

MCDR Inspection Report 2023-24**General:**

Sl .No.	Particulars	Details
1	Name of the Mine	Kudag Bauxite Mine
2	Date of Inspection:	09/12/2024
3	Name of Inspecting Officer	Prasant Kumar Sahu, Assistant Controller of Mines
4	Name of official accompanying inspection	Mr. Amit Kumar Tiwari (Mines Manager) Mrs. Doyel Mukherjee (Geologist)
5	Last date of Inspection & Officer	18.10.2023 Debadurllav Dash, RMG
6	Total Lease Area (Ha) with breakup of Non-forest and forest land	377.116 Ha Under Non-forest-253.007 Ha Under forest-124.109 Ha
7	Mine code	07MPR42004
8	IBM Registration Number under rule 45 of MCDR, 1988/2017	IBM/935/2011
9	Name of the Lessee, Address, Phone, email and fax number	M/s Hindalco Industries Limited, Ahura Center ,1st Floor,B-Wing, Mahakali Caves Road, Andheri (East), Mumbai400093, Maharashtra, Ph. No- 02266525000 Email- prateek.kumar@adityabirla.com
10	Village	Kudag
11	Taluka/Mandal	Samri
12	District	Balrampur
13	Pin code	497224
14	State	Chhattisgarh
15	Post Office	Samripat
16	Nearest Police Station	Samri
17	Nearest Railway Station	Ambikapur
18	Date of Grant of Mining Lease	23/10/1996
19	Date of Execution	24/12/1996
20	Weekly day of rest	Sunday
21	Date of opening of Mine	02/07/1997
22	Date of First Renewal, if applicable and its period & expiry	Not Applicable However, as per Section 8A of MMDR, Amendment Act, 2015, validity of the lease period extended up to 50 years i.e. 23/12/2046
23	Date of Second Renewal, if applicable and its period & expiry	Not Applicable
24	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Not Applicable
25	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri K. N. Bhandari, Nominated Owner, M/s Hindalco Industries Limited, Ahura Centre, 1st Floor, B-Wing, Mahakali Caves Road, Andheri (East),

		Mumbai 400093 Email-knbhandari1942@gmail.com Date of Appointment –10.11.2011
26	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Sanjay Pardhi Hindalco Colony, Post -Kusmi, District-Balrampur, Pin-497224 Mob-07752021170 Date of Appointment – 01.09.2023 Email-sanjay.pardhi@adityabirla.com
27	Name of the Mine Manager with Address, phone, email, fax number and date of appointment in mines	Amit Kumar Tiwari Hindalco Colony, Post -Kusmi, District-Balrampur, Pin-497224 Mob- 0917771007150 Date of Appointment -24.11.15 Total Experience: 17 Years Email- Amit.t@adityabirla.com
28	Name of the Mining Engineer, Qualification and total experience with address, phone, email, fax number and date of appointment in the mine	Shri Ashutosh Behera B. Tech Mining Hindalco Colony, Post -Kusmi, District- Balrampur, Pin-497224 Mob- 9522234442 Date of Appointment –01.04.2022 Total Experience: 11 Years Email-Ashutosh.behera@adityabirla.com
29	Whether Geologist and Mining Engineer appointment in mines satisfy the rule 55 & carrying out their duties as per rule 56 & 57.	Yes Doyal Mukherjee, Hindalco Colony, Post -Kusmi, District-Balrampur, Pin-497224 Qualification: M. Sc in Applied Geology Total Experience 5 years.
30	Date of Approval of Mine Plan/Modified Mine Plan with five- year period and specific condition in approval letter, if any.	Mining Plan was approved vide letter no SRG/BX/MPLN/383/NGP, dated 29.11.1994 Proposal period -1997-98 to 2001-02
31	Date of Approval of Review/Scheme of Mining/Modified Review/Scheme of Mining with five-year period and specific condition in approval letter, if any.	26.11.2021 Balrampur/Baux/Khayo-1295/2021-Raipur Proposal period -2022-23 to 2026-27
32	Mineral(s) granted in lease and approved for Mining	Bauxite
33	Method of Mining (Opencast, Underground)	Open cast
34	Category (Fully Mechanized, Others or Manual)	Semi-mechanised
35	Captive/Non-Captive	Captive
36	Present EC Status	60000 Tonne Approval Date: 27.07.2007
37	Status of Financial Assurance (Amount and Validity)	Rs-1,03,35,000/- Valid up to 31 st March 2028

