

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

MCDR INSPECTION REPORT

Goa regional office

Mine file No : KNT/BJP/LST-62/GOA

Mine code : 38KAR26059

- (i) Name of the Inspecting : **K04**) **DR. Y.G.KALE**
Officer and ID No.
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine : K.VENKATESHWARLU, MINES MANAGER
Official with
Designation
- (iv) Date of Inspection : 24/08/2016
- (v) Prev.inspection date : 08/10/2014

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **HALKI (2344)**
- (b) **Registration NO.** :
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : KARNATAKA
District : BAGALKOT
Village : HALKI
Taluka : MUDHOL
Post office : NINGAPUR
Pin Code : 587313
FAX No. : 08350-289001
E-mail : factory.muddapur@jkcement.c
Phone : 08350-289000
- (f) Police Station : LOKAPUR
- (g) First opening date : 01/12/2007
- (h) Weekly day of rest : SUN
2. Address for : J.K.CEMENT WORKS, MUDDAPUR
correspondance (UNIT: J.K.CEMENT LTD)
Mudhol, Dist-Bagalkot, Karnataka
3. (a) Lease Number : KAR1525
(b) Lease area : 124.29
(c) Period of lease : 20
(d) Date of Expiry : 21/11/2018
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : J.K.CEMENT LTD
 KAMLA TOWER KANPUR UP
 KANPUR UTTAR PRADESH
 Phone:0512-2371478
 FAX :0512-2399854

Owner : K. N. Khandelwal
 Kamla Tower KANPUR URBAN
 UTTAR PRADESH
 Phone:
 FAX : 05122399854

Agent : ANTRIKSHA KUMAR JAIN
 J. K. Cement Works,
 Villiage-Muddapur Taluka-
 Mudhol BAGALKOT KARNATAKA
 Phone: 08350-289104, 9686502250
 FAX : 08350-289001

Mining Engineer

Name : K.VENKATESHWARLU,Full Time
 Qualification : B.TECH (MINING) WITH 14 YRS. EXPERIENCE
 Appointment/ : 15/04/2016
 Termination date

Geologist

Name : Madhusudana S.B.,Full Time
 Qualification : MSc-Geology
 Appointment/ : 04/03/2015
 Termination date

Manager

Name : K.Venkateshwarlu
 Qualification : FCC Certificate
 Appointment/ : 01/05/2011
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	01/12/2006
Plan/Scheme of Mining	:	Modif.of approved Mining Plan	16/01/2009
	:	Mining Scheme rule 12 MCDR1988	22/08/2011
	:	MP modif under MCR 1960	03/03/2016

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	There was a proposal to drill 5 borehole in the year 2014-15 and 5 in the year 2015-16.	No boreholes were drilled in the year 2014-15 and 2015-16.	In the year 2013-14 total 20 boreholes were drilled in place of proposed 05 boreholes. so no exploration has been carriedout during 2014-15 and 2015-16.
1b	Exploration over lease area for geological axis 1 or 2		So far total 55.55 ha is explored under G-1, level, 42.89 ha under G-2.	Proposals are made in the approved modified mining plan to explore entire mineralized area under G-1 level from 2016-17 to 2019-20.
1c	Exploration Agencies and Expenditure in lakh rupees during the year		Exploration has been carriedout by lessee himself (M/s J K Cements Ltd) and total expenditure incurred on exploration is about Rs-55 lakhs.	
1d	Balance area to be explored to bring Geological axis in 1 or 2		25.8 ha is to explored to bring entire mineralized area under G-1 or G-2 level of exploration.	At present 55.55ha is explored under G-1 level, 42.89 ha under G-2 and 25.80Ha under G-3 level.

1e	Balance reserve as on 01/04/20	Reserves as on 01.04.2016. Classification UNFC code Quantity in million tons. Proved Reserves 111 29.766 Probable Reserves 121/122 23.118 Feasibility Resources 211 1.996 Prefeasibility Resources 221/222 24.916 Inferred Resources 333 23.678
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1f	General remarks of inspecting officers on geology, exploration etc	As on date 55.55 ha is explored under G-1 level, 42.89 Ha under G-2 and 25.80Ha under G-3 level. In the approved modified mining plan proposals are made to explore entire mineralized area under G-1 level.
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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 work between co-ordinates N-1794210 to 1794380 and E- 525400 to 525530.	Working has been carriedout as per the proposal and no deviation was found.	

