

INDIAN BUREAU OF MINES
MCDR INSPECTION REPORT
Bhubaneswar Region

General

Sl. No.	Particulars	Details
1.	Name of the Mine	Sukrangi Chromite Mines
2.	Date of Inspection	20.12.2024
3.	Name of Inspection officer:	Rohita Sethi, Assistant Controller of Mines
4.	Name of official accompanying inspection	Sh. Nigamananda Sethi, Mines Manager Sh. Tusar Kanta Pradhan, Mining Engineer Smt. Jharana Naik, Geologist Sh. Ajay Kumar Rout, Surveyor
5.	Last date of Inspection & Officer	06.11.2023, Sh. Sanjay Kumar Mahapatra, Assistant Controller of Mines
6.	Total Lease Area (Ha) with breakup of non-forest and forest land	Lease area: 382.709 Ha Forest Land: 267.210 Ha (fully diverted) Non forest Land: 115.499 Ha
7.	Mine code	11ORI19008
8.	IBM Registration Number under rule 45 of MCDR, 2017	IBM/4269/2011
9.	Name of the lessee, Address, phone, email and fax number.	The Odisha Mining Corporation Ltd. (A Gold Category State PSU) OMC House, Post Box No.34, Bhubaneswar, 751001, India Telephone: 0674-2377400/2377401, Fax: 0674-2396889/2391629 E-mail: pmc@odishamining.in , info@odishamining.in , Website: www.omcltd.in
10.	Village	Sukrangi
11.	Taluka/Mandal	Sukinda
12.	District	Jajpur
13.	PIN code	755047
14.	State	Odisha
15.	Post office	Kaliapani
16.	Nearest police station	Kaliapani P.S
17.	Nearest Railway station	Tomka
18.	Date of Grant of Mining Lease	20.09.1980
19.	Date of Execution	20.09.1980
20.	Date of opening of Mine	27.05.1985
21.	Date of expiry	19.09.2030
22.	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Sri. Sudhanshu Mohan Samal (IAS) Managing Director & Nominated Owner OMC House, Post Box No.34, Bhubaneswar, 751001, Odisha, Fax: 0674-2396889/2391629 Telephone: 0674-2377400/2377401
23.	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 Limited, Mob: 9937297144

24.	Name of the Mines Manager with Address, mobile no, email, fax number and date of appointment in mine	Sri Nigamananda Sethi, Mines Manager At: Sukrangi Chromite Mines, Odisha Mining Corporation Ltd. PO: Kaliapani, Jajpur, Odisha. Mob: 9437883572 Date of appointment: 13.07.2024
25.	Name of the Mining Engineer , Qualification and total experience with Address, mobile no, email, fax/phone number and date of appointment in mine	Sri Tusar Kanta Pradhan, B. Tech. in Mining Engg. Total Experience: 10 years At: Sukrangi Chromite Mines Odisha Mining Corporation Ltd. PO: Kaliapani, Jajpur, Odisha. Mob: 9692107963 Date of appointment: 01.04.2022
26.	Name of the Geologist , Qualification and total experience with Address, mobile no, email, fax number and date of appointment in mine	Srimati Jharana Naik M. Sc. Geology Sukrangi Chromite Mines Odisha Mining Corporation Ltd. Kaliapani, Jajpur, Odisha Date of appointment: 19.05.2021
27.	Date of Approval of Mining Plan/Review of Mining Plan/ their modifications with five-year period and specific condition in approval letter, if any.	1. Scheme of Mining (01.04.2009 to 31.03.2014): MS/OTFM-MECH/33-ORI/BHU/2009-10, 18.12.2009, 2. Scheme of Mining (01.04.2014 to 31.03.2019): MS/FM/31-ORI/BHU/2013-14, 22.08.2014 3. Modification in RMP (01.04.2018 to 31.03.2019): MPM/FM/08-ORI/BHU /2018-19/583, 04.06.2018 4. Review of Mining Plan (01.04.2019 to 31.03.2024): MS/FM/37-ORI/BHU/2 018-19/2461, 23.01.2019
28.	Mineral (s) granted in lease and proved for mining.	Chromite
29.	Method of Mining (Opencast, Underground)	Opencast
30.	Category (Fully Mechanized, Others or Manual)	FM (Fully Mechanized)
31.	Captive/Non-Captive	Non-Captive
	Present EC Capacity	3 lakhs tonne/annum

Exploration:---

Sl. No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
1a	Backlog of previous year	NIL	NIL	
1b	Exploration over lease area for Geological axis 1 or 2. (in Ha)	NIL	23 BHs, 5500mtr	For checking the vertical continuity of the ore body and on unexplored area 23 nos. of

				boreholes carried out.
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Not Applicable	South West Pinnacle Pvt Ltd. ₹ 236.45 lakhs	
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	G1-59.721ha, Non-mineralized- 305.653ha, Area to be explored-17.33	As per last approved RMP further 96 boreholes with 22485m proposed on unexplored area.
1e	Balance reserves as on 01.04.2024 (mt) (Proved + Probable)	Not Applicable	Reserve-(111+122)- 123,84,455.25tonnes Resource-(211+222) 10119300.85tonnes	As on 01.04.2024
1f	General remarks of inspecting officer on geology, exploration etc.	Lessee has carried out 23 boreholes with 5500mtr for checking the vertical continuity of the ore body and on unexplored area. Also 96 boreholes with 22485m proposed on unexplored area in the approved RMP dated 19/03/2024.		

