

PRE – FEASIBILITY REPORT

1.0 EXECUTIVE SUMMARY

1.1 TITLE OF THE PROJECT

Proposed Expansion of Limestone Mining Lease (ML Area: 740.93 ha) from 3.75 MTPA to 9.10 MTPA of **M/s. Wonder Cement Limited.**

1.2 LOCATION OF THE PROJECT

- Villages: Bhatkotari, Lasrawan, Phalwa and Rasulpura
- Tehsil: Nimbahera
- District: Chittorgarh
- State: Rajasthan

1.3 PROJECT PROPOSAL

Proposed Expansion of Limestone Mining Lease (ML Area: 740.93 ha) from 3.75 MTPA to 9.10 MTPA At Villages – Bhatkotari, Lasrawan, Phalwa and Rasulpura, Tehsil– Nimbahera, District– Chittorgarh (Rajasthan) of **M/s. Wonder Cement Limited.**

As per EIA Notification dated 14th Sep, 2006 as amended on 1st December 2009, the project falls under Project Activity ‘1 (a)’, Category “A”.

1.4 REQUIREMENTS FOR THE PROJECT

1.4.1 LAND REQUIREMENT

Total mining lease area is 740.93 ha which spreads in four villages namely; Bhatkotari, Lasrawan, Phalwa and Rasulpura.

1.4.2 WATER REQUIREMENT

Total water requirement after proposed expansion of the project will be 112 KLD. Out of which 72 KLD water will be recycled and fresh water requirement for the project will be 40 KLD only. Fresh water will be used for drinking purpose.

1.4.3 POWER REQUIREMENT

Total power requirement after proposed expansion of the project will be 1.5 MW additional power required for proposed expansion will be 0.5 MW.

1.4.4 MAN POWER REQUIREMENT

For safe and systematic mining sufficient technical & supervisory staff will be provided at the mine site. Total Manpower for the existing project is 101 and additional 30 persons required after proposed expansion. Preference will be given to local people.

1.4.5 EXTENT OF MECHANIZATION:

The various major mine equipments after the expansion will be as:

TABLE-1

S. No	Equipment	Numbers
A.Mining Equipment		
1	Hydraulic Excavator (7.2 M3)	1
2	Dumper (60 tons)	3
B.Service Equipment		
1	Water Sprinkler	1
2	Pick up Van	1
3	ANFO Mixing & Loading Machine	1

1.5 ENVIRONMENTAL MANAGEMENT PLAN

1.5.1 AIR POLLUTION CONTROL

One of the main pollutants in air is Particulate Matter (SPM), which is generated during various activities of mining such as, removal of overburden, extraction of limestone and movement of mining machinery and vehicles. Following measures are taken to minimize air pollution:-

Following measures will be taken to control air/fugitive pollution during mining operation:

- ❖ Sharp drill bits are used for drilling to reduce generation of dust and noise .
- ❖ Drilling machines are equipped with water spraying system to prevent dust to get air borne.
- ❖ Blasting is done in most scientific manner, use of non electric ignition system, use of millisecond delay detonators and optimizing the blasting parameters to control & prevent the dust to get air borne and to control the fly rock.
- ❖ Rock breaker is used for breaking over size boulders, which eliminates the generation of dust due to secondary blasting activities.
- ❖ All the haul roads are kept properly graded with sufficient width and regular water spraying is done on the haul roads.
- ❖ Proper maintenance (preventive as well as schedule maintenance) of vehicles is carried out regularly for minimization of generation of gaseous pollutants.
- ❖ Personal Protective Equipments like dust mask, ear plug/ear muff, goggles, safety shoe, hand gloves are provided to all employees.
- ❖ Periodical air quality is carried out.

- ❖ Development of green belt/plantation around lease boundary and other places to arrest dust.

1.5.2 WASTE WATER TREATMENT

- ❖ Garland drains are provided all along the periphery of pits to prevent the water carrying the wash-offs entering the mine.
- ❖ Waste water generated at mines workshop is treated with the help of oil-water separators and the treated water is recycled/used for dust suppression work.
- ❖ Waste water generated from mine office to soak pits via septic tanks.

