

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

MCDR INSPECTION REPORT

Gandhinagar regional office

Mine file No : RAJ/RJS/LEAD-ZINC-COPPER-1

Mine code : 34RAJ27001

- (i) Name of the Inspecting : **DJ03**) **DILIP JAIN**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Sanjay Kumar, Mine Manager
Official with
Designation
- (iv) Date of Inspection : 09-OCT-24
- (v) Prev.inspection date : 31-JUL-24

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **RAJPURA DARIBA**
- (b) **Registration NO.** : **IBM/421/2011**
- (c) **Category** : A Mechanised
- (d) **Type of Working** : Underground
- (e) **Postal address**
- State : RAJASTHAN
- District : RAJSAMAND
- Village : DARIBA
- Taluka : RAILMAGRA
- Post office : DARIBA
- Pin Code : 313211
- FAX No. : 02952-65143
- E-mail : arun.misra@vedanta.co.in
- Phone : 0294-2421420
- (f) **Police Station** : Railmagra
- (g) **First opening date** : 28-DEC-70
- (h) **Weekly day of rest** : SUN
2. **Address for correspondance** : RAJPURA-DARIBA
DISTRICT-RAJSAMAND(RAJ.)
PIN-313211
3. (a) **Lease Number** : RAJ0654
- (b) **Lease area** : 1142.2
- (c) **Period of lease** : 20
- (d) **Date of Expiry** : 29-MAY-30
4. **Mineral worked** : COPPER ORE Associated
LEAD & ZINC ORE Main

5. Name and Address of the

Lessee : Hindustan Zinc Ltd
 Yashad Bhavan Udaipur
 UDAIPUR RAJASTHAN
 Phone:
 FAX :

Owner : Shri Arun Misra
 YASHAD BHAWAN HINDUSTAN
 ZINC LIMITED Udaipur
 UDAIPUR RAJASTHAN
 Phone: 0294-2421420
 FAX : 0294-2412545

Agent : Debanshu Chatterjee
 Rajpura Dariba Lead Zinc
 Mine PO-Dariba Tehsil-
 Railmagra RAJSAMAND
 RAJASTHAN
 Phone: 02952-265164
 FAX : 0295-2265143

Mining Engineer

Name : Sanjay Kumar, Full Time
 Qualification : BE(Mining)
 Appointment/ : 12-JUL-23
 Termination date

Geologist

Name : Dr. Sandeep Kumar Rajput, Full Time
 Qualification : Ph.D., N.E.T
 Appointment/ : 15-JUN-20
 Termination date

Manager

Name : Sanjay Kumar
 Qualification : BE(Mining)
 Appointment/ : 12-JUL-23
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	12-DEC-00
		Mining Scheme rule 12 MCDR1988	19-AUG-05
		Renewal under rule 22 MCR1960	26-MAY-09
		Modif. approved Mining Scheme	26-MAY-09
		Modif. of approved Mining Plan	19-OCT-12
		Mining Scheme rule 12 MCDR1988	22-JUL-15
		MP modif under 17(3) MCR 2016	26-SEP-17
		MP review under 17(1) MCR 2016	23-JAN-18
		MP modif under 17(3) MCR 2016	10-MAY-19

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	A total of 192 BHs with 20000 mts of drilling was proposed during previous year 2022-23.	A total of 220 BHs with 44192 mts of drilling was carried out during previous year 2022-23.	Achieved the proposed target hence no backlog of previous year i.e. 2022-23.
1b	Exploration over lease area for geological axis 1 or 2	A total of 180 BHs with 25000 mts of drilling was proposed during reporting year 2023-24.	A total of 125 BHs with 35973 mts of drilling was carried out during reporting year 2023-24.	During the reporting year 2023-24, shortfall in nos. of bore holes , hence violation of Rule 11(1) of MCDR 2017 issued vide letter dated 19.07.2024 during the previous inspection.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Exploration Agency: TDMA and M/s Onkarlal Baluram No specific proposal on expenditure.	Actual Exploration Agency: Mining Associates& M/s OnkarlalBaluram. Total expenditure on exploration during year 2023-24 is Rs.1734.67 lakh.	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	78.05 ha.Area under Inferred Resource (G3) to bring in G2 & G1.	78.05 ha area explored to bring in G2 & G1 category.	There is shortfall in nos. of bore holes for which violation of Rule 11(1) of MCDR 2017 has been pointed out during previous inspection vide letter dated 19.07.2024.
1e	Balance reserve as on 01/04/20	As per approved document dated 21/02/2025, the position of reserve and resource as on 01/04/2024 was 37.84 and 49.81 Million tons respectively.	As per approved document dated 21/02/2025, the position of reserve and resource as on 01/04/2024 was 37.84 and 49.81 Million tons respectively.	Nil

