

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

**MCDR inspection REPORT
Jabalpur regional office**

Mine file No : MP/SATNA/LST-333

Mine code : 38MPR35309

- (i) Name of the Inspecting : **G005**) **SANJAY M. GIRHE**
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 14-JAN-20
- (v) Prev.inspection date : 15-DEC-17

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BIRHULI (56.20 HA)**
- (b) **Registration NO.** :
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : MADHYA PRADESH
District : SATNA
Village : BIRHULI
Taluka : RAGHURAJ NAGAR
Post office : SAGMANIA
Pin Code : 485114
FAX No. : NA
E-mail : NA
Phone : NA
- (f) Police Station : KOLGAWAN
- (g) First opening date : 15-JUN-09
- (h) Weekly day of rest :
2. Address for : M/S BIRLA CORPORATION LTD
correspondance : SATNA CEMENTS WORKS
P.O. BIRLA VIKAS, SANTA (M.P.) 485005
3. (a) Lease Number : MPR2242
- (b) Lease area : 56.27
- (c) Period of lease : 20
- (d) Date of Expiry : 29-DEC-25
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : BIRLA CORPORATION LTD
 SATNA CEMENTS WORKS P.O.
 BIRLA VIKAS, SANTA (M.P.)
 485005 SATNA MADHYA PRADESH
 Phone:N. A.
 FAX :N. A.

Owner : BIRLA CORPORATION LIMITED
 BIRLA BUILDING, 9/1,
 R.N.MUKHERJEE ROAD
 KOLKATA WEST BENGAL
 Phone: N. A.
 FAX : N. A.

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	21-NOV-03
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	04-MAR-13
	:	Mining Scheme rule 12 MCDR1988	01-AUG-14
	:	MP review under 17(1) MCR 2016	27-MAR-19

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No exploration was proposed during the year 2018-19	Nil	Detailed exploration already been carried out in ML area
1b	Exploration over lease area for geological axis 1 or 2	No exploration was proposed during the year 2018-19	Nil	Entire ML area explored in G1 level by detailed exploration in past
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No exploration was proposed during the year 2018-19	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not Proposed	No further proposals	Entire ML area explored in G1 level by detailed exploration in past
1e	Balance reserve as on 01/04/20	Reserves (In Mill Tonne) Proved (111)- 13.668 Resources(In Mill Tonne) Feasibility(211): 1.080 As per approved SOM dtd 01.08.2014	Reserves (In Mill Tonne) Proved (111)- 15.02 Resources(In Mill Tonne) Feasibility(211): 1.11 As per Annual return for the year 2018-19	Reserves have been reestimated as reported in
1f	General remarks of inspecting officers on geology, exploration etc	NA	NA	Entire mineralised lase area has been explored fully as per UNFC Guidelines by the lessee in past. Exploration was carried out on 100 x200m grid pattern & total 49 boreholes were drilled in past with 991m drilling quantum.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Working proposed at 2locations between grid N(-)775 to (-)480& E1360 to 1470	Working carried out at proposed locations between grid (-)480 & E1360 to 1425	Working were carried out at proposed locations only.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in Top soil, HOB& mineral proposed	Yes, maintained as per the proposals	Separate benches observed in OB and in limestone excavation
2c	Stripping ratio or ore to OB ratio	Prposed as 1: 0.15	Acheived as 1: 0.03	
2d	Quantity of topsoil generation in m3	Proposed as 10698 M3	Acheived as 2380 M3	Less top soil generation due to less advancement
2e	Quantity of overburden generation in m3	Proposed as 83572 M3	Acheived as 9524 M3	Less OB generation due to less development
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NA	NA	Working being carried out in single centralised pit and about 56.27 ha covered by opencast working. Limestone very well exposed on working benches.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Working proposed in 1 pits	Working carried in Pit-1 as per the proposals	
3b	Quantity of ROM mineral production proposed	Proposed Production - 0.6 million Tonnes	Acheived as 0.4 million Tonnes during the year 2018-19	Less production due to less demand as reported during mines inspection
3c	Recovery of sailable/usable mineral from ROM production	95% recovery of usable mineral from ROM	95% recovery of usable mineral from ROM	

3d	Quantity of mineral reject generation	Not Proposed	Nil	Entire 95% recovered ROM being used in cement plant.
3e	Grade of mineral rejects generation and threshold value declared.	Not Proposed	NA	No mineral rejects generation proposed during the year
3f	Quantity of sub grade mineral generation.	Not Proposed	NA	No sub-grade mineral generation proposed during the year 2018-19
3g	Grade of sub grade mineral generation	Not Proposed	NA	
3h	Manual / Mechanised method adopted for segregating from ROM	Not Proposed	NA	Dedicated crusher is provided for sizing of ROM
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Nil	
3j	Provision of drilling and blasting in mineral benches	Proposed by Drill-Wagon Drill, 115mm dia drill	Done by Drill-Wagon Drill	
3k	Provision of mining machineries in mineral benches	Hydrolic Shovel (2) 1cu.m Dumper-55Tonnes	Hydrolic Shovel (2) 1cu.m Dumper-55Tonnes	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height of 6 to 9 m proposed in mineral.	Bench height is maintained as per the proposals	
3m	Total area covered under excavation/pits	Proposed as 32.99 Ha as approved document	Acheived as 28.70 Ha as on 31.03.2019	

