

MCDR INSPECTION REPORT

1	Name of Inspecting officer:	Mr. Madhavrao Sabre
2	Designation	Senior Mining Geologist IBM – Jabalpur
3	Accompanying mine official with Designation	Mr. K. K. Goutam (Head Mines), Mr. Ravi Shankar Shukla (Geologist), Mr. Dinesh Kumar Tyagi (Surveyor) Mr. Prakash Hulke (AGM- Mines)
4	Date of Inspection	22.12.2024
5	Previous Inspection date	06.03.2024

Part-I: General

S. No	Particulars	Details
1	Name of the Mine	Diamond Patharia Limestone Mines
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total Lease area- 1247.267 Ha Forest land- Nil Revenue Land- 1247.267 Ha
3	Mine code	38MPR09003
4	IBM Registration Number under rule 45 of MCDR,1988	IBM/398/2011
5	Name of the lessee, Address, Phone, email and fax number	M/s. Diamond Cements, Prop. HeidelbergCement India Limited P.O. & Village- Narsingarh Distt. Damoh (M.P.)- 470675 e-mail: dayashankar.vyas@heidelbergcement.in Phone No.: 07601241301 Fax No.: 07601241235
6	Village	Satpara, Jagthar, Neguwan and Bothrai
7	Taluka/Mandal	Patharia
8	District	Damoh
9	Pin code	470675
10	State	Madhya Pradesh
11	Post Office	Satpara
12	Nearest Police Station	Patharia
13	Nearest Railway Station	Patharia
14	Date of opening of Mine	02.12.1999
15	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Mr. Vimal Kumar Jain Date of appointment - 10.06.2022 HeidelbergCement India Limited, 2nd Floor, Block B, DLF Cyber Greens, DLF Cyber City, Phase-III, Gurugram, Haryana, PIN– 122002 Phone - 0124-4503733 FAX - 0124-4147698 e-mail - vimal.jain@heidelbergcement.in
16	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Mr. Suresh Chandra Dube Date of appointment – 01.04.2024 Staff colony, HeidelbergCement India Ltd. P.O. & Village- Narsingarh Distt. Damoh (M.P.) 470675 Phone - 07601-241301/2 FAX - 07601-241235 e-mail- suresh.dube@heidelbergcement.in
17	Name of the Mine Manager with Address, phone, email, fax number and date of appointment in mines	Mr. D. S. Vyas Date of appointment - 01.02.2022 Staff colony, HeidelbergCement India Ltd. P.O. & Village- Narsingarh Distt. Damoh (M.P.) 470675 Phone - 9165511016

		FAX - 07601-241235 e-mail - dayashankar.vyas@heidelbergcement.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. Abhishek Mishra B.E. (Mining) Total Experience -17 years Staff colony, HeidelbergCement India Ltd. P.O. & Village- Narsingarh Distt. Damoh (M.P.) 470675 Phone - 9165510986 FAX - 07601-241235 e-mail - abhishek.mishra@heidelbergcement.in Date of appointment -30.06.2023
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. Ravi Shankar Shukla M. Tech. (Applied Geology) Total Experience -20 year Staff colony, HeidelbergCement India Ltd. P.O. & Village- Narsingarh Distt. Damoh (M.P.) 470675 Phone - 7694013964 FAX - 07601-241235 e-mail - ravishankar.shukla@heidelbergcement.in Date of appointment -02.11.2015 Yes
20	Date of Approval of Mine Plan/Modified Mine Plan with five-year period and specific condition in approval letter, if any.	15.06.2023, No. E 2558 MCDR-MPC0LST/15/2022-JBP-IBM_RO_JBP Period – 2023-24 to 2026-27 Specific condition – As per Madhya Pradesh State Government's order dated 10/08/2011 if there is enhancement of production proposed from that in the approved scheme of mining under such circumstances additional stamp duty has to be paid by the lessee for the enhances quantum of production and also a supplementary agreement has to be made by the lessee.
21	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five- year period and specific condition in approval letter, if any.	15.11.2021, MP/Damoh/ Limestone/RMP-46/2021-22/6233 Period – 2022-23 to 2026-27 Specific condition – ROM production shall be restricted to 4.5 Mio T till the enhanced EC is obtained.
22	Mineral(s) granted in lease and approved for Mining	Limestone
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	:	
b) Letter No. and date of approval of review of mining plan	:	MP/Damoh/ Limestone/RMP-46/2021-22/6233
c) Condition while approving the MP/ RMP/ modification	:	ROM production shall be restricted to 4.5 Mio T till the enhanced EC is obtained
d) Period of mining plan/ mining scheme in force:	:	2022-23 to 2026-27

PART III-MCDR Report details.

