

**CENTURY CEMENT LIMESTONE MINES**  
**BAIKUNTH**  
**DIST. RAIPUR (CHHATTISGARH)**



# B.K. Birla Group of Companies

M/s Century Textiles & Industries  
Ltd.  
(Parent Company)

**CENTURY CEMENT**

**Century Cement Limestone Mine**  
(Captive Mine)

# CENTURY CEMENT

Plant Commissioned in 1974  
(Capacity 6 Lakh TPA)

Present Capacity 24 Lakh TPA



## Century Cement Limestone Mines

Mining Activity Started 30<sup>th</sup> Nov, 1971

ML – Area	—————>	(i) 237.003 Hect. (ii) 74.843 Hect
Production	—————>	18 Lakh TPA
Manpower	—————>	Workmen : 69 Staff : 18

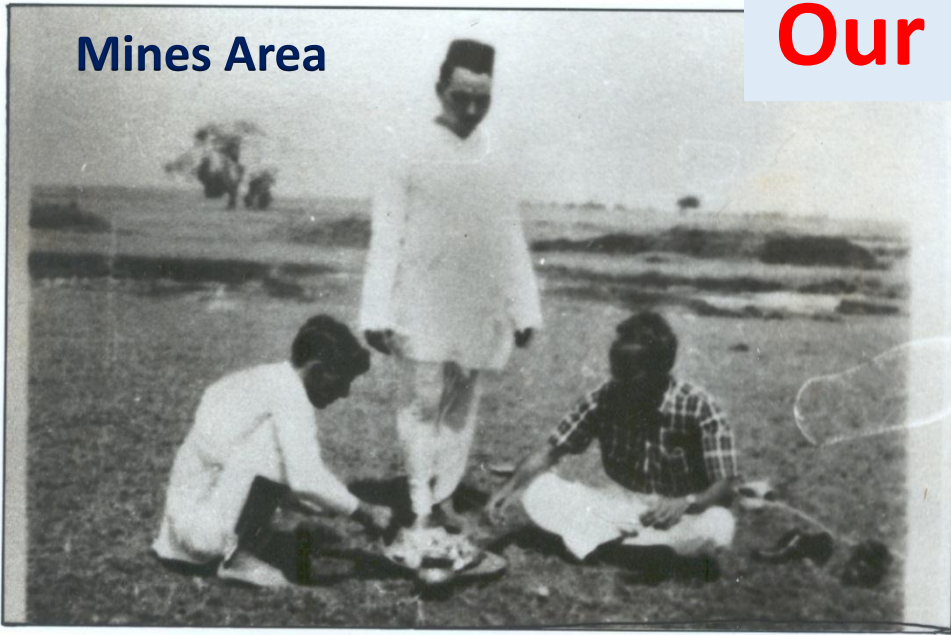
**Initially (in 1971), the area was plain Bhatta (barren) land, devoid of any vegetation, generally with murrum – soil cover & rocky ground which is about 0.5 m to 3.0 m thick.**

