

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/KJR/MCDR-55/BBS

Mine code : 30ORI08069

- (i) Name of the Inspecting : **25**) **SHRI IBRAHIM SARIF**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 22/04/2015
- (v) Prev.inspection date : 05/02/2014

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **DEOJHAR**
- (b) Category : B Manual
- (c) Type of Working : Opencast
- (d) Postal address
State : ORISSA
District : KEONJHAR
Village : DEOJHAR
Taluka : BARBIL
Post office : DEOJHAR
Pin Code : 758038
FAX No. : 06767-272304
E-mail :
Phone : 06767-272304,273448
- (e) Police Station :
- (f) First opening date : 04/10/1995
2. Address for : DEOJHAR IRON MINE, DISTRICT KEONJHAR
correspondance : ORISSA, PIN: 758 038.
3. (a) Lease Number : ORI0721
- (b) Lease area : 34.37
- (c) Period of lease : 20
- (d) Date of Expiry : 04/09/2014
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : TARINI MINERALS
 AT P.O.BONIEKALA (JODA)
 KEONJHAR ORISSA
 Phone:
 FAX :

Owner : TARANI MINERALS(P) LTD
 BONEIKALA JODA KEONJHAR
 ORISSA
 Phone: 72304
 FAX : 72304

Mining Engineer

Name : S.K.GADANAYAK, Full Time
 Qualification : A.M.I.E MINING
 Appointment/ : 20/10/2003
 Termination date

Mining Engineer

Name : PRADYUMNA KUMAR NAYAK, Full Time
 Qualification : B.E (MINING)
 Appointment/ : 02/08/2000
 Termination date

Geologist

Name : S.K . SARANGI, Part Time
 Qualification : M.SC IN GEOLOGY
 Appointment/ : 01/11/1992
 Termination date

Manager

Name : BIJAYA KETAN RATH
 Qualification : DIPLOMA IN MINING
 Appointment/ :
 Termination date

Manager

Name : B.C. BEHERA
 Qualification : DIPLOMA IN MINING ENGINEERING & MINE SUR
 Appointment/ : 19/11/2000
 Termination date

6. Date of approval of Mining : 05/12/2014
 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
DIRECT		
Supervisory	5	300
Workers	43	300
Others	8	300

Managerial	4	300
CONTRACT		
Supervisory	8	300
Others	43	300
Managerial	4	300

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					
Sanitation		0.62		2.62	
Health		4.80		18.83	
Water supply		2.00		14.40	
Sub total		7.42		35.85	
Infrastructure					
Public transport			0.00	3.84	
Sub total			7.42	3.84	
Others			0.00	4.90	
Recreation			0.00	1.66	
Training			3.10	11.25	
Employment			58.50	180.01	
Total			69.02	237.51	

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

There was no outstanding violations.

During present inspection violation of rule 27(4), 33(2) and 42(1)(i) of MCDR, 1988 was pointed out and communicated to the party vide letter dated 07.05.2015.

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
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A. Exploration (Rule 13)

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

b.Total area covered : 7.55 Ha

B. Working (Rule 13)

a.Number and size of : 1 No. 300 x 220 up 1No., 300 x 208 up to
each pit (LxWxH) to depth 592 MRL depth 592.336 MRL

b.Bench : 8 M x 10 M 8M x 8M
size(LxWxH)length can
be defined as
regular/irregular

d.Total area covered : 6.8 Ha 6.8 Ha
under excavation/pits

c.Ore to waste ratio : 1 : 016 1 : 0
pit wise if possible
otherwise for mine

C. Waste disposal (Rule 13)

a.Location of dumps : Near pillar No. 16 Near pillar No. 16 and
and 17 17

D. Reserve

a.Reserve position as : Category
per latest MP/MS and Quantity(in MT) Grade
at the time of
inspection.

