

MCDR-MIFLOFE/16/2023-BBS-IBM RO\_BBS  
MCDR INSPECTION REPORT

1/22831/2024

**Name of the Mine:** Nuagaon Iron & Manganese Mine, of Shri Probodh Mohanty.  
POA of all Legal Heirs of Late S N Mohanty, 400RI13050  
**Name of the Inspecting Officer :** Shri Sanjay Kumar Mahapatra, ACOM

**Name of the accompanying official:** Shri T C Sei , Agent

**Date of Inspection:** 20.12.2023.

S. N.	Particulars	Details
1	Name of the Mine	Nuagaon Iron & Manganese Mine
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	29.257 Ha.
3	Minecode	400RI13050
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM: IBM/135/2011
5	Name of the lessee, Address, phone, email and fax number	Sri Prabodh Mohanty, Weigh bridge road barbil, post : Barbil, Dist: Keonjhar, Odisha, pin - 758035, Phone No.:9437197242 E-mail: snmbbl@gmail.com Fax No.: 06767275362
6	Village	Nuagaon
7	Taluka/Mandal	Koira
8	District	Sundargarh
9	Pincode	770048
10	State	Odisha
11	Post office	Koira
12	Nearest police station	Koira
13	Nearest Railway station	Barsuan
14	Date of Grant of Mining Lease	06.06.1998
15	Date of Execution	11.05.1999
16	Date of opening of Mine	12.05.1999
17	Date of first Renewal, if applicable and its period & expiry	NA
18	Date of second Renewal, if applicable and its period & expiry	NA
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	NA
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Not applicable
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Mr T.C.Sei Barbil, Keonjhar, Odisha Date of appointment.-19.3.2005 snmbbl@gmail.com Fax No.: 06767275362
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Mr. A. N. Prasad, BE. Mining Koira, Sundergarh, Odisha Date of appointment-29.03.2011 snmbbl@gmail.com
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Mr. Subrat kumar Patel BE. Mining At/Po- Koira, Sundergarh, Odisha Date of appointment:-02.07.2019

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24	Name of the Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Mr. Soukeen Mahanta, Msc applied Geology, At/Po:- Koira, Dist-Sundargarh, Odisha. Date of appointment-26.10.2016
25	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55& carrying out their duties as per rule 56 & 57.	Yes. Both Mining engineer & Geologist were present during Inspection.
26	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	CAL/SG/Fe & Mn /MP-536 DT-30.04.1998
27	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	MS/OTFM/29-ORI/BHU/2018-19/1963 on Dt.- 14.11.2018, FY-2019-20 to 2023-24
28	Mineral(s) granted in lease and proved for mining	Iron ore & Manganese ore
29	Method of Mining(Open cast, Underground)	Open cast
30	Category (Fully Mechanised, Others or Manual)	A (OTFM)
31	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	There was no proposal of exploration.
1b	Exploration over lease area for Geological axis 1 or 2.	No proposal	Nil	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Not proposed	Nil	GEO Exploration India, from 2007-08 to 2015-16 Expenditure (Rs.) - 10787805 & Gemcokati Exploration Pvt. Ltd. from 2018-19 Expenditure (Rs.)- 6717628,
1d	Balance area to be explored to bring Geological axis in 1 or 2	7.932 ha	-	7.932 hectare area is yet to be explored. Unexplored as it is under tenant agriculture land.
1e	Balance reserves as per latest approved document	As on 30.09.2018, Reserve of Iron:671414 T Manganese:224175T	As on 01.04.2023, Reserve of Iron:671414.0 T Manganese:22	

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Resource of	2295.00 T
iron :564347 T	Resource of
Manganese:13	iron :564347.0
0462 T	0 T
Total Reserve/	Manganese:13
resources of	0462.00 T
Iron:1239261	Total Reserve/
T,	resources of
Manganese:	iron :1235761.
354637 T	00 T,
	Manganese:
	352757.00 T

- 1f General remarks of inspecting officer on geology, exploration etc. Already 21.325 ha. Area explored under G1 level. Balance 7.932 hectare area is unexplored which is under tenant agriculture land. Surface right not obtained.

