

MCDR INSPECTION REPORT

General

File No- CHG/BLR/BXT/07MPR42004

S.N.	Particulars	Details
1	Name of the Mine Date of Inspection: Name of Inspecting Officer Accompanying Mine Official with Designation:	Kudag Bauxite Mine, M/s Hindalco Ind. Ltd. 26/10/2021 Rudra N. Mishra (Senior Mining Geologist) Parbati Kabi (Geologist), Shri Raj Kumar Sinha (Mines Manager)
2	Total Lease Area (Ha) with breakup of non-forest and forest land	Lease area –377.116 ha Non-Forest- 253.007 Hact Forest – 124.109 Hact.
3	Mine code	07MPR42004
4	IBM Registration Number under rule 45 of MCDR,2017	IBM/935/2011
5	Name of the Lease, Address, Phone, email and fax number	Hindalco Industries Ltd. Renukoot (231217) Dist: Sonbhadra, U.P Ph.No.(05446)52077-79 Fax No (05446)521017 Email: bijeh.jha@adityabirla.com
6	Village	Kudag
7	Taluka/Mandal	Kusmi
8	District	Balrampur-Ramanujganj
9	Pincode	497224
10	State	Chhattisgarh
11	Post Office	Samri
12	Nearest Police Station	Samri
13	Nearest Railway Station	Ambikapur
14	Date of Grant of Mining Lease	23/10/1996
15	Date of Execution	24/12/1996
16	Date of opening of Mine	27.06.1997
17	Date of First Renewal, if applicable and its period & expiry	As per MMDR Amendment Act,2015 section 8A, Validity of the lease period: 24/12/1996 to 23/12/2046 (Fifty years)
18	Date of Second Renewal, if applicable and its period & expiry	Not Applicable
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Lease period has been extended up to 23/12/2046
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri K N Bhandari Aditya Birla Centers K Ahira Marg, Worli, Mumbai (MS) PIN – 400030 Email: knbhandari1942@gmail.com Date of appointment: 10/11/2011 Fax No. – 02266525801 Phone No. - 02266525000

21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri V.K.S Chauhan Hindalco Colony, Post -Kusmi, District-Balrampur, Pin-497224 Mob- 9921341888 Date of Appointment – 15.03.2021 Email-chauhan.vijaykumar@adityabirla.com
22	Name of the Mine Manager with Address, phone, email, fax number and date of appointment in mines	Shri Raj Kumar Sinha BE in Mining Hindalco Colony, Post -Kusmi, District-Balrampur, Pin-497224 Mob- 09522128528 Date of Appointment –11.02.2021 Email- raj.k.sinha@adityabirla.com
23	Name of the Mining Engineer, Qualification and total experience with address, phone, email, fax number and date of appointment in the mine	Shri Raj Kumar Sinha BE in Mining Hindalco Colony, Post -Kusmi, District-Balrampur, Pin-497224 Mob- 09522128528 Date of Appointment –11.02.2021 Email- raj.k.sinha@adityabirla.com
24	Whether Geologist and Mining Engineer appointment in mines satisfy the rule 55 & carrying out their duties as per rule 56 & 57.	Ku. Parbati Kabi Education qualification -M. Sc in Applied Geology from Indian Institute of Engineering Science and Technology (IEST), Shibpur Hindalco Colony, Post -Kusmi, District-Balrampur, Pin-497224 Email- parbati.kabi@adityabirla.com
25	Date of Approval of Mine Plan/Modified Mine Plan with five- year period and specific condition in approval letter, if any.	Mining Plan approved vide letter no. SRG/BX/MPLN-383/NGP Nagpur Dated 29/11/1994, Period: 1997-98 to 2001-02
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 st Scheme of Mining approved vide letter no. SRG/BXT/MPLN-383/NGP Nagpur Dated 10/02/2003, Period 2002-03 to 2006-07. Modified Scheme of Mining approved vide letter no. SRG/BXT/MPLN-383/NGP Nagpur Dated 20/10/2005, Period 2004-05 to 2006-2007. 2 nd Scheme of Mining approved vide letter no. SRG/BXT/MPLN-383/NGP Nagpur Dated 17/08/2007, Period 2007-08 to 2011-2012. 3 rd Scheme of Mining approved vide letter no. SRG/BX/MPLN-383/NGP Nagpur Dated 30/01/2013, Period 2012-13 to 2016-17. Modification of Mining Plan for the period 2017-18 to 2021-22 was approved on Dated 31/08/2016 vide letter no.- SRG/BX/MPLN-383/NGP/2016/25-RPR, Raipur

