EXECUTIVE SUMMARY

OF

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

FOR

"Kondhala Limestone Block" (ML Area: 105.0 ha.) with Limestone Production Capacity of 2.25 Million TPA, Total Waste: 3.214 Million TPA, Top Soil: 0.022 Million TPA & ROM Rejects: 0.225 Million TPA (Total Excavation: 5.711) and total material handling: 6.711 Million TPA including Re-handling of waste material: 1.0 Million TPA from proposed dumps and installation of Primary Crushers: 1200 TPH & 500 TPH and Secondary Crusher: 400 TPH along with Wobbler

At

Kondhala, Taluka: Warora, District: Chandrapur, Maharashtra.

APPLICANT



SHREE CEMENT LIMITED
BANGUR NAGAR, POST BOX NO. 33,

Beawar, District: Ajmer, Rajasthan

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EXECUTIVE SUMMARY

1.0 INTRODUCTION

Letter of Intent (LOI) has been issued by State Government of Maharashtra for Kondhala Limestone Block for mineral Limestone over an area of 105.0 ha in favour of Shree Cement Limited vide their letter no. MNG-0623/C.R.83/Ind-9(A), dated 05.12.2023. Shree Cement Ltd. has Proposed conventional fully mechanised opencast limestone mine (ML Area: 105 ha) with Limestone Production Capacity of 2.25 Million TPA, Total Waste: 3.214 Million TPA, Top Soil: 0.022 Million TPA & ROM Rejects: 0.225 Million TPA (Total Excavation: 5.711 Million TPA) and total material handling: 6.711 Million TPA including Re-handling of waste material: 1.0 Million TPA from proposed dumps and installation of Primary Crushers: 1200 TPH & 500 TPH and Secondary Crusher: 400 TPH along with Wobbler near Village: Kondhala, Taluka: Warora, District: Chandrapur, Maharashtra.

As per the Schedule of EIA Notification dated 14.09.2006, as amended thereof, this project falls Category 'B' (<250 ha) projects; Project or Activity 1(a)-4 for "Mining of Minerals" and Project or Activity 2(b)-3 for "Mineral Beneficiation (Crusher with Wobbler)".

2.0 JUSTIFICATION FOR THE PROJECT

Company has proposed Integrated Cement Plant with production capacity of Clinker: 1.5 Million TPA; Cement: 3.5 Million TPA (OPC, PPC, PSC, SRC, RHPC & Composite Cement); CPP: 20 MW; WHRS: 9.5 MW; Synthetic Gypsum: 1560 TPD (65 TPH) and DG Sets: 2500 KVA (1 x 2500 KVA or 2 x 1000 KVA & 1 x 500 KVA or 1 x 1000 KVA, 2 x 500 KVA & 2 x 250 KVA) at Villages: Nimsala (Nimsada), Kondhala & Dahegaon Taluka: Warora, District: Chandrapur (Maharashtra).

To meet the limestone requirement of proposed cement plant; company has proposed Kondhala Limestone Block" Opencast mining project (ML Area: 105.0 ha.) with Limestone Production Capacity of 2.25 Million TPA, Total Waste: 3.214 Million TPA, Top Soil: 0.022 Million TPA & ROM Rejects: 0.225 Million TPA (Total Excavation: 5.711 Million TPA) and total material handling: 6.711 Million TPA including Re-handling of waste material: 1.0 Million TPA from proposed dumps and installation of Primary Crushers: 1200 TPH & 500 TPH and Secondary Crusher: 400 TPH along with Wobbler near Village: Kondhala, Taluka: Warora, District: Chandrapur, Maharashtra. Here it is pertinent to mention that the Limestone block has been allotted for non-captive purpose.

This would not only help in bridging the demand-supply gap of cement in the region, the project will bring about gains in gross domestic product which will add to the gains in the GDP/GSDP. The mine shall be contributing around Rs. 20.16 Cr/year to the State & Central Govt. exchequers by way of mining revenue (Royalty, DMF, NMET) after ML is executed & mine is operated at the propose capacity. Total of 63 persons will be employed directly in this mine. Beside it, various direct-indirect employment opportunities are also envisaged. With the proposed development in and around the area, there will be supporting facilities/infrastructure eventually leading to the development of the area. The project will help in the overall growth of the region.

