

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

MCDR INSPECTION REPORT

Ajmer regional office

Mine file No : RAJ/NGR-13/LST-1

Mine code : 38RAJ20001

- (i) Name of the Inspecting : **R018**) **N L ROAT**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Shri Satish Kumar Rathore, M E.
Official with
Designation
- (iv) Date of Inspection : 08-SEP-16
- (v) Prev.inspection date : 26-FEB-16

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **GAGARANA**
- (b) **Registration NO.** : **IBM/7378/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address :
State : RAJASTHAN
District : NAGAUUR
Village : GAGARANA
Taluka : MERTA CITY
Post office : GAGARANA
Pin Code : 341510
FAX No. : 0744-2500178
E-mail : mclmorak@kappa.net.in
Phone : 07459-232237, 01590-230614
- (f) Police Station :
- (g) First opening date : 26-MAR-87
- (h) Weekly day of rest : MON
2. Address for : SUB-POST PFFICE - GAGRANA (PO: MERTA CITY)
correspondance
3. (a) Lease Number : RAJ1487
- (b) Lease area : 200
- (c) Period of lease :
- (d) Date of Expiry : 31-MAR-30
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : MANGLAM CEMENTS LIMITED
 ADITYA NAGER -326517 PO-
 MORAK DISTT-KOTA KOTA
 RAJASTHAN
 Phone:)7459)44237,44262
 FAX :

Owner : MANGALAM CEMENT LTD.
 JHALAWAR RAJASTHAN
 Phone:
 FAX :

Agent : S.B.Sharma
 Mangalam cement Ltd Aditya
 Nagar Morak KOTA RAJASTHAN
 Phone: 07459232262
 FAX : 07459232231

Manager

Name : AMERENDRA SINGH RATHOD
 Qualification : DIPLOMA IN MINING
 Appointment/ : 25-APR-91
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	18-FEB-98
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	13-JAN-03
		Modif.approved Mining Scheme	06-JUL-05
		Mining Scheme rule 12 MCDR1988	02-FEB-07
		Mining Scheme rule 12 MCDR1988	19-JUL-13

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Exploratory bore holes/pitting /trenching etc. proposed.	The exploratory bore holes/pitting/trenching proposed for the year 2015-16 not carried out.	Except development of working pits no systematic exploration is done in the lease area.
1b	Exploration over lease area for geological axis 1 or 2	Exploratory bore holes/pitting /trenching etc. proposed.	The exploratory bore holes/pitting/trenching proposed for the year 2015-16 not carried out.	Violation of 13(1) pointed out.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Exploration proposed to be carried out by the lessee.	Exploration proposed is yet to be carried out by the lessee. The mineral limestone is exposed in pits.	The mining at fullswing is to be carried out.
1d	Balance area to be explored to bring Geological axis in 1 or 2	No such specific year wise area proposed.	As per scheme of mining about 182 hect. area to be explored to bring Geological axis in 1 or 2.	The mining at fullswing is to be carried out.
1e	Balance reserve as on 01/04/20	There is no year wise proposal regarding reserves in approved SOM.	The balance reserves as on 01-04-2016 is 4.8969 million Tons.	The mining at fullswing is to be carried out.
1f	General remarks of inspecting officers on geology, exploration etc	Exploratory bore holes/pitting /trenching etc. proposed in the approved SOM.	Exploratory bore holes/pitting/trenching etc. proposed in the approved SOM.	The exploration by systematically & scientifically is yet to be conducted by the lessee.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	The proposed development is in block-A.	The excavation is carried out in block-A.	NIL.

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	As per para 5.1 of approved SOM on 19/07/2013 the separate benches in overburden & mineral limestone proposed.	Actually the separate benches in overburden & mineral limestone proposed have not been formed.	The violation of rule 15(1) has been pointed out on 20/10/2016.
2c	Stripping ratio or ore to OB ratio	Striping ratio for the year 2015-16 is 1:1.35.	Actual Striping ratio for the year 2015-16 is 1:0.26.	The development and production is less than the proposed due to quality problem.
2d	Quantity of topsoil generation in m3	There was no proposal for generation of top soil during the year 2015-16.	Nil.	The site of proposed working during 2015-16 is rocky & devoid of top soil.
2e	Quantity of overburden generation in m3	About 67917 Tons for the 2015-16.	About 1580Tons.	As explained by accompanying representative the less demand of limestone so less development work.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Development by forming separate benches in overburden and limestone proposed.	Actually the development by forming the separate benches in overburden and limestone is not carried out.	The Violation of rule 15(1) is pointed out.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	The pit no.2 in block-A.	The pit no.2 in block-A.	Nil.
3b	Quantity of ROM mineral production proposed	The quantity of ROM is proposed 50143Tons.	The quantity of ROM produced is 1580Tons.	Low grade mineral so less demand.
3c	Recovery of sailable/usable mineral from ROM production	The recovery of usable mineral proposed is 85%.	The recovery of usable mineral is 85%.	Nil.

