

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

MCDR INSPECTION REPORT

Nagpur regional office

Mine file No : MAH/YTL/LST-56/NGP

Mine code : 38MSH26030

- (i) Name of the Inspecting : **M017**) **ASHISH MISHRA**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri Gopal Gundawar, Agent
Official with
Designation
- (iv) Date of Inspection : 30/08/2019
- (v) Prev.inspection date : 27/09/2018

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **ADEGAON**
- (b) **Registration NO.** : **IBM6239/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address :
State : MAHARASHTRA
District : YEOTMAL
Village : ADEGAON
Taluka : ZARIJAMNI
Post office : ADEGAON
Pin Code :
FAX No. : 0712:221637
E-mail :
Phone : (0712): 239070, 233110, 23'
- (f) Police Station :
- (g) First opening date : 01/03/1999
- (h) Weekly day of rest : MON
2. Address for : "UTKARSHA NILAYAM APTT", JALVIHAR COLONY,
correspondance RING ROAD, P. O. - JAITALA,
DISST. NAGPUR- 16 (M. S.)
3. (a) Lease Number : MSH0225
- (b) Lease area : 30
- (c) Period of lease : 50
- (d) Date of Expiry : 09/03/2048
4. Mineral worked : DOLOMITE Associated
LIMESTONE Main

5. Name and Address of the

Lessee : Smt. Deepali Gundawar
 C/o Shri Gopal Gundawar
 Utkarsha Nilayan Apptt.
 Jalvihar Colony, Nagpur
 NAGPUR MAHARASHTRA
 Phone:
 FAX :

Owner : Smt. Deepali Gundawar
 C/o Shri Gopal Gundawar,
 Utkarsha Nilayam Apparts.
 Jalvihar Colony, Nagpur
 NAGPUR MAHARASHTRA
 Phone:
 FAX :

6. Date of approval of Mining Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	25/06/2007
		Mining Scheme rule 12 MCDR1988	21/06/2013
		MP modif under MCR 1960	01/04/2016
		MP modif under 17(3) MCR 2016	19/11/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	9 boreholes at 100 m X 100 m grid interval with total meterage 210.10 m were already drilled in the area alongwith 17 old pits (now several pits have been joined and finally 11 pits are remaining). Further, exploration is proposed in form of 8 boreholes is proposed to be drilled in the proposal period of 2019-20 to 2023-24.
1b	Exploration over lease area for geological axis 1 or 2	G-1	G-1 & unexplored area. The area is explored for around 13.28 ha for Dolomite occurrence and 14.70 ha for Limestone occurrence. Rest 2.02 ha area in the extreme SE part is yet to be explored for which exploration proposals have been incorporated.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Balance area to be explored is 2.02 ha that will be covered in the approved proposal period of 2019-20 to 2023-24	As per the proposals.	

1e Balance reserve as on 01/04/20 Balance reserves / resources for Limestone are furnished under 'Actual Work' details 111-30,32,561 T 221-90,181 T

1f General remarks of inspecting officers on geology, exploration etc

The area is having mineralization of Limestone and Dolomite both minerals. Limestone is occurring in the central and North part of the leasehold whereas Dolomite is mainly in the SW part. High Magnesia Limestone or Dolomitic Limestone is occurring at places where both minerals overlay each other. Exploration is adequate and further exploration is proposed to cover entire potentially mineralized area as well as for clear demarcation of Limestone and Dolomite zones.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Development for Limestone was proposed in the Northern part of the lease area in between grid N2191850 to N 219200 & E280800 to E281150	As per the proposals, location of development is the same, however, lagging due to lower production in comparison to the proposals.	

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	There is no top soil in the area, overburden and mineral benches are proposed to be kept separate wherever possible.	As Limestone is mostly outcropping, there is minimal overburden for which a separate bench is not feasible.	
2c	Stripping ratio or ore to OB ratio	1:0.03	As per the proposals, there is very less overburden as Limestone is mostly outcropping.	As per the returns, total Limestone production is 39646.35 T (ROM) & Overburden/ Waste reported is 13332 cum. This overburden/waste is from entire mine where Dolomite is also occurring.
2d	Quantity of topsoil generation in m3	Nil	Nil	
2e	Quantity of overburden generation in m3	2018-19: 6331 cum	2018-19: Approximately 450 cum (for Limestone ~10% of total excavation)	As per the returns, Overburden/ Waste reported is 13332 cum. This overburden/waste is from entire mine where Dolomite is also occurring.

