

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

MCDR INSPECTION REPORT

Chennai regional office

Mine file No : TN/PBR/LST-15.MDS

Mine code : 38TMN24040

- (i) Name of the Inspecting : **T003**) **S.THIRUNAVUKKARASU**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : G.MAGESH ,DGM(MINES),Senthamil selvan,Sr Manager
Official with
Designation
- (iv) Date of Inspection : 25/04/2019
- (v) Prev.inspection date : 15/11/2018

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **REDDIPALAYAM(63.60HA)**
- (b) **Registration NO.** : **IBM/638/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : TAMIL NADU
- District : ARIYALUR
- Village : REDDIPALAYAM
- Taluka : ARIYALUR
- Post office : REDDIPALAYAM
- Pin Code : 621714
- FAX No. : 04329 - 226005
- E-mail : magesh@ramcocements.co.in
- Phone : 044-28478666 , 28478656, 0
- (f) Police Station : vikramangalam
- (g) First opening date : 05/10/2001
- (h) Weekly day of rest : SUN
2. Address for : AURAS CORPORATE CENTRE, V FLOOR
correspondance : 98-A, RADHAKRISHNAN ROAD
MYLAPORE CHENNAI- 4
3. (a) Lease Number : TMN1031
- (b) Lease area : 63.6
- (c) Period of lease : 30
- (d) Date of Expiry : 22/07/2034
4. Mineral worked : LIMESTONE Associated

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
 98-A,AURAS CORPORATE CENTRE
 RADHAKRISHNAN
 SALAI,MYLAPORE CHENNAI
 CHENNAI CITY TAMIL NADU
 Phone:
 FAX :

Agent : C.RAVICHANDRAN
 98-A, AURAS CORPORATE
 CENTRE R.K.SALAI,MYLAPORE
 CHENNAI CHENNAI CITY TAMIL
 NADU
 Phone:
 FAX :

Mining Engineer

Name : KALLURI SURRENDRA,Full Time
 Qualification : BE(MINING)
 Appointment/ : 18/07/2018
 Termination date

Geologist

Name : V.MOHAN,Full Time
 Qualification : MSC (GEOLOGY)
 Appointment/ : 01/10/2016
 Termination date

Manager

Name : G.MAGESH
 Qualification : BE (MINING)
 Appointment/ : 11/01/2008
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	16/05/2005
Plan/Scheme of Mining	:	Modif.of approved Mining Plan	01/09/2006
	:	Mining Scheme rule 12 MCDR1988	10/08/2011
	:	Mining Scheme rule 12 MCDR1988	14/05/2015

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	Not applicable	Mine is fully explored under G1 level
1b	Exploration over lease area for geological axis 1 or 2	NIL	Not applicable	Fully explored G 1 level
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NIL	NA	NIL
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	Not applicable	All area explored under G1 level
1e	Balance reserve as on 01/04/20	--	13.04 Million Tons (111) 16.31 million Tons (221)	NIL
1f	General remarks of inspecting officers on geology, exploration etc	----	---	geology, exploration is find good.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	SL-6 RL- 43.00m to 20.00m	SL-5 to SL-6 RL- 43.00m to 20.00m	found no deviation
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches for Topsoil and Overburden	Maintained separate benches in Topsoil and Overburden	NIL
2c	Stripping ratio or ore to OB ratio	1 : 0.45	1 : 0.45	no deviation
2d	Quantity of topsoil generation in m3	33500 m3	34558 m3	NIL
2e	Quantity of overburden generation in m3	351745 m3	406324 m3	

