

**INDIAN BUREAU OF MINES  
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

**MCDR INSPECTION REPORT**

**Ajmer regional office**

**Mine file No :** RAJ/JHN-1/CU- 1

**Mine code :** 14RAJ17002

- (i) Name of the Inspecting : **G021** ) **D R GURJAR**  
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Sh. S K Purohit, Mine Manager & Sh. Gopal Rathi, Chie  
Official with  
Designation
- (iv) Date of Inspection : 14-MAR-22
- (v) Prev.inspection date : 15-APR-21

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **KHETRI**
- (b) **Registration NO.** : **IBM/6381/2011**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Underground**
- (e) **Postal address**
- State : **RAJASTHAN**
- District : **JHUNJHUNU**
- Village : **BANWAS**
- Taluka : **KHETRI**
- Post office : **KHETRINAGAR**
- Pin Code : **333504**
- FAX No. : **01593-20002/20038**
- E-mail : **hcl\_kcc@hindustancopper.com**
- Phone : **01593-20065/20006**
- (f) **Police Station** : **Khetrinagar**
- (g) **First opening date** : **15-OCT-63**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **M/S HINDUSTAN COPPER LTD**  
**correspondance** : **POST KHETRINAGAR 333504**  
: **DIST. JHUNJHUNU**
3. (a) **Lease Number** : **RAJ0449**
- (b) **Lease area** : **395.07**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **23-FEB-13**
4. **Mineral worked** : **COPPER ORE** **Main**

## 5. Name and Address of the

Lessee : HINDUSTAN COPPER LIMITED  
 KHETRI COPPER COMPLEX  
 KHETRI NAGAR JHUNJHUNU  
 RAJASTHAN  
 Phone:01593-20065-20006  
 FAX :01593-20002

Owner : Shri Sanjay Panjiyar,  
 1-Ashutosh Chowdhury Avenue  
 M/s Hindustan Copper  
 Limited. KOLKATA WEST  
 BENGAL  
 Phone: 033 22817138  
 FAX : 033 22832478

Agent : Shri Sree Kumar  
 Khetri Copper Complex, M/s  
 Hindustan Copper Limited  
 Khetri Nagar, Jhunjhunu  
 JHUNJHUNU RAJASTHAN  
 Phone: 08279211779  
 FAX : 01593 220002

Mining Engineer  
 Name : N.S. Jangde, Full Time  
 Qualification : BE Mining  
 Appointment/ : 04-AUG-20  
 Termination date

Mining Engineer  
 Name : Shri S K Purohit, Full Time  
 Qualification : BE (Mining)  
 Appointment/ : 07-NOV-12 04-AUG-20  
 Termination date

Geologist  
 Name : Shri Nagesh Kumar Rajpurohit, Full Time  
 Qualification : MSc(Geology)  
 Appointment/ : 08-APR-14  
 Termination date

Manager  
 Name : Shri S. K. Purohit  
 Qualification : BE Mining & FCC(U/R)  
 Appointment/ : 02-JUL-20  
 Termination date

Manager  
 Name : Ghanshyam Das Gupta  
 Qualification : B. Tech (Mining)  
 Appointment/ : 06-APR-18 02-JUL-20  
 Termination date

6. Date of approval of Mining : Existing rule 11 MCDR1988 19-JAN-95  
 Plan/Scheme of Mining Existing rule 11 MCDR1988 30-JUL-04  
 Mining Scheme rule 12 MCDR1988 22-OCT-08

Modif.approved Mining Scheme	17-AUG-12
Renewal under rule 24 MCR1960	20-NOV-12
MP review under 17(1) MCR 2016	28-NOV-17
MP review under 17(1) MCR 2016	22-JAN-20

