

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/MN/KJR/MCDR-7

Mine code : 400RI08017

- (i) Name of the Inspecting : **S024**) **DR. M K SOMANI**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Sri K.C.Sahoo , Mines Manager, Bhabagrahi Mohapatra ,
Official with
Designation
- (iv) Date of Inspection : 16/07/2014
- (v) Prev.inspection date : 14/05/2009

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **JARIBAHAL**
- (b) Category : B Manual
- (c) Type of Working : Opencast
- (d) Postal address
State : ORISSA
District : KEONJHAR
Village : JARIBAHAL
Taluka : BARBIL
Post office : PALSA
Pin Code :
FAX No. : 06767-72066
E-mail :
Phone : 06767-72101,72100
- (e) Police Station :
- (f) First opening date : 20/06/1954
2. Address for : JARIBAHAL MANGANESE MINE, M/S PATNAIK MINERALS P
correspondance P.O.PALSA, DIST:KEONJHAR
ORISSA-758034
3. (a) Lease Number : ORI0175
- (b) Lease area : 14.74
- (c) Period of lease : 20
- (d) Date of Expiry : 19/06/2014
4. Mineral worked : MANGANESE ORE Main

5. Name and Address of the

Lessee : PATNAIK MINERALS (P) LTD
 PATNAIK MINERALS (P) LTD
 POST :KEONJHARGARH
 KEONJHAR ORISSA
 Phone:06767-720101
 FAX :06767-72066

Owner : PATNAIK MINERALS (P) LTD
 POST: KEONJHARGARH
 KEONJHAR ORISSA
 Phone: 72101
 FAX : 72066

Agent : J.N.PATNAIK
 c/o PATNAIK MINERALS (P)
 LTD, POST :KEONJHARGARH
 KEONJHAR ORISSA
 Phone: 72101
 FAX : 72066

Mining Engineer

Name : Kailash Chandra Sahoo,Full Time
 Qualification : BE MINING
 Appointment/ : 15/09/2003
 Termination date

Geologist

Name : B.MAHAPATRA,Part Time
 Qualification : MSC GEOLOGY
 Appointment/ : 07/08/2004
 Termination date

Geologist

Name : Pritam Kesari Patra,Full Time
 Qualification : MSc GEOLOGY
 Appointment/ : 04/12/2006
 Termination date

6. Date of approval of Mining : 26/04/2012
 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	16	306
Workers	115	306
Supervisory	25	306

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		22.50		45.67	
Water supply		14.53		31.32	
Sanitation		0.64		1.25	
Health		1.75		3.11	
Sub total		39.42		81.35	
Infrastructure					
Sub total			39.42		
Training			4.11	7.94	
Employment			301.13	659.36	
Total			344.66	748.65	

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

During the current inspection following violations were observed and pointed out:

1. Rule 23: The yearly report on extent of protective and rehabilitation works carried out as envisaged in the approved Scheme of Mining has not been submitted so far for the year 2012-13 and 2013-14 to the RCOM, IBM, Bhubaneswar.

2. Rule 27: The copies of plans and sections as required under Rule 28 have not been updated properly.

3. Rule 29: The copies of plans and sections as required under Rule 28 have not been submitted for the year 2013-14 so far to the RCOM, IBM, Bhubaneswar.

4. Rule 45: The following discrepancies have been observed in the Annual Return 2012-13.

- i) Name of the mine/ owner is not given correctly.
- ii) No. of days the mine worked/remained closed not given.
- iii) Quality of grades produced not given.
- iv) Quality and quantity of mineral rejects generated not given.
- v) Stocks of subgrade, waste not given.
- vi) Bench parameters not given.

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 recommended

5. Scientific Mining

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

a.Type of prospecting : NIL
and exploration i.e.
pitting, drilling NIL

b.Total area covered : NIL NIL

B. Working (Rule 13)

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

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

c.Ore to waste ratio : NIL
pit wise if possible
otherwise for mine NIL

d.Total area covered : NIL
under excavation/pits NIL

C. Waste disposal (Rule 13)

a.Location of dumps :
2 SGM Non Mineralized
110S/980E to 110S/1300E
& 150N/950E to
300N/1100E
3 SGM Non Mineralised
310S/920E to 130S/1100E
and 110S/980E to
110S/1100E
4 OB/IW Non Mineralised
300N/250E to 240N/240E
and 320N/340E to
230N/400E

e.Yearly generation : NIL
of waste quantity. NIL

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

c.Total area covered : NIL
under waste dump.
400x204 = 81600SQ.M
220x122 = 26840SQ.M
150x85 = 12750SQ.M

d.No.and size of each : NIL
waste dump with No of
steps/lift/bench
400x204 = 81600
220x122 = 26840
150x85 = 12750

