

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/KJR/MCDR-50/BBS-2/6/1

Mine code : 30ORI08066

- (i) Name of the Inspecting : 127) Jitendriya Pradhan
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Shri J.P.Mishra, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 25/05/2022
- (v) Prev.inspection date : 28/06/2021

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : ROIDA 'C'
- (b) **Registration NO.** : IBM/4269/2011
- (c) **Category** : A Manual
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : ORISSA
- District : KEONJHAR
- Village : KOLHO-ROIDA
- Taluka : BARBIL
- Post office : BHADRASAHI
- Pin Code : 758036
- FAX No. : 06767-275637
- E-mail : info@orissamineral.com
- Phone : 06767-285168,85263
- (f) **Police Station** : Barbil
- (g) **First opening date** : 10/04/1996
- (h) **Weekly day of rest** : SUN
2. **Address for** : VILL-KOLHO ROIDA
correspondance PO-MATKAMBEDA
DIST-KEONJHAR
3. (a) **Lease Number** : ORI0038
- (b) **Lease area** : ~~XXXXX~~ 192.81 ha
- (c) **Period of lease** : ~~XX~~ 50 year
- (d) **Date of Expiry** : 07/02/~~XXXX~~ 2027
4. **Mineral worked** : IRON ORE Main
MANGANESE ORE Associated

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 : A.K.MISHRA
 KEONJHAR ORISSA
 Phone:
 FAX :

Mining Engineer

Name : A.B.BEHERIA, Full Time
 Qualification : Degree in Mining Engineering A.M.I.E
 Appointment/ : 08/11/1994
 Termination date

Geologist

Name : T.PANDA, Full Time
 Qualification : M.Sc GEOLOGY
 Appointment/ :
 Termination date

Manager

Name : A.BEHURIA
 Qualification : F.C.C (Metal)
 Appointment/ : 08/11/1994
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	05/07/2005
		Modif.of approved Mining Plan	08/12/2009
		Mining Scheme rule 12 MCDR1988	12/06/2013
		Modif.approved Mining Scheme	17/03/2015
		MP modif under 17(3) MCR 2016	30/12/2016
		MP modif under 17(3) MCR 2016	25/09/2018
		MP modif under 17(3) MCR 2016	08/03/2021
		MP review under 17(1) MCR 2016	23/11/2021

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	09	06	
1b	Exploration over lease area for geological axis 1 or 2	106 Nos. 106.0 ha.	19 Nos. 19.0 ha.	Forest clearance for undertaking exploratory drilling in the balance area of (192.81 - 96.775 =) 96.035 ha. has not been obtained from MoEF & CC. More over drilling in Cherty Quartzite zone in and around Dhaba-pit is not becoming possible
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NIL	(In-house drilling) and M/s Gemcokati Exploration Pvt. Ltd. Rs 29,75,000/-	
1d	Balance area to be explored to bring Geological axis in 1 or 2	96.035	NIL	Lessee has applied in Form-C to (MoEF & CC) for forest clearance to carry out exploratory drilling over the remaining area (192.81 - 96.775 =) 96.035 ha. Which is still pending at Govt. level.

1e	Balance reserve as on 01/04/20	Actual Reserve as on. Dt. 01.04.2022 Iron Ore in MT UNFC CODE QTY.(t) GRADE 111 NIL NIL 121 2330364 +58 % Fe 121 2058745 +45-58% Fe Mn. Ore in MT UNFC CODE QTY.(t) GRADE 122 31,637 + 20 % Mn 122 7909 +10-20% Mn
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	10N-490N 472W-816W	10N-490N 472W-816W	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Topsoil:NIL Overburden:11 Mineral:3	Topsoil:NIL Overburden:11 Mineral:3	
2c	Stripping ratio or ore to OB ratio	1:1.01	1:1.2	
2d	Quantity of topsoil generation in m3	NIL	NIL	
2e	Quantity of overburden generation in m3	378032 M3	538112 M3	

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two nos. Pit 01. Main Pit, 02. New pit	One no. Pit 01. Main Pit,	
3b	Quantity of ROM mineral production proposed	459990T	232370T	
3c	Recovery of sailable/usable mineral from ROM production	406031 MT	172767.500 MT (+58% Fe)	
3d	Quantity of mineral reject generation	NIL	NIL	
3e	Grade of mineral rejects generation and threshold value declared.	NIL	NIL	
3f	Quantity of sub grade mineral generation.	53959 MT	69116 MT (-58% Fe)	
3g	Grade of sub grade mineral generation	+45%fe -58% Fe	+45%fe -58% 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.	NIL	NIL	

