

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

**MCDR inspection REPORT  
Jabalpur regional office**

**Mine file No :** MP/KTN/LST-260

**Mine code :** 38MPR47092

- (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 : 22-MAY-21
- (v) Prev.inspection date : 01-FEB-19

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **NANHWARA (2.1 HA)**
- (b) **Registration NO.** :
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address :  
State : MADHYA PRADESH  
District : KATNI  
Village :  
Taluka :  
Post office :  
Pin Code :  
FAX No. : NA  
E-mail : NA  
Phone : NA
- (f) Police Station : KYMORE
- (g) First opening date :
- (h) Weekly day of rest :
2. Address for : SHRI PAVAN PANDEY  
correspondance : 10, SINGHAI COLONY, KATNI (M.P.)
3. (a) Lease Number : MPR2475  
(b) Lease area : 2.1  
(c) Period of lease : 50  
(d) Date of Expiry : 14-MAR-52
4. Mineral worked : DOLOMITE Associated  
LIMESTONE Main

## 5. Name and Address of the

Lessee : PAVAN PANDEY  
10, SINGHAI COLONY KATNI  
MADHYA PRADESH  
Phone:N. A.  
FAX :N. A.

Owner : PAVAN PANDEY  
10, SINGHAI COLONY KATNI  
MADHYA PRADESH  
Phone: N. A.  
FAX : N. A.

6. Date of approval of Mining : Fresh under rule 22 MCR1960 20-DEC-01  
Plan/Scheme of Mining Mining Scheme rule 12 MCDR1988 19-SEP-12  
MP modif under 17(3) MCR 2016 17-DEC-16

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	During the year 2020-21 no exploration was proposed	Nil	During the year 2016-17 to 2017-18 total 05 DTH holdes were proposed. Violation u/r 11(1) of MCDR, 17 issued for non-compliance
1b	Exploration over lease area for geological axis 1 or 2	No proposals	Nil	No detailed exploration carried out by the lessee in past for G1 axis
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No Proposals	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No Proposals	Entire lease area of 2.10Ha considered in G1 level based on working pits	Lease area very well worked out by open working pits
1e	Balance reserve as on 01/04/20	Reserves in Tonnes Proved (111) -64803 Resources in tonnes Feasibility (211): 27,997 MT The balance reserves as on 1/4/2016 as per MMP approved on 17/12/2016	Reserves in Tonnes Proved (111) -29371 Resources in tonnes Feasibility (211): 27,997 MT Measured Resources (331)- 92800MT The balance reserves as on 1/4/2021 as per annual return 2020-21	No additional reserves have been estimated.

1f	General remarks of inspecting officers on geology, exploration etc	No Proposals	Nil	No detailed exploration is undertaken in the ML area as required to be undertaken for assessing the reserves/resources to the satisfactory extent.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	It was proposed to extend quarry-1 towards east from 437mRL to 434 mRL	Overall mining working carried out as per the proposals	Updated working marked in Surface Plan
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate bench proposed for OB during the year. Separate benches in ore were also proposed.	Working carried out as per the proposals	Most of the working lease is devoid of top soil. Sufficient development work carried out by removing top OB.
2c	Stripping ratio or ore to OB ratio	Proposed as 1: 0.61 Tonne/CuM	Nil	During the year 2020-21 no OB generated
2d	Quantity of topsoil generation in m3	Not Proposed	Nil	Working were proposed depthward & not lateral
2e	Quantity of overburden generation in m3	Proposed as 4600 CuM	No OB generated during the year	OB in lease area is of phyllitic nature
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Systematic development/ex cvation were proposed in approved document	Working carried out as per the proposals	There are two working pits & its dimensions (Quarry-1: 213m x (93-49m) x (12m to 15m), Quarry-2 (99m) x (03-13m) x (2m to 5m)

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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Working proposed in single pit	Working carried out as per the proposals	Marked on development plan
3b	Quantity of ROM mineral production proposed	Total 10028 CuM production/excavation of ROM proposed	9499 Tonne of cement grade limestone acheived	There is no excess production against proposals
3c	Recovery of sailable/usable mineral from ROM production	Proposed as 70% of total ROM	About 70% acheived as proposed	Rest 30% as interburden
3d	Quantity of mineral reject generation	Not Proposed	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	Not Proposed	Nil	No reject generated during the year 2020-21
3f	Quantity of sub grade mineral generation.	Not Proposed	Nil	Nil
3g	Grade of sub grade mineral generation	Not Proposed	Nil	No sub-grade limestone generation proposed
3h	Manual / Mechanised method adopted for segregating from ROM	Manual sorting & sizing proposed	Manual sorting & sizing carried out as proposed	Limestone intercalated with phyllite & domite
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Nil	No beneficiation required except manual sorting & sizing
3j	Provision of drilling and blasting in mineral benches	Jack Hammer drilling of 32-34 dia proposed	Drilling & blasting carried out as per proposals	

