

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

MCDR INSPECTION REPORT

Gandhinagar regional office

Mine file No : RAJ/UDP/LZ-3

Mine code : 34RAJ26001

- (i) Name of the Inspecting : **S012**) **H C SHARMA**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Sh. Sandeep Rajput
Official with
Designation
- (iv) Date of Inspection : 24-JUL-19
- (v) Prev.inspection date : 12-FEB-19

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BALARIA**
- (b) **Registration NO.** : **421**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Underground
- (e) Postal address
- State : RAJASTHAN
- District : UDAIPUR
- Village : ZAWAR
- Taluka : SARADA/GIRWA
- Post office : ZAWAR MINES
- Pin Code : 313901
- FAX No. : 0294-2412545
- E-mail : arun.mishra@vedanta.co.in
- Phone : 0294-6604120
- (f) Police Station : ZAWAR
- (g) First opening date : 01-APR-70
- (h) Weekly day of rest : SUN
2. Address for : PO- ZAWAR
correspondance : DISTT.- UDAIPUR
RAJASTHAN-313901
3. (a) Lease Number : RAJ1725
- (b) Lease area : 816
- (c) Period of lease : 80
- (d) Date of Expiry : 31-MAR-30
4. Mineral worked : LEAD & ZINC ORE Main

5. Name and Address of the

Lessee : HINDUSTAN ZINC LIMITED
 YASHAD BHAVAN UDAIPUR
 RAJASTHAN
 Phone:(0294) 2342093
 FAX :(0294) 2342092

Owner : Sri Arun Mishra
 Yashad Bhavan, Udaipur
 Rajasthan UDAIPUR
 RAJASTHAN
 Phone:
 FAX : 0294-2412545

Agent : Shri Kishore S
 Mochia Pb_zn Mine, Post:
 Zawar, Udaipur Rajasthan
 UDAIPUR RAJASTHAN
 Phone:
 FAX : 0294-2412545

Mining Engineer

Name : PRASHANT GUPTA, Full Time
 Qualification : BE. (MIN.) 2 class cert.
 Appointment/ : 11-AUG-12
 Termination date

Geologist

Name : Sri K. Sairaj, Full Time
 Qualification : M.Sc. Geology
 Appointment/ : 02-JUN-20
 Termination date

Manager

Name : Sh. Mithilesh Kumar
 Qualification : BE(Mining)
 Appointment/ : 19-JAN-18
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Modif.of approved Mining Plan	04-OCT-12
		Mining Scheme rule 12 MCDR1988	31-JUL-15
		MP modif under 17(3) MCR 2016	17-MAY-19

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil at Surface	Not applicable	
1b	Exploration over lease area for geological axis 1 or 2	360no.of holes/24000m U/G	410no.of holes/18635m U/G	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	HZL Rs.262.62(in Rs.lacs)	HZL Rs. 308.79(in Rs.lacs)	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	Not applicable	
1e	Balance reserve as on 01/04/20	111-0.319Mt, 121-1.174Mt, 122-0.940Mt, 221-7.569Mt, 222-0.840Mt, 333-22.261Mt	111-0.319Mt, 121-1.174Mt, 122-0.940Mt, 221-7.569Mt, 222-0.840Mt, 333-22.261Mt	
1f	General remarks of inspecting officers on geology, exploration etc	Not applicable	The adequate exploration has been made. No issue regarding exploration.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	During 2018-19 a total of 8500m development was proposed.	During 2018-19 a total of 6984m had been developed.	
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.	
2c	Stripping ratio or ore to OB ratio	Not applicable as it is U/G Mine.	Not applicable as it is U/G Mine.	
2d	Quantity of topsoil generation in m3	Not applicable as it is U/G Mine.	Not applicable as it is U/G Mine.	

2e	Quantity of overburden generation in m3	Not applicable as it is U/G Mine.	Not applicable as it is U/G Mine.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Not applicable	The development made is less than to that of proposed during 2018-19

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Not applicable as it is U/G Mine.	Not applicable as it is U/G Mine.	
3b	Quantity of ROM mineral production proposed	During 2018-19-- 750000 T	582024 T during 2018-19.	
3c	Recovery of sailable/usable mineral from ROM production	95%	95%	
3d	Quantity of mineral reject generation	Not specified	Tailing : 2018-19:541817MT	
3e	Grade of mineral rejects generation and threshold value declared.	Not specified	Tailing: 2018-19:- 0.92%	
3f	Quantity of sub grade mineral generation.	No proposal	Not applicable	
3g	Grade of sub grade mineral generation	Not applicable	Not applicable	
3h	Manual / Mechanised method adopted for segregating from ROM	Froth floatation	Froth Floatation	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal during 2018-19	Not applicable	

