

MCDR INSPECTION REPORT

1	Name of Inspecting officer:	Madhavrao Sabre
2	Designation	Senior mining Geologist Jabalpur Region
3	Accompanying mine official with Designation	Mr. Mridul Dixit, Mines Manager , and
4	Date of Inspection	26.11.2024
5	Previous Inspection date	Inspection on 19.12.2023

Part-I: General

S. No	Particulars	Details
1	Name of the Mine	Majhgawan Diamond Mine
2	Total Lease Area (Ha) with breakup of non-forest and forest land	Total Lease area- 113.332 Ha Forest land- Nil Revenue Land- 11.561 Ha
3	Mine code	17MPR26001
4	IBM Registration Number under rule 45 of MCDR,1988	IBM/270/2011
5	Name of the lessee, Address, Phone, email and fax number	M/s, NMDC Limited. P.O. & Village- Majhgawan Panna e-mail: dirprod@nmdc.co.in Phone No.: 04023538706 Fax No.: 04023538711
6	Village	Majhgawan
7	Taluka/Mandal	Panna
8	District	Panna
9	Pin code	488001
10	State	Madhya Pradesh
11	Post Office	Majhgawan
12	Nearest Police Station	Hinota Police station
13	Nearest Railway Station	Khajuraho Railway Station
14	Date of opening of Mine	1968
15	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Mr. Vinay Kumar Date of appointment – 01.07.2024 Phone - 7415148119 FAX - 04023538711 e-mail – hodrp@nmdc.co.in
16	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Mr. Shreedhar Kodali Date of appointment – 16.07.2022 P.O. & Village- P.O. 488001, Majhgawan Panna Phone - 9346835778 e-mail- kshreedhar@nmdc.co.in
17	Name of the Mine Manager with Address, phone, email, fax number and date of appointment in mines	Mr. Mridul Dixit Date of appointment – 17.07.2023 P.O. & Village- P.O. 488001, Majhgawan Panna Phone - 9839351173 e-mail- mdixit@nmdc.co.in
18	Name of the Mining Engineer, Qualification and total experience with address, phone, email, fax number and date of appointment in the mine	Mr. Sourabh Bamourya Date of appointment – 16.07.2022 P.O. & Village- P.O. 488001, Majhgawan Panna Phone - 7587098597 e-mail- sourabh@nmdc.co.in
19	Whether Geologist (with details of appointment) and Mining Engineer appointment in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Mr. Santosh Pathak Date of appointment – 13.07.2022 P.O. & Village- P.O. 488001, Majhgawan Panna Phone - 9131998184 e-mail- skpathak@nmdc.co.in
20	Date of Approval of Mine Plan/Modified Mine	Mine plan was approved on 28 th Feb 2020 for the period

	Plan with five-year period and specific condition in approval letter, if any.	of 2020-25. Later it was modified on 26.03.2024 for the period of 2023-25 with no specific conditions.
21	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five- year period and specific condition in approval letter, if any.	Mining plan was approved on 28 th Feb 2020 for the period of 2020-25. Later it was modified on 26.03.2024 for the period of 2023-25 with no specific conditions.
22	Mineral(s) granted in lease and approved for Mining	Diamond
23	Method of Mining (Opencast, Underground)	Open Cast
24	Category (Fully Mechanized, Others or Manual)	Fully Mechanized
25	Captive/non-captive	Captive

PART II-Details about Mining Plan/ Review of Mining Plan etc.

a) Letter No. and date of approval of mining plan	:	MP/Panna/Diamond/RMP-32/2019-20
b) Letter No. and date of approval of review of mining plan	:	No. E 12160 MCDR-MPCODia/2/2024-JBP-IBM_RO_JBP dated 06/02/2025
c) Condition while approving the MP/ RMP/ modification	:	NIL
d) Period of mining plan/ mining scheme in force:	:	202-26 to 2029-30

PART III-MCDR Report details.

- Scientific Mining:** Compliance of proposals of approved mining plan/scheme of mining. (Duplication of information in existing TMIS data sheets and draft write up has been avoided.)

