

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

Mining Plan Modification REPORT

Jabalpur regional office

Mine file No : MP/SATNA/LST.344

Mine code : 38MPR35317

- (i) Name of the Inspecting : **S025**) **IBRAHIM SHARIEF**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 23-NOV-22
- (v) Prev.inspection date : 01-OCT-19

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **SADHERA(291.792HA)**
- (b) **Registration NO.** : **IBM/15031/2013**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **MADHYA PRADESH**
- District : **SATNA**
- Village : **SADHERA**
- Taluka : **MAIHAR**
- Post office : **BHADANPUR**
- Pin Code : **485772**
- FAX No. : **02230384399**
- E-mail :
- Phone : **02230383333**
- (f) **Police Station** : **MAIHAR**
- (g) **First opening date** : **11-APR-13**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** :
correspondance
3. (a) **Lease Number** : **MPR2424**
- (b) **Lease area** : **363.44**
- (c) **Period of lease** : **30**
- (d) **Date of Expiry** : **29-JUL-40**
4. **Mineral worked** : **LIMESTONE** **Main**

5. Name and Address of the

Lessee : RELIANCE CEMENT CO.PVT.LTD.
H-BLOCK 1ST FLOOR DAKC,
KOPARKHAIRANE THANE BELAPUR
RD MUMBAI (SUBURBAN)
MAHARASHTRA
Phone:02230383333
FAX :02230384399

6. Date of approval of Mining
Plan/Scheme of Mining

:	MP modif under MCR 1960	30-MAY-14
	Mining Scheme rule 12 MCDR1988	17-MAR-15
	Modif.approved Mining Scheme	06-JUN-16
	MP modif under 17(3) MCR 2016	06-NOV-19
	MP review under 17(1) MCR 2016	02-JUL-20
	MP review under 17(1) MCR 2016	02-JUL-20

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	10 bore holes to be drilled	08 bore holes drilled, exploration is under progress	
1b	Exploration over lease area for geological axis 1 or 2	G1 level of exploration	Entire lease area has been explored in G1 scale	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Lessee	Lessee	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal, as entire lease area has been explored	Entire lease area has been explored in G1 scale	
1e	Balance reserve as on 01/04/20	72.772 Million tonne	72.772 Million tonne	
1f	General remarks of inspecting officers on geology, exploration etc			The mining lease area of 363.44 Ha falls in Rohtas formation of Vindhyan Supergroup. The occurrence of limestone in the lease area is stratigraphically controlled and is associated with Lower Vindhyan Supergroup in rohtas limestone of Semri group. Total Mining Lease has been explored under G1 category.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	E474515-E475600 N2667720-N2668660	E474515-E475600 N2667720-N2668660	

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes separate bench for top soil/OB and mineral bench is proposed	Separate bench for top soil/ OB and mineral bench was maintained OB - 2.0 m I Mineral Bench- 9.0 m II Mineral Bench- 10.0m III Mineral Bench- 6.0m	
2c	Stripping ratio or ore to OB ratio	1:0.07	1:0.20	OB occurrence is encountered more than the anticipated hence stripping ratio was more.
2d	Quantity of topsoil generation in m3	9490 m3	13760 m3	Top Soil depth occurrence is more
2e	Quantity of overburden generation in m3	397257 m3	757457 m3	OB generation is more as intercalated waste occurrence is more in the excavated area
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development of mine is being carried out systematically by sufficient advance of OB bench. Bench height of 6, 9, 10 meters is observed with width more than the height.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit	One pit	
3b	Quantity of ROM mineral production proposed	50,00,000 MT	34,96,472.35 MT	Less production due to want of EC for 5.0 million tonnes per anum.
3c	Recovery of sailable/usable mineral from ROM production	100 %	100 %	
3d	Quantity of mineral reject generation	1,00,000 M3	Nil	Entire ROM ore is being utilised by blending with different grade of ore

