

NDIAN BUREAU OF MINES
MINES CONTROL AND CONSERVATION OF MINERAL DIVISION
MCDR INSPECTION REPORT
Ranchi Regional Office

Mine file No: MCDR-MiFLOBXT/4/2022-RCH-IBM_EZ

Mine code: 07JHK12007

Date of Inspection: 11.09.2024

1.0 GENERAL

SN	Particulars	Details
1	Name of the Mine	Pakhar Bauxite Mines (115.13Ha)
2	Total Lease Area (Ha) with breakup of non-forest and forest land	Rayti Land-115.13HaForest land- Nil
3	Mine Code	07JHK12007
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/935/2011
5	Name of the lessee, Address, phone, e-mail and fax number	Hindalco Industries Limited Mines Auhura Center, First Floor, B-Wing, Mahakali Caves Road ,Worli,Maharashtra-400030 Mob – 7738368627;E-mail: prateek.kumar@adityabirla.com
6	Village	Pakhar
7	Taluka/Mandal	Kisko
8	District	Lohardaga
9	Pin-code	835302
10	State	Jharkhand
11	Post office	Kisko
12	Nearest police station	Kisko
13	Nearest Railway station	Lohardaga
14	Date of Grant of Mining Lease	19 July 1996
15	Date of Execution	19 July 1996
16	Date of opening of Mine	23 April 1996
17	Date of first Renewal, if applicable and its period & expiry	19-07-1981 to 18-07-1996
18	Date of second Renewal, if applicable and its period & expiry	Deemed renewal upto 19-07-2016. Renewal lease deed executed on 17-07-2008 upto 31-03-2030
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	07-07-1995
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Sh. A K Agrawal , M/s. Hindalco Industries Limited, Court Road, Lohardaga, Jharkhand. Fax .- 6526-224118 Phone No : 0652-6224016 Email: : ak.agarwala@adityabirla.com D.O.J:10.11.2015
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri Prateek Kumar, M/s. Hindalco Industries Ltd, Court Road, Lohardaga, Jharkhand Fax : 0652-6224118 Phone No – 06526-224016 Email:- prateek.kumar@adityabirla.com D.O.J: 04.08.2022
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri Shil Prakash Jha M/s. Hindalco Industries Limited, Court Road, Lohardaga , Jharkhand. Fax No.: 06526-224118 Phone No – 06526224016 Email :- shil.jha@adityabirla.com D.O.J : 01.11.2013
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri Shil Prakash Jha M/s. Hindalco Industries Limited, Court Road, Lohardaga , Jharkhand. Fax No.: 0652-6224118 Phone No - 06526224016 Email :- shil.jha@adityabirla.com Total Exp:- 11 years ;Qualification :- B.E Mining

SN	Particulars	Details
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes Geologist: Shri Anupam Kumar Qualification: M.Sc. In Geology; Email: anupam.kumar@adityabirla.com ;D.O.J : 04.11.2023 Mining engineer: Shil Prakash Jha Qualification :- B.E Mining;Email :- shil.jha@adityabirla.com D.O.J : 01.11.2013
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	06.05.2022
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	22.01.20
27	Mineral(s) granted in lease and proved for mining	Bauxite
28	Method of Mining (Opencast, Underground)	Opencast
29	Category (Fully Mechanised, Others or Manual)	Fully Mechanized
30	Captive/Non-Captive	Captive

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –

Exploration

SN	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	0	0	No proposal of exploratory drilling for the reporting year
1b	Exploration over lease area for Geological axis 1 or 2.	NA	NA	No proposal of exploratory drilling for the reporting year
1c	Exploration Agency & Expenditure in lakh Rupees during the year	NA	NA	No proposal of exploratory drilling for the reporting year
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	No proposal of exploratory drilling for the reporting year
1e	Balance reserves as on 01.04.2024	3179667MT	3199708 MT	As per furnished records.
1f	General remarks of inspecting officer on geology, exploration etc.	No proposal of exploratory drilling for the reporting year. However submitted surface geological plan and sections submitted to this office was not correct.		

