

**INDIAN BUREAU OF MINES
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

MCDR INSPECTION REPORT

Gandhinagar regional office

Mine file No : RAJ/CHT/LST-3

Mine code : 38RAJ09003

- (i) Name of the Inspecting : **26**) **Nishant K Rao**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Sh Dilip Dhaker (Mines manager)
Official with
Designation
- (iv) Date of Inspection : 08-OCT-24
- (v) Prev.inspection date : 14-AUG-19

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **MALIAKHERA**
- (b) **Registration NO.** : **IBM/418/2011**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **RAJASTHAN**
- District : **CHITTORGARH**
- Village : **MALIAKHERA**
- Taluka : **NIMBAHERA**
- Post office : **PHALWA**
- Pin Code : **312617**
- FAX No. : **01477-220027**
- E-mail : **mines.nbh@jkcement.com**
- Phone : **01477-220087**
- (f) **Police Station** : **NIMBAHERA**
- (g) **First opening date** : **24-JUN-89**
- (h) **Weekly day of rest** : **WED**
2. **Address for correspondance** : **VILLAGE-NIMBAHERA**
POST-KAILASH NAGAR, Nimbahera
DISTT-CHITTORGARH (Raj.)
3. (a) **Lease Number** : **RAJ0007**
- (b) **Lease area** : **315.41**
- (c) **Period of lease** : **50**
- (d) **Date of Expiry** : **12-FEB-34**
4. **Mineral worked** : **LIMESTONE** **Main**

5. Name and Address of the

Lessee : J.K.Cement Works
 Kailashnagar Nimbahera
 CHITTORGARH RAJASTHAN
 Phone:01477-220087
 FAX :01477-220027

Owner : KAILASH NATH
 50 MIG BUNGLOW W BLOCK JUHI
 KESHAV NAGAR KANPUR UP
 CHITTORGARH RAJASTHAN
 Phone: 0512-2371478-81
 FAX : 0512-2332665

Agent : MAHEEM KACHWAHA
 J.K.CEMENT WORKS NIMBAEHRA
 CHITTORGARH CHITTORGARH
 RAJASTHAN
 Phone: 01477-22087
 FAX : 01477-220027

Mining Engineer
 Name : DEEPAK KALLA,Full Time
 Qualification : BE MINING
 Appointment/ : 28-MAY-15 01-MAR-19
 Termination date

Mining Engineer
 Name : Shri D K Dhakar,Full Time
 Qualification : BE, FCC
 Appointment/ : 01-MAR-19
 Termination date

Geologist
 Name : Rajneesh Kothari,Full Time
 Qualification : M.sc.(Tech) Applied goelogy
 Appointment/ : 13-MAY-15
 Termination date

Manager
 Name : DEEPAK KALLA
 Qualification : BE MINING
 Appointment/ : 28-MAY-15 01-MAR-19
 Termination date

Manager
 Name : D.K.Dhakar
 Qualification : B.E
 Appointment/ : 01-MAR-19
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining : Modif.approved Mining Scheme 15-JAN-04
 Renewal under rule 22 MCR1960 01-OCT-04
 Mining Scheme rule 12 MCDR1988 03-MAR-09
 Renewal under rule 24 MCR1960 19-JAN-15
 Mining Scheme rule 12 MCDR1988 20-MAY-15
 MP modif under 17(3) MCR 2016 23-MAY-18

MP modif under 17(3) MCR 2016

29-NOV-18

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	nil	nil	
1b	Exploration over lease area for geological axis 1 or 2	2023-24 -- Nil	2023-24 -- Nil	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	nil	nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	nil	nil, total area explored on G 1	
1e	Balance reserve as on 01/04/20	"Proved Mineral Reserve (111) - 170.314 Million Tonnes, Probable Mineral Reserve (121)- 78.568 Mill. Tons"	"Proved Mineral Reserve (111) - 170.362 Million Tonnes, Probable Mineral Reserve (121)- 78.568 Mill. Tons"	
1f	General remarks of inspecting officers on geology, exploration etc			Nil

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a Location of development w.r.t.lease area

