

MCDR INSPECTION REPORT

General

S. N.	Particulars	Details
1	File No	MCDR-MiFLOFE/4/2023-BBS-IBM RO BBS
2	Name of Inspecting Officer	Vikram Prakash Deshpande, ACOM, BBSR
3	Date of Inspection	18/10/2024
4	Name of the Mine	NAIBAGA & KATUPALLI IRON & MANGANESE MINES
5	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total Lease Area -47.219Ha, Forest Area-30.258Ha. & Non-forest Area-16.961 Ha.
6	Mine Code	30ORI08106
7	IBM Registration Number under rule 45 of MCDR, 1988	IBM/5410/2011
8	Name of the lessee, Address, phone, email and fax number	NAIBAGA & KATUPALLI IRON & MN MINES, AT-NAIBAGA, PO-DUBUNA, DIST-KEONJHAR, E-mail: nimm.tpm@gmail.com , Phone: 06767-273475.
9	Village	NAIBAGA
10	Taluka/Mandal	JHUMPURA
11	District	KEONJHAR
12	Pincode	758086
13	State	ODISHA
14	Post office	DUBUNA
15	Nearest police station	BAMEBARI
16	Nearest Railway station	NAYAGARH
17	Date of Grant of Mining Lease	19.01.2009
18	Date of Execution	17.11.2009
19	Date of opening of Mine	11.02.2011
20	Date of first Renewal, if applicable and its period & expiry	N/A
21	Date of second Renewal, if applicable and its period & expiry	N/A
22	Date of submission of renewal application if Mining Operations are continuing under deemed extension	N/A
23	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	SRI TARINI PRASAD MOHANTY 1 ST FLOOR, LIC BUILDING, AT/PO:- JODA ,DIST:- KEONJHAR, ODISHA-758034 , E-mail: nimm.tpm@gmail.com , Phone: 06767-273475.
24	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	SRI ARPIT MOHANTY 1 ST FLOOR LIC BUILDING, AT/PO: - JODA, DIST:- KEONJHAR, ODISHA-758034 , E-mail: nimm.tpm@gmail.com , Phone: 06767-273475. DATE OF APPOINTMENT-30.01.2011
25	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	SRI CHANDRA SEKHAR JENA 1 ST FLOOR LIC BUILDING,AT/PO:- JODA ,DIST:- KEONJHAR, ODISHA-758034 , E-mail: nimm.tpm@gmail.com , Phone: 06767-273475. DATE OF APPOINTMENT-01.11.2011
26	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	SRI HIMANSU MOHANTA ,B.TECH (MINING),7 YEARS 1 ST FLOOR LIC BUILDING, AT/PO:- JODA ,DIST:- KEONJHAR, ODISHA-758034 , E-mail: nimm.tpm@gmail.com , Phone: 06767-273475. DATE OF APPOINTMENT-02.02.2016
27	Name of the Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	SRI BISHNU CHARAN BARIK ,M.Sc (GEOLOGY),18 Years 1 ST FLOOR LIC BUILDING, AT/PO:- JODA ,DIST:- KEONJHAR, ODISHA-758034 , E-mail: nimm.tpm@gmail.com , Phone: 06767-273475.

		DATE OF APPOINTMENT-17.02.2015.
28	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55& carrying out their duties as per rule 56 & 57.	YES
29	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	BBS/KJ/Fe& Mn/Mp-104 dated 23.01.2004, 2909-10 to 2014-15 & MPM/OTFM/23-ORI/BHU/2012-13, Dtd.14.05.2013
30	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 / 52-ORI / BHU/ 2014-15. Dtd.02.06.2015. RMP/A/35-ORI /BHU/2019-20,Dtd.06.01.2020 & BBS/KJR/IRON-MN/2182/MRMP/ 2022-23, Dtd.28.12.2022.
31	Mineral(s) granted in lease and proved for mining	IRON & Mn.
32	Method of Mining(Open cast, Underground)	OPENCAST
33	Category (Fully Mechanised, Others or Manual)	OTHER THAN FULLY MECHANIZED
34	Captive/Non Captive	NON CAPTIVE

