

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

MCDR INSPECTION REPORT

Ajmer regional office

Mine file No : RAJ/BLW- 56 /PB,ZN-1/6/12/200:

Mine code : 34RAJ06001

- (i) Name of the Inspecting : **G021**) **D R GURJAR**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Sh. Sachin Deshmukh, Mine Manager & Sh. Ranjan Gupta,
Official with
Designation
- (iv) Date of Inspection : 20-JAN-22
- (v) Prev.inspection date : 26-JUN-21

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **RAMPURA AGUCHA**
- (b) **Registration NO.** : **IBM/421/2011**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Underground**
- (e) **Postal address**
- State : **RAJASTHAN**
- District : **BHILWARA**
- Village : **AGUCHA**
- Taluka : **HURDA**
- Post office : **AGUCHA**
- Pin Code : **311029**
- FAX No. : **01483-233073**
- E-mail : **sanjay.sharma@vedanta.co.in**
- Phone : **01483-23331, 23332**
- (f) **Police Station** : **Gulabpura**
- (g) **First opening date** : **05-FEB-81**
- (h) **Weekly day of rest** : **MON**
2. **Address for correspondance** : **HINDUSTAN ZINC LTD.**
RAMPURA AGUCHA MINE,
PO AGUCHA, BHILWARA
3. (a) **Lease Number** : **RAJ0652**
- (b) **Lease area** : **1200**
- (c) **Period of lease** : **50**
- (d) **Date of Expiry** : **12-MAR-30**
4. **Mineral worked** : **LEAD & ZINC ORE** **Main**

5. Name and Address of the

Lessee : HINDUSTAN ZINC LTD.
 HINDUSTAN ZINC LTD. YASHAD
 BHAWAN YASHADGARH, UDAIPUR
 UDAIPUR RAJASTHAN
 Phone:01483-23331, 23332
 FAX :01483-23073

Owner : Mr. Arun Mishra
 M/s Hindustan Zinc Ltd.
 Yeshad Bhawan,yashadgarh,
 P.O.Udaipur, UDAIPUR
 RAJASTHAN
 Phone: 0294-2427734
 FAX : 0294-2427734

Agent : Shri Vinod Kumar
 Rampura-Agucha Lead-Zinc
 Mine Agucha, Bhilwara,
 Rajasthan BHILWARA
 RAJASTHAN
 Phone: 01483-229012
 FAX : 01483-229011

Mining Engineer
 Name : Shri Nirmalendu Kumar,Full Time
 Qualification : B.E(Mining),1st class(UR)under MMR 1961
 Appointment/ : 24-APR-19
 Termination date

Geologist
 Name : Ranjan Gupta,Full Time
 Qualification : MSc (Tech) Geology
 Appointment/ : 01-MAY-17
 Termination date

Manager
 Name : Sachin M Deshmukh
 Qualification : B.E. Mining
 Appointment/ : 24-NOV-20
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	25-JAN-93
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	15-MAY-97
	:	Mining Scheme rule 12 MCDR1988	06-JUN-01
	:	Modif.approved Mining Scheme	29-JUL-03
	:	Modif.approved Mining Scheme	17-SEP-03
	:	Mining Scheme rule 12 MCDR1988	27-FEB-06
	:	Modif.approved Mining Scheme	02-NOV-06
	:	Modif.of approved Mining Plan	04-MAY-09
	:	Mining Scheme rule 12 MCDR1988	11-JUL-12
	:	Modif.approved Mining Scheme	28-JUN-13
	:	Modif.approved Mining Scheme	09-APR-15
	:	MP review under 17(1) MCR 2016	22-FEB-17
	:	MP modif under 17(3) MCR 2016	27-MAR-18

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal	None	No Backlog in previous year.
1b	Exploration over lease area for geological axis 1 or 2	A total 64 boreholes with meterage of 13000mts of drilling was proposed during the year 2020-21.	A total of 217 boreholes with meterage of 28917mts of drilling was carried out during the year 2020-21.	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Mining Associate Pvt. Ltd.,Asansol and TDMA Pvt. Ltd,Gurgaon. No specific proposal was given on expenditure.	Exploration Agencies:Mining Associate Pvt. Ltd.,Asansol and TDMA Pvt. Ltd,Gurgaon. Total Expenditure - Rs.10.37Cr (Rs.7.05 Cr -UG, Rs. 3.32 Cr. - Surface)	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	G1- 16.10 Ha G2- 18.00 Ha	Exploration done in G1 and G2 category for infill drilling as per proposal	Nil
1e	Balance reserve as on 01/04/20	As per approved document dated 27/03/2018, the position of reserve on 31/01/2018 was 46.85 million tonnes.	The position of reserve as on 01/04/2021 was 34.514 million tonnes.	Nil
1f	General remarks of inspecting officers on geology, exploration etc	-	-	Latest technologies are in practice for mineral conservation (Cavity monitoring systems for stope scanning and in exploration oriented core are being carried out to further interpret anomalies)

