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**INDIAN BUREAU OF MINES
MINERALS DEVELOPEMMENT AND REGULATION DIVISION****MCDR inspection REPORT****Jabalpur regional office****Mine file No :****Mine code : 38MPR47129**

- (i) Name of the Inspecting : **AKASH ARUN MITTARWAR**
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Shri Manoj Kumar Roy (Mining Engineer) & Shri Arvind
Official with : Tamrakar (Geologist)
Designation
- (iv) Date of Inspection : 24-MAY-24
- (v) Prev.inspection date : 29-JUN-23

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **RAJARWARA (4.28 Hect.)**
- (b) **Registration NO.** : **IBM/749/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : MADHYA PRADESH
District : KATNI
Village : RAJARWARA
Taluka : VIJAYRAGHAVGARH
Post office : RAJARWARA
Pin Code : 483880
FAX No. : N.A.
E-mail : ranjan_grover4@yahoo.com
Phone : 07622-405474
- (f) Police Station : V.GARH
- (g) First opening date : 11-JAN-10
- (h) Weekly day of rest : SUN
2. Address for : Smt. Sumitra Grover (Lease Holder),
correspondance : W/o Shri Madan Lal Grover, Civil Line,
P.O. Katni, District - Katni (M.P.)- 483501
3. (a) Lease Number : MPR2538
- (b) Lease area : 4.28
- (c) Period of lease : 50 Years (11-JAN-10 TO 10-JAN-60)
- (d) Date of Expiry : 10-JAN-60
4. Mineral worked : LIMESTONE Main

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5. Name and Address of the

Lessee : Smt. Sumitra Grover (Lease Holder),
W/o Shri Madan Lal Grover, Civil Line,
P.O. Katni, District - Katni (M.P.)- 483501

Owner : Smt. Sumitra Grover (Lease Holder),
W/o Shri Madan Lal Grover, Civil Line,
P.O. Katni, District - Katni (M.P.)- 483501

6. Date of approval of Mining Plan/Scheme of Mining	:	MP under rule 22 of MCR1960	05-NOV-09
		Mining Scheme rule 12 MCDR1988	03-JUL-15
		Modification Of Mining Plan under Rule 17(3) Of MCR, 2016	24-OCT-19
		Review of Mining Plan under rule 17(2) of MCR,2016	08-FEB-24

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Exploration

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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.	No exploration proposals during year 2023-24 for G1/G2 levels	Potential Mineralized 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 01/04/2024 – 689527 tonnes	
1f	General remarks of Inspecting officer on geology, exploration etc.	Potential Mineralized area explored up to G1 Level of exploration. Rohtas Formation of Semri Group is virtually monolithic and comprises grey-bluish grey, well bedded limestone bands. Light colored clayey limestone inter beds are present, generally near the upper contact. Lime stones occur as intercalated with shale. No backlog of exploration.		

Development

S.N.	Item	Proposals	Actual Work	Remarks
2a	Location of Development w.r.t. lease area	Development was proposed towards North-East of the quarry 1.	As per proposal	
2b	Separate benches in topsoil overburden and mineral (Rule 15)	Separate bench for top soil, Over burden & mineral proposed	Yes, Separate bench for top soil, Over burden & Mineral were found.	
2c	Stripping ratio or ore to OB ratio	1:0.41	1:0.40	
2d	Quantity of topsoil generation in m ³	3622 cu.m	3622 cu.m	
2e	Quantity of overburden generation in m ³	5718 cu.m	5770 cu.m	
2f	General remarks of Inspecting officer on development of pit w.r.t type of deposit etc.	Development was carried towards North-East of the quarry 1. Barrier zone found encroached between BP number 18 to 19. violation pointed out for the same under rule 11(1) of MCDR,2017		

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)	57180 tonnes	57154 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	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	proposed	Drilling & blasting carried out as proposed.	
3k	Provision of mining machineries in mineral benches	proposed	HEMM is being used in mineral benches for excavation and transportation 1-Back hoe-1.2 cu.m 1-Air compressor-210 cu.m/min 2-Dumper-16 tonne 2-Dumper-10 tonne 1-Water Tanker-5000 litre	
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	3.06 hect.	2.95 hect.	
3n	Ore to OB ratio for the pit/mine during the year	1:0.41	1:0.40	
3o	Total area put in use under different heads at the end of year	3.87 hect.	3.50 hect.	