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Total 4 benches were proposed for the year 2015-16. All are in ore only.	Benches were formed as per the proposal.	No separate bench was found for overburden. waste was found in the form of intercalated clay only.
2c	Stripping ratio or ore to OB ratio	1:0.05	1:0.175	
2d	Quantity of topsoil generation in m3	Nil	Nil	
2e	Quantity of overburden generation in m3	50256	226618	The waste quantity is handled more than the proposal due to sudden exposure of intercalated clay bands.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The mine is well developed and limestone is exposed in all direction of the pit.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One	
3b	Quantity of ROM mineral production proposed	1964000 tons	1933291 tons	
3c	Recovery of sailable/usable mineral from ROM production	95%	100%	
3d	Quantity of mineral reject generation	Nil	Nil	

3e	Grade of mineral rejects generation and threshold value declared.	Nil	Threshold value for limestone of Karnataka is Cao minimum 35% . The ore which is produced is above the threshold value and completely utilized for companies cement plant.	
3f	Quantity of sub grade mineral generation.	Nil	Nil	
3g	Grade of sub grade mineral generation	Nil	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Nil	Nil	No crushing and screening activity in the lease area. The ROM is being consumed at the company's cement plant.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Nil	Nil	
3j	Provision of drilling and blasting in mineral benches	It is proposed to drill byDTH drill of 115mm dia and for blasting ANFO type of explosives are used.	Drilling and Blasting is going on as per the proposals.	
3k	Provision of mining machineries in mineral benches	Hydarulic Excavator of 2.1Cum capacity 4 nos and 1.9 Cum capacity one number, 2 Dozers and 02 drilling machines were proposed.	03 Excavators of 2.1 Cum capcity, one dozer, 03 drilling machines were used. The working is done through contractor.	

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	8mtr bench height is proposed.	Benches were maintained at 6-8m height and found suitable for method of mining proposed in the approved document.
3m	Total area covered under excavation/pits	Approximately 25 ha for the year 2015-16.	23.28 ha in the year 2015-16
3n	Ore to OB ratio for the pit/mine during the year.	1:0.05	1:0.175
3o	Total area put in use under different heads at the end of year		Under mining-22.83 Ha, Waste dump-6.15Ha, Infrastructure-2.810Ha, Others(Canal, safety zone, plantationetc.)- 29.05 Ha.
3p	Production of ROM mineral during the last five year period as applicable	2015-16 1964000 tons 2014-15 1998000 tons 2013-14 1991000 tons 2012-13 1970000 tons 2011-12 1915000 tons	2015-16 1933291 tons 2014-15 975169 tons 2013-14 549438 tons 2012-13 909269 tons 2011-12 953040 tons
3q	General remarks of inspecting officers on method of mining etc.		In general the mining activities are carried out in systematic and scientific way.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Duming proposals were made for OB only.	Dumping of OB is done as per the proposal.	No topsoil and minerals reject were generated during the year 2015-16.

4b	Location of topsoil, OB and mineral reject dumps	OB dump is proposed b/w co-ordinates N-1794219 to 1794380 and E-525400 to 525530.	Dumping was made as per the proposal.
4c	Number of dumps within lease area and outside of lease area	One.	One.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumping was proposed in the western part of the lease area and outside the UPL.	Dumping was made in the western part of the lease area as per the proposal.
4e	Number of active and alive dumps.	One	One
4f	Number of dead dumps.	Nil	Nil
4g	Number of dumps established.	One	One
4h	Whether Retaining wall or garland drain all along dumps are there.	Made.	work was under process and about 100mtrs retaining wall was constructed.
4i	Length of Retaining wall or garland drain all along dumps	It was proposed to construct about 350 mtr retaining wall in the year 2015-16.	work was under process and about 100mtrs retaining wall was constructed.
4j	Number of settling ponds	Nil	04
4k	Specific comments of inspecting officer on waste dump management		

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Nil.	Nil.	
5b	Area under backfilling of mined out area	Nil.	Nil.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Nil.	Nil.	No topsoil was generated in the year 2015-16.
5d	Total area fully reclaimed and rehabilitated	Nil.	Nil.	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	Present working is not reached upto the proved depth and no proposals were made for reclamation and rehabilitation.

