INDIAN BUREAU OF MINES
MINERALS DEVELOPMEMT AND REGULATION DIVISION

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/KJR/MCDR-32/BBS **Mine code : 30ORI08027**

(i) Name of the Inspecting Officer and ID No. : **CHHA) SHRI L H CHHANGTE**

(ii) Designation : Deputy Controller Mines

(iii) Accompaning mine Official with Designation : Sri Rajesh Kumar , Mines Manager

(iv) Date of Inspection : 29/01/2016

(v) Prev.inspection date : 27/04/2015

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **JODA EAST**

(b) Registration NO. :

(c) Category : A Mechanised

(d) Type of Working : Opencast

(e) Postal address

State	:	ORISSA
District	:	KEONJHAR
Village	:	JODA
Taluka	:	BARBIL
Post office	:	JODA
Pin Code	:	758034
FAX No.	:	0657-425847
E-mail	:	shailesh.verma@tatasteel.c
Phone	:	06757 - 424401

(f) Police Station : JODA

(g) First opening date : 01/04/1956

(h) Weekly day of rest : SUN

2. Address for correspondance : JODA EAST IRON MINES
VILL/PO-JODA
DIST-KEONJHAR PIN- 758034

3. (a) Lease Number : ORI0106
(b) Lease area : 671.09
(c) Period of lease : 20
(d) Date of Expiry : 30/06/2005

4. Mineral worked :

IRON ORE	Main
MAGNESITE	Associated
KAOLIN	Associated

5. Name and Address of the

Lessee : TATA IRON & STEEL CO. LTD.
TATA IRON & STEEL CO. OMQ,
NUAMUNDI JHARKHAND
SINGHBHUM (WEST) JHARKHAND
Phone:
FAX :

Owner : TATA IRON & STEEL CO. LTD.
TATA IRON & STEEL CO. LTD.
OMQ, NUAMUNDI SINGHBHUM
WEST, JHARKHAND SINGHBHUM
(WEST) JHARKHAND
Phone:
FAX :

Agent : SHRI SAILESH VERMA
JODA EAST IRON MINE M/E
TATA STEEL LTD. AT/PO: JODA
- 758 034 KEONJHAR ORISSA
Phone: 09238101031
FAX : 06767-272010

Geologist
Name : SHRI TARUN CHAKRABORTY,Full Time
Qualification : M.Sc (GEOLOGY)
Appointment/ Termination date : 01/10/2006

Manager
Name : SHRI NIRANJAN SAHOO
Qualification : B.E. MINING
Appointment/ Termination date : 06/02/2008

6. Date of approval of Mining Plan/Scheme of Mining :

Renewal under rule 22 MCR1960	07/06/2004
Modif.of approved Mining Plan	19/07/2007
Mining Scheme rule 12 MCDR1988	02/07/2010
Mining Scheme rule 12 MCDR1988	26/03/2015

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	None	
1b	Exploration over lease area for geological axis 1 or 2	608.906 Ha	All of 608.906 ha has been explored under G1 &2	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Departmental	Departmental	
1d	Balance area to be explored to bring Geological axis in 1 or 2	657.547 ha	657.547 ha is actual surface right holding area	
1e	Balance reserve as on 01/04/20	186.74 MMT as on 01/04/2015	Actual is found to be same as projected	

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	North Pit in North Block and South Pit in South Block	Developed 2 Pits as proposed	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Proposed	Sepoerate benches in top soil, Ob , Ores ahve been developed as proposed	
2c	Stripping ratio or ore to OB ratio	1:0.46	Actual turned out to be 1:0.44	
2d	Quantity of topsoil generation in m3	NIL	None	practically no top soil here
2e	Quantity of overburden generation in m3	6,80,000 MT for 2014-15	Achieved was 6,46,000 MT for the same year	NO significant deviation

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		Development has been found to be in commensurate with the production

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2	Pits developed as proposed . 1 each in North and South block	
3b	Quantity of ROM mineral production proposed	120,00,000 MT for 2014-15	Actual production for the same year was 81,75,000 MT only	Significant under prodcution due some internal consumption problems
3c	Recovery of sailable/usable mineral from ROM production	90% recovery from ROM	Actual turned out to be 87%	
3e	Grade of mineral rejects generation and threshold value declared.	-45% Fe was Mineral Rejects	Threshold value was 45% Fe	
3f	Quantity of sub grade mineral generation.	25 MMT	Actual sub grade generation during 2014-15 was 23.32 MMT only	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised method	Mechanised Method in vogue	
3j	Provision of drilling and blasting in mineral benches	Yes	Provisions of drilling and blasting in benches	
3k	Provision of mining machineries in mineral benches	Yes	All typpes of mining machineries have been deployed in this mine	