1.5.3 NOISE POLLUTION CONTROL

- ❖ The main source of noise is operation of heavy machinery like drilling machines, dumpers, dozers, D.G. sets and blasting which generates considerable noise. But many of these operations are of intermittent in nature and are less likely to be damaging to human beings.
- ❖ All types of maintenance i.e. scheduled maintenance and preventive maintenance of all machines are being carried out.
- ❖ Drilling is carried out with the help of sharp bits. This helps in reducing generation of noise during working of machines.
- ❖ In order to reduce the effect of noise pollution, protective devices like ear plugs, ear muffs are being provided to workers exposed to noise levels more than 75 dB(A) is made.
- ❖ Provision of sound proof cabins to workers deployed for operating machinery producing higher levels of noise.
- ❖ Continuous monitoring of ambient noise levels is being carried out in the core zone as well as in the Buffer zone and the results are well within prescribed limits.
- ❖ Green belts will be developed around periphery of the lease hold and along road sides to attenuate noise levels. Plantation is been done all along the haul road, roads, periphery of the mining lease area etc.

1.5.4 SOLID WASTE MANAGEMENT

- ❖ Overburden generated will be very less. Top soil will be stacked at non mineralized area and will be utilized in green belt development.
- ❖ Waste oil & grease drained out of gearboxes and other equipment & scrapped automobile batteries, will be sent to plant/disposed off by selling to licensed vendors.

1.5.5 GREEN BELT DEVELOPMENT/PLANTATION

At the conceptual stage of mining the worked out pit will be converted in to water reservoir and green belt will be developed in 75 ha earmarked area within the premises. Native plant species are planted. The trees are planted at suitable grid spacing (as per CPCB guidelines) leading to proper growth. Species planted include Neem, Sheesham, Kanaj, Pelter form, Cassia Sama, Ratanjyot, etc.

2.0 INTRODUCTION OF THE PROJECT/ BACKGROUND INFORMATION

(i) Identification Of Project And Project Proponent

- ❖ Wonder Cement Limited (WCL) (A unit of R.K.Marble Group) is having registered & corporate office at Madanganj-Kishangarh, District Ajmer, Rajasthan. RK Marble Pvt Ltd was established on May 25 1989. RK Marble Pvt Ltd was established with a vision to become one of the largest marble producers by practising latest & innovative techniques. RK Marble has set benchmarks in the mining processing and finishing of marble. An annual production of over 1.5 million tons (equivalent to 60000 Sq M per day) has earned the company a place in the Guinness Book of World Records as the largest producer of marble in the world.
- ❖ The company is ISO 9001-2008, ISO 14001-2004 and OHSAS 18001:2007 certified unit.
- ❖ WCL is proposing for capacity enhancement of existing limestone mine, cement plant, captive power plant, DG set and setting up of new Waste Heat Recovery Boiler (WHRB). The land measuring 191.064 ha is available for the expansion of the plant. The supply of limestone will be met from its existing captive limestone mine having mining lease area of 740.93 ha. WCL has obtained the environmental clearance for existing integrated cement project: cement production 3.75 MTPA, CPP 2x 40, DG set 1x 2 MW & limestone production of 3.75 MTPA in mine lease area of 740.93 ha. EC was granted vide MOEF letter no. J-11011/506/2007-IA II (I) dated 11 June 2008 & letter no. J-11011/437/2011-IA II (I) dated 19-6-2012. Amendment in EC regarding change in capacity of CPP (from 38 to 40 MW) & DG (6 to 2 MW) set has been obtained vide MOEF letter no. J-11011/506/2007-IA II (I) dated 4th Jan 2012.
- ❖ To keep pace with the growing demand of cement grade limestone the mining lease area was located by the department of Mines & Geology in Chittorgarh district and investigated during field season 2004-2005 and exploration was continued up to August 06.
- ❖ The mining lease was granted vide Govt. order No. F5 (76) Khan /Gr.2/07 dated 23.08.08. The lease deed executed on 08.09.08 and registered on 09.09.08 for 30

years i.e from 09.09.08 to 08.09.38 .The lease area forms a part of the survey of India Toposheet No. 45 L/10.

- ❖ The mining plan has been approved by Indian Bureau of Mines, Ajmer, vide letter no 682(23) (755)/10- MCCM (N)-Udai dated 20-7-2011.

(ii) Brief Description of the Nature of Project

Expansion of Limestone Mining Lease (ML Area: 740.93 ha) from 3.75 MTPA to 9.10 MTPA of At Villages – Bhatkotari, Lasrawan, Phalwa and Rasulpura, Tehsil– Nimbahera, District–Chittorgarh (Rajasthan)of **M/s. Wonder Cement Limited.**

As per EIA Notification dated 14th September 2006, as amended on 01.12.2009, this project falls under Category “A”, Project or Activity 1(a) – 3.

