

**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 : **G021**) **DATA RAM GURJAR**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Sh. Sanjay Kumar, Mines Manager & Sh. Sandeep Rajput,
Official with
Designation
- (iv) Date of Inspection : 27-NOV-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 : RAJPURA-DARIBA
correspondance 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	:	Mining Scheme rule 12 MCDR1988	12-DEC-00
Plan/Scheme of Mining		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 reporting year 2022-23.	A total of 220 BHs with 44192 mts of drilling was carried out during reporting year 2022-23.	No backlog of previous year 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 exploration drilling in respect of 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 Mining Associates Pvt. Ltd, M/s Onkarlal Baluram No proposal on expenditure.	Exploration Agency: Transnational Drilling & Mining Associates, M/s Onkarlal Baluram. Expenditure: Rs. 1734.67 lakh	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	It is not a surficial deposit, it is vein type/lens type deposit, exploration drilling proposed to prove depth continuity of mineral and upgradation of resource to reserve.	Exploration drilling has been carried out during the year 2023-24.	Nil
1e	Balance reserve as on 01/04/20	No specific proposal for balance reserve.	As on 01/04/2024 the position of reserve and resource was 47.11 and 40.55 million tons respectively.	Nil

1f	General remarks of inspecting officers on geology, exploration etc	During the reporting year 2023-24, shortfall in exploration drilling in respect of nos. of bore holes , hence violation of Rule 11(1) of MCDR 2017 issued vide letter dated 19.07.2024 during the previous inspection.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Development has been proposed in North Lode, East Lode, Main Lode and South Lode at various levels. A total of 10096 mts of development was proposed during the year 2023-24.	Development has been carried out in North Lode, East Lode, Main Lode and South Lode at various levels, a total development of 10231.92 mts has been carried out during the RY 2023-24.	No shortfall in U/G mine developement.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Not applicable as mining operations were proposed through UG mining method.	Not applicable.	Nil
2c	Stripping ratio or ore to OB ratio	Not applicable as mining operations were proposed through UG mining method.	Not applicable.	Nil
2d	Quantity of topsoil generation in m3	No proposal of top soil generation during the RY 2023-24.	No top soil generated during the RY 2023-24.	Nil

2e	Quantity of overburden generation in m3	No proposal of OB generation as mining operations was proposed through UG mining method. However, an quantity of 129374 m3 or 349311 MT of waste was proposed to generate through UG Mine development.	No OB generation as mining operations were carried out through UG method. However, an quantity of 116220 m3 or 313793 MT of waste has been generated through UG mine development.	No major deviation observed with respect to proposal.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	The development was proposed through UG mining Method.	The method of development was as per proposal.	The UG mechanized method has been adopted for carrying out mining operations in the lease area which is best suited to the type of the deposit.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Not applicable being an underground mine.	Not applicable.	Nil
3b	Quantity of ROM mineral production proposed	2023-24: 1750050 Tonnes	2023-24: 1343829 Tonnes	No major deviation observed.
3c	Recovery of sailable/usable mineral from ROM production	2023-24: 1750050 Tonnes	2023-24: 1343829 Tonnes	No major deviation observed.
3d	Quantity of mineral reject generation	No proposal of mineral rejects (MR) generation.	Entire ROM is subject to beneficiation. No mineral reject generation.	Nil
3e	Grade of mineral rejects generation and threshold value declared.	Not applicable as no proposal of mineral reject generation.	Not applicable.	Nil
3f	Quantity of sub grade mineral generation.	No proposal of sub-grade generation.	Not applicable.	Nil

3g	Grade of sub grade mineral generation	Not applicable as no proposal of sub-grade generation.	Not applicable.	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	No proposal of segregation as entire ROM is subject to beneficiation.	Beneficiation of ROM is being carried out as per proposal.	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal of any fresh beneficiation study.	None during the reporting year 2023-24.	Nil
3j	Provision of drilling and blasting in mineral benches	Not applicable being an underground mine.	Not applicable.	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 an underground mine.	Not applicable.	Nil
3m	Total area covered under excavation/pits	No proposal as it is U/G mine.	Not applicable	Nil
3n	Ore to OB ratio for the pit/mine during the year.	Not applicable being an underground mine.	Not applicable.	Nil
3o	Total area put in use under different heads at the end of year	293.42 ha	267.67 ha	Nil

3p	Production of ROM mineral during the last five year period as applicable	2018-19:1200000, 2019-20:1500000, 2020-21:1500000, 2021-22:1550000, 2022-23:2000000, 2023-24:1750050 2024-25:2000000	2018-19: 1079955 2019-20: 1037607 2020-21: 1215171 2021-22: 1252365 2022-23: 1390245 2023-24: 1343829 2024-25: 698353 (upto Oct-24)	All figures in tonnes.
3q	General remarks of inspecting officers on method of mining etc.	U/G Mining method proposed.	U/G mining method adopted., which is best suited to the type of deposit.	Nil

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.	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 an underground mine.	Not applicable.	Nil
4e	Number of active and alive dumps.	One.	One.	Nil

4f	Number of dead dumps.	No proposal.	Not applicable.	Nil.
4g	Number of dumps established.	No proposal.	Not applicable.	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal.	Retaining wall and garland drain observed at necessary places along the waste dump.	Nil
4i	Length of Retaining wall or garland drain all along dumps	No proposal during the RY 2023-24.	Not applicable.	Nil
4j	Number of settling ponds	No proposal of settling pond during the RY.	Not applicable. As no proposal.	Nil
4k	Specific comments of inspecting officer on waste dump management	UG development waste was proposed to dispose in UG stopes and also proposed to dispose on existing waste dump.	UG mine development waste generated during the RY was disposed as per proposal.	No issue observed related to waste dump management.

