

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

Inspection under SDF for star rating of mines REPORT

Bangalore regional office

Mine file No : KNT/GLB/LST/48/BNG

Mine code : 38KAR10017

- (i) Name of the Inspecting : **A101**) **ARUN KUMAR**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : G.Sudhakar, Mines Manager & K. Nagaraja Rao, Geologis
Official with
Designation
- (iv) Date of Inspection : 18/02/2021
- (v) Prev.inspection date : 18/11/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KALBURGI CEMENT LST MINE**
- (b) **Registration NO.** : **IBM/13906/2012**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **KARNATAKA**
- District : **GULBARGA**
- Village : **Chincholi**
- Taluka : **Chincholi**
- Post office : **Kharchikhed**
- Pin Code :
- FAX No. : **040-30006955 (F), sudhakar.g**
- E-mail : **sudhakar.g@vicat.com**
- Phone : **040-30006999 (O), 91 966378**
- (f) **Police Station** : **Mirian**
- (g) **First opening date** : **21/06/2012**
- (h) **Weekly day of rest** : **SUN**
2. **Address for correspondance** : **M/s Kalburgi Cement Private Limited, (Formerly
Formerly Vicat SagarReliance Majestic, Road No. 1
Banjara Hills, Hyderabad-500034, Telengana**
3. (a) **Lease Number** : **KAR1616**
- (b) **Lease area** : **446.77**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **08/11/2029**
4. **Mineral worked** : **LIMESTONE** **Main**

5. Name and Address of the

Lessee : M/S KALBURGI CEMENT PRIVATE LIMITED
 CHATRASALA VILLAGE
 CHINCHOLI TALUK GULBARGA,
 KARNATAKA GULBARGA
 KARNATAKA
 Phone:
 FAX :

Owner : Anoop Kumar Saxena
 M/s. Vicat Sagar Cement Pvt
 Limited Reliance Majestic
 Bldg,Road No:11 Door No:8-
 2-626, Banjara Hills,
 HYDERABAD TELANGANA
 Phone:
 FAX :

Agent : Anubhav Verma
 M/s. Kalburgi Cement
 Private Limite Chatrasala
 (Vil), Kherchikhed (P),
 Kalaburagi Dist. Karnataka
 GULBARGA KARNATAKA
 Phone: 7760686752
 FAX :

Mining Engineer

Name : G Venkateswarlu, Full Time
 Qualification : BE Mining
 Appointment/ : 01/08/2017
 Termination date

Geologist

Name : K.NAGARAJ RAO, Full Time
 Qualification : M.SC, (MINERAL EXPLORATION)
 Appointment/ : 14/02/2011
 Termination date

Manager

Name : Sh.G Sudhakar
 Qualification : BE Mining
 Appointment/ : 20/09/2013
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	24/04/2014
Plan/Scheme of Mining	:	Modif.approved Mining Scheme	05/05/2016
	:	MP modif under 17(3) MCR 2016	18/05/2017
	:	MP modif under 17(3) MCR 2016	14/05/2018
	:	MP review under 17(1) MCR 2016	20/11/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal	NIL	A total of 191 core bore holes drilled from 2010-18 in the past with 7353.20 Mts.
1b	Exploration over lease area for geological axis 1 or 2	G-1 & G-3	G-1:441.77 Ha, G-3: 5.00 Ha	Entire area is mineralized
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	NIL	Rs 1,09,72,499/- spent on core drilling, chemical analysis & sample preparation in the past
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	5.00 Ha under G3 level needs to be explored	5.00 Ha is covered by Chatrasala Village in SW part of the ML
1e	Balance reserve as on 01/04/20	Nil	378.00 million tons with average grade of CaO-50%, SiO ₂ -10% & MgO-1%	As per AR submitted for FY 2019-20
1f	General remarks of inspecting officers on geology, exploration etc			A total of 191 core bore holes drilled from 2010-18 in the past with 7353.20 Mts. 5.00 Ha is covered by Chatrasala Village in SW part of the ML

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Proposed location of Development: N 2882 - N 3009, E 2650 - E 3537	Actual location of Development: N 2883 - N 3009, E 2751 - E 3537	Development carried out within the proposed grids
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in overburden and mineral proposed	Separate benches maintained in overburden and mineral	OB - 1 bench, Limestone - 05 benches including shale

2c	Stripping ratio or ore to OB ratio	1 : 0.05	1 : 0.04	Ratio in tons. Violation issued
2d	Quantity of topsoil generation in m3	36,292 Tons	21,783 Tons	Used for plantation
2e	Quantity of overburden generation in m3	2,05,654 Tons	1,45,227 Tons	Bulk Density(Tons/m3): OB:1.2 & Limestone-2.5. Clarification sought for lower handling of OB. Violation issued
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development carried out within the proposed grids. Violation issued for lower handling of Overburden

