

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

**MCDR inspection REPORT**

**Chennai regional office**

**Mine file No :** TN/ALR/LST-25.MDS

**Mine code :** 38TMN38047

- (i) Name of the Inspecting : **M017** ) **Matiul Islam**  
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Mr S Ramesh, GM & Mr B Vikram Pyus, Mines Manager  
Official with  
Designation
- (iv) Date of Inspection : 19/09/2023
- (v) Prev.inspection date : 07/09/2022

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **SENDURAI**
- (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 : SENDURAI
- Taluka : SENDURAI
- Post office : SENDURAI
- Pin Code : 621714
- FAX No. : 914329-250011
- E-mail : ariyalur@chettinadcement.co
- Phone : 914329-250009
- (f) Police Station : Sendurai
- (g) First opening date : 19/07/2017
- (h) Weekly day of rest : SUN
2. Address for : 603,RANI SEETHAIHALL BUILDING  
correspondance ANNASALAI  
CHENNAI- 600006
3. (a) Lease Number :
- (b) Lease area :
- (c) Period of lease :
- (d) Date of Expiry :
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 : M/S CHETTINADU CEMENTS CORP.LTD.  
 603, ANNA SALAI CHENNAI  
 CHENNAI CITY TAMIL NADU  
 Phone:  
 FAX :

Agent : V.KRISHNAN  
 M/s Chettinad Cement Coprn  
 (P) Ltd. 6 th Floor ,Rani  
 Seethai Hall Build Chennai  
 ARIYALUR TAMIL NADU  
 Phone:  
 FAX :

## Mining Engineer

Name : M.Sathish Kumar.,Full Time  
 Qualification : B.E Mining  
 Appointment/ : 30/06/2017  
 Termination date

## Geologist

Name : N BALAKANAN,Full Time  
 Qualification : M.SE GEOLOGY  
 Appointment/ : 01/04/2021  
 Termination date

## Manager

Name : B.VIKRAM PYUS  
 Qualification : B.TECH-MINING FCC  
 Appointment/ : 30/06/2017  
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	17/12/2012
Plan/Scheme of Mining	:	MP modif under 17(3) MCR 2016	12/07/2017
	:	MP review under 17(1) MCR 2016	15/12/2020

## 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	Nil	Nil	Already explored upto G1 level
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Nil	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	Nil
1e	Balance reserve as on 01/04/20	12,62,392 tonnes	12,70,807 tonnes	Nil
1f	General remarks of inspecting officers on geology, exploration etc	-	-	Exploration was being undertaken at the time of inspection for re-evaluation of ore-reserves.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	In South western side N-1244780 to N-1244860 E-302210 to E-302265  In Eastern side N-1244820 to N-1245010 E-302430 to E-302705	In Eastern side N-1244725to E-302411 to N-1244963 E-302643	Within proposed extent

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Top Bench in Topsoil, 2nd bench in partially in waste and partially in Limestone and bottom 2 and 3 Benches in Limestone and Marl	Top Bench in Topsoil, 2nd bench in partially in waste and partially in Limestone and bottom 2 and 3 Benches in Limestone and Marl	As proposed
2c	Stripping ratio or ore to OB ratio	1:0.73	1.0.69	Nil
2d	Quantity of topsoil generation in m3	47860 cu.m.	47860 cu.m.	As proposed
2e	Quantity of overburden generation in m3	110420 cu.m.	109800.00 cu.m.	-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 operation proposed	Single pit operations carried out	As proposed.
3b	Quantity of ROM mineral production proposed	325764 Ts Lst- 266400T Marl- 57240T	237632.84Ts Lst- 188376.86T Marl-49255.98T	Violation of Rule 11(1) pointed out for deviation from proposed excavation quantities.
3c	Recovery of saleable/usable mineral from ROM production	100% (325764 Ts)	100% (237632.84Ts)	-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	Nil
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	Nil	Nil	Non-conventional mining practiced with excavators & rock-breakers due to soft nature of the strata.
3k	Provision of mining machineries in mineral benches	Back Hoe 0.90 CUM 2 Dozer D10 1 Tipper 20 MT 15	Back Hoe 0.90 CUM 1 Back Hoe 2.10 CUM 1 Breaker 120 1 Tipper 14 MT 5	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Top soil -2m Waste- 4m Lst -6m Marl -6m	Top soil -2m Waste- 4m Lst -6m Marl -6m	As proposed
3m	Total area covered under excavation/pits	12.705 Ha (Till 2025-26)	6.219 Ha (Till 2022-23)	Within limits
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.73	1:0.69	Within limits
3o	Total area put in use under different heads at the end of year	19.48 Ha (Till 2025-26)	16.846 Ha (Till 2022-23)	Within limits

3p	Production of ROM mineral during the last five year period as applicable	2018-19: Lst-230785, Marl -95364 2019-20: Lst-230674, Marl -97711 2020-21: Lst-230813, Marl -98824 2021-22: Lst-269280, Marl -56484 2022-23: Lst-266400, Marl -57240	2018-19: Lst-230783, Marl -95352 2019-20: Lst-230632.68, Marl - 97690.50 2020-21: Lst-230738.68, Marl - 98711.96 2021-22: Lst-196534.05, Marl - 45454.91 2022-23: Lst-188376, Marl -49255	Within limits
3q	General remarks of inspecting officers on method of mining etc.	-	-	Violation of Rule 11(1) pointed out for deviation in proposed ROM Quantity.

#### Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping & concurrent use of topsoil proposed.	Top soil generated used concurrently in afforestation over backfilled areas.	Nil
4b	Location of topsoil, OB and mineral reject dumps	Top Soil- N-1245036 to N-1245113 E-302265 to E-302496	Top soil used concurrently in afforesation.	Nil
4c	Number of dumps within lease area and outside of lease area	Within ML :1 Outside ML: Nil	Within ML :1 Outside ML: Nil	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL	Outside UPL	Nil
4e	Number of active and alive dumps.	Nil	Nil	Nil
4f	Number of dead dumps.	1	1	Nil
4g	Number of dumps established.	1	1	Afforested

4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal	Garland drain maintained	Nil
4i	Length of Retaining wall or garland drain all along dumps	Nil	600 m	Nil
4j	Number of settling ponds	No proposal	1	Nil
4k	Specific comments of inspecting officer on waste dump management	-	-	Waste management was found satisfactory.

#### 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.	Backfilling proposed after full extraction of mineral from mined out area	Backfilling carried out after full extraction of mineral from mined out area	As proposed.
5b	Area under backfilling of mined out area	0.72 Ha	1.24 Ha	-do-
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Proposed	Carried out	-do-
5d	Total area fully reclaimed and rehabilitated	Not specified	1.24 Ha backfilled and 1.04 Ha afforested upon	During the year
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	Backfilling & reclamation activities were found satisfactory.

#### Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Yes	Submitted in time	As proposed
6b	Area available for rehabilitation (ha) .	0.72 Ha	1.24 Ha	-do-
6c	afforestation done (ha).	1.0 Ha	1.04 Ha	-do-
6d	No. of saplings planted during the year	2000 nos	2650 nos	-do-
6e	Cumulative no .of plants	10,000 nos	13,220 nos	-do-
6f	Any other method of rehabilitation	Nil	Nil	-do-
6g	Cost incurred on watch and care during the year	Rs 75,000/-	Rs 85,000/-	-do-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	0.72 Ha	1.24 Ha	-do-
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	0.72 Ha	1.24 Ha	-do-
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	0.72 Ha	1.04 Ha	-do-
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	NA	NA	-do-
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodic monitoring proposed	Periodic monitoring carried out	All parameters within norms
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	PMCP Compliance & Closure Operations were found satisfactory.

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#### 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

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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 or beneficiation in the mine.

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**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Proposed	Carried out	As proposed
8b	Concurrent use or storage of topsoil	Concurrent use proposed	Top soil used concurrently in afforestation	-do-
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	OB proposed to be used for backfilling	OB used for backfilling	-do-
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	OB proposed to be used for backfilling	OB used for backfilling	-do-
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Backfiling proposed in mined out areas	Backfilling carried out in mined out areas	-do-

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8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Tree Density 2000 /ha Variety of Saplings Planted 1.Pungan 2.Neem 3.Pelta 4.Pouvarasa 5.Illupai 6.Teak	Cumulative Plantation 13220 No	-do-
8g	Survival rate	80%	70%	-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	-	-	The aesthetic beauty in and around mines area was found satisfactory.

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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	Manager Shri. B.Vikram Pyus Mining Engineer Shri. M.Sathish Kumar Geologist Shri. R.Ravikumar  Shri. M.Sathish Kumar	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 area-6.219 Ha Reclaimed-6.227 Ha Waste disposal-0.000 Ha Buildings & Roads-0.100 Ha Green Belt-4.30 Ha	Given in Part I, Sl 12	Nil
9d	Scrutiny of Annual return on afforestation	Afforestation -2650 trees	Given in Part V, Sl 5	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral Reject- Nil	Only OB & Waste details given in Part V, Sl 4.	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Nil Stock	Given in Part VI for Limestone & Part VI for Marl	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine price Rs 314.45/- Cost of Production Rs 322.42/-	Given in Part VI, Sl 2 & Part VII	Nil
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets - Rs 87,16,33,642/-	Given in Part II A Capital Structure	Nil
9k	Scrutiny of Annual return on mining machineries	Back Hoe 0.900 CUM 2 Back Hoe 0.900 CUM 2 Other HEM Machinery 120 1 Tipper 14 MT 5	Given in Part V, Sl 6	Nil

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**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