

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

Review and updation of Mining Plan REPORT

Jabalpur regional office

Mine file No : MP/SATNA/LST.-115

Mine code : 38MPR35122

- (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 : 26-JUL-22
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BHATOORA (6.062 HA)**
- (b) **Registration NO.** : **IBM/5447/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address :
State : MADHYA PRADESH
District : SATNA
Village : BHATOORA
Taluka : MAIHAR
Post office : AJWAIN
Pin Code : 485771
FAX No. : 07674232055
E-mail : nmdubashametha@gmail.com
Phone : 07674232055
- (f) Police Station : BADERA
- (g) First opening date : 21-JAN-77
- (h) Weekly day of rest : SUN
2. Address for : MAIHAR STONE AND LIME CO. PVT. LTD.
correspondance : SNAHA MILAN TELEPHONE EXCH. RD.
DHANBAD (JHARKHAND)
3. (a) Lease Number : MPR1745
- (b) Lease area : 6.06
- (c) Period of lease : 20
- (d) Date of Expiry : 20-JAN-17
4. Mineral worked : DOLOMITE Associated
LIMESTONE Main

5. Name and Address of the

Lessee : MAIHAR STONE AND LIME CO. PVT. LTD.
 SNAHA MILAN TELEPHONE EXCH.
 RD. DHANBAD JHARKHAND
 DHANBAD JHARKHAND
 Phone:N. A.
 FAX :N. A.

Owner : MAIHAR STONE AND LIME CO. PVT. LTD.
 SNAHA MILAN TELEPHONE EXCH.
 RD. DHANBAD (JHARKHAND)
 DHANBAD JHARKHAND
 Phone: N. A.
 FAX : N. A.

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	09-JUN-99
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	13-JAN-05
		Mining Scheme rule 12 MCDR1988	05-NOV-09
		Mining Scheme rule 12 MCDR1988	18-JUL-13
		MP modif under 17(3) MCR 2016	23-JUN-17

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No exploration was proposed in 2021-22	Nil	Nil
1b	Exploration over lease area for geological axis 1 or 2	No exploration was proposed in 2021-22	Nil	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No exploration was proposed in 2021-22	Nil	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	No exploration was proposed in 2021-22	Nil. Area explored in G1 level- 6.062Ha	Entire mining lease area reported in G1 level of exploration based on working pits. But, in ROMP it was advised & accordingly exploration was proposed in compliance of Rule 12(4) of MCDR,2017
1e	Balance reserve as on 01/04/20	Reserves in Tonnes Proved(111) - 1576692MT Resources in Tonnes Feasibility(211): 1767915 MT Resources & Reserves positions as per approved MMP dtd 23.06.2017	Reserves in Tonnes Proved(111) -995344 MT Resources in Tonnes Feasibility(211): 1767915 MT Resources & Reserves positions as per Annual Returns for 2021-22	No additional reserves have been re-estimated.

1f	General remarks of inspecting officers on geology, exploration etc	NA	NA	The occurrence of Limestone in the lease area is stratigraphically controlled and is associated with Semri group of Vindhyan super group. Rocks of this formation comprise of shale, Limestone and dolomite.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	It was worked in quarry-1 & 2 and also proposed to merge quarry - 1 & 2. Working was proposed from 396mRL to 360mRL in 5 benches	Working carried out as per the proposed locations	No deviations observed in working area
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Top soil bench of 2mts, OB benches of 4mts & limestone benches of 8-9mts proposed	Working carried out as per the proposals & benches heights maintained	Working was proposed in 5 benches
2c	Stripping ratio or ore to OB ratio	Proposed as 1:0.35 Tonnes/CuM	Acheived as 1:0.29 Tonnes/CuM	During the year 2021-22, total 38925 CuM of overburden generated
2d	Quantity of topsoil generation in m3	Proposed as 6000 CuM	Acheived as 2562 CuM	
2e	Quantity of overburden generation in m3	Proposed as 15570	Acheived as 22897 CuM	OB quantity as reported in annual return 2021-22

