

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

**MCDR INSPECTION REPORT**

**Bhubaneshwar regional office**

**Mine file No :** ORI/CR/KJR/MCDR-3/BBS

**Mine code :** 11ORI08001

- (i) Name of the Inspecting : **S010** ) **SHRI G.C. SETHI**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri G Sahoo, Mines Manager  
Official with  
Designation
- (iv) Date of Inspection : 19/03/2019
- (v) Prev.inspection date : 04/01/2018

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **BANGUR(OMC)**
- (b) **Registration NO.** : **4269/IBM/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Underground
- (e) Postal address
- State : ORISSA
- District : KEONJHAR
- Village : BANGUR
- Taluka : HATADIHI
- Post office : DHANURJAYPUR
- Pin Code :
- FAX No. : 06731-279057
- E-mail : omcbangur@gmail.com
- Phone : 06731-279948,279057
- (f) Police Station : Soso
- (g) First opening date : 25/01/1980
- (h) Weekly day of rest : SUN
2. Address for : BANGUR CHROMITE MINE, M/S OMC LTD  
correspondance P.O.DHANURJAYAPUR, DIST: KEONJHAR  
ORISSA-758078
3. (a) Lease Number : ORI0249
- (b) Lease area : 139.98
- (c) Period of lease : 20
- (d) Date of Expiry : 01/09/1995
4. Mineral worked : IRON ORE Associated  
CHROMITE Main

## 5. Name and Address of the

Lessee : O.M.C.LTD.  
 SRI.G.K.DHAL,MD OMC House  
 ,P.B.No.34 BHUBANESWAR  
 KHURDA ORISSA  
 Phone:  
 FAX :0674-401629(BBSR),06767-30257

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

Agent : SHRI BIJAY KUMAR BEHERA  
 BANGUR CHROMITE MINE PO-  
 DHANURJAYPUR KEONJHAR  
 KEONJHAR ORISSA  
 Phone:  
 FAX :

## Mining Engineer

Name : SHRI GHANSHYAM SAHOO,Full Time  
 Qualification : DEGREE IN MINING ENGINEERING  
 Appointment/ : 21/05/2016  
 Termination date

## Geologist

Name : SHRI P K NAIK,Full Time  
 Qualification : MSC GEOLOGY, PHD  
 Appointment/ : 29/09/2016  
 Termination date

## Manager

Name : SHRI GHANSHYAM SAHOO  
 Qualification : DEGREE IN MINING ENGINEERING  
 Appointment/ : 21/05/2016  
 Termination date

6. Date of approval of Mining	:	FMCP under 23C(1)	21/02/2008
Plan/Scheme of Mining	:	Renewal under rule 24 MCR1960	03/04/2008
	:	Mining Scheme rule 12 MCDR1988	19/02/2010
	:	Mining Scheme rule 12 MCDR1988	21/07/2015

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	16 nos of boreholes proposed for the year 2017-18.	16 nos of boreholes drilled during the year 2017-18.	Exploration not carried out as per proposal.
1b	Exploration over lease area for geological axis 1 or 2	16 nos of boreholes proposed for G,1/G2 level.	16 nos of boreholes drilled for G,1/G2 level.	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Trieni earth movers is the exploration agency and Rs 3784500 expenditure spent on exploration.	Trieni earth movers is the exploration agency and Rs 3784500 expenditure spent on exploration.	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	109.15 Ha needs to be explored for G1/G2 level.	109.15 Ha needs to be explored for G1/G2 level.	Nil
1e	Balance reserve as on 01/04/20	As per the approved document on 21.07.2015 the chrome ore reserves are 3.24 million tonnes and resources are 3.38 million tonnes.	after addition and depletion over period of time the chrome ore reserves are 3.24 million tonnes and resources are 3.38 million tonnes as on 01.04.2017.	Nil
1f	General remarks of inspecting officers on geology, exploration etc		The Bangur chromite deposit occupies the south eastern part of the Boula-Nuasahi ultramafic belt. Exploration in the u/g are undertaken as per the proposal.	