1f	General remarks of inspecting officers on geology, exploration etc	Geologically the deposit is vein type, the exploration was proposed to prove depth continuity of mineral and up gradation of resource to reserve. During the reporting year, shortfall in nos. of bore holes have been observed and violation of Rule 11(1) of MCDR 2017 issued vide letter dated 19.07.2024 after previous inspection of mine.
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Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	A total 10096mts of U/G Development proposed in North Lode, East Lode, Main Lode and South Lode at various levels during the year 2023-24.	A total 10231.92 mts of U/G Development has been carried out in North Lode, East Lode, Main Lode and South Lode at various levels out during the RY 2023-24	Nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No Proposal.	Being U/G mine not applicable.	Nil
2c	Stripping ratio or ore to OB ratio	No proposal.	Being U/G mine not applicable.	Nil
2d	Quantity of topsoil generation in m ³	No proposal.	Being U/G mine no top soil generated during the reporting year.	Nil

2e	Quantity of overburden generation in m3	No proposal for OB generation. Proposed U/G waste generation quantity was 129374 m3 or 349311 MT.	No OB generation. The quantity of U/G waste generated due to U/G mine development during the year was 116220 m3 or 313793 MT	Nil
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The method of U/G development proposed is suitable for the type of deposit in the mine.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	No Pit wise proposal for production given. Production from 04 lodes i.e. North, East, Main & South lode in UG propsed.	Being UG mine pit wise production not applicable. Production from 04 lodes i.e. North, East, Main & South lode in UG has been carried out.	Nil
3b	Quantity of ROM mineral production proposed	Proposed 1750050 Tonnes production during the year 2023-24	Actual 1343829 Tonnes produced during the year 2023-24	Nil
3c	Recovery of sailable/usable mineral from ROM production	Entire ROM is proposed for beneficiation.	Entire ROM produced was beneficiated.	Nil
3d	Quantity of mineral reject generation	No proposal of mineral rejects (MR)generation . However, 871698 MT of Mill Tailing reject with Pb-0.20% & Zn-0.70% proposed.	No mineral generation. 815451 MT Mill Tailing reject with Pb-0.17% & Zn-0.71% generated during the year.	Less tailing generation due to less beneficiation of ore.
3e	Grade of mineral rejects generation and threshold value declared.	No proposal & threshold value is also not declared for the Pb-Zn minerals.	No mineral reject generation hence not applicable.	Nil

3f	Quantity of sub grade mineral generation.	No proposal of sub grade generation.	No sub grade generated during the year.	Nil
3g	Grade of sub grade mineral generation	No proposal.	No sub grade generated during the year.	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method through froth floatation proposed.	Mechanized method through froth floatation adopted.	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal of any fresh beneficiation study.	No fresh beneficiation study carried out during the year 2023-24.	Nil
3j	Provision of drilling and blasting in mineral benches	Drilling pattern for development in ore and rock- Burn Cut method. Drilling pattern in Stopes- Ring drilling with parallel hole drilling.	Drilling and blasting have been carried out as per proposal in UG development and stopes.	Nil
3k	Provision of mining machineries in mineral benches	Not applicable being an underground mine.	Not applicable.	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Not applicable being a UG mine.	Not applicable.	Nil
3m	Total area covered under excavation/pits	Not applicable being a UG mine.	Not applicable.	Nil
3n	Ore to OB ratio for the pit/mine during the year.	Not applicable being a UG mine.	Not applicable.	Nil
3o	Total area put in use under different heads at the end of year	293.42 ha proposed.	Actual area at the end of year 2023-24 is 267.67 ha.	Nil

3p	Production of ROM mineral during the last five year period as applicable	2019-20: 1500000 2020-21: 1500000 2021-22: 1550000 2022-23: 2000000 2023-24: 1750050	2019-20: 1037607 2020-21: 1215171 2021-22: 1252365 2022-23: 1390245 2023-24: 1343829	Unit is metric tonnes
3q	General remarks of inspecting officers on method of mining etc.			U/G mining method adopted., which is best suited to the type of deposit.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No proposal of top soil and mineral reject generation. UG development waste was proposed to dispose in UG stopes and also proposed to dispose on existing waste dump.	No top soil generation during the RY. Mill tailing has been disposed in existing tailing dam.UG waste has been disposed in the UG stopes and also dumped over the existing waste dump.	Nil
4b	Location of topsoil, OB and mineral reject dumps	Dumping of the waste has been proposed over the existing waste dump as well as backfilling in UG voids.	Dumping has been done as per proposal.	Nil
4c	Number of dumps within lease area and outside of lease area	One waste dump within lease and no waste dump outside lease area.	One waste dump within lease and no waste dump outside lease area.	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not applicable being a UG mine.	Not applicable.	Nil
4e	Number of active and alive dumps.	one.	one.	Nil

4f	Number of dead dumps.	No proposal for the reporting year.	Not applicable.	Nil
4g	Number of dumps established.	No proposal for the reporting year.	Not applicable.	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal for the reporting year.	Retaining wall and garland drain constructed earlier observed at required places of waste dump.	Nil
4i	Length of Retaining wall or garland drain all along dumps	No proposal for the reporting year.	Not applicable.	Nil
4j	Number of settling ponds	No proposal for the reporting year.	Not applicable.	Nil
4k	Specific comments of inspecting officer on waste dump management			Waste dump management has been carried out as per proposal.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Backfilling proposed after full extraction of mineral from stopes.	Backfilling has been carried out after full extraction of mineral from stopes.	Nil
5b	Area under backfilling of mined out area	Proposed: 428191m3	Actual : 334381m3	Less area available due to less production
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal of top soil generation during RY.	No top soil generated during the RY 2023-24.	Nil
5d	Total area fully reclaimed and rehabilitated	No proposal of full reclamation and or rehabilitation	Not applicable.	Nil

