

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/MN/SNG/MCDR-8/BBS

Mine code : 40ORI13023

- (i) Name of the Inspecting : **DEY**) **NARENDRA MOHAN DEY**
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : **SHRI T PRASANNAKUMAR**
Official with
Designation
- (iv) Date of Inspection : 06/11/2015
- (v) Prev.inspection date : 01/05/2014

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **ORAHURI**
- (b) Category : B Manual
- (c) Type of Working : Opencast
- (d) Postal address
State : ORISSA
District : SUNDARGARH
Village : HARISCHANDRAPUR
Taluka : BONAI
Post office : KOIRA
Pin Code :
FAX No. :
E-mail :
Phone : 06625-35063
- (e) Police Station :
- (f) First opening date : 06/12/1942
2. Address for : VILLAGE: HARISCHANDRAPUR
correspondance P.O.KOIRA, DIST;SUNDERGARH
ORISSA-770048
3. (a) Lease Number : ORI0198
- (b) Lease area : 51.47
- (c) Period of lease : 20
- (d) Date of Expiry : 31/12/1999
4. Mineral worked : MANGANESE ORE Main

5. Name and Address of the

Lessee : M/s Orissa Manganese and minerals (p) Lt
M/SOMML9, esplanade mansi,
14-Govt. Place (east),
Calcutta KOLKATA WEST
BENGAL
Phone:2484988, 2484033, 2482871
FAX :033- 2483717

Owner : M/S Orissa Manganese and Minerals (p) Ltd.
9, Esplanade Mansion, 14-
Govt. Place (east),
Calcutta KOLKATA WEST
BENGAL
Phone: 033-2434177,243
FAX : 033-2482871

Mining Engineer

Name : D.K.SAHA, Full Time
Qualification : DEGREE IN MINING (AMIE)
Appointment/ : 19/11/1999
Termination date

Manager

Name : A.K.SAHU
Qualification : 2ND CLASS MANAGER'S CERTIFICATE OF COMPE
Appointment/ : 04/11/1999
Termination date

6. Date of approval of Mining : 14/03/2012
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	1	39
Ministrial	2	39
Supervisory	5	39

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	2.60	1.40			MINING OPERATIO
Sanitation		0.18			
Health	5.40	0.18			
Sub total	8.00	1.76			
Infrastructure					
Sub total			1.76		
Training	2.00		0.48		
Total	10.00		2.24		

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

PREVIOUS VIOLATION UNDER RULE 13(1) ON PLANTATION BETWEEN PILLAR NO 22 TO2 DURING THE PERIOD 2013-14 AND BACK FILLING OF BHAMA PIT DURING THE YEAR 2012-13 & 2013-14 WERE OBSERVED AS STILL NOT COMPLIED. REPLY FROM THE LESSEE HAS BEEN RECEIVED INTIMATED THAT AS SOON AS THE APPROVAL OF FOREST DIVERSION PROPOSAL WILL BE ACCORDED THE VIOLATION WILL BE COMPLIED SINCE THE AREAS FALLING UNDER FOREST LAND. BESIDE PRESENTLY THE MINING OPERATION HAS BEEN DISCONTINUED SINCE 17.05.2014 AS PER ORDER OF HON'BLE SUPREME COURT. NO FRESH VIOLATION WAS 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.

NOT RECOMMENDED FOR SUSPENSION OF MINING OPERATION.

MINING OPERATION HAS BEEN DISCONTINUED SINCE 17.05.2014 AS PER ORDER OF HON'BLE SUPREME COURT.

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

CUMULATIVE EXPLORATIO AS
ON 01.04.2015 IS
ASFOLLOWS :
NUMBER OF BORE HOLES :
87
GRID INTERVAL: 50 M
MAX DEPTH: 72 M
MIN DEPTH: 22 M
TOTAL METER : 3224 M

B. Working (Rule 13)

a.Number and size of :
each pit (LxWxH)

QUARRY 6
SIZE OF PIT : 250 M X
240 M X 28 M

MINING
OPERATION HAS
BEEN
DISCONTINUED
SINCE
17.05.2014 AS
PER ORDER OF
HON'BLE SUPREME
COURT.

b.Bench :
size(LxWxH)length can
be defined as
regular/irregular

BENCH SIZE : 100 M X 10
M X 5 M

d.Total area covered : 36.736 HA
under excavation/pits

24.729 HA

MINING
OPERATION HAS
BEEN
DISCONTINUED
SINCE
17.05.2014 AS
PER ORDER OF
SUPREME COURT.

