

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

MCDR INSPECTION REPORT

Gandhinagar regional office

Mine file No : RAJ/CHT/LST-5

Mine code : 38RAJ09002

- (i) Name of the Inspecting : **G021**) **DATA RAM GURJAR**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Sh. Peeyush Kumar Ameta, Mine Manager
Official with
Designation
- (iv) Date of Inspection : 04-MAR-21
- (v) Prev.inspection date : 16-AUG-19

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KARUNDA**
- (b) **Registration NO.** : **IBM/418/2011**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **RAJASTHAN**
- District : **CHITTORGARH**
- Village : **KARUNDA**
- Taluka : **NIMBAHERA**
- Post office : **KARUNDA**
- Pin Code : **312617**
- FAX No. : **01477-220027,220562**
- E-mail : **manish.toshniwal@jkcement.co**
- Phone : **01477-220087**
- (f) **Police Station** : **Nimbahera sadar**
- (g) **First opening date** : **06-MAR-85**
- (h) **Weekly day of rest** : **WED**
2. **Address for** : **VILLAGE& POST-KARUNDA**
correspondance : **TEH-NIMBAHERA**
: **DISTT-CHITTORGARH**
3. (a) **Lease Number** : **RAJ0006**
- (b) **Lease area** : **240.86**
- (c) **Period of lease** : **50**
- (d) **Date of Expiry** : **12-DEC-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 : Ajay Kumar Saraogi
J.K. Cement Ltd Kamla
Tower, Kanpur KANPUR URBAN
UTTAR PRADESH
Phone: 0512 - 2311478
FAX : 0512 - 2364250

Agent : Manish Toshniwal
J K Cement Works Kailash
Nagar, Nimbahera
CHITTORGARH RAJASTHAN
Phone: 01477-20087,220562
FAX : 01477-20087,220

Mining Engineer

Name : Peeyush kumar ameta,Full Time
Qualification : Diploma mining, & AMIE
Appointment/ : 06-MAR-13
Termination date

Geologist

Name : Kapil vasita,Full Time
Qualification : Msc.Geology
Appointment/ : 07-JUL-15 07-JUN-19
Termination date

Geologist

Name : Sh. Prashant Tiwari,Full Time
Qualification : MSC Geology
Appointment/ : 07-JUN-19
Termination date

Manager

Name : P.K.AMETA
Qualification : DIP. MINING & AMIE Ist CLASS
Appointment/ : 06-MAR-13
Termination date

Manager

Name : Shri R C Purohit
Qualification : Diploma in Mining AMIE FCC
Appointment/ : 06-MAY-09 06-MAR-15
Termination date

6. Date of approval of Mining Plan/Scheme of Mining : Existing rule 11 MCDR1988 17-MAR-03
Mining Scheme rule 12 MCDR1988 29-JAN-07
PMCP under 23B(2) for Existing 27-JUN-07
Modif.of approved Mining Plan 03-MAR-09
Mining Scheme rule 12 MCDR1988 06-MAY-14
MP review under 17(1) MCR 2016 28-NOV-18

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	During the previous year 2018-19 there was no proposal.	Nil	Nil
1b	Exploration over lease area for geological axis 1 or 2	2019- 20: Core boreholes 21 Nos. (1500 mts.)	During 2019- 20: Drilled 4 Nos. of Boreholes (405.0 mts.)	Violation of Rule 11(1) of MCDR issued for shortfall in exploration drilling during the year 2019-20, vide letter dated 17.03.2021.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Departmently drilling was proposed. Expenditures- Not specified.	Exploration Agency-M/s Synergy Geotech Private Ltd., Nagpur Expenditures-Rs. 4.66 Lacs.	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	To prove depth continuity of mineral total 74.557 hect area will be covered for G1 level during the year 2019-20.	During the year 2019-20 total area Covered -- 15.25 Hect. under G1 up to depth of mineral.	Total lease area- 240.86 hect. (Under G1-180.61 hect., G2-45.07 hect. & Non mineralised zone- 15.18 hect.) Detailed exploration already carried out. To determine its depth extension upto threshold value, exploration is proposed during the year 2019-20 to 2021-22.
1e	Balance reserve as on 01/04/20	Not specified	As on 01.04.2020 -- Proved Mineral Reserve (111) - 95.066 Mill. Tonnes, Probable Mineral Reserve (121) - 2.96 Mill. Tonnes & (122)- 7.726 Mill. Tons	Nil

