

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

MCDR inspection REPORT

Hyderabad regional office

Mine file No : AP/KSN/LST-12/HYD

Mine code : 38APR10004

- (i) Name of the Inspecting : **M017**) **MANISH K MAINDIRATTA**
Officer and ID No.
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine : Sh B Chandra Shekhar Gupta Mines Manager , Sh M Deva
Official with
Designation
- (iv) Date of Inspection : 13/12/2019
- (v) Prev.inspection date : 11/01/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KAKATIYA**
- (b) **Registration NO.** : **IBM/985/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ANDHRA PRADESH
- District : KRISHNA
- Village : SRINIVASANAGAR
- Taluka : JAGGAYYAPET
- Post office : JAGGAYYAPET
- Pin Code : 521175
- FAX No. : 040-7630172
- E-mail : info@kakatiyacements.com
- Phone : 7637717, 7633627
- (f) Police Station : JAGGAYYAPET
- (g) First opening date : 12/01/1983
- (h) Weekly day of rest : MON
2. Address for : KAKATIYA LIMESTONE MINE
correspondance SRINIVASNAGAR COLONY, JAGGAYYAPETA
KRISHNA DIST.
3. (a) Lease Number : APR0060
- (b) Lease area : 121.4
- (c) Period of lease : 20
- (d) Date of Expiry : 19/05/2002
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : KAKATIYA CEMENT SUGAR INDUSTRIES LTD
 H.NO 1/10/140/1 ASHOKNAGAR
 HYDERABAD HYDERABAD
 TELANGANA
 Phone:
 FAX :

Owner : K Venkat rao
 M/s Kakatiya Cement Sugar &
 Industries Ltd Gurukrupa
 Ashok Nagar HYDERABAD
 TELANGANA
 Phone:
 FAX :

Agent : D G K Raju
 M/s kakatiya Cements &
 Sugars Ltd Srinivasa Nagar
 Jaggayyapeta Mandal KRISHNA
 ANDHRA PRADESH
 Phone: 08654-200014
 FAX :

Mining Engineer

Name : M Devanand, Full Time
 Qualification : B TECH MINING
 Appointment/ : 05/03/2010
 Termination date

Geologist

Name : N.VITTAL BABU, Full Time
 Qualification : M.Sc (GEOLOGY)
 Appointment/ :
 Termination date

Manager

Name : B. Chandrashekhar Gupta
 Qualification : B TECH MINING
 Appointment/ : 05/09/2019
 Termination date

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|-------------------------------|---|--------------------------------|------------|
| 6. Date of approval of Mining | : | Renewal under rule 22 MCR1960 | 13/05/2002 |
| Plan/Scheme of Mining | | Mining Scheme rule 12 MCDR1988 | 08/02/2007 |
| | | Mining Scheme rule 12 MCDR1988 | 05/06/2012 |
| | | Mining Scheme rule 12 MCDR1988 | 15/10/2012 |
| | | MP modif under 17(3) MCR 2016 | 24/03/2017 |

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---|--|---|--|
| 1a | Backlog of previous year | Lessee proposed to drill 26BH in 2018-19 and 2017-18 each. | All the 52 boreholes (1560m) have already been drilled. | Reassessment of resource/ reserve , updation of geological sections have not been done as per rule 56 of MCDR'17. 10% of samples have not been analysed at NABL accredited laboratory. |
| 1b | Exploration over lease area for geological axis 1 or 2 | Nil | Nil | Entire area is covered under G1 level of exploration upto 30m depth. |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | --- | --- | |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | | Though entire area looks to be under G1 level of exploration. But the depth wise mineralisation is still continuing. | |
| 1e | Balance reserve as on 01/04/20 | As on 27/9/2016 Reserves (111/122) - 19.30mT Remaining resource- 45.82 mT | Depletion 28/9/2016-31/3/2017= 0.162mT 2017-18 = 0.22mT 2018-19=0.296mT Total depletion till 31/3/2019=0.678mT Balance Reserves as on 1/4/2019= 18.622 mT | |
| 1f | General remarks of inspecting officers on geology, exploration etc | | Neither the Geological sections have been updated nor the revised resources. The depth of mineralization too has not been explored upto the full depth of mineralization. | |

