

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

**Mining Plan Modification REPORT**

**Hyderabad regional office**

**Mine file No :** AP/GNR/LST-49/HYD

**Mine code :** 38APR07065

- (i) Name of the Inspecting : **PR09** ) **M.Pratap.Reddy**  
Officer and ID No.
- (ii) Designation : Assistant Mining Geologis
- (iii) Accompanying mine : VENKATA RAMANA QUALIFIED PERSON  
Official with  
Designation
- (iv) Date of Inspection : 08/03/2019
- (v) Prev.inspection date :

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **KCP LIMESTONE DEPOSIT-I**
- (b) **Registration NO.** : **IBM/680/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ANDHRA PRADESH
- District : GUNTUR
- Village : MANDADI BLOCK II RF
- Taluka : VELDURTHY
- Post office : MANDADI
- Pin Code : 522426
- FAX No. : 08642-222350
- E-mail : mines.macherla@kcp.co.in
- Phone : 08642222303
- (f) Police Station : Veldurthy
- (g) First opening date : 08/07/2016
- (h) Weekly day of rest : SUN
2. Address for : The KCP Ltd  
correspondance Macherla-522426  
Guntur district, AP
3. (a) Lease Number :
- (b) Lease area :
- (c) Period of lease :
- (d) Date of Expiry :
4. Mineral worked : LIMESTONE Main

## 5. Name and Address of the

Lessee : M/S K.C.P.LTD  
MACHERLA CEMENT UNIT  
MACHERLA GUNTUR ANDHRA  
PRADESH  
Phone:  
FAX :

Owner : DR.V.L.DUTT,C&MD  
2,P.V. CHERIAN CRESCENT,  
CHENNAI,TAMIL NADU.  
CHENNAI CITY TAMIL NADU  
Phone: 4466772600  
FAX : 4466772620

Agent : B V P S Chowdhary  
M/s KCP Cements Macherla-  
522426 Andhra Pradesh  
GUNTUR ANDHRA PRADESH  
Phone: 08642-222303  
FAX : 08642-222350

## Mining Engineer

Name : V.Ravi Kanth,Full Time  
Qualification : B.Tech(Mining)  
Appointment/ : 12/03/2018  
Termination date

## Geologist

Name : P.Manohar Reddy,Full Time  
Qualification : M.Sc(Geology)  
Appointment/ : 06/03/2019  
Termination date

6. Date of approval of Mining : Fresh under rule 22 MCR1960 06/02/2015  
Plan/Scheme of Mining

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Six Boreholes have been proposed with a total meterage of 180m	Seven Core boreholes have been drilled with a meterage of 230m	
1b	Exploration over lease area for geological axis 1 or 2	G1 scale of exploration with six Boreholes has been proposed over entire ML area	G1 scale of exploration with seven Boreholes at about 100m grid interval has been carried out.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	The lessee himself proposed to undertake the exploration. The proposed expenditure has not been given.	The lessee outsourced the exploration to M/s NRDCS. The expenditure incurred is Rs.3.6 lakhs.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil.	Nil	The entire ML area has already been explored to G1 Scale of exploration
1e	Balance reserve as on 01/04/20	As per the earlier approved document, the reserve as on 1.4.2018 is 19,025 T of Limestone.	The reserve has been re-estimated as on 1.4.2019 is 1.45 Million Tonnes of Limestone.	Subsequent to G1 scale of exploration at 100m grid interval by means 7 coreboreholes, the reserve has been escalated from 19,025 T to 1.45 million tonnes of Limestone. In this context a modified mining Plan has been submitted.

1f	General remarks of inspecting officers on geology, exploration etc	The ML area is sedimentary formation of proterozoic Era of Palnad formation pertaining to Kurnool group of Indian Stratigraphy (equivalent to Semri series of Vindhyan system) with G1 scale of exploration.	The subject ML area forms a part of Kurnool group of Palnad formation pertaining to proterozoic Era where in G1 scale of exploration has been carried out. The formations are trending ENE-WSW with a dip amount of 2-5 degrees due SSE.
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Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	The development cum production is proposed in between section A-A' and B-B' with a sub bench of top soil and mineral bench in Limestone with 3.0m	As proposed the development cum production is done between the section A-A' & B-B' with a sub bench of 0.25m height in top soil/ sub soil and formation of mineral bench is under progress.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate sub bench for top soil and a mineral bench is proposed	A sub bench of 0.25m top soil has been formed and formation of mineral bench is under progress.	There exists no overburden. The thin matle of soil is followed by underneath Limestone.
2c	Stripping ratio or ore to OB ratio	The proposed stripping ratio for the year 2017-18 is 1:0.607	The actual stripping ratio during the year 2017-18 is 1:0.131	
2d	Quantity of topsoil generation in m3	The proposed generation of top soil during the year 2017-18 is 1730 cum.	The actual generation of top soil during 2017-18 is 400 cum	The area degraded during 2017-18 is less than the proposed extent of degradation.