Development:--

Sl. No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
2a	Location of development w.r.t. lease area	-620E to 610E -125N to 395N 128 mRL	-541 to 610E -65E to 350 N 134 mRL	NIL
2b	Separate benches in topsoil, overburden and mineral	Separate benches in overburden and mineral were proposed	As per proposal	No topsoil bench
2c	Stripping ratio or Ore to OB ratio	1:6.30	1:6.19	NIL
2d	Quantity of topsoil generation in m3	10,957.88	4,000.00	Utilized for Plantation
2e	Quantity of overburden generation in m3	18,90,000	18,52,907	NIL
2f	General remarks of inspecting officer on development of pit	Production quantity was very less during the year 2022-23 against the proposed production, for which less development has been carried out during the year 2023-		

	w.r.t. type of deposit etc.	24 due to backlog of the previous year. Also mining operation could not be carried out by the Lessee on the whole proposed area due to want of FC.
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Exploitation:--

Sl. No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
3a	Number of pits proposed for production	01	01	NIL
3b	Quantity of ROM mineral production proposed	2,99,160	2,99,160	NIL
3c	Recovery of salable/usable mineral from ROM production	2,35,018	141498.03	Violation issued under Rule 11(1) of MCDR-2017
3d	Quantity of mineral reject generation	64,142	1,57,661.97	
3e	Grade of mineral reject generation and threshold value declared	10-40% Cr ₂ O ₃ & 10 % Cr ₂ O ₃	10-40% Cr ₂ O ₃ & 10 % Cr ₂ O ₃	Cutoff grade considered as 40% Cr ₂ O ₃
3f	Quantity of sub-grade mineral generation	1,57,661.97		
3g	Grade of sub-grade mineral generation	10-40% Cr ₂ O ₃		
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	As per proposal	NIL
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No proposal	Nil	NIL
3j	Provision of drilling & blasting in mineral benches	Deep hole drilling and blasting proposed	As per proposal	NIL
3k	Provision of mining machineries in mineral benches	Excavator & Dumper Combination	As per proposal	NIL
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height: 6 m	As per proposal	NIL
3m	Total area covered. under excavation/pits	43.31 Ha	35.171 Ha	Due to backlog of previous years and non-availability

				of FC
3n	Ore to OB ratio for the pit/mine during the year	1:6.30	1:6.19	NIL
3o	Total area put in use under different heads at the end of year	1. Current (O/C) Workings: 43.31 Ha 2. Waste disposal: 53.09 Ha 3. Infra, Roads etc.: 21.31 Ha 4. Mineral Storage: 23.14 Ha	1. Current (O/C) Workings: 35.171 Ha 2. Waste disposal: 43.671 Ha 3. Infra, Roads etc.: 15.354 Ha 4. Mineral Storage: 16.101 Ha	Due to backlog of previous years and non-availability of FC
3p	Production of ROM mineral during last five-years period , as applicable	FY 19-20: 299293 FY 20-21: 299894 FY 21-22: 299229 FY 22-23: 299615 FY 23-24: 299160	121143.000 126999.610 163764.000 70195.000 299160.000	NIL
3q	General remarks of Inspecting Officer on method of mining etc	Open-cast fully mechanized mining method is being carried as per approved RMP. It is observed that there is a major variation in grade of Cr ₂ O ₃ Ore (Mineral Reject, +10 to -40% Cr ₂ O ₃) produced in the mine with respect to the approved proposal for which violation issued.		

Solid Waste Management-Dumping:

Sl. No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Separate dumping of top soil and OB proposed	Dumping carried out as per proposal	
4b	Location of topsoil, OB & mineral reject dumps	OB: -750E to -125E 997N to 1710N Mineral Reject: 108 E to 349E 391N to 518N	OB: -730 to -170E 1050N to 1550N Mineral Reject: 108E to 345E 391N to 518N	
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	Proposed outside the UPL	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:	

			-621E to -191E 1175N to1540N	
4e	Number of active & alive dumps	1 (WD5)	1 (WD5)	
4f	Number of dead dumps	4	4	
4g	Number of dumps stabilized	0	0	
4h	Whether Retaining wall or garland drain all along dumps are there	YES	YES	
4i	Length of Retaining wall or garland drain all along dump	No Proposal, only maintenance proposed	As per proposal	
4j	Number of settling ponds	No proposal	NIL	
4k	Specific comments of inspecting Officer on waste dump management	Dumping is being carried out in the earmarked area. There was a proposal of dump (OB dump-1) re-handling for lateral expansion of the pit during the period 2019-20 to 2022-23. During the inspection it is observed that dump re-handling work has not been carried out as per the proposal for which violation issued.		

