

**INDIAN BUREAU OF MINES
MINERALS DEVELOPMENT AND REGULATION DIVISION**

**MCDR inspection REPORT
Jabalpur regional office**

Mine file No : MP/STN/OCH-98

Mine code : 32MPR35043

- (i) Name of the Inspecting Officer and ID No. : **G005) SANJAY M. GIRHE**
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine Official with Designation :
- (iv) Date of Inspection : 20-MAR-21
- (v) Prev.inspection date : 19-FEB-20

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BARUI (8.178 HA)**
- (b) **Registration NO.** : **IBM/6677/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address :
State : MADHYA PRADESH
District : SATNA
Village : BARUI
Taluka : MAJHGAMA
Post office : DEORA
Pin Code :
FAX No. : N. A.
E-mail : kunjilalishwariprsad@gmail
Phone : 09425172715
- (f) Police Station : Sabhapur
- (g) First opening date : 13-MAR-81
- (h) Weekly day of rest : MON
2. Address for correspondence : M/S KUNJILAL ISHWARI PRASAD AGRAWAL
P.O. JAITWARA, DIST. SATNA (M.P.) 485221
3. (a) Lease Number : MPR2002
- (b) Lease area : 20
- (c) Period of lease : 20
- (d) Date of Expiry : 26-DEC-00
4. Mineral worked : BAUXITE Associated
KAOLIN Associated
LATERITE Associated
OCHRE Main
CLAY (OTHERS) Associated

5. Name and Address of the

Lessee : KUNJILAL ISHWARI PRASAD AGRAWAL
 AT & P.O. JAITWARA
 DIST.SATNA M.P SATNA MADHYA
 PRADESH
 Phone:09425172715
 FAX :N. A.

Owner : KUNJILAL ISHWARI PRASAD AGRAWAL
 AT & P.O. JAITWARA DIST.
 SATNA M.P SATNA MADHYA
 PRADESH
 Phone: 09425172715
 FAX : N. A.

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	05-JUN-97
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	28-APR-06
		Renewal under rule 24 MCR1960	15-FEB-12
		Mining Scheme rule 12 MCDR1988	10-NOV-15
		MP modif under 17(3) MCR 2016	30-SEP-20

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	During the year 2020-21 exploration was proposed by 02 Core, 02 DTH Boreholes	No exploration carried out as the given proposals.	The violation of rule 11(1) is pointed out for not carrying out proposed exploration.
1b	Exploration over lease area for geological axis 1 or 2	During the year 2020-21 exploration was proposed by 02 Core, 02 DTH Boreholes	No exploration carried out as per the approved proposals.	Mining lease area explored by working pits only. No other detailed exploration carried out by the lessee in past. Lease area falls under G2 level of exploration based working pits mineral establishment.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	During the year 2020-21 exploration was proposed by 02 Core, 02 DTH Boreholes	Not carried out as per the proposals	NA
1d	Balance area to be explored to bring Geological axis in 1 or 2	G2 level area of 8.094 Ha was proposed to be converted in to G-1	Proposed exploration not carried out in approved plan period	Violation pointed out under Rule 11(1) of MCDR,2017 for not carrying out exploration as per approved proposals
1e	Balance reserve as on 01/04/20	Reserves in Tonnes Probable (122)- 106101MT Resources Pre-Feasibility(22): 9082 MT The balance reserves as on 1/4/2015	Reserves in Tonnes Probable (122)-103050MT Resources Pre-Feasibility(22): 9082 MT The balance reserves as on 31/01/2021	Above reserves/resources staus as on 30.01.2021 before the preceeding month of inspection.

1f	General remarks of inspecting officers on geology, exploration etc	NA	NA	Entire mineralised lease area has not been explored fully as per UNFC Guidelines by the lessee in past. Hence, lessee was instructed to propose further exploration to convert G2 reserves/resources into G1 level of exploration. Accordingly, lessee has proposed 8 BHs in Modified Mining Plan for the period 2020-21 to 2024-25 as per the provisions of Rule 12(4) of MCDR, 2017
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	During the year excavation was proposed in Quarry-3 in between N2750540 to N2750680 & E494270 to E494390 and in Quarry-1 in between N2750630 to N2750740 & E494490 to E494610 by formation of three benches (1 Bauxite bench & 2 ochre+ white clay bench)	Overall mine working was carried out as per the proposed locations.	Deposit is of very complex in nature as the bauxite ore, Ochre mineralisation & white clay mineralisation get mixed to each other and becomes difficult to segregate the individual ore/mineral. But, due skilled manpower separation of these ore by manual soring was being done.