3d	Quantity of mineral reject generation	There is no such proposal in approved SOM on 19/07/2013.	About 1980Tons during 2015-16.	Stacked separately.
3e	Grade of mineral rejects generation and threshold value declared.	CaCO ₃ -55-60%, MgCO ₃ -6-28.21%, SiO ₂ -6-32%.	CaCO ₃ -55-60%, MgCO ₃ -6-28.21%, SiO ₂ -6-32%.	Nil.
3f	Quantity of sub grade mineral generation.	Quantity of sub grade generation proposed is 7500Tons.	Quantity of sub grade generated during the year 2015-16 is 600Ton.	Nil.
3g	Grade of sub grade mineral generation	The grade of sub grade mineral is CaCO ₃ -61-86%, MgCO ₃ -1.67-5.81%, SiO ₂ -8-16%.	The grade of sub grade mineral is CaCO ₃ -61-86%, MgCO ₃ -1.67-5.81%, SiO ₂ -8-16%.	Nil.
3h	Manual / Mechanised method adopted for segregating from ROM	Manual hand sorting of Dolomitic material.	Manual hand sorting of Dolomitic material.	Nil.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such proposal in approved SOM.	Nil.	Nil.
3j	Provision of drilling and blasting in mineral benches	Provision by jack hammer drilling and blasting is made in approved SOM.	Drilling and blasting is done as proposed.	Nil.
3k	Provision of mining machineries in mineral benches	Manual breaking of limestone.	Manual breaking of limestone.	Nil.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	The height of benches in OB and mineral is suitable for method of mining.	Actually separate benches in OB & mineral have not formed.	Violation of rule 15(1) is pointed out.

3m	Total area covered under excavation/pits	As per the approved SOM on 19/07/2013 about 0.52 hect. area is proposed to cover under excavation during the year 2015-16.	In all about 0.10 hect area is covered under excavation so far.	Nil.
3n	Ore to OB ratio for the pit/mine during the year.	Ore to OB ratio for the year 2015-16 1:1.35.	Ore to OB ratio for the year 2015-16 1:0.26.	Nil.
3o	Total area put in use under different heads at the end of year	Pit- 11.31 hect., waste dump- 0.90 hect. plantation- 1.5.	About 11.00 hect. area is put in use.	Nil.
3p	Production of ROM mineral during the last five year period as applicable	Year 2011-12- 50000T, 2012-13- 50000T, 2013-14- 50000T, 2014-15- 50000T, 2015-16- 50000T.	Year 2011-12- 6540T, 2012-13- 390T, 2013-14- 2720T, 2014-15- 50000T, 2015-16- 50000T.	Production decreased due to market condition.
3q	General remarks of inspecting officers on method of mining etc.	No such proposal	Mining operation are not being carried out systematically and scientifically.	Violation of Rule 13(1), 15(1) & 42(1)(c)(i) pointed out.

Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping of OB & mineral rejects is proposed in SOM.	Separate dumping of OB is carried out. The mineral reject is not generated.	Nil.
4b	Location of topsoil, OB and mineral reject dumps	The dumping of OB is proposed in Block-A.	The dumping of OB is carried out at the site proposed.	Nil.
4c	Number of dumps within lease area and outside of lease area	One dump within lease area.	One dump within lease area. No dump outside lease area.	Nil.

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	The proposed location of dump is given under item 4b.	Not applicable.	Nil.
4e	Number of active and alive dumps.	One.	one.	Nil.
4f	Number of dead dumps.	No proposal.	Not applicable.	Nil.
4g	Number of dumps established.	No such proposal.	Not applicable.	Nil.
4h	Whether Retaining wall or garland drain all along dumps are there.	Construction of retaining wall or garland drain is proposed.	The proposed retaining wall or garland drain has not been constructed.	The existing waste dump has not been stabilized. Violation pointed out.
4i	Length of Retaining wall or garland drain all along dumps	The length of retaining wall or garland drain is not specifically proposed.	The proposed retaining wall or garland drain has not been constructed.	Violation pointed out.
4j	Number of settling ponds	No such proposal.	Not applicable.	Nil.
4k	Specific comments of inspecting officer on waste dump management	No such approved proposal.	The existing waste dump has not been suitably stabilized by way of constructing retaining wall.	The existing waste dump has not been suitably stabilized by way of constructing retaining wall. Violation pointed out.

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 in approved SOM as the extraction of limestone at full depth is not completed.	Not applicable.	Nil.
5b	Area under backfilling of mined out area	No such proposal in approved SOM.	Not applicable.	Nil.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	As proposed the very thin layer of top soil is to be scraped and used for plantation.	Actually the soil is scrapped and used for plantation.	Nil.

5d	Total area fully reclaimed and rehabilitated	No such approved proposal.	No area is fully reclaimed & rehabilitated.	Nil.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	No such approved proposal.	Actually not part of lease area is fully worked out, Hence no area is matured for back filling.	Nil.

