

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

MCDR INSPECTION REPORT

Chennai regional office

Mine file No : TN/PT/LST-13.MDS

Mine code : 38TMN38001

- (i) Name of the Inspecting : **T003**) **S.THIRUNAVUKKARASU**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Shri.S.Makesh GM(Mines), R.Kamaraj Manager Mine
Official with
Designation
- (iv) Date of Inspection : 25/02/2019
- (v) Prev.inspection date : 02/08/2017

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **PERIATHIRUKONAM**
- (b) **Registration NO.** : **IBM/929/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : TAMIL NADU
- District : ARIYALUR
- Village : PERIATHIRUKONAM
- Taluka : ARIYALUR
- Post office : IDAYATHANKUDI
- Pin Code :
- FAX No. : 04329-35111
- E-mail : s.makesh@dalmiacement.com
- Phone : 04329-235459, 9865165326
- (f) Police Station : KEELAPALUR
- (g) First opening date : 01/04/2011
- (h) Weekly day of rest : SUN
2. Address for : Dalmia Cement (B) Ltd.
correspondance DALMIAPURAM-621651
TRICHY
3. (a) Lease Number : TMN0745
- (b) Lease area : 61.37
- (c) Period of lease : 30
- (d) Date of Expiry : 25/03/2031
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : DALMIA CEMENT (BHARAT) LIMITED
 TIRUCHIRAPALLI TAMIL
 NADU
 Phone:
 FAX :

Owner : T. VENKATESAN
 Dy. Managing Director
 Dalmia Cement (B) Ltd
 CHENNAI CITY TAMIL NADU
 Phone: 044-28279933, 9
 FAX : 044-28276508

Agent : J. V. GUNGANE
 Executive Director Dalmia
 Cement(B) Ltd Dalmiapuram
 TIRUCHIRAPALLI TAMIL NADU
 Phone: 04329-235123, 9865139444
 FAX : 04329-235111

Mining Engineer

Name : S.RADAKRISHNAKANTH, Full Time
 Qualification : BE(MINING)
 Appointment/ : 04/06/2001
 Termination date

Geologist

Name : S. Selvakumar, Full Time
 Qualification : M.Sc. (Applied Geo)
 Appointment/ : 01/12/2008
 Termination date

Manager

Name : R.KAMARAJ
 Qualification : M.Sc GEOLOGY
 Appointment/ : 04/01/2016
 Termination date

6. Date of approval of Mining	:	Modif.of approved Mining Plan	28/12/2001
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	07/03/2006
		Mining Scheme rule 12 MCDR1988	27/10/2011
		Mining Scheme rule 12 MCDR1988	04/03/2016

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	NIL	No backloge
1b	Exploration over lease area for geological axis 1 or 2	Na	The entire lease hold area explored under G1 level	NIL
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA	NA	The entire lease hold area explored under G1 level
1d	Balance area to be explored to bring Geological axis in 1 or 2	NA	NA	entire lease hold area explored under G1 level
1e	Balance reserve as on 01/04/20	---	(111) - 2722808 Tons (211) - 3333037 Tons (221) - 182283 Tons	nil
1f	General remarks of inspecting officers on geology, exploration etc	--	---	The entire lease are has explored under G1.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	4th,,5th , 6th& 7th bench	4th,,5th , 6th& 7th bench	As per the proposal
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	NIL	NIL	NIL
2c	Stripping ratio or ore to OB ratio	1:0.03	1:0.04	
2d	Quantity of topsoil generation in m3	NIL	NIL	No topsoil
2e	Quantity of overburden generation in m3	26643	26550	

