

MCDR INSPECTION REPORT

1.0 GENERAL

SL.N	PARTICULARS	DETAILS
1	File No.	CHG/KWD/BX-02/ Raipur
2	Name & Designation of the inspecting officer	Shri D.Dash Senior Mining Geologist
3	Date of Inspection	25.02.2022
4	Date of Last Inspection & Officer	24.12.2019, Shri Rajesh Kumar Das, Senior Asst. Controller of Mines
5	Accompanying mine personnel	Shri Manas Ranjan Sahu, Manager (Mines)
6	Name of the Mine	Bodai Daldali Bauxite mine
7	Total Lease Area (Ha) with breakup of Non-forest and forest land	Non Forest Land- 592.551 ha. Forest land – 33.566 ha
8	Mine code	07CHG09002
9	IBM Registration Number under rule 45 of MCDR, 1988	IBM/602/2011
10	Name of the lessee, Address, phone, email and fax number	M/S Bharat Aluminium Company Limited. (BALCO), Aluminium Sadan, Core-6, 3rd floor, Scope office Complex, 7, Lodhi road, NewDelhi- 110003
	Village	Mundadar, Bodai, Keshmarda, Gamdapara, Rabda & Samseta
	Taluka/Mandal	Bodla
	District	Kawardha
	Pincode	491995
	State	Chhattisgarh
	Post office	Baijalpur
11	Nearest police station	Taregaon
12	Nearest Railway station	Raipur
13	Date of Grant of Mining Lease	07.10.1996
14	Date of Execution	27.03.1997, 1st extension lease deed executed on 25.03.2017 up to 25.03.2047
15	Date of opening of Mine	31.03.2004
16	Weekly day of rest	Thursday
17	Date of first Renewal, if applicable and its period & expiry	NA
18	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Abhijit Pati, CEO, M/s BALCO, Aluminium Sadan, Core-6, 3rd floor, Scope office Complex, 7, Lodhi road, NewDelhi- 110003, mobile no- 7759242015, e mail- abhijit.pati@vendata.co.in
19	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri G.Venkat Reddy, Chief Operating Officer, M/s BALCO, P.O. Balco Nagar, district- Korba-495684 Date of appointment- 20.11.2021 Mob: -
20	Name of the Mines Manager with	Shri Manas Ranjan Sahu, M/s BALCO, BE, Mining

	Address, phone, email, fax number and date of appointment in mines	,Bodai Daldali Bauxite Mine, P.O. Baijalpur, district-Kabirdham, Chhattisgarh, date of appointment-23.06.2021, Mobile no. 9981995994, email- manasranjan.sahu@vedanta.co.in
21	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri Manas Ranjan Sahu, M/s BALCO, BE, Mining ,Bodai Daldali Bauxite Mine, P.O. Baijalpur, district-Kabirdham, Chhattisgarh, date of appointment-23.06.2021, Mobile no. 9981995994, email- manasranjan.sahu@vedanta.co.in
22	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes
23	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Kawardha/Bxt/Khoya-1228/2017-Raipur/1730 dated 17.11.2017 for the period from 2017-18 to 2020-21
24	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	-
25	Mineral(s) granted in lease and proved for mining	Bauxite
26	Method of Mining (Opencast, Underground)	Opencast
27	Category (Fully Mechanized, Others or Manual)	A Others
28	Captive/Non-Captive	Captive
29	EC for ROM Prod: Date of Issue:	12.50 lakh per annum valid up to 26.03.2047
30	FA amount Rs Valid up to:	Rs. 9,77,52,000/- 31 st March 2021

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

1.0 EXPLORATION

SN	ITEM	PROPOSALS (2020-21)	ACTUAL WORK (2020-21)	REMARKS
1a	Backlog of previous year	Nil	Nil	Entire mineralised area of 592.551 ha is cited to be under G1 scale exploration.
1b	Exploration over lease area for Geological axis 1 or 2.	No proposal	Not done	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	No proposal	Nil	

