

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/KJR/MCDR-1/BBS-29/5/1

Mine code : 30ORI08036

- (i) Name of the Inspecting : **S010**) **SHRI G.C. SETHI**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri L.N.Ghana, Regional Manager
Official with
Designation
- (iv) Date of Inspection : 09/10/2017
- (v) Prev.inspection date : 04/05/2013

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KHANDBANDH**
- (b) **Registration NO.** : **IBM/4269/2011**
- (c) Category : A Manual
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : KEONJHAR
- Village : KHANDBANDH
- Taluka : BARBIL
- Post office : KHANDBANDH
- Pin Code : 758034
- FAX No. : 06742396889
- E-mail :
- Phone : 06767-279360
- (f) Police Station : JODA
- (g) First opening date : 30/11/1963
- (h) Weekly day of rest : TUE
2. Address for : VILL/PO-KHANDBANDH
correspondance VIA-JODA
DIST-KEONJHAR. ORISSA
3. (a) Lease Number : ORI0082
- (b) Lease area : 366.31
- (c) Period of lease : 30
- (d) Date of Expiry : 29/11/1993
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : M/S Orissa Mining Corporation Ltd
P.O.NO.34 OMC House
Bhubaneswar KHURDA ORISSA
Phone:
FAX :

Owner : m/s ORISSA MINING CORPORATION LTD
OMC HOUSE P.B.No.34
BHUBNESHWAR ORISSA
Phone: 2393431
FAX : 2391629

Agent : Sri Gagan Chandra Mishra , G.M. I/C
Khandabandha Iron Mine m/s
OMC Ltd P.O.Khandabandha
KEONJHAR ORISSA
Phone: 6767 - 30253
FAX : 6767 - 30257

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	29/10/2003
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	18/06/2009
		Modif.approved Mining Scheme	11/11/2011
		Modif.of approved Mining Plan	14/09/2016

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	Nil
1b	Exploration over lease area for geological axis 1 or 2	As per the review of mining plan approved on 16.11.2017, an extent of 207.2551ha of area has been explored upto G1 level & 13.858ha upto G2 level & an extent of 145.1973 ha remains un explored.	An extent of 207.2551ha of area has been explored upto G1 level & 13.858ha upto G2 level & an extent of 145.1973 ha remains un-explored as on date.	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	M/s Odisha Mining Corporation Ltd., was the exploration agency for this mine.	M/s Odisha Mining Corporation Ltd., was the exploration agency for this mine & no exploration was done during the year 2016-17 as the mine was not under operation since 05.01.2010. The expenditure on account of exploration is treated as Nil.	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	An extent of 145.197ha has not been explored as envisaged in the modification of mining plan, approved on 16.11.2017.	An extent of 145.197ha has not been explored so far.	Nil

1e	Balance reserve as on 01/04/20	In the review of mining plan, dated 16.11.2017, the reserves/resources of iron ore have been estimated as on 30.07.2017 & the same is as given below:- Reserves under (111): 0.546 million tonnes, reserves under (121): 20.486 million tonnes & total remaining mineral resources of 1.542 million tonnes.	The available reserves/resources as on 30.07.2017 is as given below:-Reserves under (111): 0.546 million tonnes, reserves under (121): 20.486 million tonnes & total remaining mineral resources of 1.542 million tonnes.	In the review of mining plan, dated 16.11.2017, the reserves/resources of iron ore have been updated as on 30.07.2017 & the same is as given below:- Reserves under (111): 0.546 million tonnes, reserves under (121): 20.486 million tonnes & total remaining mineral resources of 1.542 million tonnes..
1f	General remarks of inspecting officers on geology, exploration etc	In the review of mining plan, dated 16.11.2017, the reserves/resources have been estimated as on 30.07.2017.	The horse shoe shaped iron ore deposit of Joda-koira sector forms a northerly plunging synclinorium . The hill ranges broadly delineate the folded limbs of the synclinorium. Superimpositions of several phases of deformation in the area have resulted in a complex fold system. The mine is not under operation due to lack of clearance from State pollution control board.	The mine is not under operation due to lack of forest clearance since 05.01.2010.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Deposit-VI	The mine is not under operation since 05.01.2010 and no mining opration during 2016-17.	Nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	There is no topsoil generation proposal & separate benches for the purpose has been made. However, separate benches in overburden/waste & mineral zone has been envisaged.	The mine was not under operation during the year 2016-17 & no bench advancement has been done in overburden/waste as well as in ore zone.	Nil
2c	Stripping ratio or ore to OB ratio	1cum:0.52cum during 2016-17.	The mine was not under operation since 05.01.2010 due to want of forest clearance and the Ore:OB ratio could not be coumpted.	Nil
2d	Quantity of topsoil generation in m3	Nil	Nil	Nil
2e	Quantity of overburden generation in m3	Only 0.506 million cum. of waste material was proposed to be generated during 2016-17.	Nil	The mine is not under operation since 05.01.2010.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	No comments.	The mine is not under operation since 05.01.2010 & till date.	Nil