(iii) Need for the Project & Its Importance to the Country/ Region

- ❖ Cement is an essential ingredient for the modern building construction. The new generation cement plant in India now employs the latest technology for better efficiency, energy conservation and economics of large capacity production. The improved market conditions witnessed recently, after a grip of recession over a long period, are expected to continue due to high priority being given by the Government to housing and infrastructure and also in view of the massive investment proposed in industry and rural sectors. Therefore, there is an urgent need to increase the cement production capacity in the country in spite of severe resource constraints.
- ❖ With respect to the importance of the project to the nation, it can be well said that in a developing nation like India, cement make a backbone for infrastructural development. Thus, keeping in mind this requirement, mining of limestone is essential for the nation`s growth.

(iv) Demand – Supply Gap

The cement demand and supply is estimated based on the following assumptions:

- Plants are estimated to work at average capacity utilization 90%. This is based on the past performance of the plants.
- It is assumed that in the year of commissioning, a plant is capable of supplying only 50% of its installed capacity and it starts supplying 100% from next year onwards.

Estimated future capacities of cement production in India are given in the table below:

Year	Effective Capacity in mio tpa
FY 13	320.4
FY 14	327.9
FY 15	327.9
FY 16	327.9
FY 17	327.9

The demand supply gap is shown below in the table:

Year Item	FY 13	FY 14	FY 15	FY 16	FY 17
Total Effective Capacity	320.4	327.9	327.9	327.9	327.9
Less estimated Exports (Cement equivalent)	6.0	6.0	6.0	6.0	6.0
Domestic demand	286.5	311.2	338.0	367.1	398.7
Surplus/ (Deficit)	27.9	10.7	(16.1)	(45.2)	(76.8)

A cement deficit situation is envisaged in the coming years but the situation may change depending upon the infrastructure growth in the coming years.

(v) Imports vs. Indigenous Production

After expansion in limestone production capacity, limestone will be utilized in the cement plant as WCL is also planning to expand its cement production capacity. Therefore limestone will be used for feeding cement plant.

(vi) Export Possibility

Proposed expansion in Production of limestone will be only utilized in the captive cement plant.

(vii) Domestic/Export Markets

WCL is planning to expand its cement production capacity. To increase the lead in the region and logistic gain. The proposed cement production will cater to the cement demands in the states of Rajasthan, Gujarat, Delhi, U.P, M.P, Haryana etc.

Moreover, limestone will be only utilized in the captive cement plant. Thus there will be no other users for the limestone from this mine.

(viii) Employment Generation (Direct and Indirect) due to the Project

This mining project is beneficial to the localities , after introduction of mining activities in surrounding areas has been improved. Direct and indirect employment will be generated due to the project. Unskilled /semi skilled manpower can be sourced from the local area and skilled manpower shall be sourced from inside & out side Rajasthan state.

At present about 101 workers are engaged in the mining activities and for carrying out the proposed expansion, further employment will be provided to 30 people.

TABLE-2
MAN POWER REQUIREMENT

S. No.	Category	Existing Manpower Requirement	Additional Manpower Requirement for expansion	Total Manpower Requirement after expansion
1.	Skilled	15	15	30
2.	Semi skilled	48	94	142
3.	Unskilled	38	22	60
	Total	101	131	232

3.0 PROJECT DESCRIPTION

(i) Type of Project Including Interlinked And Independent Projects, If Any

M/s Wonder Cement Ltd is proposing for Expansion of Limestone Mining Lease (ML Area: 740.93 ha) from 3.75 MTPA to 9.10 MTPA at Villages: Bhatkotri, Lasravan, Phalwa and Rasulpura, Tehsil: Nimbahera, District: Chittorgarh (Rajasthan) of **M/s. Wonder Cement Limited.**

Interlinked Project: Expansion of Integrated Cement Project - Clinker (2.0 to 6.0 MTPA), Cement (3.25 to 8.0 MTPA), CTPP (40 MW to 80 MW), D.G. Set (2.0 MW to 7.0 MW) & WHRB (2 x 9 MW) at Villages: Bhatkotri, Lasravan, Phalwa and Rasulpura, Tehsil: Nimbahera, District: Chittorgarh (Rajasthan) of **M/s. Wonder Cement Limited.**

(ii) Location (map showing general location, specific location, and project boundary & project site layout) with coordinates

Proposed Expansion of Limestone Mining Lease (ML Area 740.93 ha) from 3.75 MTPA to 9.10 MTPA
 At Villages – Bhatkotari, Lasrawan, Phalwa and Rasulpura, Tehsil– Nimbahera, District–Chittorgarh (Rajasthan)

