

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

MCDR INSPECTION REPORT

Goa regional office

Mine file No : MAH/SDG/FE-6/GOA

Mine code : 30MSH28004

- (i) Name of the Inspecting : **J003**) **JANGID G K**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri D.R. VAZE, GM (Mines)
Official with
Designation
- (iv) Date of Inspection : 17/05/2014
- (v) Prev.inspection date : 08/07/2013

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **REDI BLOCK I 94.70.60HECT**
- (b) Category : A Fully Mechanised
- (c) Type of Working : Opencast
- (d) Postal address
- State : MAHARASHTRA
- District : SINDHUDURG
- Village : REDI
- Taluka : VENGURLA
- Post office : REDI
- Pin Code : 416517
- FAX No. : 0831-2426487
- E-mail : gogteminerals@yahoo.com
- Phone : 0831-2407756
- (e) Police Station : Redi
- (f) First opening date : 01/01/1958
2. Address for : VILLAGE - REDI,
correspondance : TALUKA - VENGURLA,
DISTRICT - SINDHUDURG
3. (a) Lease Number : MSH0040
- (b) Lease area : 94.71
- (c) Period of lease : 10
- (d) Date of Expiry : 31/07/2016
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : GOGTE MINERALS
Arvind B. Gogte GOGTE
MINERALS 146, TILAKWADI,
BELGAUM KARNATAKA
Phone:0831-2426487
FAX :0831-2426487

Owner : ARVIND B. GOGTE
GOGTE MINERALS 146,
TILAKWADI, BELGAUM
KARNATAKA
Phone: 0831-2426487
FAX : 0831-2426487

Agent : D. R. VAZE
Cidade de Goa, Dona Paula,
Goa NORTH GOA GOA
Phone: 0832-2454575, 9850477966
FAX : 0832-2454575

Mining Engineer

Name : R. Purushothaman, Full Time
Qualification : B. E. (Mining)
Appointment/ : 14/08/2012
Termination date

Geologist

Name : Mr. Victor Fernandes, Full Time
Qualification : M.Sc. In Geology
Appointment/ : 01/11/2013
Termination date

Manager

Name : Mr . Ravindra Nipane
Qualification : BE Mining First class certificate
Appointment/ : 07/12/2013
Termination date

6. Date of approval of Mining : 25/02/2013
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	6	303
Supervisory	15	303
Others	3	303
Ministrial	0	0
Plant	0	0
CONTRACT		
Workers	168	303

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					
Water supply	0.25	119.33	0.25	219.22	Another 123.78 s water treatment for local villag
Sanitation	0.00	0.00	0.00	0.00	
Health	2.00	10.00	2.00	22.00	
Medical facility	3.00	11.16	3.00	16.64	
Safety	5.00	35.00	5.00	85.00	
Housing	0.00	0.00	0.00	0.00	
Sub total	10.25	175.49	10.25	342.86	
Infrastructure					
Communication	0.50	0.50	0.00	10.00	
Public transport	0.50	0.50	0.00	15.00	
Roads	0.50	0.50	0.00	10.00	
Electricity	0.50	0.50	0.00	19.78	
Sub total	2.00	2.00	175.49	54.78	
Employment	170.00	170.00	162.44	583.80	
Environment management	11.00	11.00	65.66	106.66	
Training	10.00	10.00	14.91	46.21	
Recreation	0.10	0.10	0.00	2.23	
Sports activities	0.10	0.10	0.00	2.00	
Others	0.20	0.20	22.88	23.02	
Total	203.65	203.65	441.38	*****	

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

Mine was last inspected on 12.02.2013 and no violation was issued. Violation of rule 13(1) was issued after current inspection. Lessee replied to violation letter by assuring to complete exploration during 2014-15 and rule 13(1) has been taken as complied.

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.

Suspension of mining operations under rule 13(2) or prohibition of deployment of any person under rule 56 of MCDR, 1988 is not recommended.

5. Scientific Mining

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

- a.Type of prospecting and exploration i.e. pitting, drilling : It was proposed to drill 12 boreholes each during 2012-13 and 2013-14. Lessee has drilled 10 boreholes and 4 boreholes each during 2012-13 and 2013-14 respectively.
- b.Total area covered : Proposal was there to explore western part of lease at 50m grid interval. Exploration was carried out in western part of lease at 50m grid interval.

