

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

MCDR INSPECTION REPORT

Gandhinagar regional office

Mine file No : RAJ/CHT/LST-3

Mine code : 38RAJ09004

- (i) Name of the Inspecting : **P022**) **PANKAJ KULSHRESTHA**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Shri R.C.Vyas, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 21/08/2024
- (v) Prev.inspection date : 15/11/2018

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **MANGROL TILAKHERA**
- (b) **Registration NO.** : **IBM/418/2017**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **RAJASTHAN**
- District : **CHITTORGARH**
- Village : **MANGROL, TILAKHERA**
- Taluka : **NIMBAHERA**
- Post office : **MANGROL**
- Pin Code : **312617**
- FAX No. : **91-512-2332665, 2399854**
- E-mail : **shambhu.singh@jkcement.com**
- Phone : **91-512-2371478, 2371479, 2371**
- (f) **Police Station** :
- (g) **First opening date** : **09/05/1979**
- (h) **Weekly day of rest** : **WED**
2. **Address for** : **VILLAGE-MANGROL & TILAKHERA**
correspondance **POST-MANGROL**
DISTT-CHITTORGARH
3. (a) **Lease Number** : **RAJ0009**
- (b) **Lease area** : **299.2**
- (c) **Period of lease** :
- (d) **Date of Expiry** : **31/03/2030**
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

Manager
 Name : L.S.POKHARNA
 Qualification : BE MINING
 Appointment/ : 11/11/2018
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988 FMCP under 23C(1) Mining Scheme rule 12 MCDR1988 Modif.approved Mining Scheme Mining Scheme rule 12 MCDR1988 MP review under 17(1) MCR 2016 MP modif under 17(3) MCR 2016	01/10/2004 24/01/2007 04/08/2010 25/07/2011 06/04/2015 16/11/2017 03/01/2019
---	---	--	--

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No backlog of previous year	Not applicable	
1b	Exploration over lease area for geological axis 1 or 2	No such proposal	Not applicable	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No exploration proposal therefore no expenditure	Not applicable	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No such proposal	Not applicable as the entire area has been covered under G1.	
1e	Balance reserve as on 01/04/20	26.984 million tonnes	As above.	
1f	General remarks of inspecting officers on geology, exploration etc	NA	The overall status of geology and exploration may be considered as satisfactory.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	During the year 2023-24 it was proposed to develop North pit. ML A-9E,ML A-8E,ML A-7E, ML A-8 (E-W) ML A-5	North pit developed during the year 2023-24. ML A-5E, ML A-6E, ML A-7E, ML A-6, ML A-8 (E-W), ML 2-7	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Benches proposed only in mineral	Benches only in mineral	
2c	Stripping ratio or ore to OB ratio	1:0.019	1:0.021	
2d	Quantity of topsoil generation in m3	6993 cu.m.	6853.14 cu.m.	

2e	Quantity of overburden generation in m3	27894.41 cu.m. during the year 2023-24	27661.54 cu.m. during the year 2023-24
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NA	The present status of development w.r.t type of deposit may be considered as satisfactory.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two pits	One pit	
3b	Quantity of ROM mineral production proposed	2022602.66 tons	1868924.46 tons of ROM produced during the year 2023-24.	
3c	Recovery of sailable/usable mineral from ROM production	1647998.66 tons	1495496.46 tons recovered from ROM.	
3d	Quantity of mineral reject generation	374604 tons	373428 tons of reject generated during the year 2023-24.	
3e	Grade of mineral rejects generation and threshold value declared.	CaO- 36.31% - 34%	Cao_ 38.04 % - 34%	
3f	Quantity of sub grade mineral generation.	No proposal	Not applicable	
3g	Grade of sub grade mineral generation	No proposal	Not applicable	
3h	Manual / Mechanised method adopted for segregating from ROM	No processing proposed within the lease area	Not applicable	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	On the basis of exploration and blast analysis basis	On the basis of exploration and blast analysis basis	

3j	Provision of drilling and blasting in mineral benches	Yes	Yes, deep hole drilling and blasting is being practised. Burden 3.5m, spacing 4.5m depth 8m, Blasting -charge/ hole cap & Non cap, PF-10
3k	Provision of mining machineries in mineral benches	Yes	Yes, Hyd.excavator, drill machine dozer and tipper deployed.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes, the height of 8 m proposed in limestone which is suitable for method of mining.
3m	Total area covered under excavation/pits	46.87 hectares	46.748 hectares up to 31.03.2024
3n	Ore to OB ratio for the pit/mine during the year.	1:0.019	1:0.021
3o	Total area put in use under different heads at the end of year	Area under Pit : 46.87 h, reclaimed -No proposal, Area under waste disposal: 1.26 h, Cement Plant & Residential area: 60.59 h, Mineral reject : 13.74 h, Plantation area : 22.81 h.	Area under Pit : 46.748 h, reclaimed -No proposal, Area under waste disposal: 2.046 h, Cement Plant & Residential area : 64.9544 h, Mineral reject : 11.594 h, Plantation area : 25.935 h.
3p	Production of ROM mineral during the last five year period as applicable	2019-20 : 1857868.03 T 2020-21 : 1967443.32 T 2021-22 : 2350000 T 2022-23 : 2350000 T 2023-24 : 2022602.66 T	2019-20 : 1327998.85 T 2020-21 : 1543237.06 T 2021-22 : 2075834.25 T 2022-23 : 2330786.01 T 2023-24 : 1868924.46 T
3q	General remarks of inspecting officers on method of mining etc.	NA	The overall status of method of mining may be considered as satisfactory.

