MCDR-MiFL0BXT/7/2022-JBP-IBM_RO_JBP

INDIAN BUREAU OF MINES

MINERALS DEVELOPMEMT AND REGULATION DIVISION

I/17428/2023

MCDR inspection REPORT

Jabalpur regional office

Mine file No : MP/SATNA/BAUXITE/45 **Mine code : 07MPR35114**

(i) Name of the Inspecting Officer and ID No. : **C004) ROBERT SIMON C**

(ii) Designation : Assistant Controller Mine

(iii) Accompaning mine Official with Designation : Shri Shyam Gopal Saxena, (Mining Engineer)

(iv) Date of Inspection : 25-AUG-23

(v) Prev.inspection date : 17-OCT-22

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **JARIYARI BAUXITE MINE (4.**

(b) Registration NO. : **IBM/21189/2017**

(c) Category : A Mechanised

(d) Type of Working : Opencast

(e) Postal address

State : MADHYA PRADESH
District : SATNA
Village : JARIYARI
Taluka :
Post office : Maihar
Pin Code : 485010
FAX No. :
E-mail : info@jiwanlime.com
Phone : 9300644255

(f) Police Station :

(g) First opening date : 08-DEC-21

(h) Weekly day of rest : SUN

2. Address for correspondance : Village: Jariyar, P.O. Maihar, District: Satna (M.P.) - 485010

3. (a) Lease Number :

(b) Lease area : 4.00 h

(c) Period of lease :50 years

(d) Date of Expiry :08.01.2067

4. Mineral worked : BAUXITE Main

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5. Name and Address of the Lessee : JIWAN LIME CHEMICALS PVT. LTD.
INDUSTRIAL AREA, KATAYGHAT ROAD, KATNI (M.P.) 483501
KATNI MADHYA PRADESH
Phone: 9300644255.
FAX :

6. Date of approval of Mining Plan/Scheme of Mining : MP review under 17(1) MCR 2016 20-JUL-21

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PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	23 BH	12 BH	Violation of rule 11(1) pointed out dated 27/10/2022 & compliance done dt.09/01/2023.
1b	Exploration over lease area for geological axis 1 or 2	Nil	G2-4.00 ha.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA	NA	
1d	Balance area to be explored to bring Geological axis in 1 or 2	NA	G2-4.00 ha.	
1e	Balance reserve as on 01/04/20	Not proposed	111-174913 T	
1f	General remarks of inspecting officers on geology, exploration etc			No proposal for exploration during the year.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N2677442 & N2677530 and E495265 & E495305	N2677442 & N2677530 and E495265 & E495305	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in overburden and mineral proposed	Separate benches in overburden and mineral maintained	
2c	Stripping ratio or ore to OB ratio	1:0.23	NA	Nil OB generated.

2d	Quantity of topsoil generation in m3	2450	As with top soil, occurances of bauxite were also observed and hence after sorting entire left out excavated material have been stacked with an intension to mechanised screening.	
2e	Quantity of overburden generation in m3	6762	Nil	Violation pointed out under Rule 11(1) of MCDR 2017.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			As with top soil occurances of bauxite / Laterite were also observed and hence after sorting entire left out excavated material have been stacked with an intension to mechanised screening.It appears that entire produced from the mine is marketable first in the name of bauxite and latter on as laterite.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	01	01	
3b	Quantity of ROM mineral production proposed	28255 MT	19860 MT	

3c	Recovery of sailable/usable mineral from ROM production	65%	100%	Bauxite deposit is of refractory grade particularly from where excavations had been carried out. There is a possibility that remains portion of mined excavated mineral have a market either in form of bauxite or as a laterite.
3d	Quantity of mineral reject generation	Nil	Not reported.	
3e	Grade of mineral rejects generation and threshold value declared.	NA	NA	
3f	Quantity of sub grade mineral generation.	Nil	Nil	
3g	Grade of sub grade mineral generation	NA	NA	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Not Applicable	
3j	Provision of drilling and blasting in mineral benches	Not proposed	Not Applicable	
3k	Provision of mining machineries in mineral benches	Yes	Hydraulic Shovel with rock breaker facility.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed	Found suitable	