Exploration

S.N.	Item	Proposals for,2023-24	Actual work during 2023-24	Remark
1a	Backlog of previous year	NIL	NIL	
1b	Exploration over lease area for Geological axis 1 or 2.	47.219	47.219	G1 Level
1c	Exploration Agency & Expenditure in lakh Rupees during the year	--	--	
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	NIL	
1e	Balance reserves as per latest approved document	AS on 31.03 2023 Reserve Iron- 13355553.500MT Mn- 28525.000MT Resource Iron- 15262172.900MT Mn- 28525.000MT	AS on 31.03 2024 Reserve Iron- 12841938.000MT Mn- 28277.000MT Resource Iron- 14748557.900MT Mn- 28277.000MT	
1f	General remarks of inspecting officer on geology, exploration etc.	The Naibaga & Katupali iron & manganese mine is a part of South Eastern limb of Bonai Synclinorium. Main rock types found are laterite capping Iron Ore(In-situ & Float ore) with shale & laterite with small pockets of manganese. The lease hold area is mainly covered with alluvium, morrum & morrum with ferruginous boulders as floats which cover almost the entire area. Lateritised banded iron formation is present in small pockets in some parts of the area scattered amongst the float ore boulders, the in-situ bodies area highly deformed and show varying amount of dip and strike. The general attitude of the ore body: Dip:20 degree towards west Strike:N10 degree E-S10 degree W		

Development

S.N.	Item	Proposals for, 2023-24	Actual work during 2023-24	Remark
2a	Location of development w.r.t. lease area	<u>QUARRY-1</u> , N2415560-2415865, E 334468-334680. Bottom RL at 542 mRL. <u>QUARRY-2</u> , N2415125-2415280, E 334830-335000. Bottom RL at 554 mRL	<u>QUARRY-1</u> , N2415565-2415860, E 334488-334678. Bottom RL at 542 mRL. <u>QUARRY-2</u> , N2415125-2415235,	

		QUARRY-3, N2415425-2415525, E 335228-335338. Bottom Rl at 536 Rlm	E 334830-335000. Bottom RL at 554 mRL. QUARRY-3, N2415490-2415595, E 335228-335338. Bottom Rl at 536 RLm	
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Separate benches in overburden and mineral proposed	Separate benches in overburden and mineral made	
2c	Stripping ratio or ore to OB ratio	Iron-1:0.006T/Cu.m Mn-1:3.6 T/Cu.m	Iron-1:0.006T/Cu.m Mn-1:36.4 T/Cu.m	Intercalated Waste
2d	Quantity of topsoil generation in m3	Not Proposed	NIL	
2e	Quantity of overburden generation in m3	13008 M ³	12995M ³	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc	Development of Iron Ore & Manganese Ore has carried out within the approved proposal during the succeeding year.		

EXPLOITATION

No.	Item	Proposals for, 2023-24	Actual work during 2023-24	Remark
3a	Number of pits proposed for production	Quarry-1(Iron),2 (Iron), &3(Iron & Mn) Quarry-1(Iron),2 (Iron), & 3(Iron & Mn)	Quarry-1(Iron),2 (Iron), &3(Iron & Mn) Quarry-1(Iron),2 (Iron), & 3(Iron & Mn)	
3b	Quantity of ROM mineral production proposed	Iron- 5,89,176.000 MT Mn-2,500.000 MT	Iron- 513615.000 MT Mn.- 248.000 MT	Less Manganese production due to non available of labour & poor Mn. deposit.
3c	Recovery of salable/usable mineral from ROM production	Iron-98% Mn-10%	Iron-100% Mn-3%	
3d	Quantity of mineral reject generation	Iron -58918.000 MT Mn- 250.000 MT	Iron -NIL Mn- 16.000 MT	Less Mineral Reject generated in manganese ore
3e	Grade of mineral reject generation and threshold value declared	IRON:-Below 55% Fe Mn:-Below 10% Mn	IRON:-NIL Mn:-15%	Less Mineral Reject generated in manganese ore
3f	Quantity of sub-grade mineral generation	Iron -58918.000 MT Mn- 250.000 MT	Iron -NIL Mn- 16.000 MT	Less Mineral Reject generated in manganese ore

3g	Grade of sub-grade mineral generation	IRON:-+45 to 55% Fe Mn:-+10 to -25% Mn	IRON:-NIL Mn:-15%	Less Mineral Reject generated in manganese ore
3h	Manual / Mechanised method adopted for segregating from ROM	IRON:-Mechanized Mn:- Mechanized	IRON:-Mechanized Mn:- Manual	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No Proposal	---	
3j	Provision of drilling & blasting in mineral benches	Provision of drilling & blasting in mineral benches proposed	Provision of drilling & blasting in mineral benches made.	Provision of deployment of machines like Wagon drill with compressor in mineral benches.

