

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/MN/SNG/MCDR-27/BBS

Mine code : 40ORI13052

- (i) Name of the Inspecting : **RAM**) **RAMKISHAN R**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri Atmesh Kumar Sharma, Mine Manager
Official with
Designation
- (iv) Date of Inspection : 24/12/2020
- (v) Prev.inspection date : 28/12/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BANDHAL**
- (b) **Registration NO.** : **IBM/630/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : SUNDARGARH
- Village : BANDHAL
- Taluka : BONAI
- Post office : DUNGULA
- Pin Code : 770048
- FAX No. : 275605
- E-mail : kankadhara.mining@gmail.com
- Phone : 276186
- (f) Police Station : Koira
- (g) First opening date : 09/06/2003
- (h) Weekly day of rest : SAT
2. Address for : BANDHAL MN ORE MINES
correspondance : K.M& M P LTD
AT/PO-KOIRA, SUNDERGARH
3. (a) Lease Number : ORI1005
- (b) Lease area : 28.02
- (c) Period of lease : 20
- (d) Date of Expiry : 13/03/2022
4. Mineral worked : MANGANESE ORE Main

5. Name and Address of the

Lessee : KANAKDHARA MINING & MINERAL (P) LTD
 AT/PO-KOIRA SUNDERGARH
 SUNDARGARH ORISSA
 Phone:27686
 FAX :27686

Owner : GHANASHYAM SHARMA
 AT/PO-BARBIL KEONJHAR
 ORISSA
 Phone: 276186,276712
 FAX : 276186

Geologist

Name : SHRI RANJEET ROUT,Full Time
 Qualification : M.sc (Geology)
 Appointment/ : 01/04/2015
 Termination date

Manager

Name : SHRI AMESH KUMAR SHARMA
 Qualification : Diploma (Mining)
 Appointment/ : 05/06/2003
 Termination date

6. Date of approval of Mining	:	Modif.of approved Mining Plan	18/02/2009
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	19/02/2009
		Mining Scheme rule 12 MCDR1988	09/04/2013
		MP review under 17(1) MCR 2016	10/11/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No such specific proposal.	No boreholes were proposed during the year 2019-20.	
1b	Exploration over lease area for geological axis 1 or 2	No boreholes were proposed during the year 2019-20.	Nil	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not applicable	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No boreholes were proposed during the year 2019-20.	However 15 nos of boreholes were drilled during the year plan period to brought area under G1/G2.	
1e	Balance reserve as on 01/04/20	As per the approved document dated 10.11.2017 the manganese ore reserves are 103068 t and resources are 54113 t.	due to depletion/addition over the period of time the updated manganese ore reserves as on dated 01.04.2020 are 100391 t and resources are 54113 t.	
1f	General remarks of inspecting officers on geology, exploration etc		The manganese deposit of the area forms a part of Precambrian sedimentary formation known as Iron ore group of rocks which is developed in Singhbhum-Keonjhar-Bonai belt. The general strike of the formation is NE-SW.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t. lease area	development is proposed in main pit during the year 2019-20.	development is carried out in main pit.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	no topsoil generation is envisaged and separate benches in Ob and mineral are proposed.	seperate benches in OB and mineral are mainatined.
2c	Stripping ratio or ore to OB ratio	1:4.26 t/cu.m.	1:4.19 t/cu.m.
2d	Quantity of topsoil generation in m3	Not applicable	Nil
2e	Quantity of overburden generation in m3	21332 cu.m. during the year 2019-20.	3112 cu.m.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		development is carried out by opencast mining method as proposed.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	one pit	one pit	
3b	Quantity of ROM mineral production proposed	5000 t during the year 2019-20.	741.376 t	
3c	Recovery of sailable/usable mineral from ROM production	4500 t ore and 500 t of mineral reject.	619.91 t of ore and 121.466 t of mineral reject	
3d	Quantity of mineral reject generation	500 t	121.466 t	

3e	Grade of mineral rejects generation and threshold value declared.	+10-25% Mn	+10-25% Mn
3f	Quantity of sub grade mineral generation.	Not applicable	Nil
3g	Grade of sub grade mineral generation	Not applicable	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	manual	Manual
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not applicable	Nil
3j	Provision of drilling and blasting in mineral benches	occssional short hole drilling and blasting is proposed.	short hole drilling and blasting is carried out.
3k	Provision of mining machineries in mineral benches	manual mining is proposed.	manual mining is carried out.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	3 m.	maintained.
3m	Total area covered under excavation/pits	3.5 ha till the end of plan period i.e. 2021-2022.	2.8 ha
3n	Ore to OB ratio for the pit/mine during the year.	1:4.26 t/cu.m.	1:4.19 t/cu.m.