2.0 DEVELOPMENT

SN	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	1. Quarry – 07 (N2606569-N2606820 E256841-E257080 2. Quarry – 06 N2605945-N2066384 E256638-E256776	1. Quarry – 07 N2606569-N2606820 E256841-E257080 2. Quarry - 06 N2605945-N2066384 E256638-E256776	Within the envisaged proposal
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Yes; Soil – 1Benches; (mRL- 1068 mrl) Laterite – 2 Benches (mRL:1066.86 & 1054.34) Bauxite – 2 Benches (mRL 1054.34 & 1052.83)	Yes; Soil – 1Benches; (mRL- 1068 mrl) Laterite – 2 Benches (mRL:1066.86 & 1054.34) Bauxite – 2 Benches (mRL 1054.34 & 1052.83)	Within the envisaged proposal
2c	Stripping ratio or ore to OB ratio	0.67 : 1	0.32 : 1	Within the envisaged proposal
2d	Quantity of topsoil generation in m ³	191804	166200	Less generation of topsoil
2e	Quantity of overburden generation in m ³	255204	900397.27	Total O.B 1066597.27 including top soil
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.			

2.0 EXPLOITATION

SN	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	2	2	Within the envisaged proposal
3b	Quantity of ROM mineral production proposed	298789	278257.200	Less generation of ROM mineral.
3c	Recovery of saleable/usable mineral from ROM production	70%	70%	Within the envisaged proposal
3d	Quantity of mineral reject generation	Nil	Nil	The Stock placed in the mine is not positioned as recommended in the approved mining plan document. The stock generated is randomly distributed in quarry-6 and Quarry-7
3e	Grade of mineral reject generation and threshold value declared	Threshold value Al ₂ O ₃ % : 30% & SiO ₂ %=<7%	Threshold value Al ₂ O ₃ % : 30% & SiO ₂ %=<7%	Within the envisaged proposal
3f	Quantity of sub-grade mineral generation	Nil	Nil	Within the envisaged proposal
3g	Grade of sub-grade mineral generation	Nil	Nil	Within the envisaged proposal
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	Stock position in mine is not as per the approved document. The stock is randomly distributed at Quarry-6 and Quarry-7. Not satisfactory.
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No Sub-grade Generation	Nil	Within the envisaged proposal
3j	Provision of drilling & blasting in mineral benches	Spacing: 2.5 m Burden: - 3m	Spacing: 2.5 m Burden: - 3m	Within the envisaged proposal.
3k	Provision of mining machineries in mineral benches	Shovel (0.9 m ³) & Dumper (25T) Combination	Shovel (0.9 m ³) & Dumper (25T) Combination	As per approved RoMP & found satisfactory.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench Height- 6 m	Height of benches suitable for method of mining as proposed in mining plan, Bench Height- 6 m	Bench parameter has not been maintained as per approved mining plan in Quarry-6.
3m	Total area covered under excavation/ pits	Total Area: 3.92 ha Quarry-7: 2.22 Ha Quarry-6: 1.70 Ha.	Total Area: 3.92 ha Quarry-7: 2.22 Ha Quarry-6: 1.70 Ha.	Within the envisaged proposal
3n	Ore to OB ratio for the pit/mine during the year	1: 1.52 T/m ³	1:3.91 T/m ³	Within the envisaged proposal
3o	Total area put in use under different heads at the end of year	Pit: 9.01 ha Infrastructure: 0.960 ha Total: 48.92 ha	Pit: 4.97 Ha Infrastructure: 0.960 ha Total: 51.15 ha	
3p	Production of ROM mineral during last five-year period, as applicable	2019-2020 - 298335 2020-2021 - 298335 2021-2022 - 298453 2022-2023 - 298620 2023-2024 - 298789	2019-2020 - 112200 2020-2021 - 112200 2021-2022 - 177500 2022-2023 - 195000 2023-2024 - 278257.20	Within the proposal. As on 31.08.24 85152.80 MT

3q	General remarks of inspecting officer on method of mining etc.	
----	--	--

4.0 SOLID WASTE MANAGEMENT-DUMPING

SN	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Not Proposed	Nil	Within the envisaged proposal
4b	Location of topsoil, OB & mineral reject dumps	OB Dump 1. Quarry-6 N2605945-N2066384 E256638-E256776	Removed.	Dump has been removed from the allocated place which is not as per approved mining plan. Not satisfactory.
4c	Number of dumps within lease area and outside lease area	Nil	Nil	Within the envisaged proposal
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Nil	Nil	Within the envisaged proposal
4e	Number of active & alive dumps	Nil	N 2606731 - N 2606743 E 256709 - E 256773	One temporary soil dump is available which will be used for reclamation Purpose
4f	Number of dead dumps	Nil	Nil	Dump located at Quarry-6 (N2605945-N2066384; E256638-E256776) has been removed from its location.
4g	Number of dumps stabilised	Nil	Nil	Within the envisaged proposal
4h	Whether Retaining wall or garland drain all along dumps	Nil	Nil	Within the envisaged proposal
4i	Length of Retaining wall or garland drain all along dump	Nil	Nil	Within the envisaged proposal
4j	Number of settling ponds	Nil	Nil	Within the envisaged proposal
4k	Specific comments of inspecting officer			