3m	Total area covered under excavation/pits	Not specified	0.949 ha		
3n	Ore to OB ratio for the pit/mine during the year.	1:0.23	Nil		
3o	Total area put in use under different heads at the end of year	Not specified	1.829 ha		
3p	Production of ROM mineral during the last five year period as applicable	2018-19 42768 2019-20 42768 2020-21 42768 2021-22 28028 2022-23 28255	2018-19 2019-20 2020-21 2021-22 2022-23	0 0 0 2809.5 19860	Mining Operation in the mine commenced on 08/12/2021.
3q	General remarks of inspecting officers on method of mining etc.				Open cast mechanised working proposed by using Excavator & dumper combination without drilling & blasting. Single working pit is developed.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks

4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Soil-2450cum, OB 6762 cum and reject Nil	Top Soil, OB and reject Nil	Bauxite of the lease area is very high quality - Refractory Grad. At present lumps generated from the mining have been dispatched to their sister concerned Refractory Unit in the name of Mahakaushal Refractory Pvt. Ltd. Rest i.e. so called Top soil, OB (laterite) mixes with fines of refractory grade bauxite is stacked for screening purpose.
4b	Location of topsoil, OB and mineral reject dumps	Soil -On Southern 7.5m statutory boundry area, OB and mineral reject dumping were not proposed as entire OB/ intercalted mine waste was envisaged for preparation of road and generation of Mineral reject is envisaged as nil.	As stated earlier there is no separate soil, only lateritic soil with laterite and outcrops of refractory grade bauxite were seen in the area selected for excavation. Lateric soil mixed with laterite and fines of high grade bauxite is found separately stacked on proposed site as well as area from where mineral is excavated.	
4c	Number of dumps within lease area and outside of lease area	Only Soil dump with in lease area.	As stated earlier there is no separate soil, only lateritic soil with laterite and outcrops of refractory grade bauxite were seen in the area salected for excavation. Lateric soil mixed with laterite and fines of high grade bauxite is found separately stacked on proposed site as well as area from where mineral is excavated.	

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	On selection of site for dumping ultimate pit limit have well considered.	As stated earlier there is no separate soil, only lateritic soil with laterite and outcrops of refractory grade bauxite were seen in the area salected for excavation. Lateric soil mixed with laterite and fines of high grade bauxite is found separately stacked on proposed site as well as area from where mineral is excavated.	
4e	Number of active and alive dumps.	One	Dump Nil and Mineral stack one	As stated earlier there is no separate soil, only lateritic soil with laterite and outcrops of refractory grade bauxite were seen in the area salected for excavation. Lateric soil mixed with laterite and fines of high grade bauxite is found separately stacked on proposed site as well as area from where mineral is excavated.
4f	Number of dead dumps.	Nil	Nil	
4g	Number of dumps established.	Not proposed	Not Applicable.	
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall proposed.	As per proposal.	
4i	Length of Retaining wall or garland drain all along dumps	75m	75m	
4j	Number of settling ponds	01	01	

4k	Specific comments of inspecting officer on waste dump management	As stated earlier there is no separate soil, only lateritic soil with laterite and outcrops of refractory grade bauxite were seen in the area selected for excavation. Lateric soil mixed with laterite and fines of high grade bauxite is found separately stacked on proposed site as well as area from where mineral is excavated. Thus there is no waste generation and so waste dump management issues doesnt arise.

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	Area not mature to start backfilling.	
5b	Area under backfilling of mined out area	Not proposed	Not observed, it was found that other than lump all the generated ROM were stacked on mined out area with an intension of screening.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not proposed rather separate stacking proposed.	Top soil with laterite and fractions of high grade bauxite generated during mining operation separatly stacked at mined out area.	
5d	Total area fully reclaimed and rehabilitated	Not proposed	Not Applicable.	

