

**INDIAN BUREAU OF MINES  
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

**MCDR INSPECTION REPORT**

**Bhubaneshwar regional office**

**Mine file No :** ORI/MN/KJR/MCDR-13/BBS

**Mine code :** 40ORI08026

- (i) Name of the Inspecting : **RAM** ) **RAMKISHAN R**  
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri Dipanjan Pal, Mine Manager  
Official with  
Designation
- (iv) Date of Inspection : 23/10/2018
- (v) Prev.inspection date : 11/01/2018

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **MANMORA**
- (b) **Registration NO.** : **4376/40ORI08026**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : KEONJHAR
- Village : BICHAKUNDI
- Taluka : CHAMPURA
- Post office : BICHAKUNDI
- Pin Code :
- FAX No. : 06767-211789
- E-mail : chiefofficejoda@tatasteel.co
- Phone : 06767-211789
- (f) Police Station : Champua
- (g) First opening date : 01/04/1967
- (h) Weekly day of rest : SUN
2. Address for : MONMORA MANGANESE MINES, M/S TISCO LTD  
correspondance P.O.JODA, DIST:KEONJHAR  
ORISSA-758034
3. (a) Lease Number : ORI0176
- (b) Lease area : 16.34
- (c) Period of lease : 20
- (d) Date of Expiry :
4. Mineral worked : MANGANESE ORE Main

## 5. Name and Address of the

Lessee : TISCO  
 Bombay House 24, Homy Mody  
 Street Mumbai MUMBAI  
 (SUBURBAN) MAHARASHTRA  
 Phone:  
 FAX :

Owner : Tata Steel Limited  
 Bombay House, 24, Homi Modi  
 Street Fort Mumbai MUMBAI  
 (SUBURBAN) MAHARASHTRA  
 Phone: 06572424602  
 FAX : 06572431818

## Manager

Name : Dipanjan pal  
 Qualification : B tech. (Mining)  
 Appointment/ : 15/06/2004  
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	20/07/2000
Plan/Scheme of Mining	:	Renewal under rule 24 MCR1960	21/11/2005
	:	Modif.of approved Mining Plan	26/03/2009
	:	Mining Scheme rule 12 MCDR1988	31/03/2010
	:	Mining Scheme rule 12 MCDR1988	07/04/2015

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Proposal not furnished in approved scheme of mining.	Nil	Nil
1b	Exploration over lease area for geological axis 1 or 2	Proposal not furnished in approved scheme of mining.	Nil	Out of total 16.38 ha lease area about 11.0 ha area is explored under G1 and 0.82 ha is under G2 and 4.53 ha area is non mineralised.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal.	Nil	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not proposed.	Nil	Out of total 16.38 ha lease area about 11.0 ha area is explored under G1 and 0.82 ha is under G2 and 4.53 ha area is non mineralised.
1e	Balance reserve as on 01/04/20	Resources /reserves as per the last approved plan under 221 : 0.07 Lakh T and 331 : 0.43 Lakh T	Resources /reserves as on 01/04/2018 are under 221 category : 0.07 Lakh T and 331 category : 0.43 Lakh T.	There is no mineable reserves as reported in approved scheme of mining.
1f	General remarks of inspecting officers on geology, exploration etc	No comments to offer.	There is no mineable reserves as reported in approved scheme of mining.	Nil

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Proposal not furnished in approved scheme of mining.	Nil	There is no mineable reserves as reported in approved scheme of mining and development has not been proposed.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Proposal not furnished in approved scheme of mining.	Nil	There is no mineable reserves as reported in approved scheme of mining and development has not been proposed.
2c	Stripping ratio or ore to OB ratio	Proposal not furnished in approved scheme of mining	Nil	There is no mineable reserves as reported in approved scheme of mining and development has not been proposed.
2d	Quantity of topsoil generation in m3	Not proposed.	Nil	There is no mineable reserves as reported in approved scheme of mining and development has not been proposed.
2e	Quantity of overburden generation in m3	Not proposed	Nil	Nil
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	No comments to offer.	Pit has been exhausted. There is no mineable reserves as reported in approved scheme of mining and accordingly development has not been proposed.	Nil

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### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Proposal not furnished in approved scheme of mining.	Nil	Pit has been exhausted. The development and production of ROM from pit has not been proposed.

