

**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 : **G005**) **SANJAY M. GIRHE**
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 11-FEB-20
- (v) Prev.inspection date : 11-OCT-18

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BISTRA (2.69 AC)**
- (b) **Registration NO.** :
- (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. : N. A.
E-mail : N. A.
Phone : N. A.
- (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 : S.K.JAIN, Full Time
 Qualification : B.E. (MINING)
 Appointment/ : 01-JUL-00
 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

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposals of exploration drawn for the 2018-19 & 2019-20	Maximum lease area has been explored in G1/G2 category by working pits only.	
1b	Exploration over lease area for geological axis 1 or 2	No exploration was proposed	Exploration need to be proposed for lateral & depthward continuity of limestone	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not Proposed	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposals	No future proposals to undertake.	
1e	Balance reserve as on 01/04/20	Reserves in Tonnes Proved(111) - 25,61,131MT Resources in tonnes Feasibility(211): 46,59,000 MT R/R position as per approved document dtd 18.05.2015	Reserves in Tonnes Proved(111) -18,81,550 Feasibility(211): 46,59,000 MT R/R position as per AR for the year 2018-19	Reserves have been established by working pits up to 336mRL i.e. up to 52mts depth. Further exploration is required as per the provisions of 12(4) of MCDR,2017
1f	General remarks of inspecting officers on geology, exploration etc			

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	It was proposed to work within centralised pit from 340mRL to 334mRL as earmarked in 9C Plate for the year 2018-19	Carried out mining operation in the proposed working for the developments and the production purposes during the year.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No separate benches were proposed for top soil & OB. Two benches of 6mts height proposed in mineral	During the inspection of the mines, benches were developed in minerals only.	It is being followed in the mine as per the proposals.
2c	Stripping ratio or ore to OB ratio	Proposed as 1:0.25	Acheived as 1:0.10	There is a marginal difference noticed.
2d	Quantity of topsoil generation in m3	Not Proposed during the year 2018-19	There is no top soil generations.	Production proposals were given in already excavated area, hence no top soil generation.
2e	Quantity of overburden generation in m3	Proposal of interburden waste generation as 21588 CuM in 2018-19	Acheived as 13526 CuM	Less generation of interburden waste during the year.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Proposal were made to work in the earmarked area.	Excavation work was undertaken at proposed locations.	There is centrally located big size working pit & its dimensions are Pit No-1 (170 x 180m) x 270m x 52m

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
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3a	Number of pit proposed for production	Working proposed in single pit from 340mRL to 328mRL	Working carried out at proposed location	Single centralised is developed within ML area for excavation
3b	Quantity of ROM mineral production proposed	215880 tonne ROM excavation proposed in 2018-19	168080 tonne ROM excavation achieved in 2018-19	
3c	Recovery of sailable/usable mineral from ROM production	80% recovery of salable limestone proposed from ROM	80 % recovery achieved during the year	20% is interburden waste material from ROM
3d	Quantity of mineral reject generation	Not Proposed	Nil	No mineral rejects generated during the year
3e	Grade of mineral rejects generation and threshold value declared.	Not Proposed	Nil	No mineral rejects generated during the year
3f	Quantity of sub grade mineral generation.	Not Proposed	Nil	No sub-grade mineral generated during the year
3g	Grade of sub grade mineral generation	Not Proposed	Nil	No sub-grade mineral generated during the year
3h	Manual / Mechanised method adopted for segregating from ROM	Sizing & sorting proposed by mechanical means	Sizing & sorting carried out by mechanical means	Cursher is insatlled within mining lease area
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Nil	No beneficiation is required
3j	Provision of drilling and blasting in mineral benches	Small dia 82-32mm dia drilling & blasting is proposed by Jack hammer	Drilling with small dia 32mm dia drilling & blasting is carried out by Jack hammer	Drilling proposed as per nature of limestone formation

