

**MCDRINSPECTION REPORT
BHUBANESWAR REGIONAL OFFICE**

MINE CODE: 30ORI08106

Part-I : General

S. N.	Particulars	Details
1	Name of the Mine	Naibega & Katupalli Iron & Manganese Mines
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	TotalLeaseArea-47.219Ha, Forestre-30.258Ha. &Non-forest Area-16.961 Ha.
3	Minecode	30ORI08106
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/5410/2011
5	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.
6	Village	NAIBAGA
7	Taluka/Mandal	JHUMPURA
8	District	KEONJHAR
9	Pincode	758086
10	State	ODISHA
11	Post office	DUBUNA
12	Nearest police station	BAMEBARI
13	Nearest Railway station	NAYAGARH
14	Date of Grant of Mining Lease	19.01.2009
15	Date of Execution	17.11.2009
16	Date of opening of Mine	11.02.2011
17	Date of first Renewal, if applicable and its period & expiry	N/A
18	Date of second Renewal, if applicable and its period & expiry	N/A
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	N/A
20	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.
21	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
22	Name of the Mines Manager with Address, phone, email, fax number	SRI CHANDRA SEKHAR JENA 1 ST FLOOR LIC BUILDING,AT/PO:-

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	and date of appointment in mines	JODA,DIST:- KEONJHAR, ODISHA-758034 , E-mail: nimm.tpm@gmail.com, Phone: 06767-273475. Date of Appointment-01.11.2011
23	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
24	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
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.	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
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 / 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.
28	Mineral(s) granted in lease and proved for mining	Iron & Manganese
29	Method of Mining(Opencast, Underground)	Opencast
30	Category (Fully Mechanised, Others or Manual)	A-OTFM
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 2022-23	Actual work during 2022-23	Remark
1a	Backlog of previous year	No proposal	Nil	
1b	Exploration over lease area for Geological axis 1 or 2.	47.219	47.219	Exploration competed under G1 category
1c	Exploration Agency & Expenditure in lakh Rupees during the year	--	--	

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1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	Nil	
1e	Balance reserves as per latest approved document	As per approved MRMP dated 28.12.2022 Reserve Iron- 13866583.500MT Mn- 28675.000MT Resource(221) Iron-1906619.40 MT Mn- Nil	As on 31.03 2023 Reserve Iron- 13355553.500MT Mn- 28525.000MT Resource (221) Iron-1906619.40 MT Mn- Nil	
1f	General remarks of inspecting officer on geology, exploration etc.	The whole lease area has been explored under G1 level.		

Development

S.N	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
2a	Location of development w.r.t. lease area	QUARRY-1 (Iron), N2415635-2415805, E 334460-334595. Bottom RL at 548 mRL. QUARRY-2 (Iron), N2415105-2415285, E 334805-335000. Bottom RL at 554 mRL. QUARRY-3(Iron & Mn.), N2415450-2415545, E 335190-335320. Bottom RL at 542 Rlm	QUARRY-1, N2415635- 2415780, E 334460-334558. Bottom RL at 548 mRL. QUARRY-2, N2415110-2415265, E 334818-334988. Bottom RL at 554 mRL. QUARRY-3(Iron & Mn.), N2415500-2415605, E 335205-335288. Bottom RL at 542 Rlm	Within Proposed location
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	No proposal	Nil	
2c	Stripping ratio or ore to OB ratio	Iron-1:0.006T/Cu.m Mn-1:3.6 T/Cu.m	Iron-1:0.0 Mn-1:58.2 T/Cu.m	
2d	Quantity of topsoil generation in m ³	No proposal	Nil	
2e	Quantity of overburden generation in m ³	Iron-4000 M ³ Mn-8550 M ³	8735M 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

S.N	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
3a	Number of pits proposed for production	Quarry-1(Iron),2 (Iron), &3(Iron & Mn)	Quarry-1(Iron),2 (Iron), & 3(Iron & Mn)	
3b	Quantity of ROM mineral	Iron- 5,88,000 MT	Iron- 511030 MT	

