

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

**MCDR INSPECTION REPORT**

**Bangalore regional office**

**Mine file No :** KNT/CTD/LST/24/BNG

**Mine code :** 38KAR07027

- (i) Name of the Inspecting : 130 ) PRASHANT S HEGDE  
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : S/Shri N. Nagamalleswara Rao, Mines Manager, and Prav  
Official with  
Designation
- (iv) Date of Inspection : 06/12/2017
- (v) Prev.inspection date : 13/06/2014

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : MATHOD (M.L.2342)
- (b) **Registration NO.** : IBM/638/2011
- (c) **Category** : A Fully Mechanised
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : KARNATAKA
- District : CHITRADURGA
- Village : MATHODU
- Taluka : HOSADURGA
- Post office : MATHOD
- Pin Code : 577533
- FAX No. : 08199-240314
- E-mail : mathod\_mines@ramcocements.co
- Phone : 08199-240111/112
- (f) **Police Station** : SRIRAMPURA
- (g) **First opening date** : 07/10/1987
- (h) **Weekly day of rest** : SUN
2. **Address for correspondance** : The Ramco Cements Limited,  
Method works Hosadurga Taluk,  
Chitradurga Dist, Karnataka-577533
3. (a) **Lease Number** : KAR1103
- (b) **Lease area** : 388.5
- (c) **Period of lease** : 20
- (d) **Date of Expiry** : 06/05/2003
4. **Mineral worked** : LIMESTONE Main

## 5. Name and Address of the

Lessee : THE RAMCO CEMENTS LIMITED  
 "Auras Corporate Centre",  
 Dr. Radhakrishna Salai,  
 Mylapore, CHENNAI CITY  
 TAMIL NADU  
 Phone:044-28478666  
 FAX :+91 4428478676

Owner : P.R.Venketrama Raja,  
 The Ramco Cements Limited,  
 Auras Corporate Centre",  
 Dr. RadhakrishnaSalai,  
 Mylapore, CHENNAI CITY  
 TAMIL NADU  
 Phone: 044-28478666, 0  
 FAX : 044-28478676 (

Agent : Ajit Kumar Paul  
 The Ramco Cements Limited  
 Method works, Hosadurga  
 Taluk, CHITRADURGA  
 KARNATAKA  
 Phone: 08199-240111/112  
 FAX : 08199-240314

## Mining Engineer

Name : Thayaraj M.P,Full Time  
 Qualification : BE - Mining  
 Appointment/ : 16/04/2013  
 Termination date

## Geologist

Name : PRAVEEN KULKARNI,Full Time  
 Qualification : M.SC GEO  
 Appointment/ : 22/08/2017  
 Termination date

## Manager

Name : Rambabu. A  
 Qualification : Diplo. in Mining  
 Appointment/ : 15/04/2013  
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Modif.of approved Mining Plan	13/08/2004
		Mining Scheme rule 12 MCDR1988	10/04/2007
		Modif.approved Mining Scheme	11/11/2009
		Mining Scheme rule 12 MCDR1988	08/03/2016

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	Nil
1b	Exploration over lease area for geological axis 1 or 2	Nil	G - 1: 17.44Ha	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	The Ramco cements Limited	The Ramco cements Limited	NIL
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Entire mineralized area covered under exploration. G - 1: 17.44Ha	23 nos of core boreholes drilled with cumulative meterage of 1579 so far
1e	Balance reserve as on 01/04/20	2.24 million tonnes (as on 1/4/2016)	2.19 million tonnes (as on 1/4/2017)	( CaO 35 to 46 and MgO upto 6% )
1f	General remarks of inspecting officers on geology, exploration etc	-----	-----	Entire mineralized area covered under exploration with 23 nos of core boreholes drilled with cumulative meterage of 1579.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Band I - N-1521213 to 1521452 E-654343 to 654523 Band III - N-1521034 to 1521428 E-655880 to 656100	Carried out as per approved proposals	Nil

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Band-I Overburden West side-2benches East Side-3benches Mineral-1 bench Band-III Overburden West side-4 benches East side-3 benches Mineral-2benches  Top Soil-NIL	Band-I Overburden West side-2benches East Side-3benches Mineral-1 bench Band-III Overburden West side-4 benches East side-3 benches Mineral-2benches  Top Soil-NIL	Nil
2c	Stripping ratio or ore to OB ratio	1 :3.50	1:2.80	(Unit in tonnes) V/L letter issued on 28/12/17
2d	Quantity of topsoil generation in m3	Nil	Nil	Nil
2e	Quantity of overburden generation in m3	221,923	55,965	BD: 2.5 considered
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-----	-----	V/L issued on 28/12/17, regarding deviation in ROM to waste ratio of 1:2.8 against proposals of 1:3.5.

