

**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 : **G021**) **DATA RAM GURJAR**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri L.S. Pohkarna, Mine Manager
Official with
Designation
- (iv) Date of Inspection : 07-DEC-19
- (v) Prev.inspection date : 15-NOV-18

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, 2371480**
- (f) **Police Station** : **NIMBAHERA**
- (g) **First opening date** : **09-MAY-79**
- (h) **Weekly day of rest** : **WED**
2. **Address for correspondance** : **VILLAGE-MANGROL & TILAKHERA**
POST-MANGROL
DISTT-CHITTORGARH
3. (a) **Lease Number** : **RAJ0009**
- (b) **Lease area** : **299.2**
- (c) **Period of lease** :
- (d) **Date of Expiry** : **31-MAR-30**
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

Geologist

Name : Om Prakash Sharma, Full Time
 Qualification : MSC Geology
 Appointment/ Termination date : 01-JUL-15

Manager

Name : L.S.POKHARNA
 Qualification : BE MINING
 Appointment/ Termination date : 11-NOV-18

6. Date of approval of Mining Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	01-OCT-04
		FMCP under 23C(1)	24-JAN-07
		Mining Scheme rule 12 MCDR1988	04-AUG-10
		Modif.approved Mining Scheme	25-JUL-11
		Mining Scheme rule 12 MCDR1988	06-APR-15
		MP review under 17(1) MCR 2016	16-NOV-17
		MP modif under 17(3) MCR 2016	03-JAN-19

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	During the year 2018-19 exploration was proposed by 8 bore hole drilling.	During the year 2018-19, no drilling has been carried out.	Violation of rule 11(1) of MCDR 2017 issued to the lessee.
1b	Exploration over lease area for geological axis 1 or 2	During the year 2018-19 exploration was proposed by 8 bore hole drilling for G1 level.	No drilling has been carried out so far.	Violation of rule 11(1) of MCDR 2017 issued to the lessee.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Exploration agency- Self departmental drilling, Expenditure- Not specified	During the year no exploration work has been carried out.	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	During the year 2018-19 exploration was proposed by 8 bore hole drilling for G1 level.	No exploration drilling has been carried out during the year 2018-19.	As per modified mining plan approved for the period 2019-20 to 2022-23 Total minearlisied area 76.007 Ha (G1 level-66.43 ha, G2 level-9.64 ha) Exploration proposed during the year 2019-20 & 2020-21 to convert G2 level into G1 level.
1e	Balance reserve as on 01/04/20	Balance reserves as on 01.04.2019 25.16 mill. Tons	Balance reserves as on 01.04.2019 25.16 mill. Tons	Nil
1f	General remarks of inspecting officers on geology, exploration etc			Exploration drilling has not been carried out during the year 2018-19, hence violation of rule 11(1) of MCDR 2017 issued to the lessee.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Northern side & southern side of the lease area.	Northern side & southern side of the lease area as per approved proposal.	Nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Benches proposed in mineral .	As per proposal.	Nil
2c	Stripping ratio or ore to OB ratio	1:0.006	1 :0.008	Nil
2d	Quantity of topsoil generation in m3	6993	6657.34	Nil
2e	Quantity of overburden generation in m3	4800	4797.6	Nil
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Mine development is going as per proposal.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2 pit(North pit & South Pit)	2 pit(North pit & South Pit)	Nil
3b	Quantity of ROM mineral production proposed	2018-19 19,09,129.50 Tons	2018-19 14,92,276.13 Tons	Nil
3c	Recovery of sailable/usable mineral from ROM production	2018-19 14,50,355.60 Tons	2018-19 13,00,366.13 Tons	Nil
3d	Quantity of mineral reject generation	No proposal	Not generated	Nil
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	Not applicable	Nil
3f	Quantity of sub grade mineral generation.	2018-19 4,58,773.90 Tons	2018-19 1,91,910.00 Tons	Nil

3g	Grade of sub grade mineral generation	2018-19 CaO : 41.85% MgO : 0.71%	2018-19 CaO : 38.42% MgO : 1.30%	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Yes, proposed	As per proposal	Nil
3k	Provision of mining machineries in mineral benches	Using Hyd. Excavator, Drill machine, Dozer and Tipper.	As per proposal	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes	Nil
3m	Total area covered under excavation/pits	2018-19 39.88 Ha.	2018-19 37.97 Ha.	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1:0.006	1 :0.008	Nil
3o	Total area put in use under different heads at the end of year	It is proposed that at the end of mining plan period i.e 2022-23 total area put to use under different heads-143.249 Ha.(Including plantation)	At the end of year 2018-19 total area put ot use under different heads-112.972 hect. (Including plantation)	Nil