5.0 SOLID WASTE MANAGEMENT-BACKFILLING

SN	Item	Proposals	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	1. Backfilling Area : Quarry-6 N2605945-N2066384 E256638-E256776 2. Backfilling Area: Quarry -7 N2606569-N2606820 E256841-E257080 Total Production of Mineral : 298789	1. Backfilling Area : Quarry-6 N2605945-N2066384 E256638-E256776 2. Backfilling Area: Quarry -7 N2606569-N2606820 E256841-E257080 Total Production of Mineral : 278257.200MT	Within the envisaged proposal
5b	Area under backfilling of mined out area	3.93 Ha.	3.81 Ha.	Status as on 31.08.24
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Concurrent use proposed	Concurrent use done	1, 66,200 m ³ of topsoil utilised in plantation.
5d	Total area fully reclaimed & rehabilitated	3.93 Ha.	3.81 Ha.	Status as on 31.08.24. Afforestation did over 3.81 ha by plantation of over 5144 saplings.
5e	General remarks of inspecting officer on backfilling, reclamation etc	.		

6.0 PROGRESSIVE MINE CLOSURE PLAN

SN	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23E (2). Details should be given in the format as given in Annexure-20.	To be submitted by 30 th June	Yes, submitted along with Annual Return on 29 th June 2024	As per Rule.
6b	Management of worked/mined out benches. i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	i) 3.93 Ha. ii) 0.779 Ha. iii) 1950 iv) 0.00 v) Plantation vi) NA.	i) 3.81 ha. ii) 0.779 Ha. iii) 5144 iv) 33790 v) Plantation vi) ₹ 320648.00	Status as on 31.08.24.
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	i) Voids available for backfilling:Quarry-7: $82*271.78*19.2.m=4,27,890.432$ ii) Void filled by waste/tailings: Quarry-6: : 205091 m ³ iii) 3.93 ha iv) NA v) NA Total Backfill area:3.93 ha Backfilling volume: 447008 m ³	i) Voids available for backfilling: Quarry-7: $82*271.78*19.2.m=4,27,890.432$ ii) Void filled by waste/tailings: Quarry-6: 205091 m ³ iii) 3.81 ha iv) NA v) NA Total Backfill area: 3.81 ha Backfilled volume: 1066597.27 m ³	Within the envisaged proposal
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i) 1950 Nos ii) 3.93 ha iii) Plantation	i) .5144 Nos ii) 3.81 ha iii) Plantation	Within the envisaged proposal

SN	Item	Proposals	Actual work	Remarks
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Air quality monitoring: Monthly reporting Surface Water quality monitoring: Half yearly reporting Noise survey: Half yearly reporting	Air quality monitoring: Monthly reporting Surface Water quality monitoring: Half yearly reporting Noise survey: Half yearly reporting	Within the envisaged proposal
6f	General remarks of inspecting officer on PMCP compliance & progressive			

7.0 MINERAL CONSERVATION

SN	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	2,98,789 T	278257.20	Within the approved proposal.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	No grade wise sorting is proposed. Size-wise manual sorting proposed.	No grade wise sorting is proposed. Size-wise manual sorting proposed.	Within the approved proposal.
7c	Different grade of mineral sorted out at mines	Not Applicable	Not Applicable	Within the envisaged proposal
7d	Any beneficiation process at mines	Nil	Nil	Within the envisaged proposal
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues			

8.0 ENVIRONMENT

SN	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes, 1,91,804 m ³ Separate removal and concurrently spread over back filled area.	Yes, 1,66,200 m ³ Separate removal and concurrently spread over back filled area.	
8b	Concurrent use or storage of topsoil	Continuous Spreading over backfilled area Proposed 1. Quarry-6 N2605945-N2066384 E256638-E256776 2. Quarry -7 N2606569-N2606820 E256841-E257080	Continuous Spreading over backfilled area Quarry-6 N2605945-N2066384 E256638-E256776 Quarry -7 N2606569-N2606820 E256841-E257080	166200 m ³ of topsoil was utilized in concurrent backfilling & plantation.
8c	Separate dumps for overburden, waste rock, reject and fines (Rule 33)	Nil	Nil	Within the envisaged proposal
8d	Use of overburden, waste rock, reject and fines dumps for restoring the land to its original use	Concurrent Back Filling	Concurrent Back Filling	Within the envisaged proposal
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Reclamation- 3.93Ha Quarry-6 N2605945-N2066384 E256638-E256776 Quarry -7 N2606569-N2606820 E256841-E257080	Reclamation- 3.93Ha Quarry-6 Partially done Quarry -7 Partially Done	Reclamation activity as envisaged in approved mining plan has not been completed for the reporting year of 2023-24.