3k	Provision of mining machineries in mineral benches	Opencast manual method of mining proposed	Open cast manual method of mining adopted as proposed	Manual method of mining by means of hand tool such as spades, hammer, crowbar, chiesel, etc proposed & being practised
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height of 0.5m in OB & 3mts in limestone proposed	Bench height s were maintained as per the proposals	
3m	Total area covered under excavation/pits	1.09 Ha area was proposed in approved MP period i.e. 2016-17 to 2020-21 dtd 17.12.2016	1.02 Ha area as per annual return for the year 2020-21	No lateral development/excavation
3n	Ore to OB ratio for the pit/mine during the year.	Proposed as 1:0.61 Tonnes/CuM	Acheived as Nil	No overburden generated during the year
3o	Total area put in use under different heads at the end of year	As per the previous approved MMP dtd 17.12.2016 Area under mining-1.09Ha To Soil Storage-0.093 Ha Road-0.064	As per the previous approved MMP dtd 17.12.2016 Area under mining-1.02Ha Waste Dumps-0.353 Ha Road-0.064 As per annual return for the year 2020-21	No lateral development/exacavation carried out
3p	Production of ROM mineral during the last five year period as applicable	2016-17-: 10007 MT 2017-18-: 10080 MT 2018-19-: 10049 MT 2019-20-: 10001 MT 2020-21-: 9499 MT	2016-17-: NA 2017-18-: NA 2018-19-: 6800 MT 2019-20-: Nil MT 2020-21-: 9499 MT	For the year 2016-17 & 2017-18 annual returns not submitted

3q	General remarks of inspecting officers on method of mining etc.	Manual method of mining proposed	Working carried out as per the proposals	Manual method of mining adopted in ML area. Loading of ROM being practised by tractor/trucks with manual loading. There were two working pits of different dimensions.
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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)	Concurrent use of top soil proposed for plantation purpose & OB dumping proposed towards northern, eastern & southern part of ML area	Disposal of top soil & OB carried out as per the proposals	One top soil stack is located towards south-eastern part of ML area & marked on plate-IV, surface plan
4b	Location of topsoil, OB and mineral reject dumps	Concurrent use of top soil proposed for plantation purpose & OB dumping proposed towards northern, eastern & southern part of ML area	One top soil stack is located towards south-eastern part of ML area & marked on plate-IV, surface plan	Concurrent use of top soil is proposed for platation purpose as & when top soil encountered
4c	Number of dumps within lease area and outside of lease area	dumping proposed towards northern, eastern & southern part of ML area	One top soil stack is located towards south-eastern part of ML area	Top soil stack duly marked on plate-IV, surface plan. No dumps encountered outside ML area

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumping/stacking proposed within UPL	dumping carried out within ultimate pit limit	
4e	Number of active and alive dumps.	At Present single top soil active stack is existing in lease area	No OB dumps encountered in ML area	
4f	Number of dead dumps.	Not Proposed	No dead dumps in ML area	
4g	Number of dumps established.	Not Proposed	No OB dumps encountered in ML area	
4h	Whether Retaining wall or garland drain all along dumps are there.	No Proposals	Nil	No OB dumps encountered in ML area
4i	Length of Retaining wall or garland drain all along dumps	No Proposals	Nil	No OB dumps encountered in ML area
4j	Number of settling ponds	No proposals	Nil	No settling ponds observed in ML area
4k	Specific comments of inspecting officer on waste dump management	NA	NA	No OB dumps encountered in ML area area. Concurrent use of top soil for plantation purpose proposed in approved document.

#### 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.	No Proposals	Full extraction of limestone not encountered in any pit.	Further, depthward exploration to prove the entire depth of mineralisation is required.