B. Working (Rule 13)

- a.Number and size of each pit (LxWxH) : Proposal were made to advance North and East face of Pit No. 203. Size of pit is 625m X 480m X 85m and working was carried out in Pit-203 only by advancing North and east faces. Other pits are as follows: Pit No. 235 of 360m X 180m X 50m, Patni Pit of 350m X 80m X 28m and Mauli Pit of 325m X 135m X 48m.
- b.Bench size(LxWxH)length can be defined as regular/irregular : Regular benches of 8m height & 8m width in OB and 6m height & 8m width in mineral were proposed. Regular benches of 6m height & 8m width in OB and 6m height & 8m width in mineral are maintained. There are 9 benches in OB and 6 benches in mineral.
- c.Ore to waste ratio pit wise if possible otherwise for mine : Proposed ore to waste ratio pit wise was 1:3.40. Actual ore to waste ratio pit wise is 1:2.87 for the year 2013-14.
- d.Total area covered under excavation/pits : Total area proposed under pits was 34.2219ha. Total area covered under pits is 32.1743ha.

C. Waste disposal (Rule 13)

- a.Location of dumps : Old dumps are located in eastern and northern part of lease area. Proposal was there to backfill Patni Pit. Four old dumps are located in eastern and northern part of lease area. Backfilling in Patni Pit is in progress.
- e.Yearly generation of waste quantity : Waste generation of 12,52,000t was proposed during the year 2013-14. Waste generated during the year was 10,57,770t.
- b.Method of dumping whether advancing/retreat : Backfilling in Patni pit was proposed. Backfilling in Patni pit is in progress.
- c.Total area covered under waste dump : Area covered under old dumps are Area covered under old dumps is 23.35ha only,

23.35ha and additional area of 8.27ha was proposed for dumping in Patni Pit.

as backfilling was carried out during the year 2013-14. It was wrongly written as dumping instead of backfilling in proposals.

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

Old dumps are of 350m X 475m X 25m, 450m X 275m X 20m, 200m X 325m X 12m and 125m X 25m X 5m. There are 4, 3, 2 and 1 steps in these dumps.

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D. Production

b.Year wise production of last five year.

Last five-year proposals for production were 368000, 348000t, 352000t, 368000t and 368000t.

Last five-year actual production were nil, 346000t, 352000t, 367807t and 367704t from 2009-10 to 2013-14. It is within target proposed.

D. Reserve

a.Reserve position as per latest MP/MS and at the time of inspection.

Mineral Reserve - 6.646 million tonnes and Mineral Resource - 11.719 million tonnes as on 01.04.2012.

Mineral Reserve - 6.278 million tonnes and Mineral Resource - 11.719 million tonnes as on 01.04.2014.

RESERVE POSITION AS ON 01/04/2014

IRON ORE		
Category	Quantity in Tonnes	Grade
Proved	6278000	55% to 62% Fe
Probable	0	
Possible	11719000	55% to 62% Fe
Total	17997000	55% to 62% Fe

PRODUCTION FOR THE PREVIOUS YEAR 2013 - 2014

Mineral	Production	Unit
IRON ORE	367704	TON

6. Conservation of Mineral - both quantitative and qualitative

Beneficiation (Rule 20 and 26)

- Efforts for improving low grade and sub grade mineral. : All efforts are made for recovering low grade and sub grade mineral. Recovery is 100% from ROM material.
- Efforts for improving percentage of recovery of ore. : Recovery of mineral is almost 100% without any reject generation.

Mineral Rule 15

- Percentage of recovery of ore pitwise w.r.t. ROM and total material : Percentage of recovery of ore pitwise w.r.t. ROM and total material is 100% & 26% respectively.
- Number of benches in ore and waste. : There are nine benches in waste & five benches in ore.

Sub/grd mineral/fines (Rule16)

- Qty of yearly generation and total qty available during inspection with grade : Production of ROM was 367704t and grade-wise stock position was 1590t of +58 to -60% Fe (Lumps), 2385.87t of +60 to -62% Fe (Lumps) and 1513.8t of +58 to -60% (Fines).
- Number and size of each stack : Two mechanical screen are there and mineral stacks are there near screen having different grades. Grade-wise stock position was 1590t of +58 to -60% Fe (Lumps), 2385.87t of +60 to -62% Fe (Lumps) and 1513.8t of +58 to -60% (Fines). Total area under mineral stacks is 2.8ha.
- Location of stacking. : Mineral stacks were found towards south and east side of lease area.
- Separate stacking from waste : Mineral is separately stacked at surface level for screening & grade-wise stacking.
- Total area covered for stacking : Area covered under mineral stacks is 2.8ha including backfilled area of ML-IV over 2.08ha.

Exploration data as on 31/03/ 2014

No. of Boreholes	No. of Pits	No. of Trenches
4	0	0

OVERBURDEN HANDLED DURING PREVIOUS YEAR 2013 - 2014

Overburden/waste removed (in m3) :	511266
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Utilisation of Sub Grade Mineral and Mineral Rejects

Generated	Utilised	Stacked	(In Ton.)

