

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

**MCDR inspection REPORT  
Jabalpur regional office**

**Mine file No :** MP/KTN/LST-65

**Mine code :** 38MPR47026

- (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 : 20-MAR-21
- (v) Prev.inspection date : 04-FEB-20

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **AMEHTA**
- (b) **Registration NO.** :
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address :  
State : MADHYA PRADESH  
District : KATNI  
Village : AMEHTA  
Taluka : V.GARH  
Post office : KAHANGAON  
Pin Code :  
FAX No. : N. A.  
E-mail : N. A.  
Phone : N. A.
- (f) Police Station : VIJARAHHOGARH
- (g) First opening date : 06-MAR-76
- (h) Weekly day of rest : SUN
2. Address for : SHRI RANJAN GROVER  
correspondance : CIVIL LINES, KATNI (M.P.) 483501
3. (a) Lease Number : MPR1368  
(b) Lease area : 18.33  
(c) Period of lease : 20  
(d) Date of Expiry : 05-MAR-16
4. Mineral worked : LIMESTONE Main

## 5. Name and Address of the

Lessee : RANJAN GROVER  
 CIVIL LINES KATNI MADHYA  
 PRADESH  
 Phone:N. A.  
 FAX :N. A.

Owner : RANJAN GROVER  
 CIVIL LINES KATNI MADHYA  
 PRADESH  
 Phone: N. A.  
 FAX : N. A.

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	05-JUL-96
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	14-FEB-03
		Modif.of approved Mining Plan	10-MAR-05
		Mining Scheme rule 12 MCDR1988	28-MAR-12
		Mining Scheme rule 12 MCDR1988	22-APR-14
		Renewal under rule 24 MCR1960	24-DEC-14
		MP modif under 17(3) MCR 2016	29-JUN-20

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	During the year 2019-20 no exploration was proposed. In 2020-21 two core bore holes of 60m depth each has been proposed.	No exploration carried out during the year 2020-21	Violation of Rule 11(1) of MCDR, 17 pointed out for not attending the proposed exploration
1b	Exploration over lease area for geological axis 1 or 2	During the year 2019-20 no exploration was proposed. In 2020-21 two core bore holes of 60m depth each has been proposed.	Not done	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Lessee himself	Lessee has not carried out proposed exploration	
1d	Balance area to be explored to bring Geological axis in 1 or 2	5.33 Ha area was proposed for exploration	Proposed exploration not carried out. Area under G-1 : 13.00Ha & G-2 : 5.33 Ha	Area explored under G1&G2 by way of working pits.
1e	Balance reserve as on 01/04/20	Reserves in Tonnes Proved(111) - 23,29,239 Resources in tonnes Feasibility(21): 11,43,125 Reserves/reso urces position as per approved MP dtd 24.12.2021	Reserves in Tonnes Proved(111) -11,55,756 Resources in tonnes Feasibility(221): 11,43,125 Reserves/Resources position as on 01.04.20 as annual return	

1f	General remarks of inspecting officers on geology, exploration etc	NA	NA	Entire mineralised lase area has not been explored fully as per UNFC/MEMC Guidelines by the lessee in past by conventional drilling . But lease area very well explored by working pits.
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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 work in between 2655520N to 2655660N & 452750E to 452900 with bench levels from 377 to 356mRL as earmarked in 7 Plate for the year 2019-20	Mine working was carried out as per the proposed locations. But, proposed OB & top soil developments/quantity were lagging w.r.t. the proposals.	Violation of Rule 11(1) pointed out for the same.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Bench in Top soil - 4m, Overburden Benches -4.0m and Mineral Limestone - 3 Benches (Height 6.0 m + width 10 m)	Limestone working was carried out as per proposed benching configuration. Top soil & OB development lagged behind	Violation of Rule 11(1) pointed out for the same.
2c	Stripping ratio or ore to OB ratio	During the year proposed as 1:0.43 T/CuM	During the year acheived as 1:0.15 T/CuM	Less top soil & OB generation against to the proposals. Violation of rule 11(1) of MCDR,17 issued.
2d	Quantity of topsoil generation in m3	Proposed during the year 6600 CuM	Acheived during the year 2019-20 as 1000 Cum	Violation of rule 11(1) of MCDR,17 issued.