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit proposed	Actual working in One pit only	Nil
3b	Quantity of ROM mineral production proposed	39,99,005 Tones	30,07,297 Tones	Actual within the proposed limits
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	Nil
3d	Quantity of mineral reject generation	No proposal	NIL	No generation of mineral reject
3e	Grade of mineral rejects generation and threshold value declared.	No Proposal	Cao - +34% to - 44% and MgO - 5% (Max)	No waste, the entire mineral will be utilised.
3f	Quantity of sub grade mineral generation.	No Proposal	Nil	Nil
3g	Grade of sub grade mineral generation	No Proposal	Nil	Nil

3h	Manual / Mechanised method adopted for segregating from ROM	All the blasted material is proposed to be sent to crushers for further sizing	All the blasted material is sent to crushers for further sizing	There is no segregation of material adopted. 1 crusher of 1400 TPH operated to reduce size of material to -55 mm.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal for beneficiation proposed	No beneficiation study carried out as mineral is directly used for cement manufacturing	ROM is used for manufacturing of cement & does not require any beneficiation
3j	Provision of drilling and blasting in mineral benches	Deep Hole Drilling & Blasting proposed	Deep Hole Drilling & Blasting was carried out	Sandvik DP1500i top hammer drill is used for drilling in the mineral benches. The spacing and burden varies from 3-3.5 X 5-5.5 mtrs and blasting is done by using nonel
3k	Provision of mining machineries in mineral benches	Shovel dumper combination proposed	Shovel dumper combination used for mining	Machineries used on the day of inspection: Shovel-01 Nos; Dumpers-03 Nos; Water tankers- 01nos; Loader- 01nos
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed Bench Ht : OB - 1.5 -2 mts, Limestone 6-8 mtrs; Shale- 4- 6.00 Mts	OB Bench Ht: 1-2 mtr & Limestone bench ht:6- 8Mts.Width of the benches were 20-30 mts	Nil
3m	Total area covered under excavation/pits	81.76 Ha at the end of plan period	49.92 Ha at the end of reporting year	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.05	1 : 0.04	Violation issued

3o	Total area put in use under different heads at the end of year	Proposals: Covered under current workings: 81.76 Ha, Top soil storage: 3.60 Ha, Dump: 8.35 Ha, Occupied by Infrastructure : 0.67 Ha, Ha;Roads: 4.50 Ha,Others:18.7 Ha at the end of plan period	Covered under current workings: 49.92 Ha, Occupied by infrastructure & roads: 6.78 Ha,Others (Top soil dump, plantation, limestone stock) :14.29 Ha & Work done under PMCP: 0.89 H at the end of reporting period	As per AR
3p	Production of ROM mineral during the last five year period as applicable	2015 - 16: 21,31,500 2016 - 17: 30,00,000 2017 - 18: 30,00,000 2018 - 19: 45,00,010 2019 - 20: 39,90,005	2015 - 16: 21,31,500 2016 - 17: 29,01,385 2017 - 18: 30,98,615 2018 - 19: 31,58,169 2019 - 20: 30,07,297	All unit in Tons. Violation issued & complied in the past for excess production in the year 20117-18. Actual production is within the proposed production for 2018-2020.
3q	General remarks of inspecting officers on method of mining etc.			Opencast method of mining with shovel dumper combination & deep hole drilling & blasting was practiced.

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 OB proposed.	Separate dumping of top soil & Overburden carried out.	OB (BC Soil) is dumping along RSZ as safety bund towards South & East.
4b	Location of topsoil, OB and mineral reject dumps	OB -Towards East :N2345-N2568,E3886-3982 Towards South :N2145-N2241,E2763-E2896 Top Soil: N2328-2367,E2797-2985	OB -Towards East: N2348-N2562,E3888-3976 Towards South :N2148-N2241,E2769-E2975 Top Soil: N2334-2307,E2798-2964	Limestone Mineral Stock: N 2266-N2395,E 3340-3690

4c	Number of dumps within lease area and outside of lease area	WML-5nos OML-Nil	WML-5nos OML-Nil	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposed Within UPL	The safety bunds are made within UPL	Along RSZ towards South and 7.5 mtrs barrier zone towards East.
4e	Number of active and alive dumps.	05	05	Nil
4f	Number of dead dumps.	Not proposed	No dead dumps	Nil
4g	Number of dumps established.	No Proposal	NIL	NIL
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall & Garland drains proposed all along dump	Retaining wall & garland drain construction in progress	Nil
4i	Length of Retaining wall or garland drain all along dumps	S to N-259 m and E to W-148 m proposed	130 m of retaining wall constructed along toe of the waste dump.	Violation issued for not completing the retaining wall
4j	Number of settling ponds	No proposal	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management			Waste dumping was carried out as per the proposal. Violation issued for non construction of retaining wall as proposed.

