

INSPECTION DATA OF THE MINE FOR THE YEAR 2021-22**General**

S. N.	Particulars	Details
1	Name of the Mine	Malanjkhanda Copper Mine
	Date of Inspection:	12/03/2024
	Name of Inspecting Officer	Mr. Ibrahim Sharief, DCOM, IBM – Jabalpur Region
	Name of the persons accompanied with inspecting officer with designation	Shri Nagesh Shenoy, Mines manager Shri V N Mishra Manager Geologist
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total Lease area- 479.9 Ha Forest land- Nil Revenue Land- 479.9 Ha
3	Mine code	14MPPR01001
4	IBM Registration Number under rule 45 of MCDR,2017	IBM/6381/2011
5	Name of the Lease, Address, Phone, email and fax number	Hindustan Copper Limited, Tamra BHAVAN 1, Ashutosh Chowdhury Avenue, Kolkata, West Bengal (State)
6	Village	Khursipar
7	Taluka/Mandal	Birsa
8	District	BALAGHAT
9	Pin code	481116
10	State	Madhya Pradesh
11	Post Office	Khursipar
12	Nearest Police Station	Malanjkhanda
13	Nearest Railway Station	
14	Date of Grant of Mining Lease	28/08/1973
15	Date of Execution	27/08/2023
16	Date of opening of Mine	01-MAY-78
17	Date of First Renewal, if applicable and its period & expiry	21/02/2003, For the period 28/08/1993 to 27/08/2013, MMP under rule 17(3) of MCR 2016 on 31.03.2023
18	Date of Second Renewal, if applicable and its period & expiry	12/05/2015 For the period 28/08/2013 to 27/08/2023 subsequently the lease was extended up to 27/08/2043
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	-
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Sanjiv Kumar Singh
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri Nagesh Shenoy,

22	Name of the Mine Manager with Address, phone, email, fax number and date of appointment in mines	Shri R P Gattuwar, Dy G M (Mines)
23	Name of the Mining Engineer & Geologist, Qualification and total experience with address, phone, email, fax number and date of appointment in the mine	Shri Ramen Biswas, SM (mines) & Mining Engineer Shri V N Mishra Chief Manager(Geologist)
24	Whether Geologist and Mining Engineer appointment in mines satisfy the rule 55 & carrying out their duties as per rule.	Yes both Geologist and Mining Engineer
25	Date of Approval of Mine Plan/Modified Mine Plan with five- year period and specific condition in approval letter, if any.	27/05/2022
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five- year period and specific condition in approval letter, if any.	20/02/2018
27	Mineral(s) granted in lease and approved for Mining	Copper Ore
28	Method of Mining (Opencast, Underground)	Open Cast and Underground
29	Category (Fully Mechanized, Others or Manual)	Fully Mechanized
30	Captive/Non-Captive	Captive

1. Exploration

S. N.	Item	Proposals	Actual Work	Remarks
1a	Backlog of previous year	In the Plan period upto 2022-23, 257 Nos. of boreholes were proposed as definitionn drilling for the underground development	43 nos. of boreholes were drilled	
1b	Exploration over lease area for Geological axis 1 or 2.	G1 scale	Mineralized area 107.58 hect. has beenexplored up to G1 level	Total mineralized area of 107.58 hect. has already explored up to G1 level
1c	Exploration Agency & Expenditure in Lakh Rupees during the year	Details of exploration agency not mentioned nor the expenditure	Lessee, exploration was carried out on contract basis details of exploration agency not mentioned	-

1d	Balance area to be explored to bring Geological axis in 1 or 2.	Mineralised area is explored up to G1 level	Total ml area is 479.90 hect, outof which 107.58 hect is mineralized and 372.32 hect is nonmineralized. the 107.58 hect mineralized area is already explored up to G1 level	Entire mineralized area has been explored in G1 scale in lateral extent, however depth persistence and to have higher levelof confidence for delineation of ore body for under-ground working exploration was proposed
1e	Balance reserves as on 01.04.2022	As on 01.04.2023- 116.565 Million tonnes		
1f	Brief of Geology oflease area &Exploration etc.	Malajkhand copper deposit belongs to Proterozoic age of rocks, basic rocks ofgranodiorite family, mineralisation of copper is found in vein,copper is of variety of malachite, chalcocite and Chalcopyrite opencast working has beenfinished up to the UPD and u/g working is starteddevelopment of u/g is on progress. Violation was pointed for not carrying out Exploration as per proposal.		