3o	Total area put in use under different heads at the end of year	toata area put under different heads at the end of plan period i.e. 2021-22 is 8.32 ha	6.606 ha
3p	Production of ROM mineral during the last five year period as applicable	2015-16: 6563 t 2016-17: 7463 t 2017-18: 8001 t 2018-19: 4000 t 2019-20: 5000 t	2015-16: 818.035 t 2016-17: 837.083 t 2017-18: 896.516 t 2018-19: 1243.059 t 2019-20: 741.376 t
3q	General remarks of inspecting officers on method of mining etc.		production is carried out from main pit 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)	no topsoil generation is envisaged. seperate dumping of OB and mineral rejects are propsoed.	seperate dumping of OB and mineral rejects are carried out.	
4b	Location of topsoil, OB and mineral reject dumps	dump-1 is propsoed for waste dumping during the year 2019-20.	dump-1	
4c	Number of dumps within lease area and outside of lease area	one no.	one no.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out side UPL	Out side UPL	

4e	Number of active one and alive dumps.	one	
4f	Number of dead dumps.	Not applicable	Nil
4g	Number of dumps established.	Not applicable	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	provided.
4i	Length of Retaining wall or garland drain all along dumps	Not applicable	Nil
4j	Number of settling ponds	Not applicable	Nil
4k	Specific comments of inspecting officer on waste dump management		waste dump mangement is carried out as proposed.

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.	Area not matured for backfilling.	not applicable	
5b	Area under backfilling of mined out area	Not applicable	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not applicable	Nil	
5d	Total area fully reclaimed and rehabilitated	Not applicable	Nil	

5e General remarks of inspecting officers on backfilling and reclamation etc. Area not matured for backfilling

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).	PMCP report to submitted. submitted before 1 st July		
6b	Area available for rehabilitation (ha) .	Not applicable	Nil	
6c	afforestation done (ha).	0.2 ha as dump plantation	0.2 ha	
6d	No. of saplings planted during the year	150 nos	300 nos	
6e	Cumulative no .of plants		10660 nos	
6f	Any other method of rehabilitation	Not aplicable	Nil	
6g	Cost incurred on watch and care during the year		Not available	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Not applicable	Nil	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not applicable	Nil	

6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Not applicable Nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not applicable Nil	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not applicable Nil	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	350 nos	500 nos
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	350 nos as gap plantation	500 nos
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	plantation	plantation
6p	Compliance of environmental monitoring (core zone and buffer zone)	periodical environmental monitoring of core zone and buffer zone are proposed.	carried out.

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	PMCP measures were carried out as proposed.
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Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	grade-wise sorting of mineral is proposed.	grade-wise sorting of mineral is carried out.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	manual	manual	
7c	Different grade of mineral sorted out at mines.	+10-25% Mn and +25% Mn	+10-25% Mn and +25% Mn	
7d	Any beneficiation process at mines	Not applicable	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		grade-wise sorting of mineral is carried out.	

Environment:

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

8b	Concurrent use or storage of topsoil	Not applicable Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	seperate dumps for waste and mineral rejects are propsoed.	seperate dumps for waste and mineral rejects are maintained.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not applicable Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	dump plantation is proposed.	carried out.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	500 nos	800 nos
8g	Survival rate		68%
8h	Water sprinkling on roads to control airborne dust	water sprinkling on haul raods for dust supression is proposed.	water sprinkling on haul raods for dust supression is carried out.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		aesthetic beauty in and around the mines area is maintained.

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly and annual returns are to be submitted as per rule 45 of MCDR, 2017	submitted.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining Engineer 1 (partly employed), Diploma Mining Engineer 1, Geologist 1 (partly employed)	found to be in order.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current (O/C) Workings: 2.800 ha, Used for waste disposal: 1.200 ha, etc.,	found to be in order.	
9d	Scrutiny of Annual return on afforestation	800 nos	800 nos	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	121.466 t	121.466 t	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM closing stock is Nil	ROM closing stock is Nil	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	production cost Rs. 8056.00	production cost Rs. 8056.00	
9h	Scrutiny of Annual return on fixed assets	Rs. 1378232	Rs.1378232	
9k	Scrutiny of Annual return on mining machineries	tipper 6 cu.m. lno.	found to be in order.	

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