

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

MCDR INSPECTION REPORT

Chennai regional office

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

Mine code : 38TMN24035

- (i) Name of the Inspecting : **T003**) **S.THIRUNAVUKKARASU**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Shri.K.Nagendran Mines manager & Shri. V.C.Shanmugan
Official with
Designation
- (iv) Date of Inspection : 22/06/2019
- (v) Prev.inspection date : 16/11/2018

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KATTUPIRINGIUM(44.58HA)**
- (b) **Registration NO.** :
- (c) **Category** : A Fully Mechanised
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : TAMIL NADU
- District : PERAMBALUR
- Village : PERIYANGALUR & VALAJ
- Taluka : ARIYALUR
- Post office : KATTUPIRINGIUM
- Pin Code : 621714
- FAX No. : 04329-226005
- E-mail : ravichandran@madrascements
- Phone : 04329-226001
- (f) **Police Station** : ARIYALUR
- (g) **First opening date** : 01/07/2002
- (h) **Weekly day of rest** : SUN
2. **Address for correspondance** : MADRAS CEMENT LIMITED
AURAS CORPORATE CENTRE, V FLOOR
98-A, RADHAKRISHNAN ROAD, MYLAPORE CHENNAI- 4
3. (a) **Lease Number** : TMN0743
- (b) **Lease area** : 44.58
- (c) **Period of lease** : 30
- (d) **Date of Expiry** : 02/07/2030
4. **Mineral worked** : LIMESTONE Main

5. Name and Address of the

Lessee : MADRAS CEMENTS LIMITED
 Auras Corporate Center Vth
 Floor, 98 A Dr.Radha
 Krishnan salai, Mylapore
 CHENNAI CITY TAMIL NADU
 Phone:044-28478666
 FAX :044-28478676

Owner : P.R.RAMA SUBRAMANYA RAJA
 AURAS CORPORATE CENTRE
 VFLOOR,98A,RADAKRISHNAN R
 MYLAPORE,CHENNAI CHENNAI
 CITY TAMIL NADU
 Phone: 044-8555815
 FAX : 044-830248

Agent : C. RAVICHANDRAN
 GENERAL MANAGER (Adm)
 MADRAS CEMENTS LTD,
 GOVINDAPURAM WORKS,
 SENDURAI ROAD ARIYALUR
 TAMIL NADU
 Phone: 04329-226001
 FAX : 04329-226005

Mining Engineer

Name : K.M.RAVIKUMAR,Full Time
 Qualification : B.TECH-MINING
 Appointment/ : 01/10/2013
 Termination date

Geologist

Name : V.C.SHUNMUGAM,Full Time
 Qualification : M.SC-GEOLOGY
 Appointment/ : 11/09/2008
 Termination date

Manager

Name : K.NAGENDRAN
 Qualification : B.TECH MINING-FIRST CLASS CERTIFICATE
 Appointment/ : 22/06/2015
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	19/04/2005
Plan/Scheme of Mining	:	Modif.approved Mining Scheme	01/09/2006
	:	Mining Scheme rule 12 MCDR1988	10/08/2011
	:	Mining Scheme rule 12 MCDR1988	12/05/2015
	:	MP modif under 17(3) MCR 2016	03/12/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No Back log	Not applicable	Mine fully explored under G1 level
1b	Exploration over lease area for geological axis 1 or 2	All ready explored unser G1 level	All ready explored unser G1 level	NIL
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No Proposal, henc mine is fully explored	Not applicable	mine is fully explored undr G1 level
1d	Balance area to be explored to bring Geological axis in 1 or 2	No are to be explored.	Fully explored under G1 level	NIL
1e	Balance reserve as on 01/04/20	---	5.42 Million Tons	NIL
1f	General remarks of inspecting officers on geology, exploration etc	---	---	mine is fully explored under G1 level.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	SL-3-3' & 4-4' North side, RL-60 to 62 &58 to56	SL-3-3' & 4-4' North side, RL-60 to 62 &58 to56	As per the proposal
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches developed as per rule 15	Separate benches developed as per rule 15	As per the proposal
2c	Stripping ratio or ore to OB ratio	1:1.61	1:0.76	Due to increase of top soil
2d	Quantity of topsoil generation in m3	46251 m3	120566 m3	Top soil generation increased
2e	Quantity of overburden generation in m3	860166 m3	473983 m3	as per the mod.MP