1. **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	
1b	Exploration over lease area for Geological axis 1 or 2 (for 2023-24)	Nil	Nil	
1c	Exploration Agency & Expenditure in Lakh Rupees during the year (for 2023-24)	Nil	Nil	
1d	Balance area to be explored to bring the Geological axis in 1 or 2. (for 2023-24)	Nil	Nil	
1e	Balance reserves as on 01.03.2024	Balance Reserves - 163.30 Million Tonne Balance Resources - 36.82 Million Tonne		
1f	General remarks of Inspecting officer on geology, exploration etc.	<p>The limestone formation of this region belongs to the Bhandar Group of Upper Vindhyan Super Group in Vindhyan system of Indian Stratigraphy. The Bhandar Group forms one of the productive limestone bearing formation in this region. The Bhandar Limestone band is both overlain and underlain by shale. Sometimes limestone comes just under the soil. The area is bounded by the latitudes N 23° 57' 06" to N 23° 59' 30" and Longitude E 79° 08' 32" – N 79° 12' 39" covered in Toposheet no. 55M/1. On regional basis the litho-units in the area have a general strike of NE-SW and the dip of the formation varies from almost horizontal to 7° towards SE direction.</p> <p>The entire area is concealed beneath overburden soil cover, however, as revealed from the boreholes drilled the thickness of inter-bands of shales within limestone varies in thickness as it increased from top to middle and then again starts decreasing.</p> <p>Exploration There is no backlog in exploration. Entire mineralized area has been explored under G1 level of exploration</p>		

2. Development (FY 2023-24)

S.N.	Item	Proposals	Actual Work	Remarks
2a	Location of Development w.r.t. lease area	<p>Pit-04A E313772 to E314253 & N2651880 to N2652225</p> <p>Pit-05 E313663 to E314200 & N2651325 to N2651387</p> <p>Pit-07 E312500 to E313000 & N2650960 to N2651847</p>	<p>Pit-04A E313820 to E314330 & N2651680 to N2652138</p> <p>Pit-05 E313762 to E313832 & N2650750 to N2651070</p> <p>Pit-07 E312692 to E313082 & N2650987 to N2651714</p>	
2b	Separate benches in topsoil overburden and mineral (Rule 15)	Top Soil-1 bench (0.5-0.75 m) Sub Soil -1 bench (1-4 m) Hard	Top Soil-1 bench (0.5-0.75 m) Sub Soil -1 bench (1-4 m) Hard	

		OB -1 bench (1-3 m) Limestone 2 bench (5-8 m)	OB -1 bench (1-3 m) Limestone 2 bench (5-8 m)	
2c	Stripping ratio or ore to OB ratio	1:0.53	1:0.49	
2d	Quantity of topsoil generation in m3 (As on 31.03.2024)	169345	147000	Entire quantity of Topsoil generated has been utilized for spreading (thickness of 0.3 to 0.5 mtr from place to place) over backfilled area for carrying out plantation
2e	Quantity of overburden generation in m3 (As on 31.03.2024)	1632063	1100043	Violation issued for deviation
2f	General remarks of Inspecting officer on development of pit w.r.t type of deposit etc.	During the year one bench in over burden soil, one bench in over burden Shale (waste rock) and two benches in Limestone The topsoil removed separately from subsoil / clay (weathered shale). The total OB (SOB & HOB) was simultaneously back filled in the exhausted Pit.		

3. Exploitation FY 2023-24

S. N.	Item	Proposals	Actual Work	Remarks
3a	Number of pits proposed for production	3	3	
3b	Quantity of ROM mineral production proposed	6750000	4329043.47	Violation issued for deviation
3c	Recovery of Salable/usable minerals from ROM production	5400000	3576934.00	
3d	Quantity of mineral reject generation	1350000	893806	Violation issued for deviation.
3e	Grade of mineral reject generation and threshold value declared	Below 34 % CaO	Below 34 % CaO	
3f	Quantity of sub-grade mineral generation	Nil	Nil	
3g	Grade of sub-grade mineral generation	Nil	Nil	
3h	Manual/Mechanized method adopted for segregation from ROM	The crushing plant & ancillary facilities mainly consist of 1200TPH, impact crusher with screening system which can crush the limestone to (-75 mm) size. The crusher is preceded by a screening system (Wobbler feeder+vibrating screen combination) that will generate a screen reject which shall be less than 20mm.	The crushing plant & ancillary facilities mainly consist of 1200TPH, impact crusher with screening system which can crush the limestone to (-75 mm) size. The crusher is preceded by a screening system (Wobbler feeder+vibrating screen combination) that will generate a screen reject which shall be less than 20mm.	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral	NIL	NIL	

