

**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 : **P014**) **JAY KUMAR PANDEY**
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Sh. G.D.Dixit, representative of lessee
Official with
Designation
- (iv) Date of Inspection : 18-NOV-21
- (v) Prev.inspection date : 12-MAR-20

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 : **3.456**
hect.
- (c) Period of lease : **50 years**
- (d) Date of Expiry : **16.02.2026**
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
		MP review under 17(1) MCR 2016	30-JUN-20

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	02 boreholes of total 90m. depth proposed in the year 2020-21.	Proposed boreholes not done.	Violation of rule 11(1) pointed out.
1b	Exploration over lease area for geological axis 1 or 2	02 boreholes of total 90m. depth proposed in the year 2020-21.	Proposed boreholes not done . In actual earlier 3 DTH boreholes done and abot 2.8ha. area degraded upto maximum 55m. depth.About 3.0 ha. lease area explored in geological axis 1.	
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	0.45 ha.	Not done.	
1e	Balance reserve as on 01/04/20	Not proposed	Balance reserves as on 01/4/2021 under 111 cat- 364193 tonnes, 122 cat.- 135168 tonnes & 222 cat.-1203600 tonnes.	
1f	General remarks of inspecting officers on geology, exploration etc	Not proposed	Not applicable.	About 2.8ha. lease area is already exploited upto maximum 55m. depth,remaining 0.45ha. area to be explored for geological axis 1.Which was not done as proposed for which violation of rule 11(1) pointed out.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Towards south of lease area and existing single pit.	The developement work done in south of lease area where proposed.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	02 benches in soil /ob of 3m & 2.5m hight and 06 benches in mineral of hight 3m to 6m.	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.	
2c	Stripping ratio or ore to OB ratio	1:0.49	1:0.43	
2d	Quantity of topsoil generation in m3	5208 cum. soil.	Actul 5000cu.m. soil.	
2e	Quantity of overburden generation in m3	14339cum.	Actual about 15000 cu.m. over burden.	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Not proposed.	Not applicable.	The lease area is developed systematically by making proper hight & width of benches in working faces and reached upto 55m. with such a small lease area with maintaining proper haul road.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One	
3b	Quantity of ROM mineral production proposed	99994 tonnes	99310 tonnes	

3c	Recovery of sailable/usable mineral from ROM production	80%	About 80%
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.
3g	Grade of sub grade mineral generation	Not proposed	Not applicable
3h	Manual / Mechanised method adopted for segregating from ROM	Not proposed	Not applicable.
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	1ha.	About 1.0 ha. for year 2020-21, cumulative 2.8ha. lease area degraded by single pit.	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.49	1:0.43	
3o	Total area put in use under different heads at the end of year	pit-2.8ha., old waste dump-.2ha., haul roads -.2ha. plantation-.2ha.	In actual the utilisation of lease area so far in pit-2.8ha., old waste dump-.2ha., haul roads -.2ha. plantation -.2ha.	
3p	Production of ROM mineral during the last five year period as applicable	2016-17---100003t, 2017-18---94687t, 2018-19---94688t, 2019-20---94687t, 2020-21---99994t	In actual 2016-17---4150t, 2017-18---9044t, 2018-19---94561t, 2019-20---67010t, 2020-21---99310t	
3q	General remarks of inspecting officers on method of mining etc.	Not proposed	Not applicable	The lease area is 3.456ha. mining is carried out by systematically forming benches in ob & mineral with maintaining proper haul roads about 2.8ha. area degraded by pit with maximum depth of 55m.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Not proposed	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	Not proposed	Not applicable	Dumping not proposed only 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. One old waste dump now rehandeled for backfilling as this dump is in mineralised area hence rehandeled for future mining as proposed.
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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.	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Not proposed	Not applicable	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. high

