

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

**MCDR inspection REPORT  
Jabalpur regional office**

**Mine file No :** MP/STN/LST-128

**Mine code :** 38MPR35053

- (i) Name of the Inspecting : **KQ06** ) **NARESH KUMAR KATARIYA**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri Amit Rai, Lessee Representative & Mining Engineer  
Official with  
Designation
- (iv) Date of Inspection : 07-SEP-22
- (v) Prev.inspection date : 01-SEP-21

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **NADAN (1)**
- (b) **Registration NO.** : **IBM/6666/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address  
State : MADHYA PRADESH  
District : SATNA  
Village : NADAN  
Taluka : MAIHAR  
Post office : NADAN  
Pin Code : 485771  
FAX No. : 07674-232144  
E-mail : raico34@yahoo.com  
Phone : 07674-232032 (O), 232094 (R)
- (f) Police Station : MAIHAR
- (g) First opening date :
- (h) Weekly day of rest : SAT
2. Address for : SHRI OM PRAKASH RAI  
correspondance PROP. M/S RAI LIME CO.  
P.O. MAIHAR, DIST. SATNA (M.P.) 485771
3. (a) Lease Number : MPR0381
- (b) Lease area : 8.09
- (c) Period of lease : 20
- (d) Date of Expiry : 08-NOV-02
4. Mineral worked : LIMESTONE Main

## 5. Name and Address of the

Lessee : RAI LIME CO.  
 PROP.OM PRKESH RAI P.O.  
 MAIHAR SATNA MADHYA  
 PRADESH  
 Phone:07674-232032 (O), 232094 (R)  
 FAX :N. A.

Owner : RAI LIME CO.  
 PROP.OM PRKESH RAI P.O.  
 MAIHAR SATNA MADHYA  
 PRADESH  
 Phone: N. A.  
 FAX : N. A.

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	06-OCT-99
Plan/Scheme of Mining		Renewal under rule 24 MCR1960	25-MAY-07
		Mining Scheme rule 12 MCDR1988	04-JUL-14
		MP modif under 17(3) MCR 2016	05-NOV-18

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for geological axis 1 or 2	Lease area exploration under G1 level	Lease area explored upto G1 level	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified.	Not specified.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	
1e	Balance reserve as on 01/04/20		Balance reserve as on 01/04/2022 -993132 tons.	
1f	General remarks of inspecting officers on geology, exploration etc			Lease area explored upto G1 level as per records. 04 nos. of core bore holes at the grid interval 100m to 200m for total depth 120m (30m each) were proposed for exploration in the year 2018-19. Form-I was submitted on 29.10.2021 for commencement of sinking of boreholes. But, Form-J, Analysis report & Geological Report of the boreholes have not been submitted. Violation pointed out for the same.

## Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Proposed to develop the Quarry towards East & West of Quarry with height of bench 1.75 mtr and 10-15mtr width.	Development work done within proposal area.	mine development was lagging from the approved proposal. Violation pointed out for the same under rule 11(1) of MCDR 2017.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes, Separate bench for top soil, Over burden & Mineral	Yes, Separate bench for top soil, Over burden & Mineral	
2c	Stripping ratio or ore to OB ratio	1:0.64	1:0.60	
2d	Quantity of topsoil generation in m3	845 m3	Very less quantity generated . No record. Used for plantation.	mine development was lagging from the approved proposal. Violation pointed out for the same under rule 11(1) of MCDR 2017.
2e	Quantity of overburden generation in m3	15835 m3	No record. Very less quantity.	mine development was lagging from the approved proposal. Violation pointed out for the same under rule 11(1) of MCDR 2017.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Proposed to develop the Quarry towards East & West of Quarry with height of bench 1.75 mtr and 10-15mtr width. Top soil used for plantation. mine development was lagging from the approved proposal. Violation pointed out for the same under rule 11(1) of MCDR 2017.