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Specific proposal for bench dimensions made in approved MP	Benches are 9 m high , 12-20m wide , regular in shape and sizes	
3m	Total area covered under excavation/pits	389.995 ha	Actual was also 389.995 ha	
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.46	Actual turned out to be 1: 0.44	
3o	Total area put in use under different heads at the end of year	Specific proposal made in the approved MP	Pits- 389.995 ha, Waste dumps - 110.332 ha, Plants etc- 60.92 ha , Stackings- 68.611 ha	Land use found to be as proposed
3p	Production of ROM mineral during the last five year period as applicable		Production for the year 2014-15 was 77,52,558 MT	
3q	General remarks of inspecting officers on method of mining etc.			The mine has been developed scientifically

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Proposed	There are seperate dumpings for wastes, top soil, fines in this mine	
4b	Location of topsoil, OB and mineral reject dumps	One each of Waste Dump proposed in both the Northern and Southern pits	Developed as proposed	These Waste dumps ahve been redesignated as as Sub Grade dumps recently due to lowering of Threshold value from erstwhile 55% Fe to 45% Fe

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Speficic designs made in MP	Dumps are well within the UPL	
4e	Number of active and alive dumps.	2 active dumps proposed	Developed as proposed	
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining walls proposed all along the base of the 2 dumps	Retaining walls erected as proposed	
4i	Length of Retaining wall or garland drain all along dumps	5 ha each is the proposed area of Dump-N and Dump -S	Dump-N is 5 ha whereas Dump-s is 3.5 ha only. Total of 1560 m long retaining walls have been erected (900m + 750m)	
4j	Number of settling ponds	Regular settling ponds proposed	Settling ponds have been developed on a regular basis all along the retaining wall as well	
4k	Specific comments of inspecting officer on waste dump management			Practically there has been no problem in solid waste management in this mine

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.	5 ha	Only 3.73 ha has been excavated fully	
5b	Area under backfilling of mined out area	4 ha	Only 3.73 ha which has been fully exhausted has been actually backfilled as on date of inspection	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Proposed	All top soil removed has been utilised fully for civil works	

5d	Total area fully reclaimed and rehabilitated	NIL	No area has been fully matured for the same except part backfilling	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Reclamation and rehabilitation has been satisfactorily carried out as proposed

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).		Annual report on PMCP has been submitted to IBM regularly	
6b	Area available for rehabilitation (ha) .	5 ha proposed	Actual area available is 3.73 ha only	
6d	No. of saplings planted during the year	16500 saplings to be planted for the year 2014-15	Actual plantations also same at 26,500 saplings during the year	
6e	Cumulative no .of plants		Within the ML area - 3,69,703 plants covering an area of 95.8 ha (survival rate being 80%) and another 2,61,366 plants outside the ML (survival rate being 70%)	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Specific proposal made in this aspect in MP	carried out as proposed satisfactorily	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			There has been no problem in carrying out specific works as envisaged under the approved PMCP

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Specific proposals made	carried out as proposed . This being a captive mine of TATA	This a captive mine of TATA. Despatch of ROM to their own plants in the neighbouring areas only
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Sorting mechanically by screening is in vogue	
7c	Different grade of mineral sorted out at mines.	Lumps and Fines	All types of grades are found in this mine.	Most of the ROM is upgraded to + 65 % Fe
7d	Any beneficiation process at mines .	Dry Mechanical process of beneficiation	Practised as proposed	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Practically no problem in this aspect of Mineral conservation

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	NIL	Practically no Top soil here	
8b	Concurrent use or storage of topsoil	Porposed	Whatever top soil that has been generated in a small limited amount has been fully utilised for civil works within and outside the ML	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Porposed	There are sepearted dumpings for OB, Wastes, Fines	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Phase restoration proposed	Partial restoration has been in vogue in this mine as proposed in their approved MP	
8g	Survival rate	80%	70-80% in actual during the past years of operations	
8h	Water sprinkling on roads to control airborne dust	Specific proposals made	Regualr sprinkling by water tankers and fixed line sprinkling are in vogue in this mine	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The effects of environment due to mining activities have been kept to a bare minimum in this mine. All environmental parameters are found to be well within the permissible limits

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Proposed	monthly and Annual Returns have been submitted on a regula r basis	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Proposed	All statutory employment has been made as proposed in this mine	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Specifics proposals made	All alnd use pattern has been found to be more or less as proposed in their mining plan	

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	During 2014-15, 0.646 MMT of Wastes generated (-45% Fe)	The same has been stacked seperately
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Production for the year 2014-15 was 7.755 MMT	Closing stock was at 7.30 MMT
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	All the ROM despatched has been consumed by the TATA themselves	This is a captive mine of TATA.
9k	Scrutiny of Annual return on mining machineries	Scrutinised	Adequate no of machineries have been deployed in this mine

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 :

(**SHRI L H CHHANGTE**)

Indian Bureau of Mines