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	---	---	development of pits are found as per the modified mining plan
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit	One pit only	As per the proposal
3b	Quantity of ROM mineral production proposed	899789	782938	With in limite
3c	Recovery of sailable/usable mineral from ROM production	100 % mineral recovered from ROM 899789Tons	100 % mineral recovered from ROM 782938.35Tons	100 % mineral recovered from ROM
3d	Quantity of mineral reject generation	100% mineral recovered No mineral reject generation	Not applicable	100% mineral recovered No mineral reject generation
3e	Grade of mineral rejects generation and threshold value declared.	100% mineral recovered No mineral reject generation	Not applicablr	No mineral reject generation
3f	Quantity of sub grade mineral generation.	No sub-grade mineral generation	Not applicable	No sub-grade mineral generation
3g	Grade of sub grade mineral generation	No sub-grade mineral generation	Not applicable	No sub-grade mineral generation
3h	Manual / Mechanised method adopted for segregating from ROM	No segeregation, 100 % mineral recovered from ROM	Not applicable	segregating from ROM is not requierd
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No benificaiation study	study	No sub-grade mineral and reject, Hence beneficiation study is not require

3j	Provision of drilling and blasting in mineral benches	Yes, Proposed to carryout Drilling & Blasting on contingency condition	Adopted Non-conventional method by engaging Ripper Dozer	As per the proposal
3k	Provision of mining machineries in mineral benches	Ripper Dozer - 1 No Pneumatic drilling machine & compressor Excavator-EX-200-2 No's Tipper - 8 No's Water Tanker - 1 No	Ripper Dozer - 1 No Pneumatic drilling machine & compressor Excavator-EX-200-2 No's Tipper - 8 No's Water Tanker - 1 No	Machineries as proposed is deployed for mining operation
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	The height of the benches is proposed to maintain at height of 8.0 meters	As proposed height of the bench is maintained	Found to be as per the proposal
3m	Total area covered under excavation/pits	18.93.0 Ha	18.93.0 Ha	As per the proposal
3n	Ore to OB ratio for the pit/mine during the year.	1:1.61	1:0.76	Production is less than the proposal hence the ratios deferred.
3o	Total area put in use under different heads at the end of year	Area under mining 20.07.0 18.93.0 Storage for top soil 0.92.0 Overburden / dump 6.77.0 7.00.0 Mineral Storage 0.00.0 0.00.0 Infrastructure 0.20.0 Roads 0.25.0	Area under mining 20.07.0 18.93.0 Storage for top soil 0.92.0 1.44.0 Overburden / dump 6.77.0 7.00.0 Mineral Storage 0.00.0 Infrastructure 0.20.0 Roads 0.25.0 1.50.0	
		0.25.0 1.50.0		

3p	Production of ROM mineral during the last five year period as applicable	2014-15 924800 2015-16 603424 2016-17 400520 2017-18 400130 2018-19 899789	2014-15 115264.47 2015-16 341381.59 2016-17 400178.33 2017-18 397737.79 2018-19 782938.35	AR 2018-19 verified found correct, its given in para Part-VI production Dispatches and stock
3q	General remarks of inspecting officers on method of mining etc.	-----	-----	method of mining is found systemtically

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	23920 top soil for 2018-19	Used for spraying	as per the proposal given in the Mining plan page 33
4b	Location of topsoil, OB and mineral reject dumps	Proposed for backfillind	No proposal for dumping. OB proposed of 565650 cum is used for back filling	565650 cum OB is used for back filling
4c	Number of dumps within lease area and outside of lease area	Within the lease area - 6	6	As per the proposal
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No proposal for dumping	Not applicable	No proposal for dumping, OB used for bckfilling
4e	Number of active and alive dumps.	6 No's of Active Dumps	6 No's of Active Dumps, Presently OB is used for backfillig.	6 No's of Active Dumps,
4f	Number of dead dumps.	No proposal	Not applicable	NIL
4g	Number of dumps established.	No peoposal for dumps stabilisation	Not applicable	No peoposal for dumps stabilisation
4h	Whether Retaining wall or garland drain all along dumps are there.	Garland drain around periphery of dump	Done as per the proposal	NIL
4i	Length of Retaining wall or garland drain all along dumps	Length of Garland drain all along dump 700 X 2 X 2 m	700m lengthy garland drainage has been done all along the dumps	As per the proposal given

4j	Number of settling ponds	Constructed 2 No's of settling pond on the South eastern (Block-I) side of the mining lease boundary	Constructed 2 No's of settling pond on the South eastern (Block-I) side of the mining lease boundary	NIL
4k	Specific comments of inspecting officer on waste dump management	---	-----	waste dump management is carried out as per the proposal .

