

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

**MCDR inspection REPORT**

**Hyderabad regional office**

**Mine file No :** AP/GNR/LST-44/HYD

**Mine code :** 38APR07051

- (i) Name of the Inspecting : **25** ) **SHRI IBRAHIM SARIF**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Sri Venkataramana, Sr GM  
Official with  
Designation
- (iv) Date of Inspection : 15/03/2022
- (v) Prev.inspection date : 09/10/2020

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **TERALA(49.18 HA)**
- (b) **Registration NO.** : **IBM/680/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ANDHRA PRADESH
- District : GUNTUR
- Village : TERALA
- Taluka : MACHERLA
- Post office : MACHERLA
- Pin Code : 522426
- FAX No. : 08642222350
- E-mail : it.macherla@kcp.co.in
- Phone : 08642222303
- (f) Police Station : Macherla
- (g) First opening date : 08/12/2009
- (h) Weekly day of rest : SUN
2. Address for : TERALA VILLAGE  
correspondance : DURGI MANDAL  
GUNTUR DISTRICT
3. (a) Lease Number : APR2597
- (b) Lease area : 49.18
- (c) Period of lease : 20
- (d) Date of Expiry : 11/12/2028
4. Mineral worked : LIMESTONE Main

## 5. Name and Address of the

Lessee : M/S.KCP LTD  
 MACHERLA AT&PO GUNTUR  
 ANDHRA PRADESH  
 Phone:08642222303  
 FAX :08642-222350

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

Manager  
 Name : S.PRASAD  
 Qualification : DIPLOMA IN MINING  
 Appointment/ : 18/01/2010  
 Termination date

6. Date of approval of Mining : Mining Scheme rule 12 MCDR1988 20/10/2014  
 Plan/Scheme of Mining : MP review under 17(1) MCR 2016 23/02/2018

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No back log of previous years exploration	Nil	
1b	Exploration over lease area for geological axis 1 or 2	F.Y 2020-21 : No proposal of exploration during the year	Nil	Entire area was covered under G1 level of exploration.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	No exploration activity carried out during the year 2020-21	Exploration was carried out by Agency: Natural Reesource Development Co-operative Society Ltd., Hyderabad under the supervision of Lessee's representative. So far, Rs. 3,74,500 of expenditure incurred for exploraiton.
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	No area is available for exploration as entire area is explored in G1 scale.	Entire area was covered under G1 level of exploration.
1e	Balance reserve as on 01/04/20	-	Reserves as on 01.04.2018 : 2.57 Million tonnes Less Production in 2018-19 : 0.4 million Tonnes, 2019-20 : 0.373 million Tonnes, 2021-22 : 0.245 Million Tonnes Balance Reserves as on 01.04.2021 is : 1.55 Million Tonnes.	

1f	General remarks of inspecting officers on geology, exploration etc	The general lithological succession in the lease area is grey limestone followed by pink limestone. The grey limestone is useable in the cement plant but pink limestone is not useable. The contact zone is having gradational changes, as such it may be used some times. The pink limestone is exposed in the excavated pit at bottom. Entire Lease area is explored in G scale with 59 no. of Bore holes
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	It was proposed to develop the pit due North between gridlines E 334679 to E 334909 and N1816484 to N1816758	Pit is developed in between grid lines as per approved proposals.	As the working is moving towards north direction, the depth of mineralization decreases due to ore body disposition.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Area is devoid of Overburden. Only top soil is anticipated to be generated.	The top soil available is of up to 1 meters or less and is excavated separately wherever possible. No OB benches are there. Development is being done in Mineral benches after excavation of Top soil of about meter	
2c	Stripping ratio or ore to OB ratio	No OB generation proposed, Only Top soil generation of 1059 cum was assessed in 2020-21. Hence SR is 1 : 0	2200 Tonnes of OB is reported during the year 2020-21. Stripping Ratio is 1 : 0.0089	
2d	Quantity of topsoil generation in m3	F.Y 2020-21 : 1059 cum of Top Soil to be generated	About 2000 cum of Top Soil generated during the year 2020-21	