## Exploitation:

Sl.No.	Item	Proposals	Actual work	Remarks
3a	Number of pit proposed for production	One pit	One pit	
3b	Quantity of ROM mineral production proposed	64527 tonnes	64400 tonnes	
3c	Recovery of sailable/usable mineral from ROM production	The recovery of limestone about 80% from ROM proposed from existing pit.	Recovery of about 80% from ROM reported.	
3d	Quantity of mineral reject generation	The waste /reject about 20% from ROM proposed from existing pit.	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	Not proposed	Not applicable	
3f	Quantity of sub grade mineral generation.	Not proposed	Not applicable	
3g	Grade of sub grade mineral generation	Not proposed	Not applicable	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	
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	Deep Hole drilling & blasting proposed in mineral benches	As per proposal	

3k	Provision of mining machineries in mineral benches	Yes	FRONT END LOADER -0.000 CUM - 1 Nos DUMPER - 10.000 TONNE - 2 Nos DUMPER -16.000 TONNE -1 Nos WATER TANKER - 20000.000 LITRE - 1 Nos PUMPS (NON-ELEC.) 0.000 L/MN - 1 Nos	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed	Benches height found in order as visible. Lower benches of the pit were water logged.	
3m	Total area covered under excavation/pits	2.05 ha	1.160 ha	Mine development is lagging. Violation pointed out for the same.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.64	NIL	
3o	Total area put in use under different heads at the end of year	The total area put in use under different head about 3.0 ha.	Around 2.8 ha.	
3p	Production of ROM mineral during the last five year period as applicable	2017-18 - 53785 Tons 2018-19 - 64645 Tons 2019-20 - 63091 Tons 2020-21 - 63825 Tons 2021-22 - 64527 Tons	2017-18 - 00 Tons 2018-19 - 33400 Tons 2019-20 - 24550 Tons 2020-21 - 61950 Tons 2021-22 - 64400 Tones	

3q	General remarks of inspecting officers on method of mining etc.	Mining was proposed by open cast method deploying HEMM. During the inspection it was noticed that same process was adopted. mine development was not carried out as per approved document. Violation pointed out for the same.
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#### Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes Proposed	As per proposal	
4b	Location of topsoil, OB and mineral reject dumps	Between boundary pillar no 15 to 16.	Between boundary pillar no 15 to 16.	
4c	Number of dumps within lease area and outside of lease area	01 no. of Dump proposed within lease area.	01 no. of Dump	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Between boundary pillar no 15 to 16.	Between boundary pillar no 15 to 16. Within UPL.	
4e	Number of active and alive dumps.	01	01	
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 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			OB dump observed between boundary pillar no 15 to 16 within the UPL. Proposal of backfilling from the dump.

#### 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 of mined out area has been proposed with statutory barrier zone.	As per approved proposal, backfilling was proposed in 500 sq metre area (9703 m3 quantity) in the approved period. But, it was observed during inspection that backfilling was not carried out as per proposal. Hence, compliance on reclamation and rehabilitation has not been done as per proposal.	Violation of rule 11(1) pointed out for proposed backfilling.
5b	Area under backfilling of mined out area	500 sq metre	As per proposal backfilling was not done.	Violation of rule 11(1) pointed out for proposed backfilling.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	The generatyed top soil during mining operation was proposed to utilised in toping of proposed backfilled statutory 7.5m barrier zone.	Evidence of concorent utilisation of top soil were not seen within the lease area.	Violation pointed out for the same under rule 11(1) of MCDR 2017

5d	Total area fully reclaimed and rehabilitated	Backfilling proposed in 7.5 mtr Barrier zone near boundary pillar no 10 & 11 and mined out area.	Not done.	Backfilling of proposed area was not seen within the lease area during inspection. Violation pointed out.
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Violation of rule 11(1) pointed out for proposed backfilling.

#### 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	Not submitted	Violation pointedout for the same under rule 26(2) of MCDR 2017
6b	Area available for rehabilitation (ha) .	Plantation was proposed in the 7.5 m barrier zone from BP no. 15 to BP no. 19 & near BP no. 01. But, Plantation has not been carried out as per the approved document.	Plantation on proposed site were not observed .However plantation on along the lease boundary was seen.	Violation of rule 11(1) pointed out for proposed backfilling.
6c	afforestation done (ha).	Plantation was proposed in the 7.5 m barrier zone from BP no. 15 to BP no. 19 & near BP no. 01.	Plantation has not been carried out as per the approved document.	Efforts made by the lessee towards plantation appears not well. Violation pointed out for the same under rule 11(1) of MCDR 2017.
6d	No. of saplings planted during the year	Not specified.	Around 50 numbers of tree planted during the year.	