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	one	one	NIL
3b	Quantity of ROM mineral production proposed	934954 MT	593500MT	Less production then the proposed
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	NIL
3d	Quantity of mineral reject generation	NA	NA	100% recfovery
3e	Grade of mineral rejects generation and threshold value declared.	High Ferruginous Limestone	High Ferruginous Limestone	As per the proposal
3f	Quantity of sub grade mineral generation.	---	2341 MT	High Ferruginous Limestone
3g	Grade of sub grade mineral generation	---	SiO ₂ 13.17 Al ₂ O ₃ 3.42 Fe ₂ O ₃ 6.97 CaO 40.32	NIL
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	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	Yes	For Drilling CM341 drill compressor is used. For Blasting, Magazine for Explosives Storage,	As per the proposal

3k	Provision of mining machineries in mineral benches	For Loading 30T Class Excavator is used. For Transportation 31 ton Taurus tippers are used	For Loading 30T Class Excavator is used. For Transportation 31 ton Taurus tippers are used	As per the proposal
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench Height - 6M Bench Width - 10m	Bench Height - 6M Bench Width - 10m	Found as per the proposal
3m	Total area covered under excavation/pits	22.07 H.	22.07 H.	NIL
3n	Ore to OB ratio for the pit/mine during the year.	1:0.03	1:0.04	NIL
3o	Total area put in use under different heads at the end of year	61.365 H.a	61.365 H.a	NIL
3p	Production of ROM mineral during the last five year period as applicable	2013-14 1195956 2014-15 895528 2015-16 1199778 2016-17 934845 2017-18 934954	2013-14 1026912 2014-15 570630 2015-16 382600 2016-17 809500 2017-18 593500	Within the limits
3q	General remarks of inspecting officers on method of mining etc.	--	--	method of mining is found satisfactory

Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	NIL	NIL	
4b	Location of topsoil, OB and mineral reject dumps	OB Dump is located in the Non Mineralized are	OB Dump is located in the Non Mineralized are	OB Dump is located in the Non Mineralized are

4c	Number of dumps within lease area and outside of lease area	ONE	ONE	NIL
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Western part of the lease	Western part of the lease	As per the proposal
4e	Number of active and alive dumps.	NIL	NIL	NIL
4f	Number of dead dumps.	NIL	NIL	NIL
4g	Number of dumps established.	one	one	NIL
4h	Whether Retaining wall or garland drain all along dumps are there.	Provided	Provided	Provided
4i	Length of Retaining wall or garland drain all along dumps	700*2*1 (mtr	700*2*1 (mtr	As per the proposal
4j	Number of settling ponds	NIL	NIL	Not applicable
4k	Specific comments of inspecting officer on waste dump management	---	---	waste dump management is founs 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.	After excavation of the Limestone upto the full depth, the overburden is dumped in the bottom over which the top soil is spread over the back filled area	Limestone is excavated upto the full depth and then backfilling is carried out	Backfilling carried out as per the proposal
5b	Area under backfilling of mined out area	1.65ha	1.65ha	As per the proposal

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	After backfilling the overburden at the bottom of the Mined out area, top soil is spread over the top of the backfilled area	After backfilling the overburden at the bottom of the Mined out area, top soil is spread over the top of the backfilled area	NIL
5d	Total area fully reclaimed and rehabilitated	23.75 ha	23.75 ha	NIL
5e	General remarks of inspecting officers on backfilling and reclamation etc.	---	---	back filling, reclamation is find 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	yes	Submitted the PMCP every year. For the year submitted on 25.02.19
6b	Area available for rehabilitation (ha) .	NIL	NIL	Total Area Reclaimed - 23.75 ha
6c	afforestation done (ha).	1.5 ha (2017-18)	1.2 ha (2017-18)	Tree Saplings planted only in the Backfilled area only
6d	No. of saplings planted during the year	1600 saplings (2017-18)	1300 Saplings (2017-18)	Ppaltation under prograssive.
6e	Cumulative no .of plants	NA	NA	Nil
6f	Any other method of rehabilitation	NA	NA	no other method of rehabilitation
6g	Cost incurred on watch and care during the year	NA	NA	NIL