1. Exploration

S.N.	Item	Proposals	Actual Work	Remarks
1a	Backlog of previous year (before 2023-24)	Nil	Nil	The exploration work was completed in 1993-94.
1b	Exploration over lease area for Geological axis 1 or 2 (for 2024-25)	Nil	Nil	Nil
1c	Exploration Agency & Expenditure in Lakh Rupees during the year (for 2024-25)	Nil	Nil	No agency was engaged for the exploration work
1d	Balance area to be explored to bring the Geological axis in 1 or 2. (for 2024-25)	Nil	Nil	No proposal for further exploration.
1e	Balance reserves as on 01.04.2024	Reserves as per approved mining plan (in Million Tonne) – 8.923 million Tonne Reserves depleted till the date of inspection (up to previous month)- 0.063 Balance Reserves – 8.86 Million Tonne		
1f	General remarks of Inspecting officer on geology, exploration etc.	<p>Explain ore body occurrence/ structure,</p> <p>The ore body is spherical shape in nature and resemble shapes of the inverted frustum of cone. The ore body is having overburden of 40 to 50 meter of sandstone with some patches of shale.</p> <p>Exploration</p> <ul style="list-style-type: none"> ➤ As per the information provided by the deployed geologist, all exploration work has been performed by the NMDC management. Only the area of 8.7 hectares where the present pit lies has been identified as having a mineral body. The rest of the area has been proven to be a non-mineralized zone. NMDC drilled boreholes up to a depth of 450 meters and concluded that mining of the ore below the 220-210-meter level would become economically unfeasible; hence, further downward exploration is not planned. ➤ Exploration carried out in mineralized area in G1 Level. ➤ Additional exploration will be required to establish the ore body below the depth of 350 meter. 		

		Mine operations were suspended from 1 st of January 2021 till 10.03.2024 for want for various statutory clearances.
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2. Development (FY 2024-25) Up to date of inspection

S.N.	Item	Proposals as per approved mining plan	Actual Work	Remarks
2a	Location of Development w.r.t. lease area	Planned at the southeast direction of the pit	Performed at the planned area	Some development done in 7.5 barrier and outside the lease for which violation issued.
2b	Separate benches in topsoil overburden and mineral (Rule 15)	No separate bench for topsoil, however for OB and Mineral separate bench were proposed.	Topsoil was excavated and stored in the designated place for further use in the future.	Stored and marked in the lease area.
2c	Stripping ratio or ore to OB ratio	Only waste mining was proposed	Only waste mining was done.	Since the mine was stated on 11.03.2024 the NMDC was left with very few days for excavation.
2d	Quantity of topsoil generation in m3 (As on 26.11.2024)	8750 M3	11326 M3	Entire quantity of Topsoil generated has been stored within the lease area in separate dump.
2e	Quantity of overburden generation in m3 (As on 26.11.2024)	44000	Nil	Violation issued for shortfall
2f	General remarks of Inspecting officer on development of pit w.r.t type of deposit etc.	The ore body has the shape of an inverted frustum of a cone, tapering with depth. It is surrounded by sandstone waste, and the development of benches is required outward to extract the ore from the bottom benches. Currently the mine management is developing the OB benches.		

3. Exploitation FY 2024-25 Up to date of inspection

S. N.	Item	Proposals as per approved mining plan	Actual Work	Remarks
3a	Number of pits proposed for production	One	One	Single pit is available for mining.
3b	Quantity of ROM mineral production proposed	349790.00	Nil	Violation issued for shortfall.
3c	Recovery of Salable/usable minerals from ROM production	127139	2879.83 Carats	-
3d	Quantity of mineral reject generation	0	100%	-
3e	Grade of mineral reject generation and threshold value declared	0	0	-
3f	Quantity of sub-grade mineral generation	0	0	-
3g	Grade of sub-grade mineral generation	0	0	-
3h	Manual/Mechanized method adopted for segregation from ROM	Mechanized	Mechanized	ROM is processed through Processing plant only.
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No	No	-
3j	Provision of drilling & blasting in mineral benches	Yes	No	Blasting in the ore will be performed after the OB removal.
3k	Provision of mining machineries in mineral benches	Yes	Yes	Machines have be deployed as per the proposal.

