# MCDR INSPECTION REPORT FOR THE PERIOD OF 2023-24

1) Name of Inspecting officer:	Mr. Vikrant Khedikar
2) Designation	Senior Assistant controller of mines
3) Accompanying mine official with designation	Mr. Pradeep Bhalekar(AGM Operation)
	Mr. Tapas Gachhayat (AGM Geology)
4) Date of Inspection	18.11.2024

Sl. No.	Particulars	Details
1.	Name of the Mines	AMTIPANICHIRODIH BAUXITE MINES
2	Total Lease Area (Ha) with breakup of Non-	Total Lease Area – 130.01 Ha
	forest and forest land	GM Land - 6.42 Ha
		Raiyati Land – 123.59 Ha
		Forest Area- Nil
3.	Mine code	07JHK331001
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/961/2011
5	Name of the lessee, Address, Phone, email and	M/s MINERALS & MINERALS LIMITED,
	fax number	COURT ROAD LOHARDAGA,
		LOHARDAGA, Ph-06526224118.
		Email-bijesh.jha@adityabirla.com
6	Village	Amtipani Chirodih and Bahagara
7	Taluka/Mandal	BISHUNPUR
8	District	GUMLA
9	Pin code	835207
10	State	JHARKHAND
11	Post Office	JOBHIIPAT
12	Nearest Police Station	GURDARI
13	Nearest Railway station	LOHARDAGA
14	Date of Grant of Mining Lease	11/01/2017
15	Date of Execution	11/01/2017
16	Date of Opening of Mine	10/06/2022
17	Date of First Renewal, if applicable and its period & expiry	N/A
18	Date of second Renewal, if applicable and its period & expiry	N/A
19	Date of submission of renewal application if Mining operations are continuing under deemed extension	N/A
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Mr. Bijesh Kumar Jha, M/s Minerals & Minerals Limited Court Road, P.O Lohardaga, State- Jharkhand, 835302 Court Road, Lohardaga, Jharkhand Ph-9570942442 e-mail- bijesh.jha@adityabirla.com

21	Name of the Mine Agent with Address, phone email, fax number and date appointment in mines.	Mr Prateek Kumar, M/s Minerals & Minerals Limited Court Road, P.O Lohardaga, State- Jharkhand, 835302 Court Road, Lohardaga, Jharkhand Ph-9668712646 e-mail- <u>prateek.kumar@adityabirla.com</u> Date of Appointment: - 30/07/2018
22	Name of the Mines Manager with Address, Phone, email, fax number and date of appointment	Mr Sanjay Kumar, M/s Minerals & Minerals Limited Court Road, P.O Lohardaga, State- Jharkhand, 835302 Address- Court Road, Lohardaga, Jharkhand email- sanjay.d.k@adityabirla.com Date of appointment-18.06.2022 Phone-06526224112
23	Name of the mining engineer, qualification and total experience with Address, phone, email, fax number and date of appointment in Mines.	Mr Sanjay Kumar M/s Minerals & Minerals Limited Court Road, P.O Lohardaga, State- Jharkhand, 835302 Qualification-B.Tech (Mining) Total Experience-22 years Address-Court Road, Lohardaga, Jharkhand email- sanjay.d.k@adityabirla.com Date of appointment-18.06.2022 Phone-06526224112
24	Whether Geologist and Mining Engineer appointed in Mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes, Appointed as per rule Name- Amit Kumar Pradhan (M-Tech) Exploration Geosciences) Date of Appointment- 17.10. 2024
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	<ol> <li>Mining Plan From 2016-17 to 2020-21, Dated 28/12/2016.</li> <li>Modification in approved mining Plan From 2016-17 to 220- 21, Dated 26/05/2017.</li> <li>Review of mining Plan From 2021-22 to 2025-26, Dated 03/08/2021.</li> </ol>
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Modifications of the Review of Mining Plan, From 2024-25 to 20225-26, Dated: - 08/05/2024
27	Mineral(s) granted in lease and proved for mining	Bauxite
28	Method of Mining (Opencast, Underground)	Opencast
29	Category (Fully Mechanized, Others or Manual)	A - Fully Mechanized
30	Captive/Non-Captive	Non-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	Between 09/09/2022 to 22/07/2023, 453 Number of holes were drilled comprising 8159.20 Meterage. Grid interval 50 Mtr X 50 Mtr
1b	Exploration over lease area for Geological axis 1 or 2.	Nil	Nil	Geological Axis - 1
1c	Exploration Agency & Expenditure in lakh Rupee during the year	NA	Rs. 9741070	M/s Gems Project Pvt Ltd, Ranchi.
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	N/A	111 – 4232644 Tonnes	
1f	General remarks of inspecting officer on geology, exploration etc.	Nil	1	1

