

MCDR INSPECTION REPORT FOR THE PERIOD OF 2023-24

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| 1) Name of Inspecting officer: | Shri Vikrant Khedikar |
| 2) Designation | Senior Assistant controller of mines |
| 3) Accompanying mine official with designation | Shri Rajesh Ranjan Ambastha – G.M-Mines Shri Tapas Kr. Gachhayat – AGM- Geology Shri Gauri Shankar Prasad- Assistant Manager-Geology |
| 4) Date of Inspection | 05/09/2024 |

| Sl. No | Particulars | Details |
|--------|--|--|
| 1. | Name of the Mines | Bagru Bauxite Mine |
| 2 | Total Lease Area (Ha) with breakup of Non-forest and forest land | Forest – 19.56 Ha Non- Forest 55.85 Ha |
| 3. | Mine code | 07BHR33003 |
| 4 | IBM Registration Number under rule 45 of MCDR, 1988 | IBM/935/2011 |
| 5 | Name of the lessee, Address, Phone, email and fax number | Hindalco Industries Limited. Court Road, Lohardaga, Jharkhand. Pin - 835302, Phone — 06525 224112, Fax-224118 |
| 6 | Village | Bagru |
| 7 | Taluka/Mandal | Kisko |
| 8 | District | Lohardaga |
| 9 | Pin code | 835302 |
| 10 | State | Jharkhand |
| 11 | Post Office | Lohardaga |
| 12 | Nearest Police Station | Bagru |
| 13 | Nearest Railway station | Lohardaga |
| 14 | Date of Grant of Mining Lease | 22.01.44 |
| 15 | Date of Execution | 22.01.44 |
| 16 | Date of Opening of Mine | 22.01.44 |
| 17 | Date of First Renewal, if applicable and its period & expiry | 1944 for 30 years |
| 18 | Date of second Renewal, if applicable and its period & expiry | 20.01.2003 |
| 19 | Date of submission of renewal application if Mining operations are continuing under deemed extension | 18.03.2017 up to 31.03.2030 |
| 20 | Name of the Nominated Owner with Address, phone, email ,fax number and date of appointment | Shri A.K. Agarwala (10.11.2015), M/S Hindalco industries ltd, PO-Renukoot, Dist- Sonbhadra,U.P |

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| 21 | Name of the Mine Agent with Address, phone email, fax number and date appointment in mines. | Shri Prateek Kumar, M/S Hindalco Industries Ltd, court road, Lohardaga, Jharkhand |
| 22 | Name of the Mines Manager with Address, Phone, email, fax number and date of appointment | Shri Raj Kumar Sinha, M/S Hindalco Industries Ltd, court Road, Lohardaga, Jharkhand. |
| 23 | Name of the mining engineer, qualification and total experience with Address, phone, email, fax number and date of appointment in Mines. | Shri Vidya Sagar Singh (B.Tech- Mining) |
| 24 | Whether Geologist and Mining Engineer appointed in Mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44. | Shri Gauri Shankar Prasad (M.sc-Geology) |
| 25 | Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any. | 1. RAN/LOH/BX/MP-25/2018-19 dated 14/02/2019 from 01/04/2019 to 31/03/2024 |
| 26 | Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any. | 1. 314(3)/2004 MCCM (CZ)/MP-19 dated 03/05/2005 from 01/04/2004 to 31/03/2009 2. 314(3)/2010 MCCM (CZ)/MP-17 dated 09/11/2010 from 01/04/2004 to 31/03/2009, modified MP. 3. 314(3)/2011 MCCM (CZ)/MS-20 dated 21/12/2011 from 01/04/2009 to 31/03/2014. 4. RAN/LOH/BX/MP-05/ 2014-15 dated 16/04/2015 from 01/04/2014 to 31/03/2019. |
| 27 | Mineral(s) granted in lease and proved for mining | Bauxite |
| 28 | Method of Mining(Open cast, Underground) | Open cast |
| 29 | Category (Fully Mechanized, Others or Manual) | Fully Mechanized |
| 30 | Captive/Non Captive | Captive |

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. (Duplication of information in existing TMIS data sheets and draft write up has been avoided.)