3j	Provision of drilling and blasting in mineral benches	Control Blasting Technique adopted	Control Blasting Technique adopted	Dia of the Hole:100mm, Drilling Pattern: Burden 2m & spacing 3m. Drill holes will be in single row as well as multi rows on staggered pattern. Depth of hole is 9 m powder factor 8t/kg.
3k	Provision of mining machineries in mineral benches	Excavator 0.9cum: 2 nos Excavator 3.2cum:2 nos Drilling 100mm dia: 3 nos Pay loader 1.5 cum:2 nos Dumper 35t:10 nos Tipper 10t :11 nos Mobile screen150tph: 01 nos Mobile crusher90tph:0 1 nos Water tanker 12KL:01 nos Ambulance :01 nos 4 wheeler / Jeep: 03 nos	Excavator 0.9cum: 1 nos Excavator 2.8cum:2 nos Drilling 100mm dia: 1 nos Pay loader 1.5 cum:2 nos Dumper 30t: 6 nos Dumper 20t: 4 nos Mobile screen150tph: 01 nos Mobile crusher90tph:01 nos Water tanker 12KL:01 nos Ambulance :01 nos 4 wheeler / Jeep: 03 nos	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	9m	Yes, height of benches maintained at 9m	
3m	Total area covered under excavation/pits	31.039 HA	28.373 HA	

3n	Ore to OB ratio for the pit/mine during the year.	1:1.01	1:2.12
3o	Total area put in use under different heads at the end of year	At the end of plan period	At the end of RY period
		1.Excavation- 31.039	1.Excavation- 28.373
		2.OB dump - 25.508	2.OB dump - 22.299
		3.Mineral Storage- 6.5	3.Mineral Storage- 6.5
		4.Infrastructure -2.5	4.Infrastructure 2.25
		5. Road -5.2	5. Road -5.075
		6.Mineral separation plant -1.5	6.Mineral separation plant -
		7. others 10.037	7. others -
		a. Magazine- 0.101	a. Magazine- .
		b. Sub-grade	b. Sub-grade
		grade	Stack
			c. Area degraded around the quarry ,dump,stack etc

		Stack -	
		1.215	Sub Total -
		c. Area degraded around the quarry ,dump,stack etc	76.037

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		Sub Total	
		-83.600	
		8. Green belt -	8. Green belt -
		5.8	5.8
		9. Remaining Area-	9. Remaining Area-
			103.

3p	Production of ROM mineral during the last five year period as applicable	2017-18:- 389823.000 MT 2018-19:- 459990.000 MT 2019-20 : 459990.000 MT 2020-21 : 459990.000 MT 2021-22 459990.000 MT	2017-18:- 389510 mt 2018-19: 375670 mt 2019-20 : 309020.000 MT 2020-21 : 232370.000 MT 2021-22 429690.000 MT	Less production in fy (2020-21) due to unavailability of space for OB dumping
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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Top soil to be utilized in the plantation area .Separate area demarcated for Stacking & dumping.	No Top Soil generation during 2020-21	
4b	Location of topsoil, OB and mineral reject dumps	Fy-2020-21 OB Dump-3 W 660-890 N 852-1016 OB Dump-3 W 660-890 N 852-1016 OB Dump-6 W 400-700 N 986-1116 Mineral Reject:- W 33-102 N 600-692	Fy-2020-21 OB Dump-3 W 600-890 N 852-1016 OB Dump-3 W 660-890 N 852-1016 OB Dump-6 W 400-700 N 986-116 Mineral Reject:- W 33-102 N 600-692	
4c	Number of dumps within lease area and outside of lease area	within lease area :07 outside lease area: NIL	within lease area :07 outside lease area: NIL	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside ultimate pit limit	Dumps located outside ultimate pit limit	
4e	Number of active and alive dumps.	Active:2	Active:2	

4f	Number of dead dumps.	dead dumps:5	dead dumps:5
4g	Number of dumps established.	5	5
4h	Whether Retaining wall or garland drain all along dumps are there.	YES	YES
4i	Length of Retaining wall or garland drain all along dumps	FY(2020-21) Retaining wall: 150 m along dump 3 400 m along dump 6 Garland drain: 150m in Dump 3 400m in Dump 6	FY(2020-21) Retaining wall: 350 m along dump 3 450 m along dump 6 Garland drain: 350 m in Dump 3 450 m in Dump 6
4j	Number of settling ponds	Settling pond: Dump 3 L W D 10 5 3 Dump 6 L W D 10 5 3	Settling pond: Dump 3 L W D 10 5 3 Dump 6 L W D 10 5 3