"Bench I - Between ML 0-1 to ML 5-6 (NE) ML 7-8 to ML 9-10 (E) ML12-13 to ML13-14 (SW) ML 3-4 to ML 4-5 (W) (upto RL 429 mts.)	"Bench I - Between ML 0-1 to ML 5-6 (NE) ML 7-8 (E) ML12-13 to ML13-14 (SW) ML 3-4 to ML 4-5 (W) (upto RL 429 mts.)
Bench II - Between ML 2-3 to ML 3-4 (NE) ML 4-5 to ML 9-10 (E) ML 10-11 to ML 13-14 (SW) (Upto RL 421 mts)	Bench II - Between ML 2-3 to ML 3-4 (NE) ML 4-5 to ML 7-8 (E) ML 10-11 to ML 13-14 (SW) (Upto RL 421 mts)
Bench III - Between ML 1-2 to ML 2-3 (NE) ML 4-5 to ML 8-9 (E) ML 5-6 to ML 12-13 (S, SW) (Upto RL 413.0 mts.)	Bench III - Between Nil ML 4-5 to ML 8-9 (E) ML 5-6 to ML 12-13 (S, SW) (Upto RL 413.0 mts.)
Bench IV - Between ML 2-3 to ML 7-8 (NE) ML 9-10 to ML 12-13 (SE, S) ML 3-4 to ML 10-11 (W) (Upto RL 405.0 mts.)	Bench IV - Between ML 2-3 to ML 7-8 (NE) ML 11-12 to ML 12-13 (SE, S) ML 3-4 to ML 9-10 (W) (Upto RL 405.0 mts.)
Bench V Between - ML 3-4 to ML	Bench V Between - ML 3-4 to ML 11-12 (E, S) ML 4-5 to ML 10-11

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	"Benches in Top soil - Nil (thickness 0.5 m), - 2.0 m), Overburden Benches - Nil, Mineral Limestone - 7 Benches (1 to 6 bench - Height 8.0 m + 0.5, 7th Bench - 6.0 m, width 20-25 m) "	"Benches in Top soil - Nil (thickness 0.5 - 2.0 m), Overburden Benches - Nil, Mineral Limestone - 7 Benches (1 to 6 bench - Height 8.0 m + 0.5, 7th Bench - 6.0 m, width 20-25 m) "
2c	Stripping ratio or ore to OB ratio	1 : 0.045	1 : 0.010
2d	Quantity of topsoil generation in m3	"20979.02 Cu.m. (30,000 Tonnes)"	"20027.97 Cu.m. (28640 Tonnes)"
2e	Quantity of overburden generation in m3	"171328.67 Cu.m. (2,45,000 Tonnes)"	"37310.49 Cu.m. (53354 Tonnes generated, out of which 4324 Tons stacked as dump whereas 49030 Tons used for filling and road work)"
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		Nil

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One	
3b	Quantity of ROM mineral production proposed	54,897,80 Tonnes (Limestone prod. 52,80,000 Tons + Subgrade 2,09,780 Tons)	54,417,66.62 Tonnes (Limestone prod. 52,32,908.62 Tons + Subgrade 2,08,858 Tons)	
3c	Recovery of sailable/usable mineral from ROM production	52,80,000 Tonnes	52,32,908.62 Tonnes	

3d	Quantity of mineral reject generation	Nil	Nil
3e	Grade of mineral rejects generation and threshold value declared.	Nil	Nil
3f	Quantity of sub grade mineral generation.	2,09,780 Tonnes	2,08,858 Tonnes (Stacked)
3g	Grade of sub grade mineral generation	"CaO -- 38.52 MgO -- 1.08"	"CaO -- 39.09 MgO -- 1.07"
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised Method	Mechanised Method
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Borehole & Blast hole samples	Borehole & Blast hole samples
3j	Provision of drilling and blasting in mineral benches	"Drilling will be done by Nakoda Indus (4.5 inch dia), DTH drills holes will be blasted by explosive (Kelvex 600 and ANFO)."	"Yes, drilling is done by Nakoda Indus (4.5 inch dia), DTH drills holes are blasted by explosive (Kelvex 600 and ANFO)."
3k	Provision of mining machineries in mineral benches	Hyd. Excavator, Drill Mach., Dozer, Tipper	Yes, Hyd. Excavator, Drill Mach., Dozer, Tipper
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	"Limestone -- Yes Overburden -- No"	"Limestone -- Yes Overburden -- No"
3m	Total area covered under excavation/pits	82.01 Hects.(As on 31.03.2024)	81.255 Hects.(As on 31.03.2024)