Scientific Mining: Compliance of proposals of approved Mining Plan/Review of Mining Plan:

1.0 Exploration:

S.N.	Item	Proposals (2023-24)	Actual (2023-24)	Remarks
1a	Backlog of previous year proposals	Nil	Nil	
1b	Exploration over lease area for Geological axis 1 or 2.	Proposed boreholes: 106 Proposed meterage: 1272	Actual boreholes: 109 Actual meterage: 1183	As per proposal
1c	Exploration Agency & Expenditure in Lakh Rupees during the year	Not specified	Expenditure- Rs. 3,19,316/- Agency- Hindalco Industries Ltd.	As shown during inspection
1d	Balance area to be explored to bring Geological axis in 1 or 2.	No Proposal	Nil	After carried out the exploration as proposed in year 2022-23 and 2023-24, the area covered in different level of exploration as: G1-261.61 Ha G2- 40.426Ha Area to be explored – 0.00 Ha Area proved as Non-mineralized- 75.08 Ha
1e	Balance reserves as on 01.04.2024 (in Million Tonnes)	Under 111- 0.76 Million Tonnes Under 122- 1.368 Million Tonnes		As per information submitted in Annual Return 2023-24
1f	General remarks of Inspecting officer on geology, exploration etc.	During FY 2023-24, 109 boreholes were drilled against 106 proposed boreholes with a grid interval of 50x50m with a total meterage of 1183 m. Remaining area under G-2 to be explored in detail to bring the entire potential mineralized area under G-1 level of exploration.		

2.0 Development:

S. N.	Item	Proposals (2023-24)	Actual (2023-24)	Remarks
2a	Location of Development w.r.t. lease area	In between Coordinates N-2599183-2599029; E-805032-804897	Carried out within the proposed area	As per proposal

2b	Separate benches in topsoil overburden and mineral	Separate benches proposed in overburden & mineral	Separate benches were maintained in overburden & mineral	Top soil- 1 OB- 1 Bauxite- 1
2c	Stripping ratio or ore to OB ratio	1:5.34	1:0.63	Tonne:Cum Stripping ratio is on lower side due to less generation of top soil/ overburden
2d	Quantity of topsoil generation in m ³	181851 m ³	19144.59 m ³	Topsoil is concurrently spread on backfilled area
2e	Quantity of overburden generation in m ³	345107 m ³	44670.71 m ³	Overburden is concurrently backfilled in mined out pits
2f	General remarks of Inspecting officer on development of pit w.r.t type of deposit etc.	The pit developments have been carried out within the proposed area as approved in Mining Plan. The generated overburden/waste were concurrently backfilled in the mined-out area.		

3.0 **Exploitation:**

S. N.	Item	Proposals (2023-24)	Actual (2023-24)	Remarks
3a	Number of pits proposed for production	03 Pits	01 Pit	Due to lack of clearance from land owner
3b	Quantity of ROM mineral production proposed in Tonne	59989 MT	55050 MT	Approx 92% of target quantity is achieved
3c	Recovery of Saleable/Usable mineral from ROM production in Tonne	49%	54%	
3d	Quantity of mineral reject generation in Tonne	57455 MT	46894.4 MT	Intercalated waste below threshold limit used for concurrent backfilling
3e	Grade of mineral reject generation and threshold value declared	Below threshold value Threshold value: 30% AL ₂ O ₃	Below threshold value Threshold value: 30% AL ₂ O ₃	
3f	Quantity of sub-grade mineral generation	No proposal	Nil	
3g	Grade of sub-grade mineral generation	No proposal	Nil	
3h	Manual/Mechanized method adopted for segregation from ROM	Manual	Manual	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No proposal	Nil	

