

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

**MCDR INSPECTION REPORT**

**Bhubaneshwar regional office**

**Mine file No :** ORI/IRON/KJR/MCDR39/BBS

**Mine code :** 30ORI08035

- (i) Name of the Inspecting : **AKP** ) **ASHOK KUMAR PANY**  
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : **SHRI RAHUL KISHORE, MINES MANAGER**  
Official with  
Designation
- (iv) Date of Inspection : 21/11/2021
- (v) Prev.inspection date : 22/12/2020

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **KATAMATI**
- (b) **Registration NO.** : **IBM/4376/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : KEONJHAR
- Village : KATAMATI
- Taluka : BARBIL
- Post office : DEOJHAR
- Pin Code :
- FAX No. : 06596233706
- E-mail : rsgarbi@noa.tatasteel.com,l
- Phone : 06596233706
- (f) Police Station : Barbil
- (g) First opening date : 01/05/1934
- (h) Weekly day of rest : SUN
2. Address for : VILL. KATAMATI  
correspondance P.S JODA  
DIST.KEONJHAR.PIN: 758034
3. (a) Lease Number : ORI0107
- (b) Lease area : 403.32
- (c) Period of lease :
- (d) Date of Expiry : 31/03/2030
4. Mineral worked : IRON ORE Main

## 5. Name and Address of the

Lessee : M/S TATA STEEL LTD  
 NUAMUNDI SINGBHUM WEST  
 JHARKHAND SINGHBHUM (WEST)  
 JHARKHAND  
 Phone:06596-233740  
 FAX :06596-233706

Owner : T V NARENDRAN  
 TATA STEEL LIMITED  
 JAMSHEDPUR, POST-BISTUPUR  
 SINGBHUM EAST, JHARKHAND  
 SINGHBHUM (EAST) JHARKHAND  
 Phone: 06572431818  
 FAX : 0657-2431818

Agent : SHIRISH SHEKHAR  
 KHONDBOND IRON AND MN MINES  
 KEONJHAR ODISHA KEONJHAR  
 ORISSA  
 Phone: 7209003547  
 FAX : 0676772239

## Mining Engineer

Name : RAHUL KISHORE, Full Time  
 Qualification : B.E MINING  
 Appointment/ : 07/01/2017  
 Termination date

## Geologist

Name : SHRI MITHUN MUKHARJEE, Full Time  
 Qualification : MTECH APPLIED GEOLOGY  
 Appointment/ : 15/05/2019  
 Termination date

## Manager

Name : RAHUL KISHORE  
 Qualification : B.E MINING  
 Appointment/ : 07/01/2017  
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	06/07/2001
		Modif.of approved Mining Plan	19/07/2007
		Mining Scheme rule 12 MCDR1988	29/09/2009
		Mining Scheme rule 12 MCDR1988	15/04/2013
		Modif.approved Mining Scheme	30/08/2016
		MS modif under MCR 1960	09/06/2017
		MP review under 17(1) MCR 2016	09/11/2017
		Modif.approved Mining Scheme	13/07/2020

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	49 Nos. of bore holes back log for the year 2019-20	Nil	
1b	Exploration over lease area for geological axis 1 or 2	During the year 2020-21, 98 Nos. of Bore holes proposed.	4 Nos. Drilled	The same are not in proposed area. Violation letter issued for non-compliance of exploration proposal.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not proposed	Tata steel Ltd, 7.2 Lakhs	
1d	Balance area to be explored to bring Geological axis in 1 or 2	NA	152.7 ha to be explored as G1 or G2 category	
1e	Balance reserve as on 01/04/20	As per the approved Modification of Review of Mining Plan the reserve position as on 01.04.2020 is as follows:- Reserve - 83.84 million tonne Resource- 30.59 million tonne	After depleting production for the year 2020-21, the reserve position as on 31.03.2021 is as follows:- Reserve - 78.88 million tonne Resource- 30.59 million tonne	
1f	General remarks of inspecting officers on geology, exploration etc			The exploration has not been completed due to delay in getting forest clearance.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	The development is proposed in quarry-1 during the year 2020-21	Quarry-1	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches proposed	Carried out	
2c	Stripping ratio or ore to OB ratio	1:0.17	1:0.09	
2d	Quantity of topsoil generation in m3	Nil	Nil	
2e	Quantity of overburden generation in m3	136000 Cum	468875.18 Cum	Less development due to delay in forest clearance.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The mining operation carried out in mechanised opencast method.

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#### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit i.e Quarry-1	One pit i.e Quarry-1	
3b	Quantity of ROM mineral production proposed	8 million tone	4.96 million tonne	Due to non-availability of forest clearance.
3c	Recovery of sailable/usable mineral from ROM production	7.6 million tonne	4.6 million tonne	
3d	Quantity of mineral reject generation	0.4 million tonne	0.34 million tonne	

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3e	Grade of mineral rejects generation and threshold value declared.	Grade of mineral reject-53.26% and threshold value is 45%	Grade of mineral reject-53.26% and threshold value is 45%
3f	Quantity of sub grade mineral generation.	Same as mineral reject	Same as mineral reject
3g	Grade of sub grade mineral generation	Same as mineral reject	Same as mineral reject
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Drilling carried out by 150mm dia drills and blasting carried out by using SME explosives with electrinic detonators	Drilling carried out by 150mm dia drills and blasting carried out by using SME explosives with electrinic detonators
3k	Provision of mining machineries in mineral benches	Shovel, Dumper, Drill, Dozer and Grader	Shovel, Dumper, Drill, Dozer and Grader
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height is proposed as 12m	Bench height is proposed as 12m and the same is suitable.