2f General remarks of inspecting officers on development of pit w.r.t. type of deposit etc

The deposit is having Dolomite mainly in the SW part alongwith some other patches in NE and central south parts of the lease area. Rest area is having Limestone occurrence. DUE to low demand and unavailability of buyers in the Yavatmal area, development in Limestone is quite lower as compared to Dolomite (for 2018-19, Dolomite production was 177758.55 T whereas Limestone production was 39646.35 T). Overall, development is adequate as per the occurrence and use of mineral.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	For Limestone: One Pit in the Northern part of the lease area in between grid N2191850 to N219200 & E280800 to E281150	As per the proposals	
3b	Quantity of ROM mineral production proposed	2018-19: 144350 T (ROM for Limestone)	2018-19: 39646.35 T (ROM for Limestone)	

3c	Recovery of sailable/usable mineral from ROM production	80% of ROM	100%	Generated ROM has Dolomitic Limestone as sub-grade/mineral rejects which is consumed by blending with Dolomite or Limestone as per the quality (MgO%) as both the minerals are excavated and dispatched from the lease area. Hence, there is no mineral rejects actually left and entire ROM quantity is graded, blended with mineral rejects and stacked for dispatch.
3d	Quantity of mineral reject generation	2018-19: 28870 T (for Limestone)	2018-19: Nil	
3e	Grade of mineral rejects generation and threshold value declared.	Dolomitic Limestone having MgO>5%	Dolomitic Limestone has been blended with Limestone or Dolomite (having higher MgO) and dispatched. Hence, the information is Nil.	
3f	Quantity of sub grade mineral generation.	No such proposals	Nil	
3g	Grade of sub grade mineral generation	No such proposals	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual sorting	Manual sorting	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such proposals	Nil	As the area is having Limestone and Dolomite both, mineral rejects are being consumed after blending with either of the two minerals depending upon the percentage of MgO.

3j	Provision of drilling and blasting in mineral benches	Yes, Drilling is proposed through Crawler mounted 105 to 125 mm Dia drills as well as Compressor and Jack Hammer drills for secondary drilling or toe drilling. Blasting is proposed to be carried out by government authorized/licensed vendors using Slurry or Emulsion explosives.	As per the proposals.	
3k	Provision of mining machineries in mineral benches	Backhoe with 0.7 to 1.2 cum bucket capacity, Tippers with 6 cum and 10 cum capacity Alongwith other auxilliary equipments.	As per the proposals.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Overburden and mineral have no separate benches as it is not possible to maintain so. Mineral benches for Limestone are proposed to be having 3.0 m bench height.	Bech height is maintained as 3 m for Limestone. Depending upon the occurrence, production capacity and mechanization, mining method is suitable to obtain Limestone of optimum quality, blended with high magnesia Limestone and to keep distinction between interburden as layers of waste.	
3m	Total area covered under excavation/pits	For Limestone: 4.9261 ha	For Limestone: 1.578 ha	Total area under pits is 7.73 ha including Dolomite excavation.

3n	Ore to OB ratio for the pit/mine during the year.	1:0.03	As per the proposals, there is very less overburden as Limestone is mostly outcropping.	As per the returns, total Limestone production is 39646.35 T (ROM) & Overburden/ Waste reported is 13332 cum. This overburden/waste is from entire mine where Dolomite is also occurring.
3o	Total area put in use under different heads at the end of year	Total area put to use under different heads as on 01.04.2019 is furnished in actual work details:	Area under: Mining- 7.73 ha OB/ Waste Dump-0.21 ha Infrastructure- 0.0015 ha Roads- 3.78 ha Total- 11.7215 ha	Apart from the abovementioned area, approximately 1 ha area is covered under plantation alongside the road (lineral plantation) and in 7.5 m non-mining zone in western part of the lease area (covered under Dolomite zone).
3p	Production of ROM mineral during the last five year period as applicable	For Limestone- 2017-18: 164744 T 2016-17: 163903 T 2015-16: 144658 T 2014-15: Lapse Period 2013-14: 120000 T	For Limestone- 2017-18: 31115 T 2016-17: 1290 T 2015-16: 4202 T 2014-15: 15550 T 2013-14: 22984 T	As per the office records, SOM for 2014-15 to 2018-19 was submitted in this office for approval having proposals for the minerals Limestone and Dolomite both, however, due to declaration of Dolomite as Minor Mineral, the same could not be processed. Later, document with standalone proposals for Limestone was submitted and got approved by the lessee.

3q General remarks
of inspecting
officers on
method of mining
etc.

Method of mining
is Category A
(mechanized
workings) and is
suitable as per
the occurrence of
mineral/minerals
in the area and
capital
investment. Bench
height and other
design parameters
are suitably
selected
accordingly.

Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes, There is no top soil available in the area. Overburden and mineral rejects are proposed to be stacked separately at earmarked locations given in the mining plan document.	As per the proposals.	