5e	General remarks of inspecting officers on backfilling and reclamation etc.	Backfilling of mined out area not proposed inview of hilly blanket deposit.

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).	Proposed	Submitted as an annexure in Annual Return.	
6b	Area available for rehabilitation (ha) .	Nil	Nil	
6c	afforestation done (ha).	0.009 ha	0.01 ha	
6d	No. of saplings planted during the year	10	50	
6e	Cumulative no .of plants	Not specified	Not available	
6f	Any other method of rehabilitation	Not proposed	Not found.	
6g	Cost incurred on watch and care during the year	Not Proposed	NA	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	NA	NA	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NA	NA	

6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	NA	NA	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NA	NA	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NA	NA	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NA	NA	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NA	NA	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NA	NA	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed	Carried out.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Plantation carried out on statutory barrier zone were observed.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks

7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM mineral dispatch	ROM mineral dispatch	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	Refractory	Refractory	
7d	Any beneficiation process at mines .	Not proposed.	Not done	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			There is no issue regarding mineral conservation. At present manual sorting is in practice.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Proposed.	In lease area lateritic soil with laterite and bauxite outcrops are there. Although top soil was proposed to be removed separately but during mining operation it was noticed that entire excavated material have market either in form of refractory grade bauxite or in form of laterite. After sorting out of refractory grade bauxite entire produced from the mine are kept in mined out area with an intension of screening of entire material.	

8b	Concurrent use or storage of topsoil	Separate stacking on statutory barrier zone was proposed.	As stated earlier entire mineral produced from the mine have utility so whatever in little quantity of lateritic soil generated is kept with mineral stack.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposed	Other than lump of refractory grade bauxite, entire mineral produced is kept at mined out area of lease with an intension of screening of refractory grade bauxite.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not proposed	NA
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not proposed	Not applicable as after mining top of the hill will be sliced upto mineralisation level.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Not proposed	Not available.
8g	Survival rate	Not specified	80%
8h	Water sprinkling on roads to control airborne dust	Yes, proposed	Water sprinkling noticed.

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Overall aesthetic beauty in and around the lease area is good as it is located within forest area and lies in top of a hill. Efforts of lessee towards mitigation of adverse impact of mining on environment is appears very good.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Proposed	Returns submitted online.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	Mining Engineer in charge: SHYAM GOPAL SAXENA Geologist in charge : SHRIDHAR PANDEY	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	12. Lease area (surface area) utilisation as at the end of year (hectares): Under forest Outside forest Total (i) Already exploited and abandoned by opencast (O-C) mining 0.000 0.000 0.000 (ii) Covered under current (O-C) Workings 0.949 0.000 0.949 (iii) Reclaimed-rehabilitated 0.000 0.000 0.000 (iv) Used for waste disposal 0.000 0.000 0.000 (v) Occupied by plant, buildings, residential, welfare buildings and roads 0.346 0.000 0.346 (vi) Used for any other purpose (specify)Greenbelt & Mineral St	

9d	Scrutiny of Annual return on afforestation	Given	i) Number of trees planted during the year 100nos ii) Survival rate in percentage 80%
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given	ROM stock Nil and Graded stock 1100.190 tonne of refractory grade
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given	Ex Mine Price both - Rs. 4421.75 per tonne, Production cost Rs.2382 per tonne
9h	Scrutiny of Annual return on fixed assets	Given	Value of Fixed Assets Rs. 22381475.
9k	Scrutiny of Annual return on mining machineries	Given	Type of machinery Capacity of eachtype ofmachinery Unit(in whichcapacity isreported) No. ofmachinery Electrical Nonelectrical(specify) Used inopencastunderground(specify) BACK HOE 0.900 CUM 2 Non Electrical Opencast DUMPER 10.000 TONNE 1 Non Electrical Opencast DUMPER 20.000 TONNE 1 Non Electrical Opencast

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

Violation observed			Show couse position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on

Date :

(**ROBERT SIMON C**)

Indian Bureau of Mines