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches were proposed for excavation of Yellow Ochre & white clay.	Top soil not occurred in lease area. separate bench is observed in Ochre and white clay Minerals of 1.0 to 1.50mts height.	There is no top soil in the lease area. Soil is of lateritic in nature in loose/floated form mix with grit and small pebbles.
2c	Stripping ratio or ore to OB ratio	Stripping ration of 1:0.50 was proposed during the year 2020-21	Nil	No production of bauxite carried out till the month of Feb-2021
2d	Quantity of topsoil generation in m3	No Proposals	Nil	No top soil occurred in the mining lease area.
2e	Quantity of overburden generation in m3	During the year 2020-21 total 8482 CuM OB generation was proposed	No OB generation acheived during year as no bauxite ore production is reported.	NA
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NA	Deposit is of very complex in nature as the bauxite ore, Ochre mineralisation & white clay mineralisation get mixed to each other and becomes difficult to segregate the individual ore/mineral. But, due skilled manpower separation of these ore by manual soring was being done.	There were 3 working pits & its diemnsions are Pit No-1 (102m x 29-90m x 2-4m), Pit No-2 (90m x 15-45m x 3-5m), Pit No-3 (32-83m x 65-105m x 5-13), Bauxite mineralisation were seen in all the pits

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Excavation were proposed in Pit-1 and Pit-3 in 3 benches of 2 to 3mts heights	No bauxite ore production carried out during the year 2020-21.	NA

3b	Quantity of ROM mineral production proposed	During the year 2020-21 total 5166 tonnes of bauxite ore production was proposed	No production carried out during the year	NA
3c	Recovery of sailable/usable mineral from ROM production	From ROM production, total 40% recovery of bauxite ore proposed	No production achieved during the year 2020-21	In general total 90% recovery including 50% recovery of laterite & 40% recovery of bauxite proposed in approved modified mining plan.
3d	Quantity of mineral reject generation	No proposals	Nil	NA
3e	Grade of mineral rejects generation and threshold value declared.	Not Proposed	NA	NA
3f	Quantity of sub grade mineral generation.	Not Proposed	NA	Neither any proposals were given for subgrade bauxite generation during the year. Simultaneous proposals for minor minerals like white clay, laterite & ochre were given.
3g	Grade of sub grade mineral generation	Not Proposed	NA	NA
3h	Manual / Mechanised method adopted for segregating from ROM	Manual sizing & sorting proposed	No bauxite ore production carried out during the year	NA

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Manual sizing & sorting to get desired grade of bauxite ore was proposed. But, during the year no production reported.	Lessee is not having any plan for beneficiation study
3j	Provision of drilling and blasting in mineral benches	No drilling & blasting proposed	NA	In general, this deposit comprising of white clay, Ochre, Bauxite ore & laterite is soft in nature and doesnot require any drilling, blasting.
3k	Provision of mining machineries in mineral benches	Hyd. Excavator-L&T PC-200-(0.9 CuM, 210 H.P.) capacity TATA Dumper, 10 Tonner capacity - 04 Nos Water Tanker-5KL, 90 HP	Hyd. Excavator-L&T PC-200-(0.9 CuM, 210 H.P.) capacity TATA Dumper, 10 Tonner capacity - 04 Nos Water Tanker-5KL, 90 HP - 01 Nos	No drilling & blasting proposed due soft nature of deposit.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	In OB bench height of 2.0m was proposed Bench height of 3m proposed in mineral	No bauxite ore production carried out during the year	Proposed bench height is suitable for such type of deposit
3m	Total area covered under excavation/pits	2.54 Ha area was proposed in approved MP period i.e. 2015-16 to 2019-20	During the year 2020-21 no bauxite ore production carried out.	NA
3n	Ore to OB ratio for the pit/mine during the year.	Proposed as 1:0.50	Nil as no production of bauxite carried out during the year	NA

3o	Total area put in use under different heads at the end of year	As per the approved Modified Mining Plan Pits-1.79 Ha Waste dumps-0.87Ha Infrastructure -0.01Ha Road-0.40 Ha Other -0.10Ha	As per the approved Modified Mining Plan Pits-1.79 Ha Waste dumps-0.87Ha Infrastructure-0.01Ha Road-0.40 Ha Other -0.10Ha	No change in area due to "Nil" bauxite ore production during the year
3p	Production of ROM mineral during the last five year period as applicable	2016-17-: 4,986 MT 2017-18-: 3,928 MT 2018-19-: 3,915 MT 2019-20-: 7,477 MT 2020-21-: 5,166 MT	2016-17-: Nil MT 2017-18-: 269.0 MT 2018-19-: 2292 MT 2019-20-: 490 MT 2020-21-: Nil MT	During the year 2020-21 no bauxite ore production carried out.
3q	General remarks of inspecting officers on method of mining etc.	Opencast semi-mechanised method of mining was proposed	Opencast semi-mechanised method of mining is being practised	Semi-Mechanised open cast working proposed by using Excavator & dumper combination without drilling & blasting proposed. Deposit is soft in nature comprising of white clay, Ochre & laterite along with bauxite ore.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes	Yes	
4b	Location of topsoil, OB and mineral reject dumps	East side of quarry-3	East side of quarry-3	

4c	Number of dumps within lease area and outside of lease area	One dumps within lease area	One dumps within lease area
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside the UPL	Outside the UPL
4e	Number of active and alive dumps.	One	One
4f	Number of dead dumps.	Nil	Nil
4g	Number of dumps established.	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Not Proposed	Not done
4i	Length of Retaining wall or garland drain all along dumps	NA	NA
4j	Number of settling ponds	One	One
4k	Specific comments of inspecting officer on waste dump management	It was proposed to prepare and maintain garland drain and retaining wall around the dump	Garland drain and retaining wall around the dump was prepared up to maximum extent