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping proposed for O/b and mineral reject. Top soil is utilised in plantation program.	Yes, O/b and mineral reject is being dumped separately	
4b	Location of topsoil, OB and mineral reject dumps	Overburden dump ML B-1, Mineral rejects : ML 2-5E-N, 5-6E & 2-7W	Overburden dump ML B-1, Mineral rejects : ML 2-5E-N, 5-6 & A-3NW	
4c	Number of dumps within lease area and outside of lease area	3 overburden dumps and 3 mineral reject dumps (WML) proposed	3 overburden dumps and 3 mineral reject dumps (WML)	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	All the dumps proposed outside UPL	All the dumps are outside the UPL.	
4e	Number of active and alive dumps.	3 overburden dumps and 3 mineral reject dumps (WML)	3 overburden dumps and 3 mineral reject dumps (WML)	
4f	Number of dead dumps.	No proposal	No dead dump.	
4g	Number of dumps established.	NA	Not appllicable	
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall : No proposal, Garland drain : Proposed	As above	
4i	Length of Retaining wall or garland drain all along dumps	Garland drain : 2653 m	Garland drain : 2565m, cummulative garland drain 3928m.	
4j	Number of settling ponds	No such proposal	Not applicable	
4k	Specific comments of inspecting officer on waste dump management	NA	The present status on waste dump management may be considered as satisfactory.	

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.	No such proposal	Not applicable
5b	Area under backfilling of mined out area	No such proposal	Not applicable
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No such proposal	Not applicable
5d	Total area fully reclaimed and rehabilitated	No such proposal for full reclamation or rehabilitation of mined out area.	No such proposal
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	The area is not matured for the purpose of reclamation and rehabilitation.

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).	Yes,	Yes submitted, as per rule	
6b	Area available for rehabilitation (ha) .	No such proposal	Not applicable	
6c	afforestation done (ha).	1.20 hectares	1.20 hectares	
6d	No. of saplings planted during the year	1200 Nos proposed during the year 2023-24	Planted 1200 saplings during the year 2023-24.	
6e	Cumulative no .of plants	48845 nos.	So far 69846 saplings have been planted in the area.	

6f	Any other method of rehabilitation	No such proposal	Not applicable
6g	Cost incurred on watch and care during the year	Rs. 275000/- proposed	Rs. 369338/- incurred on watch and care during the year.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No such proposal	Not applicable
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No such proposal	Not applicable
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on on backfilled area	No such proposal	Not applicable
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No such proposal	Not applicable
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No such proposal	Not applicable
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	1.2 hectare	Plantation has been done in 1.2 hectares of lease area.
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	No such proposal	Not applicable

6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes, as per rule	Yes, monitoring is being done in core and buffer zone.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NA	The overall status on PMCP compliance and progressive closure operations may be considered as satisfactory.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	1647998.66 tons of ROM	1495496.46 tons of ROM produced during hte year 2023-24.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No such proposal	Not applicable	
7c	Different grade of mineral sorted out at mines.	Cement grade	As above, 105.07 LSF, CaO- 44.61%	
7d	Any beneficiation process at mines	No such proposal	Not applicable	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	The overall status on mineral conservation may be considered as satisfactory.	

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	10000 tons	9800 tons of top soil utilised in plantation program during hte year 2023-24.	

8b	Concurrent use or storage of topsoil	Yes, for the purpose of plantation	Yes ,as above
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes, separate dumps for mineral reject and waste.	Yes, as above.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal	Not applicable
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposal	Not applicable
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1200 nos. of saplings proposed to be planted over 1.2 hectares of area.	Planted 1200 nos. of sapling in 1.2 hectares of area.
8g	Survival rate	95%	92% survival rate achieved during the year 2023-24
8h	Water sprinkling on roads to control airborne dust	Yes proposed	Yes, water sprinkling on haul road to suppress the fugitive dust is in practice.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	NA	The overall status on aesthetic beauty in and around mines area may be considered as satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Yes, as per rule	Yes, submitted as per rule.	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mines Manager : Shri R.C.Vyas, Mining Engineer : Shri Shubham Kulmi, Geologist : Shri Om Prakash Sharma	As above
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit area : 46.748 hectares, area under waste dump : 2.046 hectares, area under mineral reject: 11.594 hectares area under infrastructure : 64.954 hectares, area under plantation 25.935 hectares.	As above
9d	Scrutiny of Annual return on afforestation	No. of trees planted 3910 with survival rate of 92%	As above.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral reject : 373428.00 tons	As above.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening stock : 0.00 T, Production : 1495496.460 T ,Closing stock : 0.00 T	As above.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine price : Rs.237.70, Cost of production : Rs.237.7	The information furnished above seems to be correct.
9h	Scrutiny of Annual return on fixed assets	Fixed assets Rs. 35558091	The information furnished above seems to be correct.

9k Scrutiny of Shovel: 6, As above
Annual return on Rock Drill : -
mining 2, Dozer : 2,
machineries Pump-7, Tipper
: 27, Air
compressor,
water tanker,
jeep,
explosive van.

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

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

Date :

(PANKAJ KULSHRESTHA)

Indian Bureau of Mines