| Sr.NO | Item | Proposals (2023-24) | Actual work (2023-24) | Remarks |
|-------|---|---------------------|-----------------------|---------------------|
| 1a | Backlog of previous year | NIL | NIL | |
| 1b | Exploration over lease area for Geological axis 1 or 2. | NIL | NIL | Total Area Explored |

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|----|--|-----|---|---|
| 1c | Exploration Agency & Expenditure in lakh Rupee during the year | NIL | NIL | Nil |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | NIL | NIL | Nil |
| 1e | Balance reserves as on 01.04.2024 | | 111-433511 Tons 111 (sub-grade) – 11080 tons. | Mine is not in operation due to forest clearance |
| 1f | General remarks of inspecting officer on geology, exploration etc. | | | Mine is not in operation due to forest clearance |

Development

| Sl.No | Item | Proposals (2023-24) | Actual work(2023-24) | Remarks |
|-------|--|--|----------------------|---|
| 2a | Location of development w.r.t lease area | Pit No-1 Pit No-2 23deg 29.11 min 96 sec N 84 deg 35.56 min 56.01 sec | Nil | Mine is not in operation due to forest clearance |
| 2b | Separate benches in top soil, overburden and mineral (Rule 15) | Soil- 1 H- 6mtr O.B – 2 H- 6mtr Ore -2 H-6mtr | Nil | |
| 2c | Stripping ratio or ore to OB ratio | 1:1.95 | 0.00 | |
| 2d | Quantity of topsoil generation in m ³ | 104043m ³ | 0.00m ³ | |
| 2e | Quantity of overburden generation in m ³ | 157605m ³ | 0.00m ³ | |
| 2f | General remarks of inspecting officer on development etc. | | | Mine is not in operation due to forest clearance |

Exploitation

| Sr.NO | Item | Proposal(2023-24) | Actual Work(2023-24) | Remarks |
|-------|---|-------------------|----------------------|--|
| 3a | Number of pits proposal for production | 2 | Nil | Mine is not in operation due to forest clearance |
| 3b | Quantity of ROM mineral production proposed | 80828 Tons | 0 | |
| 3c | Recovery of salable/usable mineral from ROM production | 100% | 0 | |
| 3d | Quantity of mineral reject generation | 4468(Tonne) | 0 | |
| 3e | Grade of mineral reject generation and threshold value declared | Nil | Nil | |
| 3f | Quantity of sub-grade mineral generation | Nil | Nil | |
| 3g | Grade of sub-grade mineral generation | Nil | Nil | |

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|----|--|---|---|---|
| 3h | Manual/Mechanized method adopted for segregating from ROM | Mechanized (shovel Dumper Air Compressor Crusher Crusher) | Nil | |
| 3i | Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject | Nil | Nil | |
| 3j | Provision of drilling & blasting in mineral benches | Regulation 106(2)(b), 100 mm dia drilled by Crawler Mounted Drill | Nil | |
| 3k | Provision of mining machineries in mineral benches | Shovel-dumper combination | Nil | |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | Yes | Nil | |
| 3m | Total area covered under excavation/pits | Mining – 24.65 ha | Nil | Mine is not in operation due to forest clearance |
| 3n | Ore to OB ratio for the pit/mine during the year | 1:1.95 | Nil | Mine is not in operation due to forest clearance |
| 3o | Total area put in use under different heads at the end of year | Mining –28.50 Ha Waste Dump - Nil Mineral Beneficiation Plant - Nil Mineral Storage -Nil Tailing Pond - Nil Roads, Conveyors, pipeline, electric line - 2.62 Ha Infrastructure -0.61 Ha Township Topsoil - Nil Effluent Treatment Plant - Nil Others (Magazine, Rainwater harvesting, Back Filling Area1) - Nil Green Belt - 2.02 Ha | Mining – 24.65 Ha Waste Dump - Nil Mineral Beneficiation Plant -Nil Mineral Storage -Nil Tailing Pond -Nil Roads, Conveyors, pipeline, electric line – 2.62 Ha Infrastructure -0.61 Ha Township - Nil Topsoil Effluent Treatment Plant - Nil Others (Magazine, Rainwater harvesting, Back Filling Area-1) - Nil Green Belt - Nil | Mine is not in operation due to forest clearance |
| 3p | Production of ROM mineral during last five-year period, as applicable | 2019-20 81166 MT 2020-21 81506 MT 2021-22 80330MT 2022-23 76242 MT 2023-24 80828 MT | 2019-20 0 MT 2020-21 0 MT 2021-22 0 MT 2022-23 0 MT 2023-24 0 MT | |
| 3q | General remarks of inspecting officer on method of mining etc. | | | Mine is not in operation due to forest clearance |