### **Development**

Sr.NO	Item	Proposals (2023-24)	Actual work (2023- 24)	Remarks	
2a	Location of development w.r.t	Quarry -3	Quarry -3	Land acquisition not obtained.	
	lease area	Quarry -4	Quarry -4	Violation under rule 11(1) of	
		Quarry -5	Quarry -5	MCDR-2017 issued for	
		Quarry -6	Quarry -6	development / production of mine.	
2b	Separate benches in top soil,	Soil-1	Soil-1	Nil	
	overburden and mineral (Rule 15)	Laterite and Morrum	Laterite and Morrum		
		- 1	- 1		
		Bauxite - 1	Bauxite - 1		
2c	Stripping ratio or ore to OB ratio	1.2.77	1.477	Nil	
2d	Quantity of topsoil generation in m <sup>3</sup>	228991	43566	Quarry-1 land acquisition not obtained.	
2e	Quantity of overburden generation in m <sup>3</sup>	384359	307243	Production in high OB area based on purchased land.	
2f	General remarks of inspecting officer on development etc.	Quarry-1 land acquisition not obtained. Violation under rule 11(1) of MCDR-2017 issued for development / production of mine.			

### **Exploitation**

Sr.NO	Item	Proposal (2023-24)	Actual Work (2023-24)	Remarks
3a	Number of pits	4	3	Land Acquisition not
	proposal for production			obtained.

3b	Quantity of ROM mineral production proposed	302398	208008	Land acquisition not obtained
3c	Recovery of salable/usable mineral from ROM production	70%	100%	Lessee had declared to carryout test of recovery factor and bulk density from NABL accredited laboratory.
3d	Quantity of mineral reject generation	49846 M3	0 M3	Nil
Зе	Grade of mineral reject generation and threshold value declared	Al <sub>2</sub> O <sub>3</sub> - < 25% Silica > 7%	Al <sub>2</sub> O <sub>3</sub> - < 25% Silica > 7%	Nil
3f	Quantity of sub- grade mineral generation	Nil	Nil	Nil
3g	Grade of sub- grade mineral generation	Nil	Nil	Nil
3h	Manual/Mechan ized method adopted for segregating from ROM	Manual / Mechanical sorting and sizing	Manual / Mechanical sorting and sizing	Nil
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	NA	Nil	Nil
3ј	Provision of drilling & blasting in mineral benches	MMR – 1961 Regulation 106(2)(b), 100 mm dia drilled by Crawler Mounted Drill	MMR – 1961 Regulation 106(2)(b), 100 mm dia drilled by Crawler Mounted Drill	DGMS approval obtained
3k	Provision of mining machineries in mineral benches	HEMM and other mining equipment	HEMM and other mining equipment	Nil
31	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes	DGMS permission obtained
3m	Totalareacoveredunderexcavation/pits	9.4 ha	7.312 ha	
3n	Ore to OB ratio for the pit/mine during the year	1.02	1.477	Production in high OB area based on purchased land.