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	10-meter bench width with 10-meter bench height.	Yes	10 meter of bench height and with minimum width of 10 meter is being maintained in most of the places of the mine.																								
3m	Total area covered under excavation /pits (Ha.)	13.3 Ha	13.76																									
3n	Ore to OB ratio for the pit/mine during the year	1.69	Nil	Nil																								
3o	Total area put in use under different heads at the end of year	1.80 Ha	0.46 Ha	Only used for topsoil excavation.																								
3p	Production of ROM mineral during last five-years period, as Applicable	<table border="1"> <thead> <tr> <th>FY</th> <th>ROM (MT)</th> <th>FY</th> <th>ROM (MT)</th> </tr> </thead> <tbody> <tr> <td>2020-21</td> <td>300000</td> <td>2020-21</td> <td>63010</td> </tr> <tr> <td>2021-22</td> <td>350000</td> <td>2021-22</td> <td>0</td> </tr> <tr> <td>2022-23</td> <td>400000</td> <td>2022-23</td> <td>0</td> </tr> <tr> <td>2023-24</td> <td>450000</td> <td>2023-24</td> <td>0</td> </tr> <tr> <td>2024-25</td> <td>349790</td> <td>2024-25</td> <td>0</td> </tr> </tbody> </table>		FY	ROM (MT)	FY	ROM (MT)	2020-21	300000	2020-21	63010	2021-22	350000	2021-22	0	2022-23	400000	2022-23	0	2023-24	450000	2023-24	0	2024-25	349790	2024-25	0	Mine operation was suspended from 1 st of Jan 2021 to 10.03.2024.
FY	ROM (MT)	FY	ROM (MT)																									
2020-21	300000	2020-21	63010																									
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2023-24	450000	2023-24	0																									
2024-25	349790	2024-25	0																									
3q	General remarks of inspecting officer on method of mining etc.	<p>The conventional opencast fully mechanized mining with Hydraulic Excavator in conjunction with dumpers is being followed at the mine. After removing topsoil, (bench height) m thickness, the overburden / reject bench is removed by drilling and blasting.</p> <p>The sequence of operation involves dozing, drilling, blasting, loading, crushing/screening and transportation. Drilling and blasting is carried out for hard overburden and underlying sandstone. After removal of the sandstone and shale the mining of the kimberlite ore is performed by utilizing the above-mentioned machinery and method.</p>																										

4. Solid Waste Management-Dumping (FY2024-25) Up to date of inspection

S.N.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	Proposed: Topsoil: 8750 M3	Achieved Topsoil: 11326 M3	Separate dumping sites are maintained.
4b	Location of topsoil, OB & mineral reject dumps	Within the lease	Within the lease	
4c	Number of Dumps within lease area and outside lease area	One O/B dump 2 Coarse tailing dumps One fine tailing dump	One O/B dump 2 Coarse tailing dumps One fine tailing dump	Nil
4d	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	West side with respect to UPL.	Actual dump is maintained in the west side of the UPL, However no waste mining has been done.	
4e	Number of Active & Alive dumps	4	4	All the four dumps are active
4f	Number of dead dumps	0	0	All the dumps are active
4g	Number of dumps established	0	0	No new dump was proposed
4h	Whether Retaining wall or garland drain all along dumps are there	Yes	Not constructed	Violation issued.
4i	Length of Retaining wall or garland drain all along dump	250	Nil	Violation issued.
4j	Number of settling ponds	1	1	Tailing pond of 2.06 Lakhs cubic meter is

			used as settling pond, additionally 8 numbers of check dams are constricted to arrest tailing flow further in the kaimasan Nallah.
4k	Specific comments of inspecting officer on waste dump management	PMCP measures proposed are not followed, for which violation issued.	

5. Solid Waste Management-Backfilling (FY 2024-25) Up to date of inspection

S.N.	Item	Proposals	Actual Work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	No Proposal	Pit is active at present , full extraction of mineral is yet to be achieved.	-
5b	Area under backfilling of mined out area	Nil	Nil	-
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Stored and further use in preparation of garden	Topsoil stored on designated site.	-
5d	Total area fully reclaimed & rehabilitated (Ha)	0	0	No area is proposed for rehabilitation
5e	General remarks of inspecting officer on backfilling, reclamation etc.	Since the pit is small (500m x 550m) and circular in shape, gradually contracting towards greater depths with the mineral present at the core, backfilling cannot be performed.		

