

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/KJR/MCDR-65/BBS

Mine code : 30ORI08017

- (i) Name of the Inspecting : **AR**) **SHRI PREM PRAKASH**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 23/07/2014
- (v) Prev.inspection date : 21/09/2013

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **GANDHAMARDHAN 'B' BLOCK**
- (b) Category : A Manual
- (c) Type of Working : Opencast
- (d) Postal address
State : ORISSA
District : KEONJHAR
Village : SUAKATI
Taluka : KEONJHAR
Post office : SUAKATI
Pin Code : 758018
FAX No. :
E-mail :
Phone :
- (e) Police Station :
- (f) First opening date :
2. Address for : GANDHAMARDHAN
correspondance AT/PO-SUAKATI
DIST-KEONJHAR
3. (a) Lease Number : ORI0086
(b) Lease area : 618.58
(c) Period of lease : 30
(d) Date of Expiry : 20/06/1993
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : M/S Orissa Mining Corporation Ltd
P.O.NO.34 OMC House
Bhubaneswar KHURDA ORISSA
Phone:
FAX :

Owner : m/s ORISSA MINING CORPORATION LTD
OMC HOUSE P.B.No.34
BHUBNESHWAR ORISSA
Phone:
FAX :

6. Date of approval of Mining :
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	18	310
Workers	143	310
Supervisory	13	310
Ministrial	107	310
CONTRACT		
Ministrial	126	310
Supervisory	2	310
Workers	84	310

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					
Housing	264.91	263.00	407.00	29.45	
Health	25.03	25.03	40.50	20.50	
Water supply	47.60	37.38	12.91	4.00	
Sanitation	34.70	20.00	42.44	0.00	
Sub total	372.24	345.41	502.85	53.95	
Infrastructure					
Roads	220.44	540.50	196.00	1.50	
Sub total	220.44	540.50	345.41	1.50	
Employment	129.74	131.14	129.74	75.58	
Environment management	37.00	292.00	36.40	4.76	
Training	12.30	12.30	12.30	6.50	
Recreation	4.37	5.02	4.37	1.01	
Total	776.09	*****	724.22	143.30	

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

During previous inspection of mine on dt. 20.07.2013, no violation was pointed out or communicated.

During this inspection violation of Rule 13(1) was observed and being communicated to the party.

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, 19888, if recommended.

not being recommended at present.

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	Drilling (14 nos of Bore holes) with a total depth of of depth 620Mtrs(Approx)	Nil	Violation pointed out for the same
b.Total area covered :	14 Ha(Approx.)	Nil	

B. Working (Rule 13)

c.Ore to waste ratio : pit wise if possible otherwise for mine	1. Hill Top: 1:0:86 2. Putalipani : 1:0.64	Putalipani : 1:0.4 te:te	No operation is being carried out at Hilltop quarry due to statutory constraint.
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Being worked

b.Bench size(LxWxH)length can be defined as regular/irregular	: 2. Putulpani: (200 m x 10 m x 10 m)	Nil 2. Putulpani: (200 m x 10 m x 10 m) approx.	No operation is being carried out at Hilltop quarry due to statutory constraint.
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Being worked

No operation is
being carried
out at Hilltop
quarry due to
statutory
constraint.

Being worked

a.Number and size of each pit (LxWxH)	: Two pits : 1. Hill Top 2. Putulpani pit	One pit : working being carried out only in Putulpani pit.	
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d.Total area covered under excavation/pits	: not specified for a year	apoprox. 122.00 Ha. cumulative.	
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C. Waste disposal (Rule 13)

a.Location of dumps	: Hilltop area & Upper Kainsari	Upper Kainsari	As there is no operation at Hilltop quarry so the
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designated dump
at hill top
quarry as per
approved SOM
for the
year 2013-14
remains
unutilized.

b. Method of dumping : Advancing Advancing
whether
advancing/retreat

c. Total area covered : not specified for 5.00 Ha. approx.
under waste dump. a year

d. No. and size of each : WD3 (Single Lift) WD1 (Single Lift)
waste dump with No of &
steps/lift/bench WD1 Single Lift)

e. Yearly generation : 2158621.00 Te 1,05,600.00Te
of waste quantity.

RESERVE POSITION AS ON 01/04/2014

PRODUCTION FOR THE PREVIOUS YEAR 2013 - 2014

Mineral	Production	Unit
IRON ORE	264749	TON

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

Efforts for improving low grade and sub grade mineral. : blending with high grade ore to get the required saleable ore.

