

MCDR-MiFLOLST/33/2022-JBP-IBM_RO_JBP
INDIAN BUREAU OF MINES
MINERALS DEVELOPEMMENT AND REGULATION DIVISION

1/26221/2024

MCDR inspection REPORT
Jabalpur regional office

Mine code : 38MPR35053

- (i) Name of the Inspecting : **AKASH ARUN MITTARWAR**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Shri Amit Rai (Legal Heir & Mining Engineer) & Shri
Official with : Brijesh Prasad Dwivedi (Geologists)
Designation
- (iv) Date of Inspection : 27-DEC-23
- (v) Prev.inspection date : 13-DEC-22

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **NADAN LIMSTONE MINE (8.09 HECT.)**
- (b) **Registration NO.** : IBM/6666/2011
- (c) **Category** : A
- (d) **Type of Working** : Mechanised Opencast
- (e) **Postal address**
- State : MADHYA PRADESH
- District : SATNA
- Village : NADAN
- Taluka : MAIHAR
- Post office : NADAN
- Pin Code : 485771
- FAX No. : 07674-232144
- E-mail : raico34@yahoo.com
- Phone : 07674-232032
- (f) **Police Station** : MAIHAR
- (g) **First opening date** : 08/11/1982
- (h) **Weekly day of rest** : SAT
2. **Address for** : Shri Amit Kumar Rai & Shri Anshuman Rai (Legal heirs),
correspondance Rai Bhvan, Katni Road, Vpo & District - Maihar, (M.P.) -
485771
Email - raico34@yahoo.com, raicomaihar@gmail.com
3. (a) **Lease Number:** MPR0381
- (b) **Lease area:** 8.09
- (c) **Period of lease:** 50 Years (09/11/1982 to 08/11/2032)
- (d) **Date of Expiry:** 08-NOV-32
4. **Mineral worked** : LIMESTONE Main

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5. Name and Address of the

Lessee : Shri Amit Kumar Rai & Shri Anshuman Rai (Legal heirs),
Rai Bhvan, Katni Road, Vpo & District - Maihar, (M.P.) -
485771
Email - raico34@yahoo.com, raicomaihar@gmail.com RAI LIME CO.

Owner : Shri Amit Kumar Rai & Shri Anshuman Rai (Legal heirs)

6. Date of approval of Mining : Existing rule 11 MCDR1988 06-OCT-99
Plan/Scheme of Mining : Renewal under rule 24 MCR1960 25-MAY-07
Mining Scheme rule 12 MCDR1988 04-JUL-14
MP modification under 17(3) 05-NOV-18
MCR 2016

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Exploration

S.N.	Item	Proposals	Actual Work	Remarks
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for Geological axis 1 or 2.	Lease area exploration under G1 level	Lease area explored up to G1 level	
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	Nil	
1e	Balance reserves as on 01.04.2023	Nil	Balance reserve as on 01/04/2023 - 1,945,207.66 tonnes	
1f	General remarks of Inspecting officer on geology, exploration etc.	4 no. of Core boreholes drilled in the year 2021-22 up to depth of 30 m having grid interval of 100 – 200 m. Form I & J Submitted.		

Development

S.N.	Item	Proposals	Actual Work	Remarks
2a	Location of Development w.r.t. lease area	Towards East and West of Quarry having OB bench height of 1.75 m & width 10 -15 m; Two benches of mineral of height up to 6 m & width 10 to 15 m.	Mine development was lagging from the approved proposal.	Violation pointed out for the same under rule 11(1) of MCDR 2017.
2b	Separate benches in topsoil overburden and mineral (Rule 15)	OB bench height of 1.75 m & width 10 -15 m; Two benches of mineral of height up to 6 m & width 10 to 15 m.	Yes, Separate bench for top soil, Over burden & Mineral were found.	
2c	Stripping ratio or ore to OB ratio	1:0.246	1:0.03	
2d	Quantity of topsoil generation in m ³	843 m ³	No record maintained at mine site.	Violation pointed out for the same under rule 11(1) of MCDR 2017.
2e	Quantity of overburden generation in m ³	15967 m ³	2000 m ³	Violation pointed out for the

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same
under rule 11(1)
of MCDR 2017.