C. Waste disposal (Rule 13)

a.Location of dumps : EASTERN SIDE OF
THE LEASEHOLD
AREA.

EASTERN SIDE OF THE
LEASE HOLD AREA.

b.Method of dumping : RETREATING
whether
advancing/retreat

RETREATING

e.Yearly generation : 228990 CUM
of waste quantity.

9528 CUM

MINING
OPERATION HAS
BEEN
DISCONTINUED
SINCE
17.05.2014.

c.Total area covered : 1.46 HA
under waste dump.

0.56 HA

d.No.and size of each : ONE

ONE, SIZE : 20000 SQ M,

waste dump with No of steps/lift/bench

HEIGHT : 12 M, ANGLE: 37 DEGREE

D. Production

b.Year wise :
production of last five year.

2012-13: 10838.530 MT MINING
2013-14 : 9114.830 MT OPERATION
2014-15: 1431.624 MT DISCONTINUED SINCE 17.05.2014 AS PER ORDER OF HON'BLE SUPREME COURT.

D. Reserve

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

RESERVE POSITION AS PER LATEST SCHEME OF MINING APPROVED ON 14.03.2012 IS AS FOLLOWS:
PROVED : 1006500 MT
PROBABALE: 1180740 MT
INFERRED; 430320 MT
PRODUCTION :
2012-13: 10838.530 MT,
2013-14: 9114.830 MT, &
2014-15 : 1431.624 MT

RESERVE POSITION AS ON 01/04/2015

MANGANESE ORE		
Category	Quantity in Tonnes	Grade
Proved	985115	34.12
Probable	1180740	34.12
Possible	430320	34.12
Total	2596175	

PRODUCTION FOR THE PREVIOUS YEAR 2014 - 2015

Mineral	Production	Unit
MANGANESE ORE	1431	TON

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

Efforts for improving low grade and sub grade mineral. : MANUAL SORTING AND PICKING OF ORE.

Efforts for improving percentage of recovery of ore. : SORTING AND PICKING

Mineral Rule 15

Percentage of recovery of ore : pitwise w.r.t. ROM and total material

Number of benches in ore and waste. : NUMBER OF BENCHES IN ORE : 3
NUMBER OF BENCHES IN WASTE : 2

Sub/grd mineral/fines (Rule16)

Qty of yearly generation and total qty available during inspection with grade : QUANTITY OF YEARLY GENERATION DURING 2014-15 : 29 MT
TOTAL QUANTITY AVAILABLE DURING INSPECTION : 3245 MT
WITH GRADE " 10-20 %.

Number and size of each stack : ONE STACK
SIZE: AREA 5000 SQ M, HEIGHT : 5 M & ANGLE: 5 M

Location of stacking. :

Separate stacking from waste : SEPARATELY STACKED FROM WASTE.

Total area covered for stacking : TOTAL AREA COVERED FOR STACKING : 5000 SQ M

Exploration data as on 31/03/ 2015

No. of Boreholes	No. of Pits	No. of Trenches
87		

OVERBURDEN HANDLED DURING PREVIOUS YEAR 2014 - 2015

Overburden/waste removed (in m3) :	9528
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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**

- d. Agriculture : NO AGRICULTURAL LAND WITHIN LEASE HOLD AREA
- a. Landscape. : HILLY UNDULATING TERRAIN
- e. Forest(flora and fauna) : VERY SMALL TREES AND BUSHES, NO FAUNA
- h. Public building, places and monuments (protected, historical), place of worship and places of tourist : NO MONUMENTS, NO PLACE OF WORSHIP NO PLACES OF TOURIST.