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	Single pit operation	Single pit operation	AS PER THE PROPOSAL
3b	Quantity of ROM mineral production proposed	1699832 Tons	1605544.97 Tons	with in the limite
3c	Recovery of sailable/usable mineral from ROM production	100% recovery	100% recovery	NIL
3d	Quantity of mineral reject generation	NIL	Not applicable	No generation of mineral reject
3e	Grade of mineral rejects generation and threshold value declared.	NIL	Not applicable	No mineral reject
3f	Quantity of sub grade mineral generation.	NIL	not applicable	No sub-grade mineral generation
3g	Grade of sub grade mineral generation	NIL	Not applicable	Not applicable
3h	Manual / Mechanised method adopted for segregating from ROM	NIL	Not applicable	No segregation form ROM
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Applicable	No Sub grade generation, 100 % reacoover	100 % reacoover, No beneficiation
3j	Provision of drilling and blasting in mineral benches	Proposed	Drilling & Blasting on contingency condition	as per the proposal

3k	Provision of mining machineries in mineral benches	Xcentric Ripper - 1Nos Excavator - 2 No's Tipper - 7 No's Water Tanker- 1 No Dozer -1 No.	Machineries as proposed is deployed for mining operation	As per the proposal
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	8.0 meters	As proposed height of the bench is maintained	Bench height maintained
3m	Total area covered under excavation/pits	29.40.0 ha	29.40.0 ha	NIL
3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.36	1 : 0.36	NIL
3o	Total area put in use under different heads at the end of year	Area under mining 28.75.0 Storage for top soil 1.44.0 Overburden / dump 9.10.0 Mineral storage 2.20.0 Infrastructure) 0.05.0 Roads 2.50.0 Railways Nil Green belt 8.90.0 Tailing pond Nil Effluent treatment plant Nil Mineral separation plant Nil Township area Nil Area to be Backfilled 6.88.0 Others to be specified 3.78.0	Area under mining 23.17.0 Storage for top soil 1.44.0 Overburden / dump 7.10.0 Mineral storage 0.35.0 Infrastructure 0.20.0 Roads 2.50.0 Railways Nil Green belt 6.00.0 Tailing pond Nil Effluent treatment plant Nil Mineral separation plant Nil Township area Nil Area to be Backfilled 0.70.0 Others to be specified 22.14.0	with in the limite

3p	Production of ROM mineral during the last five year period as applicable	2014-15 1701340 2015-16 1693520 2016-17 1699514 2017-18 1696123 2018-19 1699832	Year Proposed in Tonnes Actual in Tonnes 2014-15 1701340 855727 2015-16 1693520 1524982 2016-17 1699514 1278759 2017-18 1696123 996401 2018-19 1699832 1605545	with in the limite
3q	General remarks of inspecting officers on method of mining etc.	----	---	method of mining is found satisfactory

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 of topsoil and OB proposed as per rule 32 & 33	Topsoil removed has been stored on the Northern side. OB removed has been used for backfilling on the South Western side	as per the proposal
4b	Location of topsoil, OB and mineral reject dumps	Top soil dump : North side of Mining lease OB dump: North side of Mining lease	Top soil dump : North side of Mining lease OB dump: North side of Mining lease	found as per the proposal
4c	Number of dumps within lease area and outside of lease area	Within the lease area - 2	Within the lease area - 2	NIL
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Northern side	Northern side	as per the proposal
4e	Number of active and alive dumps.	2 nos. of active Dumps	2 nos. of active Dumps	
4f	Number of dead dumps.	NIL	Not appicble	NIL
4g	Number of dumps established.	NIL	Not appicble	Not at the stage
4h	Whether Retaining wall or garland drain all along dumps are there.	Garland drain around periphery of dump	Done as per the proposal	as per the proposal

4i	Length of Retaining wall or garland drain all along dumps	Length of Garland drain all along dump : 1100 X 3 X 2 meters	1100m lengthy garland drainage has been done all along the dumps	no deviation
4j	Number of settling ponds	2 No's of settling pond has been proposed on the South eastern side of the mining lease boundary	Constructed 2 No's of settling pond on the South eastern side of the mining lease boundary	As per the proposl
4k	Specific comments of inspecting officer on waste dump management	-----	----	waste dump management is found as per the proposals