27	Mineral(s) granted in lease and approved for Mining	Bauxite
28	Method of Mining (Opencast, Underground)	Opencast
29	Category (Fully Mechanised, Others or Manual)	Category: A, Mechanised
30	Captive/Non-Captive	Captive mine
31	Environment Clearance	60000 tonnes (Dated: 27/07/2007)
32	Status of Financial Assurance as per rule 27 of MCDR, 2017	Financial Assurance in the form of bank Guarantee for Rs. 547850/- (Rupees Five Lakh Seven Thousand Eight Hundred Fifty Only) has submitted at Regional Controller of Mines, Raipur.

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

Exploration

S.N.	Item	Proposals (2020-21)	Actual Work (2020-21)	Remarks
1a	Backlog of previous year	Proposal not given in approved document	33	
1b	Exploration over lease area for Geological axis 1 or 2.	G1 Detailed exploration: Nil G2 General Exploration: Nil	G1 Detailed exploration: 141.05 Ha G2 General Exploration: 160.986 Ha	
1c	Exploration Agency & Expenditure in Lakh Rupees during the year	Nil	South West Pinnacle Ltd	
1d	Balance area to be explored to bring Geological axis in 1 or 2.	Proposal not given in approved document	Nil	
1e	Balance reserves as on 01.04.2021	Under 111: - 439480 Tonnes Under 122: - 1234186 Tonnes Under 221: - 154246 Tonnes Under 222: - 322417Tonnes		
1f	General remarks of Inspecting officer on geology, exploration etc.	Laterite and accompanying Bauxite are exposed at places on plateau tops and slopes. Laterite and associated Bauxite are believed to be products of insitu chemical weathering of underlying basalts (Deccan traps) The Bauxite bearing laterite capping is found on the top of the basaltic plateau (Deccan traps). The Bauxite characteristics of this area is massive, sometimes pisolitic hard and compact, denser than the laterite vesicular and pitted, displays shades of light grey to pink colour. Kudag blocks forms a part of Jamirapat region in		

		Balrampur dist. Of chhattisgarh. The area was investigated by the G.S. Lin in the year 1977-78. The arranges of compositions of laterite SiO ₂ : 6-12% and AL ₂ O ₃ : 20-30% Bauxite ranges of SiO ₂ : 1-5% & Al ₂ O ₃ : 31-58%.
--	--	--

Development

S.N .	Item	Proposals (2020-21)	Actual Work (2020-21)	Remarks
2a	Location of Development w.r.t. lease area	1) E/W 804806-806030 N/S 260069-260089 2) E/W 804806-804960 N/S 259860-259892	Same as Proposal	
2b	Separate benches in topsoil overburden and mineral (Rule 15)	Soil – 1 Bauxite - 1	Soil – 1 Bauxite - 1	
2c	Stripping ratio or ore to OB ratio	1: 3.5	1: 0.97	
2d	Quantity of topsoil generation in m ³	Soft OB: 53031.29 Cu.m	Soft OB: 2267 cu.m	Including top soil and Hard OB
2e	Quantity of overburden generation in m ³	Hard OB=7426.15 Cu.m	Hard OB = 5288.68 Cu.m	
2f	General remarks of Inspecting officer on development of pit w.r.t type of deposit etc.	Development is in order.		

