

INDIAN BUREAU OF MINES
MINERALS DEVELOPMENT AND REGULATION DIVISION
MCDR REPORT
Dehradun regional office

Mine code: 39UPR04001

(i)	Name of the Inspecting Officer	Nitin
(ii)	Designation	Junior Mining Geologist
(iii)	Accompanying mine official with designation	Mine Officials
(iv)	Date of Inspection	11.01.2025
(v)	Prev. Inspection date	04.01.2024

PART-I: GENERAL INFORMATION

1	Mine Name	Jhiroli Magnesite Mine
2	Registration No.	IBM/5156/2011
3	Category	A-Category
4	Type of Working	Opencast
5	Postal Address	-
6	State	Uttrakhand
7	District	Bageshwar
8	Village	Jhiroli
9	Taluka/Tehsil	Kafligair
10	Post Office	Jhiroli
11	Pin Code	263601
12	FAX No.	05962234164
13	E-mail	geologist.almoramagnesite@gmail.com
14	Phone	05962233010
15	Police Station	Jhiroli
16	Nearest railway Station	Kathgodam
17	Date of grant of mining lease	05.02.1963
18	Date of execution	25.07.1963
19	Date of Opening of mine	-
20	Date of first Renewal, if applicable and its period & expiry	05.02.1983 to 04.02.2003 for the period of 20 years
21	Date of second Renewal, if applicable and its period & expiry	05.02.2003 to 04.02.2023 for the period of 20 years
22	Date of 3rd Renewal, if applicable and its period & expiry	Validity of lease period upto 31.03.2030
23	Name of the Nominated Owner With address, phone, Email, Fax number, date of	Almora Magnesite Ltd Magnesite House Almora

	appointment	District-Almora Uttarakhand 263601
24	Name of the mine agent with address, phone, email, fax number, date of appointment	Mr. L.M.Kandpal
25	Name of the mine manager with address, phone, email, fax number, date of appointment	Mr. Ambica Prasad Mishra
26	Name of the mining engineer, qualification, experience with address, phone, email, fax number, date of appointment	Mr. Ambika Prasad Mishra
27	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55	Mr. Jitendra Singh
28	Date of approval of Mining Plan/Modified Mining Plan with five year period and specific condition in approval letter, if any.	Review & Updation of Mining Plan was Approved on 27.05.2021 for 5 year from 2021-22 to 2025-26. Letter No.614(2)/MS-B-135/2000-DDN
29	Date of approval of Mining scheme with five year period and specific condition in approval letter, if any	
30	Mineral(s) granted in lease and proved for mining	Magnesite
31	Method of Mining (Opencast, Underground)	Opencast
32	Category (Fully Mechanized, Others or Manual)	Mechanized
33	Captive/Non Captive	Captive

PART-II: OBSERVATION / COMMENT OF INSPECTING OFFICER

1. Exploration:

S.N.	Item	Proposals(2023-24)	Actual Work(2023-24)	Remarks
1a	Backlog of previous year	No Bore holes was proposed during 2023-24	Not applicable	
1b	Exploration over lease area for Geological axis 1 or 2.	Potential mineralized area is explored up to G1, G2 & G3 level	G1-35.6913 ha G2-34.4194 ha G3-94.9753 ha	
1c	Exploration Agency & Expenditure in Lakh Rupees during the year	Not mentioned	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2.	Potential mineralized area is explored up to G1 & G2 level	G1-35.6913 ha G2-34.4194 ha G3-94.9753 ha	
1e	Balance reserves as on 01.04.2024	As on 01.04.2023- Reserves- 8,715,228 T Resource= 5,371,946 T	Balance reserves as on 31.03.2024=8,682,871T Resource= 5,371,946 T	32357 T has been extracted during the year
1f	General remarks of Inspecting officer on geology, exploration etc.	Reserve and resources has been updated after depletion of previous year's production.		

2. Development:

S.N.	Item	Proposals(2023-24)	Actual Work(2023-24)	Remarks
2a	Location of Development w.r.t. lease area	Development working was proposed for magnesite from Pit-1A from MRL 1532 – 1508 and in Pit-1B from MRL 1596-1588 and in PIT-2 1709-1704 and for limestone in PIT-2 1760-1756 MRL	Working was as per proposed location	At the time of inspection mine was temporary closed.
2b	Separate benches in topsoil overburden and mineral	Proposed	Separate benches are prepared in the Mineral benches only.	No soil covers in the proposed working location.
2c	Stripping ratio or ore to OB ratio	1:6.3	1:2.59	

2d	Quantity of topsoil generation in m ³	Nil	Nil	
2e	Quantity of overburden generation in m ³	At the beginning of the Year= 186553.29 T	1) Generated during the Year= 59398.02 T 2) Disposed in dumps during the year= 56194.29 T 3) Total at the end of the year= 127155.27 T	As per submitted annual return
2f	General remarks of Inspecting officer on development of pit w.r.t type of deposit etc.	No soil was generated during the RY as working was proposed in the mineral benches only.		