Shree Cement Ltd. 1 J.M. EnviroNet Pvt. Ltd.

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3.0 PROJECT DETAILS

TABLE - 1
Project Details

S.	Particulars	Details		
No.				
A.	Nature of project	Opencast Mechanized Limestone Mining Project		
В.	Size of project			
1.	ML area	105.0 ha		
2.	Production Level	Limestone	■ Limestone: 2.25 Million TPA,	
		■ Top Soil: o	■ Top Soil: 0.022 Million TPA,	
		ROM Reje	■ ROM Rejects: 0.225 Million TPA,	
		Total wast	e: 3.214 Million TPA	
		■ <u>Total exca</u>	vation: 5.711 Million TPA,	
		Re-handlir	ng of waste material: 1.0 Millio	on TPA
			erial handling: 6.711 Million TP	
			isher: 1200 TPH & 500 TPH wi	
		Secondary	Secondary Crusher: 400 TPH with Wobbler	
	Project Location			
1.	Village	Kondhala	Kondhala	
2.	Tehsil	Warora		
3.	District	Chandrapur	Chandrapur	
4.	State	Maharashtra	Maharashtra	
5.	Coordinates	Pillar No.	Latitude	Longitude
		1.	20°18'45.42" N	78°58'56.75" E
		2.	20°18'43.52" N	78°59'2.2" E
		3.	20°18'45.02" N	78°59'11.53" E
		4.	20°18'41.71" N	78°59'11.67" E
		5.	20°18'42.88" N	78°59'15.97" E
		6.	20°18'43.78" N	78°59'16.32" E
		7.	20°18'43.82" N	78°59'20.28" E
		8.	20°18'42.26" N	78°59'19.86" E
		9.	20°18'35.67" N	78°59'23.09" E
		10.	20°18′33.5″ N	78°59'22.95" E
		11.	20°18′33.56″ N	78°59'24.1" E
		12.	20°18'28.87" N	78°59'29.42" E
		13.	20°18'20.86" N	78°59'30" E
		14.	20°18'20.78" N	78°59'27.94" E
		15.	20°18'14.37" N	78°59'27.26" E
		16.	20°18'14.04" N	78°59'23.76" E

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S.	Particulars	Details		
No.				
		17.	20°18'8.26" N	78°59'25.57" E
		18.	20°18'10.1" N	78°59'20.07" E
		19.	20°18'11.41" N	78°59'17.11" E
		20.	20°18'10.4" N	78°59'5.28" E
		21.	20°18'10.37" N	78°58'59.29" E
		22.	20°18'10.82" N	78°58'56.06" E
		23.	20°18'17.56" N	78°58'56.34" E
		24.	20°18'19.27" N	78°58'56.56" E
		25.	20°18′20.15″ N	78°58'55.68" E
		26.	20°18'20" N	78°58'49.04" E
		27.	20°18'22.17" N	78°58'46.21" E
		28.	20°18′22.41″ N	78°58'44.48" E
		29.	20°18'29.47" N	78°58'45.33" E
		30.	20°18′39.13″ N	78°58'47.7" E
		31.	20°18'38.75" N	78°58'51.59" E
		32.	20°18'38.26" N	78°58'51.56" E
		33.	20°18'37.95" N	78°58'55.56" E
6.	Toposheet No.	55L/15		l
D	Environmental Setting Details (with approx aerial distance & direction from the mining lease boundary)			mining lease boundary)
1.	Nearest Habitation	Village Kondhala (Adjacent in NE direction from Block boundary & 300 m		
		from ultimate pit limit)		
2.	Nearest Highway	> SH- 6 (~3.25 Km in East direction)		
		> SH- 84 (~6.	3 Km in South direction)	
		NH-347A ~3.0 km in East direction		
		➤ NH-353E ~6	5.5 km in SE direction	
3.	Inter District Boundary	Chandrapur-Yawatmal ~8.5 km in SW direction		
4.	Nearest Railway Station	Warora Railway Station (~6.7 km in South direction)		
		Chikni Road Railway Station (~2.7 km in NW direction)		
5.	Nearest Airport	Dr. Babasaheb Ambedkar International Airport Nagpur (~85 km in North)		
6.	Nearest Town/ City	Warora (~6.5 km in South direction)		
7.	National Park, Wild Life	None within 10	km radius of the mining lease	area.
	Sanctuaries, Biosphere			
	Reserves, Tiger Reserves,			
	Wildlife Corridors etc. Within			
	10km radius study area.			
8.	Reserved / Protected Forest	Temurda R	F ~7.5 km in NNW direction	
	within 10 km radius study area	Kawadapu	r RF ~5.5 km in NNE direction	
		Shegaon R	F ~5.5 km in ESE direction	

