

MCDR INSPECTION REPORT

1.0 GENERAL

SN	Particulars	Details
1	Name of inspecting office & designation	Shri R.K DAS, Sr ACOM, Indian Bureau of Mines, Raipur
2	Accompanying Mine Official with Designation	Shri Rajesh Ambastha(Agent Mines),Shri Amit Kumar Tiwari (Mines Manager)
3	Date of inspection	11/02/2020
4	Name of the Mine	Tatijharia Bauxite Mine.
5	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total Lease Area -1218.762 Ha Under Revenue Forest-514.019Ha Non- forest-704.743 Ha
6	Mine Code	07CHG16003
7	IBM Registration Number under rule 45 of MCDR, 1988	IBM/935/2011
8	Name of the lessee, Address, phone, email and fax number	Registered Office- M/S HINDALCO INDUSTRIES LIMITED Ahura Center ,1 st Floor,B-Wing,Mahakali Caves Road, Andheri (East),Mumbai400093,India Phn No- 02266525000 Fax No- 02266525801 Email- bijeh.jha@adityabirla.com
9	Village	Tatijharia
10	Taluka/Mandal/District	Kusmi/ Balrampur
11	State	Chhattisgarh
12	Post office & PIN	497224
13	Nearest police station	Samri
14	Nearest Railway station	Ambikapur
15	Date of Grant of Mining Lease	20/05/1998
16	Date of Execution	25/06/1998
17	Date of opening of Mine	01.04.2004
18	Date of first Renewal, if applicable and its period & expiry	Expiry date: 24.6.2048
19	Date of second Renewal, if applicable and its period & expiry	Not Applicable
20	Date of submission of renewal application if Mining Operations are continuing under deemed extension	NA
21	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri K.N Bhandari: 5, New Power House Road, Sector-7, Jodhpur – 342 004. Phone No. - No - (0291)2620061 Mail ID - knbhandari1942@gmail.com Date of Appointment –10.11.2011
22	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri R R P Ambastha Hindalco Colony, Post -Kusmi, District-Balrampur, Pin-497224 Mob- 09617779285 Date of Appointment –10.08.2018 Email-rajesh.ambastha@adityabirla.com
23	Name of the Mines Manager with Address, phone, email, fax	Shri Amit Kumar Tiwari Hindalco Colony, Post -Kusmi, District-Balrampur, Pin-

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number and date of appointment in mines	497224 Mob- 0917771007150 Date of Appointment -24.11.15 Email- Amit.t@adityabirla.com
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24	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri Amit Kumar Tiwari Hindalco Colony, Post -Kusmi, District-Balrampur, Pin-497224 Mob- 0917771007150 Date of Appointment -25.10.2017 Email- Amit.t@adityabirla.com
25	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55& carrying out their duties as per rule 56&57.	Shri Manoj S. Dixit Hindalco Colony, Post -Kusmi, District-Balrampur, Pin-497224 Email- manoj.dixit@adityabirla.com Date of Appointment -20.08.2018
26	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Approval of Modified Mining Plan: 2017-18 to 2018-2019, Approval Letter :- Balrampur/BX/khyo-1134/2017-Raipur/909, Dated 09.01.2018
27	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Review of Mining Plan, Date- 28/11/2018 Period-(2019-20 to 2023-2024) Approval Letter: Balrampur/Bx/Khoya-1171/2018-Raipur/1210
28	Mineral(s) granted in lease and proved for mining	Bauxite
29	Method of Mining(Opencast, Underground)	Opencast
30	Category (Fully Mechanised, Others or Manual)	Semi Mechanised
31	Captive/Non Captive	Captive
32	Existing EC Limit and validity	400000 MT Validity -24.6.2048
33	Status of Financial Assurance as per rule 27 of MCDR, 2017	Financial assurance in the form of Bank Guarantee for Rs. 5, 34, 79,500 /- (Rupees Five Crore Thirty four lac seventy nine thousand five hundred only) For Periods FY 2019-20 to 23-24 submitted to IBM Raipur , BG No.- 0544BGR0012518

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

1.0 Exploration

SN	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	120	211	2018-19
1b	Exploration over lease area for Geological axis 1 or 2.	Under G1 Category: 65.1Ha	Under G1 Category: 261.29Ha explored in 2018-19	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	South West Pinnacle Pvt Limited and Hindalco Industries Limited.	South West Pinnacle Pvt Limited and Hindalco Industries Limited. Expenditure incurred by in-house and outsource exploration- Rs.	