3m	Total area covered under excavation/pits	Area under excation pit proposed during plan period is 144.18 ha	Area under excation pit as on 31.03.2021 is 79.6022 ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.17	1:0.09	
3o	Total area put in use under different heads at the end of year	Total are put to use under different head during plan period is 241.1964 ha	Total are put to use under different head on 31.03.2021 is 144.9355 ha	
3p	Production of ROM mineral during the last five year period as applicable	2016-17- 7.89 million tonne 2017-18- 8.0 million tonne 2018-19- 6.8 million tonne 2019-20- 8.0 million tonne 2020-21- 8.0 million tonne	2016-17- 5.74 million tonne 2017-18- 7.32 million tonne 2018-19- 5.02 million tonne 2019-20- 4.82 million tonne 2020-21- 4.96 million tonne	
3q	General remarks of inspecting officers on method of mining etc.			The mining operation was carried out in mechanised opencast method.

#### Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping of OB and mineral reject has been proposed. No generation of Top soil.	Carried out.	
4b	Location of topsoil, OB and mineral reject dumps	Wsate Dump- 10518N-10875N 11408E-11794E  Mineral Reject- 9840N-10225N 11840E-12265E	Wsate Dump- 10518N-10875N 11408E-11794E  Mineral Reject- 9840N-10225N 11840E-12265E	

4c	Number of dumps within lease area and outside of lease area	Two dumps inside lease area and no dumps out side	Two dumps inside lease area and no dumps out side
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out side UPL	Out side UPL
4e	Number of active and alive dumps.	Two	Two
4f	Number of dead dumps.	Nil	Nil
4g	Number of dumps established.	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Yes carried out as per proposal
4i	Length of Retaining wall or garland drain all along dumps	Retaing wall- 979.00 Meter Garland Drain- 979.00 Meter	Retaing wall-980.00 Meter Garland Drain- 980.00 Meter
4j	Number of settling ponds	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management		Plantation of tree and vertiver grass plantation has been carried out on the bench slope of the waste dump.

#### 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.	Mineral completely excavated from Part area and proposed for back filling	Mineral completely excavated from Part area and proposed for back filling	
5b	Area under backfilling of mined out area	15.88 ha	1.40 ha	Violation pointed out to lessee for non-compliance of proposal.

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Nil	Nil	
5d	Total area fully reclaimed and rehabilitated	Nil	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Partial back filling started in Pit-1 of the mine.

#### 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).	To be submitted on or before	Submitted on 28.06.2021	
6b	Area available for rehabilitation (ha) .	Nil	Nil	
6c	afforestation done (ha).	2.0 ha	2.0 ha	
6d	No. of saplings planted during the year	5000 Nos.	5022 Nos.	
6e	Cumulative no .of plants	22500 Nos	21845 Nos.	
6f	Any other method of rehabilitation	Nil	Nil	
6g	Cost incurred on watch and care during the year	1.5 lakh	18.77 lakh	



6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	15.88 ha	1.40 ha
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Nil	0.02 ha
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Nil	0.02 ha

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Nil	150 nos of Plantation	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Monitoring proposed	Carried out	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			The progressive closure operation carried out as per proposal except back filling.

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Both ROM dispatch and gradewise sorting proposed	Both ROM dispatch and gradewise sorting carried out.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	
7d	Any beneficiation process at mines .	No beneficiation plant in side lease area	No beneficiation plant in side lease area	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			The low grade ore blended with high grade and dispatched.

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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)	No generation of top soil proposed	Nil	
8b	Concurrent use or storage of topsoil	Nil	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of waste and mineral reject proposed	Carried out	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Back filling proposed	Carried out	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Nil	Nil	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	5000 Nos of plantation	5022 Nos. of Plantation	
8g	Survival rate	80%	82%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling proposed	Carried out	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The aesthetic beauty maintained around mines.

## Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	The anuual return to be submitted on or before 1st July	Submitted	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	The information of Mining Engineer , Manager and Geologist furnished in the return	Mining Engineer , Manager and Geologist appointed	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under Pit-79.132 ha, Reclaimed area-0 ha, Area under waste Dump-7.807 Ha	Area under Pit-79.132 ha, Reclaimed area-0 ha, Area under waste Dump-7.807 Ha	
9d	Scrutiny of Annual return on afforestation	5172 Nos.	Plantation carried out	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	340979 tonne , 53.26 % Fe	340979 tonne , 53.26 % Fe	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	The ROM stock is 8410206.028 tonne	The ROM stock is 8410206.028 tonne	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production is Rs. 1094.79	Cost of production is Rs. 1094.79	This is a captive mine
9h	Scrutiny of Annual return on fixed assets	The Value of fixed Assets is Rs. 587320021/-	The Value of fixed Assets is Rs. 587320021/-	

9k Scrutiny of Annual return on mining machineries

Shovel 5.9 Cum-2 Nos.	Shovel 5.9 Cum-2 Nos.
Dumper 91 tonne- 5 Nos.	Dumper 91 tonne- 5 Nos.
Drill 150mm dis- 2 Nos.	Drill 150mm dis- 2 Nos.
Grader 280 HP-1 Nos.	Grader 280 HP-1 Nos.
Dozer-410 HP-1 Nos.	Dozer-410 HP-1 Nos.
Water Sprinkler - 1 Nos.	Water Sprinkler - 1 Nos.

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

Violation observed			Show cause position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17	Rule 11(1)	26/11/2021			
MCDR17	Rule 45(7)(a)	26/11/2021			

**Date :**

**(ASHOK KUMAR PANY)**

Indian Bureau of Mines