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S.	Particulars	Details	
No.			
		➤ Shindola RF ~8.0 km in NNE direction	
9.	Water Bodies within 10 km	> Three Seasonal nalla crossing the block and ultimately merges into	
	radius study area	Lendi Nala ~0.2 km in NW direction	
		➤ Daiwal Nadi ~2.0 km in SW direction	
		➤ Sonariya Nala ~2.0 km in ESE direction	
		➤ Bamandoh Nala ~6.0 km in East direction	
		➤ Shirnai Nadi ~8.0 km in SE direction	
		➤ Wardha River ~8.5 km in SW direction	
10.	Seismic Zone	Zone – III as per IS: 1893 (Part-I): 2002	
D	Cost Details		
1.	Project Cost	Rs. 235.75 Crore	
2.	Cost of EMP	Capital Cost: Rs. 4.44 Crore	
		Recurring Cost: Rs. 0.38 Crore/annum	

Source: Site Visit & Pre-Feasibility Report

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4.0 LOCATION MAP

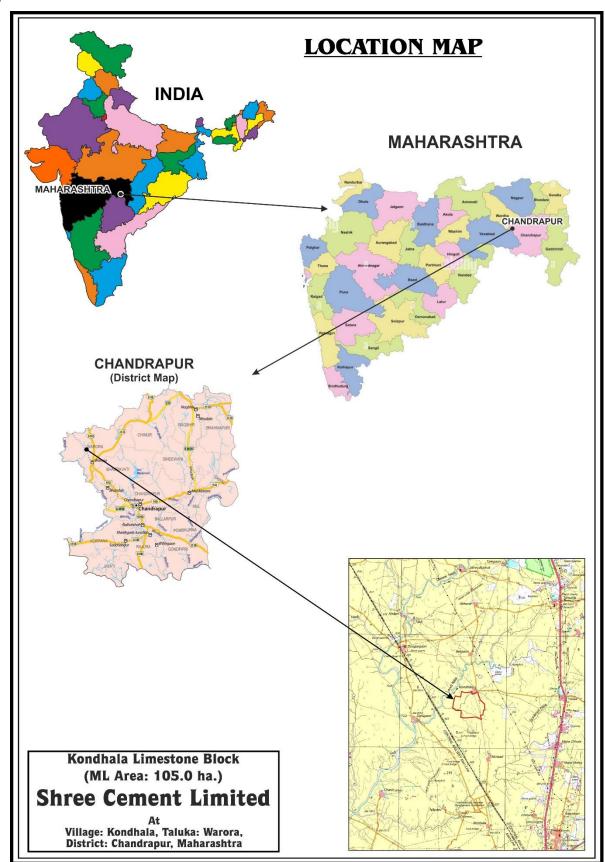


Figure 1: Location Map (Showing general as well as specific location of Proposed Mine Site)

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5.0 MINING DETAILS

Table - 1.2
Mining Details

S. No.	Particulars	Details
1.	Method of mining	Fully Mechanized Opencast Conventional mining
2.	Total Geological Reserves	49.05 Million Tonnes
3.	Total Mineable reserves	30.47 Million Tonnes
4.	Proposed Life of the Mine	~19 years
5.	Bench Height	12 m (Maximum)
6.	Bench Width	18 m (Minimum)
7.	Ultimate Pit Slope	45°
8.	Elevation Range	206 m AMSL to 220 m AMSL
9.	Water Level	Pre-Monsoon: 3 to 5 m bgl
		Post monsoon: 01 to 02 m bgl
10.	Ultimate Working Depth	12 m to 84 m
11.	Stripping Ratio: (Tonnes:	1: 1.3
	Tonnes) Mineral: waste	
12.	No of working days/annum	320
13.	Number of shifts per day	3 Shifts