B Water environment.

- b. Ground water : MINING IS CARRIED OUT AT HIGHER ALTITUDE FROM THE GROUND WATER TABLE.
- a. Surface water : SURFACE WATER ACCUMULATED IN THE PIT IS USUALLY USED FOR DUST SUPPRESSION ON THE HAUL ROAD AND NEARBY VILLAGE ROAD.
- c. Quality of water : UNDERGROUND WATER IS PORTABLE WITH LITTLE TREATMENT

C. Air environment

- a. Noise : NOISE LEVEL IS UNDER PERMISSIBLE LIMIT (LESS THAN 85dBA)
- b. Air : AIR BORNE DUST IS UNDER PERMISSIBLE LIMIT
- c. Climatic condition : MAXIMUM TEMPERATURE MARCH TO JUNE : 41 TO 42 DEGREE
MINIMUM TEMPERATURE DURING WINTER 7 TO 8 DEGREE

D. Socio economic environment

- a. Social and demographic profile. : LOCAL PEOPLE ARE EMPLOYED IN THE MINE
- b. Recommending health and safety. : REGULAR MEDICAL CHECKUP IS DONEBY THE MANAGEMENT
- d. Recreational facility. : MANAGEMENT TAKES SPECIAL ATTENTION FOR SPORTS, CINEMA ETC

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>2014 - 2015</u>
				Area in Hect.
TOP SOIL MANAGEMENT				
Quantity as on 31/03/2015				

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

ANNUAL RETURN FOR THE 2014-15 HAS BEEN RECEIVED AND SCRUTINISED

COST OF OPERATION : Rs.3518.74/-

RESERVE: 111 : 985114 MT

121 & 122 : 1180740 MT

333 : 430320 MT

PRODUCTION : 1431.624 MT

PIT MOUTH VALUE: Rs.2730 /- BELOW 25%

Rs.5532/- 25 TO 35%

Rs.10298 /- 35 TO 46%

LAND USE PATTERN : MINING : 24.729 HA, DUMP : 6.35 HA ROAD ETC: 2.984 HA

FIXED ASSETS: Rs.699566.45

MINING OPERATION HAS BEEN DISCONTINUED SINCE 17.05.2014 AS PER ORDER OF HON'BLE SUPREME COURT.

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.

GPS COORDINATES OF STRATEGIC AND IMPORTANT BOUNDARY POINTS WERE VARIFIED. IT WAS OBSERVED THAT GPS READINGS MENTIONED ON THE BOUNDARY PILLAR WERE ALMOST MATCHING WITH THE READINGS MENTIONED ON THE DGPS MAP PREPARED BY OSAC DATED 09.11.2011.

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

SCHEME OF MINING HAS ALREADY BEEN APPROVED ON 14.03.2012 FOR THE PERIOD 2012-13 TO 2016-17.

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.

THE MINE OWNER HAS CARRIED OUT EXPLORATION AS PER UNFC NORMS AS FOLLOWS:

OUT OF TOTAL LEASE AREA 51.476 HA

EXPLORED UNDER G1 LEVEL 18.226 HA BH DRILLED 53 NUMBER METERAGE DRILLED 16.92 M

EXPLORED UNDER G2 LEVEL 6.503 HA BH DRILLED 24 NUMBER METERAGE DRILLED 766 M

EXPLORED UNDER G3 LEVEL 12.007 HA MAPPING ON A SCALE 1: 2000.

EXPLORED & FOUND NON-MINERALISED 14.74 HA BH DRILLED 10 NUMBER METERAGE DRILLED 319 M WITH A GRID INTERVAL 50 M X 50 M.

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.

WITHIN THE PRESENT PERIOD THE MINERALISATION WILL NOT EXHAUST HENCE CLOSING OPERATION IN PHASES DOES NOT ARISE.

PART - IV : PROPOSALS FOR FURTHER ACTION FOR :

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

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

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

Date :

(NARENDRA MOHAN DEY)

Indian Bureau of Mines