

**INDIAN BUREAU OF MINES**  
**MINERALS DEVELOPMENT AND REGULATION DIVISION**  
**MCDR inspection Report**  
**Jabalpur regional office**

S.N.	Particulars	Details
1	Name of the Mine	Pahadi - II Limestone Mine
	Date of Inspection:	24-09-2024
	Name of Inspecting Officer	Akash Arun Mittarwar, Assistant Mining Engineer
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	8.09 Hect.
3	Mine code	38MPR35057
4	IBM Registration Number under rule 45 of MCDR,1988	IBM/6666/2011
5	Last Inspection Details	07/02/2023 by Shri Raghbir Sharan Garg, ACOM
6	Mine official present during the inspection	Shri Amit Rai (Legal Heir Late Shri Om Prakash Rai) & Shri Brijesh Prasad Dwivedi (Geologists)
7	Name of the Lessee, Address, Phone, email and faxnumber	Shri Amit Kumar Rai (Legal Heir Late Shri Om Prakash Rai) Makan No. 79, C/O Om Prakash Rai, Ward No. 17, Katni Road, Maihar - 485771 Phone - 8770924934 E-mail – raicomaihar@gmail.com; raico34@yahoo.com
8	Village	Pahadi
9	Taluka/Mandal	Maihar
10	District	Satna
11	Pin code	485771
12	State	Madhya Pradesh
13	Post Office	Maihar
14	Nearest Police Station	Maihar
15	Nearest Railway Station	Maihar
16	Date of Grant of Mining Lease	17/07/1979
17	Date of Execution	13/09/1979
18	Lease period	13/09/1979 to 12/09/2029
19	Date of opening of Mine	13/09/1979
20	Initial Grant	13/09/1979 to 12/09/1989
21	Date of First Renewal, if applicable and its period & expiry	13/09/1989 to 12/09/1999
22	Date of Second Renewal, if applicable and its period & expiry	13/09/1999 to 12/09/2029 (Date of Registration 11/07/2018)
23	Date of Third Renewal, if applicable and its period & expiry	NA
24	Date of submission of renewal application if Mining Operations are continuing under deemed extension	NA

25	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Amit Kumar Rai (Legal Heir Late Shri Om Prakash Rai) Makan No. 79, C/O Om Prakash Rai, Ward No. 17, Katni Road, Maihar - 485771 Phone - 8770924934 E-mail – raicomaihar@gmail.com; raico34@yahoo.com
26	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	NA
27	Name of the Mine Manager with Address, phone, email, fax number and date of appointment in mines	NA
28	Whether Geologist and Mining Engineer appointment in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Shri Shubham Nikhar (Mining Engineer) Qualification – Bachelor of Engineering Date of Appointment – 10/08/2023 Mobile, Email – 9399328523, raicomaihar@gmail.com Shri Brijesh Prasad Dwivedi (Geologist) Qualification - M.Sc. (Geology), Date of Appointment – 08/11/2021 Mobile, Email - 9407856929, raicomaihar@gmail.com
29	Date of Approval of Mine Plan/Modified Mine Plan with five- year period and specific condition in approval letter, if any.	Mining plan under rule 11 of MCDR,1988 – 18-MAY-99 Scheme of Mining under Rule 12(3) of MCDR1988 – 15-OCT-04 Scheme of Mining under Rule 12(3) of MCDR1988 – 01-JUL-08 Scheme of Mining under Rule 12(3) of MCDR1988 – 17-JUL-14 Modification of Mining plan under rule 17(3) of MCDR,2016 – 22-OCT-18 Review of Mining plan under rule 17(2) of MCDR,2016 – 28-APR-23
30	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five- year period and specific condition in approval letter, if any.	NA
31	Mineral(s) granted in lease and approved for Mining	Limestone
32	Method of Mining (Opencast, Underground)	Opencast
33	Category (Fully Mechanized, Others or Manual)	A
34	Captive/Non-Captive	Non-Captive

**Exploration**

S.N.	Item	Proposals	Actual Work	Remarks
1a	Backlog of previous year	3 Boreholes proposed during the year 2023-24	Proposed Exploration not done	Violation is issued under rule 11(1) of MCDR,2017
1b	Exploration over lease area for Geological axis 1 or 2.	Proposal for G1 level	Not explored up to G1 Level	Exploration not done, violation is issued under rule 11(1) of MCDR,2017
1c	Exploration Agency & Expenditure in Lakh Rupees during the year	Not specified.	Not specified.	
1d	Balance area to be explored to bring Geological axis in 1 or 2.	Nil	Entire mineralised area had already explored under G2 level.	
1e	Balance reserves as on 01.04.2023	Nil	Balance reserve as on 01/04/2024 – 122-683093 tonnes	
1f	General remarks of Inspecting officer on geology, exploration etc.	Entire lease area explored up to G2 Level of exploration. Proposal of G1 level of exploration of 3 boreholes given during the year 2023-24 in approved RMP dated – 28/04/2023; but, said exploration work not done, violation is pointed out under rule 11(1) of MCDR,2017.		