### Development

S.N	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
2a	Location of development w.r.t. lease area	220E -60 to 260 N to 200 S Proposed quarry: E-21054'9.004", 85013'0.87", W-21054'5.31", 85012'50.81", N-21054'18.00", 85012'56.27", S-21054'4.32", 85012'57.30"	226 E -136 W to 197 N-115S  E-21054'9.57", 85012'59.58", W-21054'10.48", 85012'54.50", N-21054'12.99", 85012'55.84", S-21054'5.06", 85012'53.70"	Within the proposed area. However significantly lagging behind the proposal due to very low production.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	No proposal	-	No top soil Bench.
2c	Stripping ratio or ore to OB ratio	1:0.8 (T/cum)	1:0.79 (T/cum)	2588 m3 of waste generated for production of 3236.08 T of ore.
2d	Quantity of topsoil generation in m3	0.00	0.00	No Top Soil.
2e	Quantity of overburden generation in m3	99010 m3	2588 m3	Less OB production.
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc	Quarry is within the proposed area. However significantly lagging behind the proposal due to very low production. Violation of Rule 11(1) of MCDR 2017 issued on 26.12.2023.		

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**EXPLOITATION**

S.N	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
3a	Number of pits proposed for production	One pit is proposed for iron and manganese production.	One pit is present in ML area for iron and manganese production.	
3b	Quantity of ROM mineral production proposed	Iron –105705.00T Mn.–13350.00T	Iron – 3000.00 T Manganese –236.08 T	Very low production.
3c	Recovery of salable/usable mineral from ROM production	Iron 60750.00 T Manganese – 9256.00 T	Iron – 0.00 T Manganese –106.08 T	
3d	Quantity of mineral reject generation	Iron – 44955.00T Manganese –4094 T	Iron – 3000.00T Manganese –130.00T	Lagging behind from the proposal.
3e	Grade of mineral reject generation and threshold value declared	Grade: Fe> 45 to < 55% Threshold :Fe 45 % Grade: Mn> 10 to < 20% Threshold : Manganese 10 %	Grade: 21 % fe grade material dispatched. Grade: Mn. > 10 to < 20% Threshold : Manganese 10 %	
3f	Quantity of sub-grade mineral generation	Iron – 44955.00T Manganese – 4094.00T	Iron – 3000.00T Manganese –130.00T	Low Grade Manganese ore, Iron ore 50.01 % Fe.
3g	Grade of sub-grade mineral generation	Grade: Fe> 45 to < 55% Grade: Mn > 10 to < 25%	Grade: Fe> 45 to < 55% Grade: Mn > 10 to < 25%	Manganese ore below 20% % Mn., Iron ore 50.01 % Fe.
3h	Manual / Mechanised method adopted for segregating from ROM	Both manual & mechanized methods to segregation of ROM.	Both manual & mechanized methods practiced.	For manganese ore , Manual picking from benches and sorting was observed to be practiced.
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Not proposed	NA	
3j	Provision of drilling & blasting in mineral benches	Rock drill of 100 mm diameter	Rock drill of 100 mm diameter	
3k	Provision of mining	Excavator of 0.9 cum	Excavator of 0.9 cum	

1/22831/2024	3l	machineries in mineral benches Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	with tipper of 10 T combinations. 05 meter	with tipper of 10 T combinations. 5 Meter benches maintained.			
	3m	Total area covered under excavation/pits	9.746 ha (For financial year 2022-23)	9.746.			
	3n	Ore to OB ratio for the pit/mine during the year	1:0.8 (T/ cum)	1:0.79 (T/ cum)			
	3o	Total area put in use under different heads at the end of year		Type of land Mining Mineral storage Road Infrastructure Waste dump others Total area used	Area (Ha.) 9.746 ha 1.42 ha 0.35 ha 0.30 ha 5.171 ha 1.87 ha 18.857 ha		
	3p	Production of ROM mineral during last six-year period, as applicable	Year	Iron Proposed (T)	Manganese Proposed (T)	Iron Actual (T)	Manganese Actual (T)
		2016-17	113120.00	0	4513.000	11000.00	185.000
		2017-18	117600.00	0	5096.000	9090.000	0.000
		2018-19	125440.00	0	5642.000	4700.000	0.000
		2019-20	92655.000	10050.000	3000.000	360.000	
		2020-21	95918.000	11025.000	4000.000	973.850	
		2021-22	100485.00	0	12150.000	7300.00	310.000
		2022-23	105705.00	0	13350.000	3000.00	236.08
	3q	General remarks of inspecting officer on method of	Significantly lagging behind the proposal due to very low production. Iron ore of 51 % Fe is being extracted. For manganese ore, Manual picking from benches and sorting was observed to be practiced. Violation of Rule 11(1) of MCDR 2017 issued on 26.12.2023.				