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Opencast: No proposal, Underground: Development has been proposed in main ore lens at various mRL. Total Lateral & Vertical Developmen was proposed-46327m during the year 2020-21.	Opencast:None, Underground: Development has been carried out in main ore lens at various mRL. Total Lateral & Vertical Development was carried out-30043m during the year 2020-21.	There is shortfall in UG development during the year 2020-21 for which violation under rule 11(1) of MCDR,2017 issued vide letter dated 15.07.2021 by the previous inspecting officer.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No proposal	None	Nil
2c	Stripping ratio or ore to OB ratio	No proposal	None	Nil
2d	Quantity of topsoil generation in m3	No proposal	None	Nil
2e	Quantity of overburden generation in m3	No proposal	None	Nil
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Development has been proposed through UG mining operation.	The UG mechanised method has been adopted for carrying out mining operations is best suited method to the type of deposit.	There is shortfall in UG development during the year 2020-21 for which violation underrule 11(1) of MCDR,2017 issued vide letter dated 15.07.2021 by the previous inspection officer.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	No proposal	None	Nil
3b	Quantity of ROM mineral production proposed	2020-21: 6000000 MT (UG)	2020-21: 4271819 MT (UG)	As reported in AR 2020-21.

3c	Recovery of sailable/usable mineral from ROM production	100%	100%	Nil
3d	Quantity of mineral reject generation	4810000 tonnes	4444829 tonnes	Tailing as reported in AR 2020-21.
3e	Grade of mineral rejects generation and threshold value declared.	Pb-0.46% Zn-1.20% Ag-16ppm	Pb-0.46% Zn-1.14%	Grade of Tailing as reported in AR 2020-21.
3f	Quantity of sub grade mineral generation.	No proposal	None	Nil
3g	Grade of sub grade mineral generation	No proposal	None	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	No proposal of ROM segregation as entire ROM is subject to the beneficiation.	Entire ROM is feed to the beneficiation plant.	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Not applicable as no proposal.	Nil

3j	Provision of drilling and blasting in mineral benches	<p>Opencast:No proposal Under Ground:Drilling pattern In ore- Burn Cut method of development, Drilling pattern in Stopes- Ring drilling with Fan Cut pattern, Charge per round (Kg) - Development: 250-350 Kg Stopping: 0.5-9 ton, Type of explosive - Cartridge emulsion/Slurry explosive of 25mm to 40mm diameter depending upon requirement. Stopping: 76-83mm diameter Cartridge Emulsion/slurry Explosive or site mixed emulsion with 100/250/400 g booster / Primer charge.</p>	<p>Under Ground -Drilling pattern In ore- Burn Cut method of development, Drilling pattern in Stopes- Ring drilling with Fan Cut pattern, Charge per round (Kg) - Development: 250- 350 Kg Stopping: 0.5-9 ton, Type of explosive - Cartridge emulsion/Slurry explosive of 25mm to 40mm diameter depending upon requirement. Stopping: 76-83mm diameter Cartridge Emulsion/slurry Explosive or site mixed emulsion with 100/250/400 g booster / Primer charge.</p>	Nil
3k	Provision of mining machineries in mineral benches	<p>Not applicable as operation are proposed through U/GMining Method. In U/G Mines,Drill Jumbo,LHD, dumpers and LPDT machines are proposed for U/g Mining operation.</p>	<p>Opencast: Not applicable as no proposal, Underground: Machines are used for U/g Mining operation as per proposal.</p>	Nil