Pre Feasibility Report

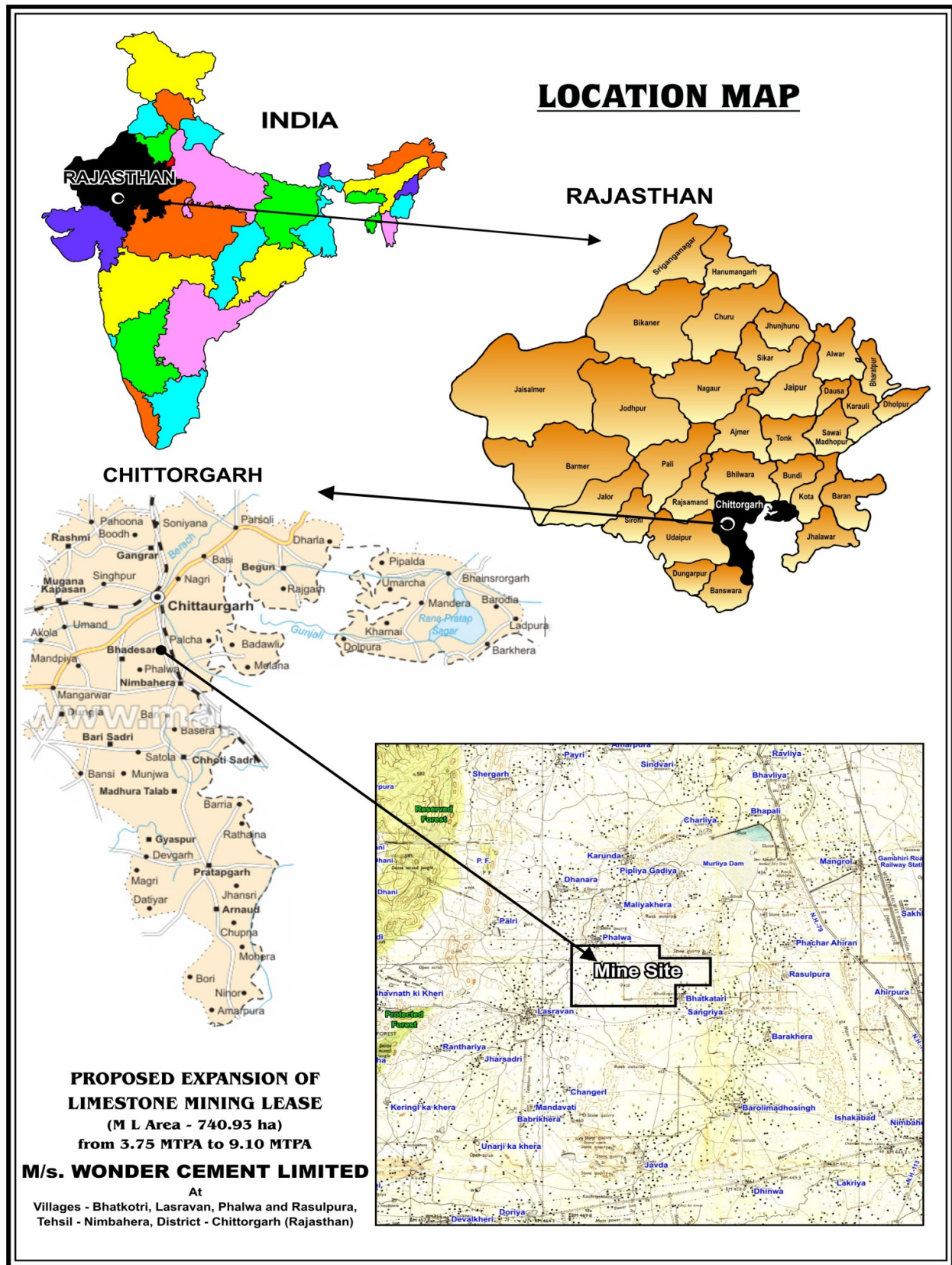


Figure No. 1 Location Map Showing the General & Specific Location of the Mining Lease

(iii) Details of Alternate Sites Considered

No alternative site has been taken into consideration as this is an existing mining lease and this proposal is for production expansion.

(iv) Size or Magnitude of Operation

Expansion of Limestone Mining lease (ML Area: 740.93 ha) from 3.75 MTPA to 9.10 MTPA of **M/s. Wonder Cement Limited**

(v) Project Description with Process Detail

TABLE - 3
PROJECT DESCRIPTION

S. No.	Particulars	Details
A.	Location	
(i)	Villages	Bhatkotri, Lasrawan, Phalwa & Rasulpura
(ii)	Tehsil	Nimbahera
(iii)	District	Chittorgarh
(iv)	State	Rajasthan
(v)	Latitude & Longitude	Latitude - 24°39'06" N & 24°40'20" N Longitude - 74°35'15" E & 74°38'06" E
(vi)	Toposheet No.	45 L/6, 45 L/9, 45 L/10
B.	Lease Area Details	
(i)	Mining Lease Area	740.93 ha

Geological Reserve

Exploration

Out of the total lease area of 740.93 Ha. The exploration by way of exploratory drilling has been carried out in 300 Ha. Till date 71 drill holes have been drilled.