1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil
1e	Balance reserves as 01.04. 2021 (million tonnes)	121: 1.76 211: 1.14	
1f	General remarks of inspecting officer on geology, exploration etc.	Lateritic Bauxite occur as discontinuous lenticular and tabular bodies. Gibbsite is the main constituent mineral. Thus comes under category II lenticular deposit as per MEMC Rules, 2015. The entire mineralised area of 592.551 is reported as to be under G1 scale of exploration. However, since the area is covered under borehole drilling of 50x 50 m and 100x 100m, being pocket type deposit, the exploration should be considered as G2 and G3 scale exploration as per MEMC Rules, 2015. Accordingly, the lessee has been advised through scrutiny letter to carry out further exploration to cover the entire area under G1 scale of exploration as per MEMC Rules, 2015.	

2.0 DEVELOPMENT

SN	ITEM	PROPOSALS (2020-21)	ACTUAL WORK (2020-21)	REMARKS
2a	Location of development w.r.t. lease area	N-450 to N500 & E 1650 to E1900, N725 to N-800 & E 175 to 1925, N1675 to N 1950 & E 1500 to E 1700, N2050 to N 2100 & E 1775 to E 1900, N 2375 to N 2575 & E 1750 to E 2075, N4175 to N 4400 & E 1775 to E 2150, N4800 to N5200 & E 1775 to E 2150, N 6025 to N 6375 & E 1725 to E 2550	Not done	Mining operations became un-economic due to covid 19 situation and have been discontinued since June, 2020.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	proposed	Maintained	
2c	Stripping ratio or ore to OB ratio	1: 1.90	Nil	No OB generation reported since the mining operations were discontinued.
2d	Quantity of topsoil generation in Tonnes	Nil	Nil	
2e	Quantity of overburden generation in m ³	1429168m ³	Nil	OB generation not reported during the year.
2f	General remarks of inspecting officer on	Mining operations have become uneconomic due to Covid- 19 situation and discontinued since June, 2020.		

development of pit w.r.t. type of deposit etc.	
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3.0 EXPLOITATION

S.N.	ITEM	PROPOSAL (2020-21)	ACTUAL WORK (2020-21)	REMARK
3a	Number of pits proposed for production	05	Nil	
3b	Quantity of Bauxite mineral production proposed	753819 Tonne.	Nil	Mining operations became un-economic due to covid 19 situation and have been discontinued since June, 2020.
3c	Recovery of saleable/usable mineral from Bauxite production	489982 Tonne.	Nil	Same as above.
3d	Quantity of mineral reject generation	188454 tonnes	Nil	Same as above. Intercalated waste is considered mineral rejects in approved M.P.
3e	Grade of mineral reject generation and threshold value declared	Al ₂ O ₃ – 30% SiO ₂ - >= 5%	Al ₂ O ₃ -30%	
3f	Quantity of sub-grade mineral generation	75381.9	Nil	Reason same as above.
3g	Grade of sub-grade mineral generation	Not proposed	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual method	Manual	Bench development by machines and ore segregation manually.
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Not proposed	Not done.	
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	Yes	Yes	

	MP/SOM			
3m	Total area covered under excavation/pits	449.53 ha (cumulative till 2020-21)	387.41 ha (cumulative till 2020-21)	Less area degradation since mining operations have been discontinued since June, 2020.
3n	Ore to OB ratio for the pit/mine during the year	1:1.90	Nil	No OB reported during the year.
3o	Total area put in use under different heads at the end of year	Area under mining: 449.53 ha Infrastructure: 4 ha Roads: 5ha	Area under mining: 387.41 ha Infrastructure: 4 ha Roads: 5ha	Reason as above due discontinuance of mining operations.
3p	Production of Bauxite mineral during last Three -year period, as applicable (tones)	2016-17	11697	Low scale production due to lack of market for the grade of ore produced.
		2017-18	29800	
		2018-19	Nil	
		2019-20	669500	
		2020-21	Nil	
3q	General remarks of inspecting officer on method of mining etc.	The mining operation is carried out by semi-mechanised method i.e. bench development by machines and ore segregation is done manually. Due to Covid-19 situation mining operations are reportedly become un-economic due to which mining operations have been discontinued since June, 2020.		