3p	Production of ROM mineral during the last five year period as applicable	2014-15: 16,00,199.03 Tons 2015-16: 3,60,132.05 Tons 2016-17: 13,63,360.02 Tons 2017-18: 13,69,966.00 Tons 2018-19: 19,09,129.50 Tons 2019-20: 18,57,868.03 Tons	2014-15: 7,57,743.59 Tons 2015-16: 11,61,465.12 Tons 2016-17: 14,10,237.31 Tons 2017-18: 13,19,700.70 Tons 2018-19: 14,92,276.13 Tons 2019-20: 8,38,537.96 Tons (up to Nov. 2019)	Nil
3q	General remarks of inspecting officers on method of mining etc.			Method of mining is suitable to the deposit.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping proposal of OB/IB & Subgrade mineral.	Separate dumping of OB/IB & subgrade mineral.	Nil
4b	Location of topsoil, OB and mineral reject dumps	2018-19 OB dumps : Between section Line ML 2 to ML6 (Eastern side), On section Line ML20(Near lease boundary in South Side) Subgrade : Between section Line ML 3 to ML5 (Eastern side) & ML9 to ML12 (Eastern side)	OB dumps : Between section Line ML 2 to ML5 (Eastern side), On section Line ML20(Near lease boundary in South Side) Subgrade : Between section Line ML 2 to ML5 (Eastern side) & ML9 to ML12 (Eastern side)	During the year 2018-19 sugrade dumping was proposed between section lines ML3 to ML5 but actual subgrade dumping has been carried between section lines ML2 to ML5, Hence violation of Rule 11(1) of MCDR 2017 issued to the lessee.
4c	Number of dumps within lease area and outside of lease area	02 subgrade dumps 02 Overburden waste dumps	02 subgrade dumps 02 Overburden waste dumps	Nil

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL	Outside UPL	Nil
4e	Number of active and alive dumps.	02 subgrade dumps 02 Overburden waste dumps	02 subgrade dumps 02 Overburden waste dumps	Nil
4f	Number of dead dumps.	None	None	Nil
4g	Number of dumps established.	No proposal	None	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Garland drain proposed.	Garland drain along the dumps.	Nil
4i	Length of Retaining wall or garland drain all along dumps	2018-19 Garland drain : 148m	2018-19 Garland drain : 200m	Nil
4j	Number of settling ponds	No proposal	None	Nil
4k	Specific comments of inspecting officer on waste dump management			During the year 2018-19 sugrade dumping was proposed between section lines ML3 to ML5 but actual subgrade dumping has been carried between section lines ML2 to ML5, Hence violation of Rule 11(1) of MCDR 2017 issued to the lessee.

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.	Not proposed	Nil	Nil
5b	Area under backfilling of mined out area	Ni proposal	Nil	Nil

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Proposed for plantation	Used for plantation	Nil
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Pits are active hence backfilling has not been carried out.

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).	PMCP report shall be submit up to 1 july for the previous financial year/	PMCP report for the year 2018-19 submitted on time.	Nil
6b	Area available for rehabilitation (ha) .	No proposal	Nil	
6c	afforestation done (ha).	1.5 ha	1.10 ha	Nil
6d	No. of saplings planted during the year	1500 nos.	1890 nos.	
6e	Cumulative no .of plants	No specific proposal	40385 nos. plants.	Nil
6f	Any other method of rehabilitation	No proposal	None	Nil
6g	Cost incurred on watch and care during the year	Rs.3,00,00.00	Rs. 6,62,648.00	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	None	Nil

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	None	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No proposal	None	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	However rain water accumulated at the pit bottom	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No proposal	None	Nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	1500 nos.	1890 nos.	Nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	1.5 hect.	0.95 ha by plantation.	Nil
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Plantation	Plantation	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Regular monitoring proposed.	Regular monitoring is being carried out.	Nil

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	PMCP compliances satisfactory.
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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Cement grade limestone will be disptached to captive cement plant & sabgrade mineral will be stack at designated place.	As per proposal	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	Nil
7c	Different grade of mineral sorted out at mines.	Cement grade & subgrade	Cement grade & subgrade	Nil
7d	Any beneficiation process at mines	No proposal	None	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			No issue was observed related to mineral conservation.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes proposal given for separate removal & utilisation of top soil.	As per proposal	Nil

8b	Concurrent use or storage of topsoil	Concurrent use in plantation	As per proposal	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposal given for waste dump & subgrade dumps	As per proposal.	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	None	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	None	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1500 nos. sapling proposed over an area 1.5 ha during the year 2018-19.	1890 sapling planted over an area 0.95 hect. area during the year 2018-19.	Nil
8g	Survival rate	70%	70%	Nil
8h	Water sprinkling on roads to control airborne dust	Proposed	Water sprinkling was observed.	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty is good in and around mine area.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Annual return submitted up to year 2018-19 Monthly return submitted up to Dec. 2019.	Returns submitted on time.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer : L S Pokharna Geologist : O P Sharma Manager : L S Pokharna	Found correct.	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit area : 37.97 Ha Waste Dumps & subgrade dumps : 4.519 ha, Occupied by plant, building roads etc.-60.210 ha, Other work undr PMCP-14.110	Seems to be correct.	Nil
9d	Scrutiny of Annual return on afforestation	No. of trees planted : 1890 nos. (Inside ML) & 40 nos. (outside ML)	Seems to be correct.	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No mineral reject generation shown	No mineral reject generated.	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing stock of 564434 tonnes shown. This is subgrade limestone.	Seems to be correct.	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production shown-Rs. 192.78 per tonne	Seems to be correct.	Nil
9h	Scrutiny of Annual return on fixed assets	Rs. 10015297502	Seems to be correct.	Nil
9k	Scrutiny of Annual return on mining machineries	Machinery details given	Found correct.	Nil

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
MCDR17	Rule 11(1)	31-DEC-19			

Date :

(DATA RAM GURJAR)

Indian Bureau of Mines