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Proposal for 2019-20: 4800m, No. of BH-44	Actual for 2019-20: 5454.10 m, No. of BH-48	No backlog in definition diamond drilling during the previous year F.Y. 2019-20.
1b	Exploration over lease area for geological axis 1 or 2	Proposal for 2020-21:4800 m No. of BH- 56	Actual for 2020-21: 3429.50 m No. of BH- 31	Due to shortfall in underground exploration drilling during the year 2020-21, violation of Rule 11(1) of MCDR 2017 issued vide letter dated 07.04.2022.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Agency-SMS & Asha Engineering Works Expenditures- Not Specified.	Agency-SMS & Asha Engineering Works Expenditures-Rs. 105.13 Lacs (Excluding Taxes)	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	No area in surface as it is U/G mine.	No area in surface as it is U/G mine.	As the mining in underground, the exploratory drilling from surface is done previously within the lease area, Presently there is definition drilling is going on at different levels at 30m interval for Geological axis G-1 exploration.
1e	Balance reserve as on 01/04/20	No specific proposal in this regard.	Balance ore reserve as on 01.04.2021 are 48.70 million tonnes.	Nil
1f	General remarks of inspecting officers on geology, exploration etc			Due to shortfall in underground exploration drilling during the year 2020-21, violation of Rule 11(1) of MCDR 2017 issued vide letter dated 07.04.2022.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t. lease area	Various U/G Levels 180mRL,120mRL, 60mRL,0mRL etc. Total -6202m U/G development proposed during the year 2020-21. Total-6202 m	Various U/G Levels 180mRL,120mRL,60mRL,0mRL etc. Total -2662.35m U/G development achieved during the year 2020-21.	Due to shortfall in UG mine development during the year 2020-21, violation of Rule 11(1) of MCDR 2017 issued vide letter dated 07.04.2022.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Not applicable as it is U/G mine	Not applicable as it is U/G mine	Nil
2c	Stripping ratio or ore to OB ratio	Not applicable as it is U/G mine	Not applicable as it is U/G mine	Nil
2d	Quantity of topsoil generation in m3	Not applicable as it is U/G mine	Not applicable as it is U/G mine	Nil
2e	Quantity of overburden generation in m3	No OB generation as it is U/G mine, however total 46578m3 u/g waste generation proposal given during the year 2020-21.	No OB generation as it is U/G mine, however total 19245m3 u/g waste generated during the year 2020-21.	Nil
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Due to shortfall in UG mine development during the year 2020-21, violation of Rule 11(1) of MCDR 2017 issued vide letter dated 07.04.2022.

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	No proposal as it is U/G mine.	Not applicable.	Nil
3b	Quantity of ROM mineral production proposed	2020-21:1080000 Tonnes	2020-21: 538463 Tonnes	Nil

3c	Recovery of sailable/usable mineral from ROM production	100%	100%	Nil
3d	Quantity of mineral reject generation	No mineral reject generation proposal given however 1710000 tonnes mill tailing generation proposal given in the year 2020-21.	No mineral reject generated however total 965210 mill tailing generated in the year 2020-21.	There is no proposal of mineral reject, however milling of ROM from both the Khetri and Kolihan Mines generate the mill tailing.
3e	Grade of mineral rejects generation and threshold value declared.	Mill tailing grade-0.10% cu	Mill tailing grade-0.12% cu	Nil
3f	Quantity of sub grade mineral generation.	Not in proposal	No subgrade mineral generation in mine	Nil
3g	Grade of sub grade mineral generation	No proposal	Not applicable	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	No proposal	Not applicable	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	None during the reporting year.	Nil
3j	Provision of drilling and blasting in mineral benches	Provision of drilling & blasting given for u/g mine development & for stoping operations.	As per proposalAs per proposal	Nil
3k	Provision of mining machineries in mineral benches	Jackhammer, Drifters, Large Dia drilling machine, Jumbo drill, LHD's, Locomotives etc.	Jackhammer, Drifters, Large Dia drilling machine, Jumbo drill, LHD's, Locomotives etc.	Nil