### Solid Waste management-Dumping

S.N	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
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4a	Separate dumping of topsoil, OB & mineral reject (Rule 33, 37)	Separate dumping proposal of topsoil, OB & mineral reject is there.	Separately dumping of OB, & mineral reject done as per mining scheme.	No top soil. Separate OB dump and Mineral reject Stacks observed.
4b	Location of topsoil, OB & mineral reject dumps	OB-40E-140W, 6N-190S, Mineral reject-120E-60W, 176N-314S	OB- 6E-104W, 200N-328S, Mineral reject-120E-60W, 176N-314S	As per proposal.
4c	Number of dumps within lease area and outside lease area	One	One	dump within the lease area
4d	Location of dumps w.r.t. ultimate pit limit	OB-40E-140W, 6N-190S,	OB- 6E-104W, 200N-328S,	One portion of the Dump is within the ultimate Pit limit. Discussed during inspection for proposal
4e	Number of active & alive dumps	One active Dump	One active Dump	
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps stabilized	One Dump	One Dump is partly covered with coir matting.	One active dump.
4h	Whether Retaining wall or garland drain all along dumps are there	Maintenance	Maintained	Found to be well maintained.
4i	Length of Retaining wall or garland drain all along dump	Maintenance of 1315 meter retaining wall and 950 meter garland drain proposal is given in mining scheme	1315 meter retaining wall and 950 meter garland drain was maintained	
4j	Number of settling ponds	Not proposed	Nil	
4k	Specific comments of inspecting officer on waste dump management	7 no's of settling pit are connected with garland drain to canalized the surface runoff from dump and Mines. Retaining wall and garland drain well maintained.		

### Solid Waste management-Backfilling

S.N	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Not proposed	Nil	
5b	Area under backfilling of mined out area	Not proposed	Nil	
5c	Concurrent use of topsoil for	Not proposed	Nil	

restoration or rehabilitation of  
mined out area (Rule 36)

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5d	Total area fully reclaimed & rehabilitated	Not proposed	Nil
5e	General remarks of inspecting officer on backfilling, reclamation etc	Area not matured for reclamation and rehabilitation.	

### Progressive Mine Closure Plan

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).	Yes	Annual report PMCP submitted in due time.	PMCP Report with Annual return on 26.06.2023.
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	No proposal	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	Nil	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	0.1 ha	Nil	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Core zone & buffer zone	Core zone & buffer zone	
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations	Area is not matured for reclamation and rehabilitation. During the 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
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	Sorting of Rom mineral according to its size and grade proposal is present in mining scheme.	Sorting and sizing of manganese ore observed.	Manual sorting and sizing of manganese ore observed
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Both manual & Mechanize	Both manual & Mechanize is adopted for sorting.	
7c	Different grade of mineral sorted out at mines	No Proposal	Nil	
7d	Any beneficiation process at mines	Not Proposed	There is no beneficiation process is adopted at mines.	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Manual sorting and sizing of manganese ore observed		