6e	Cumulative no .of plants	Not available	Not specified	
6f	Any other method of rehabilitation	Not proposed	Not applicable	
6g	Cost incurred on watch and care during the year	Not given	Not given	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	5000 m3	Reclamation and rehabilitation of broken out area not observed during inspection.	defficiency in this regard pointed out through violation of rule 11(1) of MCDR,2017
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	9703 m3	Backfilling not done.	Violation of rule 11(1) pointed out for proposed backfilling.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Proposed	Not done	Violation pointed out for the same.
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)	Proposed	Within prescribed limit.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Violation of rule 11(1) pointed out for backfilling. The damage towards environment is less. cluster of lease area surrounded by agricultural land. Agricultural activities were seen in the area during the inspection. Progressive closure activities were not seen during inspection.

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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within lease area not proposed.	ROM produced from the mine id directly supplied to nearby cement plant.	

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7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines.	Not proposed	Not applicable	
7d	Any beneficiation process at mines .	Not proposed	Not applicable	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			No processing of limestone is proposed to be adopted to upgrade the ROM in the lease area. Quality of limestone of the mine is fine. There is no need of any beneficiation for the upgradation of limestone for the purpose of supply to the consignee.

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**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes,	Yes, used for plantation.	
8b	Concurrent use or storage of topsoil	Both, concurrent use and storage of top soil was proposed for which there is an yearmark place.	Both, concurent use as well as storage of top soil were not observed during inspection. However generated soil is utilised for planation purpose.	

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8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Backfilling was proposed	Backfilling not done as per proposal	Violation of rule 11(1) pointed out for backfilling
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling was proposed	Backfilling not done as per proposal	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Backfilling was proposed	Backfilling not done as per proposal	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Plantation proposed on backfilled portion of 7.5 mtrs statutory barrier zone.	Plantation on proposed site were not seen . However plantation along lease boundary were observed.	
8g	Survival rate	80%	80%	
8h	Water sprinkling on roads to control airborne dust	Proposed	Done with water tanker	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Efforts made by lessee in this regard may not be considered satisfactory. Violation pointed out for the same.

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Compliance of Rule 45:

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Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns		The monthly return submitted upto August 2022 & Annual return submitted upto 2021-22 on 26-06-2022	Violation pointed out for delayed submission of MR.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes	Mining Engineer - Sh. Amit Rai Geologist - Brijesh Prasad Dwivedi	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes	(i) Already exploited by opencast (O/C) mining 0.620 Hect. (ii) Covered under current (O/C) Workings 1.160 Hect (iii) Reclaimed/Rehabilitated 0.150 Hect (iv) Used for waste disposal 0.418 Hect (v) Occupied by plant, buildings, residential, welfare buildings & roads 0.050 (vi) Other Purpose (Green Belt) 0.430 (vii) Work done under progressive mine closure plan during the year 0.010	
9d	Scrutiny of Annual return on afforestation	Yes	As per available records around 50 nos of tree planted during the year.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Yes	NIL	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Yes	ROM closing stock as on 31.03.2021 - 9392.364 Tonnes	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Yes	Ex mine price - 327.50 /- Sale price - 327.50 /- Cost of production - 309.83/-	

9h	Scrutiny of Annual return on fixed assets	Yes	Rs 200000/-
9k	Scrutiny of Annual return on mining machineries	Yes	FRONT END LOADER -0.000 CUM - 1 Nos DUMPER - 10.000 TONNE - 2 Nos DUMPER -16.000 TONNE -1 Nos WATER TANKER - 20000.000 LITRE - 1 Nos PUMPS (NON-ELEC.) 0.000 L/MN - 1 Nos

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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

**Date :**

**(NARESH KUMAR KATARIYA)**

Indian Bureau of Mines