- 4b Location of topsoil, OB and mineral reject dumps
 Top Soil Dump: Nil
 Overburden/Waste Dumps: For Limestone- 2 main dumps within grids N2191750 to N2191900 & E280800 to E280950
 Mineral Rejects Dump: 1 dump/stack at N2191400 to N2191500 & E280400 to E280500
 Top Soil Dump: Nil
 Overburden/Waste Dumps: For Limestone- 2 main dumps within grid N2191750 to N2191900 & E280800 to E280950
 Mineral Rejects Dump: Nil
 Apart from this, several small dumps for Dolomite is also there in the lease area within grid N2191500 to N2191900 & E280400 to E280800 and one small old dump in between grid N2191800 to N2191900 & E281100 to E281200. All dumps are located within pits as complete area is mineralized and dumps are shifted as per the requirements. As mineral rejects are blended and dispatched at grading level, there is no mineral rejects dump available.
- 4c Number of dumps within lease area and outside of lease area
 For Limestone: 2 dumps are available within the lease area
 For Dolomite: Several small size temporary dumps that are frequently re-handled.
 All dumps are proposed within the lease area.
 As per the proposals.
- 4d Location of dumps w.r.t. ultimate pit limit (Rule 16)
 Dumps are proposed within the pit limits as keeping dump outside the pit limits is not possible.
 Entire lease area is mineralized (either Limestone or Dolomite). Hence the dumps are kept within the pit limits and are shifted as per the requirements.
- 4e Number of active and alive dumps.
 For Limestone, both dumps are active.
 For Limestone, both dumps are active. These dumps shall be shifted as per requirements to exploit the underlying Limestone in future.

4f	Number of dead dumps.	Nil	Nil	
4g	Number of dumps established.	No such proposals.	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	No	No, as all the dumps are proposed and located within/near pits within ultimate pit limits and are proposed to be shifted in future.	
4i	Length of Retaining wall or garland drain all along dumps	No such proposals	Nil	
4j	Number of settling ponds	No such proposals	Nil	
4k	Specific comments of inspecting officer on waste dump management			As entire lease area is mineralized, and generation of waste is minimal, waste dump management is upto the level of satisfaction. Small temporary dumps are made within or adjacent to the pits that are rehandled as per the requirement of the area.

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 backfilling is proposed.	No backfiling is proposed or practiced as entire area is mineralized, generation of waste is very lower in comparison to the production of mineral(s) and Limestone is occurring beyond the explored depth also. The area is proposed to be converted into water reservoir at conceptual stage.	
5b	Area under backfilling of mined out area	No such proposals	Nil	

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No such proposals	Nil	
5d	Total area fully reclaimed and rehabilitated	No such proposals	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			No backfilling is proposed or practiced as entire area is mineralized, generation of waste is very lower in comparison to the production of mineral(s) and Limestone is occurring beyond the explored depth also. The area is proposed to be converted into water reservoir at conceptual stage.

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).	PMCP report is required to be submitted by 30th June every year to furnish work carried out under PMCP during the preceeding year.	PMCP report has been submitted by the lessee.	
6b	Area available for rehabilitation (ha) .	Nil	Nil	

6c	afforestation done (ha).	0.2247 ha for 5 years proposal period of 2014-15 to 2018-19	0.4 ha in the year 2018-19.	Cumulative Plantation done is 1 ha alongside the road (linear plantation) and in 7.5 m non-mining zone in western part of the lease area (covered under Dolomite zone).
6d	No. of saplings planted during the year	90 saplings for 2018-19	1000 saplings for 2018-19	The plantation has been carried out covering the backlog of previous years and considering low survival due to non-availability of nutritious topsoil. Also, the plantation was fenced to avoid damage by the cattles.
6e	Cumulative no .of plants	Approximately 1000 saplings	Upto 2018-19: 1545 saplings	With 80% survival by fencing and monitoring regularly, survived plantation is around 1200 nos.
6f	Any other method of rehabilitation	No such proposals.	Nil	
6g	Cost incurred on watch and care during the year	Approximately Rs 50000/- including plantation and environment monitoring	Rs 1 lakh.	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	No such proposals.	Nil	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No such proposals.	Nil	

6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No such proposals.	Nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No such proposals.	Nil	
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No such proposals.	Nil	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	0.2247 ha for 5 years proposal period of 2014-15 to 2018-19	0.4 ha in the year 2018-19.	Plantation done is alongside the road (linear plantation) and in 7.5 m non-mining zone in western part of the lease area (covered under Dolomite zone).
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	0.2247 ha for 5 years proposal period of 2014-15 to 2018-19	0.4 ha in the year 2018-19.	Cumulative Plantation done is 1 ha alongside the road (linear plantation) and in 7.5 m non-mining zone in western part of the lease area (covered under Dolomite zone).
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Plantation and Green Belt development	As per the proposals	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes, environment monitoring is proposed in the core zone for air, water and noise.	As per the proposals.	Buffer zone is having several mines for major as well as minor minerals.