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NA	NA	In the mining lease area there are four working pit/quarry and its dimensions are- Quarry-1 (160m x) (95-13)m x 38m. Quarry-2: (130m x 60m x 10m), Quarry-3 : (65m x 45m x 15m and Quarry-4 : (60m x 25m x 7)
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Working was proposed in Quarry-1 & 2	Working carried out in Quarry-1 & 2	
3b	Quantity of ROM mineral production proposed	Proposed as 132345 MT	Acheived as 131694 MT	Production acheived as per proposed limit/target of approved MMP
3c	Recovery of sailable/usable mineral from ROM production	Proposed as 80%	Acheived about 80%	Remaining 20% dolomite as minor mineral
3d	Quantity of mineral reject generation	No Proposals	Nil	Nil
3e	Grade of mineral rejects generation and threshold value declared.	No Proposals	Nil	Nil
3f	Quantity of sub grade mineral generation.	No Proposals	Nil	Nil
3g	Grade of sub grade mineral generation	No Proposals	Nil	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No Proposals	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Deep hole drilling & blasting proposed	Drilling & blasting carried out as per the proposals	Nil
3k	Provision of mining machineries in mineral benches	Ex 210, PC 300, 1.20 Cum capacity TATA Dumper model 2515, 16 T capacity Tractor mounted Air Compressor Mahindra Tractor with mounted Air Compressor Mahindra Tractor with Water Tank on trolley Water pump with Diesel engine	Ex 210, PC 300, 1.20 Cum capacity TATA Dumper model 2515, 16 T capacity Tractor mounted Air Compressor 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	Benches height in OB & Mineral proposed	Benches height in OB & Mineral found suitable	Benches height in OB & Mineral being maintained as proposed
3m	Total area covered under excavation/pits	Proposed as 3.98 Ha as per approved MMP	Achived as 3.98 Ha as per annual return 2021-22	
3n	Ore to OB ratio for the pit/mine during the year.	Proposed as 1:0.35 Tonnes/CuM	Acheived as 1:0.29 Tonnes/CuM	During the year 2021-22, total 38925 CuM of overburden generated

3o	Total area put in use under different heads at the end of year	As per the previous approved MP Pits-3.98 Ha Waste Dumps-0.32Ha Infrastructure -0.05Ha Roads-0.10 Ha	As per the Annual Return 2021-22 Pits-3.98 Ha Waste Dumps-0.32Ha Infrastructure-0.05Ha Roads-0.10 Ha	No lateral development carried out during previous years
3p	Production of ROM mineral during the last five year period as applicable	2016-17-136095 2017-18-150110 2018-19 - 148298 2019-20-148715 2020-21-151593 2021-22-132345	2017-18 -145935 MT 2018-19 - Nil 2019-20 - 98715 MT 2020-21-: 56220 MT 2021-22-: 131694 MT	Production figures as per online submitted annual returns
3q	General remarks of inspecting officers on method of mining etc.	NA	NA	Mechanised open cast working proposed by using Excavator /JCB & dumper combination with deep hole drilling & blasting.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No Proposals	Concurrent use for backfilling proposed towards north-southern side of ML area	No separate dumping proposed during the year
4b	Location of topsoil, OB and mineral reject dumps	No Proposals	Concurrent use for backfilling proposed towards north-southern side of ML area	
4c	Number of dumps within lease area and outside of lease area	Single overburden dump towards western part of ML area existing	Single overburden dump towards western part of ML area existing	OB dump near quarry -3 existing /located

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Existing OB dump outside UPL	Existing OB dump outside UPL	Single OB dump outside UPL noticed
4e	Number of active and alive dumps.	Single active OB dump in ML area	Single active OB dump in ML area	
4f	Number of dead dumps.	No dead dumps in ML area	No dead dumps in ML area	
4g	Number of dumps established.	No Proposals	No OB dumps have been stabilised	
4h	Whether Retaining wall or garland drain all along dumps are there.	No Proposals	Nil	Nil
4i	Length of Retaining wall or garland drain all along dumps	No Proposals	Nil	Nil
4j	Number of settling ponds	No Proposals	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	NA	NA	Overburden generation proposed during the year and concurrently proposed for backfilling in mined out area towards north-souther part.