Limestone Reserves

Based on the exploration carried the reserves estimated are:

Total Proved reserves	: 452 million tones
Mineable reserves	: 409 million tonnes
Rated production capacity (Existing)	: 3.75 MTPA
Rated production capacity (After Expansion)	: 9.10 MTPA

Method of Mining

Mining operations are carried out by fully mechanized opencast method, utilizing Heavy Earth Moving Equipment (HEME) Blasting is carried out to create fragmented material.

Type of working: Opencast mechanized

Bench height: Up to maximum 10 m

Overall pit slope: 75° maximum

Process:

- Drilling by larger diameter (110 - 115mm dia) drills
- Blasting by conventional explosives
- Loading by high bucket capacity shovel (6.5 m³)
- Transporting by 54 tonnes dumper.

Stacking of Minerals rejects & disposal of waste

The lease area is predominantly outcropping with limestone and is practically devoid of any overburden except for small patches. Top soil will be generated which will be used for on green belt development in surrounding areas.

Use of Mineral

The limestone is meant for captive consumption and will be used for cement manufacture at the company's own cement plant. The lime stone will be transported out of the lease to the Company's Cement plant where it will be crushed to the size below 40 mm and then fed into the raw mill.

(vi) Raw Material Required Along With Estimated Quantity, Likely Source, Marketing Area of Final Products, Mode of Transport of Raw Material and Finished Product

- ❖ Limestone will be used in captive cement plant, so no marketing area will be required.
- ❖ Limestone stone will be transported from mine up to the crusher by using dumpers within the mine lease area and from crusher to cement plant by covered belt conveyor.

(vii) Resources Optimization/ Recycling and Reuse Envisaged in the Project, if any, should be briefly Outlined

- ❖ The lease area is predominantly outcropping with limestone and is practically devoid of any overburden except for small patches. Overburden & Waste rock will be used for filling low lying area and construction of haulage road.
- ❖ Top soil will be stacked at non mineralized area and will be utilized in green belt development

- ❖ No waste water is generated from mining operation
- ❖ Waste water generated at mines workshop is treated with the help of oil-water separators and the treated water is recycled/used for dust suppression work.

(viii) Availability of Water Its Source, Energy /Power Requirement and Source

A. Water requirement:

TABLE - 4
WATER REQUIREMENT

S. No.	Water Requirement	Existing Requirement in KLD	Proposed (Additional Requirement) in KLD	Total Requirement after expansion in KLD	Source
1.	Dust suppression	20	20	40	Recycled water ETP/STP
2.	Green Belt	32	*	32	Recycled water ETP/STP
3.	Drinking & Sanitation	10	10	20	Bore well
4.	Mine workshop	10	10	20	Borewell
Total Water Requirement		72	40	112	
Total recycled water		52	20	72	
Net fresh Water Requirement		20	20	40	

Total water requirement after proposed expansion of the project will be 112 KLD. Out of which 72 KLD water will be recycled and fresh water requirement for the project will be 40 KLD only. Fresh water will be used for drinking purpose.

Groundwater will be used for drinking. Recycled water from ETP/STP will be used for sprinkling on haulage road for dust suppression.

B. Power requirement:

Total power requirement for the project will be 1.5 MW.

TABLE - 5
POWER REQUIREMENT

S. No.	Power Requirement	Existing Requirement in MW	Proposed (Additional Requirement) in MW	Total Requirement after expansion in KLD	Source
1.	Electrical Power	1.0	0.5	1.5	Existing CPP(40 MW)

(ix) Quantity of Waste to Be Generated (Liquid and Solid) And Scheme for Their Management/Disposal:

- ❖ The lease area is predominantly outcropping with limestone and is practically devoid of any overburden except for small patches. Overburden & Waste rock will be used for filling low lying area and construction of haulage road.
- ❖ Top soil will be stacked at non mineralized area and will be utilized in green belt development
- ❖ There will not be any mine discharge. Waste water generated from mine office to soak pits via septic tanks.

4.0 SITE ANALYSIS

(i) Connectivity

The site is well connected with NH-113, NH-79. Nearest town & city is Nimbahera (5 km) and Chittorgarh (30 km). Nearest airport is Dabok (Udaipur) 75 km from site.