Solid Waste Management-Backfilling:--

Sl. No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	NIL	NIL	Top soil is being utilized for plantation
5b	Area under backfilling of mined out area	No Proposal	NIL	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area	YES on Dump Slopes	YES on Dump Slopes	
5d	Total area fully reclaimed & rehabilitated	NIL	NIL	
5e	General remarks of inspecting Officer on backfilling and reclamation etc.	Existing pit is not matured for backfilling as ore/mineral not exhausted completely.		

Progressive Mine Closure Plan: ---

Sl. No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26(2). (Hard copy same provided)	Before 1st July 2024	Submitted on 29.06.24	NIL
6b	Management of worked/mined out benches	(i)NIL (ii)4.28	(i)NIL (ii)4.28	NIL

	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	(iii)5000 (iv)68500 (v) (vi)	(iii)5000 (iv)71826 (v)NIL (vi)NIL	
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	No Proposal	NA	NIL
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	No Proposal	NA	NIL
6e	Compliance of Environmental monitoring (core zone & buffer zone)	YES	YES	NIL
6f	General remarks of inspecting Officer on PMCP compliance & progressive closure operation etc	Lessee has carried out adequate number of plantation as per proposal.		

Mineral Conservation:---

Sl. No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting and dispatch	Grade wise sorting and dispatch	NIL
7b	Method of grade-wise	Mechanical	Mechanical	NIL

	mineral sorting i.e. manual or mechanical			
7c	Different grade of mineral sorted out at mines	Below 40% Cr2O3, 40% and above Cr2O3.	As per proposal	NIL
7d	Any beneficiation process at mines	No Proposal	NIL	NIL

Environment:--

Sl. No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
8a	Separate removal and utilization of topsoil	10957.84 m3	4000 m3	NIL
8b	Concurrent use or storage of topsoil	10957.84 m3	4000 m3	Utilized in WD5 for Plantation
8c	Separate dumps for overburden, waste rock, rejects and fines	YES	YES	As per proposal
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NO Proposal	NIL	NIL
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NO Proposal	NIL	NIL
8f	Baseline information on existence of plantation & additional plantation done	5000 no's of plant	5150	NIL
8g	Survival rate	95%	95%	NIL
8h	Water sprinkling on roads to control airborne dust	Through movable water sprinkler	Through movable water sprinkler	NIL

Compliance of Rule 45

#	Item	Comments				Remarks.
9a	Status of submission of Monthly and Annual returns	Monthly Return submission on date:				NIL
		Apr 23	10.05.23	Oct 23	09.11.23	
		May 23	09.06.23	Nov 23	08.12.23	
		June 23	06.07.23	Dec 23	09.01.24	
		July 23	08.08.23	Jan 24	07.02.24	
		Aug 23	08.09.23	Feb 24	06.03.24	

Sl. No.	Item	Sept 23 07.10.23 Mar 24 08.04.24				Remarks
		Annual Return for FY 23-24 was submitted on 29.06.24				
Sl. No.	Item	Details given in A.R. for the year 2023-24	Observation of I/Officer	Remarks		
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Sri Manoj Kumar Sethy (Manager) Sri Tusar K Pradhan (ME) Smt. Jharana Naik (Geologist)	Appears to be correct	NIL		
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under pits: 35.171Ha Reclaimed area: NIL Use for waste disposal: 43.671 Ha Plant, Buildings, residential, roads etc.: 15.354 Ha Mineral Storage: 16.101Ha	Appears to be correct	NIL		
9d	Scrutiny of Annual return on afforestation	5150 no's saplings	Appears to be correct	NIL		
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Above 10 % Below 40% Cr2O3: 1,57,661.97 MT	Violation issued for more generation of mineral reject against the proposed limit.			
9f	Scrutiny of Annual return on ROM stock and/or graded ore (in MT)	ROM: NIL Below 40% Cr2O3: 297829.249 40-52%: 60566.161 >52%: 729.446	Appears to be correct			
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex. Mine price: Below 40% Cr2O3: 7973.42/- 40-52%: 21218.56/- >52%: NIL	Appears to be correct			
9h	Scrutiny of Annual return on fixed assets	₹ 13,47,45,715/-	Appears to be correct			
9i	Scrutiny of Annual return on mining machineries	Back hoe: 5 Nos. Dumper: 37 Nos., Dozer: 2 Nos., Grader: 1 No. Water tanker-02	Observed to be correct			

(10) Violation observed during current inspection and compliance position of earlier Violation pointed out:

(a) Compliance position of earlier violation pointed out: During last inspection dated 06/11/2023, the violation of rule 11(1) & 45(5)(b) of MCDR 2017 was pointed out and subsequently, said rule complied on 03/04/2024.

(b)During current inspection: The violations of Rule11 (1) of MCDR 2017 have been observed and the violation letter issued on 09/01/2025.

(11)The lessee was submitted DAI/drone survey data under rule 34A for FY 23-24 on 05/06/2024.

Rohita Sethi
Assistant Controller of Mines