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	yes	Reclaimed 1.65 ha	Total Area Reclaimed - 23.75 ha
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Area Reclaimed 1.65 ha	Area Reclaimed 1.65 ha	Total Area Reclaimed - 23.75 ha
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	1300 saplings	1300 saplings	NIL
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NA	NA	Not at the stage
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NA	NA	Reclamation by back filling
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NA	NA	No Waste Land within the lease area
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NA	NA	No Waste Land within the lease area
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NA	NA	No Waste Land within the lease area

6p	Compliance of environmental monitoring (core zone and buffer zone)	To be carried out every Quarter	M/s. Ensyscon Environmental Lab, Chennai is engaged for monitoring Environmental data on a Quarterly basis	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	--	--	PMCP measures found satisfactory

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	934954 MT	593500 MT	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanized	Mechanized	
7c	Different grade of mineral sorted out at mines.	NA	NA	No sorted out at mines sit
7d	Any beneficiation process at mines	NIL	NIL	NIL
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	--	--	Mineral conservation & beneficiation issues is sticly fellowed

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	NIL	NIL	No topsoil generation

8b	Concurrent use or storage of topsoil	NA	NA	No topsoil generation
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	NA	NA	Overburden material is used for Backfilling
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Overburden material is used for Backfilling of the Mined out Area after complete excavation of	Overburden material is used for Backfilling of the Mined out Area after complete excavation of	As per the proposal
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Backfilling proposed	Backfilling under prograssive	NIL
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	---	Planted varieties of Trees like Neem, Pungan, Accacia, Subabul, etc and other trees in the backfilled area.	The Area is devoid of any large trees. It contains thorny bushes, natural vegetation like grasses, wild shrubs grown during the monsoon.
8g	Survival rate	90%	90%	NIL
8h	Water sprinkling on roads to control airborne dust	Yes proposde	Haul Road Water sprinkling carried out with Mobile water tanker having 12KL capacity	as per the proposal
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	--	--	aesthetic beauty in and around mines area found good

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	yes given	Submitted in time	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mines Manager - R.Kamaraj Mining Engineer - R.Kamaraj Geologist In-charge - S.Selvakumar	As per the nane given in th AR	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Lease Area Utilization at the end of FY17-18 Already Exploited & (i) Abandoned by Opencast Workings - 0 ha (ii) Covered under current Workings - 22.07 ha (iii) Reclaimed / Rehabilitated - 23.75 ha (iv) Used for Waste Disposal - 6.34 ha (v) Occupied by plant, buildings, residential, welfare buildings & Roads - 0.13 ha (vi) Other Purpose (Green belt, Road, area, non Mineral Bearing Land for future dumps, Afforestation, Infrastructure) - 9.075 ha	Observd as given in the Annual Return	NIL

9d	Scrutiny of Annual return on afforestation	No.of Trees planted within the Lease Area during FY17-18 1300. Outside Lease Area FY 17-18-200 Survival Rate - 90%	Observd as given in the Annual Return	NIL
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral Reject Generated - 2341 tons Grade - High Ferruginous(Medium Grade)	Observd as given in the Annual Return	nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	a) Opencast Working - Production - 593500MT	Observd as given in the Annual Return	NIL
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex.Mine Price - Rs.201.57 Cost of production - Rs.201.57	Observd as given in the Annual Return	nil
9h	Scrutiny of Annual return on fixed assets	Rs.9,17,20,074 /-	Rs.9,17,20,074/-	nil
9k	Scrutiny of Annual return on mining machineries	Back Hoe- 2.1 Cu.m - 1 no Back Hoe - 1 Cu.m - 1no Dozer - 165HP - 1No Air compressor - 460 CFM - 1no Tipper - 18Cu.m - 22 no Diesel Generator - 100KWH - 1no Pump - Diesel Driven - 1no Water Tanker - 12KL - 1 no	As per the annual reurn	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 :

(S. THIRUNAVUKKARASU)

Indian Bureau of Mines