3e	Grade of mineral rejects generation and threshold value declared.	Reject grade - Nil < 34 % CaO > 5% MgO	
3f	Quantity of sub grade mineral generation.	No proposal of generation of sub grae ore	Nil
3g	Grade of sub grade mineral generation	No proposal	Not applicable
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised method adopted	Mechanised method is being adopted
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such study of beneficiation is proposed	Not done
3j	Provision of drilling and blasting in mineral benches	Deep hole drilling and Blasting is proposed to excavate mineral benches	Deep hole drilling and Blasting is being practised in mineral benches
3k	Provision of mining machineries in mineral benches	Excavator- 6.1 cum-2 No., Dumper- 55 Tonne, 10 No., Dozer- 1 No., Drill machine- 3 no., Motor Grader- 1 no., Dewatering pump- 3 No.	Excavator- 6.1 cum-2 No., Dumper- 55 Tonne, 10 No., Dozer- 1 No., Drill machine- 3 no., Motor Grader- 1 no., Dewatering pump- 3 No.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes 6.1 cum capacity shovel is suitable for benchh height of 10 meters	Yes Suitable.
3m	Total area covered under excavation/pits	108.5 Ha	87.425 Ha
3n	Ore to OB ratio for the pit/mine during the year.	1:0.07	1:0.2

3o	Total area put in use under different heads at the end of year	146.949 Ha	122.809 Ha
3p	Production of ROM mineral during the last five year period as applicable	2017-18 3500000 MT 2018-19 3500000 MT 2019-20 3500000 MT 2020-21 5000000 MT 2021-22 5000000 MT	2017-18 3117965.70 MT 2018-19 3487161.27 MT 2019-20 3406286.56 MT 2020-21 3494282.82 MT 2021-22 3496472.35 MT
3q	General remarks of inspecting officers on method of mining etc.		Open cast mechanised method with deep hole drilling and blasting is being done to exploit the mineral by maintaing seperate bench of top soil, mineral benches with bench height ranges from 2m, 4m, 8m. 10 m.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate Topsoil dump and waste dumps are proposed	Separate Topsoil and waste dumps are being maintained	
4b	Location of topsoil, OB and mineral reject dumps	OB Dump (D1)- N-2667150 E-474500 to N-2667450 - E-474950 Top Soil Dump N-2669037 E-474930 to N-2668900 E-474990	OB Dump (D1)- N-2667150 E-474400 to N-2667510 E-474950 Top Soil Dump N-2669041 E-474961 to N-2668880 E-474997	
4c	Number of dumps within lease area and outside of lease area	Five no. od dumps within lease area	Five no. od dumps within lease area,	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	All are temporary OB dumps and are found within lease area	All are temporary OB dumps and are found within lease area	

4e	Number of active and alive dumps.	Four No.of dumps	Four No.of dumps are active	
4f	Number of dead dumps.	One	One	
4g	Number of dumps established.	No proposal of establishment of dumps	Not done	
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes proposed- 400 m	Constructed 400 meters length of retaining wall along bottom periphery of dumps	
4i	Length of Retaining wall or garland drain all along dumps	400 Meters	400 Meters	
4j	Number of settling ponds	No proposal	Nil	
4k	Specific comments of inspecting officer on waste dump management			Retaining wall and Garland drain is constructed all along the bottom periphery of waste dumps so as to avoid spillage of waste in to nearby areas.

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 area is matured for backfilling	No backfilling carried out.	
5b	Area under backfilling of mined out area	No proposal	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No such proposal of use of top soil for rehabilitation of mined out area during the year 2021-22	Not applicable.	

5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			No area is matured for backfilling, hence no backfilling is applicable to this mine.

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).	Annual report on PMCP submitted on time	Yes submitted on 27.06.2022	
6b	Area available for rehabilitation (ha) .	No proposal as no area is mined out so far	Nil	
6c	afforestation done (ha).	No proposal of afforestation on worked out benches as mine is not reached UPl	Not applicable at present	
6d	No. of saplings planted during the year	No proposal of plantation on mined out area	Nil	No area is mined out so far.
6e	Cumulative no .of plants	No proposal of plantation on mined out area	Not applicable	
6f	Any other method of rehabilitation	No proposal	Not applicable	
6g	Cost incurred on watch and care during the year	No proposal	Not applicable	No area is mined out so far.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal as no area is available for backfilling	Not applicable	