30	Total area put	Mining		9.4 Ha	Mining	7	7.312Ha	Less	excavation	done
	in use under	Waste Dump	)	0 ha	Waste Dump	C	) ha	during	g the year.	
	different heads	Mineral Ber	neficiation	0 ha	Mineral	C	) ha			
	at the end of	Plant	Plant		Beneficiation P	Plant				
	year	Mineral Stor	age	8.28 ha	Mineral Storag	e 5	5.6 ha			
		Tailing Pond		0ha	Tailing Pond	C	) ha			
		Roads, C pipeline, elec	Conveyors,	0ha	Roads, Conve pipeline, el	eyors, ( ectric	) ha			
		Infrastructure		0ha	line					
		Township		Oha	Infrastructure	0	) ha			
		Topsoil		0 ha	Township		)ha			
			Treatment	0 ha	Topsoil	C	) ha			
		Plant			Effluent Treat	tment (	)ha			
		Others (1	Magazine,	Oha	Plant					
		Rainwater h	arvesting,			azine, (	)ha			
		Back Filling	Area1)		Rainwater					
		Green Belt		1ha		Back				
					Filling Area-1)					
					Green Belt		ha			
3p	Production of	2019-20	0		2019-20	0				
	ROM mineral	2020-21	194150		2020-21	0				
	during last five-	2021-22	143598		2021-22	0				
	year period, as	2022-23	230123		2022-23	28470				
	applicable	2023-24	302398		2023-24	20800	8			
3q	General				ourchased land. Les				the year. Vic	olation
	remarks of	under rule 11(	1) of MCD	R-2017 issue	d for development /	producti	on of mir	ne.		
	inspecting									
	officer on									
	method of									
	mining etc.									

### Solid Waste Management-Dumping

Sr.NO	Item	Proposal (2023-24)	Actual Work (2023-24)	Remarks
4a.	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	Separate stacking of OB and Mineral	Separate stacking of OB and Mineral	Concurrent backfilling over the excavated area after mining is practiced.
4b	Location of topsoil, & OB & mineral reject dumps (Give coordinates with mRL)	E-223099 , N-2584548 (OB Dump)	E-223099 , N-2584548 (OB Dump)	Temporary dumps are done and then Concurrent backfilling over the excavated area after mining is practiced.
4c	Number of dumps within lease area and outside lease area	Nil	Nil	Concurrent backfilling over the excavated area after mining is practiced.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Nil	Nil	Nil
4e	Number of active & alive dumps	0	0	Nil
4f	Number of dead dumps	Nil	Nil	Nil
4g	Number of dumps stabilized	Nil	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there	Nil	Garland drains available for temporary dumps.	Nil

4i	Length of Retaining wall or garland drain all along dump	Nil	Nil	Nil
4j	Number of settling ponds	Nil	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	Concurrent backfilling over	the excavated area after min	ning is practiced.

## 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	Full Extraction	Implemented	Nil
5b	Area under backfilling of mined out area	2.15 На	2.10 На	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Proposed	Achieved	307243 M3 backfilled
5d	Total area fully reclaimed & rehabilitated	2.15	2.10	Nil
5e	General remarks of inspecting officer on backfilling, reclamation etc.			Nil

### **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 23E (2). Details should be given in the format as given in Annexure-20	Yes	Yes	Nil
6b	Management of worked/mined out benches			
	i) Area available for rehabilitation (ha)	Nil	Nil	Nil
	ii) Afforestation done (ha)	Nil	Nil	
	iii) No. of sapling planted during the year	Nil	Nil	
	iv) Cumulative no. of plants	Nil	Nil	
	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			
	i) Voids available for backfilling	140mx50mx6m	140mx50mx6m	
	(LxBxD)			
	ii) Void filled by waste/tailings	2.15 Ha	2.10 Ha	
	iii) Afforestation on the backfilled area	Nil	Nil	
	iv) Rehabilitation by making water	Nil	Nil	
	reservoir	Nil	Nil	
	v) Any other specific means			
6d	Compliance of Rehabilitation of waste land within lease			
	i) Afforestation	700 Saplings	820 Saplings	In 0.28 Ha, Within 7.5 Mr Safety Barrier and 10 Mtr
	ii) Area rehabilitated (ha)	1Ha	1Ha	Road Barrier
	iii) Method of rehabilitation	Plantation	Plantation	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Air, water, noise as per CPCB Norms	Air, water, noise as per CPCB Norms	Within Standards
6f	General remarks of inspecting & progressive closure operations.	-		Nil

## Mineral Conservation

Sr.NO	Item	Proposal (2023-24)	Actual Work (2023- 24)	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	yes	yes	Manual / Mechanized sorting
7Ь	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual / Mechanized	Manual / Mechanized	Manual/Mechanical sorting & sizing has been done for separation of the silica & lateritic contamination from bauxite boulders.
7c	Different grade of mineral sorted out at mines	NA	Nil	Nil
7d	Any beneficiation process at mines	Nil	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Manual/Mechanical sorting & sizing has been done for separation of the silica & lateritic contamination from bauxite boulders.		