3n	Ore to OB ratio for the pit/mine during the year.	Proposed as 1:0.15	Acheived as 1:0.03	
3o	Total area put in use under different heads at the end of year	Pit-28.70 OB storage-0.25 Infrastructure-0 Road-0	Pit-28.70 OB storage-0.25 Infrastructure-0 Road-0 As per annual return 2018-19	
3p	Production of ROM mineral during the last five year period as applicable	Yr-2018-19 - 600000 Yr-2017-18 - 600000 Yr-2016-17 - 600000 Yr-2015-16 - 600000 Yr-2014-15 - 600000	Yr-2018-19 - 408680 Yr-2017-18 - 391678 Yr-2016-17 - 333100 Yr-2015-16 - 368545 Yr-2014-15 - 285735	All quantity in Tonnes. Production details as per online annual returns
3q	General remarks of inspecting officers on method of mining etc.	NA	NA	Fully Mechanised open cast working proposed by using Excavator /JCB & dumper combination with deep drilling & blasting being practised.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping proposed for top soil & OB	Dumpong of top soil & OB carried out as per the proposals	
4b	Location of topsoil, OB and mineral reject dumps	Not Available	No top soil stacks, OB dumsp existing in lease area.	
4c	Number of dumps within lease area and outside of lease area	NA	No OB dumsp existing in lease area.	OB generated being used concurrently for road preparation, bund formation etc

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	NA	NA	No OB dumsp existing in lease area.
4e	Number of active and alive dumps.	NA	No active OB dumsp existing in lease area.	
4f	Number of dead dumps.	Nil	No dead OB dumsp existing in lease area.	
4g	Number of dumps established.	Not Proposed	No active or dead OB dumsp existing in lease area.	
4h	Whether Retaining wall or garland drain all along dumps are there.	Not Proposed	No active or dead OB dumsp existing in lease area.	
4i	Length of Retaining wall or garland drain all along dumps	Not Proposed	No active or dead OB dumsp existing in lease area.	
4j	Number of settling ponds	Not Proposed	NA	
4k	Specific comments of inspecting officer on waste dump management	NA	NA	No active or dead OB dumsp existing in lease area. Whatever OB generated during course of mining being concurrently used for mine haul road preparation & bund formation.

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 the pits have been fully limestone exhausted	Limestone still continued in working pit.
5b	Area under backfilling of mined out area	Not Proposed	Nil	None of the mining lease backfilled till now

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Top Soil utilization for restoration or rehabilitation in mined out area was proposed.	Top soil utilized as per the proposals	
5d	Total area fully reclaimed and rehabilitated	Not Proposed	Nil	None of the excavated area fully reclaimed and rehabilitated
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	Presently scope of reclamation by backfilling & rehabilitation doesnot exists as the limestone mineration not exhausted so far in any pits

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 within prescribed time limit	Submitted within time limit	
6b	Area available for rehabilitation (ha) .	Not Proposed	Nil	
6c	afforestation done (ha).	NA	NA	
6d	No. of saplings planted during the year	Saplings proposed to be planted	Plantation carried out over bund around the ML area	
6e	Cumulative no .of plants	NA	NA	
6f	Any other method of rehabilitation	Not Proposed	Nil	

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	Not Proposed	Nil	None of working pit area matured for reclamation by backfilling
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not Proposed	Nil	Presently scope doesnot exists.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Not Proposed	Nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not Proposed	Area not matured so far	
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	Nil	

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	Carried out as per the proposals	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NA	NA	None of the working pits area matured for reclamation by backfilling & rehabilitation by plantation. Other PMCP proposals being implemented.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	600000 tonne ROM was proposed for production & despatch	408680 tonnes of ROM depstached to cement plant for captive use	No grade wise sorting proposed in approved plan
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Not Proposed/Not applicable	Not Applicable	No grade wise sorting proposed in approved plan
7c	Different grade of mineral sorted out at mines.	Not Proposed	NA	No grade wise sorting proposed in approved plan

7d	Any beneficiation process at mines .	Not Proposed	Not carried out	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	NA	Total 95% recovered ROM being consumed in cement plant for captive use. Mineral conservation aspect is very well being practised in lease area.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal of soil and utilisation proposed	Soil removed and stacked separately and used as when required.	
8b	Concurrent use or storage of topsoil	Proposed for restoration and rehabilitation purpose	Carried out as per the given proposals	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not Proposed	Nil	OB generated concurrently being used for road preparation and bund formation.
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)	Not Proposed	Nil	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	NA	NA	Plantation done in soil bund around the lease area
8g	Survival rate	Proposed as 80%	About 80% acheived	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling is proposed by water tanker	Regular water sprinkling is done by water tanker	Water tanker of 5KL capacity is provided for the purpose
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	NA	NA	Aesthetic beauty in and around mine area is very good as mass plantation have been done within & otside ML area since begining.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. submitted upto- January- 2020 A.R. submitted upto- 2018-19	Annual return for the year 2018-19 & monthly return till the date inspection were submitted within stipulated time.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	Shri Vashishth Narayan SIngh apointed as Mining Eng. & Shri Vikas Mohan as Geologist	Shri Rajan Kumar was appointed as Mines Manager

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	Opencast working-28.70 Ha Waste dumps-0.25 Ha Non excavated -27.32 Ha	
9d	Scrutiny of Annual return on afforestation	Not Given	Nil plantation shown but few plantation were done over bunds along ML boundary	Good plantation done since beginning of mining operations
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not Given	No mineral rejects generated during the year	Mineral rejects generation was not proposed in approved document
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given	Cement Grade Limestone: O/S-Nil Despatch-408680 tonnes C/S-Nil	Entire ROM being produced from mine utilized in cement plant for captive use purpose.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given	Cement grade limestone: Ex-Mine Price- Rs 278.79/Tonne Sale Value - Captive use Production cost- Rs 278.79 /Tonne	As captive use, reported cost of production & ex-mine price are same
9h	Scrutiny of Annual return on fixed assets	Not Given	Nil	
9k	Scrutiny of Annual return on mining machineries	Given	Nil	

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

Date :

(SANJAY M. GIRHE)

Indian Bureau of Mines