**Development**

S.N.	Item	Proposals	Actual Work	Remarks
2a	Location of Development w.r.t. lease area	Towards North of the pit	As per proposal	
2b	Separate benches in topsoil overburden and mineral (Rule 15)	Benches in Top soil - 1, Overburden Benches - 1, Mineral Limestone – 2 Benches of 6 m height proposed.	As per proposal	
2c	Stripping ratio or ore to OB ratio	1:0.87	1:0.52	
2d	Quantity of topsoil generation in m <sup>3</sup>	14948 m <sup>3</sup>	Not reported in PMCP table	Violation is issued under rule 26(2) of MCDR,2017
2e	Quantity of overburden generation in cu.m	56970.76 tonnes	34120 tonnes	Less OB was achieved; violation issued under rule 11(1) of MCDR,17
2f	General remarks of Inspecting officer on development of pit w.r.t type of deposit etc.	Development was carried towards North of the pit as per proposal. Bedded stratiform and tabular deposits of regular habit.		

**Exploitation**

S.N.	Item	Proposals		Actual Work	Remarks
3a	Number of pits proposed for production	One pit		One pit	
3b	Quantity of ROM mineral production proposed (2023-24)	64992 tonnes		64950 tonnes	
3c	Recovery of Salable/usable mineral from ROM production	100 %		100 %	
3d	Quantity of mineral reject generation	Not proposed		Not applicable	
3e	Grade of mineral reject generation and threshold value declared	Not proposed		Not applicable	
3f	Quantity of sub-grade mineral generation	Not proposed		Not applicable	
3g	Grade of sub-grade mineral generation	Not proposed		Not applicable	
3h	Manual/Mechanized method adopted for segregation from ROM	Manual		Manual	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Not proposed		Not applicable	
3j	Provision of drilling & blasting in mineral benches	Proposed		Drilling & blasting carried out as proposed.	
3k	Provision of mining machineries in mineral benches	proposed		Drilling & blasting using jack hammer. Front end loader – 1 – 1.2 cu. m Dumper – 4 – 25 tonne Shovel – 1 – 1.2 cu. m Water tanker – 1 – 5000 litre Hydraulic pump – 1 – 650 lit/Min	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed		Height of o/b & mineral benches is suitable for method of mining as proposed.	
3m	Total area covered under excavation /pits	2.45 hect.		2.45 hect.	
3n	Ore to OB ratio for the pit/mine during the year	1:0.87		1:0.52	
3o	Total area put in use under different heads at the end of year	2.45 hect.		2.45 hect.	
3p	Production of ROM mineral during	2019-20	60480 t	2019-20 – 60050 t	
	last five-years period, as Applicable	2020-21	63450 t	2020-21- 60500 t	

		2021-22	64520 t	2021-22 – 64520 t	
		2022-23	64550 t	2022-23 – 64550 t	
		2023-24	64992 t	2023-24 – 64950 t	
3q	General remarks of inspecting officer on method of mining etc	Category A mines have adopted mechanized method of mining.			

### Solid Waste Management-Dumping

S.N.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	Not proposed	Not applicable	OB generated during the year used for backfilling
4b	Location of topsoil, OB & mineral reject dumps	OB generated during the year used for backfilling of barrier zone from BP-8 to BP-9/2	As per proposal	
4c	Number of Dumps within lease area and outside lease area	Not proposed	Not applicable	
4d	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	Not proposed	Not applicable	
4e	Number of Active & Alive dumps	Not proposed	Not applicable	
4f	Number of dead dumps	Not proposed	Not applicable	
4g	Number of dumps established	Not proposed	Not applicable	
4h	Whether Retaining wall or garland drain all along dumps are there	Not proposed	Not applicable	
4i	Length of Retaining wall or garland drain all along dump	Not proposed	Not applicable	
4j	Number of settling ponds	Not proposed	Not applicable	
4k	Specific comments of inspecting officer on waste dump management	OB/Waste generated during the year used for backfilling of barrier zone from BP-8 to BP-9/2.		

### Solid Waste Management-Backfilling

S.N.	Item	Proposals	Actual Work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Full extraction of mineral from mined out area is proposed	Full extraction of mineral under progress up to the UPD	
5b	Area under backfilling of mined out area	In between barrier zone from BP-8 to BP-9/2	As per proposal	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Not Proposed	Not Applicable	

5d	Total area fully reclaimed & rehabilitated	Not Proposed	Not Applicable	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Backfilling of barrier zone carried out from BP-8 to BP-9/2.		