3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.045	1 : 0.010	
3o	Total area put in use under different heads at the end of year	108.86 Hects.(upto 31.03.2024)	105.609 Hects.(upto 31.03.2024)	
3p	Production of ROM mineral during the last five year period as applicable	"2019-20 -- 3600000 Tons (Limestone) + 575000 Tons (Subgrade) = 4175000 Tons 2020-21 -- 3000000.58 Tons (Limestone) + 150003.38 Tons (Subgrade) = 3150003.96 Tons 2021-22 -- 4200068.01 Tons (Limestone) + 405051.0 Tons (Subgrade) = 4605119.01 Tons 2022-23 -- 4600013.04 Tons (Limestone) + 420045.64 Tons (Subgrade) = 5020058.68 Tons 2023-24 -- 5280000 Tons (Limestone) + 209780 Tons (Subgrade) = 5489780 Tons"	"2019-20 -- 2447316.86 Tons (Lst) + 97700.0 Tons (Sub-grade stacked) = 2545016.86 Tons 2020-21 -- 2999392.58 Tons (Lst) + Nil (Sub-grade stacked) = 2999392.58 Tons 2021-22 -- 3633227.90 Tons (Lst) + 317649.019 Tons (Sub-grade stacked) = 3950876.919 Tons 2022-23 -- 4596961.68 Tons (Lst) + 390342 Tons (Sub-grade stacked) = 4987303.68 Tons 2023-24 -- 5232908.62 Tons (Lst) + 208858 Tons (Sub-grade stacked) = 5441766.62 Tons"	
3q	General remarks of inspecting officers on method of mining etc.			nil

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	"Top soil - 30,000 Tons Interstitial clay/ Screen rejects / Waste -- 2,45,000 Tons Mineral Rejects as Subgrade- 2,09,780 Tons "	- "Top soil -- 28,640 Tons. Interstitial clay/ Screen rejects / Waste - 53,354 Tons generated, out of which 4,324 Tons stacked as dump whereas 49,030 Tons used for filling and road work. Mineral Rejects as Subgrade- 2,08,858 Tons "	
4b	Location of topsoil, OB and mineral reject dumps	"Top soil - in plantation area. Interburden (clay)/ Screen rejects/ Waste generation in South side between section line ML 22 - ML 23 (E/W 461247 -- 461463) (N/S 2728308 -- 2728316) Subgrade dump between ML 20 - ML 23 & further south in SE side of Mining lease. (E/W 461835 -- 461513) (N/S 2728680 -- 2728250)"	"Top soil - in plantation area. Interburden (clay)/ Screen rejects/ Waste generation in South side between section line ML 22 - ML 23 (E/W 461315 -- 461234) (N/S 2728410 -- 2728301) Subgrade dump between ML 20 - ML 23 & further south in SE side of Mining lease. (E/W 461835 -- 461572) (N/S 2728680 -- 2728252)" "No stacking of top soil Stacking of Screen rejects is done on the area proposed during 2023-24. Hence no deviation. Subgrade mineral is stacked on same location as proposed."	

4c	Number of dumps within lease area and outside of lease area	"Two dumps (Within lease):-- Subgrade dump -- 1 Nos. Interburden (clay)/ Screen rejects/ Waste generation -- 1 Nos."	"Two dumps (Within lease) Subgrade dump -- 1 Nos. Interburden (clay)/ Screen rejects/ Waste generation -- 1 Nos."	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	"1 Nos. of Subgrade dump outside Ultimate pit limit & 1 Nos. of Interburden (clay)/ Screen rejects / Waste generation"	"1 Nos. of Subgrade dump outside Ultimate pit limit 1 Nos.-- Interburden (clay)/ Screen rejects/ Waste generation "	
4e	Number of active and alive dumps.	Active dumps - 02 Nos. (one Subgrade dump & one Screen reject dump)	Active dumps -- 02 Nos. (one Subgrade dump & one Screen reject dump)	
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.	Proposed garland drain	As per proposal	
4i	Length of Retaining wall or garland drain all along dumps	231 m (Garland drain)	235 m (Garland drain) & 250 m fencing.	
4j	Number of settling ponds	na	na	
4k	Specific comments of inspecting officer on waste dump management		Top soil is used for plantation area. No overburden is removed. Interburden as screen reject generated and stacked & Subgrade as mineral rejects generated during the year.	nil

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	na	na	
5b	Area under backfilling of mined out area	na	na	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	na	na	
5d	Total area fully reclaimed and rehabilitated	na	na	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			nil, no backfilling proposed