Source: Approved Mining Plan & Progressive Mine Closure Plan

6.0 METHOD OF MINING

Opencast fully mechanized conventional mining will be done. All operations of mining will be done by deployment of heavy earth moving machineries for deep hole drilling, excavation, loading, crushing & transport. Various mining activities such as drilling, blasting, loading, transportation and crushing will be so conducted as to ensure maximum mineral conservation and minimum environmental degradation.

7.0 DESCRIPTION OF ENVIRONMENT

The Primary baseline data for specific micro - meteorology data, ambient air quality, waste quality, noise level, soil and flora & fauna has been collected during Post Monsoon Season (October to December, 2024). The monitoring results of ambient air, surface water, soil, ambient noise and ground water have been reported.

Baseline study of the study area was conducted during Post Monsoon Season i.e., October to December, 2024.

Ambient Air Quality

Ambient Air Quality Monitoring reveals that the concentrations of PM10 and PM2.5 for all the 12 AAQM stations were found between 39.5 to 80.1 μ g/m³ and 20.3 to 50.6 μ g/m³, respectively. All the ranges of pollutants seems to be below the prescribed CPCB standards. (PM10= 100 μ g/m³; PM2.5= 60 μ g/m³).

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As per the gaseous pollutants SO_2 and NO_2 are concerned, the prescribed CPCB limit of $80~\mu g/m^3$ has never surpassed at any station. The concentrations of SO_2 and NO_2 were found in range of 4.2 to $14.5~\mu g/m^3$ and 8.2 to $24.2~\mu g/m^3$ respectively. The concentration of CO was found in range of 0.52 to $0.84~mg/m^3$. The concentrations of Ozone and Ammonia were found in range of 6.2 to $18.7~\mu g/m^3$ and 13.2 to $30.8~\mu g/m^3$ respectively. All values are well within the prescribed norms. The carbon monoxide is found to be maximum at Village Nimsada ($0.84~mg/m^3$) due to nearby power plants, vehicular activities and near to Warora taluka.

Noise Levels

Ambient noise levels were measured at 12 locations around the mine site. Noise levels varied from 46.1 to 54.2 Leq dB (A) during day time and from 38.3 to 44.6 Leq dB (A) during night time.

Maximum noise levels during day time and during night time were observed near Village Nimsada as it is near to industries and is located near densely populated area i.e., Warora taluka. Whereas, the minimum noise levels were found near proposed mine site.

From the above study and discussions, it can be concluded that noise levels in the study area are well within the prescribed limits as prescribed by the CPCB.

Surface Water Quality

Surface Water Sampling has been carried out at 05 locations. The pH of the surface water sample was observed from 7.69 to 8.05. The color and turbidity were found to be BDL (DL 1.0) at the sampled location. Total hardness varied from 142.2 to 279.5 mg/l, Alkalinity varied from 118.1 to 264.4 mg/l, Total Dissolved Solids varied from 268 to 507 mg/l, BOD varied from 1.2 to 4.6 mg/l, COD varied from 6.4 to 13 mg/l. The level of DO is varied from 6.7 to 7.1 mg/l.

The concentration of Chloride, Sulphate, Magnesium, Calcium, Iron and Fluoride is found varied from 20.16 to 55.37 mg/l, 28.64 to 80.74 mg/l, 15.49 to 32.18 mg/l, 31.42 to 68.74 mg/l, 0.29 to 0.91 mg/l and 0.24 to 0.76 mg/l. Total Coliform was not observed at any of the sampling locations.