3j	Provision of drilling & blasting in mineral benches	Drilling and Blasting proposed	Drilling and blasting were carried out in mineral benches as proposed	Hole Depth- 3 mtrs. Spacing- 2.5 mtrs. Burden- 3 mtrs.
3k	Provision of mining machineries in mineral benches	Yes, HEMMS	HEMMs deployed	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in Mining Plan	Max Height of benches in OB- 3.5 mtrs Max Height of benches in Mineral- 2 mtrs	Yes, suitable	
3m	Total area covered under excavation /pits in Ha.	6.81 Ha. for FY 2023-24	2.46 Ha. in FY 2023-24	Less area degraded due to increase in recovery percentage
3n	Ore to OB ratio for the pit/mine during the year	1:5.34	1:0.63	Tonne:Cum Stripping ratio is on lower side due to less generation of top soil/ over burden
3o	Total area put in use under different heads at the end of year in Ha.	10.06 Ha. up to the end of plan period 2023-24	About 9.005 Ha. up to end of FY 2023-24	
3p	Production of ROM mineral during last five-years period, as Applicable (Tonne)	2019-20: 55761	2019-20: 47832	(All units in MT) As per AR submitted
		2020-21: 35476	2020-21: 17380	
		2021-22: 58759	2021-22: 56100	
		2022-23: 59831	2022-23: 43800	
		2023-24: 59989	2023-24: 55050	
3q	General remarks of inspecting officer on method of mining etc.	Open cast working is being carried out by deployment of HEMMs with the help of drilling & blasting. The mined-out pits are being concurrently backfilled.		

4.o Solid Waste Management-Dumping:

S.N.	Item	Proposals (2023-24)	Actual (2023-24)	Remarks
4a	Separate dumping of topsoil, OB & mineral reject	No proposal	Nil	Simultaneous backfilling is being carried out
4b	Location of topsoil, OB & mineral reject dumps	No proposal	Nil	
4c	Number of dumps within lease area and outside lease area	No proposal	Nil	Existing dumps are stabilized
4d	Location of dumps w.r.t. ultimate pit limit	No proposal	Nil	
4e	Number of active & alive dumps	No proposal	Nil	
4f	Number of dead dumps	No proposal	01	Old dead dumps are stabilized with plantation
4g	Number of dumps stabilized	No proposal	01	

4h	Whether Retaining wall or garland drain all along dumps are there	No proposal	Nil	
4i	Length of Retaining wall or garland drain all along dump	No proposal	Nil	
4j	Number of settling ponds	No proposal	Nil	
4k	Specific commends of inspecting officer on waste dump management	No proposal for separate dumping of topsoil, overburden & mineral reject were envisaged in the approved Mining Plan. Total over burden/intercalated waste generated during this year are used for concurrent backfilling of the mined out/exhausted pits.		

5.0 Solid Waste Management-Backfilling:

S.N.	Item	Proposals (2023-24)	Actual (2023-24)	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Backfilling proposed after full extraction of mineral	Being carried out as per proposal	
5b	Area under backfilling of mined out area	6.81 Ha proposed for backfilling of the mined out/exhausted pits	Actual Mined out: 2.46 Ha Backfilled- 1.958 Ha	Backfilling is under progress in remaining mined out areas. Area under reclamation is less due to lower quantity of topsoil and less generation of overburden/waste
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area	Concurrent use proposed	Concurrent use of topsoil for reclamation/spread on backfilled area	
5d	Total area fully reclaimed & rehabilitated	Not specified	73.265	As per AR submitted
5e	General remarks of inspecting officer on backfilling, reclamation etc.	Concurrent backfilling of the mined out/exhausted pits are being carried out. Area under backfilling/reclamation is less due to lower quantity of topsoil and less generation of overburden/waste.		

6.0 Progressive Mine Closer Plan:

S. N.	Item	Proposals (2023-24)	Actual (2023-24)	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly-Rule 26 (2)	To be submitted before 01st July every year	PMCP report received in time	Annual Return Submitted on 28 th June 2024
6b	Management of worked/mined out benches	No proposal	Nil	No proposal for rehabilitation and afforestation of worked/mined out benches.
	Area available for rehabilitation (Ha)			
	Afforestation done (ha)			
	No. of saplings planted during the year			

	Cumulative no. of plants			
	Any other specific method of rehabilitation			
	Cost incurred on watch & care during the year			
6c	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L*B*D) (ii) Void filled by waste/tailings (iii) Afforestation on the backfilling (iv) Rehabilitation by making water reservoir (v) Any other specific means	6.81 Ha proposed for backfilling of the mined out/ exhausted pits By waste 3750 Nos. No proposal No proposal	Actual Mined out: 2.46 Ha Backfilled- 1.958 Ha By waste/over burden 6885 Nos. Nil Nil	325 plants planted outside lease area
6d	Compliance of Rehabilitation of waste land within lease i. Afforestation ii. Area rehabilitation (Ha.) iii. Method of rehabilitation	No proposal	Nil	
6e	Compliance of Environment monitoring (core zone & buffer zone)	Environmental monitoring of air, water & noise proposed	Environmental monitoring of air, water & noise was carried out as per the proposal	All values of environment parameters were within permissible limits
6f	General remarks of inspecting officer on PMCP compliance & progressive closer operations	Annual PMCP report has been submitted. Plantation has been carried out as per the proposal.		

