

**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 : **S012**) **Sharma H.C.**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Sh. Vinod Jangir, Manager (Mines), Sh. Ranjan Gupta, G
Official with
Designation
- (iv) Date of Inspection : 31-OCT-18
- (v) Prev.inspection date : 11-AUG-18

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **RAMPURA AGUCHA**
- (b) **Registration NO.** : **IBM/421/2011**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **RAJASTHAN**
- District : **BHILWARA**
- Village : **AGUCHA**
- Taluka : **HURDA**
- Post office : **AGUCHA**
- Pin Code : **311029**
- FAX No. : **01483-23073**
- E-mail : **hzl.ram@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** : **HINDUSTAN ZINC LTD.**
correspondance : **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 : Sunil Duggal
 Hindustan Zinc Limited
 Yashad Bhawan, Swaroop
 Sagar Udaipur BHILWARA
 RAJASTHAN
 Phone: 0294-2529182
 FAX : 0294-2525765

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

Mining Engineer

Name : Shri Kishor S, Full Time
 Qualification : BE Mining
 Appointment/ : 11-APR-18
 Termination date

Geologist

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

Geologist

Name : Shri Gopal Singh Rathore, Full Time
 Qualification : M.Sc Geology
 Appointment/ : 01-AUG-17 11-APR-18
 Termination date

Manager

Name : Shri Vinod Jangir
 Qualification : BE Mining
 Appointment/ : 11-APR-18
 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	Nil	Not applicable	
1b	Exploration over lease area for geological axis 1 or 2	110000m	6508.55m (U/G 1749, surface 4760.55m) in 43 holes. (U/G 30, Surface 13).	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified.	TDMA, Expenditure Rs 0.23 Crore U/G & Rs. 3.03 Crore Surface.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Year to year exploration planed.	Detail planning at an average of 11000m per year to up grade reserves.	
1e	Balance reserve as on 01/04/20	Not specified	Reserves 45.95 million tonnes with 1.9% Pb, 13.8% Zn & resources 50.49 million tones with 2.4 % Pb & 11.6%Zn.	
1f	General remarks of inspecting officers on geology, exploration etc	Not applicable	There is shortfall of Exploration.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	South 500 to North 850 & East 150 to East 700, From 190mRL to 70mRL & 70mRL to 0mRL. Decline Dev 3958m, F/W & Othr Lateral - 14018m, Stope Dev- 24400m, Vertical Dev- 3720m. Waste Generation- 1201128 Cu M.	South 500 to North 850 & East 150 to East 700, From 190mRL to 150mRL & 70mRL to 0mRL. --NIL. Decline Dev 271.64m, F/W & Othr Lateral -- 3767m, Stope Dev- 24400m, Vertical Dev- 790m. Waste Generation- 196585 Cu M	

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Nil	Opencast Development suspended temporarily.
2c	Stripping ratio or ore to OB ratio	1 : 8.0	Not applicable
2d	Quantity of topsoil generation in m3	Nil	Not applicable
2e	Quantity of overburden generation in m3	O/C - 888490 Cu M	O/C - Nil
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Not applicable	The workings of open cast mine had been suspended due to interaction of O/C with U/G.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One O/C & One U/G	Only U/G	
3b	Quantity of ROM mineral production proposed	301376 MT (O/C) & 4500000 MT (U/G).	864531 MT from U/G only.	
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	
3d	Quantity of mineral reject generation	Not applicable as U/G workings.	Not applicable	
3e	Grade of mineral rejects generation and threshold value declared.	Not applicable	Not applicable	
3f	Quantity of sub grade mineral generation.	Not applicable	Not applicable	
3g	Grade of sub grade mineral generation	Not applicable	Not applicable	

3h	Manual / Mechanised method adopted for segregating from ROM	Diluted ore is stacked seperately at stackyard & segregated using small size excavator.	Being done
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not applicable	Not applicable
3j	Provision of drilling and blasting in mineral benches	As per proposal	Being done
3k	Provision of mining machineries in mineral benches	By HEMM U/G M/C's Used	Being Done
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Not applicable as working U/G	Not applicable
3m	Total area covered under excavation/pits	175.12 ha	175.12 ha
3n	Ore to OB ratio for the pit/mine during the year.	1 : 8.0	Not applicable
3o	Total area put in use under different heads at the end of year	Area undermining - 175.12 ha, Waste dumping 316 ha, Tailing Pond- 203.2 ha & Others- 327.27 ha	Area undermining - 175.12 ha, Waste dumping 307.76 ha, Tailing Pond- 184.6 ha & Others- 354.27 ha
3p	Production of ROM mineral during the last five year period as applicable	2017-18- 4741204MT, 2016-17-- 6046653MT, 2015-16-- 5200000MT, 2014-15-- 6000000 MT, 2013-14-- 6000000MT.	2017-18-- 3842187T, 2016-17-- 4700938MT, 2015-16-- 4704635MT, 2014-15-- 5451320 MT, 2013-14-- 5803852MT.

