

MCDR-MiFLOCR/12/2023-BBS-IBM\_RO\_BBS  
MCDR INSPECTION REPORT

1/21639/2023

**Name of the Mine:** Sukrangi Chromite Mines, of M/s OMC Ltd,  
11ORI19008

**Name of the Inspecting Officer :** Shri Sanjay Kumar Mahapatra, ACOM

**Name of the accompanying official:** Sri Manoj Kumar Sethy, Mines Manager

**Date of Inspection:** 06.11.2023.

<b>S. N.</b>	<b>Particulars</b>	<b>Details</b>
1	Name of the Mine	Sukrangi Chromite Mines Lease area :- 382.709 Ha
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Forest Land:-267.210 Ha Non forest Land:-115.499 Ha.
3	Minocode	11ORI19008
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/4269/2011
5	Name of the lessee, Address, phone, email and fax number	The Odisha Mining Corporation Ltd. OMC House, Post Box No.34, Bhubaneswar-751001, mail:planningcellomc@gmail.com, <a href="mailto:info@orissamining.com">info@orissamining.com</a> ,
6	Village	Sukrangi
7	Taluka/Mandal	Sukinda
8	District	Jajpur
9	Pin code	755047
10	State	Odisha
11	Post office	Kaliapani
12	Nearest police station	Kaliapani P.S
13	Nearest Railway station	Tomka
14	Date of Grant of Mining Lease	20.09.1980
15	Date of Execution	20.09.1980
16	Date of opening of Mine	27.05.1985
17	Date of second Renewal, if applicable and its period & expiry	Renewal on Dt. 08.01.2020 valid up to 19.09.2030 (As per Rule 3(1) of minerals Mining by Govt. company rules 2015
18	Date of submission of renewal application if Mining Operations are continuing under deemed extension	19.09.1999
19	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Sri. Balwant Singh (IAS) Managing Director & Nominated Owner OMC House, Post Box No.34, Bhubaneswar-751001, Odisha
20	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Sri Ashish Kumar Samantray, Regional Manager, Regional Office, JK Road Region, Odisha Mining Corporation Ltd., Mob- 9937297144
21	Name of the Mines Manager with Address,	Sri Manoj Kumar Sethy,

	phone, email, fax number and date of appointment in mines	Mines Manager Sukrangi Chromite Mines Odisha Mining Corporation Ltd. Kaliapani, Jajpur, Odisha. Mob – 9437883572 Date of appointment – 31.03.2023 Sri TusarKanta Pradhan, B Tech in Mining Engg. Total Experience – 9 yrs Sukrangi Chromite Mines Odisha Mining Corporation Ltd. Kaliapani, Jajpur, Odisha. Mob –9692107963 Date of appointment – 14.01.2022 Srimati Jharana Naik M. Sc Geology Sukrangi Chromite Mines Odisha Mining Corporation Ltd. Kaliapani, Jajpur, Odisha Date of appointment – 19.05.2021
22	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	
23	Name of the Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55& carrying out their duties as per rule 56 & 57.	YES
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	23.01.2019
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	23.01.2019 Review of Mining plan
27	Mineral(s) granted in lease and proved for mining	Chromite
28	Method of Mining(Open cast, Underground)	Open cast
29	Category (Fully Mechanised, Others or Manual)	Fully mechanized
30	Captive/Non Captive	Non Captive

### Exploration

S.N.	Item	Proposals for,2022-23	Actual work during, 2022-23	Remark
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for Geological axis 1 or 2.	Nil		G1 level exploration 103.96 Ha
1c	Exploration Agency & Expenditure in lakh Rupees during the year	NA	NA	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No Proposal	NA	
1e	Balance reserves as per latest approved document	As per approved MP		As on 31.03.20219

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1f

General remarks of inspecting officer on geology, exploration etc.

There was no proposal of Exploration during the year 2022-23. Mineralized zone explored to G1 level of exploration. Reserve + Resource as on 31.03.2023 is 2.85+6.55= 9.4 Million tonne.

