# INDIAN BUREAU OF MINES MINERALS DEVELOPMENT AND REGULATION DIVISION

### MCDR inspection REPORT

### Jabalpur regional office

Mine file No : MP/STN/LST-123 Mine code : 38MPR35057

(i) Name of the Inspecting : GQ07 ) RAGHUBIR SHARAN GARG

Officer and ID No.

(ii) Designation : Assistant Controller Mine

(iii) Accompaning mine : Shri Amit RaiSon of lessee and Mining Engineer

Official with Designation

(iv) Date of Inspection : 07-FEB-23
(v) Prev.inspection date : 02-SEP-21

#### PART-I : GENERAL INFORMATION

(a) Mine Name : PAHARI-II

(b) Registration NO. : IBM/6666/2011

(c) Category : A Mechanised

(d) Type of Working : Opencast

(e) Postal address

State : MADHYA PRADESH

District : SATNA
Village : PAHARI
Taluka : MAIHAR
Post office : PAHARI
Pin Code : 485771
FAX No. : N. A.

E-mail : raico34@yahoo.com

Phone : 07674-232032 (0), 232094 (1

(f) Police Station :

(g) First opening date :

(h) Weekly day of rest : TUE

2. Address for : SHRI OM PRAKASH RAI correspondance PROP. M/S RAI LIME CO.

P.O. MAIHAR, DIST. SATNA (M.P.) 485771

3. (a) Lease Number :

(b) Lease area
(c) Period of lease
:

(d) Date of Expiry

4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : RAI LIME CO.

PROP.OM PRKESH RAI P.O. MAIHAR SATNA MADHYA

PRADESH

Phone: 07674-232032 (O), 232094 (R)

FAX :N. A.

Owner : RAI LIME CO.

> PROP.OM PRKESH RAI P.O. MAIHAR SATNA MADHYA

PRADESH Phone: N. A. FAX : N. A.

Plan/Scheme of Mining

Mining Scheme rule 12 MCR1960 18-MAY-99
Mining Scheme rule 12 MCDR1988 13-OCT-04
Mining Scheme rule 12 MCDR1988 01-JUL-08
Mining Scheme rule 12 MCDR1988 04-JUL-14
MP modif under 17(3) MCR 2016 22-OCT-18 6. Date of approval of Mining : Renewal under rule 22 MCR1960

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

# Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	There is no exploration proposal against the year under review	Additional exploration not carried out	_
1b	Exploration over lease area for geological axis 1 or 2	There is no additional exploration against the year under review.	Additional exploration not carried out.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not proposed	Not applicable as addtional exploration not carried out in the year under review.	-
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not proposed	Entire lease area have been considered under G2 level. Addtional exploration not carried out.	
1e	Balance reserve as on 01/04/20	As per approved mining plan balance reserves as on 01/04/2022 was 122 253405tonne 222 824274tonne.	As on 01/04/2022 actual reserves of the lease area was 122 179826tonne 222 854274tonne	As the pit had deepened further in depth and limestone obtained from mining have marketed in cement plant resulting there is every posibility in enhancement in reserves. Mining plan is under process of approval .Status of aActual reserves may be considered after approval of the document.

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

As per approved mining plan entire leas area was considered under G2 level. Additional exploratiuon were proposed in beginning of the proposal period i.e against 2018-19 and 2019-20 only for the conformation of reserves under G2 level. Develoment of pit could not be achieved as per proposal reportedly due to problems in acquisition of land. In total entire mineralised area have not been explored under G1 level and to meet the G1 level exploration proposal have been incorporated in the document.

## Development :

Sl.No.	Item	Propasals	Actual work	Remarks

2aLocation of development proposal of development N2683470 to 2683500 and E482000 to 482220 grid.

Almost actual working reached to the proposed w.r.t.lease area given between limits against year 2020-21 to wards norther direction. For further extension of pit against year 2021-22 & 2022-23 towards north is proposed but without land acquisitiion of the proposed site , implemention of proposal became imposible

Land acquisition problem is hurdel for development in the proposed site resulting bench width in soil/ overburden and mineral in this direction have not maintained adequetely as on date of inspection. Violation for less soil and OB generation than the proposed one has been issued under rule 11(1) of MCDR, 2017.