	and reject				
3j	Provision of drilling & blasting in mineral benches	Yes	Yes		
3k	Provision of mining machineries in mineral benches		HEMM are deployed		
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes suitable		
3m	Total area covered under excavation /pits (Ha.)	33.87	26.81		
3n	Ore to OB ratio for the pit/mine during the year	1:0.53	1:0.49		
3o	Total area put in use under different heads at the end of year	413.42	406.36		
3p	Production of ROM mineral during last five-years period, as Applicable	FY	ROM (MT)		
		2019-20	5625000	2019-20	4623313.63
		2020-21	5625000	2020-21	4401598.70
		2021-22	5625000	2021-22	5429162.47
		2022-23	5273810	2022-23	3925134.90
		2023-24	6750000	2023-24	4329043.47
3q	General remarks of inspecting officer on method of mining etc.	The conventional opencast fully mechanized mining with Hydraulic Excavator in conjunction with dumpers is being followed at the mine. After removing topsoil, (0.5 to 0.75m thickness), the overburden / reject bench is removed by drilling and blasting. The sequence of operation involves dozing, drilling, blasting, loading, crushing/screening and transportation. Drilling and blasting is carried out for hard overburden and underlying limestone.			

4.Solid Waste Management-Dumping (FY2023-24)

S.N.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	NIL	NIL	
4b	Location of topsoil, OB & mineral reject dumps	NIL	NIL	
4c	Number of Dumps within lease area and outside lease area	NIL	NIL	
4d	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	NIL	NIL	
4e	Number of Active & Alive dumps	NIL	NIL	
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	NIL	NIL	

4i	Length of Retaining wall or garland drain all along dump	NIL	NIL	
4j	Number of settling ponds	NIL	NIL	
4k	Specific comments of inspecting officer on waste dump management	NA	NA	

5. Solid Waste Management-Backfilling (FY 2023-24)

S.N.	Item	Proposals	Actual Work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	51.69	50.03	
5b	Area under backfilling of mined out area	16.93	9.32	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	169345	147000	
5d	Total area fully reclaimed & rehabilitated (Ha)	8.0	5.0	
5e	General remarks of inspecting officer on backfilling, reclamation etc.	The mined out area is back filled subsequently with the hard overburden/waste at the bottom and covered with topsoil in order to bring back the mined out area back to its natural topography. These areas used for afforestation, etc.		

6. Progressive Mine Closure Plan (FY 2023-24)

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	Yes	Yes	
6b	Area available for rehabilitation (Ha)	53.58	64.24	
6c	Afforestation done (ha)	8.0	5.00	
6d	No. of saplings planted during the year	5000	6500	
6e	Cumulative no. of plants	105000	107500	
6f	Any other specific method of rehabilitation	Nil	Nil	
6g	Cost incurred on watch & care during the year	900000	2942957	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L X B X D).	445*180*18	400*75*15	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Void filled by waste/tailings.	16.93	9.32	Violation pointed.
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on the backfilled area.	8.0	5.0	
6k	Compliance on reclamation and	Nil	Nil	

	rehabilitation by backfilling (iv) Rehabilitation by making water reservoir.			
6l	Compliance on reclamation and rehabilitation by backfilling (v) Any other specific means	Nil	Nil	
6m	Compliance of Rehabilitation of waste land within lease (i) Afforestation	Nil	Nil	
6n	Compliance of Rehabilitation of waste land within lease (ii) Area rehabilitated (ha) Method of rehabilitation	Nil	Nil	
6o	Compliance of Rehabilitation of waste land within lease (iii) Method of rehabilitation	Nil	Nil	
6p	Compliance of Environment monitoring (core zone & buffer zone)	Nil	Nil	
6q	General remarks of inspecting officer on PMCP compliance & progressive closer operations	There is deviation in backfilling proposals and achievement, so violation pointed out.		