2f	General remarks of Inspecting officer on development of pit w.r.t type of deposit etc.	Proposed to develop the Quarry towards East & West of Quarry with height of OB bench 1.75 mtr and 10-15 mtr width & Two benches of mineral of height up to 6 m & width 10 to 15 m. Top soil used for plantation. Mine development was lagging from the approved proposal. Violation pointed out for the same under rule 11(1) of MCDR 2017.
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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 (2022-23)	64922 Tonnes	64900 Tonnes	
3c	Recovery of Salable/usable mineral from ROM production	The recovery of limestone about 80% from ROM proposed from existing pit.	Recovery of about 80% from ROM reported.	
3d	Quantity of mineral reject generation	The waste /reject about 20% from ROM proposed from existing pit.	Nil	
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	Mechanized	Mechanized	
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	Deep Hole drilling & blasting proposed in mineral benches	As per proposal	
3k	Provision of mining machineries in mineral benches	Yes	Excavator Cum Loader – 1.20 cu.m - 1 Nos Dumper – 10 t.– 1 Nos. & 16t. – 1 Nos. Water Tanker – 5000 lit. – 1 No.	

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	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed	Benches height found in order as visible.	
3m	Total area covered under excavation /pits	2.40 hectare	1.30 hectare	Mine development is lagging. Violation pointed out for the same.
3n	Ore to OB ratio for the pit/mine during the year	1:0.246	1:0.03	Violation pointed out for the same under rule 11(1) of MCDR 2017.
3o	Total area put in use under different heads at the end of year	2.99 hectare	1.50 hectare	
3p	Production of ROM mineral during last five-years period, as Applicable	2018-19	64645 t	2018 -19 – 33400 t
		2019-20	63091 t	2019 – 20 – 24550 t
		2020-21	63825 t	2020-21 – 61950 t
		2021-22	64527 t	2021-22 - 64400
		2022-23	64922 t	2022-23 – 64900 t
3q	General remarks of inspecting officer on method of mining etc	Mine development was not carried out as per approved document. Violation pointed out for the same.		

Solid Waste Management-Dumping

S.N.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	Yes Proposed	As per proposal	
4b	Location of topsoil, OB & mineral reject dumps	Between boundary pillar no 15 to 16.	Between boundary pillar no 15 to 16.	
4c	Number of Dumps within lease area and outside lease area	01 no. of Dump proposed within lease area.	01 no. of Dump	

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	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	Between boundary pillar no 15 to 16.	Between boundary pillar no 15 to 16 within UPL	
4e	Number of Active & Alive dumps	01	01	
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps established	Nil	Nil	
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 dump observed between boundary pillar no 15 to 16 within the UPL. Proposal of backfilling from the dump.		

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	backfilling was proposed in 1200 sq. metre area (9703 m ³ quantity).	Backfilling was not carried out as per proposal.	Violation of rule 11(1) pointed out for proposed backfilling.
5b	Area under backfilling of mined out area	1200 sq metre	As per proposal backfilling was not done.	Violation of rule 11(1) pointed out for proposed backfilling.
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	The generated top soil during mining operation was proposed to utilised in toping of proposed backfilled area of statutory 7.5m barrier zone & protective bund.	Evidence of concurrent utilisation of top soil were not seen within the lease area.	Violation pointed out for the same under rule 11(1) of MCDR 2017

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5d	Total area fully reclaimed & rehabilitated	Backfilling proposed in 7.5 mtr Barrier zone near boundary pillar no. 18 to 19 and 1 to 11 over an area of 1200 sq. m	Not done.	Backfilling of proposed area was not seen within the lease area during inspection. Violation pointed out.
5e	General remarks of inspecting officer on backfilling, reclamation etc.	Violation of rule 11(1) pointed out for proposed backfilling.		