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	No applicable as it is U/G mine.	Not applicable	Nil
3m	Total area covered under excavation/pits	Not applicable as it is U/G mine	None	Not applicable as it is U/G mine
3n	Ore to OB ratio for the pit/mine during the year.	No applicable as it is U/G mine.	Not applicable	Nil
3o	Total area put in use under different heads at the end of year	56.23 Hect.	54.8362 Hect	Nil
3p	Production of ROM mineral during the last five year period as applicable	2016-17 : 1000000 2017-18 : 1000000 2018-19 : 908000 2019-20 : 908000 2020-21 : 1080000 2021-22: 1080000	2016-17 : 540582 2017-18 : 580107 2018-19 : 778321 2019-20 : 680005 2020-21 : 538463 2021-22: 637626 (up to Feb 2022)	Figures in tonnes.
3q	General remarks of inspecting officers on method of mining etc.			The deposit is Subsurface dipping Vertically, hence U/G method adopted which is best suitable to the type of deposit.

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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No topsoil-proposal, only U/G waste dumping proposal given.	No top soil generated during the year, The waste generated from U/G mine development has been dumped over proposed location.	Nil

4b	Location of topsoil, OB and mineral reject dumps	At Surface: Waste Dump No. 5 Lat. 3938-4463 Departure 1128-1270 Waste Dump No. 6 Lat. 4458-4924 Departure 1170-1409 Waste Dump No. 7 Lat. 4008-4316 Departure 1200-1270	Waste material from the underground mine is dumped as proposed locations on the surface.	However waste dump terracing has not been carried out properly, hence violation of Rule 11(1) of MCDR 2017 issued vide letter dated 07.04.2022.
4c	Number of dumps within lease area and outside of lease area	8 Nos., within mining lease area.	8 Nos., within mining lease area.	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	It is U/G mine hence not applicable.	It is U/G mine hence not applicable.	Nil
4e	Number of active and alive dumps.	3 Nos.	3 Nos.	Nil
4f	Number of dead dumps.	5 Nos.	5 Nos.	Nil
4g	Number of dumps established.	No proposal	None	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	No specific prproposal given during the year.	Garland drain are there.	Nil
4i	Length of Retaining wall or garland drain all along dumps	No specific prproposal given during the year.	Garland drain are there.	Nil
4j	Number of settling ponds	1	1	Nil
4k	Specific comments of inspecting officer on waste dump management			Waste dump terracing has not been carried out properly, hence violation of Rule 11(1) of MCDR 2017 issued vide letter dated 07.04.2022.

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Solid Waste Management - Backfilling:

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Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Backfilling is not done;Open stoping U/G mining method adopted.	Backfilling is not done;Open stoping U/G mining method adopted.	Nil
5b	Area under backfilling of mined out area	Backfilling is not done;Open stoping U/G mining method adopted.	Backfilling is not done;Open stoping U/G mining method adopted.	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No top soil generation as it U/G mine.	No top soil generated during the reporting year.	Nil
5d	Total area fully reclaimed and rehabilitated	No such proposal given for the reporting year 2020-21.	None during the year.	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.			It is U/G mine, no backfilling of mined stopes has been carried out as method of mining is sub level open stoping mining method.

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Progressive Mine Closure Plan:

Sl.No.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Annual report on PMCP should be submitted before 1st day of July in respect of previous financial year.	PMCP report for the year 2020-21 has been submitted on time	Nil
6b	Area available for rehabilitation (ha) .	0.2 hect.	0.2 hect.	Nil
6c	afforestation done (ha).	0.2 hect. within lease area & 0.3 hect. outside of the lease area.	0.2 hect. within lease area & 0.3 hect. outside of the lease area.	Nil