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.	Part of the area on the southern side is propose to backfill SL_ to SL-5 RL7 to 20M & SL3 -RL7 to 40M	southern side is propose to backfill SL_ to SL-5 RL7 to 20M & SL3 -RL7 to 40M	No deviation
5b	Area under backfilling of mined out area	1.50.0 Hect.	0.90.0 Hect.	under progress
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	After exhaustion, we propose to use the Topsoil for green belt development on the backfilled area as a part of Restoration/Re habilitation	Topsoil stored on the Northern side is used for green belt development	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 found as per the 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).	YES	Submitted	Submitted in time
6b	Area available for rehabilitation (ha) .	NIL	Not applicable	NIL
6c	afforestation done (ha).	nil	33.90.5	
6d	No. of saplings planted during the year	nil	5000 No's	
6e	Cumulative no .of plants	nil	86000 No's	NIL
6f	Any other method of rehabilitation	NIL	NIL	rehabilitation not at the stage
6g	Cost incurred on watch and care during the year	---	4.00 Lakhs	NIL
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Yes	At the end of the 2018-19, backfilling process is under progress with a dimension of 370M x 123M x 27M	Backfilling carried out as per the proposal
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NIL	Not applicable at the stage	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	NIL	NIL	Backfilling is under progress.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NIL	Not applicable	nil

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NIL	Not applicable	Not at the stage
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NIL	Not in the Year	Afforestation will done after backfillingthe mine out area
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NIL	not applcable	Rehabilitation will only arise after completion of the Reclamation
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NIL	not applicable	Not at the stage
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 found satisfactory

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	1699832 Tonst	1605544.97 Tons)	with in the limite
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	NIL	Not applicable	NIL

7c	Different grade of mineral sorted out at mines.	NIL	Not applicable	NIL
7d	Any beneficiation process at mines	NIL	Not applicable	nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-	--	Mineral conservation & beneficiation is found good

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Propose to be used for green belt development	Used for green belt development	as per the proposal
8b	Concurrent use or storage of topsoil	propose to use the Topsoil for green belt development	Topsoil stored on the Northern side will be used for green belt development after backfilling.	NIL
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps of over burden is proposed	Separate dumps of over burden is being maintained on the North side	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposed for backfilling	Backfilling under progress on the south western side	as per the proposal
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NIL	Not applicable	NIL

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	--	Within the lease area - 5000 Nos	
8g	Survival rate	90%	90%	NIL
8h	Water sprinkling on roads to control airborne dust	Propose to engage Water Tanker for control airborne dust	10000 Liters water tanker engaged to control airborne dust	NIL
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	Yes	Submitted	Submitted in time
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	Mining Eng: Mr.Kalluri Surrendar Geologist: V.Mohan Manager:G.Magesh	Found as per the record submit to IBM
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	Land use pattern (at the end of 2018-19) Area under Mining - 28.51.0 Ha. Infrastructure - 0.20.0 Ha. Roads - 2.50.0Ha. Dumps - 7.10.0 Ha. Topsoil Dump - 1.44.0 Others - 23.85.0 Ha. Total - 63.60.0 Ha..	NIL

9d	Scrutiny of Annual return on afforestation	Given	Till 2018-19, Afforestation have been completed by planting 86000Nos covering all along the Mining lease boundary, bund slopes etc.,	NIL
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL	Not applicable	No reject generation
9f	Scrutiny of Annual return on ROM stock and/or graded ore	NIL	Not applicable	No stock and/or graded ore
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	given	Ex-Mine price - Rs.278.93 Production cost - Rs.171.30	NIL
9h	Scrutiny of Annual return on fixed assets	Given	Rs128443598 /-	Verified found cotrrect
9k	Scrutiny of Annual return on mining machineries	Given	Xcentric Ripper - Tata Hitachi 350- 1 No Excavator - 2 No's Tipper - 7 No's Water Tanker- 1 No D-50 Dozer-komatsu - 1No	NIL

Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed		Show cause position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on

Date :

(S. THIRUNAVUKKARASU)

Indian Bureau of Mines