**Progressive Mine Closer Plan**

S.N.	Item	Proposals	Actual Work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly- Rule 23E (2). Details should be given in the format as given in Annexure-20	Proposed	Submitted	Top soil utilization not furnished; violation pointed out under rule 26(2) of MCDR,2017
6b	Management of worked/mined out benches			
	i) Area available for rehabilitation (Ha)	Not proposed	Not applicable	
	ii) Afforestation done (ha.)	Not proposed	Not applicable	
	iii) No. of saplings planted during the year	Not proposed	Not applicable	
	iv) Cumulative no. of plants	Not proposed	Not applicable	
	v) Any other specific method of rehabilitation	Not proposed	Not applicable	
	vi) Cost incurred on watch & care during the year	Not Specified	Not applicable	
6c	Compliance on reclamation and rehabilitation by backfilling			
	i) Voids available for backfilling (L*B*D)	1965 meter square	As per proposal	
	ii) Void filled by waste/tailings	13648 cubic meter	As per proposal	
	iii) Afforestation on the backfilling	Not proposed	Not applicable	
	iv) Rehabilitation by making water reservoir	Not Proposed	Not applicable	
	v) Any other specific means	Not Proposed	Not Applicable	
6d	Compliance of Rehabilitation of waste land within lease			
	i) Afforestation	50 plants	As per proposal	
	ii) Area rehabilitation iii) Method of rehabilitation			
6e	Compliance of Environment monitoring (core zone & Buffer zone)	Proposed	Within prescribed limit	
6f	General remarks of inspecting officer on PMCP compliance & progressive closer operations	Proposed backfilling of barrier zone from BP-8 to BP-9/2 has been observed.		

**Mineral Conservation**

S.N.	Item	Proposals	Actual Work	Remarks
7a	ROM mineral dispatch or gradewise sorting within lease area	ROM mineral dispatch to steel and cement industries	As per proposal	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual	
7c	Different grade of mineral sort out at mine	Cement grade	Cement grade	
7d	Any beneficiation process at mines	Not Proposed	Not applicable	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	The limestone dispatched to cement and steel industries directly. No beneficiation process at mines carried out.		

**Environment**

S.N.	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil (Rule32)	Proposed	As per proposal	
8b	Concurrent use or storage of topsoil	Proposal for spreading over backfilled area and plantation	As per proposal	
8c	Separate dumps for overburden waste rock, rejects and fines (Rule 33)	Not proposed	Not Applicable	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling of barrier zone from BP-8 to BP-9/2.	As per proposal	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not Proposed	Not Applicable	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Not Proposed	Not Applicable	
8g	Survival rate	80%	80%	
8h	Water sprinkling on roads to control airborne dust	Proposed	Water sprinkling on roads to control airborne dust carried out with the use of water tanker	

8i	General remarks of inspecting officer on aesthetic beauty in and around mine area	Plantation was done in the proposed location. Needs improvement for aesthetic beauty in and around mine area.
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**Compliance of Rule 45:-**

S.N.	Item	Proposals	Actual Work	Remarks
9a	Status of submission of Monthly and Annual returns	Submitted both Monthly & Annual Returns	Submitted	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer and Geologist	Shri Shubham Nikhar (Mining Engineer) & Shri Brijesh Prasad Dwivedi (Geologist)	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes	Covered under current (O-C) Workings – 2.45 hect. Infrastructure – 0.0 hect. Others to specify (Green belt) – 0.02 hect.	
9d	Scrutiny of Annual return on afforestation	50 number of saplings were proposed for plantation	As per proposal	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Yes	Nil	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Yes	ROM closing stock as on 01/04/2024 – 29249.714	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Yes	Ex. Mine price - 409.86 and production cost - 331.46	
9h	Scrutiny of Annual return on fixed assets	Yes	Value of Fixed Assets* (Nil)	
9k	Scrutiny of Annual return on mining machineries	Yes	Drilling & blasting using jack hammer. Front end loader – 1 – 1.2 cu. m Dumper – 4 – 25 tonne Shovel – 1 – 1.2 cu. m Water tanker – 1 – 5000 litre. Hydraulic pump – 1 – 650 lit/Min	

Details of Violations observed during current inspection and compliance position of violation pointed out:-

Rule – 11(1) of MCDR 2017  
Rule – 26(2) of MCDR 2017  
Rule – 33 of MCDR 2017  
Rule – 45(7) of MCDR 2017

Name: Akash Arun Mittarwar  
Designation: Assistant Mining Engineer