

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

**MCDR inspection REPORT  
Hyderabad regional office**

**Mine file No :** AP/KSN/LST-25/HYD

**Mine code :** 38APR10026

- (i) Name of the Inspecting : **160** ) **kalmata.M.K**  
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine : Shri P Jani Reddy, Agent  
Official with  
Designation
- (iv) Date of Inspection : 13-OCT-22
- (v) Prev.inspection date : 25-FEB-22

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **RAVIRALA**
- (b) **Registration NO.** : **IBM/638/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ANDHRA PRADESH
- District : KRISHNA
- Village : JAYANTHIPURAM
- Taluka : JAGGAYYAPETA
- Post office : KUMARASAMYRAJA
- Pin Code : 521457
- FAX No. : 08654-222532
- E-mail : minesjpm@ramcocements.co.in
- Phone : 08654-224400
- (f) Police Station : JAGGAYYAPETA
- (g) First opening date : 25-JUN-03
- (h) Weekly day of rest : SUN
2. Address for : THE RAMCO CEMENTS LIMITED,  
correspondance : KUMARASWAMY RAJA NAGAR,  
JAGGAYYAPETA, KRISHNA DIST.
3. (a) Lease Number : APR1204
- (b) Lease area : ~~124.33~~ **60.72 Ha**
- (c) Period of lease : 50
- (d) Date of Expiry : 30-SEP-47
4. Mineral worked : LIMESTONE Main

## 5. Name and Address of the

Lessee : THE RAMCO CEMENTS LTD  
KUMARASWAMY RAJANAGAR  
JAGGAYAPET MANDAL KRISHNA  
ANDHRA PRADESH  
Phone:08654-224400  
FAX :08654-222532

Owner : THE RAMCO CEMENTS LIMITED.  
KUMARASAMY RAJA NAGAR-  
5217457, JAGGAYAPET  
MANDAL, KRISHNA DISTRICT.  
KRISHNA ANDHRA PRADESH  
Phone:  
FAX : 08654-222532

Agent : P JANI REDDY  
KUMARASWAMY .RAJA.NAGAR,  
JAYATNTHIPURAM KRISHNA  
DISTRICT KRISHNA ANDHRA  
PRADESH  
Phone: 08654-224400  
FAX : 08654-222532

## Mining Engineer

Name : R Naresh Kumar, Full Time  
Qualification : Diploma mining  
Appointment/ : 16-DEC-21  
Termination date

## Geologist

Name : B RAJU, Full Time  
Qualification : MSC GEOLOGY  
Appointment/ : 02-MAR-06  
Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Fresh under rule 22 MCR1960	31-JUL-01
		Mining Scheme rule 12 MCDR1988	13-MAY-08
		Mining Scheme rule 12 MCDR1988	21-OCT-13
		MP modif under 17(3) MCR 2016	13-NOV-17
		MP modif under 17(3) MCR 2016	26-FEB-19
		MP modif under 17(3) MCR 2016	16-MAR-20

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	None in the year 2021-22.	None.	Proposed three boreholes in the present plan period and drilled 04 boreholes in the year 2020-21
1b	Exploration over lease area for geological axis 1 or 2	None in the year 2021-22.	None.	Entire area is Explored under G-1 level.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No such proposal was given.	None in the year 2021-22.	Previously exploration is carried out by the lessee only.
1d	Balance area to be explored to bring Geological axis in 1 or 2	None.	None.	Laterally entire area is explored under G-1 level. however, below the old waste dump boreholes were not drilled upto dicontinuity of ore body. So lessee has proposed few boreholes below the old inactive dump in the review of Mining plan submitted for the block period 2023-24 to 2027-28.
1e	Balance reserve as on 01/04/20	Reserves/resources as per the approved document dated 16.03.2020 is as follows. (Unit-in Million tonnes) Mineable reserves - 21.65 Remaining resources - 40.27 Total: - 61.92	Reserves/resources as on 01.04.2022. (In millinon tonnes) Mineable Reserves - 19.32 Remaining Resources - 40.27 Total: 59.59	Reserves/resources were updated by depelting the production figure 2.33milloion tonnes carried out during the period 2019-20 (Jan-20 to mar-20) to 2021-22.