Efforts for improving percentage of recovery of ore. : Sorting & screening

Mineral Rule 15

Percentage of recovery of ore : % recovery w.r.t. ROM:
 pitwise w.r.t. ROM and total material 10-40(CLO)-43.2 %
 Natural fines(-10 mm):35.5 %
 Generated fines(-10 mm): 21.3 %

Number of benches in ore and waste. : Hill Top Quarry: Ore - 11 No. Waste - 01 No.
 Putulpani Quarry: Ore - 8 Nos., Waste - 02 No.

Sub/grd mineral/fines (Rule16)

Qty of yearly generation and total qty available during inspection with grade : Below 55% Fe, Fines : 14,92,000.000 MT closing stock as per AR 2013-14

Number and size of each stack : 1. Hilltop 1A - 200 m x 120 m x 24 m
 2. Hilltop 4E - 160 m x 10 m x 7 m & 80 m x 40 m x 7 m
 3. Hilltop 4H - 80 m x 50 m x 17 m
 4. Hilltop 4D (New) - 190 m x 60 m x 6 m
 5. SGDSCH (Upper Kainsari Area) - 50 m x 30 m x 20 m

(approx.)

Location of stacking. : SGDSCH-1 (Upper Kainsari Area)

Separate stacking from waste : Yes, Separate stacking of sub-grade Mineral has been carried out .

Total area covered for stacking : about 20 Ha.

Exploration data as on 31/03/ 2014

No. of Boreholes	No. of Pits	No. of Trenches
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OVERBURDEN HANDLED DURING PREVIOUS YEAR 2013 - 2014**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. : Hilly
- b. Aesthetic environment : Satisfactory.
Plantation of local forestry species has been done to improve the aesthetic value of the land.
- c. Soil and land use pattern : Top soil generation is negligible.
- d. Agriculture : The agriculture lands exist in small patches & it is not near mining excavation site.
- e. Forest(flora and fauna) : Common local species
- f. Vegetation : The overall impact of mining on vegetation is marginal, as natural vegetation destroyed only in excavated area and afferstation has also been carried out in some area.
- h. Public building, places and monuments (protected, historical), placec of worship and places of tourist : There are no protected monuments and historical monuments within the lease area.

B Water environment.

- a. Surface water : The natural drainage system is distinct due to hilly topography in most part of the lease area.. The hill ranges are drained by seasonal nallahs in all directions. Protective measures like retaining wall, garland drain etc. are made around waste dumps to discharge clear water.
- b. Ground water : Core zone is mainly hilly area. The area is under hard rock formations. No ground water table has been intersected during mining at existing pit depth.
- c. Quality of water : Seasonal monitoring is being carried out and results are within the permissible limits.

C. Air environment

- a. Noise : Noise monitoring was carried out during post monsoon and winter seasons at each ambient noise monitoring stations. The noise level at work zone are well within the DGMS standard of 90DB (A) for 8 hours exposure.
- b. Air : The ambient air quality has been measured and results are within the permissible limits.
- c. Climatic condition : The area lies in tropical region where climate is characterized by very hot summer and cool winters. Summer is from March to June with temperature ranges from maximum 470C at day time to minimum 100C at night time.

D. Socio economic environment

- a. Social and demographic profile. : The local people are engaged in agriculture and mostly depended on mining and mineral handling jobs.
- b. Recommending health and safety. : Medical camps have been reprotedly organized by OMC Ltd. and OMC is putting continuous effort towards awareness of people and rendering the medical support inside the core and buffer zone.
- c. Human settlement : Small patches of human settlements are there.
- d. Recreational facility. : Recreational facility like Club and Community Center with sports material has been provided by OMC Ltd. in camp area.

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.

Scrutiny of annual return 2013-14 is as below :

- (1) Cost of operation : 1003.73 Rs./te
- (2) Reserve : 216484042 Tonnes (111),
- (3) Production : 2,64,749 MT
- (4) Pit's Mouth Value : 62% to 65% fe Lump: Rs. 4335.00, 65% fe and above Lump: Rs. 5399.00.00, 60% to 62% Fe Fines: Rs. 1434.00, 55% to 58% Fe Fines:Rs.909.00
- (5) Stock : 1. 62% to 65% Fe Lump: 297590.968 MT,
2. 65% Fe and above Lump: 240852.024 MT,
3. Below55% Fe Fines: 1492000.000 MT,
4. 55% to below 58% Fines: 264269.390 MT,
5. 60-62%Fe Fines: 1578301.361 MT, 6. 62% to 65% Fe Fines: 25832.320MT
- (6) Land use pattern : Mining& allied activities.
- (7) Fixed assets : Rs.61097674.00

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.)

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 :

(SHRI PREM PRAKASH)

Indian Bureau of Mines