**Development**

S.N	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
2a	Location of development w.r.t. lease area	-615E to 610E, -100N to 395N	-530E TO 585E -90N to 340N	Deviation from the proposal for which violation of rule 11(1) of MCDR pointed
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	YES	YES	No topsoil bench
2c	Stripping ratio or ore to OB ratio	5.95	6.39	
2d	Quantity of topsoil generation in m3	63099.52	4850.00	Deviation from the proposal for which violation of rule 11(1) of MCDR pointed
2e	Quantity of overburden generation in m3	1781589	448456.42	Deviation from the proposal for which violation of rule 11(1) of MCDR pointed
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc	The excavation is within the proposed area . However Deviation in location of Development observed. Less Top soil & OB generated than proposed. Violation of rule 11(1) of MCDR 2017 pointed		

**EXPLOITATION**

S. N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
3a	Number of pits proposed for production	01	01	
3b	Quantity of ROM mineral production proposed (MT)	2,99,615	70,195	Less production than proposed
3c	Recovery of salable/usable mineral from ROM production	70%	80%	Saleable: 22042.59 mineral reject: 14158.71
3d	Quantity of mineral reject generation MT	91958.42	14158.71	
3e	Grade of mineral reject generation and threshold value declared	10-40% Cr2O3 & 10 % Cr2O3	10-40% Cr2O3 & 10 % Cr2O3	Cutoff grade: 40% Cr2O3 Threshold value:

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3f	Quantity of sub-grade mineral generation MT	Same as Mineral reject	Same as mentioned in Mineral reject	
3g	Grade of sub-grade mineral generation	10-40% Cr2O3	31.60 % Cr2O3	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Nil	Nil	
3j	Provision of drilling & blasting in mineral benches	Blast holes of 115 mm diameter in both Ore & OB	Being carried.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Ht- 06 Mt & width: 11 Mt	Yes	Height of bench-6 mt and width- 11 Meter maintained.
3m	Total area covered under excavation/pits	39.35 Ha	31.90Ha	
3n	Ore to OB ratio for the pit/ mine during the year	1:5.95	1:6.39	
3o	Total area put in use under different heads at the end of year	Current (O/C) Workings: 39.35 ha Others not specified	1. Current (O/C) Workings: 31.90Ha 2. waste disposal: 33.12Ha 3. Infra., Roads etc.: 13.865Ha 4. Mineral Storage: 16.07Ha	Within the proposed area as per Plan period.
3p	Production of ROM mineral (MT) during last six-year period, as applicable			
	2016-17	130000.000	129796.650	
	2017-18	130000.000	129999.000	
	2018-19	130000.000	126999.070	
	2019-20	299293.000	121143.000	
	2020-21	299894.000	126999.610	
	2021-22	299229.000	163764.000	
	2022-23	299615.000	70195.000	
3q	General remarks of inspecting officer on method of	Lags behind in development and production. Thus less area under mining than proposed. Violation of Rule 11(1) of MCDR 2017 pointed out for deviation of Development.		

### Solid Waste management-Dumping

S.N	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
4a	Separate dumping of topsoil, OB & mineral reject (Rule 33,	Topsoil: Nil OB: Yes	Topsoil: Nil OB: Yes	No Top soil

		Mineral Reject:	Mineral Reject:	
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		OB:	OB:	
		-750E to -125E 997N to 1710N	-621E TO -188E 1175N TO 1540 N	Within the propose d area
4b	Location of topsoil, OB & mineral reject dumps	Mineral Reject: 108E TO 461E 391 N TO 518 N	Mineral Reject: 108 E TO 461 E 380N TO 515 N	
4c	Number of dumps within lease area and outside lease area	Within lease area:5 Outside lease area: Nil	Within lease area:5 Outside lease area: Nil	
4d	Location of dumps w.r.t. ultimate pit limit	1. WD1: -780E to -90E -90N to-400N 2. OB Dump 1: 480E to 650E 325N to550N 3. OB Dump 3: 280E to 430E -20N to -150N 4. WD4: 30E to 623E -642N to-450N 5. WD5: -750E to - 125E 997N to 1710N	5. WD1: -780E to -90E -90N to-400N 6. OB Dump 1: 480E to 650E 325N to550N 7. OB Dump 3: 280E to 430E -20N to -150N 8. WD4: 30E to 623E -642N to-450N 9. WD5: -621E to -191E 1175N to1540N	Dumps outside ultimate Pit Limit.
4e	Number of active & alive dumps	1 (WD5)	1 (WD5)	
4f	Number of dead dumps	4	4	Old Dumps.
4g	Number of dumps stabilized	0	0	Retainin g Wall 1165 meter & Garland drain 1179 meter Maintain ed.
4h	Whether Retaining wall or garland drain all along dumps are there	Only Maintenance	Maintained	
4i	Length of Retaining wall or garland drain all along dump	Maintenance	Maintained	
4j	Number of settling ponds	Maintenance	Maintained	
4k	Specific comments of inspecting officer on waste dump management	Dumps outside ultimate Pit Limit. 01Active Dump and 04 Inactive Dump. Retaining wall and garland drain all along dump. Garland Drain and Retaining wall maintained.		

