

**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 : 16-AUG-19
- (v) Prev.inspection date : 18-JUL-18

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 : mines.nbh@jkcement.com
- 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 : 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 : 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 there was no proposal.	Nil	
1b	Exploration over lease area for geological axis 1 or 2	During the last year no exploration proposal for G1 level & G2 level.	Nil	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal for the last year 2018-19.	Nil	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	During the last year no proposal given.	During the last year no exploratory work has been carried out.	G1-- 180.61 Hects., G2 - 45.07 Hects., Non-Mineralized - 15.18 Hects area To determine its depth extension upto threshold value & G2 level to G1 level , the exploration is proposed during the year 2019-20 to 2021-22.
1e	Balance reserve as on 01/04/20	As on 01.04.2019 -- Proved Mineral Reserve (111) - 96.11 Mill. Tonnes, Probable Mineral Reserve (121) - 2.96 Mill. Tonnes & (122)- 7.726 Mill. Tons	As on 01.04.2019 -- Proved Mineral Reserve (111) - 96.11 Mill. Tonnes, Probable Mineral Reserve (121) - 2.96 Mill. Tonnes & (122)- 7.726 Mill. Tons	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Two pits namely North Pit & South Pit	Two pits namely North Pit & South Pit	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes	Yes as per proposal	
2c	Stripping ratio or ore to OB ratio	1 : 0.007	1 : 0.012	
2d	Quantity of topsoil generation in m3	27972.02 Cu.m. (40,000 Tonnes)	14643.36 Cu.m. (20940 Tonnes)	
2e	Quantity of overburden generation in m3	Nil	Nil	However Interstitial clay -- 4300 Tons was generated during the year 2018-19.
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.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two	Two	
3b	Quantity of ROM mineral production proposed	2018-19: 40,85,982.32 T (Production of limestone 36,00,136.1 Tons + Subgrade 4,85,846.22 Tons)	2018-19: 15,13,378.52 T (Production of limestone 15,03,566.52 Tons + Subgrade 9,812.00 Tons)	

3c	Recovery of sailable/usable mineral from ROM production	36,00,136.1 Tonnes	15,03,566.52 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.	4,85,846.22 Tonnes	9,812 Tonnes
3g	Grade of sub grade mineral generation	CaO -- 40.35 MgO -- 0.49	CaO -- 37.54 MgO -- 0.69
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.	None	Not applicable
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.
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.

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes as per proposal.
3m	Total area covered under excavation/pits	73.722 Hects.(As on 31.03.2019)	54.34 Hects. (as on 31.03.2019)
3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.007	1 : 0.012
3o	Total area put in use under different heads at the end of year	86.445 Hects. (As on 31.03.2019)	66.598 Hects. (As on 31.03.2019)
3p	Production of ROM mineral during the last five year period as applicable	2014 - 15 -- 1600000 Tons (Lst)+ 184945 Tons (Subgrade) 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)	2014 - 15-- 1267965.73 Tons (Lst) + 404659 Tons (Subgrade stacked) 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)

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
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes 2018 - 19 Top soil -- 40000 Tonnes , Interstitial clay - Nil Tons OB -- Nil, Mineral Rejects. - 4,85,846.22 Tons (Subgrade)	2018-19 Top soil -- 20940 Tonnes , Interstitial clay -- 4300 Tons, OB -- Nil, Mineral Rejects. - 9812 Tons stacked as Subgrade	
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 ML13 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	
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.	

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)	
4e	Number of active and alive dumps.	Interstitial clay -- 2 Nos. Subgrade -- 3 Nos.	Interstitial clay -- 2 Nos. Subgrade -- 3 Nos.	
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.	In South side along nallah	Constructed in South side along nallah	
4i	Length of Retaining wall or garland drain all along dumps	50 m	90 m	
4j	Number of settling ponds	Nil	Nil	
4k	Specific comments of inspecting officer on waste dump management			Top soil used for plantation. There is no generation of OB during the year except interstitial clay.