3k	Provision of mining machineries in mineral benches	Hyd. Excavator, L&T PC-1.20 Cum capacity TATA Dumper model 2515, 10 T capacity Tractor mounted Air Compressor Jack Hammer with Drill rods Mahindra Tractor with Water Tank on trolley Water pump with Diesel engine	Hyd. Excavator, L&T PC-1.20 Cum capacity TATA Dumper model 2515, 10 T capacity Tractor mounted Air Compressor Jack Hammer with Drill rods Mahindra Tractor with Water Tank on trolley Water pump with Diesel engine	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	No OB benches proposed whereas 6m height benches in limestone proposed	Height of benches are mostly maintained. At some extent bench height is not regular due to quality constraints.	
3m	Total area covered under excavation/pits	9.60 Ha area was proposed in approved MP period i.e. 2015-16 to 2019-2020	9.45Ha as on 01.04.2019 as per the annual return 2018-19	Excavated area with respect to excavation done during the year
3n	Ore to OB ratio for the pit/mine during the year.	Proposed as 1:0.25 Tonne/Cum	Acheived as 1:07 Tonne/Cum	Total 13526 CuM OB/Interburden waste generated during the year 2018-19

3o	Total area put in use under different heads at the end of year	As per the previous approved SCM for 2015-16 to 2019-20 Pits-9.60 Ha Waste dumps-4.0 Ha Mineral Storage-1.0 Ha Infrastructure -0.40Ha Road-0.10 Ha	As per the annual return as on 01.04.2019 Pits-9.45 Ha Waste dumps-4.0 Ha Mineral Storage-1.30 Ha Infrastructure-0.40Ha Road-0.10 Ha Reclaimed/Rehabilitated-1.80 Ha	Area put to used as per annual return 2018-19
3p	Production of ROM mineral during the last five year period as applicable	2014-15-: 114160 MT 2015-16-: 250820 MT 2016-17-: 234300 MT 2017-18-: 240300 MT 2018-19-: 215880 MT	2014-15-: 102260 MT 2016-17-: 124900 MT 2017-18-: 252021 MT 2018-19-: 169080 MT	Production is marginally on lower side during the year 2018-19
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 shallow drilling & blasting using jack hammer proposed.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Not Proposed	Concurrent use of OB/interburden waste proposed for backfilling over 7.5m barrier zone	No separate dumping of OB/Interburden during the year
4b	Location of topsoil, OB and mineral reject dumps	Not Proposed	NA	OB/Inter-burden waste dumping not proposed during the year

4c	Number of dumps within lease area and outside of lease area	Exisitng 04 OB/waste dumps in ML area	02 OB/waste dumps are located towards southern part & rest 02 towards North-eastern side	Locations of existing dumps duly marked over plate no-4
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Existing dumps are ourside UPL area	Existing dumps located in between E44400 to E444400 & N2651500 to 2651700.	Locations of existing dumps duly marked over plate no-4
4e	Number of active and alive dumps.	Total 04 active dumps in ML area	At Present 04 nos of active waste dump duly marked on surface plan.	
4f	Number of dead dumps.	No dead dumps existing in ML area	NA	
4g	Number of dumps established.	Not Proposed	All are active dumps	Limestone not exhausted in any pit hence scope of backfilling not exisited presently
4h	Whether Retaining wall or garland drain all along dumps are there.	Not Proposed	Retaining wall have been prepared at some dumps	
4i	Length of Retaining wall or garland drain all along dumps	Not Proposed	NA	
4j	Number of settling ponds	Not Proposed	NA	No settling pond observed in ML area
4k	Specific comments of inspecting officer on waste dump management	NA	NA	Huge quantity of OB/waste dumps are lying at ML site and scope of backfilling for reclamation & rehabilitation purpose shall be arised in future.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Not Proposed	Presently none of the pits have been fully mineralexhausted	No proposals for backfilling given
5b	Area under backfilling of mined out area	Not Proposed	Presently 1.80 Ha area is under backfilled	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not Proposed	No top soil generation proposed during the year	Mine is fully developed & there is no occurrence of top soil during excavation
5d	Total area fully reclaimed and rehabilitated	Not Proposed	Presently 1.80 Ha area is under backfilled	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	Presently pit is not fully mineral exhausted hence scope of reclamation by backfilling doesn't exist presently.