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Not applicable as operation are proposed through U/G Mining Method.	Not applicable as no proposal	Nil
3m	Total area covered under excavation/pits	175.12 Ha	175.12 Ha	Nil
3n	Ore to OB ratio for the pit/mine during the year.	Not applicable as operation are proposed through U/G Mining Method.	Not applicable as no proposal.	Nil
3o	Total area put in use under different heads at the end of year	Proposal in plan period - (2018-19 to 2021-22)- Area under mining -175.12 Ha, Waste dump site -316 Ha, Tailing pond - 203.2 Ha, Others -327.43 Ha.	Area under mining - 175.12 Ha, Waste dump site - 307.76Ha Tailing pond -181.19 Ha Others -327.68 Ha	Nil
3p	Production of ROM mineral during the last five year period as applicable	Production proposal of ROM mineral during the last five yearperiod are given below: 2016-17: 6.04 million tonnes, 2017-18: 4.74million tonnes, 2018-19: 4.80million tonnes, 2019-20: 6.00million tonnes, 2020-21:6.00million tonnes.	Actual production of ROM mineral during the last five year period are given below: 2016-17: 4.70million tonnes, 2017-18: 3.84million tonnes, 2018-19: 3.33million tonnes, 2019-20:3.94million tonnes, 2020-21:4.27million tonnes.	Nil

3q	General remarks - of inspecting officers on method of mining etc.	-	-	Modern and scientific mining methods are in practice for optimal exploitation of mineral wealth. Latest technologies and machineries are being deployed.
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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 proposal of top soil and Mineral Reject generation. Waste is proposed to dispose at waste dump with 20m of lifts.	Top soil and Mineral Reject has not been generated during the reporting year. Waste was dumped at designated place.	Nil
4b	Location of topsoil, OB and mineral reject dumps	No proposal of top soil and Mineral Reject generation. Waste is proposed to dump at existing waste dump between grid North 1260 to North 2590 & West 600 to East 600 in 20m of lifts.	Top soil and Mineral Reject has not been generated during the reporting year. Waste has been dumped at designated place.	Nil
4c	Number of dumps within lease area and outside of lease area	Inside Lease area- One	Inside Lease area- One	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside of Ultimate Pit	Outside of Ultimate Pit	Nil
4e	Number of active and alive dumps.	One	One	Nil
4f	Number of dead dumps.	No Proposal	Not applicable as no proposal.	Nil

4g	Number of dumps established.	Dump top and slopes are to be stabilized with plantation.	Part of different lifts of dump has been stabilized with plantation.	Plantation has been observed over dump terrace and slope.
4h	Whether Retaining wall or garland drain all along dumps are there.	No specific proposal of garland drain all along the waste dump during reporting year.	Garland drain along with Retaining wall around the waste dump has been constructed earlier which is being maintained on regular basis.	Nil
4j	Number of settling ponds	No proposal	Not applicable as no proposal.	Nil
4k	Specific comments of inspecting officer on waste dump management	-	-	During the year 2018-19 & 2019-20, total 5.2km massonary boundary wall construction was proposed around the perimeter of Ultimate pit limit but till inspection boundary wall is not completed. Hence, Violation under rule 11(1) of MCDR,2017 has been issued vide letter dated 15.07.2021 by the previous inspecting officer.

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.	No proposal	None	Nil
5b	Area under backfilling of mined out area	No Proposal	None	Nil

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	None	Nil
5d	Total area fully reclaimed and rehabilitated	No proposal	Part of the matured waste dump end has been reclaimed rehabilitated by soil capping and plantation.	Total 128.4Ha area at waste dump fully reclaimed & Rehabilitated upto 2020-21.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	Part of the matured waste dump has been rehabilitated by soil capping and plantation.

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 holder of mining lease shall submit PMCP before 1st day of July every year.	PMCP report for the year 2020-21 has been submitted timely.	Nil
6b	Area available for rehabilitation (ha) .	No proposal	None	Nil
6c	afforestation done (ha).	Plantation in 19.6 Ha area at waste dump was proposed.	20Ha area was covered by plantation over the waste dump and others.	Plantation has not been carried out on proposed location during the year 2020-21. Hence, Violation under rule 11(1) of MCDR 2017 has been issued vide letter dated 15.07.2021 by the previous inspecting officer.
6d	No. of saplings planted during the year	Total 19600 number of saplings was proposed.	Total 20000 number of saplings was Planted.	Nil