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t. lease area	Mine development is by Underground Mining with sub level open sotping.	Mine development is carried out by Underground mining with sub level open stoping method.	Nil.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Not applicable.	Not applicable.	Nil
2c	Stripping ratio or ore to OB ratio			
2d	Quantity of topsoil generation in m3	Not applicable.	Not applicable.	Nil
2e	Quantity of overburden generation in m3			
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		Mine is developed by underground mining with sub level open stoping method.	Nil.

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Production is proposed by underground mining with sub level open stoping method.	Production is carried out by underground mining with sub level open stoping method.	Nil
3b	Quantity of ROM mineral production proposed	70810 tonnes for the year 2017-18 with saleble 45850 tonnes.	18584 tonnes for the year 2017-18.	Lower side production due to labour problems as reported during inspection.
3c	Recovery of sailable/usable mineral from ROM production	65%	49%	The recovery of 49% achieved as reported during the inspection.

3d	Quantity of mineral reject generation	No separate generation of mineral reject. The entire blasted material brought to surface from the under ground.	2441 tonnes in 2017-18.	Nil
3e	Grade of mineral rejects generation and threshold value declared.	+10 - 30% Cr2O3	+10 - 30% Cr2O3	Nil
3f	Quantity of sub grade mineral generation.	No separate generation of sub-grade ore. The entire blasted material brought to surface from the under ground.	Nil	Nil
3g	Grade of sub grade mineral generation	+10 - 30% Cr2O3	+10 - 30% Cr2O3	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not applicable.	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Drilling & blasting in underground is proposed.	Drilling & blasting in underground is in prac	Nil

3k	Provision of mining machineries in mineral benches	Not applicable. As such no benches proposed due to under ground mining.	No benches made due to u/g mining.	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Not applicable.	Not applicable.	Nil
3m	Total area covered under excavation/pits	13.3 ha by abandoned opencast mine.	13.3 ha by abandoned opencast mine.	Nil
3n	Ore to OB ratio for the pit/mine during the year.			
3o	Total area put in use under different heads at the end of year	Total area 35.38 ha: abandoned opencast workings: 13.3 ha, waste disposal: 11.51 ha, infrastructure: 6.23 ha, minerl storage: 4.34 ha.	Total area utilised is 35.38 ha: abandoned opencast workings: 13.3 ha, waste disposal: 11.51 ha, infrastrucure: 6.23 ha, minerl storage: 4.34 ha.	Nil
3p	Production of ROM mineral during the last five year period as applicable	2013-14: 19200 tonnes 2014-15: 23400 tonnes 2015-16: 39770 tonnes 2016-17: 55650 tonnes 2017-18: 701810 tonnes	2013-14: Nil 2014-15: Nil 2015-16: Nil 2016-17: 2109 tonnes. 2017-18: 18584 tonnes	Mine was not in operation due to want of EC from 01/10/2011 to 27/05/2016 and re opened on 30/07/2016.
3q	General remarks of inspecting officers on method of mining etc.		Mine could not be developed due to want of EC. Mine was not in operation due to want of EC from 01/10/2011 to 27/05/2016 and re opened on 30/07/2016.	Nil

## Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No generation of top soil, OB and mineral rejects. However waste generated from underground mining is utilised for making roads in underground and dumped on the surface dump.	The waste generated from underground mining is utilised for making roads in underground and dumped on the surface dump.	Nil
4b	Location of topsoil, OB and mineral reject dumps	South eastern iside of the lease area.	South eastern iside of the lease area.	Nil
4c	Number of dumps within lease area and outside of lease area	3 nos.	3 nos.	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Beyond ultimate pit limit.	Beyond ultimate pit limit.	Nil
4e	Number of active and alive dumps.	1 dump	1 dump	Nil
4f	Number of dead dumps.	2 nos.	2 nos.	Nil
4g	Number of dumps established.	None of the dumps have been established. proposal given by sapling of 500 nos during the year 2017-18.	Sapling of 500 nos carried out as dump management during the year 2017-18.	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	The retaing wall for the dump is already existing and no proposal for further construction of retaing walls.	Not applicable.	Nil

4i	Length of Retaining wall or garland drain all along dumps	Not applicable.	Nil.	Nil.
4j	Number of settling ponds	Nil	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management		Mine was not in operation due to want of EC from 01/10/2011 to 27/05/2016 and re opened on 30/07/2016. protective measures around dump needs to be carried out.	Nil