Progressive Mine Closure Plan:

Sl.No.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	No such proposal.	The annual report on compliance of PMCP for the year 2015-16 has not been submitted.	Violation of rule 23E(2) was pointed out to the lessee.
6b	Area available for rehabilitation (ha) .	No such specific proposal.	About 0.30 hect area is covered under plantation.	Nil.
6c	afforestation done (ha).	About 0.60 hect. area is proposed for plantation.	About 0.30 hect. area is covered under plantation.	Nil.
6d	No. of saplings planted during the year	No specific year wise approved proposal is there.	About 250 local growing sapling have been planted.	Nil.
6e	Cumulative no .of plants	No such specific proposal.	About 500 plants.	Nil.
6f	Any other method of rehabilitation	No such specific proposal.	Except plantation no other method of rehabilitation observed.	Nil.
6g	Cost incurred on watch and care during the year	No such specific proposal.	Rupee 40,000.	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No such specific proposal.	Except plantation no other method of rehabilitation observed.	Nil.

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No such specific proposal.	Except plantation no other method of rehabilitation observed.	Nil.
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No such specific proposal.	There is no backfilled area.	Nil.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No such specific proposal.	Nil.	Nil.
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No such specific proposal.	Nil.	Nil.
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	About 0.60 hect. area is proposed for plantation.	About 0.30 hect. area is covered under plantation.	Nil.
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	No such specific proposal.	About 0.30 hect. area is covered under plantation.	Nil.
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	About 0.60 hect. area is proposed for plantation.	About 0.30 hect. area is covered under plantation.	Nil.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly monitoring of water & Half yearly monitoring of Air and noise (core zone and buffer zone).	Quarterly monitoring of water & Half yearly monitoring of Air and noise (core zone and buffer zone) conducted.	Nil.

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	No such specific proposal.	Plantation has been carried out & scattered Akasia vegetation is there in the lease area.	The mining operation are carried out at small scale so there is no serious problem of environment in mine at present.
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Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	The limestone production is proposed to dispatch to lessee's own cement plant.	The limestone production 6050Tons dispatched to lessee's own cement plant.	It is captive mine to cement plant.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual hand sorting.	Manual hand sorting.	Nil.
7c	Different grade of mineral sorted out at mines.	Material having more than 86% CaCO ₃ is to be dispatched to cement plant.	Material having more than 86% CaCO ₃ is dispatched to cement plant.	Nil.
7d	Any beneficiation process at mines .	No proposal.	Material having more than 86% CaCO ₃ is dispatched to cement plant.	Nil.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	No proposal.	The working pits have not been systematically by forming separate benches in overburden and limestone.	Violation of Rule 15(1) pointed out.

Environment:

Sl.No.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Available patches of topsoil to be removed separately.	Whatever top soil generated during mining operation is utilized for plantation.	Nil.

8b	Concurrent use or storage of topsoil	Topsoil removed to be concurrently used for plantation.	Topsoil removed concurrently used for plantation.	Nil.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Overburden and waste rock proposed to be dumped separately	Overburden and waste rock has been stacked separately.	Nil.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal.	Nil.	Nil.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Plantation and stabilization of waste dumps by forming retaining wall and growing vegetation on dump slope.	The stabilization of waste dumps by forming retaining wall and growing vegetation on dump slope has not been carried out.	Nil.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Plantation of 3000 saplings for the year 2015-16.	About 250 local growing sapling have been planted.	Nil.
8g	Survival rate	Survival rate 50%.	Survival rate 45%.	Nil.
8h	Water sprinkling on roads to control airborne dust	Sprinkling of water on haul to carried out.	Being done.	Nil.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	No such proposal.	Aesthetic beauty in and around is good except degradation of land due to mining and dumping of waste.	Nil.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	The annual online has been submitted for the year 2015-16. The monthly returns have been submitted up to the month August, 2016.	The information furnished is found in order.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	A full time mining Engineer and Geologist has not been appointed.	A full time mining Engineer and Geologist has not been appointed.	Violation of Rule 42(1)(c)(i) has been given.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	The details on land use pattern have been filled.	The information furnished is found in order.	Nil.
9d	Scrutiny of Annual return on afforestation	The details are furnished.	Platation and vegetation exists in the lease area.	Nil.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	The required information filled.	No mineral rejects generated.	Nil.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	The required information filled.	Mineral production dispatched to cement plant.	Nil.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	The required information filled.	Satisfactory.	Nil.
9h	Scrutiny of Annual return on fixed assets	The required information filled.	Satisfactory.	Nil.
9k	Scrutiny of Annual return on mining machineries	The required information filled.	Satisfactory.	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
Rule 13(1)	19-OCT-16				
Rule 23E(2)	19-OCT-16				

Date :

(N L ROAT)

Indian Bureau of Mines