Solid Waste Management-Dumping

| Sl. No | Item | Proposal(2023-24) | Actual Work(2023-24) | Remarks |
|--------|---|--|----------------------|--|
| 4a. | Separate dumping of topsoil, OB & mineral reject (Rule 32,33) | Concurrent backfilling. First by Overburden and then by Topsoil. | Nil | Mine is not in operation due to forest clearance |

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|----|--|---|-----|---|
| 4b | Location of topsoil, & OB & mineral reject dumps (Give coordinates with mRL) | Concurrent backfilling. First by Overburden and then by Topsoil. Mineral reject to be blended with high grade ore, for captive consumption at alumna plant at Muri. | Nil | Mine is not in operation due to forest clearance |
| 4c | Number of dumps within lease area and outside lease area | Nil | Nil | Mine is not in operation due to forest clearance |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | NIL | Nil | |
| 4e | Number of active & alive dumps | 1 | Nil | |
| 4f | Number of dead dumps | Nil | Nil | |
| 4g | Number of dumps stabilized | Nil | Nil | |
| 4h | Whether Retaining wall or garland drain all along dumps are there | Nil | Nil | |
| 4i | Length of Retaining wall or garland drain all along dump | Nil | Nil | |
| 4j | Number of settling ponds | 0 | 0 | |
| 4k | Specific comments of inspecting officer on waste dump management | | | Mine is not in operation due to forest clearance |

Solid Waste Management-Backfilling

| Sr.NO | Item | Proposal (2023-24) | Actual Work(2023-24) | Remarks |
|-------|--|--|----------------------|---|
| 5a | Status on part or full extraction of mineral from mined out area before starting backfilling | Low / sub grade minerals will be hand sorted and suitably blended to ensure metal grade requirement of plant. Bulk sampling and chemical analysis to prevent mixing with waste | Nil | Mine is not in operation due to forest clearance |
| 5b | Area under backfilling of mined out area | 2.02 Ha | 0.0 Ha | |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32) | Yes | Nil | |
| 5d | Total area fully reclaimed & rehabilitated | 2.02 Ha | Nil | |
| 5e | General remarks of inspecting officer on backfilling, reclamation etc. | | | Mine is not in operation due to forest clearance |

Progressive Mine Closure Plan

| Sr.NO | Item | Proposal (2023-24) | Actual Work (2023-24) | Remarks |
|-------|--|--------------------|-----------------------|---|
| 6a | Whether Annual report on PMCP submitted on time and correctly-Rule 23 E (2). Details should be given in the format as given in Annexure-20 | Yes | Yes | Reclaimed and rehabilitated (Lease area utilization) – 32.050 Ha) |

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|----|--|--|--------|---|
| 6b | Management of worked/mined out benches | NIL | NIL | Mine is not in operation due to forest clearance |
| | i) Area available for rehabilitation (ha) | 2.02ha | 0.0 Ha | |
| | ii) Afforestation done (ha) | 2.02 ha | 0.0 Ha | |
| | iii) No. of sapling planted during the year | 5050 | 0.00 | |
| | iv) Cumulative no. of plants | Nil | 129608 | |
| | v) Any other specific method of rehabilitation | Nil | Nil | |
| | vi) Cost incurred on watch & care during the year | Nil | NIL | |
| 6c | Compliance on reclamation and rehabilitation by back filling | 2.02 ha | Nil | Mine is not in operation due to forest clearance |
| | i) Voids available for backfilling (LxBxD) | 50mx38mx12m | Nil | |
| | ii) Void filled by waste/tailings | 50mX38mX12m | Nil | |
| | iii) Afforestation on the backfilled area | 2.02 ha | Nil | |
| | iv) Rehabilitation by making water reservoir | Nil | Nil | |
| | v) Any other specific means | Nil | Nil | |
| 6d | Compliance of Rehabilitation of waste land within lease | | | Mine is not in operation due to forest clearance |
| | i) Afforestation | 5050 Nos | Nil | |
| | ii) Area rehabilitated (ha) | 2.02 ha | Nil | |
| | iii) Method of rehabilitation | Backfilling with waste and soil and then with plantation | Nil | |
| 6e | Compliance of Environmental monitoring (core zone & buffer zone) | Air – Monthly Water, Noise – 6 Monthly | Nil | Mine is not in operation due to forest clearance |
| 6f | General remarks of inspecting & progressive closure operations. | | | Mine is not in operation due to forest clearance |