Exploitation

S.N .	Item	Proposals (2020-21)	Actual Work (2020-21)	Remarks
3a	Number of pits proposed for production	2	2	
3b	Quantity of Bauxite mineral production proposed (2020-21)	35476.00 Tonne	17830 Tonne	
3c	Recovery of Salable/usable mineral from ROM production	49.00%	50.87%	
3d	Quantity of mineral reject generation	16054 Cu.m	7488 Cu.m	
3e	Grade of mineral reject generation and threshold value declared	Below threshold value	Below threshold value	
3f	Quantity of sub-grade mineral generation	3547 Tonne	0 Tonne	
3g	Grade of sub-grade mineral generation	Proposal not given in approved document	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	NA	Characterization studies on Low grade Bauxite Ore to enhance Alumina Content	

				by IMMT, Bhubaneswar	
3j	Provision of drilling & blasting in mineral benches	Yes	Yes		
3k	Provision of mining machineries in mineral benches	Yes	Yes		
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes		
3m	Total area covered under excavation /pits	3.24 Ha	0.83 Ha		
3n	Ore to OB ratio for the pit/mine during the year	1: 3.5	1: 0.97		
3o	Total area put in use under different heads at the end of year	80.90 Ha	78.52 Ha		Till the FY2020-21
3p	Production of ROM/ Bauxite mineral during last five-years period, as Applicable (Tonns)	2016-17	117579.59	115469.627	
		2017-18	119897.0	88591.310	
		2018-19	121177.00	108070.00	
		2019-20	55761.00	47832.00	
		2020-21	35476.00	17380.00	
3q	General remarks of inspecting officer on method of mining etc	Bauxite is mined by Open cast with the help of Semi mechanized method. The Soil first removed by excavator having 0.9cubic meter capacity. The morrum beneath the soil is if hard and laterite is drilled and blasted separately and removed by shovel dumper combination. There is no need for drilling in overburden as it is soft and easily lift out by excavator without blasting.			

Solid Waste Management-Dumping

S.N.	Item	Proposals (2020-21)	Actual Work (2020-21)	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	Simultaneously reclamation of mined out area is practiced	Simultaneously reclamation of mined out area is practiced	
4b	Location of topsoil, OB & mineral reject dumps	Proposal not given in approved document	Proposal not given in approved document	
4c	Number of Dumps within lease area and outside lease area	Proposal not given in approved document	Proposal not given in approved document	
4d	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	Proposal not given in approved document	Proposal not given in approved document	

4e	Number of Active & Alive dumps	Proposal not given in approved document	Proposal not given in approved document	
4f	Number of deed dumps	Proposal not given in approved document	Proposal not given in approved document	
4g	Number of dumps established	Proposal not given in approved document	Proposal not given in approved document	
4h	Whether Retaining wall or garland drain all along dumps are there	Proposal not given in approved plan	Proposal not given in approved document	
4i	Length of Retaining wall or garland drain all along dump	Proposal not given in approved document	Proposal not given in approved document	
4j	Number of settling ponds	Proposal not given in approved document	Proposal not given in approved document	
4k	Specific comments of inspecting officer on waste dump management	Waste is being back filled in mined out Area. Concurrent backfilling system has been adopted and only top soil is dumped short period not kept more than six months to preserve its fertility		

Solid Waste Management-Backfilling

S.N.	Item	Proposals (2020-21)	Actual Work (2020-21)	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Reclaimed and plantation done	Reclaimed and plantation done	
5b	Area under backfilling of mined out area	1.47 Ha	0.22 Ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Yes	Simultaneously carried out	
5d	Total area fully reclaimed & rehabilitated	Proposal not given in approved document	68.077 Hect	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Its a shallow depth mining. Full extraction of mineral and simultaneously backfilling carried out.		

Progressive Mine Closer Plan

S.N	Item	Proposals (2020-21)	Actual Work (2020-21)	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	
6b	Management of worked/mined out benches	Proposal not given in approved document	Nil	
	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	i) Void available for Backfilling (L X B X D) pit wise/ stope wise: - 3.24 Ha ii) Void filled by waste/tailings: 1.47 Ha iii) Afforestation on the backfilled area- 2.54 Ha iv) Rehabilitation by making water reservoir - Nil v) Any other specific means- Nil	i) Void available for Backfilling (L X B X D) pit wise/ stope wise: - 0.831 Ha ii) Void filled by waste/tailings: 0.22 Ha iii) Afforestation on the backfilled area- 2.40 Ha iv) Rehabilitation by making water reservoir - Nil v) Any other specific means- Nil	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitation iii) Method of rehabilitation	Nil	Nil	
6e	Compliance of Environment monitoring (core zone & buffer zone)	Proper Monitoring	Done in core-zone & buffer zone	
6f	General remarks of inspecting officer on PMCP compliance & progressive closer operations	PMCP proposal are implemented		

Mineral Conservation

S.N.	Item	Proposals (2020-21)	Actual Work (2020-21)	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	Yes	Yes	
7b	Method of grade-wise mineral sorting i.e., manual or mechanical	Manual Sorting	Manual Sorting	
7c	Different grade of mineral sort out at mine	Yes	Yes	
7d	Any beneficiation process at mines	No	No	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Due to manual sorting of Bauxite its help to improve the grade. Screening will be good for the small size of ore.		