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
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3a	Number of pit proposed for production	Lone pit i.e. deposit-VI was proposed for production during 2016-17.	The mine was not under operation during 2016-17 & the Ore:OB ratio could not be computed.	Nil
3b	Quantity of ROM mineral production proposed	The proposed production was for 0.247 million cum. during the year 2017-18.	No production was reported during the year 2016-17 as the mine is not under operation since 05.01.2010.	Nil
3c	Recovery of sailable/usable mineral from ROM production	The recovery of iron ore is about 74% for the year 2016-17 as indicated in the modification of mining plan approved on 14.09.2016.	The mine is not under operation due to lack of forest clearance, thereby recovery percentage of iron ore does not arise during 2016-17.	Nil
3d	Quantity of mineral reject generation	Nil	Nil	The mine was not under operation during 2016-17.
3e	Grade of mineral rejects generation and threshold value declared.	Nil	Not applicable.	The mine was not under operation.
3f	Quantity of sub grade mineral generation.	0.018 million cum during 2016-17	Nil	Nil
3g	Grade of sub grade mineral generation	No such proposal in the modification of mining plan.	Not reported.	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised method by deploying mobile crushing & screening units.	No segregation of ore is practised at present as the mine is not under operation since long time.	Nil

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Nil	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Provisions for drilling & blasting is envisaged.	The drilling & blasting is not in practice as the mine was not under operation.	Nil
3k	Provision of mining machineries in mineral benches	Provisions for deployment of mining machineries are envisaged.	No mining machineries were deployed in the benches as the mine was not under operation.	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Separate benches in overburden & in ore zone are proposed in the modification of mining plan approved on 14.09.2016.	The mine was not under operation and no bench advancement was reported during 2016-17.	Nil
3m	Total area covered under excavation/pits	No specific proposal for the year 2016-17. However, an extent of additional area 4.697ha has been proposed to be covered under excavation during the period from 2013-14 to 2017-18	The mine was not under operation during the year 2016-17 & no additional area has been degraded during 2016-17.	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1cum:0.52cum during 2016-17.	As the mine was not under operation during 2016-17 & no production & waste handling was reported during the year 2016-17. Therefore, the Ore:OB ratio could not be computed.	Nil

3o	Total area put in use under different heads at the end of year	No such specific proposal for the year 2016-17.	The existing land use in different heads at the end of the year 2016-17 is as given below:- (i) Mining: 110.627ha (ii) Overburden Dump: 1.11ha (iii) Mineral storage: 7.672ha (iv) Infrastructure: 2.108ha (v) Road: 11.865ha (v) Mineral separation plant: 0.296ha (vi) Township area: 1.827ha & (vii) Sub-grade storage: 14.117ha as per the modification of mining plan approved on 14.09.2016.	The existing status of land use furnished above are as per the modification of mining plan.
3p	Production of ROM mineral during the last five year period as applicable	The proposed production for the period from 2012-13 to 2016-17 is as given below:- 2012-13: 0.996 million tonnes, 2013-14: Nil, 2014-15: Nil, 2015-16: 0.126 million cum. & 2016-17: 0.247 million cum.as per the modification of mining plan dated 14.09.2016	The actual production reported for the period from 2012-13 to 2016-17 is as given below:- 2012-13: Nil, 2013-14: Nil, 2014-15: Nils, 2015-16: Nil & 2016-17: Nil	The mine is not under operation since 05.01.2010 to till date.
3q	General remarks of inspecting officers on method of mining etc.	No comment to offer.	The mine was not under operation since the year 2010.	Nil

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Provisions for separate dumping OB & sub-grade ore has been envisaged. There is no proposal for generation of top soil & mineral rejects.	The mine was not under operation during 2016-17 and no dumping/stacking is done.	Nil
4b	Location of topsoil, OB and mineral reject dumps	The proposed OB dump is WD1 during 2015-16 to 2017-18 as envisaged in the modification of mining plan, dated 14.09.2016. No provision for topsoil staking during the aforesaid period.	The mine is not under operation since 05.01.2010 to till date.	Nil
4c	Number of dumps within lease area and outside of lease area	Lone WD1 dump.	Lone WD1 dump.	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Near deposit-III	Near deposit-III	Nil
4e	Number of active and alive dumps.	Nil	None	Nil
4f	Number of dead dumps.	No such specific proposal.	One	Nil
4g	Number of dumps established.	One	One	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	No such proposal.	No retaining wall & garland drains were constructed during the year 2016-17 as the mine is not under operation.	Nil

