INDIAN BUREAU OF MINES MINERALS DEVELOPMEMT AND REGULATION DIVISION MCDR INSPECTION REPORT BHUBANESWAR REGIONAL OFFICE

General

SL. No.	Particulars	Details
1	Name of the Mine	Roida-C Iron & Manganese Mine
2	Date of inspection	13-02-2025
3	Name of inspection officer	Sh. Rohita Sethi, ACOM
4		*
4	Name accompanying mine	Shri Pradip Kumar Sahoo, Sr. Manager (Mining),
	officials	Sh.Biswa Prakash Sahu, Mining Engineer, and
		other mine officials
г	Last data of Inspection & Officer	26/04/2024
5	Last date of Inspection & Officer	Shri P.S. Hegde, RMG
6	Total Lanca Area (IIa) with breakup	192.81 Ha (Entire area within reserve forest)
O	Total Lease Area (Ha) with breakup of Non-forest and forest land	192.01 Ha (Elittle died Within leserve loiest)
7	Mine code	30ORI08066
8	IBM Registration Number under rule 45 of MCDR, 2017	IBM/4269/2011
9	Name of the lessee, Address,	M/s Odisha Mining Corporation Ltd.
	phone, email and fax number	A Govt. of Odisha Undertaking OMC
		House, Unit-5, Post Box No34, Bhubaneswar
		Phone No-06742392778
		Email: info@odishamining.in
		Fax No-06742396889
10	Village	Kolha –Roida
11	Taluka/Mandal	Bhadrasahi
12	District	Keonjhar
13	Pincode	Pin-758036
14	State	Odisha
15	Post office	Barbil
16	Nearest police station	Rugudih
17	Nearest Railway station	Barbil
18	Date of Grant of Mining Lease	08-02-1977
19	Date of Execution	30-12-1985
20	Date of opening of Mine	10.04.1996
21	Date of expiry	07.02.2027
22	Name of the Nominated Owner with	Shri Balwant Singh, IAS,
	Address, phone, email, fax number	Managing Director & Nominated Owner of
	and date of appointment	M/s Odisha Mining Corporation Limited
		OMC HOUSE, POST BOX NO-34,
		BHUBANESWAR,
		ODISHA-751001
		PH:06742377401,
		E-Mail: md@odishamining.in
		D.O.A-16/06/2021
23	Name of the Mine Agent with	Shri Abanikanta Pradhan,
	Address, phone, email, fax number	At-Kolha-Roida, Po-Bhadrasahi, Via-Barbil,
	and date of appointment	Mob no-9437431943
	Tr.	Email-apradhan@odishamining.in

		DoA: 30.09.2022
24	Name of the Mines Manager with Address, mobile no, email, fax number and date of appointment in mine	Shri Uday Sankar Pattanaik B.E. with 1 st class Mines Manager, Exp.17 yrs. At-Kolha-Roida, Po-Bhadrasahi, Via-Barbil, Ph No:9437888304, Mail id- manageromcroidac@gmail.com DoA: 01.10.2022
25	Name of the Mining Engineer , Qualification and total experience with Address, mobile no, email, fax/ phone number and date of appointment in mine	Shri Biswa Prakash Sahu, B.Tech (Mining), Exp. 15 yrs. Address: Matkambeda,758036,Keonjhar,Odisha Ph No: 9438117866 Mail id: idcmining@gmail.com DOA: 31.10.2021,
26	Name of the Geologist , Qualification and total experience with Address, mobile no, email, fax number and date of appointment in mine	Shri Zeeshan Ahmad Intg M.Sc.(Applied Geology) Exp. 08 yrs. Mail id: zeeshan.ahmad@odishamining.in Mob: 9167849834 DOA: 20.10.2022
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.	Approved Review of Mining Plan Letter No. RPM/A/25-ORI/BHU/2021-22 dtd. 23.11.2021 for period from 2022-23 to 2026-27 upto 7/2/27. (No. 2133)
28	Mineral (s) granted in lease and proved for mining	Iron ore & Mn-ore (Mining of Iron ore proposals only)
29	Method of Mining(Opencast, Underground)	Opencast
30	Category (Fully Mechanised, Others or Manual)	Fully Mechanized
31	Captive/Non Captive	Non-Captive
32	Present EC Capacity	0.46 MTPA (Iron ore) + 0.007 MTPA (Mn- ore)

