

MCDR-MiFLOFE/36/2023-BBS-IBM\_RO\_BBS  
INDIAN BUREAU OF MINES  
MINERALS DEVELOPMENT AND REGULATION DIVISION

I/15109/2023

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/KJR/MCDR-65/BBS

Mine code : 30ORI08017

- (i) Name of the Inspecting : **RKD** ) **RAJESH KUMAR DAS**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri Priya Ranjan Rout, Mine Manager  
Official with  
Designation
- (iv) Date of Inspection : 08-JUN-23
- (v) Prev.inspection date : 18-AUG-22

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **GANDHAMARDHAN 'B' BLOCK**
- (b) **Registration NO.** : **4269**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **ORISSA**
- District : **KEONJHAR**
- Village : **SUAKATI**
- Taluka : **KEONJHAR**
- Post office : **SUAKATI**
- Pin Code : **758018**
- FAX No. : **06766-233085**
- E-mail : **info@orissamining.com**
- Phone : **06766-233064**
- (f) **Police Station** : **Suakati**
- (g) **First opening date** : **11-JUL-70**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **GANDHAMARDHAN**  
**correspondance** **AT/PO-SUAKATI**  
**DIST-KEONJHAR**
3. (a) **Lease Number** : **ORI0086**
- (b) **Lease area** : **618.58**
- (c) **Period of lease** : **50**
- (d) **Date of Expiry** : **20-JAN-33**
4. **Mineral worked** : **IRON ORE** **Main**

I/15109/2023

## 5. Name and Address of the

Lessee : M/S OMC LTD.  
 AT & PO: TIRING PAHAR DIST.  
 KEONJHAR, ORISSA KEONJHAR  
 ORISSA  
 Phone:06766-233064  
 FAX :06766-233085

Owner : M/S OMC LTD.  
 M/S OMC LTD. OMC HOUSE,  
 POST BOX NO. 34  
 BHUBANESWAR-751010 KEONJHAR  
 ORISSA  
 Phone: 06766-233064  
 FAX : 06766-233085

Agent : P.K. Sahoo  
 At/Po: Suakati PS: Suakati  
 Dist: Keonjhar KEONJHAR  
 ORISSA  
 Phone: 06766-233064  
 FAX : 06766-233085

## Mining Engineer

Name : Dillip Kumar Choudhury, Full Time  
 Qualification : BE(Mining)  
 Appointment/ : 16-DEC-13  
 Termination date

## Geologist

Name : SHRI T K KAUDEYANG, Full Time  
 Qualification : MSC GEOLOGY  
 Appointment/ : 21-APR-18  
 Termination date

## Manager

Name : Ambika Prasad Mohapatra  
 Qualification : Diploma in Mining & 1st class certificat  
 Appointment/ : 11-JUN-14  
 Termination date

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	15-JAN-03
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	04-DEC-06
		Mining Scheme rule 12 MCDR1988	01-APR-11
		Modif.of approved Mining Plan	27-JUL-16
		MP modif under 17(3) MCR 2016	07-JUN-19
		MP review under 17(1) MCR 2016	20-NOV-19
		MS modif under MCR 1960	02-AUG-21

I/15109/2023

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for geological axis 1 or 2	32 nos bore holes	46 nos bore holes drilled	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Exploration agency not proposed specifically.	M/S Maheswari Mining Pvt. Ltd, 116.7 lakhs Expenditure.	
1d	Balance area to be explored to bring Geological axis in 1 or 2		Broadly 40 % area which is declare as mineralised area is explored in G1 & G2 category rest area is still not explored. The inspection is carried out to processing mining plan therefore exploration proposal is incorporated in non explored area.	
1e	Balance reserve as on 01/04/20	169.75 million Tons	173.68 million Tons	

I/15109/2023

1f General remarks of inspecting officers on geology, exploration etc

The lease area is centered on a ridge like escarpment, which runs in the North - South direction. The top of the ridge at the lease has a peak at 1061 mRL. The main Gandhamardan deposit strikes in north south direction (N5°E - S5°W) with gentle to moderate westerly dipping beds (5° to 30° due west). The strike length of the (Gandhamardan Block -B) deposit is 4500 m and average width is 700 m. The lease area is less than 50% explored in G1 & G2 category and rest area in G3.

---

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Hilltop Quarry 344680 E to 345660 E & 2392950 N to 2393530 N R.L-960 TO 1050 Putulupani Quarry 344460 E to 344930 E & 2394860 N to 2395760 N R.L-920 TO 1000	Broadly with in proposed area.	

---

I/15109/2023

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes proposed	As per proposal	
2c	Stripping ratio or ore to OB ratio	Hilltop Quarry 1:0.16 Putulupani Quarry 1:1.16		
2d	Quantity of topsoil generation in m3	0.08 Mill. CuM	0.049630 Mill.CuM	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The development proposal is given in two pits Hilltop Quarry & Putulupani Quarry but mostly work done in Hilltop Quarry and Putulupani Quarry. Quarry development is not as per proposals and bench parameters not followed as per proposals.

