

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

MCDR INSPECTION REPORT

Chennai regional office

Mine file No : TN/VOC/LST-7.MDS

Mine code : 38TMN15045

- (i) Name of the Inspecting : **T003**) **S.THIRUNAVUKKARASU**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Mr. Venkatarama subrmanian. AGM(Geology)&Mr.K.Saravan
Official with
Designation
- (iv) Date of Inspection : 27/08/2019
- (v) Prev.inspection date : 01/03/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **SIVALARPATTI**
- (b) **Registration NO.** : **IBM/638/2011**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **TAMIL NADU**
- District : **THOOTHUKUDI (TUTICORIN)**
- Village : **SIVALARPATTI**
- Taluka : **VILATHIKULAM**
- Post office : **PUDUR**
- Pin Code :
- FAX No. : **04562-256268**
- E-mail : **adminrn@madrascements.co.in**
- Phone : **04562-256201, 201 & 203**
- (f) **Police Station** : **R R NAGAR**
- (g) **First opening date** : **01/06/1995**
- (h) **Weekly day of rest** : **SUN**
2. **Address for correspondance** : **SIVALARPATTI LST MINE**
PUDUR POST
VIRUDUNAGAR
3. (a) **Lease Number** : **TMN1203**
- (b) **Lease area** : **150.11**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **21/05/2015**
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.Venketrama Raja
 Ramasamiraja
 Nagar, Virudhnagar, Chennai-
 626204 VIRUDHUNAGAR TAMIL
 NADU
 Phone: 04562 256201 -
 FAX : 04562 256268

Agent : S.Ramalingam
 Ramasamiraja Nagar,
 Virudhnagar Pin:626204
 VIRUDHUNAGAR TAMIL NADU
 Phone: 04562 256201 - 203
 FAX : 04562 256268

Mining Engineer

Name : M.D.Massom Basha, Full Time
 Qualification : B.E(Mining)
 Appointment/ : 09/09/2012
 Termination date

Geologist

Name : L.Venkatarama Subramanian, Full Time
 Qualification : M.Sc Geology
 Appointment/ : 31/07/2013
 Termination date

Manager

Name : K. Nagendran
 Qualification : BE.MINING
 Appointment/ : 17/03/2007
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	23/09/1989
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	22/01/2003
		Modif.approved Mining Scheme	05/08/2004
		Mining Scheme rule 12 MCDR1988	31/01/2007
		Mining Scheme rule 12 MCDR1988	29/11/2011
		Modif.approved Mining Scheme	28/02/2014
		MP modif under MCR 1960	02/07/2015
		MP modif under MCR 1960	16/12/2016

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	NA	fully explored upto G1 Level
1b	Exploration over lease area for geological axis 1 or 2	66.32 Ha	66.32 Ha	fully explored upto G1 Level
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NIL	NA	ML Area explored by TRCL & GIEM
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	NA	Exploration is being carried out for proving of Limestone at Bottom level
1e	Balance reserve as on 01/04/20	6.07 Mil.Tons	6.07 Mil.Tons	NIL
1f	General remarks of inspecting officers on geology, exploration etc	--	-----	Geology, exploration is found satisfactory

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	ML - 26.4 to 37 & ML-10.8 to 12.6	ML - 26.4 to 37 & ML-10.8 to 12.6	As per the Proposal
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	yes	As per the Proposal	Separate benches are maintained in OB and Mineral
2c	Stripping ratio or ore to OB ratio	1 : 2.09	1 : 2.05	Almost nearer to the proposal
2d	Quantity of topsoil generation in m3	NIL	NA	No topsoil generation
2e	Quantity of overburden generation in m3	527617	494579	Almost comensurating as per proposal

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	----	----	development of pit is found satisfactory
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2 nos	2 (Pit 1A & 2)	As per the Proposal
3b	Quantity of ROM mineral production proposed	689998	688805	Within limte
3c	Recovery of sailable/usable mineral from ROM production	90 %	90 %	
3d	Quantity of mineral reject generation	NIL	NIL	ROM Limestone transported to Common Crushing Plant. No beneficiation activities involved within M
3e	Grade of mineral rejects generation and threshold value declared.	<35 CaO	<35 CaO	NIL
3f	Quantity of sub grade mineral generation.	NIL	NA	No subgrade mineral generation.
3g	Grade of sub grade mineral generation	NIL	NA	No subgrade mineral generation.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized methods proposed	Mechanized methods of mineral segregation/ beneficiation techniques adopted at crushing plant situated outside ML	NIL
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	NIL	NA	NIL