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	production proposed	Mn- 2,375 MT	Mn.- 150 MT	
3c	Recovery of salable/usable mineral from ROM production	Iron-90% Mn-90%	Iron-100% Mn-6 %	Violation under rule 11(1) of MCDR, 2017 is being issued.
3d	Quantity of mineral reject generation	Iron:-58800 MT Mn.: -237 MT	Nil	
3e	Grade of mineral reject generation and threshold value declared	Iron:-45% - 55% Fe Mn:-10% - 25% Mn Threshold value of Iron:-45% Fe Mn:-10% Mn	-	
3f	Quantity of sub-grade mineral generation	Iron:-58800 MT Mn.: -237 MT	Nil	
3g	Grade of sub-grade mineral generation	Iron:-+45 to -55% Fe Mn:-+10 to -25% Mn	Iron:-+45 to -55% Fe Mn:-+10 to -25% Mn	
3h	Manual / Mechanised method adopted for segregating from ROM	IRON:-Mechanized Mn:- Mechanised	Iron Ore: ROM used to be segregated by shifted to screen plant for primary processing to produce CLO, fines & + 18mm. Again + 18 mm are shifted to crushing unit for secondary processing to produce crushed CLO (5-18)&fines. Mn. Ore: RoM is being segregated by manual means (Sorting by labourers)	
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 deployment of machines like Rock drill (INDUS IRB-300) in mineral benches.	Blasting/Drilling is being practised in Q-1 only.	
3k	Provision of mining machineries in mineral benches	Mining operation used to be carried out by the dumper shovel combination method in mineral benches	As per proposal	

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		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 in mineral & overburden has been proposed 6m.	Height of the benches is more or less 6m.	
3m	Total area covered under excavation/pits	10.26 Hect.	09.19 Hect.	
3n	Ore to OB ratio for the pit/mine during the year	Iron-Ore:OB=1:01 Mn- Ore:OB=1:3.6	Iron-Ore:OB=1:0 Mn- Ore:OB=1:58	
3o	Total area put in use under different heads at the end of year	Pit-10.26 Ha. Infrastructure: 0.05Ha. Stacking/Plantation : 4.49 Ha OB Dump-0.21 Ha.	Pit-9.19Ha. Infrastructure:0.0 5 Stacking/ Plantation -4.22 Ha. OB dump-0.21 Ha.	
3p	Production of ROM mineral during last five-year period, as applicable	Proposal	Actual	
	2018-19	IRON-596520 MT Mn.-15000 MT	IRON-508080 MT Mn.-NIL	
	2019-20	IRON-600000 MT Mn.-15000 MT	IRON-501030 MT Mn.-NIL	
	2020-21	IRON-584098 MT Mn.-2371 MT	IRON-523720 MT Mn.-47 MT	
	2021-22	IRON-585961 MT Mn.-2371 MT	IRON-512210 MT Mn.-474 MT	
	2022-23	IRON-588000 MT Mn.-2375 MT	IRON-511030 MT Mn.-150 MT	
3q	General remarks of inspecting officer on method of	No overburden is generated from Iron Quarries. Huge waste is generated from Manganese Quarry -3.		

Solid Waste management-Dumping

S.N	Item	Proposals for, 2022- 23	Actual work during 2022-23	Remark
4a	Separate dumping of topsoil, OB & mineral reject (Rule 33, 37)	Separate OB, Sub grade Dump proposed	Only OB Dump established during the year	Sub grade dump not yet Generated
4b	Location of topsoil, OB & mineral reject dumps	N 2415314-2415372, E 335176-335230	N 2415314- 2415370, E 335176--335228	OB DUMP
4c	Number of dumps within lease area and outside lease	01 Dump Inside Lease Area	01 Dump Inside Lease Area	

