to 5m height.	
c.Ore to waste ratio : pit wise if possible otherwise for mine	: Ore:OB/waste = 1:0.16	Achieved Ore:OB/waste = 1:0.04	
d.Total area covered under excavation/pits	: Additional - 1.5 ha Total - 6.35 ha.	Additional - 1.46 ha Total 6.31 ha	
C. Waste disposal (Rule 13)			
a.Location of dumps	: In SW part along lease boundary over an area of 1 ha.	The OB/Waste has been during plan period in the area on the east of Pit-2. Apart from this there is dead dump along southern pit boundary.	
e.Yearly generation of waste quantity.	: 2009-10 - 24462 t 2010-11 - 26352 t 2011-12 - 23436 t 2012-13 - 26676 t 2013-14 - 23436 t	2009-10 - 2344 t 2010-11 - 2531 t 2011-12 - 3398 t 2012-13 - 3335 t 2013-14 - 3838 t	
b.Method of dumping whether advancing/retreat	: Advancing	Advancing	
c.Total area covered under waste dump.	: Area proposed for dump during plan	Area covered by active dump = 0.35 ha	

period of 2009-10 to 2013-14 = 1.0 ha.
 Area covered by dead dump = 0.1 ha
 Total area covered by dumps = 0.45 ha.

d.No.and size of each : One waste dump with No of steps/lift/bench

No of dumps -2.
 Dump- 1 = 140m x 25m 3m - Active.
 Dump-2 = 320m x 3m x 1m - Dead.

D. Production

b.Year wise production of last five year.	: 2009-10 - 141525 t	2009-10 - 61014 t
	2010-11 - 147900 t	2010-11 - 70303 t
	2011-12 - 150450 t	2011-12 - 94436 t
	2012-13 - 150450 t	2012-13 - 74093 t
	2013-14 - 150450 t	2013-14 - 61818 t

D. Reserve

a.Reserve position as per latest MP/MS and at the time of inspection. : Resource position as per approved SOM:
 The position remains same.
 Proved(111):
 10.5 million tonnes
 Inferred(333);
 6.37 million tonnes.

RESERVE POSITION AS ON 01/04/2014

DOLOMITE		
Category	Quantity in Tonnes	Grade
Proved	10499838	MgO- 19 - 20%, CaO - 30%, SiO2 - 2 to 3%
Probable	0	
Possible	6706501	
Total	17206339	

PRODUCTION FOR THE PREVIOUS YEAR 2013 - 2014

Mineral	Production	Unit
DOLOMITE	61818	TON

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

Efforts for improving low grade and sub grade mineral. : NA

Efforts for improving percentage of recovery of ore. : NA

Mineral Rule 15

Percentage of recovery of ore : Recovery w.r.t. ROM = 97%
pitwise w.r.t. ROM and total material : Recovery w.r.t Total material = 94%

Number of benches in ore and waste. : One in OB soil. Four in ore.

Sub/grd mineral/fines (Rule16)

Qty of yearly generation and total qty available during inspection with grade : i) Due to quality- dolomite mined from surface layers is degraded and quality is poor. It does not exceed 2 to 3%. ii) +10mm to 30mm material - Earlier it was despatched to M/s Kalyani Steel. It is not despatched since 3 years. As such it is stacked as subgrade stack -3 with quantity of about 7000 tonnes. Presently -40mm size material generated during sizing is mixed with saleable material within tolerance limit. The left behind which is ++ is stacked with earlier. Total Qty=13435 tonnes.

Number and size of each stack : Three subgrade stacks were present on inspection day. Stackwise size is given below.
Subgrade Stack-1= 150m x 5m x 1.5m.
Subgrade Stack-2= 60m x 30m x 1m..
Subgrade Stack-3= 80m x 15m x 3m.

Location of stacking. : Subgrade Stack-1 - North of Pit -1 near magazene.
Subgrade Stack- 2 - North of Pit-1 towards Bagalkot Badami road.
Subgrade Stack- 3 West of Pit - 1. Between Bagalkot Badami Road and Pit.

Separate stacking from waste : The subgrade ore stacks are kept separately from waste.

Total area covered for stacking : Subgrade Stack-1= 150m x 5m = 750 sq m.
Subgrade Stack-2= 60m x 30m = 1800 sq m.
Subgrade Stack-3= 80m x 15m = 1200 sq m.
Total area covered by subgrade stacks on inspection day = 3750 sqm.

Exploration data as on 31/03/ 2014

No. of Boreholes	No. of Pits	No. of Trenches
7		

OVERBURDEN HANDLED DURING PREVIOUS YEAR 2013 - 2014

Overbuden/waste removed (in m3) :	2138
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<u>Utilisation of Sub Grade Mineral and Mineral Rejects</u>			
<u>Generated</u>	<u>Utilised</u>	<u>Stacked</u>	(In Ton.)