2e	Quantity of overburden generation in m3	The proposed generation of overburden is nil.	There is no generation of overburden.	No overburden exists in the ML area except thin mantle of soil cover which is contaminated with morrum.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Sedimentary bedded deposit of Limestone with thin mantle of contaminated soil with morrum on the top of the Limestone. The development cum production is proposed in between section A-A' and B-B' with a sub bench of top soil of 0.5m and mineral bench of 3.0m.	The development cum production is done between the section A-A' & B-B' with a sub bench 0.25m in soil and formation of mineral bench in Limestone is under progress.	

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One Pit is proposed for production during the year 2017-18.	The proposed pit is under progress for the production during the year 2017-18.	
3b	Quantity of ROM mineral production proposed	During the year 2017-18, the proposed production of Limestone is 6,225 T	The poduction of Limestone achived during 2017-18 is 6,100 T	
3c	Recovery of sailable/usable mineral from ROM production	The recovery of usable limestone from ROM production proposed is 100%	During the inspection, it is obseved that there is ROM handling losses of Limestone about 2-5% at the time of blasting, loading and transportation.	
3d	Quantity of mineral reject generation	The proposed generation of mineral reject is nil.	During the year 2017-18, the generation of mineral rejects is nil.	

3e	Grade of mineral rejects generation and threshold value declared.	There is no proposal of mineral rejects and grade of the same does not arise.	No mineral reject exists and grade of the same does not arise.
3f	Quantity of sub grade mineral generation.	There is no proposal of generation of sub grade mineral.	No subgrade mineral exists.
3g	Grade of sub grade mineral generation	There are no proposals of generation of subgrade mineral and thus grade of the same does not arise.	There is no generation of subgrade mineral and grade of the same does not arise.
3h	Manual / Mechanised method adopted for segregating from ROM	No segregation proposal of ROM is given.	No segregation of ROM is done. The entire ROM is consumed.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such proposal is made.	Does not arise.
3j	Provision of drilling and blasting in mineral benches	Drilling is proposed with large dia(110mm) drill holes for a depth of about 3m. Blasting was proposed with use of ANFO and slurry cartridge as base charge.	The drilling dia blasting is being done for 110 mm dia. ANFO-slurry explosive being used for blasting. The proper delay detonators are being used have been used to keep the vibration within the safe limits. The spacing of 4m and burden of 3m in two rows at staggered pattern of drilling and blasting is adopted.
3k	Provision of mining machineries in mineral benches	Excavator-dumper combination was proposed with large dia drill machines for blast hole drilling.	Excavator of 1.7 cubic metre capacity with Tipper of 17 T capacity are being used. Large dia drill machines(110mm) for blast hole drilling is being undertaken.

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	The bench height of 3 m is proposed	A sub bench of 0.25 m height in soil/sub soil is formed. The formation of mineral(Limestone) bench is under progress.	
3m	Total area covered under excavation/pits	0.908 ha	0.40ha	Only one pit exists.
3n	Ore to OB ratio for the pit/mine during the year.	The proposed stripping ratio for the year 2017-18 is 1:0.607	The proposed stripping ratio for the year 2017-18 is 1:0.131	
3o	Total area put in use under different heads at the end of year	As per approved document, Total area under excavation till 31.3.2018 is 0.908 hectare and area under roads is 0.01 ha	The area under excavation till 31.3.2018 is 0.4ha and area under roads is 0.01 ha	
3p	Production of ROM mineral during the last five year period as applicable	The production proposals commences from 1.4.2018. 2017-18=6,225 T of Limestone.	2017-18=6100 T of Limestone.	The mining operations commenced w.e.f 8.7.2016 and during the year 2016-17, exploration has been carried out and no production has been done.
3q	General remarks of inspecting officers on method of mining etc.	Opencast fully mechanised method of mining is proposed.	The mining operations are being carried out by opencast fully mechanised method of mining by deploying an Excavator of 1.7 cubic metre capacity with Tipper of 17 T capacity. Large dia drill machine(110mm) for blast hole drilling is being undertaken with an aid of I.R compressor of 450 CFM.	