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 before 1st July of every year	Yes, submitted within time limit as per the provisions of Rule 26(2) of MCDR,2017	Checked during the inspection.
6b	Area available for rehabilitation (ha) .	Not Proposed	Presently no area is available for rehabilitation	Limestone not fully exhaysted in pit
6c	afforestation done (ha) .	NA	Not available	
6d	No. of saplings planted during the year	800 saplings proposed to be planted during the year	300 saplings plated within ML area & 700 nos outside Ml area	Survival rate was satisfactory

6e	Cumulative no .of plants	NA	NA	Information in this regard not available
6f	Any other method of rehabilitation	Not Proposed	NA	
6g	Cost incurred on watch and care during the year	Not Proposed	NA	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Not Proposed	NA	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not Proposed	NA	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	Not Proposed	NA	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not Proposed	NA	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not Proposed	NA	

6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not Proposed	NA	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not Proposed	NA	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not Proposed	NA	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodical Air, Water, Noise monitoring Proposed	Yes, Compliances of environmental monitoring is being carried out.	Analysis reports were provided
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NA	NA	Presently none of the pits fully mineral exhausted, hence scope of backfilling/reclamation & rehabilitation doesn't exist but significant amount OB/waste quantity are laying for reclamation by backfilling available.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	215880 tonnes proposed as total ROM production for despatch. Grade wise sorting proposed by mechanical means	145931 tonnes despatched during the year	Grade wise sorting carried out by mechanical means
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Grade wise sizing and sorting proposed by mechanical means	Grade wise sizing and sorting carried out by mechanical means.	Crusher is provided in ML area for this purpose.
7c	Different grade of mineral sorted out at mines.	SMS & cement grade sizing & sorting proposed	SMS & cement grade limestone sized & sorted by mechanical means	
7d	Any beneficiation process at mines	Not Proposed	NA	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	NA	There is no mineral rejects/subgrade generation of limestone. Entire ROM utilised by proper sizing, crushing, sorting & blending as per plant requirement & buyer requirements.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not Proposed	NA	No top soil generation occurred during the year 2018-19

8b	Concurrent use or storage of topsoil	Not Proposed	Nil	No top soil generation occurred during the year 2018-19
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not Proposed	OB/inter-burden waste generated being utilized for backfilling purpose at statutory zone	
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	300 saplings planted in ML area & 700 nos outside ML area	
8g	Survival rate	Proposed as 80%	Acheived as 75%	
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 maximum number of plantation in next ROMP.
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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 upto- jan-2020 A.R. submitted upto- 2018-19	Annual Return for the year 2018-19 submitted within time limit.	No deviations observed in returns
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	Shri Vinod Kumar, Mining Eng. and Shri Ratnesh Kumar Pandey appointed under rule 55 of MCDR, 2017	NA
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	Pits-9.45 Ha Waste dumps-4.0 Ha Mineral Storage-1.30 Ha Infrastructure-0.40Ha Road-0.10 Ha Reclaimed/Rehabilitated-1.80 Ha	
9d	Scrutiny of Annual return on afforestation	Given	300 Saplings planted in ML & 700 nos out side ML planted.	More or less plantations have been observed in ML area
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not Given	No mineral rejects generation proposed	

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given	SMS grade limestone: O/S- 18093.56 tonnes Despatch-145931 tonnes C/S-41242 tonnes	Stocks positions as per annual return 2018-19
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given	Rs 420.34/Tonne ex-mine price reported in annual return	
9h	Scrutiny of Annual return on fixed assets	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
MCDR17	Rule 11(4)	11-FEB-20	19-AUG-20				
MCDR17	Rule 31(4)	11-FEB-20	19-AUG-20				
MCDR17	Rule 45(1)	11-FEB-20	19-AUG-20				
MCDR17	Rule 45(5) (k	11-FEB-20	19-AUG-20				

Date :

(SANJAY M. GIRHE)

Indian Bureau of Mines