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3p	Production of ROM mineral during	2019-20	57155 t	2019-20 - 56170	
	last five-years period, as Applicable	2020-21	57167 t	2020-21 - 56925	
		2021-22	57180 t	2021-22 - 57090	
		2022-23	57120 t	2022-23 – 57070 t	
		2023-24	57180 t	2023-24 – 57154 t	
3q	General remarks of inspecting officer on method of mining etc	Category A mines having 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)	Separate dumping of top soil and OB were proposed.	Separate dumping of top soil and OB were observed.	
4b	Location of topsoil, OB & mineral reject dumps	Two dumps in North - East side, two dumps in South – East side, One dump in South of the lease.	Two dumps in North - East side, two dumps in South – East side, One dump in South of the lease.	
4c	Number of Dumps within lease area and outside lease area	5 dumps within the lease area	5 dumps within the lease area	
4d	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	Within ultimate pit limit	Within ultimate pit limit	
4e	Number of Active & Alive dumps	05 dumps	05 dumps	
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	Retaining wall not proposed. Garland drain proposed in North & North-West side of the lease.	Garland drain observed in North & North-West side of the lease.	
4i	Length of Retaining wall or garland drain all along dump	Garland drain of 250 m proposed in the North & North-West boundary side.	Garland drain of about 200 m in length was observed.	
4j	Number of settling ponds	Not proposed	Not applicable	
4k	Specific commends of inspecting officer on waste dump management	Waste generated are dumped on proposed location for dumping and used for backfilling purpose.		

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	

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5b	Area under backfilling of mined out area	2800 sq.m. i.e. quarry 2	As per proposal	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Proposed for spreading for plantation in quarry 2.	As per proposal	
5d	Total area fully reclaimed & rehabilitated	Not specified	0.50 hect.	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Top soil used for spreading for plantation while OB waste generated used for backfilling in quarry 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	
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 specified	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)	5350 sq. m	5350 sq. m	
	ii) Void filled by waste/tailings	2800 sq. m	2800 sq. m	
	iii) Afforestation on the backfilling	280 saplings	280 saplings planted	
	iv) Rehabilitation by making water reservoir	Not Proposed	Not Proposed	
v) Any other specific means	Not Proposed	Not Applicable		
6d	Compliance of Rehabilitation of waste land within lease			
	i) Afforestation	Not Proposed	Not Applicable	
	ii) Area rehabilitation			
	iii) Method of rehabilitation			
6e	Compliance of Environment monitoring (core zone & bufferzone)	Proposed.	Within prescribed limit.	

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6f	General remarks of inspecting officer on PMCP compliance & progressive closer operations	It was observed during inspection that the lessee has been carrying out PMCP related works as per proposal.
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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	Mechanical	Mechanical	
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		

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	Top soil is proposed for spreading for plantation purpose.	Topsoil utilized for plantation	
8c	Separate dumps for overburden waste rock, rejects and fines (Rule 33)	Separate dumping of OB is proposed.	Separate dumping of OB is observed.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	OB/ Waste generated is proposed for backfilling in quarry 2.	OB/ Waste generated is used for backfilling in quarry 2.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Phased reclamation of land by backfilling proposed	Phased reclamation of land by backfilling observed.	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	280 saplings were proposed during the year	250 saplings planted	
8g	Survival rate	80%	80%	

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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 improvements for aesthetic beauty in and around mine area.		

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	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer and Geologist	Shri Manoj Kumar Roy (Mining Engineer) & Shri Arvind Tamrakar (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 – 2.950 hect. waste disposal – 0.08 hect. Infrastructure – 0.110 hect. Green belt – 0.380 hect.	
9d	Scrutiny of Annual return on afforestation	Yes	380 Number of trees 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 01/04/2023 - 432.500 tonnes	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Yes	Ex. Mine price - 264.73 and production cost – 277.11	
9h	Scrutiny of Annual return on fixed assets	Yes	Value of Fixed Assets* (₹ 5550769)	
9k	Scrutiny of Annual return on mining machineries	Yes	1-Back hoe-1.2 cu.m 1-Air compressor-210 cu.m/min 2-Dumper-16 tonne 2-Dumper-10 tonne 1-Water Tanker-5000 litre	

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

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Rule – 11(1) of MCDR 2017 dated – 26/06/2024

Rule – 31(4) of MCDR 2017 dated – 26/06/2024

Rule – 33 of MCDR 2017 dated – 26/06/2024

Name: Akash Arun Mittarwar

Designation: Assistant Mining Engineer