The site is well connected with communication facilities like telephone, fax, wireless and telex, and as such, no constraints are envisaged in this aspect as the tehsil and district headquarter is near to the site.

(ii) Land Form, Land Use and Land Ownership

Total mining lease area is 740.93 ha which spreads in four villages namely; Bhatkotari, Lasrawan, Phalwa and Rasulpura.

(iii) Topography

The topography of the area lies on a flat country that gradually slopes down towards the north. The limestone bands dipping gently towards east and west direction forms a syncline structure. The lease area is situated at 446-454 MSL.

(iv) Existing Land Use Pattern {Agriculture, Non-Agriculture, Forest, Water Bodies (Including Area Under CRZ)}, Shortest Distances From The Periphery Of The Project To Periphery Of The Forests, National Park, Wild Life Sanctuary, Eco Sensitive Areas, Water Bodies (Distance From The HFL Of The River), CRZ. In Case Of Notified Industrial Area, A Copy Of The Gazette Notification

TABLE - 6
ENVIRONMENTAL SETTINGS

S. No.	Particulars	Details
1.	Nearest National Highway	NH-79 & NH-113
2.	Nearest Railway Station	Gambhiri Road Railway Station (Approx 5.0 km)
3.	Nearest Airport	Dabok Airport Udaipur -75 km
4.	Archaeological Important Place	None within 15 km from project site
5.	Ecological Sensitive Areas (National Park, Wild Life Sanctuary, Biosphere Reserves etc.) with in 10 km radius.	No Ecological Sensitive Areas (National Park, Wild Life Sanctuary, Biosphere Reserves etc.) within 15 km radius of the project site
6.	Reserved / Protected Forest within 10km radius (Boundary to boundary distance)	4 Protected Forest and 4 Reserved Forest falls at a distance of 3.0 to 9.0 km from mine site.
7.	Nearest major city with 200000 population	Chittorharh : 30 km Udaipur : 100 km
8.	Nearest Town / City	Nearest Town : Nimbahera : 5.0 KM Chittorharh : 30 km
9.	Nearest River/Dam/Reservior	<ul style="list-style-type: none"> • Kadmali River ~ 9.0 km in ESE • Nimbahera River~ 8.0 km in SE • Gambhiri Reservior ~ 9.0 km in ENE • Murliya Dam~ 2.2 km in NNE • Uncha Talav~ 8.0 km in S.
10.	Seismic Zone	Zone – II as per IS: 1893 (Part-I) : 2002