1f	General remarks of inspecting officers on geology, exploration etc	Violation of Rule 11(1) of MCDR issued for shortfall in exploration drilling during the year 2019-20, vide letter dated 17.03.2021.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Two pits namely North Pit & South Pit	Two pits namely North Pit & South Pit	Nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes	Yes as per proposal	Nil
2c	Stripping ratio or ore to OB ratio	1 : 0.03	1 : 0.002	Nil
2d	Quantity of topsoil generation in m3	6993.01 Cu.m. (10,000 Tonnes)	6923.08 Cu.m. (9900 Tonnes)	Nil
2e	Quantity of overburden generation in m3	Waste (Interstitial clay) -66143.24 Cu.m. (94584.83 Tonnes) & 20979.02 Cu.m. (30000 Tonnes) from operation of existing dump	Waste (Interstitial clay) -1580.42 Cu.m (2260 Tonne) & Nil from dump	No OB generated during the year. Only IB (Interstitial clay waste) generated during the year 2019-20.

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Mine deveoplement work is satisfactory, however limestone boulders were lying all around on the benches were observed in Northern pit during the inspection hence violation of rule 11(1) of MCDR 2017 issued to the lessee vide letter dated 17.03.2021.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two	Two	Nil
3b	Quantity of ROM mineral production proposed	Total ROM - 25,30,759 Tons (Limestone - 24,80,359.0 Tons & 20,000 Tons from operation of existing dump,Subgrade - 30,400 Tons)	Total ROM - 10,44,149.61 Tons (Limestone -10,37,719.61 Tons & Nil from operation of existing dump, Subgrade- 6,430.00 Tons)	Nil
3c	Recovery of sailable/usable mineral from ROM production	Limestone - 24,80,359.0 Tons & 20,000 Tons from operation of existing dump	Limestone - 10,37,719.61 Tons & Nil from operation of existing dump	Nil
3d	Quantity of mineral reject generation	Nil	Nil	Nil
3e	Grade of mineral rejects generation and threshold value declared.	Nil	Nil	Nil
3f	Quantity of sub grade mineral generation.	30,400 Metric Tonne	6430 Metric Tonne	Nil
3g	Grade of sub grade mineral generation	CaO -- 41.29 MgO -- 0.70	CaO -- 39.99 MgO -- 0.65	Nil

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised Method	Mechanised Method	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	None	Not applicable	Nil
3j	Provision of drilling and blasting in mineral benches	Yes, drilling will be done by LM-100 (IR) (4 - 4.5 inch dia), DTH drills holes will be blasted by explosive (Kelvex 600 and ANFO).	Being done as per proposal.	Nil
3k	Provision of mining machineries in mineral benches	Yes by using HEMM i.e. Hyd. Excavator, Drill Machines., Dozer, Tipper etc.	Yes by using HEMM i.e. Hyd. Excavator, Drill Machines., Dozer, Tipper etc.	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes as per proposal.	Nil
3m	Total area covered under excavation/pits	58.037 Hects.(As on 31.03.2020)	56.319 Hects. (as on 31.03.2020)	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.03	1 : 0.002	Nil
3o	Total area put in use under different heads at the end of year	70.958 Hects. (As on 31.03.2020)	68.577 Hects. (As on 31.03.2020)	Nil