Development :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|------|-----------|-------------|---------|
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| 2a | Location of development w.r.t.lease area | N500-S100, E700-W200 | Work has been done broadly in the same area i.e, N450-S150, E400-W400 | |
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | No proposal | All the benches are mineralised | The top benches are having soil with boulders of limestone. |
| 2c | Stripping ratio or ore to OB ratio | ----- | 1:0 Approx | Only 19T Overburden reported to be generated. |
| 2d | Quantity of topsoil generation in m3 | NIL | NIL | |
| 2e | Quantity of overburden generation in m3 | 10266 cu m | NIL | 19 T (About 12 cu m) of intercalated soil/ waste with calcarous material was generated |
| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | | Development is less in the top benches. | |

Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|--|--|---------|
| 3a | Number of pit proposed for production | One | One | |
| 3b | Quantity of ROM mineral production proposed | 2018-19= 0.513mT with 95% recovery i.e, 0.4876mT Lst | 2018-19= 0.296mT Lst and negligible waste generated. | |
| 3c | Recovery of sailable/usable mineral from ROM production | 95% | 99.9% | |
| 3d | Quantity of mineral reject generation | nil | nil | |
| 3e | Grade of mineral rejects generation and threshold value declared. | NA | NA | |

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|----|--|--|--|--|
| 3f | Quantity of sub grade mineral generation. | Nil | Nil | |
| 3g | Grade of sub grade mineral generation | Not applicable | Not applicable | |
| 3h | Manual / Mechanised method adopted for segregating from ROM | No proposal | Only visual segregation of limestone boulders have been done. | |
| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | No proposal | Not undertaken accordingly. | |
| 3j | Provision of drilling and blasting in mineral benches | Proposal- 115mm dia drill holes with ANFO as column charge and slurry explosive as base charge with nonel initiating system. | 115mm dia drill holes with ANFO as column charge and slurry explosive as base charge with nonel initiating system is being carried out. The blast geometry as per the rock condition is decided. General blast geometry is 3*4*6.5 m | Vibration monitoring has not been done. |
| 3k | Provision of mining machineries in mineral benches | YES | Excavator-1 (0.9 cu m) Tipper being used for transportation to the crusher situated outside the lease. | Hired machineries are reported to be used. |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | ---- | height in mineral is suitable for method of mining proposed in MP/SOM with 6m bench height | |
| 3m | Total area covered under excavation/pits | 2018-19= 34.563 ha | 2018-19= 33.110 ha | |
| 3n | Ore to OB ratio for the pit/mine during the year. | Not applicable | Not applicable | No OB is there in the lease area except for the intercalated waste in the top two benches. |

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| 3o | Total area put in use under different heads at the end of year | Pit=34.563 ha Dump= 2.38 hectare Infra, roads etc = 4.09 hectare | Pit= 33.11 ha. Dump= 2.38 hectare Infra, roads etc. = 4.09 hectare |
| 3p | Production of ROM mineral during the last five year period as applicable | 2014-15: 500004 T 2015-16 : 509656 T 2016-17 : 509656 T 2017-18 : 511275 T 2018-19 = 513315T | 2014-15: 387500 T 2015-16 : 344125 T 2016-17 : 353380T 2017-18 : 8,41,570 T 2018-19=296527 T |

Solid Waste Management - Dumping:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|--|---|---------|
| 4a | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) | Mineral reject (Intercalated soil) proposed to be dumped separately. | Mineral reject (Intercalated soil) is being dumped separately. | |
| 4b | Location of topsoil, OB and mineral reject dumps | E100- E200 S 200-S400 | Being done at proposed site. | |
| 4c | Number of dumps within lease area and outside of lease area | 1 | 1 | |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | --- | The dumping has been done on the site proposed for presence and absence of mineral. | |
| 4e | Number of active and alive dumps. | 1 | 1 | |
| 4f | Number of dead dumps. | nil | nil | |
| 4g | Number of dumps established. | 1 | 1 | |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | proposed | Retaining bund has already been provided along the dump. | |

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|----|--|------|---|
| 4i | Length of Retaining wall or garland drain all along dumps | ---- | no extension of retaining dump in 2018-19 |
| 4j | Number of settling ponds | nil | nil |
| 4k | Specific comments of inspecting officer on waste dump management | | intercalated soil with calcarous material generated in top benches is submitted as overburden / waste in the returns. |

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 done. Mine is not mature for the purpose. | |
| 5b | Area under backfilling of mined out area | No proposal | Not applicable | |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | Proposed | used for plantation. | |
| 5d | Total area fully reclaimed and rehabilitated | Nil | Nil | |