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Solid Waste Management - Dumping:

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Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No such proposal is made as the ML area is devoid of Overburden.	The top soil(thin mantle) removed is meant for concurrent and productively used for plantation in the 7.5m buffer zone.
4b	Location of topsoil, OB and mineral reject dumps	No such proposal is made.	There is no generation of Overburden and mineral reject. The top soil generated is concurrently used for afforestation.
4c	Number of dumps within lease area and outside of lease area	No such proposal is made since there is no generation of waste material in the leased area.	Does not arise.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	There is no such proposal as there is no likely generation of waste material..	No dumps exists.
4e	Number of active and alive dumps.	None.	Nil.
4f	Number of dead dumps.	None	Nil.
4g	Number of dumps established.	None	Nil.
4h	Whether Retaining wall or garland drain all along dumps are there.	There is no proposal of dumps and the proposal of retaining wall or garland drain does not arise.	Does not arise.
4i	Length of Retaining wall or garland drain all along dumps	No such proposal is made.	-
4j	Number of settling ponds	No such proposal is made	Does not arise.



4k	Specific comments of inspecting officer on waste dump management	There are no proposals of waste dump since there is no generation of waste material/mineral reject.	Entire ROM is consumed. There is no generation of mineral rejects/waste.	The top soil is being concurrently used for afforestation in 7.5m buffer zone.
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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 such proposal is made since the mineral (Limestone) is yet to exhaust.	Nil	No area is mined upto UPL.
5b	Area under backfilling of mined out area	No such proposal is made.	No area is mined upto its UPL. Therefore no back filling has commenced.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No such restoration or rehabilitation proposal is made.	However, the top soil removed is concurrently used for afforestation in the 7.5m buffer zone.	
5d	Total area fully reclaimed and rehabilitated	No such proposal is made.	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	There are no proposals of backfilling and reclamation as the pit is yet to mature for backfilling and recalamation.	Does not arise.	The Limestone is yet to exhaust and the benches have been just opened for excavation of Limstone and thus there are no proposals of back filling and reclamation.

#### Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	The annual statement of yearwise protective measures of PMCP have been furnished in the approved document for afforestation and monitoring of Environmental parameters.	The annual statement of yearwise protective measures of PMCP for the year 2017-18 has been submitted by furnishing the afforestation in 7.5m buffer zone and expense incurred for monitoring of Enviromental parameters.
6b	Area available for rehabilitation (ha) .	No such proposal is made as there is no availability of the the area for rehabilitation .	No area is available for rehabilitation.
6c	afforestation done (ha).	Afforestation is proposed in the 7.5m buffer zone over an extent of 0.04 ha.	Afforestation in the 7.5m buffer zone has been done. During the Inspection it has been observed that the backlog of plantaion in the 7.5 m buffer zone over an extent of 0.08 ha on the North western part of the ML area has been done with 70% survival rate.
6d	No. of saplings planted during the year	During the year 2017-18, 100 saplings have been proposed.	During the Inspection it has been observed that the backlog of plantaion of 200 saplings (includes for the year 2017-18) in the 7.5 m buffer zone on the North western part of the ML area has been done with 70% survival rate.
6e	Cumulative no .of plants	200 saplings	140 saplings with 70% survival rate.
6f	Any other method of rehabilitation	No such proposal is made.	-
6g	Cost incurred on watch and care during the year	No cost on watch and ward has been proposed.	However, during the inspection it is reported that they have incurred about Rs.70,000/-

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No such proposal has been made.	The has not yet matured for reclamation and rehabilitation by backfilling since the mineral is yet to exhaust.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No such proposal has been made.	-
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No such proposal has been made.	Does not arise.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No such proposal is made.	The pit is not yet matured for conversion into water reservoir as the mineral is yet to exhaust.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No such proposal is made.	Does not arise.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No such proposal is made.	There is no waste land. The entire ML is a mineralised area and rehabilitation of the same at this stage does not arise.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No such proposal is made.	Does not arise.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No such proposal is made.	Does arise.

