

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

**MCDR INSPECTION REPORT**

**Bhubaneshwar regional office**

**Mine file No :** ORI/IRON/SNG/MCDR-20/BBS

**Mine code :** 30ORI13043

- (i) Name of the Inspecting : **SRM** ) **SHRI SUDIP RANJAN MAZUMDAR**  
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : **SHRI ANURAG DAS MINES MANAGER**  
Official with  
Designation
- (iv) Date of Inspection : 17/07/2020
- (v) Prev.inspection date : 04/12/2019

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **BHANJPALI**
- (b) **Registration NO.** : **IBM / 8414 /2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : SUNDARGARH
- Village : BHANJPALI
- Taluka : BONAI
- Post office : KOIRA
- Pin Code : 758038
- FAX No. : 06767-270107
- E-mail : jnp\_joda@rediffmail.com
- Phone : 06767-270106
- (f) Police Station : Koira
- (g) First opening date : 01/10/1997
- (h) Weekly day of rest : SUN
2. Address for : VILL. BHANJAPALI, PO. KOIRA  
correspondance DIST. SUNDARGARH, ORISSA  
PIN. 770048
3. (a) Lease Number : ORI0615
- (b) Lease area : 18
- (c) Period of lease : 30
- (d) Date of Expiry : 31/03/2027
4. Mineral worked : IRON ORE Main

## 5. Name and Address of the

Lessee : SHRI J N PATNAIK  
 BANEIKALA JODA KEONJHAR  
 KEONJHAR ORISSA  
 Phone:06767-270106  
 FAX :06767-270107

Owner : SHRI J N PATNAIK  
 BONEIKALA JODA KEONJHAR  
 KEONJHAR ORISSA  
 Phone: 06767-270106  
 FAX : 06767-270107

## Manager

Name : SHRI JAGDISH MOHANTA  
 Qualification : B E MINING  
 Appointment/ : 01/09/2018  
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	15/07/2002
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	15/02/2008
		Modif.approved Mining Scheme	07/03/2011
		Mining Scheme rule 12 MCDR1988	04/07/2014
		MP review under 17(1) MCR 2016	31/08/2017
		Modif.approved Mining Scheme	08/03/2019

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	2017-18: 6 BHs 2018-19: 6 BHs 2019-20: 12 BHs	2017-18: Nil 2018-19: 12 BHs 2019-20: 6 BHs	Violation has been issued for non-compliance of exploration proposal for 2019-20 under rule 11(1) of MCDR 2017
1b	Exploration over lease area for geological axis 1 or 2	In 2019-20, 12 numbers of boreholes have been proposed to be drilled.	In 2019-20, 6 nos of boreholes have been drilled.	Violation has been issued for non-compliance of exploration proposal for 2019-20 under rule 11(1) of MCDR 2017
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not Specified	Exploration Agency: M/s Gemco Kati Exploration; Expenditure incurred: Rs 8 lakhs	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	In 2019-20, 12 numbers of boreholes have been proposed to be drilled.	In 2019-20, 06 nos of boreholes have been drilled. Balance area to be explored in G1 or G2 is 9.2 Ha	Nil
1e	Balance reserve as on 01/04/20	As per modification of review of mining plan approved dated 08.03.2019, as on 01.11.2018, the reserve is 2411654 tones and remaining resources is 509891 tones. Total Reserve and Resource is 2921545 tones.	ROM production from 01.11.2018 to 31.03.2020 was 284200 tones. Reserves have updated by depleting the above quantity. Reserve as on 01.04.2020 is 2117454 tones and remaining resources at 509891 tones. Total reserve and resource as on 01.04.2020 is 2627345 tones	ROM production from 01.11.2018 to 31.03.2020 was 284200 tones. Reserves have updated by depleting the above quantity. Reserve as on 01.04.2020 is 2117454 tones and remaining resources at 509891 tones. Total reserve and resource as on 01.04.2020 is 2627345 tones

1f	General remarks of inspecting officers on geology, exploration etc	In 2018-19, 12 numbers of boreholes have been proposed to be drilled.	In 2018-19, 06 nos of boreholes have been drilled.	Violation has been issued for non-compliance of exploration proposal for 2019-20 under rule 11(1) of MCDR 2017
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	It has been proposed to develop Quarry-1&2 and Quarry-3	Developed Quarry-1&2 and Quarry-3	Nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	There is no proposal for top soil generation. Separate benches in OB and mineral proposed.	There was no generation of top soil. Separate benches in OB and mineral maintained.	Nil
2c	Stripping ratio or ore to OB ratio	1:0.252 MT/MT	1:0.565 MT/MT	Nil
2d	Quantity of topsoil generation in m3	There was no proposal for top soil generation.	There was no generation of top soil.	Nil
2e	Quantity of overburden generation in m3	Waste generation: 61066 cum	Waste generated: 72750 cum	As backlog of earlier development was done, more overburden generated
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	There is no proposal for top soil generation. Separate benches in OB and mineral proposed. Total waste generation: 61066 cum	There was no generation of top soil. Separate benches in OB and mineral maintained. Total waste generation: 72750 cum	There was no generation of top soil. Separate benches in OB and mineral maintained. Total waste generation: 72750 cum