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2e	Quantity of overburden generation in m3	During the year 2019-20 proposed as 16420 CuM & 39805 CuM in 2020-21	Acheived during the year 2019-20 proposed as 9500 CuM & 56972 CuM in 2020-21	For aforesaid deviation, Violation of rule 11(1) of MCDR,17 issued.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NA	NA	There total 3 working pits of following dimensions : Pit No-1 (170-230 m x (262-336)m x 43m), Pit No-2 ((75-150)m x (78-123)m x 22m), Pit No-3 75m x (32-45)m x 16m), Limestone exposures/mineralisation very well seen in all the pits

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Excavation were proposed in Pit-1 from 377mRL to 356mRL as marked in Plate-12	Mine working were carried out as per proposals in Pit-1	Pit-1 is the prominent pit where mineralisation proved up to 31mts by mine working
3b	Quantity of ROM mineral production proposed	1,00,200MT proposed in 219-20 & 193408 MT in 2020-21	ROM exacavation acheived as 74,300 MT during the year 2019-20 & 96540.70 MT in 2020-21	Production is slightly on lower side
3c	Recovery of sailable/usable mineral from ROM production	Limestone recovery of 80% proposed from ROM	Acheived about 80% recovery as proposed	Limestone recovery 80% & rest 20% proposed as inter-burden waste
3d	Quantity of mineral reject generation	Not Proposed	Nil (Entire recovered limestone is utilised & saleable )	

3e	Grade of mineral rejects generation and threshold value declared.	Not Proposed	Nil	
3f	Quantity of sub grade mineral generation.	Not Proposed	Nil	Sub-grade generation not proposed in approved document
3g	Grade of sub grade mineral generation	Not Proposed	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanical by crusher	For segregation from ROM mechanical method adopted	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Crusher of 100 TPH installed for crushing & screening purpose	Input size for crusher is 300mm and output size will be -60 to +40mm
3j	Provision of drilling and blasting in mineral benches	Small dia 32mm shallow depth drilling & blasting is proposed by Jack hammer	Drilling & blasting using jack hammer carried out Small dia 32mm shallow depth.	
3k	Provision of mining machineries in mineral benches	L & T PC of 1.2 Cum capacity Atlas Copco compressor- 32mm dia TATA Dumper model 2515, 10 T capacity Tractor mounted Air Compressor Jack Hammer with Drill rods	L & T PC of 1.2 Cum capacity Atlas Copco compressor- 32mm dia TATA Dumper model 2515, 10 T capacity Tractor mounted Air Compressor Jack Hammer with Drill rods	

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height of 4m proposed in OB bench & Bench height of 6m proposed in limestone,	working carried by maintaining height of 4m in OB bench & Bench height of 6m in limestone	Proposed bench height is suitable as per the deposit
3m	Total area covered under excavation/pits	7.85 Ha area was proposed in approved MP period i.e. 2015-16 to 2019-20	7.25 Ha as on 01.04.2020, less excavated area due low production during the year 2019-20	
3n	Ore to OB ratio for the pit/mine during the year.	Proposed as 1:0.43 T/CuM	Acheived as 1:0.15 T/CuM	Variation due to less generation of top soil & OB during the year. Violation of 11(1) of MCDR,17 pointed out
3o	Total area put in use under different heads at the end of year	As per the previous approved MP dtd 24.12.14 Pits excavated area- 7.85Ha Storage of top soil-1.0Ha OB dumps- 1.33Ha Mine haul Road-0.25Ha Green Belt- 1.03Ha	As per the Annual return as on 01.04.20 Pits excavated area- 7.25Ha Reclaimed/Rehabilitated- 0.75Ha OB dumps-2.33Ha Mine haul Road-0.25Ha Green Belt-1.87Ha	
3p	Production of ROM mineral during the last five year period as applicable	2015-16-: 104340 MT 2016-17-: 100800 MT 2017-18-: 99600MT 2018-19-: 99600MT 2019-20-: 100200MT 2020-21-: 193048MT	2015-16-: 99924 MT 2016-17-: 99548 MT 2017-18-: 99995MT 2018-19-: 99580MT 2019-20-: 74360MT 2020-21-: 96540MT	Production proposals Vs achievement details as per approved MMP dtd 29.06.2020

3q	General remarks of inspecting officers on method of mining etc.	NA	NA	Opencast fully Mechanised mine working proposed by using Excavator /JCB & dumper combination with shallow drilling & blasting using jack hammer.
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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)	Dumping of OB was proposed towards eastern side of ML area	dumping was carried out at proposed locations.	
4b	Location of topsoil, OB and mineral reject dumps	OB dumping was proposed in between E452870 to E452950 & N2655350 to N2655420	Dumping carried out at proposed locations	Presently there is single OB dump having dimension of 95m x 45m x 10m
4c	Number of dumps within lease area and outside of lease area	One number of dump towards southern side of ML existing.	Dumping carried out within mining lease area.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumping was proposed outside ultimate pit limit	Dumping carrried out outside the UPL	
4e	Number of active and alive dumps.	Single active OB dump	Single active OB dump existing in lease area	
4f	Number of dead dumps.	Not Proposed	No dead dumps existing in the lease area	
4g	Number of dumps established.	Not Proposed	No OB dumps have been stablised so far.	
4h	Whether Retaining wall or garland drain all along dumps are there.	Garland drain and settling pit was proposed	Garland drain and settling pit provided along OB dump	



4i	Length of Retaining wall or garland drain all along dumps	Not Proposed	Garland drain of 85m provided along OB dump	
4j	Number of settling ponds	One settling sump was proposed	One settling pond provided	
4k	Specific comments of inspecting officer on waste dump management	NA	NA	Total 20% of OB/IB generation was proposed every year and its systematic utilization for backfilling & rest for dumping was proposed. Working done as per the proposals.