6d	No. of saplings planted during the year	200 nos. within lease area & 400 nos. outside of the lease area.	200 nos. within lease area & 400 nos. outside of the lease area.	Nil
6e	Cumulative no .of plants	No specific proposal given in this reagrd.	9960 nos. within lease area	as on 31.03.2021.
6f	Any other method of rehabilitation	No proposal	None	Nil
6g	Cost incurred on watch and care during the year	Rs. 2 lakhs	Rs. 2 lakhs	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No such proposal given	Not applicable	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	15214m3	10585m3	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Not applicable as it is U/G mine.	Not applicable as it is U/G mine.	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Not applicable as it is U/G mine	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	None	Nil

6m	Compliance of rehabilitation of waste land within lease (i)afforestation	0.2 hect within lease area	0.2 hect within lease area	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.2 hect	0.2 hect.	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Plantation	Plantation	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Regular monitoring of Air, water, Noise & Vibrations.	Being done	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			No issue observed related to PMCP compliances.

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	All ROM mineral is processed in concentrator plant	All ROM mineral is processed in concentrator plant	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No gradewise sorting proposal, all ROM mineral dispatch to captive beneficiation plant.	No gradewise sorting proposal, all ROM mineral dispatch to captive beneficiation plant.	Nil
7c	Different grade of mineral sorted out at mines.	No proposal	Not applicable	Nil

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7d	Any beneficiation process at mines .	Ore material is treated in the Concentrator Plant for milling and plant capacity of 2,00,000 tonnes of copper ore per month.	Ore material is treated in the Concentrator Plant for milling and plant capacity of 2,00,000 tonnes of copper ore per month.	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			No issue observed related to mineral conservation & beneficiation in the mine.

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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not applicable as it is U/G mine.	Not applicable as it is U/G mine.	Nil
8b	Concurrent use or storage of topsoil	Not applicable as it is U/G mine.	Not applicable as it is U/G mine.	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Waste dumped separately in 8 nos of dumps.	Waste dumped separately in 8 nos of dumps.	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Not applicable	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Not applicable	Nil

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	600 nos. sapling proposed to be planted during the year 2020-21.	600 nos. saplings planted during the year 2020-21.	Nil
8g	Survival rate	No proposal specified	50% within lease area & 48% outside of the lease area.	As per AR 2020-21.
8h	Water sprinkling on roads to control airborne dust	Proposed	Observed	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The general aesthetic beauty in & around the mine was satisfactory.

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Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per rule 45 of MCDR 2017 monthly & annual return is to be submitted.	Submitted on time.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: Shri N.S.Jangde, Geologist: Shri Nagesh Kumar Rajpurohit and Manager: Shri S.K.Purohit	Details are correct.	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Surface area used for waste disposal =14.690 Hect, Occupied by plant, buildings, residential, welfare buildings & roads=37.720 Hect, Other purpose=2.480 Hect	Seems to be correct.	However in AR 2020-21, work done under PMCP during the year 2020-21 has not been reported hence show cause notice of Rule 45(7) of MCDR 2017 issued vide letter dated 07.04.2022.

9d	Scrutiny of Annual return on afforestation	(i) with in lease area= 200 (ii) Outside lease= 400	Seams to be correct.	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral reject generated in F.Y. 2020-21= 965210 tonnes at 0.12% Cu	Seems to be correct	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing stock of ROM as on 31.03.2021 quantity = 1528 tonnes at 0.82% Cu	Seems correct.	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine price of the copper ore produced during F.Y.2020-21= 259693.47 Rupees/tonnes & Cost of Production is 2233.69 cost per tones (in Rupees)	Discrepancies observed	Show cause notice of Rule 45(7) of MCDR 2017 issued vide letter dated 07.04.2022.
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets (in Rupees)= 2,55,11,90,917 /-	Seems correct	Nil
9k	Scrutiny of Annual return on mining machineries	Details given in annual return.	Seems correct	Nil

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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
MCDR17 Rule 11(1)	07-APR-22		MCDR17 Rule 45(7)	07-APR-22	
MCDR17 Rule 31(3)	07-APR-22				
MCDR17 Rule 45(7)(a)	07-APR-22				

**Date :**

**(D R GURJAR)**

Indian Bureau of Mines