Mineral Conservation

| Sr.NO | Item | Proposal(2023-24) | Actual Work(2023-24) | Remarks |
|-------|--|---|----------------------|---|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | Low grade or / sub grade after screening simultaneously blend with high grade | NIL | Mine is not in operation due to forest clearance |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical | Manual as well as mechanical. | NIL | |
| 7c | Different grade of mineral sorted out at mines | Al ₂ O ₃ range +40% SiO ₂ -40% | NIL | |
| 7d | Any beneficiation process at mines | Crushing is proposed | NIL | |
| 7e | General remarks of inspecting officer on Mineral conservation & beneficiation issues | | | Mine is not in operation due to forest clearance |

Environment

| Sr.NO | Item | Proposal(2023-24) | Actual Work(2023-24) | Remarks |
|-------|---|---|----------------------|---|
| 8a | Separate removal and utilization of topsoil (Rule 32) | Concurrent backfilling over excavated pit. 104043m ³ | Nil | Mine is not in operation due to forest clearance |
| 8b | Concurrent use or storage of topsoil | Yes | NIL | |
| 8c | Separate dumps for overburden, waste rock rejects and fines (Rule 33) | Concurrent backfilling over excavated pit. | NIL | |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | Concurrent backfilling over excavated pit. | NIL | Mine is not in operation due to forest clearance |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | After backfilling reclamation is proposed 2.02 Ha | Nil | |
| 8f | Baseline information on existence of plantation & additional plantation done (Rule 42) | 5050 Sapling | Nil | Mine is not in operation due to forest clearance |
| 8g | Survival rate | 80% | Nil | |
| 8h | Water sprinkling on roads to control airborne dust | Regular sprinkling with Water tanker | Nil | Mine is not in operation due to forest clearance |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area. | | | Mine is not in operation due to forest clearance |

Compliance of Rule 45

| Sr.NO | Item | COMMENTS | | Remarks |
|--------|--|----------|--|-----------------------|
| 9a | Status of submission of Monthly and Annual returns | | | Submitted within time |
| Sl.No. | Item | | | Remarks |

| | | | | |
|----|---|---|---|---|
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Mining Eng- Vidya Sagar Singh Geologist- Gauri Shankar Prasad Manager- Raj Kumar Sinha | | |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | | 46.050 ha | |
| 9d | Scrutiny of Annual return on Afforestation | 2.02Ha 5050 Plants was proposed | Nil | |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade & Quantity) | Nil | Nil | Mine is not in operation due to forest clearance |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | 9263.760Tone(Closing Stock) | 9263.760 Tone(Closing Stock) | As on date 1.04.2024 |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price & production cost. | | Ex-Mine Price-0.00 | Mine is not in operation due to forest clearance |
| 9h | Scrutiny of Annual return on fixed assets | (a) Industrial Building: Rs. 22408661/ (b) Residential Building: Rs. 1105512/ (c) Plant and Machinery including transport equipment - Rs. 130795673/ (d) Capitalized Expenditure such as exploration, development, major overhaul and repair to machinery etc. - Rs. 38657689/ | Total - 192967535/- | |
| 9i | Scrutiny of Annual return on mining machineries | Air Compressor - 1 no. capacity - 450.00 cum/min. - Electrical. | Air Compressor - 1 no. capacity - 450.00 cum/min. - Electrical. | Mine is not in operation due to forest clearance |

Details of violations observed during current inspection and compliance position of earlier violation pointed –

Date: - 21/10/2024

Vikrant M. Khedikar
Sr. Assistant Controller of Mines
Indian Bureau of Mines, Ranchi
(Name of inspecting officer with designation and date)