6p	Compliance of environmental monitoring (core zone and buffer zone)	Quartely monitoring of Environmental parameters both in core and buffer zone is proposed.	Environmental monitoring both in core and buffer zone as proposed is being carried out and all the parameters to are found to be with in the limits.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	No progressive closure proposals have been proposed except the proposals of Environmental protective measures.	Environmental protective measures have been undertaken on yearly basis. Further Environmental parameters are being monitored Quarterly basis and the parameters are found to be with in permissble limits.

#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	No such proposal is made.	The entire ROM as such is being fed to crusher and then supplied to the plant for manufacturing for Cement.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No such proposal is made.	The entire ROM produced is of Cement grade.	
7c	Different grade of mineral sorted out at mines.	No such proposal is made.	There is no sorting of Limestone. The entire ROM as such is fed to crusher.	
7d	Any beneficiation process at mines	No such proposal is made.	Except sizing no beneficiation is done.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	No beneficiation proposals are made since entire ROM as such is consumed.	There are no issues of mineral conservation. There is neither generation of mineral reject nor sub grade mineral and as such the entire ROM is consumed.	

#### Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal of top soil is proposed and it is meant for concurrent use for afforestation.	As proposed, the removed top soil is concurrently spread over the 7.5m buffer zone for the plantation purpose.
8b	Concurrent use or storage of topsoil	Concurrent use of top soil is proposed.	So far about 400 cum topsoil is concurrently used for afforestation.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No such proposal is made.	There is no generation of overburden, waste material and mineral rejects etc. and separate dump for the same does not arise.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal is made since there is no likely generation of such material.	There is no generation of overburden, waste rock, rejects etc and restoring the original land with such material does not arise.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposal is made.	Does not arise.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	The ML area is a barren land no vegetation exists. Complimentary afforestation proposed in the 7.5m buffer zone.	The lessee has carried out afforestation in the 7.5 m buffer zone. 140 saplings exists @ 70% survival rate.
8g	Survival rate	Survival rate proposed is 80%	Actual survival rate is 70%
8h	Water sprinkling on roads to control airborne dust	Yes, proposed.	Periodically water sprinkling is being done to arrest airborne dust.

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Complimentary afforestation is proposed.	Complimentary afforestation is carried out in and around the lease area which adds aesthetic beauty to the subject ML area.
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#### Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly return shall be submitted before the 10th of every month in respect of preceding month. and annual return which shall be submitted before the 1st July each year for the preceding Financial year.	Returns for the year 2017-18 have been submitted with in stipulated period.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information on appointment of Mining Engineer and Mining Geologist to be furnished.	Information with regard to appointment of Mining Engineer has been furnished in the Annual Return. Mining Geologist has been appointed recently(6.3.2019). The same has been intiamted to this Office on 13.3.2019	Mining Geologist has been appointed subsequent to issue of Violation letter dated 11.12.2018 during the MCDR Inspection dated 30.10.2018.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	The information on land use pattern Viz area under pits, reclaimed area, dumps etc. are to be furnished.	The area under pit=0.440 ha, Reclaimed area= nil and Area occupied by dumps= nil	

9d	Scrutiny of Annual return on afforestation	The no. of plants planted during 2017-18 is furnished to be '200 nosl'	During the Inspection it has been observed that the backlog of plantaion of 200 saplings in the 7.5 m buffer zone on thte North western part of the ML area has been carried out with 70% survival rate.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral rejections furnished to be 'nil'	There is no generation of mineral rejects.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	The ROM stock furnished to be 'nil'	There is no ROM stock exists on the ground.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	The sale value, Ex-mine price and cost of production to be furnished in Annual Return.	The sale value/ Ex mine price furnished to be Rs.324/-	
9h	Scrutiny of Annual return on fixed assets	Fixed assets to be furnished.	The value of fixed assets furnished to be Rs.474 Million	The amount furnished is common for all all the five mines and Plant.
9k	Scrutiny of Annual return on mining machineries	Mining machinary proposed are: BACK HOE- 1.700 CUM 1 No. TIPPER- 17.000 CUM 3 Nos. Wagon drill BVB 25-10 115mm 1 No.	Mining Machinary deployed at site are: BACK HOE- 1.700 CUM 1 No. TIPPER- 17.000 CUM 3 Nos. Wagon drill BVB 25-10 115mm 1 No.	

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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

Date :

(M.Pratap.Reddy)

Indian Bureau of Mines