

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

**MCDR INSPECTION REPORT**

**Bhubaneshwar regional office**

**Mine file No :** ORI/LST-DOL/SNG/MCDR-2/BBS

**Mine code :** 38ORI13003

- (i) Name of the Inspecting : **25** ) **SHRI IBRAHIM SARIF**  
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Shri A K Barik, Mines manager and Shri V Dumdung, Ge  
Official with  
Designation
- (iv) Date of Inspection : 04/03/2015
- (v) Prev.inspection date : 11/08/2012

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **BIRMITRAPUR**
- (b) Category : A Other than Fully Mech.
- (c) Type of Working : Opencast
- (d) Postal address
- State : ORISSA
- District : SUNDARGARH
- Village : BIRMITRAPUR
- Taluka : BIRMITRAPUR
- Post office : BIRMITRAPUR
- Pin Code : 770033
- FAX No. : 0661-2610270
- E-mail :
- Phone : 0661-2610270
- (e) Police Station :
- (f) First opening date : 01/01/1922
2. Address for : BIRAMITRAPUR LIMESTONE & DOLOMITE MINE  
correspondance VILL-RAIPUR, BANUMUNDA  
PO-BIRAMITRAPUR
3. (a) Lease Number : ORI0011
- (b) Lease area : 793.97
- (c) Period of lease : 10
- (d) Date of Expiry : 29/02/2000
4. Mineral worked : DOLOMITE Associated  
LIMESTONE Main

## 5. Name and Address of the

Lessee : BISRA STONE LIME CO. LTD  
 BIRAMITRAPUR SUNDERGARH  
 DISTRICT ORISSA SUNDARGARH  
 ORISSA  
 Phone:  
 FAX :

Owner : Bisra Stone & lime company ltd  
 Birmitrapur SUNDARGARH  
 ORISSA  
 Phone: 0661-610202.  
 FAX :

Agent : T.C.SEI  
 M/S BISRA STONE LIME CO LTD  
 BIRAMITRAPUR SUNDARGARH  
 ORISSA  
 Phone:  
 FAX :

## Mining Engineer

Name : A.K.BARIK, Full Time  
 Qualification : AMIE(MINING)  
 Appointment/ : 14/09/1992  
 Termination date

## Mining Engineer

Name : S.S. MISHRA, Full Time  
 Qualification : A.M.I.E  
 Appointment/ :  
 Termination date

## Geologist

Name : V DUNGUNG, Full Time  
 Qualification : MSC GEOLOGY  
 Appointment/ : 30/12/1992  
 Termination date

6. Date of approval of Mining : 27/08/2014  
 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
---------------------	------------------	-------------------------

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.

There was no outstanding violations.

No violations were observed during current inspection of mines.

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.

Not recommended

## 5. Scientific Mining

Items	Proposal	Actual work done	Remarks
-------	----------	------------------	---------

**A. Exploration (Rule 13)**

a.Type of prospecting : and exploration i.e. pitting, drilling		Dolomite 79 no. of Bore holes in Dolomite over 3048 meters Limestone 55 no. of bore holes in Limestone over 3136 meters	
b.Total area covered :		Limestone: G1 level Quarry Block :190.848 Ha G2 Level Non Quarry Block 65.6 Ha  Dolomite : G1 level Quarry Block :156.552 Ha G2 Level Non Quarry Block 38.24 Ha	

**B. Working (Rule 13)**

b.Bench : size(LxWxH)length can be defined as regular/irregular		Height 8 meters Width more than height	
d.Total area covered : 179.12 ha under excavation/pits		159.61 ha	

**C. Waste disposal (Rule 13)**

a.Location of dumps :		17 no. of dumps are exist in the lease area. Only Dump no. 4 is active one.	
e.Yearly generation : 192932 Cubic meter of waste quantity.		12734 MT	
b.Method of dumping : Retreating whether advancing/retreat		Retreating	
c.Total area covered : 41.112 Ha under waste dump.		34.402 ha	

**D. Production**

b.Year wise : 2013-14 production of last five year.		2013-14 Limestone : 26,18,400 MT Dolomite : 12,89,850 MT	
		2013-14 Limestone : 17,683.53 MT Dolomite : 3,78,224.78 MT	

**D. Reserve**

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

Limestone (in Million  
tonnes):

111 : 119.65  
122 : 35.28  
211 : 37.24  
221 : 17.19  
222 : 23.38  
222 : 5.07  
222 : 5.28

Dolomite :

