

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

MCDR inspection REPORT

Chennai regional office

Mine file No : TN/ALR/LST-12.MDS

Mine code : 38TMN38039

- (i) Name of the Inspecting : **M017**) **Matiul Islam**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Mr. G. Ragavendra (Mines Manager), Mr. P. Alagukannan
Official with
Designation
- (iv) Date of Inspection : 14/12/2023
- (v) Prev.inspection date : 12/12/2022

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **ARUNGAL -67.73 HA**
- (b) **Registration NO.** : **IBM/170/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : TAMIL NADU
- District : ARIYALUR
- Village : ARUNGAL
- Taluka : ARIYALUR
- Post office : KEELAPALUR
- Pin Code : 621707
- FAX No. : 04329-250011
- E-mail : arymines@chettinadcement.co
- Phone : 04329-247727
- (f) Police Station : Ariyalur
- (g) First opening date : 01/01/2015
- (h) Weekly day of rest : SUN
2. Address for : Chettinad cement corporation limited
correspondance : ariyalut works,Kilapaluvur
Ariyalur-621707
3. (a) Lease Number : TMN1592
- (b) Lease area : 67.73
- (c) Period of lease : 20
- (d) Date of Expiry : 17/09/2032
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : CHETTINAD CEMENT CORPORATION LIMITED
 4TH FLOOR, RANI SEETHAI
 HALL BLDG 603, ANNA SALAI
 CHENNAI CITY TAMIL NADU
 Phone:044-28292727, 42149955
 FAX :044 - 28291558

Owner : Mr Mohan Muthukaruppan
 Chettinad Cement Corp.,
 Pvt., Ltd Sigappi Aachi
 Building18/3,Rukmani
 Lakshmipathi
 Road,Egmore,Chennai CHENNAI
 CITY TAMIL NADU
 Phone: 044-282922727,4
 FAX : 044-28291558

Agent : G.Raghunathsingh
 DINDIGUL TAMIL NADU
 Phone:
 FAX :

Mining Engineer

Name : P ALAGUKANNAN,Full Time
 Qualification : B E (MINING ENGINEERING)
 Appointment/ : 22/04/2022
 Termination date

Mining Engineer

Name : S.Ravichandran,Full Time
 Qualification : B.E Mining
 Appointment/ :
 Termination date

Geologist

Name : N BALAKANAN,Full Time
 Qualification : M.SE GEOLOGY
 Appointment/ : 09/09/2022
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	18/08/2009
Plan/Scheme of Mining	:	Fresh under rule 22 MCR1960	18/08/2009
	:	MP review under 17(1) MCR 2016	22/07/2019
	:	MP review under 17(1) MCR 2016	29/10/2021

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	Lease already fully explored upto G1 level
1b	Exploration over lease area for geological axis 1 or 2	G1	G1	-do-
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA	NA	-do-
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	-do-
1e	Balance reserve as on 01/04/20	Lst - 30,22,845.00 Marl 19,46,990.85	Lst- 33,31,475.38 Marl-20,27,631.73	-do-
1f	General remarks of inspecting officers on geology, exploration etc	-	-	The geology & exploration of the lease were found satisfactory.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N-1218520 to N-1219280 E-290980 to E-291400	N-1218520 to N-1219280 E-290980 to E-291400	As proposed
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Top Bench in Topsoil, 2nd bench in Limestone and Marl	Top Bench in Topsoil, 2nd bench in Limestone and Marl	-do-
2c	Stripping ratio or ore to OB ratio	1:0.0	1:0.0	-do-
2d	Quantity of topsoil generation in m3	102670 m3	102995 m3	-do-

2e	Quantity of overburden generation in m3	Nil	Nil	-do-
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	-	Development of pit was found satisfactory w.r.t. type of deposit.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Single pit	Single pit	As proposed
3b	Quantity of ROM mineral production proposed	513800 Ts Limestone-426320 T Marl-87480 T	261276 Ts Limestone-207933.62 T Marl-53342.27 T	Low production due to less demand
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	-do-
3d	Quantity of mineral reject generation	Nil	Nil	Nil
3e	Grade of mineral rejects generation and threshold value declared.	NA	NA	Nil
3f	Quantity of sub grade mineral generation.	Nil	Nil	Nil
3g	Grade of sub grade mineral generation	NA	NA	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	As proposed

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Nil	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Non conventional mining proposed	Non conventional mining practiced	No drilling & blasting proposed or carried out
3k	Provision of mining machineries in mineral benches	BACK HOE 0.900 CUM 2 Rock Breaker 0.900 CUM TIPPER 16.000 CUM 4	BACK HOE 0.900 CUM 2 Rock Breaker 0.900 CUM TIPPER 16.000 CUM 4	As proposed
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	6 m	6 m	Suitable for method of mining
3m	Total area covered under excavation/pits	19.53 Ha	15.515Ha	Within limit
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.0	1: 0.0	As proposed
3o	Total area put in use under different heads at the end of year	26.030 Ha	21.179 Ha	Within limit
3p	Production of ROM mineral during the last five year period as applicable	2019-20: 400100 Ts 2020-21: 450110 Ts 2021-22-500500 Ts 2022-23-513800 Ts	2019-20-Nil 2020-21: 209117 Ts 2021-22-301043 Ts 2022-23-261276 Ts	Within limit
3q	General remarks of inspecting officers on method of mining etc.	-	-	The method of mining was found satisfactory.

