

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

Review and updation of Mining Plan REPORT

Ranchi regional office

Mine file No : BIH/GLA/BX/221/RRO

Mine code : 07BHR32008

- (i) Name of the Inspecting : P002) PHILLIP HAPADGARA
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Sri. Tapas Head (geology), sri. V.S. Singh Mine Manag
Official with
Designation
- (iv) Date of Inspection : 30/10/2023
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : GURDARI (1039.5)
- (b) **Registration NO.** : IBM/935/2011
- (c) **Category** : A Fully Mechanised
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : JHARKHAND
- District : GUMLA
- Village : GURDARI AMBAKONA
- Taluka : BISHUNPUR
- Post office : DUMBERPAT
- Pin Code :
- FAX No. : 06526-24118
- E-mail : bijesh.jha@adityabirla.com
- Phone : 06526-24016
- (f) **Police Station** : BISHUNPUR
- (g) **First opening date** : 01/02/1985
- (h) **Weekly day of rest** : SUN
2. **Address for** : VILL-GURDARI
correspondance BISHNPUR
DIST-GUMLA
3. (a) **Lease Number** : BHR0249
- (b) **Lease area** : 584.19
- (c) **Period of lease** : 50
- (d) **Date of Expiry** : 22/03/2035
4. **Mineral worked** : BAUXITE Main

5. Name and Address of the

Lessee : HINDALCO INDUSTRIES LTD.,
 AT & PO - COURT ROAD,
 LOHARDAGA LOHARDAGA
 JHARKHAND
 Phone:06526- 224015/224112/223113
 FAX :06526- 224118

Owner : SHRI K. N. BHANDARI
 M/S HINDALCO INDUSTRIES LTD
 P.O. RENUKOOT, DIST.
 SONEBHADRA (UP) LOHARDAGA
 JHARKHAND
 Phone:
 FAX :

Agent : Prateek Kumar
 Hindalco Ind. Ltd. Court
 Road Lohardaga LOHARDAGA
 JHARKHAND
 Phone: 7738368627
 FAX :

Mining Engineer

Name : Sanjay Kumar, Full Time
 Qualification : B.E (MINING)
 Appointment/ : 18/01/2019
 Termination date

Geologist

Name : Dharendra Pratap Singh, Full Time
 Qualification : MSc (Geo)
 Appointment/ : 21/04/2019
 Termination date

Geologist

Name : Krishnendu Das, Full Time
 Qualification : M.Sc. (Applied Geology)
 Appointment/ : 02/12/2021
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	12/02/1992
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	25/09/1998
	:	Renewal under rule 24 MCR1960	12/05/2005
	:	Mining Scheme rule 12 MCDR1988	19/01/2012
	:	FMCP under 23C(1)	02/05/2013
	:	Mining Scheme rule 12 MCDR1988	17/04/2015
	:	MP review under 17(1) MCR 2016	20/02/2019
	:	MP modif under 17(3) MCR 2016	29/10/2020
	:	MP modif under 17(3) MCR 2016	12/04/2022

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	nil	nil	nil
1b	Exploration over lease area for geological axis 1 or 2	no such proposal during the year	129 no. of boreholes.	exploration done to delineate orebody
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA	M/s United Exploration India Pvt. Ltd. Rs. 3729016.00	nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	NA	nil	potential mineralized zone is explored to G1
1e	Balance reserve as on 01/04/20	8256095 T (111)	8399607 MT (111)	nil
1f	General remarks of inspecting officers on geology, exploration etc	-	-	Potential mineralized area is explored to G1 level

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Kathupani, 6C, Ambakona 1, Ramjharria-2(north), Ramjharria 2 (south)	Kathupani, 6C, Ambakona 1, Ramjharria-2 (north), Ramjharria 2 (south)	nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Top soil - I Morrum - I Laterite - I	Top soil - I Morrum - I Laterite - I	Separate benches are maintained in topsoil, overburden/waste and mineral.
2c	Stripping ratio or ore to OB ratio	1 : 1.47	1 : 1.96	nil
2d	Quantity of topsoil generation in m3	423701.94 cum	220544 cum	nil
2e	Quantity of overburden generation in m3	204075.56 cum (waste)	530621 cum (including top soil)	nil

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	-	Production of mineral from 5 quarries. Separate benches in top soil, overburden and mineral are maintained
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	5 nos	5 nos	nil
3b	Quantity of ROM mineral production proposed	300107.45 T	270665 T	nil
3c	Recovery of sailable/usable mineral from ROM production	70%	70%	nil
3d	Quantity of mineral reject generation	90032.24 T	nil	no mineral generated during the year
3e	Grade of mineral rejects generation and threshold value declared.	< 30% Al2O3	nil	nil
3f	Quantity of sub grade mineral generation.	no such proposal	nil	nil
3g	Grade of sub grade mineral generation	NA	nil	nil
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	no such proposal	nil	nil
3j	Provision of drilling and blasting in mineral benches	Yes	Yes	there is provision of drilling and blasting in mineral benches