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Pre Feasibility Report

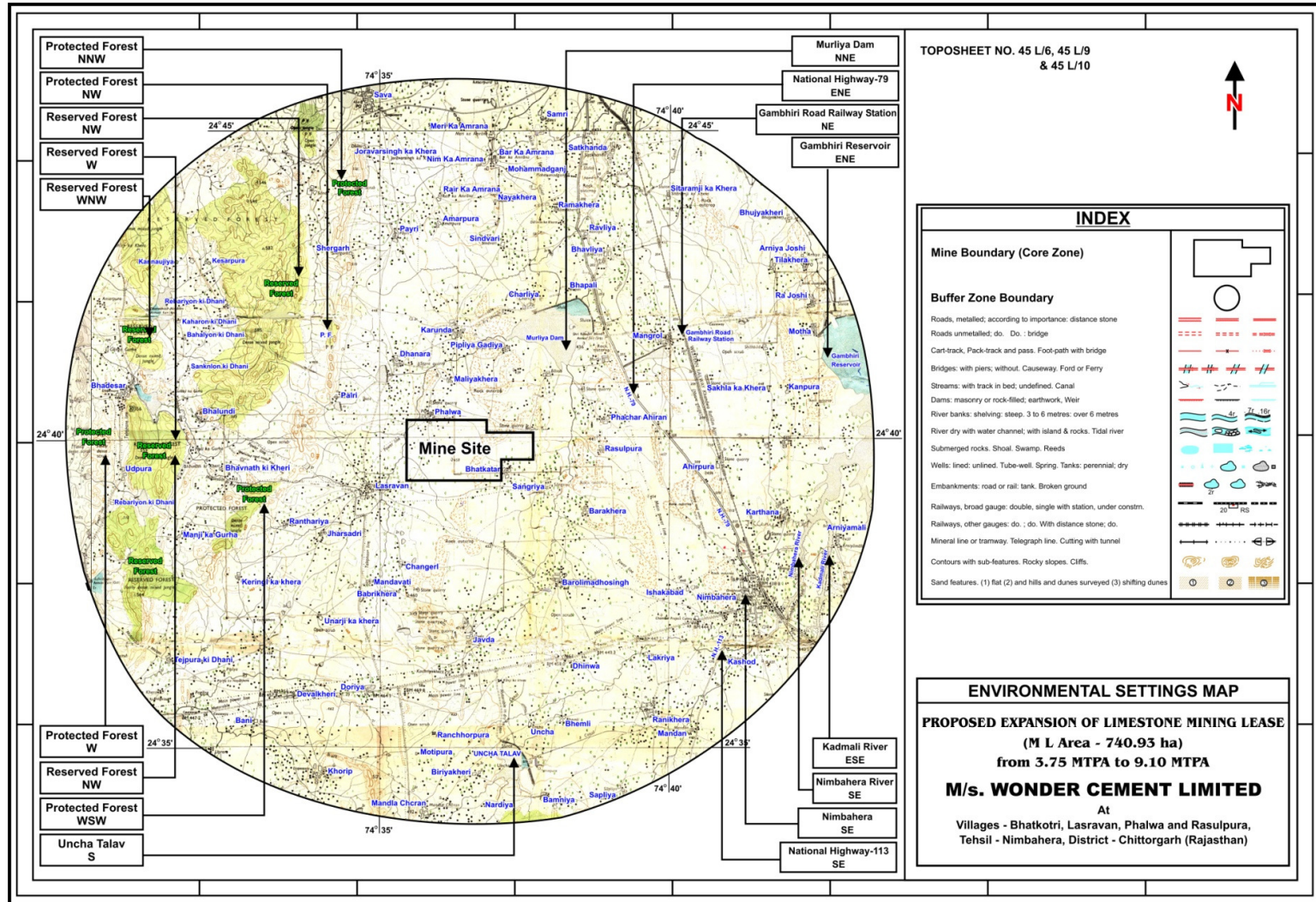


Figure No. 2, Environmental Setting Map

(v) Existing Infrastructure:

The lease area is connected by State Highway Neemuch-Chittorgarh tar road East of lease area. Gambhiri road is the nearest railway station on the Ratlam-Ajmer meter gauge and Neemuch-Kota Broad gauge section of western railway. The lease area is about 5.0 km away from Gambhiri road railway station. Udaipur is the nearest airport.

(vi) Soil Classification

Chittorgarh district and surrounding area forms a part of intermountain plateau and consists of dark-lava soils. Soils of Rajasthan are complex and highly variable, reflecting a variety of different parent materials, physiographic land features, range of distribution of rainfall and its effect etc. However broadly the soils can be put in five major groups based on the basic fabric of soils i.e. soil texture which governs its many other properties. They are (1) sandy soils or light soils (2) sandy loam or light medium soils (3) loam or medium soils (4) clay loam to clay or heavy soils and (5) skeletal soils or shallow rocky and hilly soils.

Quality of soil in the area is shown a marked diversity in nature depending upon the parent rock and climatic conditions prevailing in different parts of the district. The soil in the area has a property of swelling to some extent when wetted and forming cracks, when it dries up subsequently. The soil found in the Chittorgarh district is black cotton soil.

(vii) Climatic Data from Secondary Sources

Climate of the area is generally dry except during the south west monsoon season. Dry summer months extends from March to June and sometimes up to middle of July. Monsoon season lasts for about two months from Mid July to mid September. Post monsoon season extends up to November and thereafter winter season continues up to February.

Temperature generally becomes highest in May and it reaches upto 45 deg C to 46 deg C and minimum is recorded in January going down to 2 deg C to 3 deg C.

The average annual rainfall in the past decade was in the range of 600 to 800 mm with the highest precipitation in the month of August when about 80 % of the rainfall is received in the area during NW monsoon every year.

Drought analysis based on agriculture criteria shows that the district experiences either mild or normal drought once in two years. However, severe drought has never occurred in the district.

(vii) Social Infrastructure Available

Nearest habitation area is in village Bhatkotri and Rasulpura. The nearest town is Nimbahera which is 5 km from the site. The nearest major city is Chittorgarh & Udaipur about 30 km and 100 km respectively from the project site. At then Nimbahera town schools, government hospital, dispensaries, places of worships etc are available. Electrical power supply in most of surrounding villages are available. Telephone, medical facilities and telegraph facilities are available in the nearby towns. L.T. power is being supplied for drawing water from tubewells in the villages of buffer zone for irrigation purpose. Most of the tanks and ponds as well as river water are being utilized for irrigation.

5.0 PLANNING BRIEF

(i) Planning Concept (Type of Industries, Facilities, and Transportation etc.) Town and Country Planning/Development Authority Classification

Transportation of limestone to cement plant will be done via existing road inside the premises of limestone mines and cement plant.

