

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

**MCDR inspection REPORT  
Jabalpur regional office**

**Mine file No :** MP/KTN/LST-96

**Mine code :** 38MPR18134

- (i) Name of the Inspecting : **P014** ) **JAY KUMAR PANDEY**  
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Sh. Vinod Kumar Patel, Mining Engineer  
Official with  
Designation
- (iv) Date of Inspection : 07-MAR-22
- (v) Prev.inspection date : 24-FEB-21

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **BISTRA (2.69 AC)**
- (b) **Registration NO.** : **IBM/5445/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address :  
State : MADHYA PRADESH  
District : KATNI  
Village : BISTRA  
Taluka : KATNI  
Post office : JOBIKALAN  
Pin Code :  
FAX No. : 07674-232655  
E-mail : nmdubashmaihar@gmail.com  
Phone : 07674-232055
- (f) Police Station : VIJAYRAGHAVGARH
- (g) First opening date : 21-JUL-87
- (h) Weekly day of rest : SUN
2. Address for : M/S N.M.DUBASH STONE & LIME CO.PVT.LTD.  
correspondance : STATION ROAD, P.O. MAIHAR,
3. (a) Lease Number : MPR1996
- (b) Lease area : 17.07
- (c) Period of lease : 20
- (d) Date of Expiry : 05-SEP-20
4. Mineral worked : LIMESTONE Main

## 5. Name and Address of the

Lessee : N.M.DUBASH STONE & LIME CO.PVT.LTD.  
 STATION ROAD P.O. MAIHAR  
 SATNA MADHYA PRADESH  
 Phone:N. A.  
 FAX :N. A.

Owner : N.M.DUBASH STONE & LIME CO.PVT.LTD.  
 STATION ROAD P.O. MAIHAR  
 SATNA MADHYA PRADESH  
 Phone: N. A.  
 FAX : N. A.

## Mining Engineer

Name : VINOD PATEL, Full Time  
 Qualification : AMIE (MINING)  
 Appointment/ : 02-AUG-12  
 Termination date

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	21-AUG-00
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	14-OCT-05
		Modif.approved Mining Scheme	31-JUL-08
		Mining Scheme rule 12 MCDR1988	21-NOV-11
		Mining Scheme rule 12 MCDR1988	18-MAY-15
		MP modif under 17(3) MCR 2016	06-AUG-20

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	06 Boreholes	06 Boreholes done in 2021-22. Form I submitted.	The exploration done as proposed but form J not maintained hence violation of rule 48(1) pointed out.
1b	Exploration over lease area for geological axis 1 or 2	Exploration over remaining lease area for geological axis 1.	06 Boreholes done in 2021-22 as proposed for the year 2020-21.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Only exploration proposed.	Exploration done by Engeotech Consultant, Jabalpur and approximate expenditure about Rs. 8.5 lakhs.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Exploration over remaining 3.87ha. lease area for geological axis 1 from G2.	Exploration done as proposed.	
1e	Balance reserve as on 01/04/20	Not proposed	As on 01/04/2021- under 111 cat. 1.505 million tonnes. As on 01/04/2021- under 211 cat. 4.659 million tonnes.	

1f	General remarks of inspecting officers on geology, exploration etc	Not proposed .	Not applicable.	The lease area belongs to Vindhyan super group in Rohtas Limestone of Semri group. Rocks of this formation comprise of shale, Limestone and Dolomite. These rocks are structurally undisturbed. The exploration done as proposed but form J not maintained hence violation of rule 48(1) pointed out.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t. lease area	Mainly north & south side of existing pit in top soil/sub soil & limestone benches.	The development work as proposed for removal of top soil/sub soil not done only production from limestone benches.	Violation of rule 11(1) pointed out for no development/removal of top soil/sub soil in the year 2020-21.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	One bench in top soil/ob of avg. 6.35 m. hight & 05 benches in mineral limestone of 2.6m. to 6.5m. hight.	During the year no new development done only production done from proposed site/benches of proposed hight in limestone.	
2c	Stripping ratio or ore to OB ratio	1:0.73	1:0.06 as no fresh development work done in the year 2020-21 & also recovery of limestone is more than 90% from ROM as calculated 80% in the approved plan.	

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2d	Quantity of topsoil generation in m3	4075cu.m.	Nil	Violation of rule 11(1) pointed out for no development/removal of top soil/sub soil in the year 2020-21.
2e	Quantity of overburden generation in m3	74362cu.m. ob & waste	11452 waste generated.	Violation of rule 11(1) pointed out for no development/removal of o/b & waste in the year 2020-21.
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 already systematically developed by a big pit with maximum 65m. depth. But development work as proposed not done.