5b	Area under backfilling of mined out area	During the year 0.16 CuM area proposed for backfilling	Not done	Violation pointed out
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Concurrent use of top soil for plantation purpose proposed	Carried out as per the proposals	
5d	Total area fully reclaimed and rehabilitated	During the year 0.16 CuM area proposed for backfilling	No area has been fully reclaimed & rehabilitated	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	Working pit area not matured so far for reclamation & rehabilitation

#### 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 limit as per the provisions of Rule 26 of MCDR, 2018	Violation pointed out & issued under Rule 26(2) of MCDR, 2017
6b	Area available for rehabilitation (ha) .	Total 0.16 area proposed for reclamation & rehabilitation	Not done	violation pointed
6c	afforestation done (ha).	During the year 162 saplings proposed to be planted over 306 SqM area	Saplings planted over proposed area during the year	Survival rate about 60%
6d	No. of saplings planted during the year	During the year 162 saplings proposed to be planted	162 Nos of saplings planted over proposed area during the year	Survival rate about 60%

6e	Cumulative no .of plants	NA	NA	details not available
6f	Any other method of rehabilitation	No Proposals	Nil	
6g	Cost incurred on watch and care during the year	NA	NA	Not provided in approved document
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	About 0.16 area proposed during the year	Not done as per the proposals	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Backfilling was proposed by OB backfilling	Not done	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	Not Proposed	Nil	
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	Most of ML area is mineralised by limestone & dolomite

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		Working pits area not matured so far, hence scope of backfilling/reclamation & rehabilitation doesn't exist. Periodic monitoring is being carried out by outsourced consultant.

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Mineral Conservation:

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Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	10001 MT proposed as total limestone production for despatch. Manual grade wise sorting proposed within lease area for high grade limestone for steel industries & low grade for cement plants	Working carried out as per the proposals	B.F grade limestone (CaO-42% Min, SiO <sub>2</sub> -4% Max, Size-+50mm
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual sorting & sizing proposed	Manual sorting & sizing carried out	Sorting & sizing within ML area
7c	Different grade of mineral sorted out at mines.	B.F grade limestone (CaO-42% Min, SiO <sub>2</sub> -4% Max, Size-+50mm Cement grade: CaO-42 to 45%, MgO- Up to 4%, SiO <sub>2</sub> - up to 10%	B.F grade limestone (CaO-42% Min, SiO <sub>2</sub> -4% Max, Size-+50mm Cement grade: CaO-42 to 45%, MgO- Up to 4%, SiO <sub>2</sub> - up to 10%	Sorting carried out as per the proposals
7d	Any beneficiation process at mines	Not Proposed	Nil	Not required, manual sorting & sizing proposed

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	NA	Limestone is being conserved by grade wise sorting in the lease area. B.F grade limestone (CaO-42% Min, SiO <sub>2</sub> -4% Max, Size-+50mm & Cement grade: CaO-42 to 45%, MgO- Up to 4%, SiO <sub>2</sub> - up to 10% proposed for sorting. There is no mineral rejects/subgrade generation.
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**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Concurrent use of top soil proposed for plantation.	Carried out as per the proposals	Top soil utilized for afforestation purpose.
8b	Concurrent use or storage of topsoil	Concurrent use of top soil proposed for plantation.	Concurrent use of top soil done for plantation.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping proposed during the year	Carried out as per the proposals	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not Proposed	Nil	Working pits area not matured so far for its restoration purpose.

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8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Only 0.16 area proposed for reclamation	Not done	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	During the year 166 saplings proposed for plantation	166 saplings planted during the year	
8g	Survival rate	Proposed as 80%	Acheived as 60%	Low survival rate due to scarcity of water in the area
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 200-300 sapling/year & accordingly proposals were given in 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. upto-April-2021 were submitted online A.R. submitted upto- 2019-20	Annual Return for the year 2019-20 submitted within time limit & Annual return for the year 2020-21 was under preparation till the date of inspection.	Returns submitted within stipulated time

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9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	Shri Rajiv Yadav as Mining Eng. & Shri Umesh Kushwaha as Geologist appointed	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	Opencast working- 1.066Ha, Reclaimed/Rehabilitated- 0.134Ha, Waste dumps- 0.353Ha	
9d	Scrutiny of Annual return on afforestation	Given	During the year 166 saplings planted in ML area	Some plantation were observed along statutory barrier
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not Given	Nil	No mineral rejects generation proposed in approved document
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given	Cement Grade: O/S-16377tonnes Despatch-6800 tonnes C/S-9577.36 tonnes	Details as per annual returns 2019-20
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given	Ex-mine price: Cement Grade -Rs 350/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)	17-JUN-21		MCDR17 Rule 11(1)	17-JUN-21	
Rule 26(2)	17-JUN-21		Rule 26(2)	17-JUN-21	
Rule 28(1)	17-JUN-21		Rule 28(1)	17-JUN-21	
MCDR17 Rule 32(1) (a)	17-JUN-21		MCDR17 Rule 32(1)	17-JUN-21	

**Date :**

**(SANJAY M. GIRHE)**

Indian Bureau of Mines