---

**Exploitation:**

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	02 nos pit	02 nos pit	
3b	Quantity of ROM mineral production proposed	Hilltop Quarry 7.12 Mill. Tonne Putulupani Quarry 2.00 Mill. Tonne	Hilltop Quarry 6.735 Mill. Tonne Putulupani Quarry 0.299 Mill. Tonne	

---

I/15109/2023

3c	Recovery of sailable/usable mineral from ROM production	95%	98%	Less production w.r.t proposal and mainly from puthulpani Quarry.
3d	Quantity of mineral reject generation	0.515 Mill. Tonne	0.163 Mill.Tonne	
3e	Grade of mineral rejects generation and threshold value declared.	45-55%Fe	Broadly as per proposal and avg. grade reported 53.5%Fe	
3f	Quantity of sub grade mineral generation.	Same as mentioned for Mineral Reject as Mineral reject is subgrade.	Same as mentioned for Mineral Reject as Mineral reject is subgrade.	
3g	Grade of sub grade mineral generation	45-55%Fe	Avg grade reported 53.5% Fe	
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.	No such proposal	NA	
3j	Provision of drilling and blasting in mineral benches	Yes	Broadly as per proposal.	
3k	Provision of mining machineries in mineral benches	Provision HEMM given.	Broadly as per proposal.	

I/15109/2023

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Hilltop Quarry Height: 10 Mtr Width: 15Mtr or More than the height Putulupani Quarry Height: 10 Mtr Width: 15Mtr or More than the height	Hilltop Quarry Broadly as per proposals Putulupani Quarry Bench is irregular and many places bench height is more than the proposal.
3m	Total area covered under excavation/pits	252.6188 Ha.	167.7058 Ha.
3n	Ore to OB ratio for the pit/mine during the year.	Hilltop Quarry 1:0.16 Putulupani Quarry 1:1.16	Broadly with in proposal.
3o	Total area put in use under different heads at the end of year	404.0522 Ha.	326.9788 Ha.
3p	Production of ROM mineral during the last five year period as applicable	2018-19 :5.78 Mill. Tonne 2019-20 : 7.619Mill.Tonn e 2020-21: 7.02 Mill. Tonne 2021-22 : 9.12 Mill. Tonne 2022-23: 9.12 Mill. Tonne	2018-19 - 5.058 Mill. Tonne 2019-20 : 6.8274 Mill. Tonne 2020-21 : 6.4249 Mill. Tonne 2021-22 : 7.278Mill. Tonne 2022-23:7.034Mill.Tonne
3q	General remarks of inspecting officers on method of mining etc.		Method of mining is broadly as per proposal with opencast minig using HEMM and deep hole blasting.

---

Solid Waste Management - Dumping:

---

Sl.No.	Item	Propasals	Actual work	Remarks
--------	------	-----------	-------------	---------

---

I/15109/2023

4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes given	Broadly as per proposal.
4b	Location of topsoil, OB and mineral reject dumps	waste Dump:Upper Kainsari ( 344940E to 346210 E & 2395730N to 2396780N) Mineral Reject Dumping is temperary and blend with high grade for dispatch.	Broadly as per proposal.
4c	Number of dumps within lease area and outside of lease area	Within Lease: 05 but proposal given in 01 dump Outside of Lease Area: Nil	Broadly as per proposal.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL	Outside UPL
4e	Number of active and alive dumps.	01	01
4f	Number of dead dumps.	04	04
4g	Number of dumps established.	04	03
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall 614X1.5X1.2 Garland drain.-654 Mtr	Broadly done as per proposal.
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall 614X1.5X1.2 Garland drain.-654 Mtr	Broadly done as per proposal.
4j	Number of settling ponds	01	Nil



I/15109/2023

4k	Specific comments of inspecting officer on waste dump management	Broadly work is done as per proposal.
----	--	---------------------------------------

---

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.	NA	NA	
5b	Area under backfilling of mined out area	Nil	Nil	
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.			The still 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).	Yes submitted as per Rule	Yes submitted as per Rule	

---

I/15109/2023

6b	Area available for rehabilitation (ha) .	Nil	Nil
6c	afforestation done (ha).	2.90 Ha	6.31 Ha
6d	No. of saplings planted during the year	7500 Nos	17812 Nos
6e	Cumulative no .of plants	53000 Nos	64797 Nos Reported.
6f	Any other method of rehabilitation	No Such Proposal	NA
6g	Cost incurred on watch and care during the year	10.00 Lakhs	For plantation including watch& care for 3 years- Rs.-97,65,304.00
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No Such Proposal	NA
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No Such Proposal	NA
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No Such Proposal	NA
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Such Proposal	NA

I/15109/2023

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No Such Proposal	NA	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No Such Proposal	NA	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No Such Proposal	NA	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No Such Proposal	NA	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed as per statute.	Air, water,Noise monitoring as per proposal.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Broadly done as per proposal.