3j	Provision of drilling and blasting in mineral benches	Deep hole drilling and blasting is proposed and blasting with delay detonators and high explosives	Deep hole drilling and blasting is proposed and blasting with delay detonators and high explosives	As per proposal
3k	Provision of mining machineries in mineral benches	Proposed	drilling & blasting in the working benches	nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	9 m height benches proposed both in Ore and OB.	9 m height benches proposed both in Ore and OB.	Bench height and width suitable for mechanized method and machinery deployed
3m	Total area covered under excavation/pits	48.70 Ha	48.70 Ha	NIL
3n	Ore to OB ratio for the pit/mine during the year.	1:2.09	1:2.05	Nearer to the proposal
3o	Total area put in use under different heads at the end of year	64.41 Ha	64.41 Ha	NIL
3p	Production of ROM mineral during the last five year period as applicable	2014-15=5,19,075 2015-16=6,89,763 2016-17=6,89,999 2017-18=6,89,997 2018-19=6,89,998	2014-15=4,14,501 2015-16=6,54,931 2016-17=6,89,866 2017-18=6,89,750 2018-19=6,88,805	within the limite
3q	General remarks of inspecting officers on method of mining etc.	-----	-----	method of mining 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)	proposed in Existing Dump .	Dumping carried out separately on existing dump.	Nil
4b	Location of topsoil, OB and mineral reject dumps	OB Dump ML-25.5 to ML-34.5	OB Dump ML-25.5 to ML-34.5	As per the Proposal As per the Proposal
4c	Number of dumps within lease area and outside of lease area	Inside ML-4 Nos Outside ML-5 Nos	Inside ML-4 Nos Outside ML-5 Nos	No Changes
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Yes	Yes within Ultimate Pit Limit	Yes. Maintained
4e	Number of active and alive dumps.	2 Nos	2 Nos	NIL
4f	Number of dead dumps.	3	3	
4g	Number of dumps established.	Two	Two	Yes stabilized, also under Progress
4h	Whether Retaining wall or garland drain all along dumps are there.	415 x 1 x 1	415 x 1 x 1	Inactive Sides of the Dump area covered by Garland Drain. 1 - 1900 m x 1m x 1m & 2 - 798 m x 1 m x 1 m
4i	Length of Retaining wall or garland drain all along dumps	NIL	Not Applicable	NIL
4j	Number of settling ponds	2 Nos	2 Nos	
4k	Specific comments of inspecting officer on waste dump management	---	----	waste dump management is found satisfactory

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	NIL	Not Applicable	not at the satage
5b	Area under backfilling of mined out area	NIL	Not Applicable	NIL
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NIL	Not Applicable	NIL
5d	Total area fully reclaimed and rehabilitated	NIL	Not Applicable	NIL
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-----	----	backfilling, reclamation is not st the stage

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).	Periodically Submitted	Yes Submitted	submitted in time
6b	Area available for rehabilitation (ha) .	NIL	NA	NIL
6c	afforestation done (ha).	NIL	NA	All Benches are Still Active
6d	No. of saplings planted during the year	Plantation with 530 No. of Saplings	Plantation with 2800 Nos of Neem, Pungai & Vagai Sapplings	NIL
6e	Cumulative no .of plants	--	29100 No. of Saplings Planted	NIL
6f	Any other method of rehabilitation	NIL	NA	No otherspecific method of rehabilitation
6g	Cost incurred on watch and care during the year	NIL	NA	NIL

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	NIL	NA	NIL
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NIL	NA	NIL
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	NIL	NA	NIL
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NIL	NA	No backfilling
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NIL	NA	NIL
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	530 Nos	2800 Nos	Location of the Afforested area as follows,Lat: N 9* 19' 04'' Long: E78* 08' 53''
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.33 Ha	2.30 Ha	NIL
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Plantation with 530 No. of Saplings.	Plantation with 2800 Nos of Neem, Pungai & Vagai Sapplings	So far 29100 No. of Saplings Planted

6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodically Monitored	All the parameters are under permissible limit	Environmental Monitoring Report Periodically .
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	---	---	PMCP compliance & progressive closure operations is found satisfactory

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	NIL	NA	No mineral sorting at pit level. Entire ROM is being transported to
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	NIL	NA	No mineral sorting
7c	Different grade of mineral sorted out at mines.	NIL	NA	No Different grade of mineral .
7d	Any beneficiation process at mines .	NIL	NA	NIL
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	----	---	Mineral conservation & beneficiation is found stisfactory

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	NIL	NA	No top soil generation during the Year 2018-2019

8b	Concurrent use or storage of topsoil	NIL	NA	No top soil generation during
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	OB Dump ML-25.5 to ML-34.5	OB Dump ML-25.5 to ML-34.5	NIL
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NIL	NA	NIL
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NIL	NA	nIL
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	530 Nos	2800 Nos	Sofar 29100 No. of Saplings Planted
8g	Survival rate	--	80 %	--
8h	Water sprinkling on roads to control airborne dust	10 KL Water Tanker	10 KL Water Tanker	Water Tanker is being used for Dust Suppression
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	Submitted	Submitted	Submitted

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	As per filed Annual Return	Shri.K.Saravanan (Mining Engineer), Shri.L.Venkatarama Subramanian (Geologist)	---
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	48.700 Ha. Under current workings, 8.500 Ha. for waste diposal,5.250 Ha for office etc,87.660 Ha virgin and green belt area as per AR 2018-19	48.700 Ha. Under current workings, 8.500 Ha. for waste diposal,5.250 Ha for office etc,87.660 Ha virgin and green belt area as per AR 2018-19	NIL
9d	Scrutiny of Annual return on afforestation	0.33 Ha (530 Nos)	2.30 Ha (2800 Nos)	Neem, Pungai & Vagai
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL	NA	No mineral reject generated during the period under review
9f	Scrutiny of Annual return on ROM stock and/or graded ore	688805.04 tonnes 2018-19	Production reported during 2019-20 (upto July) 302776 tonnes	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	--	It is captive mine, Ex.mine price and cost of production checked and found correct.	--
9h	Scrutiny of Annual return on fixed assets	--	Rs.32323405 shown as fixed asset value in AR 2018-19.	The details given are reasonable. No additions in year 18-19
9k	Scrutiny of Annual return on mining machineries	---	BACK HOE 0.900 CUM - 1, BACK HOE 1.100 CUM - 2, TIPPER 12.000 CUM -8 BLAST HOLE DRILL 115 MM -1, AIR COMPRESSOR 400 CUM/min-1 & DOZER-1	Deployment of machinery found.

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