3k	Provision of mining machineries in mineral benches	HEMM	HEMM	nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes	6m. maximum bench height is kept and suitable for mining in mineral and overburden.
3m	Total area covered under excavation/pits	total area covered : 212.64 ha. (including backfilled area)	197.53 ha (including backfilled area)	nil
3n	Ore to OB ratio for the pit/mine during the year.	1 : 1.47	1 : 1.96	nil
3o	Total area put in use under different heads at the end of year	213.8 ha	198.69 ha	nil
3p	Production of ROM mineral during the last five year period as applicable	2018-19: 324528 T 2019-20: 324629 T 2020-21: 324768 T 2021-22: 324798 T 2022-23: 300107.45 T	2018-19: 322340 T 2019-20: 268725 T 2020-21: 223208 T 2021-22: 252277 T 2022-23: 270665 T	nil
3q	General remarks of inspecting officers on method of mining etc.	-	-	Method of mining is opencast. Drilling blasting is in proposal as well as deployment of HEMM

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	no such proposal	topsoil is used for reclamation of the backfilled quarry	topsoil is used for reclamation of the backfilled quarry

4b	Location of topsoil, OB and mineral reject dumps	no such proposal	nil	nil
4c	Number of dumps within lease area and outside of lease area	no such proposal	nil	nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	no such proposal	nil	nil
4e	Number of active and alive dumps.	NIL	nil	there is not active or alive dump at mine
4f	Number of dead dumps.	NIL	nil	there is no dead dump at mine.
4g	Number of dumps established.	NIL	nil	nil
4h	Whether Retaining wall or garland drain all along dumps are there.	no such proposal	nil	nil
4i	Length of Retaining wall or garland drain all along dumps	no such proposal	nil	nil
4j	Number of settling ponds	NIL	nil	nil
4k	Specific comments of inspecting officer on waste dump management	-	-	Concurrent backfilling of mined out area is in proposal. soil is used for reclamation of the backfilled quarry

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.	full extraction before backfilling	full extraction before backfilling	nil
5b	Area under backfilling of mined out area	5.85 ha.	7.18 ha. (including backlog areas)	nil

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Concurrent use of topsoil	Concurrent use of topsoil	nil
5d	Total area fully reclaimed and rehabilitated	170.99 ha	170.27 ha.	nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	Backfilling is done after full extraction of mineral.

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	yes	nil
6b	Area available for rehabilitation (ha) .	3.22 ha	3.27 ha	nil
6c	afforestation done (ha).	1 Ha.	3.27 Ha.	nil
6d	No. of saplings planted during the year	2500 nos	7970 nos	nil
6e	Cumulative no .of plants	46040 nos	51510 nos	nil
6f	Any other method of rehabilitation	no specific proposal	nil	nil
6g	Cost incurred on watch and care during the year	Rs.337500 (for plantation only)	Rs. 7,80,032.00 (overall expenses)	nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	5.85 ha.	7.18 ha.	nil

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	352942 cum	530621 cum (including top soil)	nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	2500 nos	7970 nos	nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	no such proposal	nil	nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	no other proposal	nil	nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	no such proposal on waste land	nil	nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	no such proposal on waste land	nil	nil
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	no such proposal on waste land	nil	nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Environmental monitoring in core zone & buffer zone	Environmental monitoring of Air, Noise & Water in core & buffer zones are done	nil

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	Concurrent backfilling of mined out area is in proposal as well as in practice.
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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 such proposal	nil	nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No such proposal	nil	nil
7c	Different grade of mineral sorted out at mines.	No such proposal	nil	nil
7d	Any beneficiation process at mines	No such proposal	nil	nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-	-	All mined out minerals are dispatched. There is no provision of grade wise mineral sorting at mine and there no beneficiation plant at mine.

Environment :

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	spreading of topsoil over backfilled area	spreading of topsoil over backfilled area	nil
8b	Concurrent use or storage of topsoil	Concurrent backfilling	Concurrent backfilling	nil

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	no such proposal	nil	nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	proposal of Concurrent backfilling	as per proposal	nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	proposal of backfilling of mined-out areas and spreading of topsoil over backfilled area for reclamation.	as per proposal	nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	-	51510 nos cumulative plantation	nil
8g	Survival rate	80%	65%	nil
8h	Water sprinkling on roads to control airborne dust	proposal of Water sprinkling on road	Water sprinkling on roads to control airborne dust	nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-	-	Top of hill (pat area) is devoid of vegetation whereas sal vegetation on slope.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Returns submitted On time	Returns submitted On time	nil

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining engineer: sri. Abhinav Mehta, Geologist: sri. Krishnendu Das	Information found to be correct	nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Already exploited and abandoned by opencast (O-C) mining: 180.31 ha, Covered under current (O-C) Workings: 10.04 ha, Reclaimed-rehabilitated: 170.27 ha, utility: 8.34 ha	Information seems to be correct.	nil
9d	Scrutiny of Annual return on afforestation	7970 nos	Information seems to be correct.	nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	nil	No reject generation during the year	nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening stock: 0T, Closing Stock: 0 T, Production: 270665 T	Information seems to be correct.	nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production: Rs.1718.29	Information seems to be correct.	nil
9h	Scrutiny of Annual return on fixed assets	Rs. 167490246	Information seems to be correct.	nil

9k	Scrutiny of Annual return on mining machineries	Shovel (1.7 cum): 1 nos, Shovel (2.1 cum): 1 nos, Shovel (1.8 cum): 3 nos, DUMPER (25 T): 16 nos, WATER TANKER (14.5 KL): 3 nos, drill (100mm): 3nos, drill (45mm): 1 nos, LOADER (1.8cum): 1nos, LOADER (0.3 cum): 1 nos, Explosive van: 2 nos, compressor (400 cum/min): 3 nos	Information seems to be correct.	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 :

(PHILLIP HAPADGARA)

Indian Bureau of Mines