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)	No OB/MR available in lease.	Only Topsoil is removed & stacked as well as utilised.	As proposed
4b	Location of topsoil, OB and mineral reject dumps	NE dump -1 N-1219005 to N-1219300 E-291190 to E- 291780 SW dump -1 N- 1218175 to N- 1218300 E-291070 to E- 291140	NE dump -1 1219005 to N-1219300 E-291190 to SW dump -1 1218175 to N-1218300 E-291070 to E- 291140	N- -do- E- 291780 N- E- 291140
4c	Number of dumps within lease area and outside of lease area	Within ML: 2 Outside ML: Nil	Within ML: 2 Outside ML: Nil	Temporary Top Soil dumps
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Inside UPL	Inside UPL	Temporary top soil dumps will be rehandled & utilised in afforestation
4e	Number of active and alive dumps.	2	2	As proposed
4f	Number of dead dumps.	Nil	Nil	-do-
4g	Number of dumps established.	Nil	Nil	-do-
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal for the year	Nil	Previously constructed garld drain maintained
4i	Length of Retaining wall or garland drain all along dumps	Nil	Nil	-do-
4j	Number of settling ponds	Nil	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	-	-	No waste is generated. Top soil removed is stacked in temporary dumps and simultaneously used in afforestation as well.

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 proposed for the year	Nil	Nil
5b	Area under backfilling of mined out area	1.082 HA	1.092 Ha	As proposed
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Top soil proposed to be utilised for backfilling	Top soil utilised for backfilling	As proposed
5d	Total area fully reclaimed and rehabilitated	Nil	Nil	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	Top soil generated is stacked in temporary dump and used in afforestation.

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	Submitted	Along with Annual Return
6b	Area available for rehabilitation (ha) .	0.766 Ha	0.766 Ha	As proposed
6c	afforestation done (ha).	0.766 Ha	0.766 Ha	-do-
6d	No. of saplings planted during the year	1530 nos proposed	1550 nos planted	-do-
6e	Cumulative no .of plants	5000 nos	6625 nos	-do-
6f	Any other method of rehabilitation	Nil	Nil	-do-

6g	Cost incurred on watch and care during the year	Rs 37,500/-	Rs 1,05,400/-	-do-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Not specified	Not measured	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	1.08 Ha	1.09 Ha	Top soil stacked in mined out area
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	0.766 Ha	0.766 Ha	As proposed
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	Nil	-do-
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Nil	Nil	-do-
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Nil	Nil	-do-
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Nil	Nil	-do-

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Nil	Nil	-do-
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodic monitoring proposed	Periodic monitoring carried out	-do-
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	PMCP Compliance & Progressive Closure operations were found satisfactory.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	No sorting proposed	No sorting carried out	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	NA	NA	Nil
7c	Different grade of mineral sorted out at mines.	NA	NA	Nil
7d	Any beneficiation process at mines .	Nil	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-	-	No issues were observed with mineral conservation. No beneficiation was proposed or carried out. Entire ROM generated is consumed.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Proposed	Carried out	-do-
8b	Concurrent use or storage of topsoil	Proposed	Carried out	As proposed
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No OB/Waste/Rejec ts/Fines removal envisaged for the year	No OB/Waste/Rejects/Fines removed during the year	-do-
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NA	NA	-do-
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed	Carried out	-do-
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	5000 nos cumulative plantation proposed	6625 nos cumulative plantation carried out	-do-
8g	Survival rate	80%	80%	-do-
8h	Water sprinkling on roads to control airborne dust	Water sprinkling proposed on haul roads	Water sprinkling carried out on haul roads	-do-
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-	-	Aesthetic beauty in and around mines area was found satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Given	Submitted in time	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mine Manager Shri.P.Alagukannan Mining Engineer Geologist Shri. N.Balakannan Shri.T. Balagokul	Given in Part I, Sl 7-9	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit-15.515 Ha Reclaimed-rehabilitated- 5.514 Ha Waste Disposal-0.0 Ha Roads-0.15 Ha Afforestation Safety Zone- 7.28 Ha (5.25 Ha Safety Zone+ 2.03 Existing Plantation)	Given in Part I, Sl 12	Nil
9d	Scrutiny of Annual return on afforestation	Afforestation -1550 trees	Given in Part V, Sl 5	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral Reject- Nil	Given in Part V, Sl 3	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM - 261275.89Ts Limestone- 207933.62 T Marl- 53342.27 T	Given in Part VI, Sl 2 & 3	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine Price -203.59 Production cost-Rs. 219.36	Given in Part VI Sl 3 & Part VII	Nil

9h	Scrutiny of Annual return on fixed assets	GFA- Rs 87,16,33,642/-	Given in Part II A	Nil
9k	Scrutiny of Annual return on mining machineries	Back Hoe 0.9 CUM 2 Other HEM Machinery 125 1 Tipper 16 MT 4	Given in Part V, Sl 6	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

Date :

(Matiul Islam)

Indian Bureau of Mines