3k	Provision of mining machineries in mineral benches	Provision of mining machineries in mineral benches proposed	Provision of mining machineries in mineral benches made	Mining operation used to be carried out by the dumper shovel combination method in mineral benches by using of HEMM i.e, Hydraulic excavators ,Dumpers, Rock breaker & wagon drill etc.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height of benches 6m proposed	Height of Benches broadly maintained as per proposal	Height suitable for method of mining proposed
3m	Total area covered under excavation/pits	13.06 Hect.	10.79 Hect	
3n	Ore to OB ratio for the pit/mine during the year	Ore:OB=1:0 Mn Ore:OB=1:58	Iron-Ore:OB=1:0 MnOre:OB=1:58	
3o	Total area put in use under different heads at the end of year	Pit-13.060Ha. Infrastructure:0. 5 Road , Stacking etc:6.36	Pit-10.79Ha Infrastructure:0.15 Road , Stacking etc:6.28Ha	
3p	Production of ROM mineral during last six-year period, as applicable			
	2018-19	IRON-596520.000MT Mn.-15000.000MT	IRON-508080.000MT Mn.-NIL	
	2019-20	IRON-600000.000MT Mn.-15000.000MT	IRON-501030.000MT Mn.-NIL	
	2020-21	IRON-584098.000MT Mn.-2371.000MT	IRON-523720.000MT Mn.-47.000MT	
	2021-22	IRON-585961.000MT Mn.-2371.000MT	IRON-512210.000MT Mn.-474.000MT	
	2022-23	IRON-588000.000MT Mn.-2375.000MT	IRON-511030.000MT Mn.-150.000MT	
	2023-24	IRON-589176.000MT Mn.-2500.000MT	IRON-513615.000MT Mn.-248.000MT	No violation of Rule 11(1) of MCDR 2017 is being pointed out to the lessee as 100% saleable Fe and Mn is proposed in the Review of Mining Plan currently under process
3q	General remarks of inspecting officer on method of	The mining method adopted is opencast method by shovel-dumper combination and is same as proposed.		

Solid Waste Management-Dumping

S.N.	Item	Proposals for, 2023-24	Actual work during 2023-24	Remark
4a	Separate dumping of topsoil, OB & mineral reject (Rule 33, 37)	Separate OB, Sub grade Dump	Separate OB Dump established.	
4b	Location of topsoil, OB & mineral reject dumps	N 2415305-2415375, E 335175--335238.	N 2415287-2415373, E 335167--335233.	OB DUMP
4c	Number of dumps within lease area and outside lease area	01 Dump Inside Lease Area	01 Dump Inside Lease Area	

4d	Location of dumps w.r.t. ultimate pit limit	DUMP- N 2415305-2415375, E 335175--335238. PIT- N2415450-2415545, E 335190-335320.	DUMP- N 2415287-2415373, E 335167--335233. PIT- N2415500-2415605, E 335205-335288.	
4e	Number of active & alive dumps	01	01	
4f	Number of dead dumps	NIL	NIL	

4g	Number of dumps stabilised	No Proposal	---	
4h	Whether Retaining wall or garland drain all along dumps are there	No Proposal	Yes	
4i	Length of Retaining wall or garland drain all along dump	No Proposal	NIL	
4j	Number of settling ponds	No Proposal	NIL	
4k	Specific comments of inspecting officer on waste dump management	Waste dumping is carried out as per the proposal.		

Solid Waste management-Backfilling

S.N.	Item	Proposals for, 2023-24	Actual work during 2023-24	Remark
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	No Proposal	NIL	
5b	Area under backfilling of mined out area	No Proposal	NIL	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 36)	No Proposal	NIL	
5d	Total area fully reclaimed & rehabilitated	No Proposal	NIL	
5e	General remarks of inspecting officer on backfilling, reclamation etc	There was no proposal for backfilling in the reporting year. None of the areas of mined out pits were matured for backfilling due to occurrence of mineral.		

Progressive Mine Closure Plan

N.	Item	Proposals for, 2023-24	Actual work during 2023-24	Remark
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26(2).	Proposed	Submitted within time	
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) No Proposal ii) 0.41ha iii) 600 No's iv) 9072 No's v) No Proposal vi) Proposed	Nil 0.40 ha. 700 No's 18310 No's NIL Rs,50,000.00	
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 No Proposal No Proposal No Proposal	NIL NIL NIL NIL	

6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	No Proposal No Proposal No Proposal	NIL NIL NIL	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Ambient air, fugitive dust, Noise, Water, Soil, Free silica and ground vibration monitoring proposed	Ambient air, fugitive dust, Noise, Water, Soil, Free silica and ground vibration monitoring carried out.	
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations	Environmental parameters were observed to be within the permissible limits.		