2. Development

S. N.	Item	Proposals	Actual Work	Remarks
2a	Location of Development w.r.t. lease area	In between the grid 2436076 N, 2435161 N 470347 E – 471039E	working was done in between the grid 2436076 N, 2435161N 470347 E – 471039 E	mine hasreached to its ultimatepit depth and u/g working / development started beyond the level 460 MRL
2b	Separate benches in topsoil overburden and mineral	proposed benches in oreas the mine isreaching its UPD	benches in oreis maintained, as the mine has reached its UPD	--
2c	Stripping ratio or ore to OB ratio	1:0.18	1:0.25	
2d	Quantity of topsoil generation in m ³	Nil	as the working was towards the deepening and reaching to its UPD no topsoil is generated	
2e	Quantity of overburden generation	OC-628252 CU M	1376186 T	

2f	Brief of development of pit w.r.t. type of deposit etc	Working was deepening the pit upto its UPD, opencast working has finished and u/g working started.
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3. Exploitation

S. N.	Item	Proposals	Actual Work	Remarks
3a	Number of pits proposed for production	Single Pit	single pitworking was proposed and maintained for production	
3b	Quantity of ROM mineral production proposed (2022-23)	Total- 2252180 OC- 1000002 UG- 1252180	Total- 2165042 OC- 907229 T UG- 1257813	Deviation in production of stope is observed, violation was pointed out
3c	Recovery of Salable/usable mineral from ROM production	recovery percentage not discussed	Recovery percentagenot discussed as the rom(ore) is being sent to plant for processing	
3d	Quantity of mineral reject generation	Nil	Nil	
3e	Grade of mineral reject generation and threshold value declared	No proposal	Nil	
3f	Quantity of sub-grade mineral generation	No proposal	Nil	
3g	Grade of sub-grade mineral generation	No proposal	Nil	
3h	Manual/Mechanized method adopted for segregation from ROM	Mechanised method adopted	Mechanised method adopted	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Beneficiation process adopted	Beneficiation process adopted and carried out to upgradethe ore from 0.6 -0.85% Cu to 25% Cu	
3j	Provision of drilling & blasting in mineral benches	Proposed	Drilling and blasting process adopted inthe mineral benches under the supervision of technical persons	

3k	Provision of mining machineries in mineral benches	Proposed	HEMM is being used in the mineral benches for excavation and transportation of ROM to plant.		
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes Suitable	Height and width in OB and mineral are suitable as per approved mining plan		
3m	Total area covered under excavation /pits	132.943 Hect	132.943 Hect	--	
3n	Ore to OB ratio for the pit/mine during the year	1:0.18	1:0.25	--	
3o	Total area put in use under different heads at the end of year	330.583 Hect	311.228 Hect	--	
3p	Production of ROM mineral during last five-years period, as Applicable	2018 -19	2300000	2542000	
		2019-20	2700000	2542000	
		2020-21	2880000	2239000	
		2021-22	2910000	2442459	
		2022-23	2252180	2165042	
3q	Brief details w.r.t. method of mining etc.	Fully Mechanised Opencast and Under Ground method of mining is being practiced by deploying HEMM.			

4. Solid Waste Management-Dumping

S.N.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject	topsoil, OB dump is to be maintained separately	Separate Dumping of the OB and waste within the lease area	
4b	Location of topsoil, OB & mineral reject dumps	North dump- North side of open pit North Dump old & Central dump- NorthH/W side of open mine -	North dump- North side of open pit North Dump old & Central dump- NorthH/W side of open mine -	
4c	Number of Dumps within lease area and outside lease area	3 dumps within the lease area	dumps are within the lease area	
4d	Location of Dumps w.r.t. ultimate pit limit	outside the UPL	dumps are located outside the UPL	
4e	Number of Active & Alive dumps	2-active dump and 1-inactive dump	2-Active dump and 1-Inactive Dump	

4f	Number of dead dumps	1 dead dumps located in the ml area	1 dead dumps within the ml area	
4g	Number of dumps established	No proposal	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there	not proposed in the year 2022-23	garland drain prepared along the dump of 6900 meters	
4i	Length of Retaining wall or garland drain all along dump	Not proposed	Nil	
4j	Number of settling ponds	3 Nos.	3 nos. of settling ponds located garland drain was prepared all along the dumps including active and inactive dumps around 6900 meters	
4k	Brief details regarding waste dump management	Nil		

5. Solid Waste Management-Backfilling

S.N.	Item	Proposals	Actual Work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	full extraction of mineral proposed in UG method	u/g operations under progress	--
5b	Area under backfilling of mined out area	Mined out stopes shall be backfilled with paste	No paste filling done	Violation was pointed out, commitment was made to establish paste filling plant
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area	Top soil generated is being used to cover the dumps	No Top soil generated during the year	--
5d	Total area fully reclaimed & rehabilitated	Not applicable	As the u/g operation under progress beneath the OC limit Working reclamation is not possible	

5e	Brief details regarding backfilling and reclamation etc.	Backfilling of old pits were not proposed neither done as the u/g operation under progress beneath the max UPD of OC Working
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6. Progressive Mine Closer Plan