### <u>Environment</u>

Sr.NO	Item	Proposal(2023-24)	Actual Work(2023-24)	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Concurrent Backfilling	Continuous Spreading over backfilled area	Nil
8b	Concurrent use or storage of topsoil	Concurrent Backfilling	Continuous Spreading over backfilled area	Nil
8c	Separate dumps for overburden, waste rock rejects and fines (Rule 33)	Nil	Nil	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Concurrent Backfilling	Concurrent Backfilling	Used for concurrent backfilling.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed	Simultaneous backfilling and reclamation.	Nil
8f	Baseline information on existence of plantation & additional plantation done (Rule 42)	700 Sapling	820 Saplings	Within 7.5m safety barrier & 10 m road barrier, in 0.24 ha. Area. Survival Rate – 72 %
8g	Survival rate	No Proposal	72 %	The entire plantation has been done on 7.5m safety barrier & road barrier.
8h	Water sprinkling on roads to control airborne dust	Proposed	Regular sprinkling with Water tanker	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area.	Within 7.5m safety ba 72 %	rrier & 10 m road barrier, in	0.24 ha. Area. Survival Rate –

# **Compliance of Rule 45**

Sr.NO	Item	COMMENTS	Remarks
9a	Status of submission of Monthly and Annual returns	Submitted within stipulated Time.	
Sr.NO.	Item		Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mr Sanjay Kumar – mining engineer Mr Amit Kumar Pradhan – Mine Geologist	Present at the time of Inspection
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	<ul> <li>Land use pattern as on 01/04/2024</li> <li>Exploited under mining – 11.112 Ha.</li> <li>Under OC workings – 7.312 Ha.</li> <li>Reclaimed and Rehabilitated – 10.940 Ha.</li> <li>Used for waste - 0.067 Ha.</li> <li>Plants and building etc – 2.750 Ha.</li> <li>Under PMCP work done – 7.312 Ha</li> </ul>	Nil

9d	Scrutiny of Annual return on afforestation	During 2023-24, 720 saplings have been achieved with 72% of survival.	Seems to be correct	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	Nil	Nil	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Bauxite Stock as on 01.04.2024 ROM Closing stock = Nil, Opening Stock at Mine Head – 16738.57. Dispatches of Processed ore 45% to below 50% Al2O3 = 213578.81 tons. Mine has produced 208008 Tons of Production. Closing stock at mine head – 11167 Tons.	Information furnished on ROM stock, grade etc. seems to be correct.	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost.	Sale value - Rs.2813578.810 Rs for domestic captive consumption.	It is a captive mine of Hindalco, Cost of production 1333.27 Rs / T seems to be correct.	Nil
9h	Scrutiny of Annual return on fixed assets	<ol> <li>Building -3497674/-</li> <li>Land - 4367/-</li> <li>Residential - 24712/-</li> <li>Plant and Machinery - 1944294/-</li> <li>Capitalized expenditure - 190577948/-</li> <li>Total - 196048995/-</li> </ol>	Seems to be correct	Nil
9i	Scrutiny of Annual return on mining machineries	<ol> <li>SHOVEL (HYDRAULIC)-4,</li> <li>AIR COMPRESSOR 2</li> <li>DUMPER-10</li> <li>Front End</li> <li>Loader-2,</li> <li>Water Tanker 2,</li> <li>Blast Hose Drill-2</li> </ol>	Seems to be correct	Nil

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

Earlier Violation: - Violation of rule 11(1) of MCDR, 2017 has been issued on 08/09/2023 regarding dump, backfilling and solid waste management. Complied.

Present Violation: - Violation of rule 11(1) of MCDR, 2017 has been issued on Date 20/11/2024, regarding lagging in development of pit and production proposals.

Date: 28/11/2024

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