Environment

S.N.	Item	Proposals (2020-21)	Actual Work (2020-21)	Remarks
8a	Separate removal and utilization of topsoil (Rule32)	Spread on backfilled area for plantation	Spread on backfilled area for plantation	
8b	Concurrent use or storage of topsoil	Top soil used for restoration of Mined out Area	Top soil used for Restoration of Mined out Area	
8c	Separate dumps for overburden waste rock, rejects and fines (Rule 33)	Proposal not given in approved document	Proposal not given in approved document	
8d	Use of overburden, waste rock, rejects and fines dump for restoring the land to its original use	Reclaim by overburden, waste rock, rejects and fines	Reclaim by overburden, waste rock, rejects and fines	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Reclaim by overburden, waste rock, rejects and fines	Reclaim by overburden, waste rock, rejects and fines	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	During current planning period (2020-2021): Afforestation: 1.06 Ha Total plantation:2650	During current planning period (2020-2021): Afforestation: 2.40 Ha Total plantation: 4865	
8g	Survival rate	Not mentioned in approved document	75%	
8h	Water sprinkling on roads to control airborne dust	yes	Proper Water sprinkling on Haul Road	
8i	General remarks of inspecting officer on aesthetic beauty in and around mine area	EMP parameters are regularly being monitored. Top Soil spread the concurrent back filled area.		

Compliance of Rule 45

S. N.	Item	Comments			Remarks
9a	Status of submission of monthly and Annual returns	M.R. Submitted up to–Oct-2021			
		A.R. submitted up to- 2020-2021			
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes, Mining Engineer: Shri Raj Kumar Sinha Lilhare, BE in Mining Geologist: Yes, Ku. Parbati Kabi Manager: Shri Raj Kumar Sinha			
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Open Cast Mining: 73.911ha Area Under current working pit: 6.614ha Reclaimed area: 68.927ha Waste disposal: 1.587 ha Occupied by plant, building residential, welfare building and roads:3.00ha Other purpose:0.00 ha Work done under progressive mine closure plan during the year: 1.869ha			
9d	Scrutiny of Annual return on afforestation	4865 nos, Survival Rate: 79%			
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	0.00 tone, Al ₂ O ₃ :27.04% SiO ₂ :15.42%, Fe ₂ O ₃ -36.06%, LOI-15.10%			
9f	Scrutiny of Annual return on Bauxite stock and/or grade ore	Opening Stock: 00.00 tonne Bauxite Production: 17830.00 tonne Closing Stock: 0.00tonne			
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production costs	Ex- Mine Price i) 40% to below 45% Al ₂ O ₃ : Rs 1238.87 ii) 45% to below 50% Al ₂ O ₃ : Rs 1222.40 Cost of Production: Rs 1227.85			
9i	Scrutiny of Annual return on Fixed assets	Given			
9k	Scrutiny of Annual return on mining Machineries	Equipment	Nos	Capacity	
Scrutiny of Annual return on mining Machineries		Shovel (Hydraulic)	1	0.900CUM	
		Air compressor	1	392.00CUM/MN	
		Blast Host Drill	1	100.00MM	
		Dumper	3	25.00Tonne	
		Water Tanker	1	12000.00L	
		Wheel Loader	1	1.480CUM	

10.0 Details of Violations observed during current inspection

No Serious violation pointed out.

Compliance position of earlier violation pointed out: -. Earlier Violation complied.

Star rating also evaluated.

Last Inspection Date: 6/11/2020,

Name of the Inspection Officer: Rudra N. Mishra (Senior Mining Geologist)

Date: 22/11/2021

Name: Rudra N Mishra

Designation: Senior Mining Geologist