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	Nil	No Proposal of back filling and mineral is not exhausted.
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.			Pits are not matured for backfilling as mineral from these pits are not exhausted.

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 to be submitted before 1stJuly every year	Annual Report on PMCP submitted on 28.06.2020.	Nil
6b	Area available for rehabilitation (ha) .	No proposal	Nil	nil
6c	afforestation done (ha).	0.95 Ha	0.66 ha, by Afforestation on the East of OB dump	Outside ML - 4.08 Hac
6d	No. of saplings planted during the year	950 Saplings proposed	1537 saplings planted within ML	Outside ML 17550 no of plants are plants
6e	Cumulative no .of plants	Not specified	Nil	Nil
6f	Any other method of rehabilitation	No proposal	Nil	Nil
6g	Cost incurred on watch and care during the year	No proposal	Nil	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	Nil	Nil

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No proposal	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No proposal	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	No proposal	Nil	Nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	No proposal	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	No proposal	Nil	Outside ML 17550 no of plants are plants covering 4.08 Hac
6p	Compliance of environmental monitoring (core zone and buffer zone)	Environmental monitoring proposed in core and buffer zone.	Environmental monitoring done regularly in core and buffer zone.	The monitoring is carried out by M/s GEMS, Hosapete. All the parameters were observed to be within the permissible limit.

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	The lessee has carried out PMCP activities as per the proposal
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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Direct ROM dispatch to their captive plant	Blasted material is sent to the crusher for further sizing & dispatched to their captive cement plant of 5.5 MTPA cement production capacity	Crusher of 1400 TPH capacity
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No proposal	Bench wise blending as per the requirement of cement plant	All material excavated is used for cement manufacturing; hence no sorting required
7c	Different grade of mineral sorted out at mines.	No proposal	No sorting is done in mines	Nil
7d	Any beneficiation process at mines .	No proposal	No beneficiation is done in mines except crushing	Only crushing is done, after which mineral is conveyed to plant through covered belt conveyors
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Beneficiation of the limestone is not required as entire ROM produced are being utilized with proper blending in their cement plant

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	36292 tons of top soil proposed	21783 tons is generated and used for plantation purpose	Top soil is temporarily stored & used for plantation purpose

8b	Concurrent use or storage of topsoil	Temporary storage & use	Utilized for plantation	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	BC Soil proposed to be dumped along the Buffer Zone and Road Safety Zone	Safety bund along the Eastern Boundary BZ and South of RSZ	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No Proposal	The mineral is not fully excavated. Hence no utilisation of OB for restoration	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No Proposal	The mineral is not fully excavated.	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	950 nos saplings within ML area covering 0.95 Ha	WML - 2,701 saplings OML - 17,750 saplings	Nil
8g	Survival rate	90 %	90 %	Nil
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul roads proposed to suppress the dust	Continuous water sprinkling on haul roads by water tankers to suppress the dust generated; Along with this at crushers Bag filters are in place for preventing dust to airborne	8KL water tanker is used to suppress the airborne dust on haul roads in mines.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in & around the mine area was good as the lessee had carried out afforestation & environmental protection measures as per the proposal.

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 Feb-2021 A.R. submitted up to year 2019-2020	Submitted AR on 30th June 2020	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer - Mr G Venkateswrlu Geologist - Mr K Nagaraja Rao Manager - Mr Gundla Sudhakar	Manager & geologist were present during the inspection	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	49.92 Ha - Pit, 6.78 Ha - Infrastructure , 14.29 Hac- Plantation, Mineral Stock, Water Pit & Top soil Storage and 0.89 Ha - PMCP	Appears to be correct	
9d	Scrutiny of Annual return on afforestation	WML - 2,701 @ 90% survival OML - 17,750 @ 85% survival	Appears to be correct	Nil
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 Stock (Limestone) OB - Nil, Production:30, 07,297 MT CB - Nil	Violation issued for not reflecting the opening & closing stock of limestone	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale price-Nil Ex. Mine Price-Nil Production cost -(Rs./T)- 187.80	Sale price is not applicable since the mines is a captive	

9h	Scrutiny of Annual return on fixed assets	Rs.127,13,78,00/- including Plant, Machinery, Land and Residential	Appears to be correct
9k	Scrutiny of Annual return on mining machineries	Excavator (6.5 M3)-01, Loader (6.5 M3)-01, Backhoe (2.2 M3)-01, Dumpers - 04, Dozer - 01, Drill - 01, Explosive Van -1, Water Tanker -(8KL)-01, Crusher - 1400 TPH, MSU - 01 and Pumps (Elec)-01	Appears to be correct

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)	24/02/2021			
MCDR17	Rule 26(1)	24/02/2021			
MCDR17	Rule 45(7)(a)	24/02/2021			

Date :

(ARUN KUMAR)

Indian Bureau of Mines