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**Exploitation:**

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2 (Band - I & III)	2 (Band - I & III) Pit dimension of Band-I : 215m X 160 m X 23m; Pit dimension of Band-III : 645m X 151 m X 37m;	Nil
3b	Quantity of ROM mineral production proposed	151,352 tonnes	49,800 tonnes	Nil

3c	Recovery of sailable/usable mineral from ROM production	80%	80%	Nil
3d	Quantity of mineral reject generation	Nil	Nil	Nil
3e	Grade of mineral rejects generation and threshold value declared.	N.A	N.A	Ore above threshold values is being utilized.
3f	Quantity of sub grade mineral generation.	No Proposal	NIL	Nil
3g	Grade of sub grade mineral generation	No Proposal	N.A	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised - Crushing	Mechanised -Crushing	NIL
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such proposals	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Conventional Drilling & blasting has been proposed	Conventional Drilling & blasting has been carried out.	Nil
3k	Provision of mining machineries in mineral benches	Open-cast mechanised mining method with heavy machineries Viz. excavators, Dumpers/tippers	The machineries were deployed as proposed in SOM	NIL
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height - 8Mts Width - 8mts	Height - 8Mts Width - 8mts	NIL
3m	Total area covered under excavation/pits	14.3Ha	14.00 Ha	NIL

3n	Ore to OB ratio for the pit/mine during the year.	1 :3.50	1:2.80	Nil
3o	Total area put in use under different heads at the end of year	Pit/mining- 14.3 Ha Overburden/dump: 24.5 Ha Infrastructure - 0.02 Ha. Road:1.54 Ha Green Belt & other protective measures: 3 Ha	Pit/mining- 14 Ha Overburden/dump:23.7 Ha; Infrastructures - 0.02 Ha. Road:1.54 Ha Green Belt & other protective measures: 2.71	NIL
3p	Production of ROM mineral during the last five year period as applicable	2012-13 : 269,839 2013-14 : 211,937 2014-15 : 145,723 2015-16 : 148,108 2016-17: 151,352	2012-13:85,173 2013-14 :64,872 2014-15:35,400 2015-16:76,450 2016-17: 49,800	Unit: tonnes
3q	General remarks of inspecting officers on method of mining etc.	-----	-----	V/L issued on 28/12/17, regarding deviation in production and ROM to waste ratio.

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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Dumping is proposed for OB only. No proposal for top soil & mineral reject.	Dumping has been done for OB only.	NIL
4b	Location of topsoil, OB and mineral reject dumps	Band - I N-1520856-1520957 E-653840-654115  Band - III N-1521137-1521366 E-655137-655277	Carried out as per approved proposals	NIL

4c	Number of dumps within lease area and outside of lease area	Within Lease Area - 6 Outside Lease Area- Nil	Within Lease Area-6 Outside Lease Area- Nil	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Band-I O/B materials in southern sider of Band-I dump and Band-III O/B materials in Band-II dump & re-handled materials on Band-III in southern side of Band-III	Carried out as per proposals	No re-handling of materials was not carried out as limited production achieved.
4e	Number of active and alive dumps.	02	02	NIL
4f	Number of dead dumps.	04	04	NIL
4g	Number of dumps established.	04	04	Partly stabilized
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining Wall - 50 X 2 X 1m Garland drain 50 X 1 X 0.5m	Retaining Wall - 50 X 2 X 1m Garland drain 50 X 1 X 0.5m	Nil
4i	Length of Retaining wall or garland drain all along dumps	Retaining Wall - 50 X 2 X 1	Retaining Wall - 175 X 2 X 1	NIL
4j	Number of settling ponds	1	1	NIL
4k	Specific comments of inspecting officer on waste dump management	-----	-----	Total area covered by the dumps was about 23.7 Ha and the management made as per the proposals and is satisfactory.

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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.	No Proposal of backfilling	Nil	Backfilling is proposed at conceptual stage.

5b	Area under backfilling of mined out area	No Proposal	NIL	NIL
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No Proposal	Nil	Nil
5d	Total area fully reclaimed and rehabilitated	No Proposal	NIL	NIL
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-----	-----	Existing pits are not matured for back-filling at present.