5e	General remarks of inspecting officers on backfilling and reclamation etc.	No issue related to backfilling in UG voids.
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Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	As per rule 26(2) of MCDR, 2017, PMCP report has to be submitted for the previous year by 1st July.	PMCP report for the year 2023-24 has been submitted.	Nil
6b	Area available for rehabilitation (ha) .	No proposal.	Not applicable.	Nil
6c	afforestation done (ha).	Proposed 2.05 ha gap filling plantation.	2.08 ha covered by gap filling plantation.	Nil
6d	No. of saplings planted during the year	Proposed 1800 sapling.	Planted 5800 saplings.	Nil
6e	Cumulative no .of plants	No specific proposal on cumulative number of plants.	As per Annual Return 209550 plants at the end of the RY 2023-24.	Nil
6f	Any other method of rehabilitation	No any other proposal	None.	Nil
6g	Cost incurred on watch and care during the year	No specific proposal on cost of watch and care during the year.	Approximately Rs.74.31 lakh.	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	5,83,350 m3	4,47,943 m3	Voids generated after stoping. Less UG voids generated due to less production.

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	4,28,191 m3	3,34,381m3	Less backfilling of U/G voids due to less production.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No proposal.	Not applicable.	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal.	Not applicable.	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal.	Not applicable.	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Total 1800 number of saplings during the RY	Total 5800 numbers of saplings planted during the RY	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	2.05 hect. Gap filling plantation proposed in RY	2.08 hect. area gap filling plantation carried out in RY	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)	Proposal given for environment monitoring in Core & Buffer zone.	Environment monitoring carried out in core & buffer zone	Nil

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	The PMCP compliances is satisfactory.
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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	No proposal of grade wise sorting of ROM.	Entire ROM was transported/dispatched to beneficiation plant	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No grade wise sorting of mineral proposed.	Entire ROM has been beneficiated.	Nil
7c	Different grade of mineral sorted out at mines.	No proposal.	Not applicable as there was no proposal.	Nil
7d	Any beneficiation process at mines .	Beneficiation proposed.	1.1 MTPA beneficiation plant installed within lease area. Beneficiation plant having froth floatation process. Major sections are primary crusher, COSP, secondary crusher, grinding section, lead/zinc floatation cells, concentrate thickeners, filters, tailing dewatering, & backfilling system.	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			No issue related to the Mineral conservation & beneficiation has been observed.

Environment :

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	No proposal of topsoil generation.	Not applicable.	Nil
8b	Concurrent use or storage of topsoil	Not applicable as no proposal of top soil generation.	Not applicable.	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No proposal for OB & reject and fines. Proposal given for waste rock & mill tailing.	No generation of OB & reject and fines. UG waste & mill tailing reject dumped as per proposal.	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal for OB & reject & fine. Proposal given for Waste rock and tailing to use in backfilling of UG mined out voids/stopes.	Waste rock and tailing used for backfilling UG mined out voids/stopes.	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal during the reporting year.	Not applicable.	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Proposed 1800 number of saplings over 2.05 hect area (gap filling) during the RY.	Total 5800 numbers of saplings planted over 2.08 hect area (gap filling) during the RY. Cumulative no. of plants is 209550	Nil
8g	Survival rate	Proposed survival rate 90%	Actual Survival rate 85%	Nil
8h	Water sprinkling on roads to control airborne dust	Proposal given for water sprinkling on roads to control air born dust.	Water sprinkling on roads to control air borne dust due to mining activity has been observed.	Nil

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The aesthetic beauty in and around the mine is satisfactory.
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per rule 45 of MCDR, 2017 monthly and annual returns to be submitted to IBM.	Monthly and annual return for the RY 2023-24 has been submitted.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer- Sanjay Kumar, Mine Manager- Sanjay Kumar, Geologist- Sandeep Kr. Rajput	Mining Engineer, Manager and Geologist are appointed.	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Total area used in different heads has been given as 267.67 Hect..	The information on land use appears in order.	Nil
9d	Scrutiny of Annual return on afforestation	5800 no. of plants within lease area.	Found in order.	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral Reject generation: NIL	Found in order.	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM closing stock: 57050 tonnes and no graded ore.	The information furnished is found in order.	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-Mine price and cost of production is given as Rs7532.60 per tonne.	The information given appears to be in order.	Nil
9h	Scrutiny of Annual return on fixed assets	Value of fixed asset given is Rs.18859485910	The information furnished appears to be in order.	Nil

9k	Scrutiny of Annual return on mining machineries	Winding engine Details seems correct. , Air compressor, Ventilation Fan, Pumps, Crusher, Conveyor, Rock drill, Load Haul Dumper, Motor grader, Dumper, LPDT etc	Nil
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Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed		Show couse position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on

Date :

(DILIP JAIN)

Indian Bureau of Mines