111 : 83.78  
122 : 33.78  
211 : 12.11  
221 : 10.45  
222 : 22.01 MgO +19%  
222 : 4.22, MgO +15% to  
19%

**RESERVE POSITION AS ON 01/04/2014**

<b>DOLOMITE</b>		
Category	Quantity in Tonnes	Grade
Proved	83620000	+19% MgO
Probable	33780000	+19% MgO
Possible	48790000	+19% MgO
Total	166190000	+19% MgO
<b>LIMESTONE</b>		
Category	Quantity in Tonnes	Grade
Proved	119650000	+42% CaO
Probable	35280000	+42% CaO
Possible	106040000	+42% CaO
Total	260970000	

**PRODUCTION FOR THE PREVIOUS YEAR 2013 - 2014**

Mineral	Production	Unit
LIMESTONE	17683	TON
DOLOMITE	378224	TON

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

- Efforts for improving low grade and sub grade mineral. : There exist 17 no. of dumps. As these dumps are old in nature analysis of these as per revised threshold value of Limestone [35% CaO (Min), MgO-4% (Max) & SiO<sub>2</sub> -18%(max)] and Dolomite [ Mgo 15% (min) & SiO<sub>2</sub> -6% (max)] for possible recovery of limestone and dolomite.  
Further the rest dump material is in the process of sell as mineral reject/ road material.
- Efforts for improving percentage of recovery of ore. : Where grade is not uniform, manual labours are engaged for sorting and sizing of reject from Blasted material.

**Mineral Rule 15**

- Percentage of recovery of ore pitwise w.r.t. ROM and total material : For both Limestone & Dolomite  
Recovery of Ore is 80%  
Recovery of Sub grade Ore is 10%

**Exploration data as on 31/03/ 2014**

No. of Boreholes	No. of Pits	No. of Trenches
55		

**OVERBURDEN HANDLED DURING PREVIOUS YEAR 2013 - 2014**

Overburden/waste removed (in m <sup>3</sup> ) :	12734
---	-------

**Utilisation of Sub Grade Mineral and Mineral Rejects**

<u>Generated</u>	<u>Utilised</u>	<u>Stacked</u>	(In Ton.)

## 7. Environment Management - both quantitative and qualitativ

### A. Land environment

- a. Landscape. : The general topography of the area represents gently undulating terrain covered with soil and alluvium to a great extent and gently sloping from SSE to NNE direction. The highest elevation of the lease area is 343.6 m and lowest elevation is 237.2 m.
- c. Soil and land use pattern : Mining : 159.61 Ha  
Overburden : 34.202 Ha  
Infrastructure : 14.12 ha  
Road : 10.08 Ha  
Railway line/ Magazine : 6.64 Ha  
Township area : 17.60 Ha  
Mineral seperation plant : 5.50 ha
- h. Public building, places and monuments (protected, historical), placec of worship and places of tourist : No such Public building, places and monuments (protected, historical), placec of worship and places of tourist exist in the lease area.

### B Water environment.

- a. Surface water : The drainage pattern in the lease area is controlled by the hill slopes. No river / nala is found in the lease area. The river Lurgi flowing at western side of the lease area and daitari nala flowing at eastern side of lease area.
- b. Ground water : Ground water has not been affected by mining operations. Tube wells have been dug in the village of Birmitrapur and used for drinking purpose.

### D. Socio economic environment

- c. Human settlement : 17.60 Ha area of lease has been occupied by Township. The mining operation in the M L area will have positive impact on the economy of the local people. About 1000 peoples are directly employed in the mine.

#### 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.

2013-14

Production	Limestone	Dolomite
		17683 MT    378224.780 MT
Pit mouth value	Rs.408	Rs. 477
Closing Stock	424801 MT	341282 MT
Cost of production :	Rs.1192.84	

Reserves:

Limestone:

Reserves :111- 119.65; 122- 35.28

Resources :211 - 37.24; 221-35.07; 222- 33.73.

Dolomite:

Reserves : 111- 83.518; 122 - 33.78

Resources: 211 - 12.11; 221 - 10.45; 222 - 26.23.

Lease area (surface area) utilisation as at the end of year (hectares)

(i) Covered under current (O/C) workings : 160.11

(ii) Used for waste disposal        34.2

(iii) Occupied by plant, buildings, residential, welfare buildings & roads:    53.94



**PART - III : PERFORMANCE OF MINE OWNER**

(In case of lease expiring within 2 years - as per guidelines)

**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

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

None

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

None

Date :

(SHRI IBRAHIM SARIF)

Indian Bureau of Mines