Solid Waste Management - Backfilling:

Sl.No.	Item	Proposals	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 for the year 2018-19.	Nil	
5b	Area under backfilling of mined out area	No proposal	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	For plantation.	For plantation.	
5d	Total area fully reclaimed and rehabilitated	Nil	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 limestone mineral depth is continue.

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 on time.	
6b	Area available for rehabilitation (ha) .	1 hect.	1 hect.	
6c	afforestation done (ha).	1 hect.	1 Hect.	
6d	No. of saplings planted during the year	Afforestation -- 1000 Nos. of plants	Afforestation -- Within lease 1495 Nos. of plants planted	
6e	Cumulative no .of plants	Not specified.	Cumulative -- 31069 Nos. (Withn lease - 30069 Nos. and 1000 Nos. outside lease) up to year 2018-19.	
6f	Any other method of rehabilitation	No proposal	None	

6g	Cost incurred on watch and care during the year	Care & Maint. -- Rs. 0.75 lacs	Cost incurred on watch & care during 2018-19 -- Rs. 4.29 lacs/-	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No backfilling proposal	Not applicable	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Not applicable	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No proposal	Not applicable	
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	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	During the year 2018-19 afforestation was proposed over an area 1 hect.	During the year 2018-19 afforestation has been carried over an area 1 hect.	
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Not specified	Total: 16.0 Hects. within lease area (afforestation area) upto 2018-19.	

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)	As per MOEFCC norms.	Regular monitoring is being done as per MOEFCC & SPCB norms.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP compliance is satisfactory.

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 -- 3600136.10 Tonnes (111.80 LSF) & Stacking of Subgrade material -- 485846.22 Tonnes (64 LSF)	Used Limestone for Cement manufacturing -- 1503566.52 Tonnes (115.87 LSF) & Subgrade material stacked -- 9812 Tonnes (58.47 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.	Usable grade & subgrade	Usable grade & subgrade	
7d	Any beneficiation process at mines	No proposal	None	

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	No issue was observed regarding mineral conservation.
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes, Top soil 40000 Tonnes	Yes, 20940 Tonnes (Top soil)	
8b	Concurrent use or storage of topsoil	Concurrent use for plantation.	Concurrent use for plantation.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No OB & Reject generation, however sepearte dumping of IB(Interstial clay) & subgrade mineral was proposed.	As per proposal.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal	None	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal for the last year.	Nil	

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	During the year 2018-19 total 1000 nos. plants will be planted over an area 1.0 hect.	During the year 2018-19 total 1495 nos. plants planted over an area 1.0 hect within lease area. Cumulative plantation: 31069 Nos. (Withn lease - 30069 Nos. over an area 16.0 Hects. and 1000 Nos. outside lease over an area 1.5 hect.) up to year 2018-19.	
8g	Survival rate	Not specified	70%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling was proposed on haul road to arrest fugitive dust.	Water sprinkling is being carried out.	
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
9a	Status of submission of Monthly and Annual returns	Annual Return Submitted up to year 2018-19 & Montly Returns submitted up to Aug 2019.	Regular submitted on time.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Detail given in AR Mining Engineer - Sh. P.K. Ameta Geologist - Sh. Kapil Vasita Manager - Sh. P.K. Ameta	Found ok	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Details given in AR	Found ok	
9d	Scrutiny of Annual return on afforestation	Detail given 1495 Nos. within lease area (1.0 Ha.)	Plantation has been carried out.	

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Detail given in AR	No mineral reject generation.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Detail given in AR	Subgrade stock- 1271583.68 Tons
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Detail given in AR	Captive use Cost of production per tonne - Rs. 157.87/- per tonne
9h	Scrutiny of Annual return on fixed assets	Detail given.	The value of fixed assets reported as Rs. 5739159687. This is the combined information including other mine of the company located in nearby area.
9k	Scrutiny of Annual return on mining machineries	Detail given	The reported mine machineries is being using.

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