### Solid Waste management-Backfilling

S.N	Item	Proposals for, 2022-23	Actual work during2022-23	Remark
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	NIL	NIL	Pit Not Matured

5b	Area under backfilling of mined out area	NIL	NIL
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 36)	YES	YES
5d	Total area fully reclaimed & rehabilitated	NIL	NIL
5e	General remarks of inspecting officer on backfilling, reclamation etc	No area is matured for back filling and there is no proposal or achievement.	

### Progressive Mine Closure Plan

S. N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26(2). Management of worked/mined out benches		YES	
6b	i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	No Proposal	NA	Pit not matured.
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	NA	NA	Pit yet to mature .
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha)	NA	NA	No proposal

iii) Method of rehabilitation

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6e	Compliance of Environmental monitoring (core zone & buffer zone)	Yes (Core & buffer Zone)	Yes (Core & buffer Zone)
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations	Area is not matured for reclamation and rehabilitation. During inspection the Plantation as carried out by the lessee was found to be satisfactory. Environmental reports checked and found that all parameters within limit.	

### Mineral Conservation

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting and dispatch	Grade-wise sorting within lease area being practiced	1. Below 40% Cr2O3: 55306.64 MT 2. 40% to below 52% Cr2O3: 85483.22 MT 3. 52% Cr2O3 and above: 3014.63 MT
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanized	Mechanized	
7c	Different grade of mineral sorted out at mines	Grade wise sorting	1. Below 40% Cr2O3: 14158.71 MT 2. 40% to below 52% Cr2O3: 21704.18MT 3. 52% Cr2O3 and above: 338.41 MT	
7d	Any beneficiation process at mines	NA	NA	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	It is observed that, Grade-wise sorting within lease area being practiced.		

### Environment

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
8a	Separate removal and utilization of topsoil (Rule 36)	63099.52m3	4850m3	Less production of Top soil than proposed. Violation of rule 11(1) of MVCDR 2017 pointed.
8b	Concurrent use or storage of topsoil	63099.52m3	4850m3	Utilization in WD5 for Plantation
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 37)	YES	YES	As per proposal
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NA	NA	

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8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NA	NA	
8f	Baseline information on existence of plantation & additional Plantation done	3200 saplings	3200 saplings (2Ha). Survival rate is 90%	
8h	Water sprinkling on roads to control airborne dust	YES	YES	Through movable water sprinkler
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The mine is ODF free and General aesthetic beauty has been maintained.		

**Compliance of Rule 45**

S.N	Item	COMMENTS	Remarks	
.			Monthly returns submitted in time. Annual return submitted on 29.06.2022.	
9a	Status of submission of Monthly and Annual returns	M.R. Submitted upto <u>May 2023</u> A.R. Submitted upto <u>FY 2022-23</u>	violation of Rule 45 of MCDR 2017 ; pointed as Proposed production figure not updated in the Return.	
S.N	Item	Details given in A.R. for the year 2022-23	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Sri Manoj K Sethy (Mines Manager) Sri Tusar K Pradhan (ME) Srimati Jharana Naik (Geologist)	Manger, Mining Engineer, & Geologist as per AR all present during inspection.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under pits: 31.90Ha Dumps: 33.12 Ha Plant, buildings, residential, roads etc.: 13.865 Ha	As per Annual return submitted.	
9d	Scrutiny of Annual return on afforestation	3200 saplings (2Ha)	Found to be in order with survival rate of approx 90%.	
9e	Scrutiny of Annual return on ROM stock and/or graded ore	ROM: 33993.7 MT <40% : 337081.919 40-52%: 17846.041 MT >52%: 729.446 MT	As per Annual return submitted.	
9f	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Sale value: 1,55,31,32,788/- Ex. Mine price: <40%: 5331.84/- 40-52%: 14082.54/-	As per Annual return submitted.	



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Prod Cost: Rs. 8988/

MT

9g Scrutiny of Annual  
return on fixed assets

7,25,18,294.70 /-

As per Annual return submitted.

9h Scrutiny of Annual  
return on mining  
machineriesShovel (hydraulic): 3  
Nos.Tipper: 15 Nos., Dozer:  
1 No., Grader: 1 No.

Water tanker: 1 No.

Dumper- 30T- 15 Nos

Deployed in the Mine.