S.N.	Item	Proposals	Actual Work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly-Rule 26(2). Details should be given in the format as given in Annexure.	To be submitted as per statute	Submitted in time	
6b	Management of worked/mined out benches			
	i) Area available for rehabilitation (Ha)	Not applicable	Nil	--
	ii) Afforestation done (ha)	2.0 Hect	2.0 Hect	--
	iii) No. of saplings planted during the year	1350 Nos.	1350 Nos	--
	iv) Cumulative no. of plants	No proposal	About 323565 saplings planted	--
	v) Any other specific method of rehabilitation	Not proposed	Nil	--
	vi) Cost incurred on watch & care during the year	Not proposed	Nil	--
6c	Compliance on reclamation and rehabilitation by backfilling			
	i) Voids available for backfilling (L*B*D)	Not applicable	Nil	
	ii) Void filled by waste/tailings	Void created after stopped out shall be filled with paste	No paste filling done	Violation was pointed out is given to establish paste filling plant
	iii) Afforestation on the backfilling	Not applicable	Nil	
	iv) Rehabilitation by making water reservoir	Not applicable	Nil	
	v) Any other specific means	Not applicable	Nil	
6d	Compliance of Rehabilitation of waste land within lease			
	i) Afforestation	Not Proposed	Nil	
	ii) Area rehabilitation	Not Proposed	Nil	
	iii) Method of rehabilitation	Not Proposed	Nil	

6e	Compliance of Environment monitoring (core zone & buffer zone)	Quarterly monitoring is to be carried out for Air, water noise	Quarterly monitoring is being carried out for Air, water noise	
6f	Brief details of PMCP compliance and progressive closure operations etc.	Only plantation is being carried out and retaining wall, Garland drain are maintained along bottom periphery of dumps		

7. Mineral Conservation

S. N.	Item	Proposals	Actual Work	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	Entire ROM of 2910000 Tonnes proposed to be dispatched	Entire ROM of 2165042 is being dispatched to the plant for the recovery of ore	--
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	ROM is being sent to plant for the processing and recovery of ore	ROM is being sent to plant for the processing and recovery of ore	--
7c	Different grade of mineral sort out at mine	Not proposed	Nil	
7d	Any beneficiation process at mines	Yes mineral beneficiation is proposed to carry out for recovery of ore	Yes mineral beneficiation is being carried out to recovery of ore	
7e	Brief details about Mineral conservation and beneficiation issues	ROM is being dispatched to the plant for chemical process and treatment for recovery of ore		

8. Environment

S. N.	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil	Yes proposed to remove and utilize	No top soil generate during the year	
8b	Concurrent use or storage of topsoil	Yes proposed to utilize to cover dump	Top soil is spread over dump	
8c	Separate dumps for overburden waste rock, rejects and fines	Yes separate dumps for OB waste, rejects to be maintained	As per proposal separate dumps located within the ml area for waste / OB and mineral rejects	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not proposed	Nil	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc.)	Not proposed	NIL	
8f	Baseline information on existence of plantation & additional plantation done	500 saplings Planted during the year		
8g	Survival rate	80%	99%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on roads to be carried out to control airborne dust	Yes Done	
8i	Details regarding aesthetic beauty in and around mines area	plantation is being carried out in and around lease area to improve aesthetic beauty		

9. Compliance of Rule 45

S. N.	Item	To be provided as per AR	
9a	Status of submission of monthly and Annual returns	Annual return & Monthly returns are being submitted in Time	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer- Shri Ramen Biswas, Geologist- Shri V.NMishra, CM	Mining Engineer and Geologist mentioned have been employed in the mine
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Lease area (surface area) utilisation as at the end of year (hectares) Outside forest (i) Covered under current (O/C) Workings 138.130 (ii) Used for waste disposal 165.49 (iii) Occupied by plant, buildings, residential, welfare buildings & roads 39.72 (vi) Other Purpose : 10.14 Within FA Limit	
9d	Scrutiny of Annual return on afforestation	500 Saplings planted	
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	328969 Tonnes. 0.35% Cu	
9f	Scrutiny of Annual return on ROM stock and/or grade ore	Production and Stocks of ROM ore (Copper Ore) Closing Stock (in tonne) A(i). From Development (Underground Working)- Nil (ii). From Stopping- (Underground Working)- Nil A. From Underground Working (Total) - Nil B. From Opencast workings- 186152	Deviation observed in the returns is pointed out in violation
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production costs	Ex-mine price and cost of production of the ore produced (in Rs.) 2462.43 Sale price of Concentrated ore is Rs. 1,67,646.0789/- per tonne	
9i	Scrutiny of Annual return on Fixed assets	Value of Fixed Assets (in Rs.) - 11799049488/-	

9k	Scrutiny of Annual return on mining Machineries	Shovel- 5 cum, Dumper(85 T)- 1 No., Dumper(60 T)- 5 No., Dumper(50 T)- 2 No., Dumper(100 T)- 2 No., Dumper(30 T)- 19 No, Dumper(63 T)- Back hoe-0.65 cum-1 No. & 1.2 cum- 1 No., Rock Drill- 45mm-12 , Blast Hole drill- 115mm- 2, Load haul Dumper(17 cum)- 4 No., Load haul Dumper(10 cum)- 12 No, Ventilation fan- 17 No. Pumps- 31 No.	
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Details of Validations observed during current inspection and compliance position of earlier violation pointed out:-

Sl No.	Nature of Violation	Compliance status
1	11(1), 30(4) & 45(7) of MCDR 2017	Not Complied.

Date:

(IBRAHIM SHARIEF)

Deputy Controller of Mines