7. Environment Management - both quantitative and qualitativ

A. Land environment

- a. Landscape. : The area is almost plain terrain with gentle undulations.
- b. Aesthetic environment : Asthetic view will not be affected due to to present mining except land degradation.
- c. Soil and land use pattern : The same has been used for plantation and also in surrounding agricultural fields. The Land use pattern is Pit - 6.31, Dumps+ Stacks- 0.775, infrastructure - 2.82 ha, Others- remaining.
- d. Agriculture : The lessee has aqured about 13.7 ha land. Remaining patta land is for agriculture.
- e. Forest(flora and fauna) : Area is mostly grown wit agricultural crops with few majior trees and domestic animals.
- f. Vegetation : Natural vegetation is very thin.
- h. Public building, places and monuments (protected, historical), placec of worship and places of tourist : Nil

B Water environment.

- a. Surface water : Area experiences less rains. The rain water accumulated in the pit and from surface is meets to a seasonal nala which is about 300 to 400m away. The quality of surface water is not much affected.
- b. Ground water : The pits have not touched ground water table. As such it is not affected.
- c. Quality of water : The mining is on small scale. Quality of water is not much affected.

C. Air environment

- a. Noise : The blasting is carried by hand held drilling machins of small dias and hence there is not much noise pollution.
- b. Air : The dust is suppressed by sprinkling water on roads since dust is generated due to plying of vehicles. A water tanker is used for the purpose.
- c. Climatic condition : The lease and surrounding area is dry and hot during summer. The maximum temperature rises to 42 degree celsius in summer and falls to minimum of 14 degree celsius in winter. Rainfall occurs during the period June to September with an average rainfall of 560mm per annum.

D. Socio economic environment

- a. Social and demographic profile. : The agriculture is main occupation in the area. There is spurt in limestone and dolomite mining in the area. Industries namely cement and sugar are located in Bagalkot district.

- b. Recommending health and safety. : The mine officials are provided with safety materials and care is taken for safety measures. Hospitals/ consulting doctors are available at Bagalkot a district head quarter which is about 11km from mine.
- c. Human settlement : Human settlement is thin in surrounding area. There are about seven to eight villages in buffer zone area. The population varies from 400 to 3000 in these villages.
- d. Recreational facility. : The satellite TVs are available in the villages. Bagalkot which is district head quarter is having all the facilities.

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

<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>2013 - 2014</u>
		Area in Hect.

<u>TOP SOIL MANAGEMENT</u>
Quantity as on 31/03/2014

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

Cost of Operation stated to be Rs 250/- includes Rs 232/- mining operations, overhead- Rs 18/-, depreciation Rs 9/-.

The higher cost is due to the regular employes including labours.

Reserves: Furnished as 10 million tonnes. Differs from actual estimation.

Production: 61,818 tonnes tallies with the register.

Pit Mouth Value: Rs 232/-.

The Land use pattern is Pit - 6.31, Dumps+ Stacks- 0.775, infrastructure - 2.82 ha, Others- remaining.

Fixed Assets: Land Rs5400000/-, Buildings 352000/-, Machinery 446000/-

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.

Compliance of terms and condition of lease deed appears be satisfactory.

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

The lessee has complied all the violations pointed earlier. As a result of instant inspection violation of rule 13(1) were observed for not achieving target in respect of exploration for the year 2011-12 and rule 42(1)(c) for not appointing mining engineer. The violation of rule 13(1) has not been pointed out to the since in SOM for the period from 2014-15 & 105-16 (up to lease period) and approved on 03.06.2014, this aspect has been reviewed and lessee has proposed to drill total 18 boreholes during the above period.

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

The precautionary measures are being taken care by the lessee on the above aspects in the form of providing safety helmets, afforestation, sprinkling of water on mine roads, etc.

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.

Total seven boreholes have been drilled for a total meterage of 433m during 2013. With this along with existing pits, about 16 ha area can be considered as explored. Lessee has proposed total 18 bore holes to be drilled during remaining lease period covering remaining lease area.

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

The mine works with an average production of 60,000 tonnes per annum during last seven years with minimum of 25350 tonnes during 2007-08 and maximum of 94436 tonnes during 2011-12. As per mining scheme approved on 03.6.14 the available reserves as on 01.04.2014 are in the order of 10.5 million tonnes. As such 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.

The lessee has invested about Rs 62 Lakh which include Land Rs 54 lakh, Buildings 3.52 lakh, Machinery 4.46 lakh

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

Lessee undertakes afforestation and sprinkling of water on mine roads as per the proposals. Apart from this, safety helmets have been provided to the workers and expenditure on community development has also been done.

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.

The mineralisation still persists for further depths and there is no possibility of exhaustion of mineral ore in near future.

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 A PATIL)

Indian Bureau of Mines