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).	Annual return of PMCP for the year 2020-21 to be submitted.	Not submitted .	Violation of rule 26(2) pointed out.
6b	Area available for rehabilitation (ha) .	Not proposed	Not applicable	
6c	afforestation done (ha).	400sq.m.	about 500sq.m.	
6d	No. of saplings planted during the year	40	About 100	
6e	Cumulative no .of plants	Not proposed	Cumulative about 1500 trees planted over .2ha. area. within lease.	
6f	Any other method of rehabilitation	Not proposed	Not applicable.	
6g	Cost incurred on watch and care during the year	Not proposed	About 1lacks.	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Backfilling proposed in northern side of 7.5m. earlier excavated lease area.	Backfilling proposed in northern side of 7.5m. earlier excavated lease area and carried out as proposed.Cumulative about 20x100m area backfilled upto 8m. hight.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not proposed	Not applicable
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Not proposed	Not applicable
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed	Not applicable
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not proposed	Not applicable
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not proposed	Not applicable
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not proposed	Not applicable

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not proposed	Not applicable	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Envirnomenta monitoring proposed	Envirnomenta monitoring carried out but data not provided.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Not proposed	Not applicable	The annual report of PMCP not submitted hence violation of rule 26(2) pointed out.Mining is carried out systematically , water spraying on haul roads observed,plantatio n done.

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 from lease area.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	Grading of mineral at mines.	Yes, grading of mineral done at mine site.	
7d	Any beneficiation process at mines	Not proposed	Not applicable	

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Not proposed	Not applicable	The ROM mineral on the basis of grade dispatched, there is no issue of mineral conservation observed.
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not proposed	As there is no top soil only soil mixed with ob present and used for baxckfilling as proposed.	
8b	Concurrent use or storage of topsoil	Not proposed	Excavated soil not top soil Proposed for backfilling.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not proposed	Only backfilling done as proposed.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not proposed	Not applicable	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not proposed	Not applicable	

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	plantation proposed 40 trees during the year 2020-21	During the year 100 trees planted & about 1500 trees planted so far and present in the lease area as almost lease area is exploited by pits/roads/dumps hence old plantation not observed.	
8g	Survival rate	80%	about 80%	
8h	Water sprinkling on roads to control airborne dust	Proposed	Water sprinkling on haul roads observed during inspection.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Not proposed	Not applicable	Mining is carried out systematically , water spraying on haul roads observed,plantation done in 7.5m. boundary.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	MR & AR to be submitted.	MR upto october 2021 & AR upto 2020-21 submitted online.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	The name of mining engineer and Geologist given in AR .	Actually the appointment of mining engineer and part time geologist done recently ,hence advised to give correct name in AR in future for which details /intimation sent in form H.	Rule 46 pointed out for intimation of mining engineer & part time geologist in form H.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pits(include s partially backfilling,pit etc.- 2.8ha.,waste dump-.44ha. roads-.080	Actual by pits- 2.8ha.,dumps-.2ha.,roads-.2ha.	Advised to fill correct information in returns. Also rule 33 pointed out for not submitting uptodate plans as required under this rule.

9d	Scrutiny of Annual return on afforestation	100 trees plantation in outside lease area.	Trees plantation about 100 trees done but not outside actually plantation done in the lease area.	Advised to fill correct information in returns.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not given	Not generated	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM stock-0 t, & graded ore of cement grade-1786 t.	The stock given in AR is almost correct.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale value & ex mine price for both grade is Rs 300/t and production cost is Rs. 249.51/t.	The details given is seems correct.	
9h	Scrutiny of Annual return on fixed assets	Given 0	Discussed for fixed assets ,lease area is Govt. land,no infrastructure in the lease area & all machinaries deployed on contractual .	
9k	Scrutiny of Annual return on mining machineries	One excavator of 1.2cu.m. capacity, 04 dumpers of 10-16 tonnes capacity & one water tanker.	The details of mining machinaries given in AR is correct.	

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)	23-NOV-21			
MCDR17	Rule 26(2)	23-NOV-21			
MCDR17	Rule 33	23-NOV-21			
MCDR17	Rule 46(a)	23-NOV-21			

Date :

(JAY KUMAR PANDEY)

Indian Bureau of Mines