

**INDIAN BUREAU OF MINES
MINES CONTROL AND CONSERVATION OF MINERAL DIVISION**

MCDR INSPECTION REPORT

Bangalore regional office

Mine file No : KNT/TMK/LST/1/BNG

Mine code : 38KAR19006

- (i) Name of the Inspecting : **J002**) **V.D.JALNAPURKAR**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Sri. P. Sathya Sai Baba, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 24/09/2013
- (v) Prev.inspection date : 27/02/2013

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **YEREKATE (M.L.1654)**
- (b) Category : A Mechanised
- (c) Type of Working : Opencast
- (d) Postal address
- State : KARNATAKA
- District : TUMKUR
- Village : CHIKKARAMPURA
- Taluka : GUBBI/C.N.HALLI
- Post office : AMMASANDRA
- Pin Code : 572211
- FAX No. : 08139-278075
- E-mail : gopal.palani@heidelsbergcem
- Phone : 08139-277070
- (e) Police Station : CHIKKANAYAKANAHALLI
- (f) First opening date : 01/06/1966
2. Address for : SRI.SUNIL KUMAR TIWARI,
correspondance 9TH FLOOR , INFINITY TOWER C, DLF CYBER CITY,
PHASE - II, GURAGON HARAYANA - 122 002.
3. (a) Lease Number : KAR0116
- (b) Lease area : 305.54
- (c) Period of lease : 20
- (d) Date of Expiry : 23/02/2020
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : HEIDELBERG CEMENT INDIA LIMITED
 AMMASANDRA P O TURUVEKERE
 TALUK TUMKUR TUMKUR
 KARNATAKA
 Phone:
 FAX :

Owner : HEIDELBERG CEMENT INDIA LIMITED
 HEIDELBERG CEMENT GROUP
 AMMASANDRA TUMKUR
 KARNATAKA
 Phone:
 FAX :

Agent : Jitendar Kumar
 M/s Heidelberg Cement India
 Limited Ammasandra - 572211
 TUMKUR KARNATAKA
 Phone:
 FAX :

Mining Engineer

Name : MR.NARAYAN KHANNUR,Full Time
 Qualification : B.E IN MINING
 Appointment/ : 13/08/2012
 Termination date

Geologist

Name : MR.NAZEER AHMED,Part Time
 Qualification : MSc IN GEOLOGY
 Appointment/ :
 Termination date

Manager

Name : MR. GOPAL PALANI
 Qualification : Dip IN MINING & FCC
 Appointment/ : 16/08/2010
 Termination date

6. Date of approval of Mining : 10/02/2011
 Plan/Scheme of Mining

PART - II : TECHNICAL DETAILS/COMMENTS**1. Details about Average employment :**

Maximum number of persons employed on any day during the year

Employment category	No.of employment	Av. yearly working days
DIRECT		
Managerial	3	306
Others	18	
Workers	18	
Supervisory	9	

2. Community Development Plan (in and around the mines) : Proposed action and expenditure towards socio-economic development.

Action during the year	Expenditure in Rs. Lakhs for				Remarks
	previous year		current year		
	Proposed	Incurred	Proposed	Incurred	
General					
Water supply	0.00	0.00	1.00	0.00	
Health	0.00	0.88	0.00	0.88	
Housing	1.00	1.00	1.00	10.00	
Sub total	1.00	1.88	2.00	10.88	
Infrastructure					
Public transport	10.00	10.00	7.50	80.00	
Sub total	10.00	10.00	1.88	80.00	
Training	0.00	2.00	0.00	5.00	
Environment management					
Others					
Total	11.00	14.00	9.38	95.88	

3. Status of compliance of MCDR, 1988, including therewith the rectification of the outstanding violation of rules.

The last inspection was carried 04.02.2013 the violations of rules 13(1), 27(4), 23E(2), 33(2) and 42(1)(c)(i) were pointed on 08.02.2013. In current inspection violation of Rules 27(4), 42(1)(c)(i) and pointed out on 21.10.2013. Even though the lessee sent the reply stating that "update of Geological Map will be implemented and submitted shortly", but the rule will be treated as complied only after submission of updated Plans and Sections..

4. A note on the justification in case of suspension of mining operation under rule 13(2) or prohibition of deployment of any person under rule 56 of MCDR, 1988, if recommended.

Suspension of Mining operations is not recommended and not warranted.