4.0 SOLID WASTE MANAGEMENT-DUMPING

SN	ITEM	PROPOSALS (2020-21)	ACTUAL WORK (2020-21)	REMARKS
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Waste and mineral rejects are proposed for separate backfilling. Top soil to be spread over backfilled area.	Done as per proposal.	No external dump is proposed. Waste are proposed for simultaneous backfilling in mined quarries.
b	Location of topsoil, OB & mineral reject dumps	Simultaneous backfilling on proposed quarry	Done as proposed.	Reason as above.

		areas	
4c	Number of dumps within lease area and outside lease area	Nil	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not applicable	Not applicable
4e	Number of active & alive dumps	Nil	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	Nil	Nil
4k	Specific comments of inspecting officer	Simultaneous backfilling in mined out quarries are proposed. As per Annual Return for the year 2020-21, 371.4 ha area have been backfilled. Top soil is spread over the backfilled area and plantation is done on it.	

5.0 SOLID WASTE MANAGEMENT-BACKFILLING

SN	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	30.12 ha	Nil	Mining operations have been discontinued since June, 2020.
5b	Area under backfilling of mined out area	29.38 ha	Nil	Reason as above.
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Top soil is proposed to spread over backfilled area	Nil	Reason as above.
5d	Total area fully reclaimed & rehabilitated	29.38 ha	Nil	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Against proposal of backfilling, no area has been backfilled during the year 2020-21, since mining operations have been discontinued since June, 2020.		

6.0 PROGRESSIVE MINE CLOSURE PLAN

SN	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	Not submitted	Violation of Rule 26(2) of MCDR, 2017 is pointed out.
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	(i). Total 30.12 ha (ii) 60ha (iii) Plantation of 120000 saplings proposed (iv) 360000saplings (v) Nil (v) No specific proposal	(i) 6.32ha (ii) 6.32ha (iii) Plantation of 30000 saplings reported. (iv) 45,000 (v) No other method adopted. (v) Not furnished	Deviation due lack of mining operations during 2020-21.
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	29.38 ha area proposed for backfilling	Nil	Reason as above.
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	No Proposal	Nil	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Yes	Yes	
6f	General remarks of inspecting officer on PMCP compliance & progressive	Violation of Rule 26(2) of MCDR, 2017 is pointed out for non submission of Annual report on PMCP .		

7.0 MINERAL CONSERVATION

SN	ITEM	PROPOSALS (2020-21)	ACTUAL WORK (2020-21)	REMARKS
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Yes	Nil	No mining operations during the year.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual sorting	Nil	
7c	Different grade of mineral sorted out at mines	40-45% Al ₂ O ₃	Nil	
7d	Any beneficiation process at mines	Proposal not given	NA	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Medium grade of Bauxite of Al ₂ O ₃ 40-45% are produced from the mine after separation of Laterite from Bauxite by manual sorting. However, during the year 2020-21, no mining operations have been carried out.		

8.0 ENVIRONMENT

SN	ITEM	PROPOSALS (2020-21)	ACTUAL WORK (2020-21)	REMARKS
8a	Separate removal and utilization of topsoil (Rule 32)	Proposed	Nil	No mining operations carried out during the year 2020-21.
8b	Concurrent use or storage of topsoil	Proposed	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No waste dumping proposed. Backfilling proposed.	Nil	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposed	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed	Nil	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Nil information	Plantation of 30000 saplings reported in Annual Return.	
8g	Survival rate	1021 Plants with 60% survival rate	55%	
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	