Mineral Conservation

S.N.	Item	Proposals for, 2023-24	Actual work during 2023-24	Remark
7a	ROM Mineral dispatch or grade-wise sorting within lease area	No ROM Mineral Dispatched, grade-wise sorting within lease area	Lumps-62-65%Fe Lumps-<62%Fe Fines-55-58% Fe Fines-58-60% Fe Fines-60-62% Fe Fines-62-65% Fe	ROM used to be shifted to screen plant for primary processing to produce CLO & fines. + 18mm and above are shifted to crushing unit for secondary processing and Produce crushed CLO & fines. All finished products are used to dispatch to different Buyers.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Iron- Mechanical Mn.- Manual	Iron- Mechanical Mn.- Manual	Mineral sorted grade wise by mechanical method for Iron ore (Screening & Crushing Plant) & manually for Mn. Ore.
7c	Different grade of mineral sorted out at mines	No Proposal	No	
7d	Any beneficiation process at mines	No Proposal	No	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	ROM used to be shifted to screen plant for primary processing to produce CLO & fines. + 18mm and above are shifted to crushing unit for secondary processing and produce crushed CLO (5-18mm) & fines. All finished products are used to dispatch to different Buyers.		

Environment

S.N.	Item	Proposals for, 2023-24	Actual work during 2023-24	Remark
8a	Separate removal and utilization of topsoil (Rule 36)	No Proposal	Nil	
8b	Concurrent use or storage of topsoil	No Proposal	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 37)	Separate OB dump proposed Separate OB Dumping carried out. No mineral reject & top soil materials are proposed to be generated during the reporting year	Separate OB dump proposed Separate OB Dumping carried out. No mineral reject & top soil materials are generated during the reporting year	Separate OB dump proposed Separate OB Dumping carried out. No mineral reject & top soil materials are generated during the year
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No Proposal	--	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	N/A		

8f	Baseline information on existence of plantation & additional Plantation done	17610 saplings	18310 saplings	FY 2023-24.
8g	Water sprinkling on roads to control airborne dust	Water sprinkling proposed for suppression of dust on Roads to control air borne dust.	Water sprinkling on Roads to control air borne dust is being carried out by 10 kl Mobile Water Tanker	
8h	General remarks of inspecting officer on aesthetic beauty in and around mines area	Lessee has carried out adequate plantation in the lease area. Water tanker is deployed to suppress the dust.		

Compliance of Rule 45

S.N.	Item	COMMENTS	Remarks	
9a	Status of submission of Monthly and Annual returns	M.R. Submitted upto October 2024 A.R. Submitted for FY 2023-24		
S.N.	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	Mining Engineer: Sh. H. Mohanto Geologist: Sh. B C Barik Manager: Sh. C Jena	Mining Engineer: Sh. H. Mohanto Geologist: Sh. B C Barik Manager: Sh. C Jena	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under pits-10.79ha. Reclaimed area-Nil Dump area-0.69 ha. Infrastructure-1.520 Road-4.220	Appears to be in Correct.	
9d	Scrutiny of Annual return on afforestation	Plantation-700 no's saplings (All within Mining Lease.)	Appears to be in Correct.	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	IRON:- (45 -55)% Fe-NIL Mn:- (10 -25)%Mn-16.000MT.	Appears to be in Correct.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM stock- Iron-616025.000MT Mn.-NIL Graded ore- Iron-236776.999MT Mn.-1680.66MT	Appears to be in Correct.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	<u>Sale value as per Invoice</u> Iron Ore-Rs.2300995667.00 Mn. Ore-NIL <u>Sale value excluding Transportation</u> Iron Ore-Rs.64794563.00 Mn. Ore-NIL Total dispatched- IRON-536862.180MT. Mn.-NIL <u>Avg.Ex. Mine price</u> Iron ore(CLO & Fines) Rs.4165.31 per MT Mn.ore-NIL <u>Avg.production cost</u> -Rs.1776.80	Appears to be in Correct.	
9i	Scrutiny of Annual return on fixed assets	Fixed assets- Rs.33104553.00	Appears to be in Correct.	
9k	Scrutiny of Annual return on mining machineries	Excavator-8 Dumper-12 Loader-4 Drill-1 Screen-2 Crusher-2 Water Tanker-2	Appears to be in Correct.	