5. Scientific Mining

Items	Proposal	Actual work done	Remarks
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A. Exploration (Rule 13)

a.Type of prospecting : Drilling of 30 and exploration i.e. core Boreholes pitting, drilling	Drilled 13 Core boreholes	Drilled 13 Core boreholes	Violation of Rule 13(1) was pointed out on 08/02/2013 i.e., during earlier inspection, however the exploration work is under process now.
b.Total area covered : 100 Ha		30 Ha	

B. Working (Rule 13)

a.Number and size of each pit (LxWxH) : 1 pit size 1200m x 350m x110m	1 pit. size 1200m x 340m x 110m		The workings are restricted to the already broken area itself
b.Bench size(LxWxH)length can be defined as regular/irregular : 200m x 12m x10m, Regular	150m x15m x 9m, Regular		
c.Ore to waste ratio : 1:0.9 pit wise if possible otherwise for mine	1:1.53		waste ratio handled is more due to intercalated waste
d.Total area covered : 42 ha under excavation/pits	40.8 Ha		Due to achievement of low production than targetted the area covered is little less.

C. Waste disposal (Rule 13)

a.Location of dumps : N1600-1800 &W 1100-13000	N1700-1800 &W 1400-1250 and N 1400- 1480 &W 1650-1750		violation of deviation in dumping location was pointed out under Rule 13 (1) of MCDR 88 on 08/02/2013 during earlier inspection.
e.Yearly generation of waste quantity : 541625 t	517098 t		
b.Method of dumping whether advancing/retreat : Advancing	Advancing		
c.Total area covered : 4 ha under waste dump.	1.5 ha		two terraces

d.No.and size of each : 01
waste dump with No of 270m x 60m x 30m
steps/lift/bench

02
150m x 60m x 20m
100m x 80m x 20m

D. Production

b.Year wise : 2007-08 : 820125 t 2007-08 : 394792 t
production of last 2008-09 : 820500 t 2008-09 : 359680 t
five year. 2009-10 : 820000 t 2009-10 : 197796 t
2010-2011 : 393000 t 2010-11 : 208008 t
t 2011-12 : 337815 t
2011-12 : 600250 t

During each year in the past five years the production achieved is less than targetted quantity Being a captive mine the limestone production would depend upon the cement / klinker production.

D. Reserve

a.Reserve position as : As per approved After depletion of
per latest MP/MS and SOM 10/02/2011 production of 2010-2011
at the time of reserves as on and 2011-12 the proved
inspection. 01/04/2010. reserve as on 01/04/2012
is 7.45 million tonnes.
Proved (111) -
7.994 million
tonnes Probable
(121 & 122):-
2.395 million
tonnes

RESERVE POSITION AS ON 01/04/2013

LIMESTONE		
Category	Quantity in Tonnes	Grade
Proved	11.77	
Probable	2.8	
Possible	17.98	
Total	32.55	

PRODUCTION FOR THE PREVIOUS YEAR 2012 - 2013

Mineral	Production	Unit
LIMESTONE	259302	MT

6. Conservation of Mineral - both quantitative and qualitative**Beneficiation (Rule 20 and 26)**

Efforts for improving low grade and sub grade mineral. : Blending with high grade mineral

Efforts for improving percentage of recovery of ore. : Effective supervision in deployment of machinery in Mines. Physical blending practiced.

Mineral Rule 15

Percentage of recovery of ore : ROM: 100%

pitwise w.r.t. ROM and total material : Total Material:-40%

Number of benches in ore and waste. : ore:- 5
overburden:-4

Sub/grd mineral/fines (Rule16)

Qty of yearly generation and total qty available during inspection with grade : 5000t per year.
quantity available: 20000t

Number and size of each stack : 1 stack
30x20x15m

Location of stacking. : N1100 W800

Separate stacking from waste : 20000

Total area covered for stacking : 0.06ha

Exploration data as on 31/03/ 2013

No. of Boreholes	No. of Pits	No. of Trenches
0	0	0

OVERBURDEN HANDLED DURING PREVIOUS YEAR 2012 - 2013**Utilisation of Sub Grade Mineral and Mineral Rejects**

Generated	Utilised	Stacked	(In Ton.)

7. Environment Management - both quantitative and qualitativ

A. Land environment

- a. Landscape. : The area consists of two hillocks stretching from south east to North east. Devoid of vegetation. The area is found degraded to the extent of opened pits.
- b. Aesthetic environment : The aesthetic environment is found disturbed to the extent of working pits. However originally the area is devoid of vegetation except presence of shrubs
- c. Soil and land use pattern : No top soil cover exists. the land use pattern basically consists of area occupied by pits , dumps etc
- d. Agriculture : No agriculture is present in the lease area.
- e. Forest(flora and fauna) : Non forest area. Only thorny bushes and shrubs are present. Certain fauna like fox, hare, Mangose etc are reportedly present in the buffer zone
- f. Vegetation : No Natural vegetation is present in the lease area. certain plantation is carried out by the company.
- h. Public building, places and monuments (protected, historical), place of worship and places of tourist : There are no protected historical monuments in the lease area. However one church constructed by the company is found on a hillock top within the lease area.

B Water environment.