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			18334949/-	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Under G1 Category: 68.49 Ha	Under G1 Category: 68.49 Ha	
1e	Balance reserves as on (in Million Tonnes)	Under (111): 3712577 Tonnes Under (122): 367988 Tonnes	Under (111): 3726084 Tonnes Under (122): 367988 Tonnes	
1f	General remarks of inspecting officer on geology, exploration etc.	The bauxite characteristics of this area are massive, sometimes pisolitic hard and compact but shallow deposit. The exploration carried out in G1 & G2 broadly 90% of Lease area.		

2.0 Development

SN	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area (Plot No./Location)	2589193 N-2589342N, 795553E-795642 E 2589034 N-2589175 N, 796308 E -796632 E 2588988 N-2589235 N, 798048 E -798305 E 2587546 N-2587851 N, 796057 E -796404 E 2588435 N-2588608 N, 793775 E -794216 E	Broadly as per proposal and as per actual field position plan is updated and accordingly Review of Mining plan approved for 2019-20 to 2023-24 dated 28/11/2018	
2b	Separate benches in topsoil, overburden and mineral (Rule 13)	Yes Avg. height of Ore:1.88 meter OB/Waste:4.15 meter	Yes Avg. Height in ORE-2.3 meter OB/Waste- 3.8 meter	
2c	Stripping ratio or ore to OB ratio	1: 3.22	1:3.24	
2d	Quantity of topsoil generation in m3	125271	214931.43	
2e	Quantity of overburden generation in m3	1075909	644794.286	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	The development is broadly as per proposal.		

3.0 Exploitation

SN	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	5	4	
3b	Quantity of ROM mineral production proposed	767637 (Tonne)	385665(Tonne)	
3c	Quantity of mineral reject generation (Tonne)	0	0	
3d	Grade of mineral reject generation and threshold value	0	0	

	declared			
3e	Quantity of sub-grade mineral generation	0	0	
3f	Grade of sub-grade mineral generation	NA	NA	
3g	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	
3h	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Nil	Nil	
3i	Provision of drilling & blasting in mineral benches	Yes.	Yes	
3j	Provision of mining machineries in mineral benches	Yes	Yes	
3k	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	yes	Yes	
3l	Total area covered under excavation/pits	18.568 Ha	13.24 Ha	
3m	Ore to OB ratio for the pit/mine during the year	1: 3.22	1:3.24	
3n	Total area put in use under different heads at the end of year	150.189 Ha	123.232 Ha	
3o	Production of ROM mineral during last five-year period, as applicable (in Tonnes)	Yr- 2014-15: 372160 Tonnes Yr- 2015-16: 743550 Tonnes Yr- 2016-17: 753282 Tonnes Yr- 2017-18: 752884 Tonnes Yr- 2018-19: 767637 Tonnes	Yr- 2014-15: 372160 Tonnes Yr- 2015-16: 690729Tonnes Yr- 2016-17: 565721Tonnes Yr- 2017-18: 572898 Tonnes Yr- 2018-19: 385665 Tonnes(ore)	
3p	General remarks of inspecting officer on method of mining etc.	The method of mining is broadly as per proposal, opencast using dumper-Shovel combination. The blasting is done deep hole drilling blasting using 100 mm diameter hole wagon drill.		

4.0 Solid Waste Management-Dumping

SN	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 36, 37)	Nil	Nil	As the mining is of shallow depth therefore subsequent use of

				waste & top soil for backfilling
4b	Location of topsoil, OB & mineral reject dumps (Range in UTM/Local Coordinate/Plot No./Location)	Nil	Nil	
4c	Number of dumps within lease area and outside lease area	Nil	Nil	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 14)	Nil	Nil	
4e	Number of active & alive dumps	Nil	Nil	
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps stabilised	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	Nil	Nil	
4k	Specific comments of inspecting officer on waste dump management	As the mining is of shallow depth therefore subsequent use of waste & top soil for backfilling.		