Proved 3637553.25
+ 45%

Probable 3969651.525
+45%

Possible 029686.70
+45%

Total
8636891.55
+45%

RESERVE POSITION AS ON 01/04/2015

IRON ORE		
Category	Quantity in Tonnes	Grade
Proved	3637553.25	+45% Fe
Probable	3969651.52	+45% Fe
Possible	1029686.7	+45% Fe
Total	8636891.47	

PRODUCTION FOR THE PREVIOUS YEAR 2014 - 2015

Mineral	Production	Unit
IRON ORE	118282	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

Efforts for improving percentage of recovery of ore. : Screening

Mineral Rule 15

Percentage of recovery of ore pitwise w.r.t. ROM and total material : 100

Number of benches in ore and waste. : Ore -11 no
Waste- Nil

Sub/grd mineral/fines (Rule16)

Qty of yearly generation and total qty available during inspection with grade : Generation=Nil
Closing stock=546436.0MT

Number and size of each stack : SG -1 - 115m x 112m = 1.29 Ha
SG-2 - 145m x 51m = 0.74 Ha
SG-3 - 80m x 70 m = 0.56 Ha.
SG-4 -160.32m x54.64 m= 0.876 Ha
SG-5 - 68.55m x 55.73m = 0.382 Ha

Location of stacking. : Sub Grade - 01
Near ML pillar No. 6 to 7
Sub Grade - 02
Near ML pillar No. 31 & 32
Sub Grade - 03
Near old crusher side
Sub Grade - 04
Near ML Pillar No-28- 29.
Sub Grade - 05
Near ML Pillar No-15-16.

Separate stacking from waste : Yes

Total area covered for stacking : 3.848 Ha

Exploration data as on 31/03/ 2015

No. of Boreholes	No. of Pits	No. of Trenches
41		

OVERBURDEN HANDLED DURING PREVIOUS YEAR 2014 - 2015**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. : The M.L. area has an undulating topography with a prominent hillock in the central part of the lease. Altitudes vary between 675m RL (highest) in the North western part of the lease to 525m.RL (lowest) in the South-eastern part of the lease.
- 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

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 constr- ucted all along the bottom periphery of waste dumps followed by the retaining wall to prevent any wash off or leaching of dump materials

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.
 - "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, proper design of chutes,

c. Climatic condition : moderate

D. Socio economic environment

c. Human settlement : No human settlement within lease 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.

Season	Station type	Station name	<u>Water Management</u>	
			Parameter	Value Actual Excess

Season	Station name	Type of area	Parameter	<u>Air data for excess parameters</u>	
				Actual	Excess

<u>PLANTATION DURING THE PREVIOUS YEAR</u>			<u>2014 - 2015</u>			Area in Hect.
Within lease area			Outside lease area			
Area	Trees planted	Survival rate	Area	Trees planted	Survival rate	
1.9	3050	63	0	0	0	

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.

(1) Cost of operation : 1486.44 Rs per Tonne

(2) Reserve

Classification	Code	Quantity	Grade
Proved Mineral Reserve	111	3315047.000	+45 Fe
Probable Mineral Reserve	121 & 122	1738739.000	+45 Fe
Prefeasibility Mineral Resource	221 & 222	25534316.000	+45 Fe

(3) Production 118282 MT(ROM)

(4) Pit's Mouth Value Lumps-4379.93 Rs per Tonne and Fines-1678.93 Rs per Tonne

(5) Stock position, Lumps-66914.570 MT, Fines-162743.840 MT, Sub grade-546436.0MT

(6) Land use pattern

Mining-6.8Ha, Waste dump-Nil, Infrastructure & road-2.4Ha,
Mineral & subgrade-3.85 Ha, Plantation-2.5Ha.

(7) Fixed assets: (in Rs.) 714520239

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.)

Encroachment by mine workings (Excavation) at places between ML boundary pillar no.33 to 34 tol in to the adjacent Sarada mines lease area and also a waste dump in west central part of the leasehold of M/s Tarini Minerals observed extended in to Darda Mines lease area. As reported by lessee's representative, above ground condition has been due to unclear demarcation of lease area and boundary dispute since long. Actual ground situation may please be confirmed and action as deem fit may be taken

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

None

Date :

(SHRI IBRAHIM SARIF)

Indian Bureau of Mines