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## Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two Quarry	Two Quarry	Nil
3b	Quantity of ROM mineral production proposed	Total ROM production proposal: 259935 tones	Total ROM Produced: 257645.71 tones	Nil
3c	Recovery of sailable/usable mineral from ROM production	Total Saleable ore production: 195949.6 tones	Total Saleable ore production: 122665 tones	Nil
3d	Quantity of mineral reject generation	Mineral reject production: 63985.2 tones	Mineral reject production: 128435 tones	Nil
3e	Grade of mineral rejects generation and threshold value declared.	45% Fe to -55% Fe, Threshold value is 45% Fe	45 to -55% Fe, Threshold value is 45% Fe	Nil
3f	Quantity of sub grade mineral generation.	Subgrade production: 63985.2 tones	Subgrade production: 128435 tones	Nil
3g	Grade of sub grade mineral generation	45% Fe to -55% Fe	45% Fe to -55% Fe	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Yes	Maintained	Nil
3k	Provision of mining machineries in mineral benches	Excavator and dumper combination have been proposed for mining in mineral benches.	Excavator and dumper combination have been deployed for mining in mineral benches.	Nil

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height of the benches proposed is 6m	Height of benches in overburden and mineral is suitable for method of mining proposed in mining plan. Bench height was maintained.	Nil
3m	Total area covered under excavation/pits	Area under mining at the end of plan period will be 10.716 Ha	10.716 Ha	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1:0.252 MT/MT	1:0.565 MT/MT	Nil
3o	Total area put in use under different heads at the end of year	Total area put in use under different heads at the end of plan period will be 18.00 Ha	Total area put in use under different heads at the end of year is 18.00 Ha	Nil
3p	Production of ROM mineral during the last five year period as applicable	2017-18: 66640 tones 2018-19: 66640 tones 2019-20: 259935 tones	2017-18: Nil 2018-19: 65100 tones 2019-20: 257645.71	Nil
3q	General remarks of inspecting officers on method of mining etc.	Opencast method of mining proposed	Production is carried out by opencast mining method as proposed.	Production is carried out by opencast mining method as proposed.

#### Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	There is no proposal for top soil generation. Separate dumping of OB and mineral reject/ sub grade proposed	There was no generation of top soil. It was observed during inspection that sub grade dump and waste dump has been allowed to mix.	Violation has been issued under rule 14 (3) of MCDR 2017

4b	Location of topsoil, OB and mineral reject dumps	There is no proposal for top soil generation. OB dumping has been proposed in the proposed dump between coordinates 5700E to 5800E and 3600N to 3700N. Proposed subgrade stacking between coordinates 5770E to 5825E and 3250N to 3300N	There was no generation of top soil. It was observed during inspection that sub grade dump and waste dump has been allowed to mix.	Violation has been issued under rule 14 (3) of MCDR 2017
4c	Number of dumps within lease area and outside of lease area	One Waste Dump	One Waste Dump	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL	Outside UPL	Nil
4e	Number of active and alive dumps.	One Dump	One Dump	Nil
4f	Number of dead dumps.	Nil	Nil	Nil
4g	Number of dumps established.	Nil	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall: 430m and garland drain of 600m was proposed for construction	It was observed during inspection that only 150 m of retaining wall and 400m of garland drain has been constructed.	Violation has been issued under rule 11(1) of MCDR 2017
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall: 430m and garland drain of 600m was proposed for construction	It was observed during inspection that only 150 m of retaining wall and 400m of garland drain has been constructed.	Violation has been issued under rule 11(1) of MCDR 2017

4j	Number of settling ponds	Two number of settling tank proposed	It was observed during inspection that only one no of settling tank has been constructed.	Violation has been issued under rule 11(1) of MCDR 2017
4k	Specific comments of inspecting officer on waste dump management	There is no proposal for top soil generation. Separate dumping of OB and mineral reject/ sub grade proposed. Retaining wall: 430m and garland drain of 600m was proposed for construction	There was no generation of top soil. It was observed during inspection that sub grade dump and waste dump has been allowed to mix. It was observed during inspection that only 150 m of retaining wall and 400m of garland drain has been constructed.	Violation has been issued under rule 14 (3) and rule 11(1) of MCDR 2017

