

**MCDR INSPECTION REPORT
BHUBANESWAR REGIONAL OFFICE**

MINE CODE : 30ORI08036

Introductory Brief History of the Mine : Khandbandh Mine belongs to Odisha mining Corporation Limited is located at village- Khandabandh, Tehsil- Barbil, Districk- Keonjhar, Odisha and the longitude is 85°23'12.66888"E to 85°24'51.95389"E & latitude is 21°55'40.27579"N to 21°57'29.90066"N and is covered by survey of India toposheet no F45N5(73G/5) The land use of the lease area comprises of 2.917Ha Government land, 345.189 Ha Forest Land, 18.205 Ha Private land. Hilly topography with three prominent relict mounds having R.L.s 657 m, 677 m, 674 m in north , west and south-west of the area respectively. The highest and lowest elevation is 677m and 525 m above M.S.L. respectively. Baitarani River is flowing at a distance of 2.8 km east of the mine lease boundary.

Date of execution of mining lease is 30-11-1963. 1st RML applied on 09-11-1992, 2nd RML applied on 06-11-2012. Mining lease valid upto 29-11-2033. Mining scheme & plan valid upto 31-03-2023. Consent to establish and Consent to operate valid upto 03-12-2026 & 31-03-2023 respectively. Environmental clearance obtained for IMTPA vide letter no. J-11015/1081/2017-IA.II(M) dated 15-12-2008.

General

S. N.	Particulars	Details
1	Name of the Mine	Khandbandh Iron Ore Mine
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	366.311 Ha. = Forest 345.189 Ha. + Non forest 21.122 Ha.
3	Minecode	30ORI08036
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/4269/2011
5	Name of the lessee, Address, phone, email and fax number	M/s. Odisha Mining Corporation Limited, OMC House, Unit-5, Post Box No.34, Bhubaneswar, email : info@odishamining.in, fax: 06742396889
6	Village	Khandabandh
7	Taluka/Mandal	Barbil
8	District	Keonjhar
9	Pincode	758034
10	State	Odisha
11	Post office	Khandabandh
12	Nearest police station	Bamebari
13	Nearest Railway station	Jaroli
14	Date of Grant of Mining Lease	24-05-1963
15	Date of Execution	30-11-1963
16	Date of opening of Mine	30-11-1963
17	Date of first Renewal, if applicable and its period & expiry	30-11-1993, 20 years, expiry date: 29-11-2013
18	Date of second Renewal, if applicable and its period & expiry	30-11-2013, 20 years, expiry date: 29-11-2033
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	No mining operation due to want of statutory clearance (forest clearance).
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Sri Balwant Singh, IAS 2392778(O),2394655(O) md@odishamining.in OMC HOUSE, POST BOX NO:- 34,UNIT-V BHUBANESWAR-751001
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Sri Abanikanta Pradhan (Agent cum Regional Manager), Odisha Mining Corporation Limited, Regional Office, Barbil.
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Sri Nishikanta Samal, At/Po-Khandabandh, Ps- Bamebari, Via-

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		Joda, Dist- Keonjhar, Pin- 758034. Email: manager.khandabandh@gmail.com, date of appointment: 25-10-2021.
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Sri Balaram Sahoo, Diploma in Mining Engineering. 18 Years experience. At/Po- Khandabandh, Ps- Bamebari, Via- Joda, Dist- Keonjhar, Pin- 758034. Email: balaram.sahoo@odishamining.in , date of appointment in mine: 12.08.2022
24	Name of the Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Mr. Taruna Kumar Kandeyang, MSc,M.Phil(Geology),17 years experience. date of appointment in mine: 02.03.2022 At/Po- Khandabandh, Ps- Bamebari, Via- Joda, Dist- Keonjhar, Pin- 758034 Email: tkkandeyang@odishamining.in
25	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55& carrying out their duties as per rule 56 & 57.	Yes
26	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	16.11.2017
27	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Letter No. MS/FM/24-ORI/BHU/2017-18/2127 dtd 16-11-2017
28	Mineral(s) granted in lease and proved for mining	Iron Ore (Hematite)
29	Method of Mining(Open cast, Underground)	Open cast
30	Category (Fully Mechanised, Others or Manual)	Fully Mechanized
31	Captive/Non Captive	Non-Captive.

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. (Duplication of information in existing TMIS data sheets and draft write up has been avoided.)