6e	Cumulative no .of plants	No specific proposal on cumulative number of plants.	Cumulatively 371150 number of saplings were planted.	Nil
6f	Any other method of rehabilitation	Geotextile over dump slopes was proposed	Geotextile work was carried out over dump slopes.	Nil
6g	Cost incurred on watch and care during the year	Rs. 42.14 Lakh	Rs. 42.8 Lakh	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	1960784 cum (backfilling of UG Minedout stopes)	1418703 cum.	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	1960784 cum (backfilling of UG stopes)	1418703 cum.	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No proposal	None	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	None	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	No proposal	None	Nil

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	None	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	None	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	3 stations in core zone & 3 stations in buffer zone was proposed	Environment monitoring was carried out as per proposal and found within permissible limit.	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	Plantation has not been carried out on proposed location during the year 2020-21. Hence, Violation under rule 11(1) of MCDR 2017 has been issued vide letter dated 15.07.2021 by the previous inspecting officer.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Entire ROM mineral dispatched to captive beneficiation plant and no grade wise sorting.	Entire ROM mineral dispatched to captive beneficiation plant and no garde wise sorting.	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No proposal of grade wise sorting.	Not applicable.	Nil
7c	Different grade of mineral sorted out at mines.	No proposal	Not applicable as no proposal.	Nil

7d	Any beneficiation process at mines .	6.5MTPA beneficiation plant has been installed within the lease area.The process includes mainly crushing of ROM, grinding of ROM, Classification , differential flotation cell etc.	Beneficiation has been observed as per proposal	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-	-	ROM is beneficiated in the plant having instream analyzer to monitor and control the mineral rejects generated out of the beneficiation process that are stored at tailing dam.

Environment :

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal of top soil generation during 2020-21.	None	Nil
8b	Concurrent use or storage of topsoil	No proposal of top soil generation during 2020-21.	None	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes, waste dump and tailing has been given separately.	Waste dump and tailing observed as per proposal.	Nil

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	None	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Plantation in 19.6 Ha area at waste dump was proposed.	20Ha area was covered by plantation over the waste dump and others.	Plantation has not been carried out on proposed location during the year 2020-21. Hence, Violation under rule 11(1) of MCDR 2017 has been issued vide letter dated 15.07.2021 by the previous inspecting officer.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	19600 Nos.	20000 Nos.	Nil
8g	Survival rate	No specific proposal	100%	As reported in AR 2020-21.
8h	Water sprinkling on roads to control airborne dust	Effective water sprinkling to be done to control airbornedust.	Effective Water sprinkling with water sprinklers (capacity 40KL) on haul roads ensured 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 aesthetic beauty in and around mines area is good

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 (upto June, 2021) and Annual Returns for the year 2020-21 have been submitted .	Nil

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information of Mining Engineer, Geologist and Manager has been furnished.	Details found to be correct	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under O/C mining -175.12 Ha, Reclaimed/Rehabilitated - 113.46, Waste disposal -307.76 Ha, Occupied by plant, buildings, residentials, welfare buildings & roads - 103.95, Tailing pond - 181.19 Ha, Work done under progressive mine closure plan during the year - 2020-21.	The area mentioned under different heads found to be in order.	Nil
9d	Scrutiny of Annual return on afforestation	Plantation within Lease-20000nos Survival rate-100%	Found to be in order	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No mineral reject generation.	Mineral reject has not been generated.	However, 4444829 tonnes tailing as reported in AR 2020-21.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM details Opening stock:- Tons-6131, Pb%-1.18%, Zn-11.91% Production:- Tons-3940098, Pb%-1.64%, Zn-11.25% Closing stock:- Tons-39862, Pb%-1.91%, Zn-12.19%	Details seems to be correct	Nil

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex Mine Price- Rs. 7786.57 Production cost- Rs. 7786.57	Some discrepancy found in Cost of production during scrutiny of Return by the previous inspecting officer.	Violation under rule 45(7) has been issued vide letter dated 15.07.2021 by the previous inspecting officer, Susequently lessee submitted revised correct return.
9h	Scrutiny of Annual return on fixed assets	The value of fixed assets furnished is Rs. 50538133541.00	The information furnished appears in order.	Nil
9k	Scrutiny of Annual return on mining machineries	BACK HOE,DUMPERS,LH D's,LPDT's,DOZ ER, ROCKDRILL, AIRCOMPRESSOR, WINDING ENGINE etc.	The information furnished appears in order.	Nil

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

Date :

(D R GURJAR)

Indian Bureau of Mines