#### 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	Nil
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	Not Proposed	Nil	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	There was no proposal for reclamation through backfilling	There was no reclamation of pit through backfilling	There was no reclamation of pit through backfilling



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 Progressive Mine Clousre Plan:
 

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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 to be submitted as per Rule 26 (2) of MCDR, 2017	The yearly progress report on PMCP for the year 2019-20 has been submitted.	Nil
6b	Area available for rehabilitation (ha) .	0.90 Ha	0.90 Ha	Nil
6c	afforestation done (ha).	0.90 Ha	0.90 Ha	Nil
6d	No. of saplings planted during the year	Plantation-1440 saplings	Plantation-1440 saplings	Nil
6e	Cumulative no .of plants	Plantation-1440 saplings	Plantation-1440 saplings	Nil
6f	Any other method of rehabilitation	Not Proposed	Nil	Nil
6g	Cost incurred on watch and care during the year	Not Proposed	Nil	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

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6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Not Proposed	Nil	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	1440 nos of saplings	1440 nos of saplings	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.90 ha	0.90 ha	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Plantation	Plantation	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed	Carried out	Nil

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Annual report on PMCP to be submitted as per Rule 26 (2) of MCDR, 2017	Annual report on PMCP has been submitted and proposals have been implemented.	Annual report on PMCP has been submitted and proposals have been implemented.
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**Mineral Conservation:**

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within lease area	Grade wise sorting within lease area	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	Nil
7c	Different grade of mineral sorted out at mines.	45% Fe to below 55% Fe and above 55% Fe	45% Fe to below 55% Fe and above 55% Fe	Nil
7d	Any beneficiation process at mines	Not Proposed	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Grade wise sorting within lease area	Grade wise sorting within lease area	Grade wise sorting within lease area

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**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not proposed	Nil	Nil

8b	Concurrent use or storage of topsoil	Not proposed	Nil	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	There is no proposal for top soil generation. OB dumping has been proposed in the proposed dump between coordinates 5700E to 5800E and 3600N to 3700N. Proposed subgrade stacking between coordinates 5770E to 5825E and 3250N to 3300N	There was no generation of top soil. It was observed during inspection that sub grade dump and waste dump has been allowed to mix.	Violation has been issued under rule 14 (3) of MCDR 2017
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not proposed	nil	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not proposed	Nil	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	In 2019-20, 1440 nos of saplings proposed for plantation	1440 nos of saplings planted	Nil
8g	Survival rate	Not Specified	Survival rate: 60%	Nil

8h	Water sprinkling on roads to control airborne dust	Water sprinkling on roads to control airborne dust is proposed	Water sprinkling on roads to control airborne dust is being done	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	No comments to offer	Aesthetic beauty in and around mines is maintained	Aesthetic beauty in and around mines is maintained

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#### Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Annual return and monthly returns to be submitted as per rule 45 of MCDR 2017	The lessee has not submitted the annual return of 2019-20 till the date of inspection which should have been submitted before the 1st day of July 2010	Violation of rule 45 (5)© has been issued
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Annual return for 2019-20 not submitted	Mining Engineer, Manager and Geologist has been appointed in mines	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Annual return for 2019-20 not submitted	Violation of rule 45 (5) © has been issued.	Nil
9d	Scrutiny of Annual return on afforestation	Annual return for 2019-20 not submitted	1440 nos of saplings planted	Information as furnished in annual return on PMCP for 2019-20
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Annual return for 2019-20 not submitted	Violation of rule 45 (5)© has been issued.	Nil

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Annual return for 2019-20 not submitted	Violation of rule 45 (5)© has been issued.	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Annual return for 2019-20 not submitted	Violation of rule 45 (5)© has been issued.	Nil
9h	Scrutiny of Annual return on fixed assets	Annual return for 2019-20 not submitted	Violation of rule 45 (5)© has been issued.	Nil
9k	Scrutiny of Annual return on mining machineries	Annual return for 2019-20 not submitted	Violation of rule 45 (5)© has been issued.	Nil

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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)	23/07/2020			
MCDR17	Rule 14(3)	23/07/2020			
MCDR17	Rule 35(2)	23/07/2020			
MCDR17	Rule 45(5)(c)	23/07/2020			

**Date :**

(SHRI SUDIP RANJAN MAZUMDAR)

Indian Bureau of Mines