8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Area proposed for plantation: : 3.93 ha No. of saplings to be planted: 4800	Area under plantation: 3.81ha No. of saplings planted: 5144.	Previous Area under plantation: 0.710Ha Previous No. of plants within the lease area: 3478 Cumulative area under plantation: 28.410 ha Cumulative no. Of plants within the lease: 33790
8g	Survival rate	70%	70%	Satisfactory work done
8h	Water sprinkling on roads to control airborne dust	Regular sprinkling with water tanker	Regular sprinkling with water tanker	As per the approved Proposal
8i	General remarks of inspecting officer on aesthetic beauty in and around mines	Poor haul roads condition was observed during course of inspection wherein the plying dumpers were moving in the high-risk conditions. These in turn gross violations of Rule 11(1).		

9.0 COMPLIANCE OF RULE 45

SN	Item	COMMENTS		Remarks
9a	Status of submission of Monthly and Annual returns	Monthly Return submitted up to: Aug2024 Annual Return :submitted		
SN	Item	Details given in A.R.	Observation of I/O	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: Mr. Shil Prakash Jha Geologist: Mr. Anupam Kumar Manager: Mr. Shil Prakash Jha	Mining Engineer: Mr. Shil Prakash Jha Geologist: Mr. Anupam Kumar Manager: Mr. Shil Prakash Jha	Found ok with records.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit: 22.790 ha Infrastructure: 0.960 ha Reclaimed & Rehabilitated: 28.410 Abandoned: 51.150 PMCP Area: 3.930 Total: 107.24 ha	Pit: 22.790 ha Infrastructure: 0.960 ha Reclaimed & Rehabilitated: 28.410 Abandoned: 51.150 PMCP Area: 3.930 Total: 107.24 ha	Found ok with records.
9d	Scrutiny of Annual return on afforestation	WML: 5144 Nos. Area: 3.00 ha.	WML: 5144 Nos. Area: 3.00 ha.	Found ok with records.
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Nil	Nil	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening Stock- 17575.14 Production- 278257.2 Closing Stock- 55390 T Products: Al₂O₃ : 40% to 45%	Opening Stock- 17575.14 Production- 278257.2 Closing Stock- 55390 T Products: Al₂O₃ : 40% to 45%	Found ok with records.
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex-mine price: ₹ 1668.45	Ex-mine price: ₹ 1668.45	Found ok with records.
9i	Scrutiny of Annual return on fixed assets	₹ 35978177	Verified from the asset register and found correct.	Certified by Chartered Accountant
9k	Scrutiny of Annual return on mining machineries	1.Shovel- 4 2. Dumper-12 3.Rock Drill-3 4. Loader -1 5. Dozer-0 6. Grader-0 7. Water Tanker-1	1.Shovel- 4 2. Dumper-12 3.Rock Drill- 3 4. Loader -1 5. Dozer-0 6. Grader-0 7. Water Tanker-1	Found ok with records.

10 - Details of violations observed during current inspection and compliance position of earlier violation pointed out: -

1. Earlier pointed out violation:

a. Rule 11(1) and Rule 34(A) dated 8.9.24: complied.

2. Violation pointed out in the current inspection are as under:

1) Rule 11(1):

- a. The Stock placed in the mine is not positioned as recommended in the approved mining plan document. The stock generated is randomly distributed in quarry-6 and Quarry-7.
- b. Dump located at Quarry-6 (N2605945-N2066384; E256638-E256776) has been removed from its location. However no such proposal was envisaged in the approved mining plan document.
- c. Surface geological plan and section submitted to this office was found incorrect. The development and reclamation position has been wrongly shown in Quarry-6 and Quarry-7.
- d. Poor haul roads condition was observed during course of inspection wherein the plying dumpers were moving in the high-risk conditions. These in turn gross violations of Rule 11(1).
- e. Reclamation activity as envisaged in approved mining plan has not been completed for the reporting year of 2023-24.

(Vikas Kumar),
Asst. Controller of Mines,
Indian Bureau of Mines- Ranchi