

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

MCDR INSPECTION REPORT

Ajmer regional office

Mine file No : RAJ/KOTA-1/LST-1

Mine code : 38RAJ19001

- (i) Name of the Inspecting : **G021**) **D R GURJAR**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Sh. Bajrang Lal, AVP (Mines) and Shri Vivek Rawat, DG
Official with
Designation
- (iv) Date of Inspection : 17-OCT-23
- (v) Prev.inspection date : 14-DEC-22

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **MCL**
- (b) **Registration NO.** : **IBM/7378/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : RAJASTHAN
District : KOTA
Village : MORAK
Taluka : RAMGANJ MANDI
Post office : ADITYA NAGAR
Pin Code : 326520
FAX No. : 07459232231
E-mail : mines@mangalamcement.com
Phone : 07459232146
- (f) Police Station : Morak
- (g) First opening date : 21-DEC-77
- (h) Weekly day of rest : SUN
2. Address for : MANGALAM CEMENT LTD, ADITYA NAGAR,
correspondance PO MORAK, TEHSIL RAMGANJMANDI
DISTT- KOTA 326520
3. (a) Lease Number : RAJ0013
- (b) Lease area : 895.42
- (c) Period of lease : 20
- (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 : K. C. Jain
 Mangalam Cement Ltd. P. O.
 Adityanagar, Morak, Distt.
 Kota KOTA RAJASTHAN
 Phone:
 FAX : 07459232156

Agent : P. R. Chaudhary
 Mangalam Cement Ltd. Aditya
 Nagar, Morak KOTA
 RAJASTHAN
 Phone: 07459233146
 FAX :

Mining Engineer

Name : S. B. Sharma, Full Time
 Qualification : B. E. (Mining)
 Appointment/ : 08-MAR-91 30-SEP-21
 Termination date

Mining Engineer

Name : Ramesh Choudhary, Full Time
 Qualification : BE Mining
 Appointment/ : 01-OCT-21
 Termination date

Geologist

Name : Vivek Rawat, Full Time
 Qualification : M Tech(Applied Geology), FCC(R)
 Appointment/ : 13-JAN-95
 Termination date

Manager

Name : Ramesh Chaudhry
 Qualification : B. E. (Mining), FCC (R)
 Appointment/ : 31-MAR-15
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	03-FEB-93
Plan/Scheme of Mining	:	Existing rule 11 MCDR1988	18-AUG-97
	:	Mining Scheme rule 12 MCDR1988	22-FEB-99
	:	Mining Scheme rule 12 MCDR1988	25-SEP-03
	:	Modif.of approved Mining Plan	18-AUG-06
	:	Mining Scheme rule 12 MCDR1988	04-NOV-11
	:	Modif.approved Mining Scheme	13-FEB-13
	:	MP modif under MCR 1960	10-JUN-16
	:	MP review under 17(1) MCR 2016	07-DEC-20

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.	Not applicable as no proposal.	Nil
1b	Exploration over lease area for geological axis 1 or 2	No proposal during the year 2022-23.	Not applicable as no proposal and entire area is explored under G-1 category.	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal during the year 2022-23.	Not applicable.	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal during the year 2022-23.	Entire Mineralised area has been explored under G1 level.	Nil
1e	Balance reserve as on 01/04/20	No proposal specified in this regard.	Balance reserves as on 01.04.2023 111-81.79 million tonnes, 121-13.36 million tonnes	Nil
1f	General remarks of inspecting officers on geology, exploration etc			Entire mineralised area has been explored up to G1 level. No issue observed related to geology & exploration.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Block-I, Block-II & Block-III	Block-I, Block-II & Block-III	Nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in top soil, OB and Mineral was proposed	Separate benches in top soil, OB and Mineral are maintained.	Nil
2c	Stripping ratio or ore to OB ratio	2022-23: 1:1.198	2022-23: 1:0.83	Ton:Ton
2d	Quantity of topsoil generation in m3	2022-23: 196230 cum	2022-23: 113630 cum	Nil