Ground Water Quality

The ground water analysis for all the o9 sampling stations shows that The pH of the water samples ranged from 7.05 to 7.77 indicating slightly alkaline nature; and maximum pH was recorded at the Proposed Cement Plant . The colour was BDL, and odour were agreeable at all sampling locations. The values of Total Hardness was 225.8 to 632.4 mg/l and it was within the permissible limits at all the sampling locations, maximum value were recorded at Village Nimsada where it was within the permissible limits. Alkalinity 213.7 to 486.2 mg/l was within the permissible limits at all locations and it was recorded maximum at Village Nimsada where it was within the permissible limits. Chlorides 27.68 to 243.7 mg/l and Total Dissolved Solids 346.0 to 1324 mg/l were within the acceptable limit. The Sulphates (28.85 to 314.8 mg/l) and Nitrate (0.92 to 13.62 mg/l) are seen to be within acceptable limit. The concentrations of Calcium (40.26 to 141.4 mg/l), Magnesium (26.23 to 76.47 mg/l) and metals such as iron (0.29 to 0.96 mg/l) are seen to be within the acceptable limit. The concentration of Fluoride was found from 0.49 to 0.84 mg/l and was within permissible limit. Thus, it can be concluded that the groundwater samples were observed to be good and complying to the drinking water standard (IS: 10500-2012).

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Soil Quality

Samples collected from identified o9 soil locations indicate pH value ranging from 7.26 to 8.09. The soil samples were Grey to Light Grey in colour and Sandy Loam in texture. Organic Matter ranges from 0.58 % to 1.04 % in the soil samples. All the essential nutrients were observed to be present in a higher amount than the other micro nutrient and macro nutrient such as Nitrogen ranges between 177.46 to 266.14 kg/ha, Phosphorous ranges between 10.78 to 25.6 kg/ha, Potassium 233.85 to 843.51 kg/ha, Magnesium 366.34 to 902.41 mg/kg, Calcium 1967.75 to 7581.73 mg/kg and Zinc 320.53 to 47.01 mg/kg. The above discussion indicates that the soils in study area, in general, physical and chemical quality is good and fertile. The soil is suitable for plantation and greenbelt.

8.0 MITIGATION MEASURES

A. AIR QUALITY MANAGEMENT

- > Drilling machines will be equipped with wet/dry drilling with de-dusting arrangements to prevent dust.
- Controlled blasting will be adopted and optimum use of explosive energy will help in reducing the air pollution.
- Blasting will be done by latest blasting technique (NONEL) using stock tube detonator (Downline detonator in combination with noise less trunk line detonators).
- Use of Rock breaker in place of secondary blasting to reduce generation of fly rocks and ground vibration.
- Water Spray arrangement will be provided at crusher hopper and haul roads, loading & unloading areas to control the fugitive emission.
- Bag filter will be provided with crusher.
- Mist fog system (Atomized water sprinkler) will be installed at crusher hopper.
- ➤ Haul roads will be kept wide to support smooth traffic movement. The roads will be properly maintained by road compactor and regular water spraying will be done during work hours to prevent generation of dust from vehicular movement.
- > PPE's including dust masks will be provided to workers & operators working in dusty zones.
- > Backfilled area will be vegetated by plantation to prevent air pollution.
- Vehicular emissions will be kept under norms by regular maintenance of vehicles & machineries.
- ➤ Greenbelt & plantation will be developed around mine boundary, mine office, crusher area, approach roads and backfilled areas.
- Periodic air quality monitoring will be carried and the records will be maintained properly

B. NOISE LEVEL MANAGEMENT

Following measures will be taken for noise pollution control: -

- > Drilling will be done with sharp drill bits to achieve optimum drilling performance and to reduce noise generation at source.
- > Ground vibrations will not affect the structures in the vicinity of Limestone block area, as blasting will be done in accordance with standards prescribed by DGMS for controlled blasting.

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- Explosives charge per hole and per delay will be maintained as per DGMS guidelines.
- NONEL will be used to control ground vibrations, noise & fly rocks.
- Blasting will be carried out during day time only.
- > Crusher will be installed in closed building to control the noise pollution.
- > Development of green belt & plantation in the vicinity of the crusher.
- > Air-conditioned closed cabin will be provided in HEMM to reduce generation of noise.
- > Proper maintenance, oiling and greasing of machines at regular intervals will be done to reduce generation of noise.
- The workers employed will be provided with personal protective equipment, earmuffs and earplugs as a protective measure from the high noise level generated at the mine site and wherever required.
- ➤ Planting of trees will be done along the mining lease boundary for controlling noise apart from acting as barrier for propagation of noise outside the mine lease boundary.
- > Regular monitoring of noise will be carried out regularly.

