

**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 : **G021**) **DATA RAM GURJAR**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Sh. Dilip Kumar Dhakar, Mine Manager
Official with
Designation
- (iv) Date of Inspection : 14-AUG-19
- (v) Prev.inspection date : 17-JUL-18

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** : **VILLAGE-NIMBAHERA**
correspondance **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	No proposal during the previous year.	Nil	
1b	Exploration over lease area for geological axis 1 or 2	No specific proposal given	During the year 2018-19 no proposal of exploration however Entire lease area(315.409 hect.) has been explored under G1 level(279.625 hect.) & G2 level(35.784 hect.)	During the year 2019-20 exploration has been proposed for further mineral depth continuity & entire mineralised area up to G1 level.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	During the year 2018-19 no exploration proposal.	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	During the year 2018-19 no proposal given.	Nil	Entire lease area(315.409 hect.) has been explored under G1 level(279.625 hect.) & G2 level(35.784 hect.) & during the year 2019-20 to 2021-22 exploration has been proposed for further mineral depth continuity & entire mineralised area up to G1 level.
1e	Balance reserve as on 01/04/20	Balance reserves as on 01.04.2019 Proved Mineral Reserve (111) - 109.2224 Million Tonnes, Probable Mineral Reserve (122)- 64.687 Mill. Tons	Balance reserves as on 01.04.2019 Proved Mineral Reserve (111) - 109.2224 Million Tonnes, Probable Mineral Reserve (122)- 64.687 Mill. Tons	

1f	General remarks of inspecting officers on geology, exploration etc	Entire lease area(315.409 hect.) has been explored under G1 level(279.625 hect.) & G2 level(35.784 hect.) & during the year 2019-20 to 2021-22 exploration has been proposed for further mineral depth continuity & entire mineralised area up to G1 level.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Northern Part and western central part of the lease area.	Northern Part and western central part of the lease area.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Benches in Top soil - Nil (thickness 0.5 m), Overburden Benches - Nil, Mineral Limestone - 5 Benches	Benches in Top soil - Nil (thickness 0.5 - 2.0 m), Overburden Benches - Nil, Mineral Limestone - 5 Benches	
2c	Stripping ratio or ore to OB ratio	No OB generation proposal given hence 1:0	No OB generated hence 1:0	
2d	Quantity of topsoil generation in m3	11888.11 Cu.m.	4797.20 Cu.m.	
2e	Quantity of overburden generation in m3	Nil	Nil	

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Mine development of IV & V benches between section line ML2 to ML4 have not been carried as per approved proposal, hence violation of rule 11(1) of MCDR 2017 issued to the lessee.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One	
3b	Quantity of ROM mineral production proposed	2018-19: 21,12,068.515 Tonnes	2018-19: 16,86,387.92 Tonnes	
3c	Recovery of sailable/usable mineral from ROM production	16,62,055.98 Tonnes usable limestone in captive cement plant.	14,83,506.92 Tonnes usable limestone in captive cement plant.	
3d	Quantity of mineral reject generation	No proposal during the year 2018-19.	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	No proposal during the year 2018-19.	Nil	
3f	Quantity of sub grade mineral generation.	4,50,012.535 Tonnes(2018-19)	2,02,881.00 Tonnes (2018-19)	
3g	Grade of sub grade mineral generation	CaO -- 39.0 MgO -- 1.05	CaO -- 38.21 MgO -- 1.04	
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	Yes, drilling will be done by Atlas Copco BVB-40 (4 - 4.5 inch dia) DTH drill holes will be blasted by explosive.	Yes, drilling is done by Atlas Copco BVB-40 (4 - 4.5 inch dia). DTH drill holes are blasted by explosive (Kelvex 600 and ANFO).
3k	Provision of mining machineries in mineral benches	Hyd. Excavators, Drill Machines., Dozers, Tippers etc.	Hyd. Excavators, Drill Machines., Dozers, Tippers etc.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes suitable to the deposit.
3m	Total area covered under excavation/pits	66.258 Hects.	64.808 Hects.(up to year 2018-19)
3n	Ore to OB ratio for the pit/mine during the year.	No OB generation proposal given hence 1:0	No OB generated hence 1:0
3o	Total area put in use under different heads at the end of year	82.254 Hects.(upto 31.03.2019)	82.043 Hects. (upto 31.03.2019)

3p	Production of ROM mineral during the last five year period as applicable	01.10.2013 - 30.09.2014 -- 3200416.75 Tonnes 01.10.2014 - 31.03.2015 -- 800000 Tonnes 2015 - 16 - 1600000 Tons (Lst) + 220000 Tonnes (Subgrade) = 1820000 Tonnes 2016-17 - 1600075 Tonnes (Lst) + 299999.74 Tonnes (Subgrade) = 1899999.74 Tonnes 2017-18 -- 1600000 Tonnes (Limestone) + 300000.21 Tonnes (Subgrade) = 1900000.21 Tonnes 2018-19 -- 1662055.98 Tonnes (Limestone) + 450012.535 Tonnes (Subgrade) = 2112068.515 Tonnes	01.10.2013 - 30.09.2014 -- 1595611.41 Ton 01.10.2014 - 31.03.2015 -- 629581.33 Ton 2015 -16 -- 1339292.48 Tonnes (Lst) + 54490.81 Tonnes (sub-grade Stacked) = 1393783.293 Tonnes 2016 -17 -- 1123947.46 Tonnes (Lst) + 169829.185 Tonnes (Sub-grade Stacked) = 1293776.645 Tonnes 2017-18 -- 1430185.26 Tonnes (Lst) + 130707.672 Tonnes (Sub-grade stacked) = 1560892.932 Tonnes 2018-19 -- 1483506.92 Tonnes (Lst) + 202881.00 Tonnes (Sub-grade stacked) = 1686387.92 Tonnes
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3q General remarks of inspecting officers on method of mining etc.