D. Production

b.Year wise : 2009-10 2009-10 1010080.000

production of last	3249907.000	2010-11	944519.000
five year.	2010-11	2011-12	27057.000
	3249907.000	2012-13	0.000
	2011-12	2013-14	0.000
	3349920.000		
	2012-13		
	3399952.000		
	2013-14		0.000

D. Reserve

a. Reserve position as : (2) Reserve
per latest MP/MS and
at the time of : 16.966
inspection. Million Tons

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

Category	Quantity in Tonnes	Grade
Proved	16966755	+45%Fe
Probable		
Possible		
Total	16966755	+45%Fe

PRODUCTION FOR THE PREVIOUS YEAR 2013 - 2014

Mineral	Production	Unit
MANGANESE ORE	0	TON

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

Efforts for improving low grade and sub grade mineral. : Screening and Crushing only.

Efforts for improving percentage of recovery of ore. : Screening and Crushing only.

Mineral Rule 15

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

Number of benches in ore and waste. : Quarry No-1 TO 9: Iron Ore 5 TO 8 NUMBER BENCHES

Sub/grd mineral/fines (Rule16)

Qty of yearly generation and total qty available during inspection with grade : NIL

Number and size of each stack : 1 no, (1) 55m x 36.86m x 8.22m

Location of stacking. : Quarry-5, Near Crusher

Separate stacking from waste : YES

Total area covered for stacking : 1.655Ha

Exploration data as on 31/03/ 2014

No. of Boreholes	No. of Pits	No. of Trenches
262	4	

OVERBURDEN HANDLED DURING PREVIOUS YEAR 2013 - 2014**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. : After the iron ore is exhausted within the quarry, the reclamation will be started. Accordingly, the development of landscape undertaken and the aesthetic environment of the lease area will be created.
- b. Aesthetic environment : NOT GOOD
- c. Soil and land use pattern : The top soil generation is nil. Therefore, no land has been kept under utilization for top soil storage.
- d. Agriculture : The agriculture land does not exist in the lease area but to prevent the agriculture land Contamination in and around we ensuring the mines runoff water quality are de-silted through check dams and guard wall and etc.
- e. Forest(flora and fauna) : The existing working area has got approval from MoEF and the remaining area (flora & Fauna) is taken care through safety zone plantation, fencing forest fire preparation, wild life awareness, controlled blasting are being followed. Beside these a site specific wild life conservation plan got approved by PCCF wild life.
- h. Public building, places and monuments (protected, historical), placec of worship and places of tourist : NONE
- f. Vegetation :

B Water environment.

- a. Surface water : The following major mitigation measures have been implemented to prevent the water pollution:
Retaining boulder wall of substantial strength has been constructed all around the bottom periphery of waste dumps with locally available boulders mixed with sand and cement, to arrest any rolling down of the dump materials. Garland drains been constructed all along the bottom periphery of waste dumps followed by the retaining wall to prevent any wash off or leaching of dump materials during heavy rain

C. Air environment

- a. Noise : Various measures have implemented to prevent noise pollution
 - o Provision of ear plugs and ear muffs to reduce noise level exposure.
 - o Use of silencers/mufflers in HEMM, noise insulating enclosures/acoustic cabins
 - o Control of ground movement due to blasting vibration is achieved by avoiding over-charging, use of delays and improved blasting technology.

- b. Air : The Following measures are being in practice to

control of air pollution in mining areas:

" Haulage & mineral dispatch road are maintained by regular & periodical water sprinkling through water tankers & auto fixed sprinkling for the length of 3 K.M.

" Dry-fogging to suppress the dust generation at crushing & screening plants & mineral handling roads.

" The drilling machine is equipped with dust extractor system & water- wetting at source

" Measures such as adoption of hoods at transfer points

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.

(2) Reserve	:	16.966 Million Tons
(3) Production	:	NIL
(4) Pit's Mouth Value	:	Iron Ore (58-64 Fe) 4250/Mt
(5) Stock	:	Sized Ore 69494.79 mt ; Fines 313511.62 Mt and sub
Grade		

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 :

(DR. M K SOMANI)

Indian Bureau of Mines