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 or in stope dumping was proposed after full extraction of the mineral.	In stope backfilling/dumping of waste after full extraction of mineral.	Nil
5b	Area under backfilling of mined out area	2023-24 428191m3	2023-24 334381m3	Due to less production in the RY 2023-24, less U/G voids created hence less backfilling has been carried out with respect to proposal.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal of top soil generation during the RY 2023-24.	No top soil generated during the RY 2023-24.	Nil

5d	Total area fully reclaimed and rehabilitated	No proposal of full reclamation and rehabilitation during RY.	Not applicable.	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Backfilling or in stope dumping was proposed after full extraction of the mineral.	In void stopes backfilling/ waste dumping after full extraction of mineral.	No issue observed related to backfilling.

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).	As per rule 26(2) of MCDR, 2017, PMCP report to be submitted for the previous year by 1st July.	PMCP report for the year 2023-24 has been submitted.	Submitted within time limit.
6b	Area available for rehabilitation (ha) .	No proposal.	Not applicable.	Nil
6c	afforestation done (ha).	2023-24: 2.05 ha gap filling	2023-24: 2.08 ha gap filling	Nil
6d	No. of saplings planted during the year	2023-24: 1800 nos.	2023-24: 5800 nos.	Nil
6e	Cumulative no .of plants	No specific proposal on cumulative number of plants.	209550 at the end of the RY 2023-24.	Nil
6f	Any other method of rehabilitation	No any other proposal.	Not applicable.	Nil
6g	Cost incurred on watch and care during the year	No proposal	Approximately: Rs. 74.31 lakh.	Nil

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	2023-24 5,83,350 m3	2023-24 4,47,943 m3	Less U?G voids generated due to less production.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	2023-24: 4,28,191 m3	2023-24: 3,34,381m3	Less backfilling of U/G voids due to less production.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Not applicable being an underground mine.	Not applicable.	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not applicable being an underground mine.	Not applicable.	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not applicable being an underground mine.	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 of environment monitoring has been envisaged	Environment monitoring carried out regularly.	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			The PMCP compliances is satisfactory.

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, Entire ROM will be Beneficiated.	As per proposal	Nil
7c	Different grade of mineral sorted out at mines.	No proposal	Not applicable	Nil
7d	Any beneficiation process at mines .	1.1 MTPA beneficiation plant installed within lease area. The process includes mainly crushing and grinding of ROM , classification , differential flotation cells, concentrate thickeners, filters, tailing dewatering, & backfilling system.	Beneficiation of ROM was carried out at Dariba and SK beneficiation plant.	Nil

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	No proposal of grade wise sorting of ROM.	Entire ROM was transported/dispatched to beneficiation plant.	No issue related mineral conservation and beneficiation.
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal of top soil generation during the RY 2023-24.	No top soil generated during the RY 2023-24.	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 of reject and fines generation. UG development waste was proposed to dispose in UG void stopes & at surafce dump.	Reject and fines was not generated during the RY. UG waste disposed as per proposal. Mill tailing disposed in tailing dam.	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Waste rock and tailing proposed to use in filling of UG voids/stopes.	Waste rock and tailing used for filling UG 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)	Total 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	Nil
8g	Survival rate	No proposal on survival rate.	Survival rate 85%	Nil
8h	Water sprinkling on roads to control airborne dust	To control the air born dust, water sprinkling has been proposed.	Water sprinkling has been observed on the roads to control airborne dust due to mining activity.	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The general aestehtic beauty in and around mines area is satisfactory.

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.	Monthly and annual returns have been submitted for the RY.	Timely submission.
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.	AR 2023-24.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	An area of 267.67 Hect has been furnished under various heads.	Details seems corrected.	AR 2023-24.
9d	Scrutiny of Annual return on afforestation	5800 no. of plants within lease area.	Information furnished is 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 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: Rs 7532.60 per tonne.	The information furnished appears to be in order.	Nil
9h	Scrutiny of Annual return on fixed assets	Value of fixed asset furnished is Rs. 18859485910	The information furnished appears to be in order.	Nil
9k	Scrutiny of Annual return on mining machineries	Winding machine, Air compressor, Ventilation Fan, Pumps, Crusher, Conveyor, Rock drill, Load Haul Dumper, Motor grader, Dumper, LPDT etc.	Details seems corrected.	Nil

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 :

(DATA RAM GURJAR)

Indian Bureau of Mines