2b Separate benches Separate in topsoil, overburden and minerals (Rule 15)

benches in Soil /Overburden and mineral have been proposed.

Almost actual working was reached to the proposed limits against year 2020-21 to wards norther direction one year back. Even benches in soil/ overburden and in mineral found murged not adequetely advanced resulting less soil & OB generation.

Land acquisition problem is hurdel for development in the proposed site resulting bench width in soil/ overburden and mineral in this direction have not maintained adequetely as on date of inspection. Violation for less soil and OB generation than the proposed one has been issued under rule 11(1) of MCDR, 2017.

2c Stripping ratio 1:0.91 or ore to OB ratio

Record of Soil/
overburden removal have
not been maitained .
Annual return for the
year 2021-22 also
doesnot speek in this
regard. On the day of
inspection it is seen
that all the bencheas
i.e. top soil ,
overburden and mineral
benches not adequetely
advanced.

It shows poor record keeping and negligency of lessee in this account. In fact there are two adjoining leases of the of Shri O.P.Rai, lessee and might be overburden and top soil stored/ dumped in a common stock/dump lying in other adjoining leases which is not as per law.

2d Quantity of 6580cum topsoil generation in m3

Record of top soil generated during the year not maintained. Furether more on Annual Return for the year 2021-22 information on top soil generation and utilisation is also not given.

Violation of rule 11(1) pointed out.

2e Quantity of 13002cum overburden generation in m3

Record of OB/SB/IB generated during the year not maintained. Furether more on Annual Return for the year 2021-22 information on OB/SB/IB generation and utilisation is also not given.

Violation of rule 11(1) pointed out.

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

Lessee is not serious on record keeping on removal of top soil and OB/SB/IB. Further more developmental activity are also defficient on these account with respect to production. These defficiencies are pointed out through violation of rule 11(1) of MCD Rules.

# Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One	Exploitation of mineral is being carried out from the proposed pit by further deepening.
3b	Quantity of ROM mineral production proposed	64520tonne	64520tonne	Production is achieved 100% of targetted one
3c	Recovery of sailable/usable mineral from ROM production	80%	More than the proposed one, as entire mineral is supplied to cement plant.	Recovery of the mineral is found very fine as ROM mineral is directly supplied to neaby cement plant without screening etc.
3d	Quantity of mineral reject generation	Reject generation was not envisaged in approved document	Reject generation is nil	There is no reject generation in the mine. Whats ever limestone is exploited same is supplied to nearby cement plant without any mineral rocessing.
3e	Grade of mineral rejects generation and threshold value declared.	Not applicable as reject generation do not envisaged.	Not Applicable as there is no reject generation in the mine.	Not Applicable as there is no reject generation in the mine.
3f	Quantity of sub grade mineral generation.	Not applicable as sub grade generation do not envisaged.	Not Applicable as there is no sub grade generation in the mine.	Not Applicable as there is no sub grade generation in the mine.
3g	Grade of sub grade mineral generation	Not applicable as sub grade generation do not envisaged.	Not Applicable as there is no sub grade generation in the mine.	Not Applicable as there is no sub grade generation in the mine

3h Manual / There is no ROM mineral is directly Quality of Mechanised proposal for supplied to nearby limestone is quite segrigation of cement plant. good for cement method adopted for segregating mineral from plant. ROM mineral from ROM ROM. is directly supplied to cement plant without any segrigation of ROM. Benificiation 3i Any analysis or Benificiation Benificiation Not beneficiation Not proposed required. Not required.. study proposed Cheeical analysis and carried out of limestone for sub grade supplied to nearby mineral and cement plant rejects. reportedly carried out by consignee. There is no issue in this regard. Provision of Drilling and Exploitation of mineral There is no issue drilling and is being carried out regarding drilling blasting in mineral bench with drilling and and blasting. blasting in proposed with blasting on scheduled mineral benches specing of parameters. 2.4m to 2.5m, burden-2.0m to 2.2mand depth of hole2.8m to 2.9m. for blasting 5-10 kg charg of explosive per hole is envisaged. Provision of 3k There are As per provision mineral Proposed mining provision for exploitation is being combination is deployment of carried out with machineries in appear good for mineral benches Hydr.Excavator Hydr.Excavator & Dumper the proposed & Dumper combination. development and combination exploitation of for mineral. exploitation

of mineral from the mine.