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#### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One existing pit size about 170-380mx270mx60-65m .	
3b	Quantity of ROM mineral production proposed	254412 tonnes	165727 tonnes	Production was less as per proposals for which violation rule 11(1) pointed out.
3c	Recovery of sailable/usable mineral from ROM production	80%	In actual more than 90%.	
3d	Quantity of mineral reject generation	Not proposed	Not generated	
3e	Grade of mineral rejects generation and threshold value declared.	Not proposed	Not applicable as not generated.	

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3f	Quantity of sub grade mineral generation.	Not proposed	Not generated	
3g	Grade of sub grade mineral generation	Not proposed	Not applicable as not generated.	
3h	Manual / Mechanised method adopted for segregating from ROM	Not proposed	Mechanically as per experience of deposit.	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed	Not applicable as not generated.	
3j	Provision of drilling and blasting in mineral benches	proposed in mineral .	Drilling & blasting carried out as proposed.	
3k	Provision of mining machineries in mineral benches	Excavator & dumper combination proposed.	Excavator & dumper combination deployed as proposed.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	proposed	Height of o/b & mineral benches is suitable for method of mining as proposed.	
3m	Total area covered under excavation/pits	Development proposed for 0.8ha. area and production from depth of old mineral benches.	During the year no new development done ,only in mineral benches as proposed in depth. cumulative 9.6ha. area degraded in pits.	Lessee has not submitted additional financial assurance as required hence violation of rule 27 pointed out.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.73	1:0.06 as no fresh development work done in the year 2020-21 & also recovery of limestone is more than 90% from ROM as calculated 80% in the approved plan.	

3o	Total area put in use under different heads at the end of year	Proposed in pits- 10.4ha.,dumps- 3.0ha.,plantat ion- 1.3ha.infrastr ucture- .4ha.roads- .1ha.	In actual- in pits- 9.6ha.,dumps- 3.0ha.,plantation- 1.2ha.infrastructure- .4ha.roads-.1ha.	
3p	Production of ROM mineral during the last five year period as applicable	2016-17 234300 t 2017-18 240300 t 2018-19 215880 t 2019-20 214200 t 2020-21 254412 tonnes	2016-17 94850 t 2017-18 212581 t 2018-19 147480 t 2019-20 210587 t 2020-21 165727 t	
3q	General remarks of inspecting officers on method of mining etc.	Not proposed	Not applicable	The mining is carried out by deploying excavator & dumpers with drilling and blasting as proposed systematically with conservation of mineral.

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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)	During the year o/b & Topsoil is proposed for backfilling & topping over backfilled area for plantation.	No o/b & topsoil generated during the year only waste generated and utilised for backfilling as proposed.	
4b	Location of topsoil, OB and mineral reject dumps	Backfilling proposed.	Backfilling done to some extent.	

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4c	Number of dumps within lease area and outside of lease area	During the year dumping not proposed.	Cumulative 03 (three) nos. within ML area as shown in surface plan.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not proposed.	All old dumps are Within Ultimate Pit Limit	
4e	Number of active and alive dumps.	Not proposed.	All old dumps are active dumps.	
4f	Number of dead dumps.	Not proposed.	Nil	
4g	Number of dumps established.	Not proposed.	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.	Earlier protective bund & garland drain of about 300m. length prepared.	
4j	Number of settling ponds	Not proposed.	Earlier one stelling tank prepared.	
4k	Specific comments of inspecting officer on waste dump management	Not proposed	Not applicable.	The waste dumping done within lease area with propoer protective bunds & garland drains.

#### 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 done earlier and also proposed in old excavated pit near mine office and public road and also in 7.5m. old excavated barrier zone.	Backfilling done to some extent during the year.	



5b	Area under backfilling of mined out area	.26ha.	During the year .03ha. ,cumulative 1.53ha.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	proposed for plantation	Topsoil utilised earlier for plantation purpose.	
5d	Total area fully reclaimed and rehabilitated	.26ha. reclamation & rehabilitation by plantation.	Cumulative 1.53ha. reclaimed & rehabilitated by plantation.	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Not proposed	Not applicable	Lessee has done plantation about 5000trees in three places of lease area covering about 1.3ha. area & maintained it properly out of this 0.5ha. over reclaimed area.

#### 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	The PMCP report of 2020-21 submitted.	
6b	Area available for rehabilitation (ha) .	.368ha.	In actual plantion done over old backfilled and recent backfilling area cumulative about .53ha.	
6c	afforestation done (ha).	.1ha.	Cumulative plantation in 1.3ha. area.	
6d	No. of saplings planted during the year	100 trees	About 450 trees within lease and 250 trees outside lease & cumulative about 5000 trees now became old big trees.	
6e	Cumulative no .of plants	Not proposed	Cumulative about 5000 trees now became old big trees.	