3. Exploitation:

S.N.	Item	Proposals(2023-24)	Actual Work(2023-24)	Remarks
3a	Number of pits proposed for production	3	3 (Pit-1A, Pit-1B & Pit 2)	
3b	Quantity of ROM mineral production proposed	Magnesite=55000 Limestone=5000	Magnesite=32357 T Limestone=0 T	As per submitted annual return
3c	Recovery of Salable/usable mineral from ROM production	100%	Entire Rom is consumed in the nearby plant.	
3d	Quantity of mineral reject generation	No proposals is incorporated	No mineral reject is generated.	
3e	Grade of mineral reject generation and threshold value declared	Not Proposed	Not applicable	
3f	Quantity of sub-grade mineral generation	Proposed	Generated during the year= 705.56 T Total stacked at the end of the year= 705.56 T	As per submitted annual return
3g	Grade of sub-grade mineral generation	Not Proposed	Average grade of the sub-grade mineral reject generated =35	
3h	Manual/Mechanized method adopted for segregation from ROM	Mechanized method	Mechanical method adopted for working	HEMM is being used for development, production and transportation of ROM mineral

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	Jack hammer drilling with 34mm dia	As per proposal	
3k	Provision of mining machineries in mineral benches	Proposed	SHOVEL (HYDRAULIC), WHEEL LOADER, AIR COMPRESSOR, ROCK DRILL (NON-ELEC.), DUMPER, WATER TANKER, CRUSHER, ELEC. MOTOR, CONVEYOR (ELEC.), JEEP/TRACTOR	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Using Open cast method of mining & Bench height proposed 8 m in the Mines.	as per proposal	
3m	Total area covered under excavation /pits	As on 01.04.2023 area of 35.690 ha for mining was proposed	As on 31.03.2024 Area 35.690 ha As per annual return	
3n	Ore to OB ratio for the pit/mine during the year	1 : 6 . 3	1 : 2 . 53	
3o	Total area put in use under different heads at the end of year	proposed	Covered under current (O-C) Workings= 35.690 Ha Used for waste disposal= 7.370 Ha Occupied by plant, buildings, residential, welfare buildings and roads= 2.960 Ha	
3p	Production of ROM mineral during last five-years period, as Applicable	2019-20=59996 T 2020-21=60000 T 2021-22=60000 T 2022-23=55000 T 2023-24=60000 T	2019-20=32758 T 2020-21=24423 T 2021-22=25427 T 2022-23=32706 T 2023-24=32357 T	

3q	General remarks of inspecting officer on method of mining etc.	Development works has been carried out at the proposed places.
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4. Solid Waste Management-Dumping:

S.N.	Item	Proposals(2023-24)	Actual Work(2023-24)	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	proposed	Separate dumping of OB was done within the ML	
4b	Location of topsoil, OB & mineral reject dumps	proposed	Within the ML area in the northern-west & South Eastern part of the ML area	OB and Mineral reject
4c	Number of Dumps within lease area and outside lease area	proposed	5-OB Dumps within the lease area.	
4d	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	proposed	Within the UPL	
4e	Number of Active & Alive dumps	Proposed	5 (3-OB dump & 2-Sub grade dump)	
4f	Number of dead dumps	proposed	5	
4g	Number of dumps stablished	proposed	5	
4h	Whether Retaining wall or garland drain all along dumps are there	proposed	Retaining/parapet wall & garland drain prepared all along the dump	However they are instructed to construct more retaining wall as per the requirement of the lease area.
4i	Length of Retaining wall or garland drain all along dump	proposed	55 m	
4j	Number of settling ponds	Not proposed	Not applicable	
4k	Specific commends of inspecting officer on waste dump management			Parapet walls are also prepared in the ML area. 2500 no of saplings done for the management of the dumps which covered 1 Ha area.