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Afforestation -- 6000 Nos. of plants, Area -- 2.40 Hects.	"Yes and submitted in time. Afforestation -- Within lease -- 8871 Nos. of plants planted, Area covered -- 2.40 Hects. Outside lease -- Nil, Area covered -- Nil"	
6b	Area available for rehabilitation (ha) .	2.40 Hects. (Afforestation)	2.40 Hects. (Afforestation within lease)	
6c	afforestation done (ha).	2.40 Hects. (Afforestation)	2.40 Hects. (Afforestation within lease)	

6d	No. of saplings planted during the year	6000 Nos.	8871 Nos.- within lease and Nil - outside lease.
6e	Cumulative no .of plants	-	"Within Lease -- 86939 Nos. Outside Lease -- 13779 Nos."
6f	Any other method of rehabilitation		Afforestation
6g	Cost incurred on - watch and care during the year	-	Rs. 13.918 Lacs
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Nil	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Nil	Nil Active mines
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	2.40 Hects. (Afforestation)	2.40 Hects. (Afforestation)

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	2.40 Hects. (Afforestation)	2.40 Hects. (Afforestation)	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Afforestation	Afforestation	
6p	Compliance of environmental monitoring (core zone and buffer zone)	yes	yes ,	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			nil

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	"Usable Limestone for Cement manufacturing -- 5280000 Tonnes (118.15 LSF) & Stacking of Subgrade material -- 209780 Tonnes (57.06 LSF)"	"Limestone is for Cement manufacturing -- 5232908.62 Tonnes (118.85 LSF) & Subgrade material stacked -- 208858 Tonnes (61.92 LSF)"	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Yes. Mechanical	Yes. Mechanical	
7c	Different grade of mineral sorted out at mines.	"Subgrade mineral CaO -- 38.52 MgO -- 1.08"	"Subgrade mineral CaO -- 39.09 MgO -- 1.07"	

7d	Any beneficiation process at mines	Nil	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			nil

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Top soil -- 30,000 Tons	28640 Tons	
8b	Concurrent use or storage of topsoil	Top soil will be spread at proposed plantation area	Top soil spread over plantation site.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	2,45,000 Tons (Interburden (clay)/ Screen rejects/ Waste generation)	53,354 Tons generated, out of which 4,324 Tons stacked as dump whereas 49,030 Tons used for filling and road work(Interburden (clay)/ Screen rejects/ Waste generation)	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not sufficient overburden, waste rock. Therefore no proposal.	Not applicable	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not applicable	Not applicable	

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	6000 Nos. of plants will be planted covering 2.40 Hects. area.	8871 Nos. of plants planted covering 2.40 Hects. area within lease during 2023 - 24, survival rate 93%.	
8g	Survival rate	-	"During 2023-24 -- 93% "	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul road to arrest fugitive dust.	It is followed and effective.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			nil

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	"M.R. Submitted upto -- Submitted on 05.09.2024 for the month of August 2024 A.R. submitted upto -- Submitted on 28.06.2024 for the year 2023 - 24. "		
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	"Mining Engineer - Sh. Dilip Kumar Dhakar Geologist - Sh. Rajneesh Kothari Manager - Sh. Dilip Kumar Dhakar"	ok	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	" Proposed Actual (Ha.) (Ha.) Pit 81.255 Reclaimed Nil Nil Area Subgrade 11.15 9.634 Dump Screen rejects 1.90 0.92 dump/waste Roads 8.967 8.967 Infrastructure 3.903 3.903 Top soil -- -- Others 0.93 0.93 (Embankment) "	ok
9d	Scrutiny of Annual return on afforestation	"Proposed - 6000 Nos. (2.40 Ha.) Actual - Within lease - - 8871 Nos. (2.40 Ha.) & Outside lease -- Nil"	ok
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	nil	nil

9f	Scrutiny of Annual return on ROM stock and/or graded ore	"During Year 2023-24 Opening Balance -- 2152482 Tons (Subgrade) Closing Balance -- 2361340 Tons (Subgrade)"	ok
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	"Captive use Ex- Mine Price - Rs. 181.98/- per tonne"	ok
9h	Scrutiny of Annual return on fixed assets	Fixed assets - Rs. 1063143311/-	ok
9k	Scrutiny of Annual return on mining machineries	Mining Machineries - Departmental	ok

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

Violation observed		Show couse position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on

Date :

(Nishant K Rao)

Indian Bureau of Mines