2e	Quantity of overburden generation in m3	2022-23: 2133540 cum	2022-23: 1422706 cum	Nil
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Mine development has been carried out as per proposal.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Block-I, Block-II & III	Block-I, Block-II & III	Nil
3b	Quantity of ROM mineral production proposed	2022-23: 4005285 T	2022-23: 3859727 T	Nil
3c	Recovery of sailable/usable mineral from ROM production	90%	95%	Nil
3d	Quantity of mineral reject generation	2022-23: 400528 T	2022-23: 192883 T	Nil
3e	Grade of mineral rejects generation and threshold value declared.	CaO-32.48% & Mgo-1.24%	CaO-33.12% & Mgo-1.26%	Crusher Reject
3f	Quantity of sub grade mineral generation.	No proposal	No subgrade generated during the reporting year	Nil
3g	Grade of sub grade mineral generation	No proposal	Not applicable	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Dry beneficiation by two stage double deck vibrating screen.	Dry beneficiation by two stage double deck vibrating screen.	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Nil	Previously carried out at H.O. IBM Nagpur.

3j	Provision of drilling and blasting in mineral benches	Yes, Deep hole drilling & blasting with deck charging.	Yes, Deep hole drilling & blasting with deck charging.	Nil
3k	Provision of mining machineries in mineral benches	HEMM deployment (Shovel Dumper combination)	HEMM deployment (Shovel Dumper combination)	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	329.12 hect area	315.13 hect. area	Up to year 2022-23.
3n	Ore to OB ratio for the pit/mine during the year.	2022-23: 1:1.198	2022-23: 1:0.83	Ton:Ton
3o	Total area put in use under different heads at the end of year	Working Pit= 329.12 hect, O/B Dump=23.72 hect, Building & Roads=22.15 hect. etc.	Working Pit= 315.13 hect, O/B Dump=23.04 hect, Building & Roads=22.15 hect. etc.	Nil
3p	Production of ROM mineral during the last five year period as applicable	2018-19 = 60,09,005T, 2019-20 = 81,22,430T, 2020-21 = 80,15,265T, 2021-22 = 4000630T, 2022-23 = 4005285T, 2023-24 = 4002130T	2018-19 = 25,60,228T, 2019-20 = 25,62,308T, 2020-21 = 27,59,894T, 2021-22 = 3462290T, 2022-23 = 3859727T, 2023-24 = 1561785T (up to Sept 2023)	Nil
3q	General remarks of inspecting officers on method of mining etc.	Opencast Mining Method was proposed using HEMM.	Mechanised mining method is being used along with HEMM as per proposal.	Method of Mining is suitable to the type of deposit.

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/IB & mineral reject were proposed.	Separate dumping of OB/IB & mineral reject were carried out as per proposal.	Nil

4b	Location of topsoil, OB and mineral reject dumps	Block-II Grid 5250-5300/850-950	Block-II Grid 5250-5300/850-950	No dumping has been carried out in OB dumps, OB & crusher reject used simultaneously for backfilling of mined out area.
4c	Number of dumps within lease area and outside of lease area	Three - within lease area.	Three - within lease area.	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out of ultimate pit limit.	Out of ultimate pit limit.	Nil
4e	Number of active and alive dumps.	Two	Two	Nil
4f	Number of dead dumps.	One	One	Nil
4g	Number of dumps established.	Already established One	One	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	During the year 2022-23 garland drain proposed.	Garland drain made as per proposal in the reporting year.	Nil
4i	Length of Retaining wall or garland drain all along dumps	50m garland drain	50m garland drain	Nil
4j	Number of settling ponds	No proposal	None	Nil
4k	Specific comments of inspecting officer on waste dump management			Waste dump management is satisfactory.

Solid Waste Management - Backfilling:

Sl.No.	Item	Proposals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	After full extraction of mineral backfilling proposed.	As per proposal area after confirmation of drill hole cutting sample.	Nil
5b	Area under backfilling of mined out area	7.01 hect.	5.25 hect.	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	Reclaimed =143.43 hect. and Rehabilitated=72.23+40.55=113.78 Hect	Reclaimed =138.63 hect. and Rehabilitated=73.64+46.92=120.56 Hect	Rehabilitated by backfilling & water reservoirs
5e	General remarks of inspecting officers on backfilling and reclamation etc.			After complete extraction of mineral simultaneously backfilling & plantation work is going as per proposal.