Exploration

S.N.	Item	Proposals for 2021-22	Actual work during 2021-22	Remark
1a	Backlog of previous year	NIL (2021-22)	NIL	Exploration Started on 21/05/2022.
1b	Exploration over lease area for Geological axis 1 or 2.	366.311Ha	146.974 Ha	G3 area will explored for G1 and G2
1c	Exploration Agency & Expenditure in lakh Rupees during the year	NIL	NIL	
1d	Balance area to be explored to bring Geological axis in 1 or 2	-	41.922 Ha	Non mineralized area will be explored.
1e	Balance reserves as per latest approved document	-	21.032 million ton	
1f	General remarks of inspecting officer on geology, exploration etc.	Mining operation was discontinued since 05.01.2010 to 15.05.2022 due to non-availability of Stage-II forest clearance.		

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Development

S.N.	Item	Proposals for 2021-22	Actual work during 2021-22	Remark
2a	Location of development w.r.t. lease area	<u>2021-22</u> Deposit-I 334463E-334808E & 2427742N-2428055N Deposit-V 334442E-334768E & 2427088N-2427394N	<u>2021-22</u> NIL	
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Deposit-I: Topsoil- NIL OB- 6, Mineral-7 Deposit-V : Topsoil-NIL, OB-2, Mineral-6	Deposit-I: Topsoil- NIL OB- 6, Mineral-7 Deposit-V : Topsoil-NIL, OB-2, Mineral-4	
2c	Stripping ratio or ore to OB ratio	1:0.68(2021-22)	NIL (2021-22)	
2d	Quantity of topsoil generation in m3	NIL	NIL	
2e	Quantity of overburden generation in m3	2021-22 680000 CUM	2021-22 NIL	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc	Mining operation was discontinued since 05.01.2010 to 15.05.2022 due to non-availability of Stage-II forest clearance.		

EXPLOITATION

N.	Item	Proposals for, 2021-22	Actual work during 2021-22	Remark
3a	Number of pits proposed for production	(2021-22) NIL	(2021-22) NIL	
3b	Quantity of ROM mineral production proposed	2021-22 10,00,000 MT	NIL (2021-22)	
3c	Recovery of salable/usable mineral from ROM production	9,50,000.000 MT (2021-22)	NIL (2021-22)	
3d	Quantity of mineral reject generation	50,000.000 MT (2021-22)	NIL	
3e	Grade of mineral reject generation and threshold value declared	51.21%Fe (2021-22)	NIL	
3f	Quantity of sub-grade mineral generation	<u>2021-22</u> 50,000 MT	NIL	
3g	Grade of sub-grade mineral generation	<u>2021-22:</u> 51.21% Fe	NIL	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	
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	Deep hole blasting	Nil	
3k	Provision of mining machineries in mineral benches	By using back hoe & dumper combination.	Nil	

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31	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height-6m & width-10m	Maintained as per MP/SOM	
3m	Total area covered under excavation/pits	2021-22 110.6279Ha		
3n	Ore to OB ratio for the pit/mine during the year	1:0.68 (2021-22)	NIL	
3o	Total area put in use under different heads at the end of year	149.6353 Ha (2021-22)	NIL (2021-22)	
3p	Production of ROM mineral during last six-year period, as applicable (in million tonne) 2016-17 2017-18 2018-19 2019-20 2020-21 2021-22	2016-17 0.74 2017-18 1.03 2018-19: 0.39 2019-20: 0.79 2020-21: 1.02 2021-22: 1.00	2016-17 NIL 2017-18 NIL 2018-19 NIL 2019-20 NIL 2020-21 NIL 2021-22 NIL	Mining operation suspended due to want of statutory clearance upto the FY 2021-22
3q	General remarks of inspecting officer on method of	Mining operation was discontinued since 05.01.2010 to 15.05.2022 due to non-availability of Stage-II forest clearance.		

Solid Waste management-Dumping

S.N.	Item	Proposals for, 2021-22	Actual work during 2021-22	Remark
4a	Separate dumping of topsoil, OB & mineral reject (Rule 33, 37)	Separate Dumping	NIL	Mining operation suspended due to want of statutory clearance upto the fy 2021-22
4b	Location of topsoil, OB & mineral reject dmps	<u>2021-22</u> 335400E- 335700E & 2427720N-2428150N	NIL	
4c	Number of dumps within lease area and outside lease area	ONE	One	
4d	Location of dumps w.r.t. ultimate pit limit	335386E-335739E & 2427689N-2418146N	Maintained as per proposal	
4e	Number of active & alive dumps	ONE	one	
4f	Number of dead dumps	NIL	Nil	
4g	Number of dumps stabilized	-	-	Active dump
4h	Whether Retaining wall or garland drain all along dumps are there	YES	Nil	
4i	Length of Retaining wall or garland drain all along dump	Garland drain 325m CBW 1361m upto 2021-22	2021-22 NIL	
4j	Number of settling ponds	2021-22 NIL	Nil	
4k	Specific comments of inspecting officer on waste dump management	Mining operation was discontinued since 05.01.2010 to 15.05.2022 due to non-availability of Stage-II forest clearance.		