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal as no area is available for backfilling	Not applicable
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No proposal as no area is available for backfilling	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal as no area is available for backfilling/ Rehabilitation by water reservoir	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No proposal as no area is available for backfilling	Nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	No proposal as no area is available for rehabilitation	Nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	No proposal as waste land is available	Nil
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	No proposal as no area is available for rehabilitation	No area is mined out so far
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly report of environment monitoring is to be carried out	Environment monitoring is being done quarterly

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	No closure activity is being carried out at present as no area is mined out so far.
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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	5.0 Million Tonnes of ROM produced to be dispatched during the year 2021-22	3.49 Million Tones produced and dispatched during the year 2021-22	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised method is proposed	Mechanised method is being practised	
7c	Different grade of mineral sorted out at mines.	Only cement grade is proposed for sorting for use in own industry	Only cement grade is being sorted out for use in own industry	
7d	Any beneficiation process at mines	Dry beneficiation is proposed	Dry beneficiation is being practised.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Different grade of ore is being utilised for cement manufacturing by blending in mineral conservation point of view.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Top soil is to be excavated separately and stacked in earmarked area	Top soil has been excavated separately and stacked at earmarked locations	

8b	Concurrent use or storage of topsoil	Top soil is to be stacked seperately its future use for plantation	Top soil is being stacked at present for its future use for plantation/ backfilled area	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps have been proposed for overburden waste rock.	Separate dumps for overburden waste rock are being made as per proposal.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal	Not being done at present.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposal of reclamation and rehabilitation of land during the year	Not done	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)		Total 35696 nos. of sapling have been planted so far, out of which 27012 nos have been survived. During the year 2021-22, 4500 saplings have been planted .	Area is scanty of vegetation and additional plantation is being carried out to improve aesthetic beauty
8g	Survival rate	No proposal	About 85 %	
8h	Water sprinkling on roads to control airborne dust	There is proposal to supress the dust on haul roads and mining operation area by deploying sufficient no. of water sprinklers.	Water sprinkling is being carried out regularly in mine haul road to control airborne dust.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Additional plantation is being carried out to improve aesthetc beauty of in and around lease area.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly and Annual returns has to be submitted regularly on time as per stattute.	Monthly and Annual returns is being submitted regularly as per stattute.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining engineer : Shri Sudhakar Kumar Geologist : Shir Bharat Sahasrabudhe are reported to have been employed	Mining engineer : Shri Sudhakar Kumar Geologist : Shir Bharat Sahasrabudhe have been employed	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	(i) Covered under current (O/C) Workings : 87.425 Ha (ii) Used for waste disposal : 16.990 (iii) Occupied by plant, buildings, residential, welfare buildings & roads : 11.524 Ha (iv) Other Purpose (Building, Ramp & Roads) : 3.875 (v) Work done under progressive mine closure plan during the year : 2.7 Ha	More or less the above area is utilised for mining and allied activities	
9d	Scrutiny of Annual return on afforestation	4500 sapplings planted during the year	4500 sapplings found planted during the year	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil	

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Graded ore 24682.240 Tonnes	The stack is found as per registers maintained
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale Value, Ex mine price and Cost of Production = Rs. 258.28	Sale Value, Ex mine price and Cost of Production = Rs. 258.28
9h	Scrutiny of Annual return on fixed assets	Rs. 1,34,97,83,535	Rs. 1,34,97,83,535 As reported by lessee.
9k	Scrutiny of Annual return on mining machineries	BACK HOE-2.8 CUM-1 No. SHOVEL (HYDRAULIC)- 6.1 CUM- 2 No. DUMPER- 55 TONNE-6 No. DOZER-385 HP- 1 No. FRONT END LOADER 6.000 CUM 1 EXPLOSIVE VAN 6.000 TONNE 1 MOTOR GRADER 150.000 HP 1 BLAST HOST DRILL 115.000 MM 2 CRANE 9.000 TONNE 1 PUMPS (ELEC.) 5000.000 L/MN 2 WATER TANKER 18000.000 LITRE 1 ROCK DRILL (ELEC.) 10000.000 MM 1 PUMPS (NON-ELEC.) 10000.000 L/MN 1	All the above mentioned machineries are deployed in the lease

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 :

(IBRAHIM SHARIEF)

Indian Bureau of Mines