OBSERVATIONS/COMMENTS OF INSPECTING OFFICER:

1) <u>Exploration:---</u>

SL.No	Item	Proposals	Actual work	Remarks
		(FY 2023-24)		
1a	Backlog of previous year	FY 22-23: 9 Nos	FY 22-23: 55	All proposed 115
		of core BHs:	Nos of core	nos BHs were
		FY 23-24: 106	BHs with 4688	drilled.
		Nos of core BHs	total meterge ;	
		(100mX 100M	FY 23-24: 60	
		grid to end of	nos core BHs	
		mineralization)	with 3019 total	
			meterge	
			(100mX 100M	
			grid to end of	
			mineralization)	
1b	Exploration over lease area	Conversion of	G-1: 40.72 Ha;	Potentially
	for Geological axis 1 or 2.	entire area under	Proved Non-	mineralized area
		G-1	Mineralized	explored in G-1

			area area (under-G-1, G2/ G-3) : 152.09 Ha	level
1c	Exploration Agency & Expenditure in lakh Rupees during the year	NA	M/s Maheswari Mining Pvt. Ltd. Expenditure during the year Apx. 170 Lakhs	NIL
1d	Balance area to be explored to bring Geological axis in 1 or 2	NA	NIL; Potentially mineralized area already explored in G-1 level.	
1e	Balance reserves as on 01.04.2024	NA	Iron Ore (+45 % Fe) reserves (121): 3.823 million tonnes; Mn-Ore(+10% Mn) (122) 39,546 tonnes	Based on approved RMP dated 23.11.2021.
1f:	General remarks of inspecting Officer on Geology, exploration etc.	limb of the Hor known as S belt/series/formati follows: Laterite, Mn-ore, BHQ/BH configuration of or Iron ore: 640m X Mn-ore: 200mX 6	se-shoe shaped sy inghbhum-Bonai-K on. The litho-units Iron ore, Chert & J, Shale. Based or re body as follows. 610m X 47m (Avg 0m X 30m (10 to 45)	s observed at ML as Cherty Quartzite with a exploration data, the . 59 % Fe)

2) Development:--

SL. No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
2a	Location of developme nt w.r.t. lease area	2437268N-2437385N 334395E-334850E (Main pit & Crusher pit)	2437277N-2437775N 334559E-334927E (Main pit only due to backlog of previous year)	Draft Modified RMP submitted
2b	Separate benches in topsoil, overburden and mineral	Separate benches in overburden and minerals; No top-soil generation;	As per proposals	
2c	Stripping	1:0.45	1:0.95	Ratio in

	ratio or ore to OB ratio		Due to backlog of development handlings. Draft Modified RMP submitted on 21/03/2024.	tonnes/m3 BD:2.2;
2d	Quantity of topsoil generation in m3	No proposals	Nil	
2e	Quantity of overburden generation in m3	206,830	399,496	Due to backlog of previous FY.
2f	General remarks of inspecting Officer on developme nt of pit w.r.t. type of deposit etc	backlog of previous year. Subs	ation OB generation has been occ sequently, draft Modified RMP s down of benches at western part o	ubmitted on

3)Exploitation:--

SL.No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
3a	Number of pits proposed for production	Two nos of Pits (Main Pit &Crusher Pit)	Single pit (Main pit only due to backlog of previous year)	Modified RMP submitted on 21/03/2024
3b	Quantity of ROM mineral production proposed	459,990 tonnes	421,650 tonnes	Within the limit.
3c	Recovery of salable/usab le mineral from ROM production	328,890 Tonnes 71 %	369,800 Tonnes (+58% Fe) 87 % including blended quantity.	Due to blending of 88,847 tonnes of <58 % Fe ore
3d	Quantity of mineral reject generation	131,100 Tonnes (45 to 58 % Fe)	Total of 139,097 Tonnes (45 to 58 % Fe)	As reported by the lessee, 88,847 tonnes of MR utilized by blended with high grade ore & 50,250 tonnes stocked.