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). | to be submitted as per rule | Not submitted | |
| 6b | Area available for rehabilitation (ha) . | No proposal for rehab. of worked out benches | Not done | |

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|----|--|--|----------|
| 6c | afforestation done (ha). | No proposal for rehab. of worked out benches | Not done |
| 6d | No. of saplings planted during the year | No proposal for rehab. of worked out benches | Not done |
| 6e | Cumulative no .of plants | No proposal for rehab. of worked out benches | NIL |
| 6f | Any other method of rehabilitation | ----- | ----- |
| 6g | Cost incurred on watch and care during the year | ----- | ----- |
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D | No proposal for rehab. By backfilling | Not done |
| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | No proposal for rehab. By backfilling | Not done |
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area | No proposal for rehab. By backfilling | Not done |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | No proposal for rehab. By backfilling | Not done |
| 6l | Compliance on reclamation and rehabilitation by backfilling (v)any other specific means. | ---- | ---- |

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| 6m | Compliance of rehabilitation of waste land within lease (i)afforestation | 40 Nos of saplings over 0.02 hectare area | 325 saplings within ML with about 50% survival. Plantation shown at two locations near pillar 14 and 13 and also near view point on the left side of haul road. |
| 6n | Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha) | 40 Nos of saplings over 0.02 hectare area | 325 saplings within ML with about 50% survival. Plantation shown at two locations near pillar 14 and 13 and also near view point on the left side of haul road. |
| 6o | Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation | ---- | ---- |
| 6p | Compliance of environmental monitoring (core zone and buffer zone) | --- | Monitoring being done regularly. |

Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|---|---|---------|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | Entire Limestone is proposed for after segregation of intercalated soil in the top benches. | Entire Limestone is used after segregation of intercalated soil in the top benches. | |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical. | No separate grade wise sorting proposed | Intercalated soil is segregated from the limestone as far as possible from top benches and used completely . No eparate grade wise sorting is required. | |
| 7c | Different grade of mineral sorted out at mines. | No proposal | Not done | |
| 7d | Any beneficiation process at mines | No proposal | Not done | |

7e General remarks of inspecting officer on Mineral conservation and beneficiation issues -----

Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|--|---|---------|
| 8a | Separate removal and utilization of topsoil (Rule 32) | Proposed | Generated & utilised | |
| 8b | Concurrent use or storage of topsoil | Proposed | utilised concurrently | |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | The present dump of intercalated soil was proposed to be used. | Only one separate dump is their for the purpose | |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | No proposal | Not done | |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | No proposal | NA | |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | 40 saplings over 0.02 hectare | 325 saplings over 0.27 hectare | |
| 8g | Survival rate | ----- | 45% (as reported) | |

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| 8h | Water sprinkling on roads to control airborne dust | ---- | The water sprinkler has already been provided for the purpose. |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | | |

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 Nov 2019 A.R. Submitted up to 2018-19 | |
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Sh M. Devanand as Mining Engineer Mr N Vittal Kumar as Geologist. | Date of termination of employment of Sh M Devanand was submitted to this office as 18.09.2019 vide lr no-KCSIL/Admn/2019-20 but during inspection he was available as mining engineer. | |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Pit=34.563 ha Dump= 2.38 hectare Infra, roads etc = 4.09 hectare | Pit= 33.11 ha. Dump= 2.38 hectare Infra, roads etc. = 4.09 hectare | |
| 9d | Scrutiny of Annual return on afforestation | 500 saplings with 50% survival | 325 saplings planted as per record. | |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | Nil reported . | 19 T of intercalated soil has been geerated which is reported as overburden in the returns | |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | | | |

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| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | CoP and ex mine price has been reported to be same as 210.50 Rs PMT for 2018-19. | CoP is understood to be upto the yardi.e, crusher. So Ex mine price and CoP cannot be same. Depriciation has been submitted as NIL which is not coroborating with the submissions in the part IIA. |
| 9h | Scrutiny of Annual return on fixed assets | information submitted | |
| 9k | Scrutiny of Annual return on mining machineries | Back hoe type excavator, front end loader, tipper, drill are reported | 0.9 cu m bucket capacity excavator and tippers of 25T capacity are provided. |

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 |
| Rule 55 | 28/01/2020 | | | | |

Date :

(MANISH K MAINDIRATTA)

Indian Bureau of Mines