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	
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

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	YES	
6b	Area available for rehabilitation (ha) .	NIL	NIL	
6c	afforestation done (ha).	1.7	1.7	
6d	No. of saplings planted during the year	5750	5750	
6e	Cumulative no .of plants	NA	1,37,178 nos.	
6f	Any other method of rehabilitation	NIL	NIL	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Plantation - 5750 nos	Plantation -5750 nos	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Safety Zone area-0.1 Dump area- 2.2	Safety Zone area-0.1 Dump area- 2.2	

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)	Regular Monitoring	Regular Monitoring was carried out.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	grade-wise sorting (+58 % Fe) (+45 -58 % Fe)	grade-wise sorting (+58 % Fe) (+45 -58 % Fe)	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines.	YES	YES	
7d	Any beneficiation process at mines	No proposal of beneficiation	No beneficiation. But screening is being carried out	

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	To be spread over plantation area	spread over dump for plantation	
8b	Concurrent use or storage of topsoil	Concurrent use	Concurrent use	

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate area earmarked	Dumping has been done as per proposal
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NIL	NIL
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Area not available for reclamation	Area not available for reclamation
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Cumulative plantation as on Date. 1,47,178nos	5750 nos sapling planted in.2020-21 Afforestation: 10,000 nos planted in 2021-22
8g	Survival rate		70%
8h	Water sprinkling on roads to control airborne dust	Two number of water tanker are used for suppression of dust.	Implemented

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Monthly return are to be submitted on or before 10th of every month and Annual returns are submitted on or before 31st June of every year	Submitted on time
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer, Geologist and Manager are appointed as per MCDR 2017	Mining Engineer & Geologist have been appointed as per MCDR 2017
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under pits:28.373 reclaimed area:0 dumps:22.299 Infrastructure , Road:5.075 etc	Land use pattern as per proposal.
9d	Scrutiny of Annual return on afforestation	Afforestation: Dump 1: 1250 nos Dump3: 3000 nos Dump6: 1250 nos Safety zone: 250	Afforestation: Dump 1: 1250 nos Dump3:3000 nos Dump6:1250 nos Safety zone: 250
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL	NIL
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Production: 459990 MT	ROM Production: 232370 MT

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	production cost: Rs.2741.53 sale value's- 1127576849.00	production cost: Rs.2741.53 sale value's- 1127576849.00
			. Ex. Mine price(Rs. per mt) Lumps: 62% to 65% Fe- 6548.98 65% Fe& above Fe-7595.00 Fines: Below 55% Fe- 803.43 55% to 58% Fe- 1112.90 60% Fe- 1327.18 60% to 62% Fe- 4695.0
		. Ex. Mine price(Rs. per mt) Lumps: 62% to 65% Fe- 6548.98 65% Fe& above Fe-7595.00 Fines: Below 55% Fe- 803.43 55% to 58% Fe- 1112.90	
			58%to 60% Fe- 1327.18 60% to 62% Fe- 4695.00

9h	Scrutiny of Annual return on fixed assets	Fixed assets: Rs.19570303.00 Building: NIL Plant/Machinery including transport Equipment: NIL Capitalized expenditure e.g preproduction, exploration, development, major overhaul repair to machinery: Rs.2395990.00	Fixed assets: Rs.19570303.00 Building: NIL Plant/Machinery including transport Equipment: NIL Capitalized expenditure e.g preproduction, exploration, development, major overhaul repair to machinery: Rs.2395990
9k	Scrutiny of Annual return on mining machineries	Excavator 0.9cum: 2 nos Excavator 3.2cum:2 nos Drilling 100mm dia: 3 nos Pay loader 1.5 cum:2 nos Dumper 35t:10 nos Tipper 10t :11 nos Mobile screen150tph: 01 nos Mobile crusher90tph:01 nos Water tanker 12KL:01 nos Ambulance :01 nos 4 wheeler / Jeep: 03 nos	Excavator 0.9cum: 1 nos Excavator 2.8cum:2 nos Drilling 100mm dia: 1 nos Pay loader 1.5 cum:2 nos Dumper 30t: 6 nos Dumper 20t: 4 nos Mobile screen150tph: 01 nos Mobile crusher90tph:01 nos Water tanker 12KL:01 nos Ambulance :01 nos 4 wheeler / Jeep: 03 nos

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)	08/06/2022	29/07/2022				

Date :

(Jitendriya Pradhan)

Indian Bureau of Mines