### Environment

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
8a	Separate removal and utilization of topsoil (Rule 36)	Not proposed	Nil	No Top soil.
8b	Concurrent use or storage of topsoil	Not proposed	NA	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 37)	Overburden & Waste rock : Waste Dump	Overburden & Waste in Waste Dump	Separate OB dump and Mineral reject Stacks observed.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Nil	Not matured and no proposal.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal for the year 2022-23	Nil	
8f	Water sprinkling on roads to control airborne dust	Not proposed	Water sprinkling on haul road by water tanker.	
8g	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
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I/22831/2024	9a Status of submission of Monthly and Annual returns	M.R. Submitted upto...10 of every month A.R. Submitted upto1st July	Return details	Date																
			A.R. Submitted Nov' monthly return Oct' monthly return	26.06.2023 3 09.12.2023 3 10.11.2023. violation issued and fine of Rs 10,000/- deposited for one day late submission.																
	9b Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager- Mr. A. N. Prasad, Mining Engineer- Mr. Subrat Ku. Patel, Geologist- Mr. Soukeen Mahanta	Mines Manager, Mining Engineer and Geologist as per Annual Return were present during inspection.																	
	9c Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	<table border="1"> <tr> <td>Land Detail</td> <td>Area in Ha.</td> </tr> <tr> <td>Mining</td> <td>9.746</td> </tr> <tr> <td>Mineral storage</td> <td>1.42</td> </tr> <tr> <td>Road</td> <td>0.35</td> </tr> <tr> <td>Infrastructure</td> <td>0.30</td> </tr> <tr> <td>OB/Waste dump</td> <td>5.171</td> </tr> <tr> <td>Other</td> <td>1.87</td> </tr> <tr> <td>Total</td> <td>18.85</td> </tr> </table>	Land Detail	Area in Ha.	Mining	9.746	Mineral storage	1.42	Road	0.35	Infrastructure	0.30	OB/Waste dump	5.171	Other	1.87	Total	18.85	As per Annual Return submitted.	
Land Detail	Area in Ha.																			
Mining	9.746																			
Mineral storage	1.42																			
Road	0.35																			
Infrastructure	0.30																			
OB/Waste dump	5.171																			
Other	1.87																			
Total	18.85																			
	9d Scrutiny of Annual return on afforestation	2022-23=1000 No's	As per Annual Return and found to be in order.																	
	9e Scrutiny of Annual return on mineral reject generation (Grade & quantity)	2022-23= iron :3000 T, Grade: 50.01 %Fe Mn. Ore-130.00 Grade- 21.90%Mn.	As per Annual Return.																	
	9f Scrutiny of Annual return on ROM stock and/or graded ore	As per Annual Return Iron ore Below 62 % (CLO any size) - 87809.366.00 MT, 62% to below 65 %Fe	As per Annual Return																	

		(CLO other size): 2.427 T, Fines- 48651.240 T of Below 55% Fe, Lumps Manganese: 614T of below 25% Mn., 45 T Grade of 25% to 35 % Mn. , 157.883 T Grade 35 %to 46%Mn. And 97.160 T of above46% Mn. (2022-23)			
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Cost of production FY 2022-23:- Rs. 11371.43	As per Annual Return		
		Ex-mine price			
		Below 25% Mn.	2896.00		
			0		
		25% to below 35 % Mn	10000.00		
		35% to below 45% Mn	19500.00		
		51% to below55% Fe	700.000		
		Below 62 % Fe (CLO any size)	2980.25		
9i	Scrutiny of Annual return on fixed assets	Rs. 337313.00	As per Annual Return		
9k	Scrutiny of Annual return on mining machineries	Annual return			
		Type of machinery	Capacity	Nos	As per Annual Return
		BACK	0.9	2	
		HOE	CUM		
		ROCK DRILL	100m	1	
		AIR COMPRE	12.5 cum/m	1	
		SSOR	in		
		DUMPER	10 T	4	
		WATER TANKER	8KL	1	
	General remarks of inspecting officer on Annual Return.	Production proposal for the year 2023-24 has not been entered. Thus the entire production is showing negative production. Violation of Rule 45 of MCDR 2017 issued on 26.12.2023.			

10. Drone Survey Information and data thereof. Drown survey date-29.10.2023, Drown survey data submission date:-18.12.2023

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(Sanjay Kumar Mahapatra)  
Assistant Controller of Mines