Progressive Mine Closure Plan:

Sl.No.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	1st July of every year.	The annual report under 23E(2) was not submitted with in time and violation was pointed out for the same.	Lessee has submitted Annual report on PMCP on 07.10.2016 and violation of rule 23 E(2) is recorded as complied.
6b	Area available for rehabilitation (ha) .	0.8ha	0.8ha	
6c	afforestation done (ha).	0.8 ha	0.8Ha	

6d	No. of saplings planted during the year	2400 number of saplings in the year 2015-16.	2400 saplings were planted in 2015-16.
6e	Cumulative no .of plants	20975	21308
6f	Any other method of rehabilitation	Nil.	Nil.
6g	Cost incurred on watch and care during the year	Rs.2,40,000/-	Rs.5,00,000/-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	NA	NA
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NA	NA
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	NA	NA
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NA	NA
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	NA	NA

6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NA	NA	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NA	NA	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NA	NA	
6p	Compliance of environmental monitoring (core zone and buffer zone)		Lessee is regularly monitoring ambient air quality, water quality and all are found within permissible limits.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Plantations were made as per the proposals. Lessee is regularly monitoring ambient air quality, water quality and all are found within permissible limits. For environment management, lessee has incurred an expenditure of 6.45 lakh during the year 2015-16.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area		About 2060924 tons of cement grade ore is despatched in the year 2015-16.	

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.		Average grade of the limestone is of cement grade only and same is being utilized for captive cement plant.
7c	Different grade of mineral sorted out at mines.	Nil.	No sorting is being done. Entire ore is utilized for captive cement plant.
7d	Any beneficiation process at mines	Nil.	Nil.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		The lessee has proposed to recover about 3000 tonnes/annum of limestone by manual sorting of limestone from the dumps of phylitic clays, waste etc. from 2016-17 onward. However at the time of inspection, it was observed that so far during 2016-17, the lessee has not recovered limestone. Therefore, an advisory has been issued to the lessee on 26.09.2016.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Nil.	No topsoil was generated in the year 2015-16.	Topsoil removed earlier is utilized for plantation.
8b	Concurrent use or storage of topsoil	Nil.	No topsoil was generated during the year 2015-16.	

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	One dump was proposed for waste.	Only one dump is formed for waste.	Generation of mineral reject and fines is nil only, so no separate dumps were proposed for rejects and fines.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Nil.	Nil.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Nil.	Nil.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)		Total 21308 saplings were planted by the lessee within the lease area.	
8g	Survival rate	80-85%	80-85%	
8h	Water sprinkling on roads to control airborne dust		Regular water spraying is being done on haul roads and working areas using water tanks.	
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
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9a	Status of submission of Monthly and Annual returns		Lessee is submitting Monthly and Annual returns within time. And providing all the informations required under part-I to part-VII.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	In the annual returns submitted for the year 2015-16, Mr. Pavankumar Deshmukh has shown as Mining Engineer and Mr.Madhusudhan a.B.S. as Geologist. and Mr.K.Venkateshwarlu as Manager.	Same as mentioned in the Annual returns. However, since 15.04.2016 Shri. K.Venkateshwarlu has been declared as Mining Engineer. Notice in this regard in prescribed form is received in IBM.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under workings- 22.83Ha, Waste Disposal- 6.15Ha, Infrastructure -2.81 Ha and others(canal, safety zone, plantation, settling pond etc.)-29.05Ha.	Area is almost matching as shown in the Annual returns.
9d	Scrutiny of Annual return on afforestation	Plantation within the lease area is shown as 2400 numbers with survival rate of 80%.	Matching with the annual returns.
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	In part-VI (2) Cement grade ore details are provided and opening stock is shown as 167062.490 tons, production-1933291.440 tons, despatch-2060924.400 tons and closing stock as 39429.530 tons.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	In the annual returns submitted for the year 2015-16, Ex-mine price is mentioned as Rs,228.89, and cost of production as Rs,228.89.	Since the ore is used for captive consumption, sale value is not shown in the annual returns.
9h	Scrutiny of Annual return on fixed assets	Total value of fixed assets is mentioned as 685.5794992 crores	
9k	Scrutiny of Annual return on mining machineries	Back hoe machines of 2.1 cum capacity - 03 nos, Dozer - 01 no, drill and compressor - 03 each.	

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
Rule 13(1)	19/09/2016	07/10/2016			
Rule 23E(2)	19/09/2016	07/10/2016			
Rule 63	19/09/2016	07/10/2016			

Date :

(DR. Y.G.KALE)

Indian Bureau of Mines