3b	Quantity of ROM mineral production proposed	Proposal not furnished in approved scheme of mining.	Nil	Pit has been exhausted. The development and production of ROM from pit has not been proposed.
3c	Recovery of sailable/usable mineral from ROM production	Proposal not furnished in approved scheme of mining.	Nil	Nil
3d	Quantity of mineral reject generation	Proposal not furnished in approved scheme of mining.	Nil	Nil
3e	Grade of mineral rejects generation and threshold value declared.	Proposal not furnished in approved scheme of mining.	Nil	Nil
3f	Quantity of sub grade mineral generation.	Proposal not furnished in approved scheme of mining.	Nil	Nil
3g	Grade of sub grade mineral generation	Proposal not furnished in approved scheme of mining.	Nil	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Proposal not furnished in approved scheme of mining.	Nil	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Proposal not furnished in approved scheme of mining.	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Proposal not furnished in approved scheme of mining.	Nil	Nil

3k	Provision of mining machineries in mineral benches	Proposal not furnished in approved scheme of mining.	Nil	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposal not furnished in approved scheme of mining.	Nil	Nil
3m	Total area covered under excavation/pits	Proposal not furnished in approved scheme of mining.	Nil	Pit has been exhausted. The development and production of ROM from pit has not been proposed.
3n	Ore to OB ratio for the pit/mine during the year.	Proposal not furnished in approved scheme of mining	Nil	Nil
3o	Total area put in use under different heads at the end of year	Proposal not furnished in approved scheme of mining.	Nil	Pit has been exhausted. The development and production of ROM from pit has not been proposed.
3p	Production of ROM mineral during the last five year period as applicable	2013-14: Nil 2014-15: Nil 2015-16: Nil 2016-17: Nil 2017-18: Nil	2013-14: Nil 2014-15: Nil 2015-16: Nil 2016-17: Nil 2017-18: Nil	Only re- handling of sub grade dump by manual screening has been proposed till 2016-17.
3q	General remarks of inspecting officers on method of mining etc.	No comments to offer.	Pit has been exhausted. The development and production of ROM from pit has not been proposed.	Nil

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Solid Waste Management - Dumping:

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Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Proposal not furnished in approved scheme of mining.	Nil	Pit has been exhausted. The development and production of ROM from pit has not been proposed.
4b	Location of topsoil, OB and mineral reject dumps	Proposal not furnished in approved scheme of mining.	Nil	Nil
4c	Number of dumps within lease area and outside of lease area	Proposal not furnished in approved scheme of mining.	There is one old waste dump in south western part the lease and one sub grade dump in south eastern part of lease.	The waste dump is fully rehabilitated by plantation.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposal not furnished in approved scheme of mining.	Nil	Nil
4e	Number of active and alive dumps.	Proposal not furnished in approved scheme of mining.	Nil	Nil
4f	Number of dead dumps.	Proposal not furnished in approved scheme of mining.	There is one old waste dump in south western part the lease and one sub grade dump in south eastern part of lease.	The waste dump is fully rehabilitated by plantation.
4g	Number of dumps established.	Proposal not furnished in approved scheme of mining.	The dead dump is fully rehabilitated by plantation.	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposal not furnished in approved scheme of mining.	Nil	Nil
4i	Length of Retaining wall or garland drain all along dumps	Proposal not furnished in approved scheme of mining.	Nil	Nil

4j	Number of settling ponds	Proposal not furnished in approved scheme of mining.	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	No comments to offer.	There is one old waste dump in south western part the lease and one sub grade dump in south eastern part of lease. The dead dump is fully rehabilitated by plantation.	Nil

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Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Not proposed.	Nil	Pit is covering about 10.16 ha area which has been mined out and exhausted. The developepment and production of ROM from pit has not been proposed.
5b	Area under backfilling of mined out area	Not proposed.	Nil	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not proposed.	Nil	Nil
5d	Total area fully reclaimed and rehabilitated	0.26 ha area proposed for rehabilitation	About 0.26 ha area has been rehablitated by bench plantation and waste dump of 1.66 ha area has been rahbilitated by plantation.	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	No comments to offer.	waste dump of 1.08 ha area has been rehabilitated by plantation.	Nil