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	area			
4d	Location of dumps w.r.t. ultimate pit limit	DUMP- N 2415314-2415372, E 335176--335230	DUMP- N 2415314- 2415370,	
4e	Number of active & alive dumps	01	01	Inside lease area
4f	Number of dead dumps	NIL	NIL	
4g	Number of dumps stabilized	No Proposal	---	
4h	Whether Retaining wall or garland drain all along dumps are there	No Proposal	Maintained	
4i	Length of Retaining wall or garland drain all along dump	No Proposal	285 meters.	
4j	Number of settling ponds	No Proposal	02 nos.	
4k	Specific comments of inspecting officer on waste dump management	No subgrade dump has been generated and only OB dump is established during the year and waste dumping is carried out as per the proposal.		

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	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

S.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).	Proposed	Submitted in 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	i) No Proposal ii) 0.41ha iii) 600 Nos. iv) 8472 Nos. v) No Proposal	Nil 0.42ha. 680 Nos. 17610 Nos. NIL	

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	of rehabilitation vi) Cost incurred on watch & care during the year	vi) proposed	Rs,50,000/-	
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 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 to be carried out have been proposed.	Quarterly report on Environmental monitoring has been received.	Environmental parameters within the permissible limits
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations	PMCP activities were carried out as per the approved plan and plantation done.		

Mineral Conservation

S. N	Item	Proposals for, 2022-23	Actual work during 2022-23	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	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	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	Nil	
7d	Any beneficiation process at mines	No Proposal	Nil	

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37e	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.
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Environment

S. N	Item	Proposals for, 2022-23	Actual work during 2022-23	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 generated during the year
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No Proposal	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Nil	
8f	Baseline information on existence of plantation & additional Plantation done	Proposed	16930 Nos. saplings are planted earlier & additional 680 nos. of saplings are planted during 2022-23.	
8g	Water sprinkling on roads to control airborne dust	Water sprinkling on roads through Mobile Water Tanker 10kl was proposed.	water sprinkling is being carried out on roads to control air borne dust.	
8h	General remarks of inspecting officer on aesthetic beauty in and around mines area	Plantations have been done in the lease area. Two water tanker was deployed for suppression of dust .Greenery is maintained in & around the lease area		

Compliance of Rule 45

S.N	Item	Details given in Annual Return for the	Observation of	Remarks
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		year 2022-23	I/Officer	
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to <u>July 2023</u> A.R. Submitted up to <u>FY 2022-23</u>		
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer-2 Geologist -1 Manager-1	Mining Engineer- Sh. H. Mohanto & Sh. Dinesh Mohapatra 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- 9.19ha. Dump area-0.36 ha. Stack area-1.11 ha. Infrastructure-0.05 ha.	Found in order	
9d	Scrutiny of Annual return on afforestation	Plantation-680 no's saplings	Found in order	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	No Mineral rejects generated. (Grade-45-55%Fe & 10-25 % Mn)	Found in order	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM stock- Iron-488609 MT Mn.-Nil Graded ore- Iron-387440.179 MT Mn.-1432.66 MT	Found in order	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Sale value as per Invoice Iron Ore- Rs.831820508.70 Mn. Ore- Rs.6132208.00 Ex. Mine price Iron ore(CLO & Fines) Rs.3198.00 per MT Mn.ore-Rs.10300.00 per MT Cost of production cost –Rs.2059/-	Found in order	
9i	Scrutiny of Annual return on fixed assets	Fixed assets- Rs.50445198.00	Found in order	
9k	Scrutiny of Annual return on mining machineries	Excavator-8 Dumper-12 Loader-4 Drill-1 Screen-2 Crusher-2 Water Tanker-02	Found in order	

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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
11(1) of MCDR, 2017	28.11.2023				

Date : 14.11.2023

(Rajani Kanta Rautaray)
INDIAN BUREAU OF MINES