4i	Length of Retaining wall or garland drain all along dumps	Nil	Nil	Nil
4j	Number of settling ponds	Nil	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	No comments.	The mine was not under operation since 2010 & till date.	Nil

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.	Nil	Nil	Nil
5b	Area under backfilling of mined out area	No such proposal during 2016-17	Nil	The mine was not under operation.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Nil	Nil	Nil
5d	Total area fully reclaimed and rehabilitated	No such proposal.	The mine is not under operation since 05.01.2010.	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	No comments.	The mine was not under operation since the year 2010.	Nil

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Not submitted.	The mine was not under operation since the year 2010.	Nil
6b	Area available for rehabilitation (ha) .	Nil	Nil	The mine was not operating condition since 2010.
6c	afforestation done (ha).	Nil	Nil	Nil
6d	No. of saplings planted during the year	Nil	Nil	Nil
6e	Cumulative no .of plants	No such proposal in the modification of mining plan approved on 14.09.2016.	Not available.	Nil
6f	Any other method of rehabilitation	Nil	Not applicable.	Nil
6g	Cost incurred on watch and care during the year	Nil	Nil	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Nil	Nil	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Nil	Nil	Nil

6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Nil	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Nil	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Nil	Nil	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Nil	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Nil	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Nil	Nil	Nil

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	No comments.	The mine is not in operating condition since the year 2010.	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	It was proposed to produce 0.247 million cum. of iron ore during the year 2016-17.	The mine was not under operation since the year 2010 & no production and dispatch during the year 2016-17.	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical means as per the modification of mining plan approved on 14.09.2016.	The same practice was followed while the mine was under operation as reported during the inspection.	Nil
7c	Different grade of mineral sorted out at mines.	No such specific proposal in the modification of mining plan approved on 14.09.2016.	No mineral sorted out during the year 2016-17 as the mine was not in operation.	Nil
7d	Any beneficiation process at mines .	Mechanical crushing & screening has been proposed.	Not practised as the mine is not under operation since 05.01.2010.	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	No comment.	The mine is not under operation since 2010.	Nil

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	No such proposal.	No topsoil was generated during the year 2016-17.	Nil
8b	Concurrent use or storage of topsoil	Nil	Not applicable.	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Provisions for dumping of overburden/waste rock has been made in the modification of approved mining plan.	No overburden, waste, rejects & fines was generated during the year 2016-17, since the mine was not in operation during 2016-17.	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal.	Nil	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Nil	Nil	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Only 500 nos. of saplings were proposed during 2016-17.	Nil	Nil
8g	Survival rate	No such proposal for 2016-17.	Nil	Nil
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on the haul road was proposed.	The proposed practice is not done as the mine is not under operation since 05.01.2010.	Nil

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	No comments.	The mine is not under operation since the year 2010, thereby no work has been done to improve the aesthetic beauty in and around the lease 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	The party has submitted all the monthlyy & annual returns for the year 2016-17.	As the mine is not under operation since the year 2010, the party has submitted all nil returns for the year 2016-17.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	The employment status of mining engineer, geologist & mine manager have not been furnished in the annual return submitted for the year 2016-17.	No mining engineer, geologist & mine manager has been employed in the mine as the mine is not in operation since 2010.	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	The status of existing land use has not been furnished, since the mine is not under operation from 05.01.2010	Nil	Nil

9d	Scrutiny of Annual return on afforestation	During the year 2016-17, no plantation was done during 2016-17 as the mine was not under operation due to lack of forest clearance.	The status of plantation furnished in the annual return is in order.	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No mineral rejects was generated from the mine as the mine was not under operation.	No mineral reject was generated during the year 2016-17.	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	During the year 2016-17, no production of iron ore was reported.	The nil production reported during the year 2016-17 is found to be correct.	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	The sale value, ex-mine price & cost of production is mentioned to be zero in the annual return submitted for the year 2016-17.	As the mine was not under operation no production was reported, thereby the data furnished on account of sale value, ex-mine price and cost of production is in order.	Nil
9h	Scrutiny of Annual return on fixed assets	Not furnished.	Nil	Nil
9k	Scrutiny of Annual return on mining machineries	No mining machinery was deployed in the mine during 2016-17.	The same is found in order.	Nil

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

Date :

(SHRI G.C. SETHI)

Indian Bureau of Mines