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.	Full extraction in working pit carried out at very few locations	Full extraction in working pit carried out at very few locations	
5b	Area under backfilling of mined out area	Total 0.91 Ha area in mining lease has been backfilled till so far	Total 0.91 Ha area in mining lease has been backfilled till so far	

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Concurrent use on backfilled area proposed	Not done	Violation under Rule 11(1) of MCDR,2017 pointed out and issued to the lessee
5d	Total area fully reclaimed and rehabilitated	Total 0.91 ha area is fully reclaimed and rehabilitated till now	Total 0.91 ha area is fully reclaimed and rehabilitated till now	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	Very limited mined out area has been reclaimed and rehabilitated. In future scope of backfilling and reclamation shall be exists as the mine is about to reach at UPL 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).	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 of Rule 26(2) of MCDR,2017 pointed out and issued to the lessee
6b	Area available for rehabilitation (ha) .	NA	NA	No details provided in approved documents
6c	afforestation done (ha).	NA	NA	Nil
6d	No. of saplings planted during the year	During the year 2021-22, total 250 nos of saplings have been planted	During the year 2021-22, total 250 nos of saplings have been planted	Survival rate of about 80% acheived during the year
6e	Cumulative no .of plants	NA	NA	No details provided in approved documents

6f	Any other method of rehabilitation	No Proposals	Nil	Nil
6g	Cost incurred on watch and care during the year	No Proposals	Nil	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	Proposed over 30000 SqM	Not carried out	Violation under Rule 11(1) of MCDR,2017 pointed out & issued to the lessee
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Reclamation proposed over 12800 CuM waste	Not done	Violation under Rule 11(1) of MCDR,2017 pointed out & issued to the lessee
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No Proposals	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Proposals	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No Proposals	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No Proposals	Nil	Nil

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No Proposals	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No Proposals	Nil	Nil
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	Scope of backfilling/reclamation & rehabilitation exist at some locations in mined out pit area. Periodic monitoring is being carried out by outsourced consultant.

Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	132345 MT proposed as total ROM production for despatch. Grade wise sorting proposed within lease area.	130041.320 MT dispatched as BF grade limestone. Grade wise sorting carried out for cement & BF grades of limestone	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	

7c	Different grade of mineral sorted out at mines.	Bf grade limestone and cement grade limestone sorting & sizing proposed in ML area	Bf grade limestone and cement grade limestone sorting & sizing carried out in ML area	Sizing and sorting carried out as per the proposals
7d	Any beneficiation process at mines .	No Proposals	Nil	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 of BF grade and remaining for cement grade are being sized and sorted in ML area.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal and utilization proposed	Top soil utilization carried out as per the proposals	
8b	Concurrent use or storage of topsoil	Concurrent use for plantation over backfilled area proposed	Not done	Violation under Rule 11(1) of MCDR,2017 pointed out and issued to the lessee.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No separate dumping proposed	Concurrent use for backfilling proposed but not done	Violation under Rule 11(1) of MCDR,2017 pointed out and issued to the lessee.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No Proposals	Nil	Nil

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No Proposals	Nil	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	During the year 2021-22 total 250 saplings planted in ML area	During the year 2021-22 total 250 saplings planted in ML area	Nil
8g	Survival rate	Proposed as 80%	Acheived as 80%	
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 300-400 saplings/year in next ROMP proposals.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. submitted upto- July- 2022 A.R. submitted upto- 2021-22	Annual Return for the year 2017-18 submitted within time limit	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	Shri Shri Sharad Kumar Dubey, as Mining Eng and Shri.Ram Raj Kushwaha as Geologist appointed	During the inspection Mining Eng & Geologist were present
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	Pits-3.98 Ha Waste Dumps-0.32Ha Infrastructure-0.05Ha Roads-0.10 Ha	
9d	Scrutiny of Annual return on afforestation	Given	During the year 2021-22 total 250 saplings planted	Platation carried out in mining lease area
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not Given	Nil	No proposals of mineral rejects generation was given during the year
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given	BF Grade Limestone: O/S-5778.415 MT Despatch-130041.320 MT C/S-7431.095 MT	Only BF grade limestone production & dispatches reported
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given	Ex-mine price: BF Grade Limestone -Rs 312/MT	Nil
9h	Scrutiny of Annual return on fixed assets	Not Given	Nil	Nil
9k	Scrutiny of Annual return on mining machineries	Given	Ex 210, PC 300, 1.20 Cum capacity TATA Dumper model 2515, 16 T capacity Tractor mounted Air Compressor Mahindra Tractor with Water Tank on trolley Water pump with Diesel engine	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

Date :**(SANJAY M. GIRHE)**

Indian Bureau of Mines