31 Whether height Average height On the day of inspection mineral suitable mineral for method of

ly.

of benches in in Soil, Shaly it was noticed that overburden and Limestone and there were less bench width in soil and limestone are Overburden (Shaly mining proposed proposed as Limestone) and mineral in MP/SOM 2.0m,2.0m,3- limestone neither in the 3.3mrespective direction of face advancement i.e. towards north nor in western part of the pit.

3m Total area covered under upto the end of 2021-22 additional area was proposed to be covered under excavation with this total pit area covered under excavation was supposed to be 2.87hect

More or less at present 2.25hect is covered excavation/pits about 1.75hect under excavation

There is no significant deviation with respect to total area covered under excavation. There is land acquisition problem resulting proposal of subsiquent years may be got affected if problem not resolved.

Ore to OB ratio 1:0.76 3n for the pit/mine during the year.

Reporting of SOIL, OB/SB/IB removal through Annual Returns appears incorrect. As on date of inspection development of pit towards north direction ristricted due to land acquisition problem resulting benches on soil, OB/SB/IB and Mineral were found not sufficiently advanced with each other.

striping ration as on date is very low as there is no advancement of soil and OB/SB/IB benches probably due to land acquisition .

30 Total area put in use under at the end of year

the end of proposal area

As per valid During inspection it was approved observed that total area different heads document at covered under mining and allied activities is slightly less than the period total proposed one as soil dump proposed within considered for lease area was not found FA calculation and as also stated was 3.315hect earlier that due to land acquisition issue pit was not laterally advanced to the the extent than the proposed one. Further lessee were not submitted Financial Assurance for an additional amount in the light of amended rate. Accordingly violation cum SCN issued on 23/02/2023.

After pointing out of SCN lessee had submitted FA for an additional amount vide their letter dated 27/02/2023.

3p Production of ROM mineral during the last proposal for five year period the last five 1. as applicable

Proposed production years are as follows :-17-18 36450tonne, 18-19 64955tonne, 19-20 60480tonne 63450tonne and 21 - 2264520 tonne

Year wise actual production are as follows;-17-18 270 tonne, 2. 18-19 64700 tonne, 3. 19-20 60050 tonne and 4. 20-21 60,500 tonne and 5. 21-22 64520 tonne

Although in year 17-18 there were too leess production in comprision to envisaged one. However in subsiquent years i.e. 2018-19,19-20,20-21 & 21-22 achievement of production were more than 95% of the proposed one. 3q General remarks
 of inspecting
 officers on
 method of mining
 etc.

Violation for less generation of Soil, OB/SB/IB 1 has been pointed out. Statutory barrier zone of adjoining lease of the lessee were also found degradedand ultimately about 50,000tonne limestone exploited from such barrier zone. After discussion with RCOm, violation of rule 11(1) pointed out.

## Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	soi	Nil cum top soi Nil cum OB/IB Nil Mineral Reject	Reportedly OB/IB utilised in backfilling of degraded statutory barrier zone.
4b	Location of topsoil, OB and mineral reject dumps	near by area between BP. No. 7 & 8 OB/IB location of OB/IB not marked on plan Mineral reject	Top Soil Not observed OB/IB location of OB/IB not observed, reportedly utilised for backfilling of degraded statutory barrier zone.  Mineral reject Generation of mineral reject not envisaged.	
4c	Number of dumps within lease area and outside of lease area	ONe for soil dump	Soil dump was not observed	Reportedly utilised in backfilling of degraded statutory barrier zone.