7.0 Mineral Conservation:

S.N.	Item	Proposals (2023-24)	Actual (2023-24)	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	Proposed for manual sorting	Manual sorting	
7b	Method of grade-wise mineral sorting i.e. Manual or Mechanical	Manual	M	
7c	Different grade of mineral sort out at mine	No proposal	Nil	
7d	Any beneficiation process at mines	No proposal	Nil	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	ROM is being processed/sorted manually and stacks are being made for dispatch of the minerals.		

8.o Environment:

S.N.	Item	Proposals (2023-24)	Actual (2023-24)	Remarks
8a	Separate removal and utilization of topsoil	Proposed for spread on backfilled area for plantation	Being carried out as per proposal	
8b	Concurrent use or storage of topsoil	Concurrent use	Used for plantation/ agriculture purposes	Topsoil is used to reclaim the backfilled area so that the landowner can use it for plantation or agriculture
8c	Separate dumps for overburden waste rock, rejects and fines	No proposal	Nil	Concurrent backfilling is being in practiced
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Overburden, waste rock and rejects to be used for concurrently backfill the mined-out pits	OB & waste utilized for backfilling	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc.)	Proposed for backfilling	Backfilling is being carried out to restore the land	
8f	Baseline information on existence of plantation & additional plantation done	Number of Sapling: - 3750	Number of Sapling: - 6885 (within lease area)	325 plants planted outside lease area
8g	Survival rate (%)	85 %	74 %	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul roads proposed to suppress the dust	Continuous water sprinkling done on haul roads by water tankers	
8i	General remarks of inspecting officer on aesthetic beauty in and around mine area	The aesthetic beauty in & around the mine area was good.		

9.0 Compliance of Rule 45:

S N	Item	Comments		Remarks
9a	Status of submission of monthly and Annual returns	MR being submitted regularly		
		AR Submitted up to FY2023-24		
S. N .	Item	Details Given in A.R	Observation of I/Officer	Remarks
9 b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager and Mining Engineer- Ashutosh Kumar Behera Geologist- Doyel Mukherjee	Employed	-
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under current working pit: 2.46 Ha. Reclaimed area: 73.265 Ha Occupied by plant, building and roads: 3 Ha Waste Disposal: 1.587 Ha Work done under PMCP during the year: 1.958 Ha	Area under current working pit: 2.46 Ha. Reclaimed area: 73.265 Ha Occupied by plant, building and roads: 3 Ha Waste Disposal: 1.587 Ha Work done under PMCP during the year: 1.958 Ha	Appears to be correct
9 d	Scrutiny of Annual return on afforestation	Number of Saplings: 6885 Survival rate: 74 %	Number of Saplings: 6885 Survival rate: 74 %	
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	Nil	No generation of mineral rejects reported	
9f	Scrutiny of Annual return on ROM stock and/or grade ore	ROM opening stock-Nil Production-55050 Closing stock-Nil	ROM opening stock-Nil Production-55050 Closing stock-Nil	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production costs	Ex-Mine Price: Rs 1383.23 / MT Cost of Production: Rs. 1383.23 / MT Sale value-Nil	Ex-Mine Price: Rs 1383.23 / MT Cost of Production: Rs. 1383.23 / MT Sale value-Nil	Captive consumption

9i	Scrutiny of Annual return on Fixed assets	Rs. 72352972/- including land, building, plant and machinery etc.	Rs. 72352972/- including land, building, plant and machinery etc.	
9k	Scrutiny of Annual return on mining Machinerics	Shovel -01 nos, Dumper-02 nos., Dozer-01 nos., Drill Machine-01 nos., Wheel Loader-01 nos.	Deployed	

10- Details of violations observed during current inspection: - No serious violation was observed after current inspection.

11- Analysis of DAI and submission of the scrutiny reports in the MIDPAS portal.

As per the directives issued by the CCOM (I/C) dated 23.09.2024, the digital imageries (Drone Data) submitted by the lessee has been analysed and uploaded the scrutiny report/briefing as per the specified format in the online portal (i.e. MIDPAS).

प्रशान्त कुमार साहू / Prasant Kumar Sahu
 सहायक खान नियंत्रक / Assistant Controller of Mines
 भारतीय खान ब्यूरो, रायपुर / Indian Bureau of Mines, Raipur