3q General remarks of inspecting officers on method of mining etc. Not applicable Modern Technology adopted in U/G Mine Development.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	The top soil available will be stored seperately & used for stabilisation of waste dump, Slopesof Tailing Dam. O/B to bes tacked seperately.	Not applicable as U/G work only.	
4b	Location of topsoil, OB and mineral reject dumps	Top Soil- NA, O/B- North 1200 To North 2590, & West 600 to East 600.	Top soil- NA, O/B -- No O/B generation.	
4c	Number of dumps within lease area and outside of lease area	In side lease area.	In side lease area.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside the UPL.	No waste generation.	
4e	Number of active and alive dumps.	One	One	
4f	Number of dead dumps.	NA	Not applicable	
4g	Number of dumps established.	Dump Top & Slopes stablised with plantation.	Part of different lifts stabilised by plantation.	
4h	Whether Retaining wall or garland drain all along dumps are there.	Garland drain all around the dumps.	Garland drain all around the the dumps available.	
4i	Length of Retaining wall or garland drain all along dumps	Garland drain all around the dumps with retaining wall proposed	Total 8.6 km garland drain along with retaining wall provided	

4j	Number of settling ponds	No proposal	Not applicable
4k	Specific comments of inspecting officer on waste dump management	Not applicable	Part of waste dump stabilised with plantation.

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	Not applicable	
5b	Area under backfilling of mined out area	No proposal	Not applicable	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Not applicable	
5d	Total area fully reclaimed and rehabilitated	Nil	The part of waste dump stabilised by plantation.	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Not applicable	The part of waste dump stabilised by 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).	Yes	Submitted	
6b	Area available for rehabilitation (ha) .	No proposal	Not applicable	

6c	afforestation done (ha).	20 ha of waste dump	20 ha of waste dump
6d	No. of saplings planted during the year	20000 nos	20000 nos
6e	Cumulative no .of plants	NA	311650 nos
6f	Any other method of rehabilitation	No proposal	Not applicable
6g	Cost incurred on watch and care during the year	No proposal	Rs. 177.24 Lakh.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	Not applicable
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Not applicable
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No Proposal	Not applicable
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Proposal	Not applicable
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	20000 nos at waste dump.	20000 nos at waste dump.

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	20 ha of waste dump	20 ha of waste dump
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes	Regular monitoring of various parameters done in core & buffer zone.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Not applicable	The conduct of Lessee towards implementation of PMCP was satisfactory.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM having grade variability stacked separately & blended.	Being done	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanized	Being done	
7c	Different grade of mineral sorted out at mines.	Different grades of stacked mineral on PCH Pad and optimum grade to beneficiation plant.	Different grades of stacked mineral on PCH Pad and optimum grade to beneficiation plant.	
7d	Any beneficiation process at mines	yes	Yes	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Not applicable	ROM is beneficiated in the plant having instream analyzer to monitor the reject generation & that are stored in tailing dam.	

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Top soil to be stored separately & utilised in slope stabilising	No top soil generation	
8b	Concurrent use or storage of topsoil	yes	No top soil generation	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Mineral & O/B wastestackedseparately in PCH pad & waste dump.	Being done	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Not applicable	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Plantation of 20 ha area of waste dump.	Nil	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	20000 nos to beplanted each year.	Nil	
8g	Survival rate	80%	Nil	
8h	Water sprinkling on roads to control airborne dust	yes	Effective sprinkling done regularly.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Not applicable	The general aesthatic beauty in & around mine is satisfactory.	

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Not applicable	M/R submitted up to october 2018. A/R submitted for 2017-18.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager - Sh. Ram shankar Sharma, Mining Engineer- Sh Jaimurti Sandeep, Geologist- Dr Uma Shankar Pareek.	Manager - Sh. Vinod Jangir w.e.f.11/4/2017, Mining Engineer- Sh. KIshore S since11/4/2018, Geologist- Sh Ranjan Gupta since 1/5/2017.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Details furnished	Pit-175.12 ha, Reclaimed 81.00 ha, Waste disposal- 307.76 ha , occupied by plant building 92.640, others - 17.00 ha
9d	Scrutiny of Annual return on afforestation	17000 nos planted within lease with survival rateof 90%.	Found in order
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Reject Generation - NIL	Reject Generation - NIL
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Details furnished	Opening stock 464737T, Production - 3842187T, Closing stock 71972 T
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Details furnished	Ex Mine Price- Rs. 2160.75 , & the cost of production-Rs. 8404.25
9h	Scrutiny of Annual return on fixed assets	Details furnished	Fixed assets Rs.34278110324.00 & depreciation Rs.6324803302.00
9k	Scrutiny of Annual return on mining machineries	Detailed list of M/C deployed given	Found in order.

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 :

(Sharma H.C.)

Indian Bureau of Mines