5. Solid Waste Management-Backfilling:

S.N.	Item	Proposals(2023-24)	Actual Work(2023-24)	Remarks
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5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Not proposed	Full extraction of mineral is not done yet. Mineral is still continuing in the depth.	
5b	Area under backfilling of mined out area	Not proposed	Not applicable	
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	Due to mineral continuity in the ML area backfilling was not proposed.		

6. Progressive Mine Closer Plan:

S.N.	Item	Proposals(2023-24)	Actual Work(2023-24)	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly-Rule 26(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 Proposed	Not applicable	
	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			
	i) Voids available for backfilling (L*B*D)	Not Proposed	Not applicable	

	ii) Void filled by waste/tailings	Not Proposed	Not applicable	
	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	Proposed	Number of trees planted during the year=2865 Total no. of trees at the end of the year=92373	
	ii) Area rehabilitation	0.5 H	as per proposals	
	iii) Method of rehabilitation	Proposed	By plantation	
6e	Compliance of Environment monitoring (core zone & buffer zone)	Environment Monitoring proposed	Environment Monitoring done	
6f	General remarks of inspecting officer on PMCP compliance & progressive closer operations			

7. Mineral Conservation:

S.N.	Item	Proposals(2023-24)	Actual Work(2023-24)	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	ROM dispatched was proposed	ROM magnesite is being processed before dispatch	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Not proposed	Not applicable	
7c	Different grade of mineral sort out at mine	Not proposed	Not applicable	
7d	Any beneficiation process at mines	Not Proposed	Not applicable	

7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Magnesite is being processed to DBM and domestic sale is also being done in the year 2023-24 mentioned in annual returns.
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8. Environment:

S.N.	Item	Proposals(2023-24)	Actual Work(2023-24)	Remarks
8a	Separate removal and utilization of topsoil (Rule32)	Not Proposed	Not applicable	
8b	Concurrent use or storage of topsoil	Not Proposed	Not applicable	
8c	Separate dumps for overburden waste rock, rejects and fines (Rule 33)	Proposed	Separate dumping for OB / waste is done within the ML area	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not Proposed	Not applicable	
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)	proposed	Total no. of trees at the end of the year= 92373 within the lease area and 17874 outside the lease area.	
8g	Survival rate	100%	75%	
8h	Water sprinkling on roads to control airborne dust	Proposed	By using water tanker and sprinklers	
8i	General remarks of inspecting officer on aesthetic beauty in and around mine area			

9. Compliance of Rule 45:

S.N.	Item	Comments	Remarks
9a	Status of submission of monthly and Annual returns	AR and MR submitted	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Furnished	1) Mining engineer= Mr. Ambika Prasad Mishra 2) Geologist= Mr. Jitendra Rawat 3) Manager= Mr. Ambika Prasad Mishra
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Furnished	1) Covered under current (O-C) Workings= 35.690 Ha 2) Used for waste disposal= 7.370 Ha 3) Occupied by plant, buildings, residential, welfare buildings and roads= 2.960 Ha
9d	Scrutiny of Annual return on afforestation	Furnished	Number of trees planted during the year=2865 Total no. of trees at the end of the year= 92373 within the lease area and 17874 outside the lease area.
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	Furnished	Subgrade mineral (magnesite) reject generated during the year= 705.56 T Total stacked at the end of the year= 705.56 T
9f	Scrutiny of Annual return on ROM stock and/or grade ore	Furnished	1)Production of ROM ore at Mine-head= 32357 T 2)Opening Stocks of ROM ore at Mine-head= 0 T
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production costs	Furnished	Ex. Mine price=2992 ₹ (magnesite) production costs=2439.34 ₹
9i	Scrutiny of Annual return on Fixed assets	Furnished	₹ 23913389

9k	Scrutiny of Annual return on mining Machineries	Furnished	SHOVEL(HYDRAULIC), WHEEL LOADER, AIR COMPRESSOR, ROCK DRILL (NON-ELEC.), DUMPER, WATER TANKER, CRUSHER, ELEC. MOTOR, CONVEYOR (ELEC.), JEEP/TRACTOR
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10- MCDR COMPLINCE PAST AND PRESENT

S.N	Previous date of inspection	04.01.2024	
9b	Violations pointed out in previous inspection	45(7)	
9c	Check Compliance status of complied violations	All rule complied	
9d	Pending violations	No violation pending	
9e	Violation Detected And Pointed Out During This Inspection	No violation pointed out during this inspection	

Yours faithfully,

नितिन /Nitin
कनिष्ठ खनन भू-विज्ञानी/Junior Mining Geologist
भारतीय खान ब्यूरो/Indian Bureau of Mines