

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

**MCDR inspection REPORT  
Jabalpur regional office**

**Mine file No :** MP/KATNI/LST-54

**Mine code :** 38MPR18124

- (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 : 12-MAR-20
- (v) Prev.inspection date : 09-DEC-16

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **KACHHGAON (3.456 HA)**
- (b) **Registration NO.** : **IBM/5778/2011**
- (c) Category : A Other Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :  
State : MADHYA PRADESH  
District : KATNI  
Village : KACHHGAON  
Taluka : V.GARH  
Post office : DIWAN SIDING  
Pin Code : 483880  
FAX No. : 07622- 230466  
E-mail : anilnagrath2009@gmail.com  
Phone : 07622- 230388
- (f) Police Station : Kymore
- (g) First opening date : 17-FEB-76
- (h) Weekly day of rest : THU
2. Address for : SHRI SHAILENDRA NAGRATH  
correspondance : BHARAT LIME CO., CIVIL LINES, KATNI (M.P.) 48350
3. (a) Lease Number :  
(b) Lease area :  
(c) Period of lease :  
(d) Date of Expiry :
4. Mineral worked : LIMESTONE Main

## 5. Name and Address of the

Lessee : SHAIENDRA NAGRATH  
 KATNI MADHYA PRADESH  
 Phone:N. A.  
 FAX :N. A.

Owner : SHAIEDRA KUMAR NAGRATH  
 BHARAT LIME CO. CIVIL LINES  
 KATNI MADHYA PRADESH  
 Phone: 07622- 230388  
 FAX : N. A.

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	26-JAN-98
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	16-MAR-10
		Mining Scheme rule 12 MCDR1988	20-SEP-12
		MP modif under MCR 1960	23-MAR-16

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No exploration proposed in 2018-19	Not Applicable	
1b	Exploration over lease area for geological axis 1 or 2	No exploration proposed in 2018-19	Not done. About 3.0 ha. lease area explored in G1 axis by way working pits and limestone explored up to 55m	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not Proposed	Not applicable.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No exploration proposed in 2018-19	About 0.45 Ha area yet to be explored in G1 level	
1e	Balance reserve as on 01/04/20	Reserves in Tonnes Proved(111) - 671546 Resources in tonnes Feasibility(211): 1203600 As per approved MMP dtd 23.03.2016 for 2015-16 to 2019-20	Reserves in Tonnes Proved(111) -564080 Resources in tonnes Feasibility(211): 1203600 As per approved annual return for the FY 2018-19	Reserves position after subsequent depletion of reserves.
1f	General remarks of inspecting officers on geology, exploration etc	Not Proposed	Not applicable.	Mineralised lase area of about has not been explored by working pits upto maximum 55m. depth, remaining 0.45ha. area to be explored for geological axis 1.

## Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Towards West & The South of lease area in existing single pit.	The excavation/developement working not carried out as per the proposals.	Violation of Rule 11(1) of MCDR,17 was issued for said deviation.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	02 benches in soil /OB of 2m to 3m & 2.5m hight and 06 benches in mineral of hight 6m were proposed	Height of OB/Soil benches were maintained as per the proposals. But, in limestone benches height not maintained as per the proposals	Violation of Rule 11(1) of MCDR,17 were pointed out & issued.
2c	Stripping ratio or ore to OB ratio	Proposed as 1:0.37	Acheived as 1: 0.36	Total 34988 tonne OB generated during the year 2018-19
2d	Quantity of topsoil generation in m3	3900 CuM	Acheived as 3100 CuM	
2e	Quantity of overburden generation in m3	Proposed as 10250 CuM	Acheived as 21867 CuM	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NA	NA	There is single quarry and its dimensions are 22000 SqM x 46m. Limestone mineralisation very well observed in working pit.

#### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One	
3b	Quantity of ROM mineral production proposed	94688 tonnes limestone	94561 tonnes of limestone	Production carried out as per the approved proposals
3c	Recovery of sailable/usable mineral from ROM production	Proposed as 80%	Acheived about 80%	20% rest as inter-burden generation

3d	Quantity of mineral reject generation	Not Proposed	Not generated	
3e	Grade of mineral rejects generation and threshold value declared.	Not Proposed	Not Applicable	
3f	Quantity of sub grade mineral generation.	Not Proposed	Not generated during the year	Entire recoverable limestone being used for saleing purpose.
3g	Grade of sub grade mineral generation	Not Proposed	Not Applicable	
3h	Manual / Mechanised method adopted for segregating from ROM	Not Proposed	Sizing & sorting being carried out	
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	Drilling & blasting proposed in mineral benches.	Jack hammer drilling upto 1.5m. depth of 32mm. dia holes & blasting as proposed done.	
3k	Provision of mining machineries in mineral benches	Dumpers of 10 & 16 tonnes & excavator of 1.2cu.m. capacity combination proposed.	Dumpers of 10 & 16 tonnes & excavator of 1.2cu.m. capacity combination deployed as proposed.	

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	02 benches in soil /ob of 3m & 2.5m hight and 06 benches in mineral of hight 3m to 6m.	Yes, in actual Soil/ ob benches of 3m. and 2.5m. hight & mineral benches where working proposed and carried out from 3m. to 6m. hight observed. The maximum depth of pit was 55m., the last bench of about 6m. hight was observed as sump where dewatering was done.	
3m	Total area covered under excavation/pits	2.85 proposed as per approved MMP	About 2.50 Ha area excavated till 2018-19 by single pit working.	Single centralised pit is being operated for excavation/product ion purpose.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.37	1:0.23	During the year year 2018-19
3o	Total area put in use under different heads at the end of year	As per the previous approved MMP Pits-2.85Ha Top Soil stacking- 0.25Ha Infrastructure -0.01Ha Road-0.05Ha	Pits-2.32 Ha OB dumps-0.160Ha Reclaimed/Rehabilitated- 0.340Ha Infrastructure-0.110Ha As per annual return 2018-19	
3p	Production of ROM mineral during the last five year period as applicable	2015-16- NA 2016-17-100003 Tonnes 2017-18-94687 Tonnes 2018-19-94688 Tonnes	2015-16- 6391 Tonnes 2016-17-4150 Tonnes 2017-18-9044 Tonnes 2018-19-94561Tonnes	Details as per the online submitted annual returns
3q	General remarks of inspecting officers on method of mining etc.	NA	NA	Single centralised working pit/quarry having dimension of 22000 SqM x 55m depth. Open cast fully mechanised mine by using excavator dumper combination 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)	OB dumping not proposed, Top soil stacking proposed on existing stack	Backfilling proposed in northern side of 7.5m. earlier excavated lease area and carried out as proposed.	
4b	Location of topsoil, OB and mineral reject dumps	Not Proposed	Backfilling proposed in northern side of 7.5m. earlier excavated lease area and carried out as proposed.The soil/ob is not black soil it is mixed with ob hence utilised for backfilling.	
4c	Number of dumps within lease area and outside of lease area	Not Proposed	Not Applicable	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not Proposed	Not Applicable	
4e	Number of active and alive dumps.	Not Proposed	Not Applicable	
4f	Number of dead dumps.	One old waste dump	The old waste dump was partially removed as proposed and utilised for backfilling.	
4g	Number of dumps established.	One	One	
4h	Whether Retaining wall or garland drain all along dumps are there.	Not Proposed	Not Applicable	
4i	Length of Retaining wall or garland drain all along dumps	Not Proposed	Not Applicable	
4j	Number of settling ponds	Not Proposed	Not Applicable	

4k	Specific comments of inspecting officer on waste dump management	NA	NA	Dumping not proposed only backfilling proposed in northern side of 7.5m. earlier excavated lease area and carried out as proposed. Top soil generated is also being used for plantation purpose over backfilled area.
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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.	Backfilling proposed in about 500 sq.m. in northern side of 7.5m. earlier excavated lease area.	Backfilling done in about 500 sq.m. in northern side of 7.5m. earlier excavated lease area as proposed. Lease area is not yet exploited for full depth.	
5b	Area under backfilling of mined out area	Backfilling proposed 7.5m. earlier excavated lease area.	Lease area is not yet exploited for full depth.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not proposed as no top soil	There is only soil mixed with ob utilised for backfilling.	
5d	Total area fully reclaimed and rehabilitated	Partially backfilling proposed	Partially backfilling done as proposed.	