3e	Grade of mineral reject generation and threshold value declared	MR: 45 to 58 % Fe	MR: 45 to 58 % Fe	Threshold value of Iron Ore: +45 % Fe
3f	Quantity of sub-grade mineral generation	Same as para 3d		As reported utilization of Sub-grade mineral /
3g	Grade of sub-grade mineral generation	Same as para 3e		mineral reject during FY- 2023-24 is 88,847 tonnes
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	
3i	Any analysis or beneficiatio n study proposed & carried out for sub- grade mineral and reject	Nil	NIL	
3j	Provision of drilling & blasting in mineral benches	Deep hole drilling & blasting with 100 mm dia. of holes. Drilling Pattern: Burden 2.0-2.5m & spacing 2.5-3m; Drill holes will be in single row as well as multi rows on staggered pattern	As per proposals.	NIL
3k	Provision of mining machineries in mineral benches	Yes, mining by Excavators & Dumpers Combination.	As per proposals.	
31	Whether height of benches in overburden and mineral suitable for method of	9m bench height with 15 m width.	As per proposals except western part of main pit due to collapse/side-down of benches and no operation at that site. Slope Stability Study of Mine Pit was carried out by	Modified RMP submitted on 21/03/2024

	mining proposed in MP/SOM				Department Mining Engineering, N Institute of Teo Rourkela, on N 2023 and impl same.	chnology , Vov	
3m	Total area covered under excavation/ pits	31.130	6 На.		29.51	На.	
3n	Ore to OB ratio for the pit/mine during the year	1:0.45			1:0.95 Due to to to development Draft Modi submitted on & was under p	21/03/2024	Ratio in tonnes/m3 BD:2.2;
30	Total area put in use under	Particulars	Total Area(Ha) at the end of Plan period		Particulars	Total Area(Ha) at the end of FY 2023-24	NIL
	different heads at the	Area under Mining	31.136		Area under Mining	29.51	
	end of year	Overburden/ Waste dumping	28.85		Overburden/ Waste dumping	25.19	
		Area Occupied Infrastructure, plants, buildings, roads etc	8.45		Area Occupied Infrastructure, plants, buildings, roads etc	6.82	
		Others	7.138		Others	15.73	
				Т	Within the lim	it.	
Зр	Production	2019-20 :459,		- 1	2019-20 :309,0		Unit: In
	of ROM	2020-21 : 459			2020-21 :232,3		tonnes;
	mineral during last	2021-22: 459, 2022-23: 459,			2021-22: 429,0 2022-23: 145,		Iron ore only.
	five-years	2022-23: 459,			2022-23. 143, 2023-24: 421,		Tion ofe only.
	period, as applicable	, , , , , , , , , , , , , , , , , , , ,					
3q	General rema	applicable General remarks of inspecting Officer on method of mining etc			method is be		nized mining s per approved submitted on

4)Solid Waste Management-Dumping:--

SL.No	Item	Proposals (FY 2023-24)	Actual work	Remarks

4a	Separate dumping of topsoil, OB & mineral reject	No Top soil Generation; Separate stacking/dumping Mineral reject and OB.	Broadly as per the proposals.	NIL
4b	Location of topsoil, OB & mineral reject dumps	Top Soil- NIL Mineral Reject:-708- 855N/ 612-686W OB:-Disposal of OB wastes by backfilling at exhausted part of main pit.	As per the proposals except OB disposal by backfilling. Backfilling was not carried out due to backlog of previous FY & ore/mineral not exhausted completely at proposed location. and OB disposals at OB Dump-3 2438032N-24378353N 334230E-334582E OB Dump-8 2437745N-2438051N 334547E-334800E OB Dump-6 2438197N-2438383N 334625E-334955E Draft Modified RMP submitted on 21/03/2024 with backfilling proposals from 2024-25 onwards. & was under process.	NIL
4c	Number of dumps within lease area and outside lease area	Within lease-7 Nos Out-side lease-NIL	Within lease-7 Nos Out- side lease-NIL	NIL.
4d	Location of dumps w.r.t. ultimate pit limit	Proposed Out-side UPL	As per the proposals.	NIL.
4e	Number of active & alive dumps	3 nos	3 nos	NIL
4f	Number of dead dumps	4 nos	4 nos	NIL