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).	As per rule 26(2) of MCDR,2017 holder of mining lease shall submit PMCP before 1st day of July every year.	PMCP report for the year 2022-23 submitted timely.	However some discrepancies observed in PMCP report submitted along with Annual return 2022-23, for that Show cause notice issued to the party vide letter dated 05.12.2023.
6b	Area available for rehabilitation (ha) .	17.09 hect.	17.04 hect.	Nil
6c	afforestation done (ha).	Waste dump=0.4 hect (400 nos.), Backfilled area=3.45 hect.(3400 nos.) & Virgin area=0.5 hect.(500 nos.) Total=4.35 hect. area(4300 nos.)	Waste dump=0.6 hect (550 nos.), Backfilled area=3.82 hect.(3498 nos.) & Virgin area=2.55 hect.(2325 nos.) Total=6.97 hect. area(6373 nos.)	Nil

6d	No. of saplings planted during the year	Total=4300 nos.	Total=6373 nos.	Nil
6e	Cumulative no .of plants	Not specified	173266 nos.	Up to year 2022-23.
6f	Any other method of rehabilitation	By afforestation	By afforestation	Nil
6g	Cost incurred on watch and care during the year	Rs. 8.60 lakhs	Rs. 12.74 Lakhs	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	6970990 cum	6678208 cum	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	7.01 hect.	5.25 hect.	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	3.45 hect.(3400 nos.)	3.82 hect.(3498 nos.)	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	40.55 hect.	46.92 hect.	cummulative area under water reservoir.
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	0.5 hect.(500 nos.)	2.55 hect.(2325 nos.)	Nil

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.5 hect.	2.55 hect.	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)	As per E.C. & Consent condition noise and air quality - six monthly and water quality- quarterly	As per E.C. & Consent condition noise and air quality - six monthly and water quality- quarterly	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			No issue observed related to PMCP compliances.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	During the year 2022-23, total 3604757T usable limestone will be feed to captive cement plant.	During the year 2022-23, total 3001201T usable limestone was feed to captive cement plant.	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 & screen reject	Cement grade & screen reject	Nil
7d	Any beneficiation process at mines .	Dry Beneficiation through vibrating screens	Dry Beneficiation through vibrating screens	Nil

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

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes	Yes, as per proposal	Nil
8b	Concurrent use or storage of topsoil	Yes	Top soil removed seperately and simultaneously used for plantation.	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Use of OB & crusher reject for back filling was proposed	Use of OB & crusher reject for back filling has been carried out.	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Use of waste rock & crusher reject for backfilling	Use of waste rock & crusher reject for backfilling	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Reclamation 7.01ha and Rehabilitation 3.45ha	Reclamation 5.25ha and Rehabilitation 3.83ha	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Plantation of 4300 saplings & Area 4.35 hect.	6373 Nos. (6.97 Hect) saplings planted during the year.	Cummulative plantation tp to year 2022-23 is 173266 nos.
8g	Survival rate	Not specified	85.91%	As per AR 2022-23.

8h	Water sprinkling on roads to control airborne dust	Wet drilling & water Spraying through water tankers.	Wet drilling & water Spraying through water tankers.	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The general aesthetic beauty in and around mine area was satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per rule 45 of MCDR, monthly and annual returns to be submitted.	Monthly returns upto Nov, 2023 and Annual returns for the year 2022-23 have been submitted timely.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information of Mining Engineer, Geologist and Manager have been furnished.	Details found to be correct for Agent, Mining Engineer, Geologist and Manager	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under Pit = 315.13 hect., Reclaimed Area =138.63 hect., Dump Area =23.04 hect., Occupied by Plant, Buildings, residential & Roads etc.- 22.15 hect.	The area mentioned under different heads found to be in order.	Nil
9d	Scrutiny of Annual return on afforestation	No. of Plants 6373 within lease area Survival 85.91%	Seems corrected	Nil

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Crusher reject 192883T generated in the year.	Not reported in applicable item of Part-V.	Show Cause Notice of Rule 45(7) of MCDR 2017 issued to the party vide letter dated 05.12.2023 for not reporting crusher/screen reject in the annual return 2022-23.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Stock- 1049721T Cement Grade Stock- Nil	Seems corrected	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex- Mine price / production cost Rs 289.95	Seema corrected	Nil
9h	Scrutiny of Annual return on fixed assets	Fixed Assets 31715233/-	Details seems to be correct	Nil
9k	Scrutiny of Annual return on mining machineries	Details given in AR 2022-23.	Seems corrected.	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 45(7)(a)	05-DEC-23		MCDR17 Rule 45(7)	05-DEC-23	

Date :

(D R GURJAR)

Indian Bureau of Mines