1f	General remarks of inspecting officers on geology, exploration etc	The limestone deposit is belongs to north-easter margin of the palnad sub-basin of the kurnool sedimentary basin overlying the cuddapah super group rock. The deposit is bedded in nature having strike of NW to SE and dip 10 to 15 degree. The entire area is laterally explored under G-1 level by drilling 52 boreholes to a total depth of 2722 mtrs.
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## Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	In the year 2021-22, working was proposed between the co-ordinates N 1861746 to N 1862010 and E 408550 to 408594 and N 1861982 to 1862153 & E 408051 to 408088.	Working was carried out between the co-ordinates N 1861823 to 1862015 & E 408451 to 408478 and N 1861880 to 1862149 and E 408172 to 408159.	The working has been carried out within the proposed area.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes proposed.	Benches were made separately in ore and OB.	One bench is in OB and seven benches in ore.
2c	Stripping ratio or ore to OB ratio	1:0.11 in the year 2021-22	1:0.09 in the year 2021-22.	
2d	Quantity of topsoil generation in m3	None.	Nil.	
2e	Quantity of overburden generation in m3	116274 in the year 2021-22.	41506.	Due to lake of demand production is achieved only 43% only, so development is not made as per the proposal.

2f General remarks of inspecting officers on development of pit w.r.t. type of deposit etc

Benches were advanced towards the eastern side. The bench height was maintained at 8.00 to 9.00 mtrs and width 15 to 20mtrs. Bench parameter was maintained within the proposed limit and suitable to the proposed method of mining.

## Exploitation:

Sl.No.	Item	Proposals	Actual work	Remarks
3a	Number of pit proposed for production	One	One.	Only one pit is existing within the lease area and dimension of pit is 768m (h) x 358m(w) x 60 mtr(d).
3b	Quantity of ROM mineral production proposed	2751368 tonnes in the year 2021-22.	1199500 tonnes in the year 2021-22.	Due to lack of demand production was achieved only 43.5% in the year 2021-22.
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	Entire ROM removed was utilized for captive plant.
3d	Quantity of mineral reject generation	None.	None.	Entire ROM was utilized for captive consumption.
3e	Grade of mineral rejects generation and threshold value declared.	Threshold value is Cao- 34% minimum.	No mineral reject was generated in the year 2021-22.	The entire ROM removed was cement grade and utilized for captive consumption.
3f	Quantity of sub grade mineral generation.	None.	None.	
3g	Grade of sub grade mineral generation	Not applicable.	Not applicable.	
3h	Manual / Mechanised method adopted for segregating from ROM	None.	None.	Entire ROM removed was sent to captive plant.

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	None.	None.	
3j	Provision of drilling and blasting in mineral benches	Proposed conventional deep hole drilling and blasting.	Drilling and blasting has been carried out as per the proposal.	Using 115mm dia crawler mounted drilling machine for drilling and slurry explosive for blasting.
3k	Provision of mining machineries in mineral benches	Yes proposed, proposed combination of excavator and dumper.	Lessee is using Excavators of 2.1 and 2.8 cum capacity and dumpers of 16 and 19 cum capacity, for production and development.	Additionally lessee is using drilling machine of 115mm dia and air compressor for drilling.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed 9.00 mtr bench height.	Yes proposed bench height is suitable for the proposed method of mining.	
3m	Total area covered under excavation/pits	33.31Ha up to end of present plan period(31.03.2023)	28.46Ha upto 2021-22.	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.11 in the year 2021-22.	1:0.08 in the year 2021-22.	
3o	Total area put in use under different heads at the end of year	Area under mining-33.31Ha, Waste dump-12.01Ha, Infrastructure-4.18Ha, Reclamation-1.55Ha.	Area under mining-28.46Ha, waste dump-11.14Ha, infrastructure-4.03Ha.	Since mineral was not completely removed from the proposed backfilling area, no reclamation has been carried out during the year 2021-22.
3p	Production of ROM mineral during the last five year period as applicable	2021-22 2751368 T 2020-21 2003448T 2019-20 1204095T 2017-18 1040668T	2021-22 1199500T 2020-21 792000T 2019-20 1184000T 2018-19 1199500T 2017-18 526164T	



3q General remarks of inspecting officers on method of mining etc.