- a. Surface water : No perinnieal surface water streams are found present. A nallah forms the drainage system which is of seasonal nature.
- b. Ground water : The ground water has not been encountered. Presently only rain water accumulates in the pit which is pumped out as and when necessary. The ground water table is reported to be occurring at 789mRL. The workings are much above the same.
- c. Quality of water : The company is getting the water quality monitored on regular monthly basis. The Ph value is varying from 6.3 to 8.5 with avg of 12 months is 7.5. the avg turbidity, TDS was 1.2 and 359 respectively

C. Air environment

- a. Noise : The noise levels have been found to be within permissible limits varying from 48 to 75 db(A) at different locations
- b. Air : Regular ongoing monitoring of air quality is being done. The results were found within permissible limits. The avg SPM, SO₂, NO_x was varying from 45 to 74, 4-7.5, 6.6-9.4 microgrammes per cum at different locations
- c. Climatic condition : The climate is typical of peninsular India. Moderate rainfall, Summer and Winter. The temperatures vary from 18 deg to 36 degrees in summer and 15.5 to 32 deg in winter.

D. Socio economic environment

- a. Social and demographic profile. : The main occupation of people living in buffer zone is agriculture while some are working in cement company.

- b. Recommending health and safety. : The company has provided protective safety appliances and also having a Dispensary to care of medical requirements. In case of emergencies they refer to hospitals.
- c. Human settlement : There are no human settlements in the mining lease area except companys quarters and other infrastructure.Ten villages are situated in the buffer zone having a population of over 10000.
- d. Recreational facility. : The company has got its own recreation facility.

7.1 Comments on the steps taken by the lessee towards maintaining environment and monitoring of environmental parameters to ensure the qualitative improvement in the environment and ecology.

<u>Water Management</u>					
Season	Station type	Station name	Parameter	Value	
				Actual	Excess
Winter	Colony	Buffer zone	Cadmium (as Cd)	38.07	38.06

<u>Air data for excess parameters</u>					
Season	Station name	Type of area	Parameter	Value	
				Actual	Excess

<u>PLANTATION DURING THE PREVIOUS YEAR</u>	<u>2012 - 2013</u>	Area in Hect.
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<u>TOP SOIL MANAGEMENT</u>
Quantity as on 31/03/2013

8. Scrutiny of annual returns on cost of production, reserve, production, pit mouth value, stock, land use pattern and fixed assets.

The Annual Return for the year 2011-12 which was submitted has been scrutinised and comments are follows

Cost of operation= RS.284.49/tonne

Reserves: furnished as 26.174 millt.in respect of two leases of the same company.Considering depletion of the production quantity for 2010-11 and 2011-12 in this lease reserves under proved category should be 12.15mill T. party was informed for correction.

Production:337815tonnes

Pit mouth value:same as cost of production being a captive mine

Land Use Pattern: The area is found degeraded to the extent of pit and dumps. besides certain area of 30 ha is occupied by plant .

Fixed assets:Industrial buildings and Plant&machinery of Rs 6 crores has been reported to be invested.

PART - III : PERFORMANCE OF MINE OWNER
(In case of lease expiring within 2 years - as per guidelines)

a. Compliance of terms and conditions of lease deed.

Not applicable as the lease is not expiring within two years and the date of expiry is 24/02/2020

b. Compliance of the provisions of MCDR, 88 and advise given.

N.A

c. Conduct with regard to adoption of safety measures and forest wealth, ecology and environment in the mining lease area.

M.A

d. Whether the mine owner has carried out exploration and exploitation on the basis on surface mapping, pitting, trenching and core drilling taking in to consideration the mode of occurrences of mineral deposit.

N.A

e. Whether production from mining area is commensurate with the reserves and the long term progress of utilization of mineral.

N.A

f. Whether adequate investment has been made by the lessee on the development of mine on mining machinery, operational and administrative building, residential accommodation for the employees.

N.A

g. Measures taken by the lessee for protection of environment and ecology.

N.A

h. In case leases where the mineralisation tends to exhaust within the present period, the status of closing operation in phases and the special issues including human issues to be addressed at the time of closing of mine.

N.A

PART - IV : PROPOSALS FOR FURTHER ACTION FOR :

Indian Bureau of Mines (any issue related to CGPB, SGPB, Assistance, Consultancy, Annual Programme and studies, etc.)

NIL Except for follow up of compliance of violation.

State Government (Illegal mining, mining dispute, infrastructure, Mineral based industry, Mineral policy, etc.)

No such action is found to be recommendable, even though the occurrence of Iron Ore in the form of float is noticed in the lease area but the lessee carried out chemical analysis of float ore in NABL Accredited Laboratory, Goa and submitted chemical analysis report. The Chemical analysis is not at all encouraging as Fe contents are very low ie., 28.15% and SiO₂ is High as 52.13%, the same is not found to be worth for beneficiation also.

The Central Government (Infrastructure, Development, Mineral policy and Legislation, Mineral based industry, etc.)

NIL

Date :

(V.D.JALNAPURKAR)

Indian Bureau of Mines