Method of mining is suitable to the type of deposit.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes	Yes as per proposal.	

4b	Location of topsoil, OB and mineral reject dumps	Top soil - Between section lines ML 4 to ML 6 in West side of working pit. Subgrade dump between section lines ML 19 - ML 22-23 in SE side of Mining lease.	Top soil - Between ML 4 to ML 6 in West side of working pit. (Top soil is used in plantation area). Mineral reject generated as Subgrade material is stacked between ML 19 to ML 22 -23 in SE side of Mining lease.	
4c	Number of dumps within lease area and outside of lease area	Subgrade dump -- 1 Nos.	Subgrade dump -- 1 Nos.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	1 Nos. of Subgrade dump outside of Ultimate pit limit	1 Nos. of Subgrade dump outside of Ultimate pit limit	
4e	Number of active and alive dumps.	01 No. Subgrade dump	01 No. Subgrade 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.	No proposal during the last year.	Garland drain made.	
4i	Length of Retaining wall or garland drain all along dumps	No proposal during the last year.	Nil	
4j	Number of settling ponds	Nil	Nil	
4k	Specific comments of inspecting officer on waste dump management			No issue related to waste dump management.

Solid Waste Management - Backfilling:

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

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 within time limit.	
6b	Area available for rehabilitation (ha) .	0.50 Hects.	1.0 Hects.	
6c	afforestation done (ha).	0.50 Hects.	1.0 Hects.	
6d	No. of saplings planted during the year	500 Nos. of plants during the year 2018-19.	1255 Nos. of plants planted within lease area during the year 2018-19.	
6e	Cumulative no .of plants	Not specified	Cumulative (up to 2018-19)- 37989 nos.(within lease-26885 nos. & 11104 nos. outside of the lease area)	

6f	Any other method of rehabilitation	No proposal	None	
6g	Cost incurred on watch and care during the year	Not specified.	Cost incurred on watch & care during 2018-19 -- Rs. 3.90 /- lacs.	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No backfilling proposal during the year 2018-19.	Nil	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No backfilling proposal	Nil	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on on backfilled area	No proposal	Nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No specific proposal	Nil	Rain water was accumulated in pit bottom.
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No proposal	Nil	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Afforestation plants, Area - within lease.	Within lease 1255 Nos. covering 1.0 Hects. area and Outside lease 20 Nos. in existng plantation area.	
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Afforestation plants, Area - within lease.	Within lease 1255 Nos. covering 1.0 Hects. area and Outside lease 20 Nos. in existng plantation area.	

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	By plantation	By plantation	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes	Yes, Compliances of environmental monitoring is being carried out.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP compliances is satisfactory.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Usable Limestone dispatched for Cement manufacturing in captive cement plant.	Usable Limestone dispatched for Cement manufacturing in captive cement plant.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines.	Subgrade mineral CaO -- 39.0 MgO -- 1.05	Subgrade mineral CaO -- 39.0 MgO -- 1.05	
7d	Any beneficiation process at mines .	No proposal	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			No issue related to mineral conservation.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes	Yes for plantation.	
8b	Concurrent use or storage of topsoil	Plantation	Plantation	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No overburden, waste rock. Therefore no dumping proposal.	None	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No generation of overburden/waste rock.	Not applicable	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal during the last year except plantation.	Only plantation has been carried out as per proposal.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	During the year 2018-19 total 500 Nos. of plants will be planeted covering 0.50 Hects. area.	1255 Nos. of plants planted covering 1.00 Hects. area within lease & 20 Nos. in Outside area within exisitng plantation area during the year 2018 - 19.	
8g	Survival rate	Not specified	During 2018-19 -- 75%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul road to arrest fugitive dust.	It is followed	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The general aesthetic beauty in and around mine area is good.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	M.R. Submitted upto -- July 2019 A.R. submitted upto -- year 2018 - 19.	Timely submission of returns.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Details given in AR Mining Engineer - Sh. Dilip Kumar Dhakar Geologist - Sh. Rajneesh Kothari Manager - Sh. Dilip Kumar Dhakar	Found ok
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Details given in AR.	Area under Roads+ Infrastructure was proposed 7.454 hect. up to the end of year 2019-20 in approved modified mining plan but in annual return area shown 8.903 hect. under these both heads. Hence violation of rule 45(7) of MCDR 2017 issued to the lessee.
9d	Scrutiny of Annual return on afforestation	Details given in AR	found ok
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Detail given, no mineral reject generation	Found ok
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Details given	Under Item 2 of Part VI: Opening stock of limestone at mine head has been shown as 0 tonnes whereas large quantity of subgrade limestone has been stacked within the lease area. Hence violation of rule 45(7) of MCDR 2017 issued to the lessee.

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Detail given. It is captive mine, cost of production Rs. 162.32/- per tonne	Found ok
9h	Scrutiny of Annual return on fixed assets	Details given	ok
9k	Scrutiny of Annual return on mining machineries	Details given	Found 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
MCDR17	Rule 11(1)	05-SEP-19			
MCDR17	Rule 45(7)(a)	05-SEP-19			

Date :

(DATA RAM GURJAR)

Indian Bureau of Mines