Solid Waste management-Backfilling

S.N.	Item	Proposals for, 2021-22	Actual work during 2021-22	Remark
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5a	Status on part or full extraction of mineral from mined out area before starting backfilling	0.68 million cum to be back filled after extraction.	Nil	
5b	Area under backfilling of mined out area	2021-22 3.274Ha.	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 36)	NIL	NIL	
5d	Total area fully reclaimed & rehabilitated	NIL	NIL	
5e	General remarks of inspecting officer on backfilling, reclamation etc			

Progressive Mine Closure Plan

N.	Item	Proposals for, 2021-22	Actual work during 2021-22	Remark
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26(2).	Proposed	submitted	
6b	Management of worked/mined out benches 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	i) NIL ii) NIL iii) NIL iv) NIL v) NIL vi) NIL	NIL NIL NIL NIL NIL 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	i. NIL ii. NIL iii. NIL iv. NIL v. NIL	NIL NIL NIL NIL NIL	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i) - ii) NA iii) NA	NIL NIL NIL	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Environmental monitoring stations are fixed as per the location proposed in mining plan	2021-22 Nil	
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations	Mining operation was discontinued since 05.01.2010 to 15.05.2022 due to non-availability of Stage-II forest clearance.		

Mineral Conservation

S.N.	Item	Proposals for, 2021-22	Actual work during 2021-22	Remark
7a	ROM Mineral dispatch or grade-wise sorting within lease area	10,00,000 MT	NIL	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanised	Mechanised	

7c	Different grade of mineral sorted out at mines	CLO (10-40mm) -(62-64) % Fe Fines:(60-62)% Fe	Nil	
7d	Any beneficiation process at mines	NIL	NIL	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Mining operation was discontinued since 05.01.2010 to 15.05.2022 due to non-availability of Stage-II forest clearance.		

Environment

S.N.	Item	Proposals for, 2021-22	Actual work during 2021-22	Remark
8a	Separate removal and utilization of topsoil (Rule 36)	NIL	NIL	
8b	Concurrent use or storage of topsoil	NIL	NIL	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 37)	1.128Ha. (2021-22)	Nil	
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)	3.274 Ha	NIL	
8f	Baseline information on existence of plantation & additional Plantation done	2021-22 Proposed plantation in lease area: 500	700 nos	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul roads.	02 Nos of water tankers is being used for sprinkling inside the lease area.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Mining operation was discontinued since 05.01.2010 to 15.05.2022 due to non-availability of Stage-II forest clearance.		

Compliance of Rule 45

S.N.	Item	COMMENTS	Remarks	
9a	Status of submission of Monthly and Annual returns	M.R. Submitted upto July-2022 A.R. Submitted upto APR 2021-MAR 2022.		
S.N.	Item	Details given in A.R. for the year 2020-21	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager- Mr. NISHIKANTA SAMAL Mining engineer- Mr. BALARAM SAHOO Geologist- Mr T.K. Kandeyang	Found in order	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	111.7477(2021-22)	Found in order	
9d	Scrutiny of Annual return on afforestation	2021-22 = 500nos	Found in order	
9e	Scrutiny of Annual return on mineral reject generation	2021-22 NIL 6	Nil	

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	(Grade & quantity)			
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Lumps: 62-65%Fe : 5365.850 MT +65%Fe: 3640.340 MT Fines: 60-62%Fe: 80105.340 MT 62-65%Fe: 1800.000 MT (2021-22)	Lumps: 62-65%Fe : 5365.850 MT +65%Fe: 3640.340 MT Fines: 60-62%Fe: 80105.340 MT 62-65%Fe: 1800.000 MT (2021-22)	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	-	NIL	
9i	Scrutiny of Annual return on fixed assets	-	2021-22: Rs 258370063.00	
9k	Scrutiny of Annual return on mining machineries	Details are provided	Found in order	

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
33 of MCDR, 2017	16.09.2022	14.12.2022			
34A of MCDR, 2017	16.09.2022	14.12.2022			

Date : 04.01.2023

(Rajani Kanta Rautaray)
INDIAN BUREAU OF MINES