The method of mining adopted is fully mechanized with combination of Excavator and dumpers. Lessee is doing drilling and blasting for loosening of the strata. The bench parametres were maintained as per the proposal.

## Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Proposed separate dumping of OB.	Dumping of OB is done separately.	No Topsoil and Mineral reject generation is proposed in the present plan period.
4b	Location of topsoil, OB and mineral reject dumps	OB dump was proposed between the co-ordinates N1861810 to 1861740 and E 408800 to 409000	OB dumping was made between the co-ordinates N 1861810 to 1861740 to E 408850 to 409000.	Waste dumping was made within the proposed area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposed within the UPL	Within the UPL	Due to restriction of area presently waste dumping is temporarily going on within the UPL. In future same will be utilized for backfilling of the exhausted levels.
4e	Number of active and alive dumps.	One.	One.	
4f	Number of dead dumps.	One.	One.	
4g	Number of dumps established.	One	One	One inactive dump is stabilized by plantation.
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes proposed.	Garland drains and retaining bunds were made along the toe of the waste dump.	Lessee has advised to construct retaining wall in the southern part of the active waste dump to avoid wash off.

4i	Length of Retaining wall or garland drain all along dumps	Retaining bund 250m and Grald drain 275 m. in the year 2021-22.	Garland drain 1465m and retaining bund 1180m	Gralnd drains were made all along the active dump and haulage roads.
4j	Number of settling ponds	03	03	
4k	Specific comments of inspecting officer on waste dump management			One old inactive dump is existing in the western part of the lease area and it is stabilized by plantation. In the present plan period waste dumping is going on in the eastern part of the lease. The active dump is existing within the UPL and same will be utilized for backfilling of pit after complete extraction of ore. Provided retaing bund and garland drains all along the toe of the dump.

#### 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.	Proposed backfilling after full extraction of the ore.	No backfilling was made in the year 2021-22.	Due to lack of demand production is achieved only 43.5% and mineral is not extracted completely from the area proposed for backfilling.
5b	Area under backfilling of mined out area	0.6Ha.	None.	The mineral is not extracted completely, so no backfilling was made in the year 2021-22.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	None.	None.	
5d	Total area fully reclaimed and rehabilitated	0.60Ha	None.	Mineral is not extracted completely from the area proposed for backfilling.



5e General remarks of inspecting officers on backfilling and reclamation etc. The mineral is not extracted completely from the area proposed for backfilling. So, no backfilling was done in the year 2021-22.

## 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).	Before 1st July of every year.	Lessee has submitted PMCP report for the year 2021-22.	Submitted PMCP report for the year 2021-22, within the time limit. Submitted PMCP report on 25.06.2022.
6b	Area available for rehabilitation (ha) .	None	None	
6c	afforestation done (ha).	0.3Ha.	0.3Ha.	
6d	No. of saplings planted during the year	500 in the year 2021-22.	2135 saplings in the year 2021-22.	Plantation was made in the safety zone and on the inacative dump.
6e	Cumulative no .of plants	1400 sapling in the present plan period up to 2021-22.	Total 7420 saplings are planted in the present plan period up to 2021-22 (2018-19 to 2021-22).	
6f	Any other method of rehabilitation	None.	None.	
6g	Cost incurred on watch and care during the year	None	Rs 5,93,000 in the present plan period.	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	110 m x 55m x 32m.	None.	Due to lack of dema production has not been carried out as per the proposal and mineral(ore) is not completely removed from the area proposed for backfilling. So no backfilling was made in the present plan period up to 2021-22.