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.	Mineral proposed to be excavated on the Eastern side of Block-II (Section Line 4-4')	Mineral proposed to be excavated on the Eastern side of Block-II (Section Line 4-4')	NIL
5b	Area under backfilling of mined out area	5.40.0 Ha (Block - I)	5.40.0 Ha (Block - I)	NIL
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Topsoil used for green belt development all along the periphery of the mining lease area.	Topsoil will be used for green belt development all along the periphery of the mining lease area.	NIL
5d	Total area fully reclaimed and rehabilitated	Proposed for Back filling is under progress	Proposed for Back filling is under progress	After completion of Backfilling reclamation will carried out
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-----	---	backfilling is undr prograssive as per the p[roposal

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).	Given	Submitted the PMCP report vide Rule 23 E(2) of MCDR 2017	Submitted in time
6b	Area available for rehabilitation (ha) .	No proposal	Not applicable	rehabilitation is not st the stage.
6c	afforestation done (ha).	NIL	20.45.0 Ha	NIL
6d	No. of saplings planted during the year	1000 No's	1000 No's	No deviation
6e	Cumulative no .of plants	---	26000 No's	As per the register maintained
6f	Any other method of rehabilitation	NIL	NIL	After backfilling
6g	Cost incurred on watch and care during the year	---	1.30 Lakhs	As per the register
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	NIL	backfilling is under progress	Not at the stage
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NIL	backfilling is under progress	Not at the stage
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	NIL	backfilling is under progress	Not at the stage
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NIL	NIL	Not applicable

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NIL	NIL	NOT APPLICABLE
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NIL	NIL	No waste land within lease
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NIL	No waste land within the lease are	No waste land within the lease are
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not Applicable	Not Applicable	Not Applicable
6p	Compliance of environmental monitoring (core zone and buffer zone)	Propose to carryout Environmental monitoring both Core and Buffer Zones	M/s Ensyscon Environmental laboratory, Chennai has been engaged for monitoring Environmental Data on Quarterly basis	NIL
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-*----	---	PMCP compliance & progressive closure operations IS FOUNS AS PER THE PROPOSALS.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	899789Tons	782938.35Tons	no excus production
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	NIL	not applicable	100 % recovery , hence the method of sording doesnt arise.

7c	Different grade of mineral sorted out at mines.	Not Applicable	Not Applicable	100 % recovery , hence the method of sording doesnot arise.
7d	Any beneficiation process at mines .	No proposal	Not appicable	100% recovery , hence beneficiation process is not required.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	----	---	100% recovery ,hence Mineral conservation & beneficiation good.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	proposed	Used for green belt development	NIL
8b	Concurrent use or storage of topsoil	plantaion purpose.	Existing Top soil dump in Block-II & Block-III of the Mining lease is used for plantaion purpose.	As per the proposal use dfor plantations.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	overburden materal proposed for nackfilling	Backfilling carried out as per the proposal	NIL
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposed for backfilling 912187 Tonns Para 4.1 Exporation	Backfilling in progress Cumulative 2588550 ob/waste	As per the proposal
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Restoration planned in phased manner	Being done as per the proposal	As per the proposal

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Within the lease area - 1000Nos	Within the lease area - 1000Nos	As per the proposal planted 1000 nos of plantations.
8g	Survival rate	90%	90%	As per the proposal
8h	Water sprinkling on roads to control airborne dust	Propose to engage Water Tanker for control airborne dust	10000 Liters water tanker used for sprinkling to control airborne dust	water tanker used for sprinkling water
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	----	----	aesthetic beauty in and around mines area is found good.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Given	A.R. submitted upto March- 2018 in time	A.R. submitted upto March- 2018 in tim
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information furnished	Shri K.M.RAVIKUMAR Mining Engineer Shri V.C.SHUNMUGAM Geologist Shri K.NAGENDRAN Manager	Furnished Part-1 of AR
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	The land use furnished in appropriate colum/table	The land use furnished in appropriate colum/table	The information was found correct
9d	Scrutiny of Annual return on afforestation	Given	The information was furnished in appropriate colum/table	The information was found correct
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Furnished.	The information was furnished in appropriate colum/table	The information was found correct

9f	Scrutiny of Annual return on ROM stock and/or graded ore	The information was furnished in appropriate colum/table	The information was found correct Production 782938.350 tonns	Part - VI (PRODUCTION,DISPAT CHES AND STOCK)
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	-----	Ex. Mine price= 242.54 Production cost= 133.33	Given in Part - VII COST OF PRODUCTION
9h	Scrutiny of Annual return on fixed assets	----	Fixed assets= Rs. 13823258449	Given in Part-III
9k	Scrutiny of Annual return on mining machineries	-----	Ripper Dozer -636 HP -1 Nos Excavator -EX-200-0.90 M3 Tipper - 10 M3 - 2 Nos Water Tanker - 10000 liters - INos	Given in Sl.No. 5

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 :

(S. THIRUNAVUKKARASU)

Indian Bureau of Mines