3p	Production of ROM mineral during the last five year period as applicable	2015 - 16 - 1601364 Tons (Lst) + 362847 Tons (Subgrade) 2016 - 17 - 1589575.9 Tons (Lst) + 304393 Tons (Subgrade) 2017 - 18 - 1600000 Tons (Lst) + 374930.03 Tons (Subgrade) 2018 - 19 - 3600136.1 Tons (Lst) + 485846.22 Tons (Subgrade) 2019 - 20 - 2480359 Tons (Lst) + 20000 Tons (Lst from operation of existing dump) + 30400 Tons (Subgrade) = Total 2530759 Tons 2020-21- 2700204.6 Tons (Lst) + 20000 Tons (Lst from existing dump)+ 119940 Tons (Subgrade) = Total 2840144.60 Tons	2015-16-1449234.70 Tons (Lst) + 139559 Tons (Subgrade stacked) 2016-17-762709.86 Tons (Lst) + 87156 Tons (Subgrade stacked) 2017-18- 1215080.76 Tons (Lst) + 105762 Tons (Subgrade stacked) 2018-19-1503566.52 Tons (Lst) + 9812.00 Tons (Subgrade stacked) 2019-20-1037719.61 Tons (Lst) + Nil (Lst) from existing dump + 6430 Tons (Subgrade stacked) = Total 1044149.61 Tons 2020-21(upto Jan 2020)- 1569778.15 Tons (Lst)+ Nil from Dump+ Nil Subgrade=Total 1569778.15 Tons	Nil
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3q General remarks of inspecting officers on method of mining etc.

The mine has been developed by mechanised opencast method by using HEMM, which is suitable to the type of deposit.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes, Year 2019-20: Top soil -- 10000 Tonnes , Interstitial clay / Screen rejects- 94584.83 Tons + 30000 Tons from operation of exisitng dump Subgrade - 30400 Tons	2019-20: Top soil -- 9900 Tonnes , Interstitial clay /Screen rejects-- 2260 Tons & Nil from existing dump, Subgrade - 6430 Tons	Nil
4b	Location of topsoil, OB and mineral reject dumps	No proposal for top soil dumping. Waste/ interstitial clay dumps: Between section line ML6 to ML8 & ML11 to ML14 Subgrade dumps; Between section line ML11 to ML14, ML15 to ML18 & ML4 to ML7	No top soil dumping. Waste/ interstitial clay dumps: Between section line ML6 to ML8 & ML11 to ML13 Subgrade dumps; Between section line ML11 to ML14, ML15 to ML18 & ML4 to ML7	Nil
4c	Number of dumps within lease area and outside of lease area	Interstitial clay -- 2 Nos. Subgrade -- 3 Nos.	Interstitial clay -- 2 Nos. Subgrade -- 3 Nos.	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	5 Nos. of dumps (2 Nos. of Interstitial clay dump outside Ultimate pit limit & 3 Nos. of Subgrade stacked dump out of which 1 Nos. within Ultimate pit limit and 1 Nos. lie partial within Ultimate pit limit).	5 Nos. of dumps (2 Nos. of Interstitial clay dump outside Ultimate pit limit & 3 Nos. of Subgrade stacked dump out of which 1 Nos. within Ultimate pit limit and 1 Nos. lie partial within Ultimate pit limit).	Nil

4e	Number of active and alive dumps.	Interstitial clay -- 2 Nos. Subgrade -- 3 Nos.	Interstitial clay -- 2 Nos. Subgrade -- 3 Nos.	2	Nil
4f	Number of dead dumps.	Nil	Nil		Nil
4g	Number of dumps established.	Nil	Nil		Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	In South side along nallah	Constructed in South side along nallah		Nil
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall - 130 mts. Garland drain- 80 mts.	'Retaining wall - 130 mts. Garland drain- 100 mts.		Nil
4j	Number of settling ponds	Nil	Nil		Nil
4k	Specific comments of inspecting officer on waste dump management				No issue observed related to waste dump management.

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 backfilling proposal for the year 2019-20.	Nil	Nil
5b	Area under backfilling of mined out area	No proposal	Nil	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	For plantation.	For plantation.	Nil
5d	Total area fully reclaimed and rehabilitated	No proposal during the year 2019-20.	Nil	Area is not fully matured for reclamation and backfilling.