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Yes proposed backfilling by waste.	None.	Mineral is not extracted completely and no backfilling is made in the present plan period.
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	None.	None.	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	None.	None.	
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	None.	None.	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	None.	None.	
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	None.	None.	
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	None.	None.	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed regular monitoring of Air, water and noise in the core and buffer zone.	Quarterly ambient, water and noise monitoring is being carried out in the core and buffer zones and results are well within the permissible limits.	

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	There was a proposal to backfill the minedout area in the present plan period. However, entire mineral was not extracted from the area proposed for backfilling and no backfilling was made in the present plan period up to 2021-22. Plantation was made more than the proposal and lessee is regularly monitoring Air and water and all the parameters are within permissible limits.
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Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Proposed Cement grade dispatch.	Cement grade ore dispatched.	Entire ROM removed is shown under cement grade and utilized for captive purpose.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	None.	None.	Entire ROM has been dispatched under cement grade by blending.
7c	Different grade of mineral sorted out at mines.	Cement Grade.	Cement Grade.	
7d	Any beneficiation process at mines	None.	None.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Lessee is using entire ROM by blending lowgrade with the high grade as per the requirement of the plant.	

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Environment:

Sl.No.	Item	Proposals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	None.	None.	
8b	Concurrent use or storage of topsoil	None.	None.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes proposed separate dump for OB.	OB Dumping is made as per the proposal.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Yes proposed OB for bacfilling of mined out area.	None.	Entire mineral was not removed from the area proposed for backfilling. So no backfilling was done in the present plan period up to 2021-22.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Yes proposed back filling of pit.	None.	Entire mineral was not removed from the area proposed for backfilling. So no backfilling was done in the present plan period up to 2021-22.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)		Yes, information was given in the approved mining plan. Additionally lessee has planted 7400 saplings in the present plan period. within the lease area.	
8g	Survival rate	None.	85 to 90%.	
8h	Water sprinkling on roads to control airborne dust	Yes, proposed.	Regularly sprying water on the working benches, Haul road etc	One water tanker of 10,000 ltr capacity is in use for dust supression.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Benches and haulage roads were maintained systematically. One water tanker is deployed for sprinkling water in the working area and on the haulage roads. Plantation was made in the safety zone and on inactive waste dump.	

## Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	A monthly returns shall be submitted before 10 th day of every month in respect of preceding month and an annual returns shall be submitted before 1st day of july of each year for the preceding financial year.	Lessee is regularly submitting monthy and annual returns within the time limit.	Submitted Monthly returns up to Sep 2022 and annual returns 2021-22.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer - Shri R Naresh kumar, Geologist - Shri B Raju, Manager- Shri M Murali Krishna.	The details given in the Annual retirns submitted for the year 2021-22 are found correct.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under current working- 28.46Ha, Waste dump-11.14Ha, Infrastructure -4.03Ha, others (green belt and bunds)- 10.09Ha.	The details of land use pattern mentioned in the AR submitted for the year 2021-22 is found correct.	
9d	Scrutiny of Annual return on afforestation	2135 saplings .	verified with records maintained at site and in the filed the data furnished is found correct.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil.	Nil	

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM:- Opening stock- Nil, Production- 1199500T, Closing stock- Nil. Graded wise details:- Cement Grade:- Opening stock- Nil, Production- 1199500T and closing stock- Nil.	The details verified with the records and found correct.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine price and cost of production- 199.60/T	The information is found correct.
9h	Scrutiny of Annual return on fixed assets	Value of fixed asset is mentioned as Rs- 17396223.	Information is appears correct.
9k	Scrutiny of Annual return on mining machineries	Excavator-02 ( 2.1 and 2.8 cum capacity) , Dozer-01, Tipper-12 ( 06-16 cum and 06 19 cum capacity) , Air compressor-01, Drilling machine-01, water tank-01.	The information furnished in the AR submitted for the year 2021-22

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**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 :

(kalmata.M.K)

Indian Bureau of Mines



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