2e	Quantity of overburden generation in m3	Nil	2200 tonnes of Waste generated during the Year 2020-21	Occurrence of waste band with High silica leads to generation of waste, which was not anticipated in the document.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		The general topography is almost flat. There is a relief of about 8m between the south and north . North of the lease is at lower elevation than South. Limestone bed is dipping towards south and the pit is being developed towards north. A pit of about 400m x 400m is being developed with two benches. One soil dump is there of about 150m X 100m. The bottom RL of the pit is 147.79 m.The mine is being developed with conventional drilling and blasting with loading using the tippers.	The limestone is crushed at Mandadi Limestone Mine which is at a distance of about 4km from the mine. The crushed material is taken to the plant by aerial ropeway of about .

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit was proposed for production	One pit is being developed	
3b	Quantity of ROM mineral production proposed	401350 T limestone ROM proposed for 2020-21	2020-21= 2,20,000 Tonns produced during the year	Less production is due to low market demand.
3c	Recovery of sailable/usable mineral from ROM production	Entire ROM ore produced is proposed to be utilised	Entire ROM of 2,50,000 Tonnes produced during the year 2020-21 is utilised	
3d	Quantity of mineral reject generation	F.Y 2020-21 : No generation of Mineral reeject is anticipated during the year	No Miniral reject generated during the year 2020-21	

3e	Grade of mineral rejects generation and threshold value declared.	F.Y 2020-21 : No proposal	Not applicable
3f	Quantity of sub grade mineral generation.	F.Y 2020-21 : No generation of Sub grade mineral is anticipated during the year	Nil during the year 2020-21
3g	Grade of sub grade mineral generation	No proposal during the year 2020-21	Not applicable
3h	Manual / Mechanised method adopted for segregating from ROM	No segregation from ROM is proposed	Intercalated soil within limestone crevices is segregated where ever possible.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	F.Y 2020-21 No proposal of any Analysis/ Beneficiation study to be carried out during the year	No such Study done during the year 2020-21
3j	Provision of drilling and blasting in mineral benches	Drilling operations are to be carried out by 115mm drioll hole dia Machines by maintaining Burden of 3 meters and Spacing of 5 meters and Blasting is to be carried out by using ANFO Slurry explosives with Nonel initiating system proposed	Drilling and Blasting operations are being carried out as per proposals.

3k	Provision of mining machineries in mineral benches	2.1cum capacity back hoe type excavator along 5 nos of 17 cum capacity Tippers are being used along with 1 dozer, 1 Rock Breaker and 1 drilling machine.	2.1 cum capacity back hoe type excavator along with 5 nos of 17 cum capacity Tippers are being used along with 1 dozer 1 Rock Breaker and 1 drilling machine are being deployed in the lease.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Boom length of 2.1 cum capacity Excavator is suitable to maintain bench height of 7 meters in Mineral	Yes 2.1 cum capacity excavator is suitable for mechanised method with bench height of 7 meters	
3m	Total area covered under excavation/pits	Area covered under mining till 2022-23= 17.79 ha.	Area covered under pit during the year 2020-21 is 12.3 ha	
3n	Ore to OB ratio for the pit/mine during the year.	Nil during the year 2020-21	2200 tonnes of waste is reported to be generated	Intercalated waste band occurrence in the mineral benches leads to generation of waste.
3o	Total area put in use under different heads at the end of year	Area degraded till 2022-23 Pit- 17.79 Ha Storage of Top Soil = 0.21 Ha Waste Dump=1.85 Ha. Mineral Storage = 1.23 Ha Road 1.01.Ha. Infrastructure = 0.1 Ha Green belt 4.15 Ha.	Pit- 12.3 ha. Waste dump=1.4 ha. Road and Infastructure =0.56 ha. Mineral Storage and Grreen Belt = 2.73 Ha	