---

**Mineral Conservation:**

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Mineral is being sorting grade wise within lease	As per proposal.	

---

I/15109/2023

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical.	Mechanical.
7c	Different grade of mineral sorted out at mines.	(62% to65%) Fe (Lumps) & (60%-64.5%) Fe ( Fines)	Broadly as per proposal.
7d	Any beneficiation process at mines	No such proposal	NA
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Except crushing and screening for sizing and sorting no other activities regarding beneficiation is done in mine. In mine the grade of iron ore varies from face to face horizontally as well as vertically therefore different grade of Iron ore blended to get desired grade of Iron for steel & spong iron manufacturing.

---

**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	0.080 Mill. CuM generation proposal and used for afforestation.	0.049630 Mill.CuM generated and used for afforestation.	
8b	Concurrent use or storage of topsoil	Yes, used for afforestation.	As per proposal.	

---

I/15109/2023

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Broadly as per proposal.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal given.	NA
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such Proposal	NA
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	proposal given for 7500 No's of tree planted within the lease area	17812 No's of tree planted within the lease area
8g	Survival rate	Not mentioned specifically.	More than 90% reported.
8h	Water sprinkling on roads to control airborne dust	Water tanker proposed for Water sprinkling on roads	Water sprinkling on roads is being done by water tanker to control airborne dust.

I/15109/2023

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The lessee is taking care of all environmental preventive measures as per statute i.e Air, Water, Noise, ground vibration monitoring. The plantation is done and dust suppression water sprinkling is done on regular basis. There is no adverse impact observed during mine visit on aesthetic beauty in and around mines area.
----	--	--

---

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per rule 45 of MCDR, 2017 the monthly annual return to be submitted to competent authority.	Monthly return submitted up to April 2023, Annual return not submitted for the year 2022-23 not submitted at the time of inspection and Anuual report for 2022-23 submitted on 29.06.2023.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes given	Shri Priya Ranjan Rout, Mine Manager, Shri Gokulananda Sahoo, Mining Engineer, Shri Chodagangadev Nayak, Geologist.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes given	Area under pits = 167.7058 ha, Storage of Top soil = 0.37 ha, Over Burden Dumps=51.987, Infrastructure &, Road- 57.067 Ha. Other Purpose (Mineral Separation Plant) = 50.219 ha	

I/15109/2023

9d	Scrutiny of Annual return on afforestation	17812 nos reported	Broadly as per actual.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Yes given	Grade: 52 % to 55 % of Fe Quantity = 0.163 Mill. Tonne
9f	Scrutiny of Annual return on ROM stock and/or graded ore		ROM - 0.00 Lumps - 0.00 Fines- (0-10mm Size) For (% of Fe content) a) 51% to below 55% Fe- 1359847.790 Tonnes b) 55% to below 58% Fe- 15195.07 Tonne c) 58% to below 60% Fe- 7.5 Tonnes d) 60% to below 62% Fe- 3367935.14 Tonnes e) 62% to below 65% Fe- 3815.95 Tonnes CLO- (Lumps) For (% of Fe content) a) Below 62% Fe (CLO any size)- 99.85 Tonnes. b) 62% to below 65% Fe (5-18 mm size CLO- 3374.36 Tonnes. c) 62% to below 65% Fe (10-40 mm size CLO- 1692365.066 Tonnes. d) 62% to below 65% Fe (CLO others)
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost		Ex-mine price (in Rs Per Tonne) For (% of Fe content) a) Fines 60% to below 62% Fe - Rs. 3976.06 b) Fines 62% to below 65% Fe -Rs. 4463.40 c) 62% to below 65% Fe (10-40 mm size CLO -Rs. 6108.28 d) 65% and above Fe (CLO others Rs. 6276.56 Production cost Rs: 3023.84 Per Tonne.

I/15109/2023

9h	Scrutiny of Annual return on fixed assets		(For GIOM Block-A&B) Rs:2031840463/-
9k	Scrutiny of Annual return on mining machineries	Yes given	Back Hoe -24 Nos , Front end loader-11Nos Tipper,-172 Nos Blast hole Drill-4 Nos, Dozer- 3 Nos, Crusher- 2 Nos , Screen Plant -1 Nos, Mobile screen plant- 6 Nos , Water Tanker -10 Nos, Diesel Tanker -3Nos DG Set - 10 Nos etc.

---



I/15109/2023

**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
MCDR17	Rule 11(1)	27-JUN-23			

**Date :****(RAJESH KUMAR DAS)**

Indian Bureau of Mines