8i	General remarks of inspecting officer on aesthetic beauty in and around mines are	Since mining operations have been discontinued since June, 2020, no work taken up during the year except plantation work.
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9.0 COMPLIANCE OF RULE 45

S. N.	Item	Comments	Remarks
9a	Status of submission of monthly and Annual returns	M.R. Submitted up to January, 2022. A.R. submitted for the year 2020-21	Violation of 45(5) (c) of MCDR, 2017 is pointed out for furnishing incorrect/ nil information on (i) In Part IV under Consumption of explosives, production of 400 tonnes and overburden removal of 55000, whereas in Para 4.2, no overburden handling reported and also in part Vi (1), no production reported but again in part Vi (2), production 400 tonnes reported. (ii) Depletion stocks have been reported in Part Vi (1) although no dispatch reported.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information on Mining Engineer & Geologist has been furnished.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area already exploited & abandoned: 387.41 ha, Covered under current working- 9.899 ha, Reclaimed & rehabilitated- 371.4 ha, occupied by plant & building- 8.1 ha, water reservoir- 5.2 ha. Appears to be correct.	
9d	Scrutiny of Annual return on afforestation	30000 nos saplings planted during the year	
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	Nil reported	
9f	Scrutiny of Annual return on ROM stock and/or grade ore	Opening stock- 1337 tonnes, closing stock- 737 tonnes. Appears to be incorrect since no dispatch of ore reported. Production 400 tonnes form processed ores reported with opening stock of 290.17 tonnes and closing stock of 690.17 tonnes.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production costs	Ex mine price is reported as Rs 1170 and same as cost of Production, since it is captive mine. The information appears to be incorrect.	
9i	Scrutiny of Annual return on Fixed assets	Fixed assets is reported as Rs 43260000. Appears to be correct.	
9k	Scrutiny of Annual return on mining Machineries	BACK HOE 0.900 CUM- 09 AIR COMPRESSOR – 4, Dumper (20tonnes) – 09, Non Electrical. Information appears to be correct.	

10- Details of violations observed during current inspection and compliance position of earlier violation pointed out: -Details of the Violations Pointed-out during Inspections:

नियम	उल्लंघन के प्रकार का ब्यौरा
11(1)	Following violations are observed against proposals in modifications in approved Review of Mining Plan for the period from 2017-18 to 2020-21 approved vide letter no. Kavirdha/Bx/MPNL-11731228/2019/Raipur dated 24.01.2020

	Against proposal to carry out plantation of 1,20,000 saplings, only 30,000 saplings have been planted.
26 (2)	A yearly report as per the format specified by Indian Bureau of Mines, before 1st day of July every year setting forth the extent of protective and rehabilitate works carried out has not been submitted for the year 2020-21.
45(5) (c)	<p>Following information are furnished incorrectly in submitted Annual Return for the year 2020-2021:</p> <p>(i) In Part II A (Capital structure) , Rs 3539000 reported against Capitalised Expenditure such as pre-production, exploration, development, major overhaul and repair to machinery etc., which is quite high considering mining operations are discontinued.</p> <p>(ii) In Para II (i), working days is mentioned as 365 days.</p> <p>(iii) In Part IV under Consumption of explosives,</p> <p>(a) Consumption of loose ammonium, detonators, detonator fuse, safety fuse have been reported, although nil production & waste handling during the year</p> <p>(b) production of 400 tonnes and over burden removal of 55000 reported, whereas in Para 4.2, no overburden handling reported and also in part Vi (1), no production reported but again in part VI (2), production of 400 tonnes reported.</p> <p>(iii) Depletion of stocks have been reported in Part VI (1), although, no dispatch reported.</p>

During the previous inspection on dated 26.02.2020, Violation Rule 11(1) of MCDR, 2017 pointed out for not carrying out backfilling and plantation during 2018-19 as proposed. Violation of Rule 45(5) (c) is also pointed out. All violations pointed out earlier have been considered complied.

Date:

(D.Dash)

Senior Mining Geologist