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5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	Backfilling proposed in about 500 sq.m. in northern side of 7.5m. earlier excavated lease area and carried out as proposed. Lease area is not yet exploited for full depth. Cumulative so far about 2000sqm. area backfilled upto 8m. height
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Progressive Mine Closure Plan:

Sl.No.	Item	Proposals	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 within time	Violation of Rule 26(2) of MCDR, 2017 pointed out & violation letter was issued
6b	Area available for rehabilitation (ha) .	2000 Sq.M proposed	Work carried out as per the proposals	
6c	afforestation done (ha) .	NA	NA	Information not available
6d	No. of saplings planted during the year	70 Saplings proposed	50 saplings planted in ML area	
6e	Cumulative no .of plants	NA	NA	Information not available
6f	Any other method of rehabilitation	Not Proposed	Nil	
6g	Cost incurred on watch and care during the year	NA	NA	Information not available

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6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	Proposed as 2000 SqM	Backfilling carried out as per the proposals
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Proposed as 2000 SqM	Backfilling carried out as per the proposals
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Not Proposed	NA
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	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	Analysis reports were provided
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NA	NA	Scope of backfilling/reclamation & rehabilitation shall be generated as limestone excavation is being extended laterally as well as depthward. Periodic monitoring is being carried out by outsourced consultant .

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	94688 MT proposed as total ROM production for despatch.	94588 MT dispatched as chemical grade limestone. Sizing & sorting being done at mine site.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Sizing & sorting proposed	Sizing & sorting being done at mine site.	
7c	Different grade of mineral sorted out at mines.	Not Proposed	Only chemical grade limestone generated	
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 sizing & sorting in the lease area. Mostly chemical grade limestone being produced from mine. Total 80% recovery of salable limestone from ROM.
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**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separate stacking proposed	Top soil stacked as per the proposals	
8b	Concurrent use or storage of topsoil	Not Proposed	Top soil stacked at earmarked locations as proposed	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	OB proposed for backfilling	OB utilized fro backfilling over 7.5m barrier zone	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	For backfilling purpose	Used for backfilling purpose	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Reaclamation by backfilling was proposed	Backfillng carried out as per the proposals	

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8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	NA	NA	
8g	Survival rate	Proposed as 70%	Acheived about 65% during the year	
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 not much satisfactory as plantation not done up to that extent. Hence, it was instructed to propose at least 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 for the month of January-20 & February-20 A.R. submitted upto- 2018-19	Monthly returns for the month of January-20 & February-20 were not submitted in stipulated time	Violation of Rule 45(5) (b) of MCDR,2017 was pointed out and issued.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	Shri J.L. Sharaf appointed as Mining Eng. & Shri Shushil Kumar Bajpai as Geologist	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	Opencast working - 2.30Ha Reclaimed/Rehabilitated - 0.340 Ha Waste Disposal- 0.160 Ha Infrastructure-0.110Ha	

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9d	Scrutiny of Annual return on afforestation	Given	50 saplings were planted in lease area. More number of plantation needs to be proposed every year for plantation purpose
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not Given	No mineral reject generation proposed as per approved doceument
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given	Chemical grade limestone:  O/S- 799.510 MT Despatch-94588.13 MT C/S-772.497 MT
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given	Ex-mine price: Chemical Grade Limestone -Rs 300/MT
9h	Scrutiny of Annual return on fixed assets	Given	Nil
9k	Scrutiny of Annual return on mining machineries	Given	Nil

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**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)	27-MAY-20		MCDR17	Rule 11 (1)	27-MAY-20	
MCDR17	Rule 26 (2)	27-MAY-20	18-AUG-20				
MCDR17	Rule 31 (4)	27-MAY-20	18-AUG-20				
MCDR17	Rule 45 (5) (k)	27-MAY-20	18-AUG-20				

**Date :**

**(SANJAY M. GIRHE)**

Indian Bureau of Mines