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Not Proposed	None of part of lease area has been fully mineral exhausted	Scope of backfilling not yet generated
5b	Area under backfilling of mined out area	Not Proposed	Nil	

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not Proposed	Nil	
5d	Total area fully reclaimed and rehabilitated	Not Proposed	None of area reclaimed and rehabilitated so far	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	Presently scope of reclamation by backfilling doesn't exist as mineral still existed in pit area.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	To be submitted before 1st July of every year	Not submitted	Violation of rule 26(2) of MCDR,17 pointed out
6b	Area available for rehabilitation (ha) .	Not Proposed	Nil	No area is available for rehabilitation
6c	afforestation done (ha).	NA	NA	
6d	No. of saplings planted during the year	NA	NA	
6e	Cumulative no .of plants	NA	NA	
6f	Any other method of rehabilitation	NA	NA	
6g	Cost incurred on watch and care during the year	NA	NA	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	2300 SqM area proposed for backfilling	1000 SqM area backfilled
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	3600 CuM waste proposed for backfilled	2530 CuM waste backfilled
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Not Proposed	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not Proposed	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not Proposed	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not Proposed	Existance of waste land yet to be proved by exploration
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not Proposed	Nil

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not Proposed	Nil	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodical Air, Water, Noise monitoring Proposed	Yes, Compliances of environmental monitoring is being carried out.	Env. monitoring reports were produced during mine inspection
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Reclamation & rehabilitation was proposed	Recalimation & rehabilitation carried out as per the proposals	Some other PMCP works like preparation of garland drain, retaining wall, afforestation, etc around the dump area were proposed. Accordingly, works carried out.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	7477 MT proposed as total ROM production for despatch. Grade wise sorting proposed within lease area for cement & chemical grade of bauxite proposed	During the year 2019-20 no bauxite production carried out	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual sorting being practised	

7c	Different grade of mineral sorted out at mines.	Bauxite having Al ₂ O ₃ + 52%, SiO ₂ -: -5% and Fe ₂ O ₃ -: 3 to 5% proposed for chemical grade use. Bauxite having Al ₂ O ₃ -42%, SiO ₂ -: 10 to 12% and Fe ₂ O ₃ -: 18 to 22% proposed for cement grade use	During the year no production of bauxite acheived	
7d	Any beneficiation process at mines .	Not Proposed	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	NA	Mineral is being conserved by grade wise sorting in the lease area. Bauxite having Al ₂ O ₃ + 52%, SiO ₂ -5% and Fe ₂ O ₃ - 3 to 5% used for chemical grade use. Bauxite having Al ₂ O ₃ - 42%, SiO ₂ 10 to 12% and Fe ₂ O ₃ 18 to 22% used for cement grade use.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not proposed	No top soil is available in the area	
8b	Concurrent use or storage of topsoil	Not Proposed	Nil	

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Dumping was proposed towards eastern side of quarry-3	Not done as no production carried out during the year	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not Proposed	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Reclamation, rehabilitation and plantation were proposed	Nil, no buaxite production carried out during the year	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	During the year 440 nos of saplings covering 0.211 Ha was proposed	Plantation carried out by 500 saplings covering 0.20 Ha area	
8g	Survival rate	80% surviaval rate was proposed for the year	60% survival rate acheived	As reported during inspecting, reason for low survival rate is due scarcity of nearby water sources & upper stony feild.
8h	Water sprinkling on roads to control airborne dust	Water sprinkling is proposed by water tanker	Regular water sprinkling is being practised by water tanker	

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	NA	NA	Aesthetic beauty in and around mine area is not much satisfactory as plantation not done up to that extent. Hence, it was instructed to plant minimum 200 sapling/year.
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. not submitted upto- Jan-2021 A.R. submitted upto- 2019-20	Statutory annual & monthly returns are being submitted online regularly	Annual Return for the year 2019-20 was submitted well within stipulated time
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Not Given	Geologist & ME were appointed at the time of inspection	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under O/c working- 3.00 Ha Reclaimed/Rehabilitated- 0.570Ha Infrastructure s-0.75 Ha	Area under O/c working- 3.00 Ha Reclaimed/Rehabilitated- 0.570Ha Infrastructures-0.75 Ha	
9d	Scrutiny of Annual return on afforestation	Total 1000 Saplings	Plantation was carried out	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not given	No mineral rejects generated from mine	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	No ROM opening & closing stocks mentioned	ROM stocks not found	

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given	Rs-700/ tonne for chemical grade use
9h	Scrutiny of Annual return on fixed assets	Given	Nil
9k	Scrutiny of Annual return on mining machineries	Given	As per AR

Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed			Show cause position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17	Rule 11(1)	21-APR-21			
MCDR17	Rule 14(3)	21-APR-21			
MCDR17	Rule 26(2)	21-APR-21			
MCDR17	Rule 45(2)	21-APR-21			

Date :

(SANJAY M. GIRHE)

Indian Bureau of Mines