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	
6b	i) Area available for rehabilitation (Ha)	1200 sq. m	Not done. Proposed in approved document for the period 2023-24 to 2027-28.	
	ii) Afforestation done (ha)	Plantation was proposed in the 7.5 m barrier zone from BP no. 15 to BP no. 19 & near BP no.01.	Plantation carried out.	
	iii) No. of saplings planted during the year	Not specified.	Around 70 numbers of tree planted during the year.	
	iv) Cumulative no. of plants	Not specified.	130	
	v) Any other specific method of rehabilitation	Not proposed	Not applicable.	
	vi) Cost incurred on watch & care during the year	Not proposed	Not applicable.	
6c	Compliance on reclamation and rehabilitation by backfilling			Violation of rule 11(1) pointed out.
	i) Voids available for backfilling (L*B*D)	10000 cu. m	Proposed reclamation and rehabilitation of broken out area not observed during inspection.	
	ii) Void filled by waste/tailings	1200 sq. m	Backfilling not done.	
	iii) Afforestation on the backfilling	Not Proposed	Not Applicable	

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	iv) Rehabilitation by making water reservoir v) Any other specific means	Not Proposed Not Proposed	Not Applicable Not Applicable	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitation iii) Method of rehabilitation	Not proposed	Not Applicable	
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	Violation of rule 11(1) pointed out for backfilling. Progressive closure activities were not seen during inspection.		

Mineral Conservation

S.N.	Item	Proposals	Actual Work	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	Not Proposed	ROM produced from the mine is directly supplied to nearby cement plant.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	mechanical	mechanical	
7c	Different grade of mineral sort out at mine	Not Proposed	Cement grade	
7d	Any beneficiation process at mines	Not Proposed	Not applicable	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	No beneficiation was proposed to be adopted to upgrade the ROM in the lease area. ROM produced from the mine is directly supplied to nearby cement plant.		

Environment

S.N.	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil (Rule32)	Yes	Not maintained at mine site.	Violation pointed out for the same under rule 11(1) of MCDR 2017.
8b	Concurrent use or storage of topsoil	Proposed.	Storage of top soil was not observed during inspection.	

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	Separate dumps for overburden waste rock, rejects and fines (Rule 33)	Proposed.	OB dump Between boundary pillar no 15 to 16.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling was proposed	Backfilling not done as per proposal	Violation of rule 11(1) pointed out for proposed backfilling.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Backfilling was proposed	Backfilling not done as per proposal	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Plantation proposed on backfilled portion of 7.5 mtrs statutory barrier zone.	Plantation along lease boundary were observed.	
8g	Survival rate	80%	80%	
8h	Water sprinkling on roads to control airborne dust	Proposed	Evidences of water sprinklings were observed.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mine area	Efforts made by lessee in this regard may not be considered satisfactory. Violation pointed out for the same.		

Compliance of Rule 45

S.N.	Item	Proposals	Actual Work	Remarks
9a	Status of submission of Monthly and Annual returns	Submitted both, Monthly and Annual Return	Submitted both, Monthly and Annual Return	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer and Geologist	Mining Engineer -Amit Kumar Rai & Geologist – Brijesh Prasad Dwiwedi	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes	(i) Already exploited by opencast (O/C) mining - 1.30 Hect. (ii) Reclaimed/Rehabilitated - 0 Hect	

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9d	Scrutiny of Annual return on afforestation	Yes	As per available records around 70 no's of tree planted during the year.	
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 31.03.2023 - 38.936 Tonnes cement grade	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Yes	Ex mine price - 394.33 /- Sale price - 327.50 /- Cost of production – 444.33/-	
9h	Scrutiny of Annual return on fixed assets	Yes	10071824/-	
9k	Scrutiny of Annual return on mining machineries	Yes	Excavator Cum Loader – 1.20 cu.m - 1 Nos Dumper – 10 t. – 1 Nos. & 16 t. – 1 Nos. Water Tanker – 5000 lit. – 1 No.	

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

Rule – 11(1) of MCDR 2017 dated 29/01/2024

Rule – 33 of MCDR 2017 dated 29/01/2024

Name: Akash Arun Mittarwar
Designation: Assistant Mining Engineer