3p	Production of ROM mineral during the last five year period as applicable	2016-17= 400085 T 2017-18= 400050 T 2018-19=401350 T 2019-20 = 4,00,132 T 2020-21 = 4,00,400 T 2021-22 = 3,02,750 T	2016-17= 400000 T 2017-18= 390000 T 2018-19 = 400050T 2019-20= 3,73,000 T 2020-21 = 2,45,000 T 2021-22 = 2,30,000 T up to Feb 2022
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3q	General remarks of inspecting officers on method of mining etc.	Mechanised method of mining is being adopted deploying HEMM with bench height of about 7 meters.
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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)	Separate dumping of Top soil is proposed	Separate dumping of soil undertaken. Further OB generated is being dumped seperately in the existing dump on Norther side of lease area.	
4b	Location of topsoil, OB and mineral reject dumps	Dumping of soil is proposed in the northern part of the pit between grid line N 1816775-1816925 and E 334600 334700	Dumping of soil is undertaken in the northern part of the pit between grid line N 1816775-1816925 and E 334600 334700	
4c	Number of dumps within lease area and outside of lease area	one dump poposed within lease area	one dump is there in the field at present within the lease area.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Waste dump was proposed outside ultimate pit limit	Waste dumping is done outside ultimate pit limit	
4e	Number of active and alive dumps.	one active dump	One waste dump is there of about 150m X 100m with a max height of about 8m is observed in the field.	
4f	Number of dead dumps.	F.Y 2020-21 : No dead dumps	Not applicable	



4g	Number of dumps established.	No proposal during the year 2020-21	No dumps established during the year 2020-21
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal during the year 2020-21	Not undertaken during the year, however soil bund all along bottom periphery of waste dump was observed during the year 2020-21
4i	Length of Retaining wall or garland drain all along dumps	No proposal during the year 2020-21	Not applicable
4j	Number of settling ponds	No proposal during the year 2020-21	Not applicable
4k	Specific comments of inspecting officer on waste dump management		Small waste/ Soil dump of about 8 meters on Northern side of lease area is observed. Garland drain, Soil bund all along bottom periphery of dump was provided to arrest the flow of dump material

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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 for backfilling.	Not applicable	On Southern side pink Limestone exposed in bottom benches and partly being utilised by blending with high grade ore. No backfilling proposal is there in the approved document.
5b	Area under backfilling of mined out area	No proposal	No area is under backfilling at present.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Top Soil generation is anticipated during the year hence no proposal for simultaneous use in plantation	The soil is being excavated seperately and temporarily stored and had been utilised for plantation whenever required.	

5d	Total area fully reclaimed and rehabilitated	No proposal during the year 2020-21	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.		The southern part of the benches have reached the ultimate pit limit at some places and the plantation activity within 7.5m of buffer area is being undertaken. The soil dump on Northern side of the lease area may be utilised for backfilling in future.

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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).	Annual report on PMCP for the year 2020-21 to be submitted.	Annual report on PMCP submitted during the year 2020-21	
6b	Area available for rehabilitation (ha) .	No area is availabe for rehabilitation for the year 2020-21	Not applicable	
6c	afforestation done (ha).	F.Y 2020-21 : No proposal for rehab. of worked out benches	Nil during the year	
6d	No. of saplings planted during the year	No proposal of plantation for rehab. of worked out benches during the F.Y 2020-21	Not done	
6e	Cumulative no .of plants	No proposal for rehab. of worked out benches by plantation	Not done	
6f	Any other method of rehabilitation	No such proposal	Not applicable	
6g	Cost incurred on watch and care during the year	No proposal	Nil	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	F.Y 2020-21 : Nil during the year No proposal of 2020-21 backfilling during the year	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal for rehab. of by backfilling	Not applicable
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No proposal of afforestation on backfilled area	Not applicable
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	F.Y 2020-21 : No proposal for rehabilitation by making water reservoir.	Not applicable
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	F.Y 2020-21 : No proposal of reclamation and rehabilitation	Not applicable
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	0.56 ha proposed to be afforested during the year 2020-21	About 0.5 Ha planted during the year 2020-21
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	300 saplings to be planted during the year 2020-21	300 sapplings planted during the year 2020-21
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	F.Y 2020-21 : No proposal of rehabilitation during the year 2020-21	Not applicable