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Previously, PMCP operations were not satisfactory due to backlogs in plantation which has been covered in the year 2018-19. For survival of plantation, fencing and drip irrigation alongside the road was observed during the 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	Mineral dispatch is proposed after grade-wise sorting of ROM	As per the proposals	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual sorting within the lease area	As per the proposals	
7c	Different grade of mineral sorted out at mines.	Cement Grade Limestone and Dolomitic Limestone	Cement Grade Limestone	As the area is having Limestone and Dolomite both, mineral rejects in form of Dolomitic Limestone are being consumed after blending with either of the two minerals depending upon the percentage of MgO.
7d	Any beneficiation process at mines	No such proposals	Nil	

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Mineral conservation aspect is satisfactory as entire ROM is being dispatched maintaining optimum quality post blending with generated Dolomitic Limestone.
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not applicable as no top soil in the area	Nil	
8b	Concurrent use or storage of topsoil	No such proposals	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes, There is no top soil available in the area. Overburden and mineral rejects are proposed to be stacked separately at earmarked locations given in the mining plan document.	As per the proposals.	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposals	Nil	No backfilling is proposed or practiced as entire area is mineralized, generation of waste is very lower in comparison to the production of mineral(s) and Limestone is occurring beyond the explored depth also. The area is proposed to be converted into water reservoir at conceptual stage.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposals	Nil	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Yes, baseline information furnished in mining plan. Further, additional plantation by 90 saplings per year was proposed in the document approved for 2014-15 to 2018-19 period.	Additional plantation done in the year 2018-19 was 1000 saplings with 80% survival and it was carried out to cover the backlog of plantation.	
8g	Survival rate	80%	80%	
8h	Water sprinkling on roads to control airborne dust	Yes	For water sprinkling on main haul roads, water mist spray has been installed. Further, at working benches and faces, water sprinkling is being done through small water tankers.	

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The area is having number of leases of both major and minor minerals. With the amount of plantation carried out by the lessee in the recent years, aesthetic beauty of the area may be improved in future.
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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 returns are to be submitted online before 10th day of every month for preceeding month Annual returns are to be submitted online before 1st July of each year for preceeding year	Monthly return submitted upto July'2019 AR submitted upto 2018-19	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: Shri.Rajendra J. Wandile Geologist: Nil Manager: Shri.Rajendra J. Wandile	Violation of Rule 55 of MCDR'17 as no Geologist has been appointed/reported	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Lease area utilization: (i) Covered under current Workings: 7.73 ha (ii) Used for waste disposal : 0.21 ha (iii) Occupied by plant, buildings, residential, welfare buildings & roads: 3.781 ha	Correct information has been furnished as per the available format in the AR.	
9d	Scrutiny of Annual return on afforestation	(i) Number of trees planted during the year: 1000 (within lease area), 60 (outside the lease area) (ii) Survival rate in percentage: 80% for both within and outside lease area plantation	Plantation carried out within the lease area was verified. Outside lease area plantation could not be verified.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Complete and correct information furnished.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	For Limestone- ROM: Opening Stock- 4901.86 T, Production- 39646.35 T, Closing Stock- 11587.09 T Graded Ore: Cement Grade Limestone: Opening Stock- 4901.86 T, Production- 39646.35 T, Dispatch- 32961.12, Closing Stock- 11587.09 T	It appears that there is a duplicacy in the reported stocks for ROM and graded ore	Violation of Rule 45 of MCDR'17 for furnishing incorrect information

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	For Limestone: Sale Value and Ex-mine Sale Value: Rs 8240280/- Ex-Mine Price: Rs 250/- per T Cost of Production: Rs 149.80/- per T Sale Value and Ex-mine price checked and verified from the submitted return and sale invoice. Cost of production could not be verified as it is not standalone cost for Limestone but Limestone and Dolomite both as both the minerals are being simultaneously worked.	It was observed that Cost of production has been lowered from past year due to less expenses over consumption of materials, explosives, maintenance etc.
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets: Rs 11606753/- Apart from this, depreciation details for land, plants/bulding s/machinery etc has been provided.	Complete information has been furnished.
9k	Scrutiny of Annual return on mining machineries	Details of machineries deployed is given in for of 3 backhoe (0.7 cum, 1 cum and 1.1 cum bucket capacity), Tippers (2 each with 6 cum and 10 cum capacity) and drilling machine	As per the extent of mechanization given in the mining plan document, correct information has been furnished.

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

Date :

(ASHISH MISHRA)

Indian Bureau of Mines