(ii) Population Projection

Temporary influx of people will be there as the managerial and supervisory staff will generally be outsider.

(iii) Land Use Planning

Proposed project will be set up in the existing mining lease .Area for built up structures, green belt etc. will be same as per scheme suggested in the approved mine plan for existing mine. Revised mine plan is under preparation. Land use planning for proposed expansion project will be followed as per revised approved mine plan.

(vi) Assessment of Infrastructure Demand (Physical & Social)

WCL has assessed the demand of infrastructure (Physical & Social) in nearby area of the mine site and development activities have been started under corporate social responsibilities programs.

(vii) Amenities/Facilities

WCL has constructed township, dispensary, shopping complex, canteen etc for the permanent and contract employees.

WCL will develop the Amenities/Facilities in the nearby area of the mine site as per requirement of local people of the nearby area under corporate social responsibilities programs.

6.0 PROPOSED INFRASTRUCTURE

(i) Industrial Area (Processing Area)

No additional infrastructure will be required for the proposed expansion project.

Residential Area (Non Processing Area)

No additional infrastructure will be required for the proposed expansion project.

Existing facilities will be used for expansion project.

(ii) Green Belt Development

- At the end of life of mine, 75 ha will be covered under Green belt / Plantation area.
- At the conceptual stage of mining the worked out pit will be converted in to water reservoir and green belt will be developed in 75 ha earmarked area within the premises
- Green Belt will be developed around the lease boundary, haul roads, office, plantation will be done on undisturbed area, reclaimed area, nearby workshop & mine office etc.
- The dead plants will be replaced by fresh plants.
- Local species will be planted after consultation with local forest officer and as per CPCB guidelines.

(iii) Social Infrastructure

Proposed expansion project will result in growth of the surrounding areas by increased direct and indirect employment opportunities in the region including ancillary development and supporting infrastructure.

(iv) Connectivity

The site is well connected with NH-79, Nearest town & city are Nimbahera (5 km) and Chittorgarh (30 km). Nearest airport is Dabok(Udaipur) 75 km from site.The site is well connected with communication facilities like telephone, fax, wireless and telex, and as such, no constraints are envisaged in this aspect as the tehsil and district headquarter is near to the site.

(v) Drinking Water Management (Source & Supply of water)

Total water requirement after proposed expansion of the project will be 112 KLD. Out of which 72 KLD water will be recycled and fresh water requirement for the project will be 40 KLD only. Fresh water will be used for drinking purpose.

Groundwater will be used for drinking. Recycled water from ETP/STP will be used for sprinkling on haulage road for dust suppression.

(vi) Sewerage System

The sewage will be treated and disposed through a series of septic tanks and soak pits.

(vii) Industrial Waste Management

- ❖ No industrial waste water will be generated from proposed expansion project.
- ❖ The waste water generated from Workshop will be treated by oil separator and treated water used for plantation. There will not be any external discharge of wastewater.

(viii) Solid Waste Management

The lease area is predominantly outcropping with limestone and is practically devoid of any overburden except for small patches. Overburden & Waste rock will be used for filling low lying area and construction of haulage road.

Top soil will be stacked at non mineralized area and will be utilized in green belt development

(ix) Power Requirement & Supply/Source

Power Requirement: 1.5 MW

Source: Existing Captive power plant of 40 MW

7.0 REHABILITATION AND RESETTLEMENT (R & R) PLAN

(i) Policy To Be Adopted (Central/State) In Respect Of The Project Affected Persons Including Home Oustees, Land Oustees And Landless Laborers (Brief Outline To Be Given)

This is an expansion project and Rehabilitation & Resettlement issues are not there.

8.0 PROJECT SCHEDULE & COST ESTIMATES

(i) Likely Date of Start of Construction And Likely Date Of Completion (Time Schedule For The Project To Be Given)

It is a running mine.

(ii) Estimated Project Cost Along With Analysis In Terms Of Economic Viability of the Project

- Total cost of the Project is: Rs 10.36 Crore
- Cost for Environment Protection for the Proposed Expansion Project:
 - Capital cost – Rs 1.0 Crore
 - Recurring cost- Rs 10 lakh

9.0 ANALYSIS OF PROPOSAL

Proposed expansion project will result in growth of the surrounding areas by increasing direct and indirect employment opportunities in the region including ancillary development and supporting infrastructure. Special emphasis on Financial and Social benefits will be given to the local people including tribal population, if any, in the area.

Development of social amenities will be in the form of medical facilities, education to underprivileged and creation of self help groups.