4 d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Soil dump within ultimate pit limit	Soil dump was not observed.	Soil dump was not seen, reportedly soil generated during mining operation were utilised in backfilling of degraded statutory barrier zone.
4e	Number of active and alive dumps.	-	Both the dumps were not observed.	Reportedly OB/IB alongwith soil were utilised in backfilling of degraded statutory barrier zone.
4 f	Number of dead dumps.	None	none	-
4g	Number of dumps established.	None	None	_
4h	Whether Retaining wall or garland drain all along dumps are there.	Not Proposed	There is no external dumps and so there is no need of retaining wall.	_
4i	Length of Retaining wall or garland drain all along dumps	Not applicable	NA	_
4 ј	Number of settling ponds	Not proposed	NA	*

4k Specific comments of inspecting officer on waste dump management

Reportedly Soil and OB/IB generated during minig operation were utilised in backfilling of degraded statutory barrier zone. Lessee intends to sale reject stone generated as mine waste during mining operation with prior permission of state govt. under rule 12(1)(k) of MCR, 2016 but failed to acquire such permission. Reportedly it is utilised in backfilling of degraded statutory barrier zone which may be accepted.

## 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.	mined out area has not been	Proposed backfilling of statutory barrier zone was found backfilled.but on DGPS survey carried out in recent past area shifted towards north resulting addtional backfilling again to be carried out on degraded statutory barrier zone.	
5b	Area under backfilling of mined out area	Not Applicable.	None	_

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not proposed	Reportedly utilised	_
5d	Total area fully reclaimed and rehabilitated	Not proposed	Not applicable	-
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Reclamation of mined out area neither proposed nor carried out. Backfilling of degraded statutory barrier zone was proposed and accordingly carried out in some extent but due to shifting of lease area during DGPS survey done in recent past, backfilling of degraded statutory barrier zone area are yet to be carried out again. Further, Persistance of mineral in depth observed and also deepen the pit. Pit is not matured for backfilling as on date.

# 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).	Yes.	PMCP report for 2021-22 submitted by the lessee.	

6b	Area available for rehabilitation (ha) .	1000sqm during the year 9000sqm upto the end of year	Nil , as persistance of mineral in depth upto 346mRL noticed and accordingly deepening of pit carried out without modification in approved mining plan	As per approved mining plan mining of mineral was supposed to be carried out upto 360mRL but after constrient in addtional area lessee intend to ensure mineral persistance in depth and reportedly limestone in further depth found and ultimately pit further deepen upto 346mRL.
6c	afforestation done (ha).	Nil	not carried out.	
6d	No. of saplings planted during the year	Not proposed	40	-
6e	Cumulative no .of plants	NA	60	-
6f	Any other method of rehabilitation	Not proposed	NA	_
6g	Cost incurred on watch and care during the year	Not proposed	Not available	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	the year	Reclamation and rehabilitation work not started as persistance of mineral in depth noticed and accordingly exploitation of such deep seated mineral get started.	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	700sqm, 5750sqm	Reclamation and rehabilitation work not started as persistance of mineral in depth noticed and accordingly exploitation of such deep seated mineral get started.	

6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestati on on backfilled area	Not proposed	NA	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed	NA	_
61	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Not proposed	NA	=
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not proposed	NA	_
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Not proposed	NA	
60	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Not proposed	NA	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed	Seasonal Environmental monitoring carried out. All the parameters are within limit.	_

6q General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.

Progressive closure plan not executed so far as persistance of mineral in depth noticed and accordingly exploitation of mineral from the depth started. In presently submitted review of mining plan these aspects have taken into consideration. Regular environmental monitoring were found ok.

### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	64520tonne	BF grade 2743.28 tonne and Cement Grade 87518.315 tonne	
7b	Method of grade- wise mineral sorting i.e. manual or mechanical.	Manual sorting proposed	As per proposal manual sorting.	
7d	Any beneficiation process at mines .	Except manual sorting no benificiation process proposed.	Not adopted.	

7e General remarks of inspecting officer on Mineral conservation and beneficiation

issues

Limestone of the lease area are cement grade.and accordingly no benfivciation process of mineral were envisaged. In fact entire limestone produced from the mine have marketed to near by KJS Cemnt plant.

#### Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	removal	Removed but separately not stacked, reportedly it is utilised in plantation carried out during the year and in topping of backflled area of statutory barrier zone.	Backfilling of statutory barrier zone carried out after pointing out of violation of rule 11(1) of MCDR,2017 based on inspection dated 02/09/2021.
8b	Concurrent use or storage of topsoil	Storage of top soil	Utilised in topping of backfilled area of degraded statutory barrier zone in compliance of violation of rule 11(1) of MCDR, 2017.u	Deviation accepted as after pointing out violation of rule 11(1) generated top soil utilised for topping of backfilled area/backfilling ofdegraded statutory barrier zone.

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dump for reject stone proposed	Not observed. Reportedly it is utilised in backfilling of degraded statutory barrier zone for which violation of rule 11(1) pointed out based on inspection dated 02/09/2021	Deviation accepted as after pointing out violation of rule 11(1) generated top soil utilised for topping of backfilled area/backfilling ofdegraded statutory barrier zone.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposed	Utilised	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed	Backfilling of degraded barrier zone seen	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Not proposed	Plantation of 40 saplings reportedly carried out, about 20 under grown trees were seen in the lease area during inspection.	
8g	Survival rate	NA	about 50%	
8h	Water sprinkling on roads to control airborne dust	Proposed	Evidense of water sprinklining were observed during site inspection of the lease area.	_

8i General remarks of inspecting officer on aesthetic beauty in and around mines area

Efforts made by lessee in this regard may be considered so so. Area is surrounded by agriculture land. Crop of wheat were seen all around the lease area.Water of mine is utilised for irregating the wheat crop resulting healthy & wealthy crop. Green belt on thre periphery of leased out area may give better look. During discussioin lessee representative realise the things and assures for betterment of the area.

### Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	for the year 2021-22 has	Annual and Mothly returns are submitted on time.	_
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Shri Amit rai, Mining Engineer	Shri Amit Rai, Son of lessee is himself a graduate Mining Engineer who look after the mine.	

9 C Scrutiny of Annual return on exploited & land use pattern abandoned by On discussion for area under area, dumps etc. 0.520

(i) Already

1.120 1.120 waste disposal dated 02/09/2021.

Area shown against waste disposal was not seen. opencast (O/C) representative of lesse pits, reclaimed mining 0.520 repoted that all waste dump dumped as a (ii) Covered external dump were under current utilised for backfilling (O/C) Workings of degraded statutory barrier zone in compliance of violation of rule 11(1) of MCDR, 2017 pointed out (iii) Used for after MCD inspection

Justification given by the lessee accepted.

0.250

0.250 (iv) Occupied by plant, buildings, residential, welfare buildings & roads 0.050 0.050 (vi) Other Purpose (GREEN BELT)

0.050 0.050

9d Scrutiny of Annual return on saplings afforestation

40 No of

About 20 newely planted saplings were observed.

With 50% survival rate information given in AR, 2021-22 accepted.

90 Scrutiny of mineral reject generation (Grade and quantity)

Mineral reject As there is no mineral Annual return on quantity -Nil reject generation as alsi envisaged in Approved MPLN given information is accepted.

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Mineral stock 3630tonne	On the date of inspection stock of mineral at mine head were not observed. Reportedly after submission of the return mineral were dispatched.	Accepted.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex Mine Price Rs.327/5 and Cost of	Although cost of production is on higher side yet being on lower side than the Ex Mine Price and Sale value it is acceptable.	
9h	Scrutiny of Annual return on fixed assets	Fixed assets .Rs. 44510976/-	Acceptable	
9k	Scrutiny of Annual return on mining machineries	1 Front End Loader -1 1.2cum bucket capacity 2. Dumper 2 nos., 16tonne capacity. 3 Water tanker 1 no. 4 Pump	In the light of envisaged and also actual production deployed machineries are sufficient to achieve the targetted production.	

# Details of violations observed during current inspection and compliance position of violation pointed out

Violation	observed	Show c	Show couse position		
Rule NO.	Issued on Compliance	n Rule NO.	Issued on Compliance on		
MCDR17 Rule 11(1)	23-FEB-23	Rule 27(2)	23-FEB-23		
Rule 27(2)	23-FEB-23				

Date :

 $({\tt RAGHUBIR} \ {\tt SHARAN} \ {\tt GARG})$ 

Indian Bureau of Mines