7. Mineral Conservation (FY 2023-24)

S.N.	Item	Proposals	Actual Work	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	Crushed & Screened Limestone Dispatched	Crushed & Screened Limestone Dispatched	--
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	Crushed & Screened Limestone Dispatched	Crushed & Screened Limestone Dispatched	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	<p>All material having grade 34% - 38% of CaO content is being blended with higher grade Limestone/sweetener (Purchased) and is being used for cement manufacture. Low grade limestone comprising CaO content 34-38% encountered during mechanized mining in small patches and thin bands cannot be segregated during mining. This material is suitably blended with high grade limestone available in our mines and sweetener limestone procured from outside parties.</p> <p>The crusher is preceded by a screening system (wobbler feeder + vibrating screen combination). Limestone of +75 mm feeds to crusher and -75 mm material has sent to vibrating screen plant to recover limestone, screened limestone sent to factory and clay is rejected. For practical reasons the actual secondary screen has been fixed at a screen cut of 16- 20mm. The limestone recovery approximate 80% after screening and approximate 20% rejects will be generated during crushing of ROM. It results in reduction in contamination of limestone and enhancement of approx. 1% Cao. Use of rubber decks, change of decks during rainy season for reducing contamination carried out.</p> <p>Scheduled maintenance of the crusher & the screen plant id carried out from time to time and records are available at the crusher site office. All related checklists and SOPs are in practice and communicated to the operators through tool box talks and are in use. A QC lab is present at Crushing plant the quality of the samples from the</p>		

	crushing plant is being monitored hourly.
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8.Environment (FY 2023-24)

S.N	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil (Rule32)	Yes	Yes	
8b	Concurrent use or storage of topsoil	Concurrent use	Concurrent use	
8c	Separate dumps for overburden waste rock, rejects and fines (Rule 33)	NA	NA	
8d	Use of overburden, waste rock, rejects and fines dump for restoring the land to its original use	Yes	Yes	
e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc.)	Yes	Yes	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Yes	Yes	
8g	Survival rate	>90%	>93%	
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	
8i	General remarks of inspecting officer on aesthetic beauty in and around mine area	Proper housekeeping and general cleanliness are the basic features of Patharia Limestone Mine. Aesthetic beauty in and around mine has been maintained.		

9.Compliance of Rule 45 (2023-24)

S.N.	Item	Comments	Remarks
9a	Status of submission of monthly and Annual returns	Annual Return FY 2023-24 – submitted on 28.06.2024 Monthly returns submitted on time.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer:- Abhishekh Mishra Geologist:- R S Shukla	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	1. Already exploited and abandoned by opencast (O-C) mining- 50.030 2. Covered under current (O-C) Workings- 123.620 3. Reclaimed-rehabilitated-192.460 Ha 4. Occupied by plant, buildings, residential, welfare buildings and roads- 20.500 Ha 5. Used for any other purpose (- 19.75 Ha Work done under progressive mine closure plan- 5.0 Ha	
9d	Scrutiny of Annual return on afforestation	6. 6500 saplings planted during the reporting year	
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	Mineral reject generated is Nil, screen reject is 893806 T	
9f	Scrutiny of Annual return on ROM stock and/or grade ore	Closing Stock of ROM is 61549 tonnes	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production costs	Rs 268.56	
9i	Scrutiny of Annual return on Fixed assets	₹ 617056120	
9k	Scrutiny of Annual return on mining Machineries	Details furnished below.	

Details of Mine Machinery

EQUIPMENTS	Model No.	Make	Capacity	Nos.
EXCAVATOR	ZAXIS-650H	Tata Hitachi	3.8 m ³	4
	300 CKD-II (PP)	L&T	4.0m ³	1
DOZER	D6R	Caterpillar		1
	D155A-6R	L&T Komatsu	-	1
DUMPER	HM 1035	Hindustan Motors	35 ton	7
	CAT 770G	Caterpillar	40 ton	10
PAYLOADER	LIEBHERR L 580	LIEBHERR	5 m ³	1
DRILL	IRB 400	IRB	20mph	3
Compactor	1190D	L&T	101HP	1
Motor Grader	4180D	Liu gong	15T	1
Explosive Van	Ecomet 1112	Ashok Leyland	10T	1
Explosive van	TATA 709	TATA	4.78T	1

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

	Violation observed		Show cause Position		
Rule no.	Issued on	Compliance on	Rule no.	Issued on	Compliance on
11(1) of MCD R 2017	11.03.2025				

Date: 12.03.2025

Madhavrao Sabre
Senior Mining Geologist