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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.	The mining operations are by under ground methods.	The mining operations are by under ground methods.	Nil
5b	Area under backfilling of mined out area	Not applicable.	Nil	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not applicable.	Nil	Nil
5d	Total area fully reclaimed and rehabilitated	Not applicable.	Nil	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Plantation on the dump slope was undertaken.	Nil

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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).	Yes, submitted.	Submitted.	Nil
6b	Area available for rehabilitation (ha) .	No area available for rehabilitation ,thereby not applicable.	Nil	Nil
6c	afforestation done (ha).	500 nos of sapling carried out on dump slope.	500 nos of sapling carried out on dump slope.	Nil
6d	No. of saplings planted during the year	500 nos for the year 2017-18	500 nos for the year 2017-18	Nil
6e	Cumulative no .of plants		5000 nos.	Nil
6f	Any other method of rehabilitation	Not applicable.	Not applicable.	Nil
6g	Cost incurred on watch and care during the year			
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	Not applicable.	Not applicable.	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not applicable.	Not applicable.	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Not applicable due to the underground mining.	Nil	Nil

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not applicable.	Not applicable.	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No backfilling	No backifilling	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not applicable as no waste land.	Not applicable.	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No applicable.	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No waste land.	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	quarterly monitoring of air, water and noise levels are proposed	quarterly monitoring of air, water and noise levels are carried out.	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		Works under PMCP are carried in a scientific manner.	Nil

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#### Mineral Conservation:

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Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	+52%Cr2O3, +40%Cr2O3 - 52%Cr2O3, below 40%Cr2O3	+52%Cr2O3, +40%Cr2O3 - 52%Cr2O3, below 40%Cr2O3	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	Nil
7c	Different grade of mineral sorted out at mines.	Sorted out.	Sorted out.	Nil
7d	Any beneficiation process at mines .	Not applicable.	Not applicable.	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		There is no mineral conservation problems in the mine.	Nil

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**Environment:**

Sl.No.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Under ground mining is in practice and generation of topsoil is not applicable.	Not applicable.	Nil
8b	Concurrent use or storage of topsoil	Not applicable.	Nil	Nil.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposed for waste rock u/g .	No dumping in underground but the same is brought to the surface and dumped in the dump yard.	Nil

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not applicable.	Nil	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	plantation of 500 nos of saplings proposed on dumps.	plantation of 500 nos of saplings carried out.	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	500 nos of saplings planted during the year 2017-18.	500 nos of saplings planted during the year 2017-18.	Nil
8g	Survival rate	80%	80%	Nil
8h	Water sprinkling on roads to control airborne dust	Workings are confined to u/g. however water sprinkling proposed on surface roads.	Water sprinkling carried out.	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Good environment and aesthetic beauty is maintained due to the underground mining activities.	Nil

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Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Required monthly and annual returns submitted.	Submitted with in stipulated time.	Nil

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9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining engineer: 3, geologist: 3, diploma mining engineer: 5	Details submitted are in order	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Already exploited & abandoned opencast workings: 13.3 ha, waste disposal: 11.51 ha, plant, buildings etc.: 6.23 ha, mineral storage: 4.34 ha.	data furnished in the AR 2017-18 are found to be in order.	Nil
9d	Scrutiny of Annual return on afforestation	500 nos.	500 nos.	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	2441 tonnes	2441 tonnes	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM production 18584 tonnes during 2017-18.	ROM production 18584 tonnes.	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production Rs. 20295.00	Cost of production Rs. 20295.00 as per the annual return submitted for the year 2017-18.	Nil
9h	Scrutiny of Annual return on fixed assets	Fixed assest Rs 65372192	Fixed assest Rs 65372192	Nil

9k Scrutiny of air air compressor: 3 of 450 Nil  
Annual return on compressor: 3 cu.m/m.(2) and 1000  
mining of 450 cu.m/m.(1), vetilation  
machineries cu.m/m.(2) and fan: 1 (64000 cu.m/h),  
1000 generator: 3 nos(600  
cu.m/m.(1), kwh)  
vetilation  
fan: 1 (64000  
cu.m/h),  
generator: 3  
nos(600 kwh)

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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)	01/04/2019			
Rule 45(7)		01/04/2019			

**Date :**

**(SHRI G.C. SETHI)**

Indian Bureau of Mines