5e	General remarks of inspecting officers on backfilling and reclamation etc.	Area is not fully matured for reclamation and backfilling as lime stone mineral depth is continue.
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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).	It should be submitted up to 1st july for previous year.	No submitted for the year 2019-20.	Violation of Rule 26(2) of MCDR 2017 issued vide letter dated 17.03.2021 for non submission of PMCP report for the year 2019-20.
6b	Area available for rehabilitation (ha) .	1.00 Hects.	1.00 Hects.	Nil
6c	afforestation done (ha).	1.00 Hects.	1.00 Hects.	Nil
6d	No. of saplings planted during the year	1000 Nos.	1450 Nos.	Nil
6e	Cumulative no .of plants	Not specified	Within Lease -- 31519 Nos. Outside Lease -- 1000 Nos. (up to 31.03.2020)	Nil
6f	Any other method of rehabilitation	No proposal	None	Nil
6g	Cost incurred on watch and care during the year	Rs. 0.75 Lacs	Rs. 4.10 Lacs	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No backfilling proposal	Not applicable	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Not applicable	Nil

6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No proposal	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Nil	However in pit bottom rain water accumulated.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	During the year 2019-20 afforestation was proposed over an area 1 hect.	During the year 2019-20 afforestation has been carried over an area 1 hect.	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	1.0 hect.	1.0 hect.	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	By Plantation	By Plantation	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	As per MOEFCC norms.	Regular monitoring is being done as per MOEFCC & SPCB norms.	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Violation of Rule 26(2) of MCDR 2017 issued vide letter dated 17.03.2021 for non submission of PMCP report for the year 2019-20.

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 -- 2480359 Tonnes (113.90 LSF) & 20000 Tons from operation of existing dump & Stacking of Subgrade material -- 30400 Tonnes (66.41 LSF)	Used Limestone for Cement manufacturing -- 1037719.61 Tonnes (119.82 LSF), Nil (Limestone) from existing dump & Subgrade material stacked -- 6430 Tonnes (59.74 LSF)	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Yes. Mechanical	Yes. Mechanical	Nil
7c	Different grade of mineral sorted out at mines.	Usable grade & subgrade	Usable 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 regarding mineral conservation.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes, Top soil 10000 Tonnes	Yes, 9900 Tonnes (Top soil)	Nil
8b	Concurrent use or storage of topsoil	Concurrent use for plantation.	Concurrent use for plantation.	Nil

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No OB & Reject generation, however separte dumping of IB(Interstial clay) & subgrade mineral was proposed.	As per proposal.	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal	None	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal for the last year.	Nil	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	During the year 2019-20 total 1000 nos. plants will be planted over an area 1.0 hect.	During the year 2019-20 total 1400 nos. plants planted over an area 1.0 hect within lease area. Cummulative plantation: 32519 Nos. (Withn lease - 31069 Nos. and 1000 Nos. outside lease) up to year 2019-20.	Nil
8g	Survival rate	Not specified	75%	Nil
8h	Water sprinkling on roads to control airborne dust	Water sprinkling was proposed on haul road to arrest fugitive dust.	Water sprinkling was observed.	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The general aesthetic beauty in and around the mines is satisfactory.

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 -- Submitted up to Feb. 2021 A.R. submitted upto -- submitted up to year 2019-20.	Regular & timely submission.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer - Sh. P.K. Ameta Geologist - Sh. Prashant Tiwari Manager - Sh. P.K. Ameta	Found correct.	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Details given in AR 2019-20.	Seems to be correct.	Nil
9d	Scrutiny of Annual return on afforestation	1450 Nos.	Found correct.	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No mineral reject reported in AR	Found ok	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Subgrade Stock - 1278013.68 Tons	Seems to be correct.	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Captive use Ex- Mine Price - Rs. 166.91/- per tonne	Seems to be correct.	Nil
9h	Scrutiny of Annual return on fixed assets	Rs. 7193198319/-	Seems to be correct.	Nil
9k	Scrutiny of Annual return on mining machineries	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)	17-MAR-21			
MCDR17	Rule 26(2)	17-MAR-21			

Date :

(DATA RAM GURJAR)

Indian Bureau of Mines