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).	The Annual Report on PMCP to be submitted within the stipulated time for FY 2016-17 within 1st July 2017	Yearly Report in accordance with Rule23 E (2) is submitted on 05.07.2017	Nil
6b	Area available for rehabilitation (ha) .	23.7 Ha dumps area	23.7 Ha dumps area	NIL
6c	afforestation done (ha).	NIL	NIL	NIL
6d	No. of saplings planted during the year	NIL	NIL	NIL
6e	Cumulative no .of plants	28,000 saplings in 12 Ha area	28,000 saplings in 12 Ha area	NIL
6f	Any other method of rehabilitation	50m retaining wall, one check dam and provide trench for water diversion.	50m retaining wall, one check dam and provide trench for water diversion.	NIL
6g	Cost incurred on watch and care during the year	NA	Rs 55,000	NIL



6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No Proposal	Nil as pit not matured for Backfilling	Backfilling is proposed at conceptual stage
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NIL	NIL	NIL
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	NIL	NIL	NIL
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NIL	NIL	NIL
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NIL	NIL	NIL
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	750saplings	500 saplings	V/L letter issued on 28/12/17 regarding deviation in afforestation
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.28Ha	0.25Ha	NIL
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Afforestation	Afforestation	NIL

6p	Compliance of environmental monitoring (core zone and buffer zone)	Season-wise Environmental monitoring proposed	Season-wise Environmental monitoring were carried out and parameters are within the permissible limit.	NIL
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-----	-----	Mined out pit is not matured for back-filling. There was proposal of back-filling of wastes during conceptual period. About cumulative of 28,000 nos of saplings were planted 12 Ha area of dumps.

#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM proposed to be crushed at crusher near Plant premise of 100TPH capacity	ROM is being crushed at crusher of 100 TPH capacity located at plant premise about 3 kms from the mine.	NIL
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised Crushing with output size of -25 mm to +10 mm.	Mechanised Crushing with output size of -25 mm to +10 mm.	NIL
7c	Different grade of mineral sorted out at mines.	The low grade and high grade limestone blended	The low grade and high grade limestone blended at plant site	Dolomitic Limestone with CaO less than 35 % and MgO more than 6 % are being considered as waste/mineral reject.
7d	Any beneficiation process at mines	No such proposals	NIL	NIL
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-----	-----	The lessee had captive cement plant having 0.29 million tonnes clinker capacity.

## Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	NIL	NIL
8b	Concurrent use or storage of topsoil	No proposal	NIL	NIL
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Dumping is proposed for OB only. No proposal for top soil & mineral reject as there is nil generation top soil & mineral reject.	Dumping has been done for OB only.	NIL
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No Proposal	NIL as pits not matured for back-filling	Backfilling is proposed at conceptual stage .
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No Proposal	NIL as pits not matured for back-filling	Backfilling is proposed at conceptual stage .
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Entire ML area is non-forest. There is proposal of planation of 750 nos of saplings in 0.28 Ha area within ML during year 2016-17	500 nos saplings within ML in 0.25 Ha areas were planted during year 2016-17. About 28,000 nos of saplings were planted so far.	V/L issued on 28/12/17 regarding deviation in afforestation.
8g	Survival rate	No Proposal	75%	NIL
8h	Water sprinkling on roads to control airborne dust	All working benches & haulage road	All working benches & haulage road by water tankers	NIL

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-----	-----	The aesthetic beauty in and around mine is good as lessee had carried out afforestation and other environmental protective measures as per approved SOM.
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#### Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to Oct 2017 A.R. submitted upto - FY 2016-17	Annual Return for FY 2016-17 submitted by the Lessee on 26/6/17. On-line submission of MR was regular.	NIL
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer - Sri Thayaraj M.P Geologist - Sri V.V.Kulkarni Manager - Shri A Rambabu	Mining Engineer - Sri Thayaraj M.P Geologist - Praveen Kulkarni Manager - Shri A Rambabu	NIL
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit/Mining: 14 Ha; Dumps: 23.7 Ha Infrastructure /plant/buildings: 1.6 Ha Green Belt: 2.7 Ha	Actual also same at that time	NIL
9d	Scrutiny of Annual return on afforestation	Saplings - 500 nos	Actual also same at that time	NIL
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL	NIL	NIL
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing stock of ROM: 1490 tonnes	Actual also same at that time	NIL

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine Price Rs 337.72 per tonne and cost of production: Rs 463.66 per tonne	Appeared to be incorrect as captive mine	V/L issued on 28/12/2017
9h	Scrutiny of Annual return on fixed assets	Rs 38,14,195=00	Appeared to be correct as plant located outside ML.	NIL
9k	Scrutiny of Annual return on mining machineries	Excavator (0.9 Cum): 2 nos; Dumpers/ Tipper (10 cum): 3nos Dozser-1 nos; Water Pump: 1 nos Rock Hole Drill: 1 nos (115 mm)	Appeared to be correct.	NIL

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**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
MCDR17	Rule 11(1)	28/12/2017			
MCDR17	Rule 35(2)	28/12/2017			
	Rule 45(8)	28/12/2017			

**Date :**

**( PRASHANT S HEGDE )**

Indian Bureau of Mines