4g	Number of dumps stabilished	No such proposals	4 nos so far	
4h	Whether Retaining wall or garland drain all along dumps are there	Yes; Retaining wall or garland drain all along dump	Constructed Retaining wall or garland drains all along dumps	
4i	Length of Retaining wall or garland drain all along dump	No such proposals during FY 2023-24.	Retaining wall: Cum. of 5293 m so far. Garland drain: Cum. of 3542 m so far.	NIL.
4j	Number of settling ponds	NIL	NIL	7 nos so far.
4k	Specific comments of inspecting Officer on waste dump managemen t	Backfilling was not carried out due to backlog of previous FY & ore/mineral not exhausted completely at proposed location. Subsequently, draft Modified RMP submitted on 21/03/2024 with backfilling proposals from 2024-25 onwards.		

5) 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	3.3 Ha area mined out	NIL	
5b	Area under backfilling of mined out area	2.298 Ha	NIL; due to backlog of previous FY & ore/mineral not exhausted completely at proposed location.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area	NIL	NIL	
5d	Total area fully reclaimed & rehabilitated	NIL	NIL	
5e	General remarks of inspecting Officer on backfilling and reclamation	Previous FY & o	not carried out due re/mineral not exhauste n. Subsequently, draft	ed completely at

etc	submitted on 21/03/2024 with backfilling proposals
	from 2024-25 onwards.

6)Progressive Mine Closure Plan:---

SL.N.	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 1 st July 2024	Not due for submission at time of inspection.	NIL
6b	Management of worked/ mined out benches/dumps 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) 2 Ha iii) 5000 nos iv) NA v)Plantation vi) NA	i) Nil ii) 4.963 Ha. iii) 7941 nos. (at dumps slope) iv) 1,60,119 nos. (Within lease area) v) Plantation vi) Rs. 106.8 lakhs (As reported)	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) 2.298 Ha ii) 2.298 Ha iii)NIL iv)NIL v)NIL	i)NIL ii) NIL; Backfilling was not carried out due to backlog of previous FY & ore/mineral not exhausted completely at proposed location. iii)NIL iv)NIL	Subsequently, draft Modified RMP submitted on 21/03/2024 with backfilling proposals from 2024-25 onwards.
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha)	i)NIL ii)Nil iii)Nil	i)NIL ii)Nil iii)Nil	NIL

	iii) Method of rehabilitation			
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Environmental monitoring in Core zone and buffer zone will be as per MOEF &CC and SPCB guidelines.	Environmental monitoring in Core zone and buffer zone was carried out as per the proposals and parameters are within the limit.	NIL
6f	General remarks of inspecting Officer on PMCP compliance & progressive closure operation etc	backfilling propose was not carried our mineral not exhau Subsequently, dra	lementing PMCP pals, as per approved Returned to backlog of presented completely at present Modified RMP backfilling proposals	MP. Backfilling vious FY & ore/ oposed location. submitted on

7) Mineral Conservation:---

SL.No	Item	Proposals (FY 2023-24)	Actual work	Remark s	
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting to Fines & CLO by crushing and screening within lease area.	As per proposals	NIL	
7b	Method of grade-wise mineral sorting i.e. manual or mechanica l	Mechanical	Mechanical	NIL	
7c	Different grade of mineral sorted out at mines	Iron Ore of different size (Fines & CLO) and Grade wise sorting and dispatched (Fine Iron Grade range- below 58 % Fe and above 58 % Fe) and CLO (5-18 mm &10-40 mm size)	As per proposals (Fines Iron Grade range: 51 to 55 % Fe and 55 to 58 % Fe and 58-60% Fe) and CLO: below 62 % Fe(any size), 62 to 65 % Fe (5-18 mm and 10-40 mm size)	NIL	
7d	Any beneficiation process at mines	None Except dry crushing & screening	As per proposals.	NIL	
7e	General remarks of inspecting Officer on mineral conservation & beneficiation issues	Grade-wise soring to fines/CLO & dispatches of ore/mineral as per the proposals and there is no mineral conservation issue.			