7. Environment Management - both quantitative and qualitativ

A. Land environment

- a. Landscape. : Maximum RL 50 and Minimum RL 23.
- b. Aesthetic environment : Area is having undulating topography and mining is carried out on plain land.
- c. Soil and land use pattern : The major Land Use pattern of the area includes pits, OB dumps, office, workshop, dry lands etc. Topsoil is not there. An area of 27.882ha under pit , 27.65ha under dumps, 4.28ha under office, workshop, roads etc.
- d. Agriculture : Agriculture is seasonal during monsoon period and Cashew is the main cultivation in surrounding area.
- e. Forest(flora and fauna) : No forest area within lease and surrounding area.
- f. Vegetation : Paddy Fields are there in the surrounding area.
- h. Public building, places and monuments (protected, historical), place of worship and places of tourist : Mauli temple is there at 2.0km distance from lease. Southern boundary of lease is touching 500m CRZ coastal line. Redi port is at 1.5km distance from lease.

B Water environment.

- a. Surface water : The surface waters were monitored with neutral pH in the range 7.52-7.82, agreeable colour, taste and odour. The surface waters were having DO levels in the range 4.05-5.15 mg/l.
- b. Ground water : The general ground water table is around 10mts RL.This area receives copious amount of rainfall,hence the ground levels shows rise in their levels after monsoon.
- c. Quality of water : The ground water in the bore wells and dug wells, nearby ponds or lakes, were found to be good. pH values were around 7 & within limits.

C. Air environment

- a. Noise : It is within permissible limit. Workzone day noise levels was found to be 64.1 dB(A) and night noise level was found to be 62.8 dB(A).
- b. Air : Air quality is monitored by HVAS twice a week & found within limits.
- c. Climatic condition : The predominant winds were from NW to SE, wind velocity readings were recorded in the range 5.30-5.90 kmph with a mean value of 5.6 kmph; temperature readings were ranging from 24 deg C to 36 deg C and the mean temperature value was 31.9 C; the relative humidity values were ranging in between 59.00-80.00%.

D. Socio economic environment

- a. Social and demographic profile. : The nature of work is mainly agricultural and fishing.
- b. Recommending health and safety. : The noise and dust fall is within range. The quality of the water is within permissible limit, hence there is no any hazard to health. Environmental friendly Mining Machinery are maintained without any hazard. Effective dust suppressive inbuilt water sprinkling arrangement is there.

- c. Human settlement : The lease area is surrounded by two villages. The house types found are both concrete and huts. The population is around 625 at Redi village, 1249 at Nonos and 2875 at Ajgaon.
- d. Recreational facility. : There is recreational facility available at mines for residential colony. Nearby towns Sawantwadi, Vengurla, Banda, Mapusa etc are having all facilities. Dish TV is available in residential colony for labours and nearby villages.

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.
Within lease area			Outside lease area					
Area	Trees planted	Survival rate	Area	Trees planted	Survival rate			
5	6000	70	0	0	0			

<u>TOP SOIL MANAGEMENT</u>		
<u>Quantity as on 31/03/2014</u>		
Cumulative quantity in tonne		
Generated	Utilised	Balance
.01	.01	0

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

a) Land use pattern: 1. Exploited & abandoned by O/C mines-0 Ha, 2) Covered under O/C working - 27.86 Ha, 3) Reclaimed & Rehabilitated-0Ha, 4) Waste Disposal - 27.65Ha 5) Plants, blds, roads-4.27Ha

b) Reserves: As per latest approved SOM are Mineral Reserve - 6.646 million tonnes and Mineral Resource - 11.719 million tonnes as on 01.04.2012 and as on date of inspection are Mineral Reserve - 6.278 million tonnes and Mineral Resource - 11.719 million tonnes.

c) Quantity of overburden / waste rock generation: 1057770t and used for backfilling

d) Cost of production was Rs. 835.40/-

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.

Redi Mine block-I over 94.7060ha for 10 years expiring on 20/01/2016. Renewal was executed on 01.08.2006.

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

Mining plan was approved vide letter No. MP/OTF/MECH-12(MAH)/GOA/2007-08 dated 27/07/2007 for the period 2007-2012.

Scheme of Mining was approved vide letter no. MS/SIND/GOA(MAH)/Fe-82-SZ/516 dated 25/02/2013 for the period 2012/13 to 20/01/2016, as lease is expiring on 20.01.2016.

PART - IV : PROPOSALS FOR FURTHER ACTION FOR :

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

None at present.

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

None at present.

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

None at present.

Date :

(JANGID G K)

Indian Bureau of Mines