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## Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Not specified.	Annual return on PMCP has been submitted by lessee.	Nil
6b	Area available for rehabilitation (ha) .	0.26 ha in the form of bench planation.	0.26 ha bench planation carried out.	Nil
6c	afforestation done (ha).	1.08 ha on waste dump, 2.749 ha waste land, 0.26 ha worked out benches and 2.36 ha backfilled area.	afforestation on 1.66 ha on waste dump, 2.749 ha waste land, 0.26 ha worked out benches and 2.36 ha backfilled area carried out.	Nil
6d	No. of saplings planted during the year	3000 nos	3500 nos.	Nil
6e	Cumulative no .of plants	Not specified.	So far 45341 nos. of saplings have been planted by lessee.	Nil
6f	Any other method of rehabilitation	Bench plantation.	0.26 ha bench plantation carried out.	Nil
6g	Cost incurred on watch and care during the year	Rs. 210000	Rs. 384650	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	Not proposed.	Nil	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not proposed.	Nil	Nil

6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	1000 nos planation proposed.	carried out.	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed.	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not proposed.	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	1000 nos planation proposed.	carried out.	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	2.749 ha	2.749 ha	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Proposal not furnished in approved scheme of mining.	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly monitoring of air, water, noise quality.	carried out.	Nil

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	No comments to offer.	waste dump of 1.08 ha area has been rehabilitated by plantation.	Nil
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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Proposal not furnished in approved scheme of mining.	Nil	Pit has been exhausted. The developepment and production of ROM from pit has not been proposed.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Proposal not furnished in approved scheme of mining.	Nil	Nil
7c	Different grade of mineral sorted out at mines.	Proposal not furnished in approved scheme of mining.	Nil	Nil
7d	Any beneficiation process at mines .	Proposal not furnished in approved scheme of mining.	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	No comments to offer.	Pit has been exhausted. The developepment and production of ROM from pit has not been proposed.	Nil

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#### Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	Proposal not furnished in approved scheme of mining.	Nil	Pit has been exhausted. The development and production of ROM from pit has not been proposed.
8b	Concurrent use or storage of topsoil	Proposal not furnished in approved scheme of mining.	Nil	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposal not furnished in approved scheme of mining.	Nil	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposal not furnished in approved scheme of mining.	Nil	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	0.26 ha bench plantation proposed.	carried out.	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	3000 nos plantation proposed.	3500 nos plantation carried out on benches, dumps and waste land.	Nil
8g	Survival rate	Not proposed.	87%	Nil
8h	Water sprinkling on roads to control airborne dust	Proposal not furnished in approved scheme of mining.	Nil	Nil

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	No comments to offer.	Pit has been exhausted. The development and production of ROM from pit has not been proposed. growing of bee-hive initiative was taken to increase the bio diversity of the area.	Nil
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	submit before 1st July of previous year annual return.	Annual return and monthly return has been submitted regularly.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate mining engineer-1, Geologist-1	Graduate mining engineer-1, Geologist-1	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Waste disposal- 4.59ha, Plant, building-0.57, Railway & others- 4.53ha. Area under PMCP- 3.5ha.	Waste disposal- 4.59ha, Plant, building-0.57, Railway & others- 4.53ha. Area under PMCP- 3.5ha.	Nil
9d	Scrutiny of Annual return on afforestation	3500 nos	3500 nos	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil	Pit has been exhausted. The development and production of ROM from pit has not been proposed.

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM cloing stock: Nil 25% to below 35% Mn closing stock: 1131.494 t 35% to below 46% Mn clsoing stock: 17.528 t	ROM cloing stock: Nil 25% to below 35% Mn closing stock: 1131.494 t 35% to below 46% Mn clsoing stock: 17.528 t	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Nil	Nil	Pit has been exhausted. The developepment and production of ROM from pit has not been proposed.
9h	Scrutiny of Annual return on fixed assets	Nil	Nil	Pit has been exhausted. The developepment and production of ROM from pit has not been proposed.
9k	Scrutiny of Annual return on mining machineries	Nil	Nil	Pit has been exhausted. The developepment and production of ROM from pit has not been proposed.

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**Details of violations observed during current inspection and compliance position of violation pointed out**

Violation observed		Show couse position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on

**Date :**

(RAMKISHAN R)

Indian Bureau of Mines