8)Environment:--

SL.No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
8a	Separate removal and	No such	Nil	

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	utilization of tor	acail I	nuo	2002		í	
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8b	Concurrent use or storage of topsoil	No such proposals.	Nil	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines	Separate dumping of OB wastes & mineral rejects proposed	Carried out as per approved proposals.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Back-filling of 2.298 Ha at exhausted part of main pit.	NIL; Due to backlog of previous FY & ore/mineral not exhausted completely at proposed location.	Subsequently, draft Modified RMP submitted on 21/03/2024 with backfilling proposals from 2024-25 onwards.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposals	NIL	Nil
8f	Baseline information on existence of plantation & additional plantation done	Plantation of 5000 Nos of saplings	7941 no's saplings planted within ML during year 23-24 with cumulative 1,02191nos of Saplings.	As reported.
8g	Survival rate	70	85 %	As reported.
8h	Water sprinkling on roads to control airborne dust	Regular sprinkling of water on Haul roads, crushing & screening plant site and dump location etc using Water tanker to suppress the dust.	Carried out as per the proposals.	
8i	General remarks of inspecting Officer on aesthetic beauty in & around mines area.		n & around mines area i e PMCP proposal ar e proposals.	•

9)Compliance of Rule 45

SL.No.	Item	COMMENTS	
			Remarks.
9a	Status of submission	Regularly submitting the MRs/ARs on-time.	Nil

	of Monthly and Annual returns				
S.N.	Item	Details GIVEN 2023-24	in A.R. FY -	Observation	
9Ъ	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mines Manager Sankar Pattanai Mining Enginee Prakash Sahu Geologist: Shri Ahmad	k er: Shri Biswa	Actual also the same.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	and roads- 6. (4) Other Purp	9.51Ha ste Disposal- plant, buildings, velfare, buildings 82 Ha	Actual also as per AR-2023-24	
9d	Scrutiny of Annual return on afforestation	7941 no's (WM	L)	Appears to be correct	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Unprocessed Ore (45-58 % Fe) Iron Processed Ore (45-58% Fe)	NIL 139098 tonnes	Appears to be correct	
9f	Scrutiny of Annual return on ROM stock and/or graded	As on 31.03.20 Stock Iron ROM		Appear to be correct at that time.	
	ore	Lumps clos	ing stock in		
		62%- below 65 % Fe	Nil		
		65%Fe and above	Nil		
			ng stock in nes		
		45%- below 51 % Fe	65984		
		51%- below 55%Fe 55%- below	78062.52		
		55%- below 58%Fe 58%- below	137562.17		
		60%Fe 60%- below	4578.156		
		62% CLO stock	k in tonnes		
		Below 62%	20329.256		

		Fe (any size) 62%- below 65% Fe (5- 18 mm) 62%- below 65% Fe (10- 40 mm)	160.38		
9g	Scrutiny of Annual return on sale value, Ex. Mine price &	Cost of production per tonne; Ex-mine price:		Appear to correct.	be
	production cost	Ex-mine Price Fines in Rs			
		58%- below 60% Fe	3677.04		
		Ex-mine Pric			
		Rs per to below 62% Fe (any size)	6300.16		
		62%-65% Fe (5-18 mm Size)	7270.09		
9i	Scrutiny of Annual return on fixed assets	Fixed Value of <i>A</i> 47164020/-	Assets: Rs	Appear to be correct.	
9k	Scrutiny of Annual return on mining machineries	Back Hoe: 5 nos Wheel Loader:1 Dumpers: 10 nos Rock Drill (100 Water tanker: 2n Crusher: 1 nos;	nos; s; mm): 1nos;	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 26/04/24, no serious violation observed
- (b) During current inspection: No serious violations observed.
- **(11)** The lessee was submitted DAI/drone survey data under rule 34A for FY 23-24 on 20/05/24.

(Rohita Sethi) Assistant Controller of Mines