**The area is devoid of any nala, river & water reservoir.**

**Proved geological reserve, in 1971, in. ML area was only 22 million tonnes of cement grade limestone.**

# Our inheritance 1971

Mines Area



Mines Area

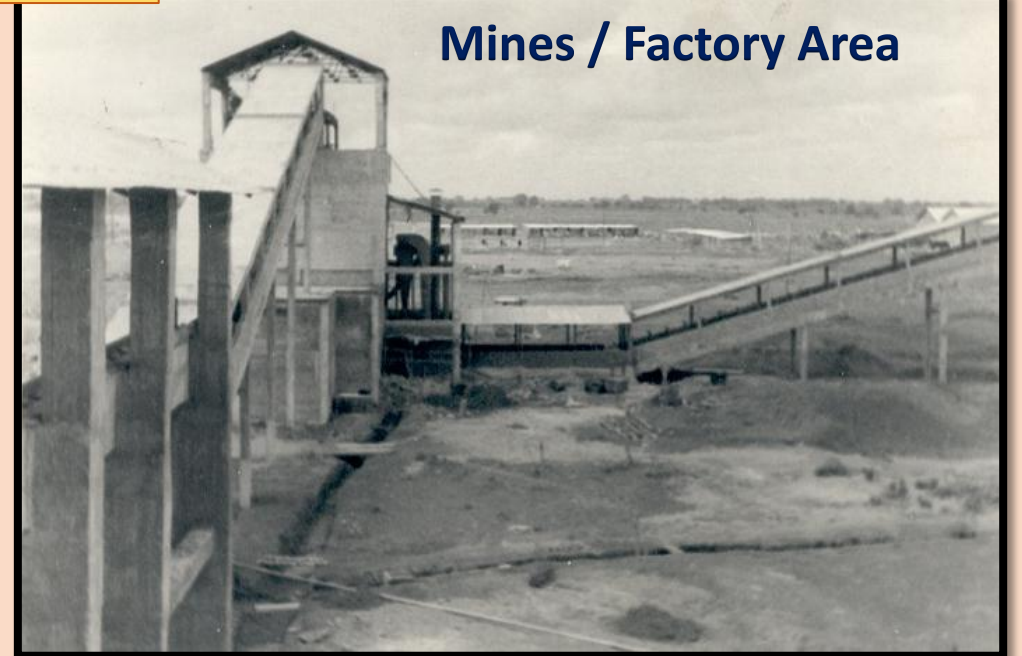


BARREN LAND ALL AROUND

Mines Area



Mines / Factory Area



# OUR INHERITANCE.. 1971..

Mines Area



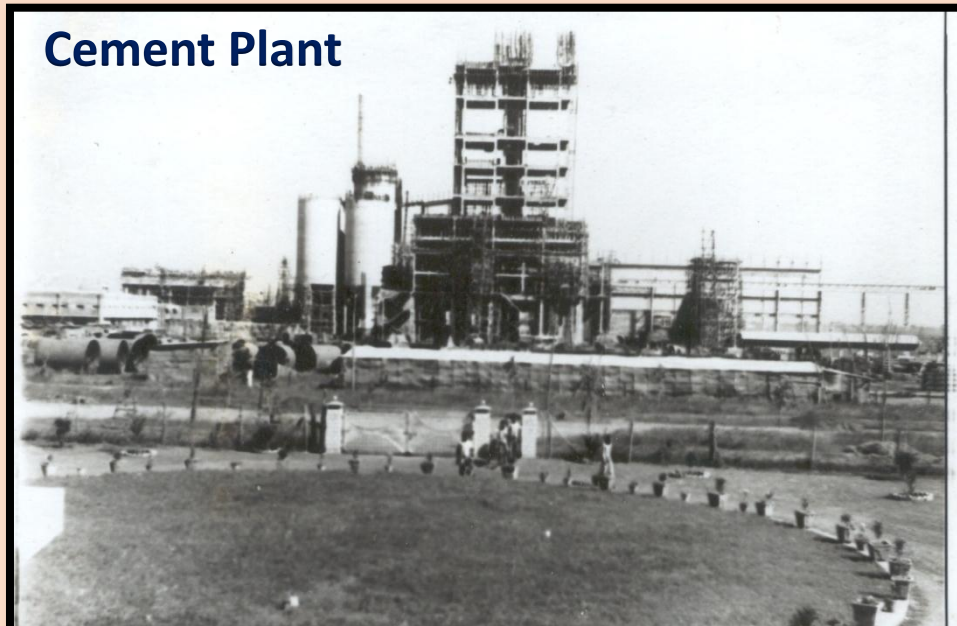
Mines Area



Colony



Cement Plant



# THUS, THE CHALLENGES AT THE BEGINNING

As stated above, the challenge was from three angles viz.

- To run the plant with no water source nearby.
- To create a conducive environment for the plant, colony & the society.
- To run the plant with a meager deposit of 22 million tonnes.

**We, at Century Cement, took all the challenges spiritedly and tried to solve all the three successfully.**

# Third Challenge

**By doing Scientific and Sustainable Mining, we have addressed the third and most important challenge that is Mineral Conservation.**



# Mineral Conservation

Initially, in 1971

Cement Grade Limestone Reserve proved : 22.01 Million Tonnes

ROM Grade of Limestone : CaO >45.0%  
MgO <1.0%

Which was sufficient only for 20years with then capacity of Cement Plant (0.6 Million Tonnes Per Annum).

# Mineral Conservation

## AS ON DATE:

After 46 years we have consumed about 50 Million Tonnes of Limestone,

Cement Grade Limestone Reserve still available : 16.35 Million Tonnes

PRESENT ROM Grade of Limestone : CaO > 41.5%

MgO < 3.0%

Cut off Grade of Limestone is

CaO% - 38%

MgO% - 4%

# Mineral Conservation

**This is achieved by:-**

- 1. Bringing down the required ROM quality with technical improvements in Cement Plant including use of pet coke.**
- 2. Reassessing the Reserve through detailed exploration of mining lease area.**
- 3. Reclamation of old low grade stock/dump and consuming its limestone by dry beneficiation (Wobbling).**
- 4. Consumption of low grade limestone by blending with sweetener grade purchased limestone.**
- 5. Use of indigenously developed portable screen for consumption of contaminated limestone.**

# Threshold Value of Limestone

(For Chhatisgarh state)

Presentiy, Threshold Value of Cement Grade Limestone for Chhattisgarh state are-

CaO%	>	34%
MgO%	<	4.0%

# ROM Quality of Limestone

## (Century Cement Limestone Mines)

Quality of ROM, as required by Cement Plant is-

CaCO<sub>3</sub>% > 72.0% (CaO% > 41.5%)

MgCO<sub>3</sub>% < 6.0% (MgO% > 3.0%)

**Cut off Grade of Limestone is**

CaCO<sub>3</sub>%- 67% (CaO%-38 %)

MgCO<sub>3</sub>%- 8.4% (MgO%- 4%)

**\*\*In Chhattisgarh Region , Century Cement Plant is using the Lowest ROM Grade/Cut Off Grade Limestone.**

# SUGGESTION

Presently, Threshold Value of Cement Grade Limestone for Chhattisgarh state are-

CaO%	>	34%
MgO%	<	4.0%

We are only able to consume 38% CaO% of Limestone, therefore it is suggested that present threshold value should not be further brought down rather, it should be 36% CaO%.

And The Efforts Continue...

**THANKS**