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	17.59 Ha	16.04 Ha	
5b	Area under backfilling of mined out area	18.568hect	13.24 Ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 36)	27.07 hect.	14.765	
5d	Total area fully reclaimed & rehabilitated	17.59	98.956 Ha(Total till 31.03.2019)	
5e	General remarks of inspecting officer on backfilling, reclamation etc	As the mining is of shallow depth therefore subsequent use of waste & top soil for backfilling and backfilling is broadly as per proposal.		

6.0 Progressive Mine Closure Plan

SN	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23. Details should be given in the format	-	Annual report on PMCP has been submitted on due date.	

	as given in Annexure-20.			
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	Nil	Nil	
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	1.Void available for Backfilling:18.568 Ha 2.Void filled by Waste/Tailing: 27.07 Ha 3.Afforestation on the backfilled area: 7.16 Ha 4.Rehabilitation by Making water reservoir: NIL 5.Any other Specific means: NIL	1.Void available for Backfilling:13.24 Ha 2.Void filled by Waste/Tailing: 14.765 Ha 3.Afforestation on the backfilled area: 7.99 Ha 4.Rehabilitation by Making water reservoir: NIL 5.Any other Specific means: NIL	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	NIL	Nil	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	-	Complied PM 10 and PM 2.5 is within permissible limit	
6f	General remarks of inspecting officer on PMCP compliance & progressive	Broadly as per proposal.		

7.0 Mineral Conservation

SN	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	NA	NA	

7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual	
7c	Different grade of mineral sorted out at mines	NA	NA	
7d	Any beneficiation process at mines	Manual Sorting is being carried out.	Manual Sorting is being carried out.	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	The low grade is blend with high grade to get the desire grade and no sub grade reported nor stacked in mine.		

8.0 Environment

SN	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (cum) (Rule 36)	125271 cum	214931.43 cum	
8b	Concurrent use or storage of topsoil(cum)	125271 cum	214931.43 cum	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 37)	Nil	Nil	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Simultaneously backfill the mined out area by the use of overburden, rejects and fine dumps for restoring the land to its original use.	Simultaneously backfill the mined out area by the use of overburden, rejects and fine dumps for restoring the land to its original use.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)(Ha)	27.07 Ha	14.765 Ha	
8f	Baseline information on existence of plantation & additional plantation done (Rule 44)	Afforestation on the backfilled area:7.16 Ha Number of Sapling:-18000	Afforestation on the backfilled area:7.99 Ha Number of Sapling:-19967	
8g	Survival rate	84.75%	84.85%	
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	
8i	General remarks of inspecting officer on aesthetic beauty in and	No adverse impact observed during mine visit.		

	around mines area	
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9.0 Compliance of Rule 45

S. N.	Item	COMMENTS	Remarks
	Status of submission of Monthly and Annual returns	M.R. Submitted upto - A.R. submitted upto-	

S. N.	Item	Details GIVEN in A.R.	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes given	Shri Amit Tiwari, Mining Engineer & Manager	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes given		
9d	Scrutiny of Annual return on Afforestation	19967 no saplings planted		
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Nil		
9f	Scrutiny of Annual return on ROM stock and/or graded ore	6739.18 graded ore of 43.75%Al ₂ O ₃		
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex. Mine price & production cost reported Rs 966.49/-		
9i	Scrutiny of Annual return on fixed assets	Nil	Three leases combined reported in single leases	
9k	Scrutiny of Annual return on mining machineries	Yes Given	Shovel of 0.9 & 1.4 cum Capacity, Drill m/c of 100mm,Dumper 25 tons	

10- Details of violations observed during current inspection and compliance position of earlier violation pointed out:- The earlier inspection reported compliance and during present inspection no serious violation observed.

(Rajesh Kumar Das, Senior Assistant Controller of Mines)