6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly monitoring for Air, water, Noise to be carried out and to ensure the results are within permissible limit	Quarterly Monitoring being undertaken regularly and results are within permissible limit..
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		The southern part of the benches have reached the ultimate pit limit at some places and the plantation activity within 7.5m of buffer area is being undertaken to improve the aesthetic beauty.

#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Entire ROM produced to be diapatched	2,45,000 T of ROM produced had been dispatched during the year 2020-21. FURther No grade wise sorting is undertaken.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No proposal	No grade wise sirting is undertaken in the lease area as entire ROM produced is being utilised in Cement Plant	
7c	Different grade of mineral sorted out at mines.	No proposal	Not applicable	
7d	Any beneficiation process at mines .	No proposal	Mineral processing is not done in the lease . Only sizing is done and that too at the crusher installed in Mandadi Lst Mine and then dispatched to plant located about 6 km at Macherla by aerial ropeway.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		No grade wise limestone sorting is undertaken. Only the intercalated soil is segregated during the process of excavation by the machine	

## Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	It is proposed to remove top soil seperately and used for plantation.	Top Soil is excavated seperately and stacked at earmarked place followed by utilise for plantation.	
8b	Concurrent use or storage of topsoil	Proposed to use the entire soil generation concurrently for plantation.	Soil genertaed is stacked at earmarked place and utilised for plantation .	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No overburden , waste rock, reject or fine generation proposed.	Waste of about 2200 Tonnes is generated.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Not applicable	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal for Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not undertaken	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	0.56 ha is proposed to be afforested during the year 2020-21	About 0.5 ha area planted in 7.5m safety zone in the year 2020-21.	
8g	Survival rate	--	About 90% survival is there	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling arrangement is to be made to suppress the dust	Water sprinkling with 6KL capacity water tank is being deployed to suppress the air borne dust generated due to mining and allied activities.	

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Plantation is being carried out by the lessee to improve the aesthetic beauty.
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Annual return up to 2020-21 and Monthly return up to February 2022 shall be submitted	Annual return for the year 2020-21 and Monthly return for the month February 2022 submitted in time	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer in charge M. SAI KIRSHNA & Geologist in charge N. Vittal Babu	The above persons are employed.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under Mining : 12.30 Ha, Waste Disposal :1.24 Ha, Infrastructure :0.46Ha, Mineral Storage- 2.73 Ha	The same is observed during inspection	
9d	Scrutiny of Annual return on afforestation	300 sapplings planted during the year	The same is obsered during the inspection	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	There is no report of Mineral reject during the Year	No Mineral reject generated during the year	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Nil	Nil	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production, Ex-Mine Price, Rs. 239.66	Cost of production, Ex-Mine Price, Rs. 239.66	

9h	Scrutiny of Annual return on fixed assets	27315444	As reported by lessee, the same is common to all the 4 leases nearby
9k	Scrutiny of Annual return on mining machineries	BACK HOE (1.7 CUM)-1 No., TIPPER (17 CUM)-5 No.,AIR COMPRESSOR (450 CUM/MN)-1 No.,ROCK DRILL (NON- ELEC.)115 MM)- 1no.,WATER TANKER(12000.0 00 LITRE)-1 No.,DOZER (180 HP)-1	Above machines are deployed in the lease area

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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 :**

**(SHRI IBRAHIM SARIF)**

Indian Bureau of Mines