6. Progressive Mine Closure Plan (FY 2024-25) Up to date of inspection

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	Plantation of 500 sapling	Done	Report is awaited
6b	Area available for rehabilitation (Ha)	-	-	
6c	Afforestation done (ha)	0.5	0.5	
6d	No. of saplings planted during the year	500	500	-
6e	Cumulative no. of plants			
6f	Any other specific method of rehabilitation	No	No	No Proposal
6g	Cost incurred on watch & care during the year	30 Lakhs	30 Lakhs	-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L X B X D).	No Proposal	N/A	-
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Void filled by waste/tailings.	No Proposal	N/A	-
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on the backfilled area.	No Proposal	N/A	-
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir.	No Proposal	N/A	-
6l	Compliance on reclamation and rehabilitation by backfilling (v) Any other specific means	No Proposal	N/A	-
6m	Compliance of Rehabilitation of waste land within lease	No Proposal	N/A	-

	(i) Afforestation			
6n	Compliance of Rehabilitation of waste land within lease (ii) Area rehabilitated (ha) Method of rehabilitation	No Proposal	N/A	-
6o	Compliance of Rehabilitation of waste land within lease (iii) Method of rehabilitation	No Proposal	N/A	-
6p	Compliance of Environment monitoring (core zone & buffer zone)	Environment Monitoring is being done by engaging NABL accredited 3rd party.	Monitoring is being performed.	-
6q	General remarks of inspecting officer on PMCP compliance & progressive closer operations	proposed for plantation of 500 sapling within the lease area (0.5 Ha).		

7. Mineral Conservation (FY 2024-25) Up to date of inspection

S.N.	Item	Proposals	Actual Work	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	No Proposal	N/A	Diamonds are extracted by processing of Kimberlite ore within the adjacent lease area.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanized	Mechanized	
7c	Different grade of mineral sort out at mine	Extraction of Diamonds and dumping of Processed Kimberlite ore as coarse tailing dumps.	Extraction of Diamonds and dumping of Processed Kimberlite ore as coarse tailing dumps.	Material balance Sheet to be attached
7d	Any beneficiation process at mines	Nil	N/A	Performed in adjacent lease.
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	The kimberlite ore is mined from the MML lease and further processed in the SML lease for the extraction of diamonds. The run-of-mine (ROM) kimberlite ore is crushed to a size range of - 20 mm to +1.2 mm and then classified using dense media separation to extract diamond-bearing coarse material. This coarse material is further processed through an X-ray sorter, where diamonds, along with some impurities, are collected in a bin. Final extraction of diamonds is carried out manually.		

8. Environment (FY 2024-25) Up to date of inspection

S.N.	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	8700 M3	11326 M3	Excavated topsoil is stored in separate dump.
8b	Concurrent use or storage of topsoil	Storage	Stored and used for garden development	-
8c	Separate dumps for overburden waste rock, rejects and fines (Rule 33)	One dump for O/B One for Fine tailing Two for Coarse Tailing	One dump for O/B One for Fine tailing Two for Coarse Tailing	Maintained
8d	Use of overburden, waste rock, rejects and fines dump for restoring the land to its original use	No Proposal	N/A	The waste rock cannot be used for restoring the land; hence

				it is stored in the dumps.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc.)	No Proposal	N/A	Mine is active and all dumps are also active.
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	N/A	500 saplings are planted on a yearly basis.	-
8g	Survival rate	80%	80%	-
8h	Water sprinkling on roads to control airborne dust	12 KL and 9 KL water tanker are utilized for water sprinkling on road.	Water Sprinkler are present.	-
8i	General remarks of inspecting officer on aesthetic beauty in and around mine area	Extensive plantation done in the lease, aesthetic beauty maintained in lease.		

9. Compliance of Rule 45 (As per Annual return 2023-24 and Monthly return 2024-25)

S.N.	Item	Comments	Remarks
9a	Status of submission of monthly and Annual returns	All the monthly and Annual returns have been submitted on with in time limit.	All the monthly and Annual returns have been submitted on with in time limit.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes, Mining Engineer, Geologist and Manager are appointed in mine.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes furnished.	
9d	Scrutiny of Annual return on afforestation	Yes furnished. 500 Saplings planted..	
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	Nil	
9f	Scrutiny of Annual return on ROM stock and/or grade ore	Nil	Violation issued.
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production costs	Nil	
9i	Scrutiny of Annual return on Fixed assets	Yes furnished	
9k	Scrutiny of Annual return on mining Machineries	Yes furnished.	

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

Rule no.	Violation observed		Show cause Position		
	Issued on	Compliance on	Rule no.	Issued on	Compliance on
11(1), and 45(7) of MCDR 2017	27.02.2025		11(1)	27.03.2025	