#### 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.	Limestone is partly extracted in noth-eastern part of lease area	Backfilling over 6000 Sq.M was proposed during the year.	
5b	Area under backfilling of mined out area	Backfilling over 6000 Sq.M was proposed during the year.	Total backfilled area as of now 0.61 Ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Concurrent use of top soil for rehabilitation purpose was proposed.	Concurrent use of top soil for rehabilitation purpose carried out.	
5d	Total area fully reclaimed and rehabilitated	Backfilling over 6000 Sq.M was proposed during the year.	Reclaimed area by backfilling 0.61 Ha	

5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	About 20% of OB/mine waste proposed to be encountered in the lease area. Top soil as and when generated proposed to be used for plantation purpose over backfilled. Hence, scope of reclamation by backfilling is existed significantly.
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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	Report was submitted within stipulated time	
6b	Area available for rehabilitation (ha) .	Limestone exhausted in limited part of working pits. Hence, present scope of rehabilitation exist on lesser amount	Rehabilitation of backfilled area not done during the year	
6c	afforestation done (ha).	Plantation was proposed by 10 numbers of saplings	Plantation carried out by 10 numbers of saplings	
6d	No. of saplings planted during the year	Plantation was proposed by 10 numbers of saplings	Plantation carried out by 10 numbers of saplings	
6e	Cumulative no .of plants	NA	NA	Details on cumulative plantation has not been provided in approved document

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6f	Any other method of rehabilitation	Not Proposed	Rehabilitation for plantation is being practised	
6g	Cost incurred on watch and care during the year	NA	NA	Details not provided in approved document
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( L x B x D	Backfilling was proposed over 0.6 Ha area	Backfilling carried out over 0.61 Ha area	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not Proposed	Nil	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	Afforestation was proposed over backfilled area	Afforestation carried out over backfilled 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	Nil	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Not Proposed	Nil	

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	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NA	NA	In some part of pit area scope of backfilling/reclamation & rehabilitation is existing due to mineral exhaustion. Periodic monitoring is being carried out by outsourced consultant.

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	100200 MT proposed as total ROM production for despatch. Grade wise sorting proposed within lease area for high limestone	72440.925MT dispatched of SMG grade limestone. No cement grade limestone despatched during the year	

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7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Sorting by mechanical crusher & screening proposed	Sorting by mechanical crusher & screening carried out	
7c	Different grade of mineral sorted out at mines.	SMS, BF and cement grade limestone proposed	SMS grade limestone despatched during the year	
7d	Any beneficiation process at mines	Not Proposed	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	NA	Mineral is being conserved by grade wise sorting in the lease area. Limestone above threshold value of 34% CaO being conserved for cement grade use. SMS & BF grade limestone also generated.

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**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal & utiization of top soil proposed	Separate removal & utiization of top soil carried out	
8b	Concurrent use or storage of topsoil	Concurrent use of top soil for plantation purpose was proposed	Concurrent use of top soil for plantation carried out	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping for OB proposed	Separate dumping of OB carried out	

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8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	OB use for reclamation was proposed	OB used for reclamation by backfilling	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed	Phase wise reclamation implemented	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	10 nos of saplings were proposed to be planted	10 nos saplings planted within lease area	
8g	Survival rate	80% proposed	Survival rate of 70% achieved during the year	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling is proposed by water tanker	Regular water sprinkling is being practised by water tanker.	
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 500 saplings/year.

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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	M.R. not submitted upto- Feb-2020 A.R. submitted upto- 2019-20	NA	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.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	Shri Mannoj Kumar Rai was appointed as Mining Engineer	Appointment of Geologist was under process as reported during inspection.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	Pits excavated area- 7.25Ha Reclaimed/Rehabilitated- 0.75Ha OB dumps-2.33Ha Mine haul Road-0.25Ha Green Belt-1.87Ha	
9d	Scrutiny of Annual return on afforestation	Given	10 numbers of saplings were planted during the year	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not Given	No mineral reject generation from ROM	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given	SMS grade limestone:  Despatch-72440 O/S-152.682 MT C/S-2071.757MT	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given	Ex-mine price: SMS Grade -Rs 345/MT	
9h	Scrutiny of Annual return on fixed assets	Given	Nil	

9k	Scrutiny of Annual return on mining machineries	Given	L & T PC of 1.2 Cum capacity Atlas Copco compressor- 32mm dia TATA Dumper model 2515, 10 T capacity Tractor mounted Air Compressor Jack Hammer with Drill rods
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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)	01-JUN-21			
MCDR17	Rule 31(4)	01-JUN-21			
MCDR17	Rule 46(a)	01-JUN-21			

**Date :**

**(SANJAY M. GIRHE)**

Indian Bureau of Mines