3j	Provision of drilling and blasting in mineral benches	Being U/G Mine drilling & blasting proposed for development & ore production.	Being done
3k	Provision of mining machineries in mineral benches	Not applicable as it is U/G mine	Not applicable
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Not applicable as it is U/G mine	Not applicable
3m	Total area covered under excavation/pits	Not applicable as it is U/G mine	Not applicable
3n	Ore to OB ratio for the pit/mine during the year.	Not applicable	Not applicable
3o	Total area put in use under different heads at the end of year	No specified proposals	Mining-34.09 Mineral storage-2 Ben. Plant-8.66 Township-34.4 Tailing pond-119.52 Roads-9.68 Infrastructure-53.66 Waste dump-10.57 Community Development-8.71 Others-18.30
3p	Production of ROM mineral during the last five year period as applicable	2014-15 350000 2015-16 340000 2016-17 455000 2017-18 550000 2018-19 750000	2014-15 221190 2015-16 318335 2016-17 421700 2017-18 471291 2018-19 582024
3q	General remarks of inspecting officers on method of mining etc.	Not applicable	The mechanised U/G Method had been adopted for working the mineral in the mine.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine
4b	Location of topsoil, OB and mineral reject dumps	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine
4c	Number of dumps within lease area and outside of lease area	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine
4e	Number of active and alive dumps.	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine
4f	Number of dead dumps.	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine
4g	Number of dumps established.	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine
4h	Whether Retaining wall or garland drain all along dumps are there.	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine
4i	Length of Retaining wall or garland drain all along dumps	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine
4j	Number of settling ponds	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine
4k	Specific comments of inspecting officer on waste dump management	Not applicable	The waste dum management is not applicable as it is U/G Mine

Solid Waste Management - Backfilling:

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.	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine
5b	Area under backfilling of mined out area	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine
5d	Total area fully reclaimed and rehabilitated	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Not applicable	The backfilling is not applicable as it is U/G Mine.

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).	Yes due to submit on 30/6/2019	Submitted on 20/6/2019	
6b	Area available for rehabilitation (ha) .	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine	
6c	afforestation done (ha).	4 ha	75 ha gap filling	
6d	No. of saplings planted during the year	4000 nos	25000 nos	
6e	Cumulative no .of plants	340025 nos	425625 nos	
6f	Any other method of rehabilitation	No proposal	Not applicable	
6g	Cost incurred on watch and care during the year	Not specified	Rs. 705422/-	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	220000m3 in 2018-19.	165802m3
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	71667m3 during 2018-19	114022m3 up to 1/4/2019.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Not applicable as it is U/G Mine	Not applicable as it is U/G mine
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not applicable as it is U/G mine	Not applicable as it is U/G mine
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Not applicable
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	4000 nos in entire zavar group of mines during 2018-19.	25000 nos in entire zavar group of mines during 2018-19.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not applicable	Not applicable
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not applicable	Not applicable

6p	Compliance of environmental monitoring (core zone and buffer zone)	Regular monitoring as per EC conditions.	Being done
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Not applicable	The lessee's conduct towards compliance of PMCP was satisfactory.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	To captive beneficiation plant	To captive beneficiation plant	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Not applicable as it is U/G mine.	Not applicable	
7c	Different grade of mineral sorted out at mines.	Not applicable	Not applicable	
7d	Any beneficiation process at mines .	Yes. Ore beneficiation process in lease area for all 4 mines.	Yes. Ore beneficiation process in lease area for all 4 mines.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Not applicable	There is no issue regarding mineral conservation.	

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not applicable asa it is U/G mine	Not applicable asa it is U/G mine	

8b	Concurrent use or storage of topsoil	Not applicable asa it is U/G mine	Not applicable U/G mine	asa it is
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not applicable asa it is U/G mine	Not applicable	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not applicable	Not applicable	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not applicable asa it is U/G mine	Not applicable U/G mine	asa it is
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Base line 372425 Plants addition 8000 nos.	Current 425625 plants Addition 53200 nos for entire zawar group of mines	Cumulative Actual
8g	Survival rate	85%	85%	
8h	Water sprinkling on roads to control airborne dust	Yes proposed by water sprikler fitted with tanker.	Being done	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Not applicable	The general aesthetic beauty in & around the mine is satisfactory.	

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Not applicable	M.R Submitted upto July 2019. A.R. Submitted upto 2018-19	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer- Prashant Gupta, Geologist- Dr.Sandeep Kumar Rajput, Mine Manager- Sh. Mithilesh Kumar	Mining Engineer-Prashant Gupta, Geologist- Dr.Sandeep Kumar Rajput, Mine Manager- Sh. Mithilesh Kumar
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Under pits- Nil, Reclaimed 45.07 ha, waste disposal - 0.50 ha occupied by plant & Building etc. 254.020 ha	Under pits- Nil (Being U/G mine), Reclaimed 45.07 ha (Void Filled in U/G), waste disposal - 0.50 ha occupied by plant & Building etc. 254.020 ha
9d	Scrutiny of Annual return on afforestation	25000 nos planted within lease area.	25000 nos planted within lease area with survival rate of 80%.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	541817 T of reject generated of 0.92 TMC grade.	541817 T of reject generated of 0.92 TMC grade.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	A total of 582024 T production raised with opening & closing balance Nil.	A total of 582024 T production raised with opening & closing balance Nil.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	The cost of production stated as Rs. 3280.00 per ton.	The cost of production Rs. 3280.00 per ton. appears genuine.
9h	Scrutiny of Annual return on fixed assets	The value of fixed assets stated as Nil.	The value of fixed assets cannot be Nil.
9k	Scrutiny of Annual return on mining machineries	Details furnished.	Found OK.

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 :

(H C SHARMA)

Indian Bureau of Mines