6f	Any other method of rehabilitation	Not proposed	Not done.	
6g	Cost incurred on watch and care during the year	Not proposed	About Rs. 2.5 lakhs per year for this purpose.	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( $L \times B \times D$	.26ha.	Cumulative 1.53ha.	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	.26ha.	During the year .03ha. ,cumulative 1.53ha.	Due to less backfilling during the year 2020-21 violation of rule 11(1) pointed out.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	.26ha.	In actual during the year due to less backfilling the plantation work done in waste land of lease area and in between spaces of old plantation area.	
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	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	Envirnomenta monitoring done periodically.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Not proposed	Not applicable	The mining operations carried out more or less as proposed in approved document with proper dumping,plantation etc.

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM Mineral dispatch after sizing & sorting proposed	ROM Mineral dispatch done after proper sizing & sorting as proposed.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No grade wise sorting proposed	ROM mineral dispatched gradewise as per chemical analysis basis and experience of working.	
7c	Different grade of mineral sorted out at mines.	Not proposed	Not applicable	
7d	Any beneficiation process at mines	No beneficiation proposed	Not done.	

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7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	ROM Mineral dispatch done after proper sizing & sorting , gradewise as per chemical analysis basis and experience of working.
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**Environment:**


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Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal & utilisation for backfilling proposed	Not applicable as during the year no top soil generated earlier all top soil utilised for topping over recalimed area for planation and also in waste land for plantation purpose.	
8b	Concurrent use or storage of topsoil	Proposed for use of plantation purpose.	Earlier top soil utilised for plantation purposes.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	During the year only backfilling proposed.	Backfilling done to some extent, earlier Separate dumps for overburden/waste rock maintained.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	proposed for backfilling	Presently three o/b & waste dumps present & utilised for backfilling.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	.26ha. proposed for backfilling.	Cumulative 1.53ha. area backfilled & about .5ha. rehabilitated by plantation.	

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8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	plantation proposed	Plantation done as proposed cumulative about 5000 trees planted in 1.3ha. lease area.	
8g	Survival rate	80%	About 70%	
8h	Water sprinkling on roads to control airborne dust	proposed	Done as proposed as per requirement.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Not proposed	Not applicable	The mining operations carried out more or less as proposed in approved document with proper pitting, dumping,plantation etc. due to mining/degradation the area disturbed in some way and pollution created but plantation and water spraying on roads minimise it.

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly & annual returns to be submitted in time.	A.R. Submitted upto 2020-21. M.R. Submitted upto January - 2022	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager & Mining Engineer in charge - Shri Vinod Kumar Patel Geologist in charge - Shri RATNESH KUMAR PANDEY	In actual Manager & Mining Engineer in charge - Shri Vinod Kumar Patel Geologist in charge - Shri RATNESH KUMAR PANDEY	

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9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	(i) Already exploited & abandoned by opencast (O/C) mining 0.000 (ii) Covered under current (O/C) Workings 9.600 (iii) Reclaimed/Rehabilitated 1.500 (iv) Used for waste disposal 3.000 (v) Occupied by plant, buildings, residential, welfare buildings & roads 0.400 (vi) Other Purpose ((Barrier zone)) 2.57ha. (vii) Work done under pmcp during the year 0.100	The details given in AR is almost correct. But lessee has not submitted up to date plans as required under rule.	Violation of rule 33 pointed out for upto date plan and sections.
9d	Scrutiny of Annual return on afforestation	During the year Number of trees planted during the year 450nos (within lease) & 250 nos (outside lease)	The details given in AR is almost correct	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not given as not generated.	Not applicable.	

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM stock- Nil, Graded ore stock SMS - 3851.824T & BF-45538.94T.	The details given in AR is almost correct	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine price (in Rs.Per Tonne) for SMS grade limestone-Rs. 434.31/- & BF grade- Rs. 463.54/-. Sale value (in Rs.Per Tonne) for SMS grade limestone is about-Rs. 528/- & BF grade- Rs.553/-Cost of Production per tonne Rs. 426.07/-	The details given in AR is almost correct	Under head sales the registration numbers of all buyers not given, also reserves under 111 cat. not correctly given, and backfilling material quantity not correctly given for which lessee has advised to give correct data in future submission.
9h	Scrutiny of Annual return on fixed assets	Value of fixed assets given Rs. 53378656/-	The details given in AR is almost correct	
9k	Scrutiny of Annual return on mining machineries	DUMPER 10.000 TONNE 12 nos BACK HOE 0.900 CUM 2 nos AIR COMPRESSOR 325.000 CUM/MN 1 no M.T.P. (ELEC. MOTOR) 100.000 HP 1 no Electrical FRONT END LOADER 2.000 CUM 2 nos GENERATOR (DIESEL) 125.000 KWH 1 no WATER TANKER 3000.000 LITRE 1 no	The details given in AR is almost correct	

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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
MCDR17	Rule 11(1)	11-MAR-22			
MCDR17	Rule 27(1)	11-MAR-22			
MCDR17	Rule 33	11-MAR-22			
MCDR17	Rule 48	11-MAR-22			

**Date :**

**(JAY KUMAR PANDEY)**

Indian Bureau of Mines