C. WATER AND WASTE WATER MANAGEMENT

- Three Nala is passing at West direction of block boundary and one canal is passing through the south eastern corner of the mining block area.
- A 50-meter safety zone on both sides of roads, nala & Canal has been marked and ultimate pit has been designed outside the safety zone.
- Rain water will be accumulated in bottom most bench of pit and same will be utilized in dust suppression and plantation.
- > To prevent wash off from dumps, garland drain is proposed around the toe of dump.
- No wastewater will be generated from the mining activities. However, wastewater generated from the mine workshop (12 KLD) and RO reject water (0.5 KLD) will be reuse in dust suppression in crusher after separation of oil & grease.
- Wastewater (3 KLD) generated from mine office toilets and canteen will be treated in STP and treated wastewater will be used for greenbelt & plantation development.
- At the conceptual stage, 21.09 ha will be converted into water reservoir.
- > Periodical monitoring of ground water quality & water level will be carried out

D. GREENBELT & PLANTATION

- Total greenbelt & plantation will be done on 66.5 ha area (3.5 ha under greenbelt on 7.5 m lease periphery, 29 ha on backfilled area, 12.60 ha on waste dump, 11.26 ha on bench slope plantation and 10.14 ha under plantation on Safety zones around village Abadi, canal & Road)
- Native Plant species such as Katahal, Amla, Arjun, Pipal, Safed Siris, Dhok, Dhaura, Shisham, Neem, Mango, Gulmohar, Amaltas, Karanj, Yellow Gulmohar, Kasood, Bargad, Ashok, Jamun, Imli, Guava, Chiku etc. will be planted by SCL as per CPCB guidelines.
- Trees will be planted @ 1200 Trees per hectare with 90% to 95% survival rate

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E. SOLID WASTE MANAGEMENT

- At conceptual stage, 0.32 million tonnes of top soil will be generated till conceptual stage which will be used in greenbelt and plantation, in addition to spreading over backfilled area for plantation purpose.
- > 39.62 million tonnes of waste (OB) will be generated which will be backfilled over an area of 29 ha area followed by plantation /re-grassing.
- ➤ 2.78 million tonnes of ROM Reject will be generated which will be backfilled over an area of 29 ha area after 10th year followed by plantation /re-grassing.

9.0 POST PROJECT ENVIRONMENTAL MONITORING PROGRAMME

Table - 2
Post Project Monitoring

S. No.	Description	Frequency Of Monitoring
1.	Ambient Air Quality	Twice a week (Manually) and Online CAAQMS
2.	Water Quality & Level	Quarterly
3.	Noise Level Monitoring	Quarterly
4.	Vibration Monitoring	On every blast
5.	Stack Monitoring	Monthly
6.	Soil Monitoring	Half Yearly
7.	Poly Achromatic Hydrocarbons	Annually

10.0 ADDITIONAL STUDIES

Additional Studies i.e. Hydro–Geological Study, Biological Study & Wildlife Conservation Plan, Rehabilitation and Resettlement Plan, Risk Assessment & Disaster Management Plan are covered in this Draft EIA/EMP Report as per the Terms of Reference granted by SEIAA, Maharashtra vide letter no. SIA/MH/MIN/508599/2024 dated 30.04.2025.

11.0 PROJECT BENEFITS

The mining activity will help in meeting the growing demand of cement & hence help in the economic growth of the country. Shree Cement Ltd. will actively involve in the implementation of CSR activities. It will be helpful in the development of basic needs of the local area like education, Health & family welfare, women empowerment, Natural resource management, water conservation, roads etc. It will result in growth of the surrounding areas by increasing direct and indirect employment opportunities in the region including ancillary development, overall improvement in Human Development Index and supporting infrastructure.

12.0 POST MINING LAND USE PATTERN

At conceptual stage total excavated area will be 101.40 ha, out of which 41.00 ha will be backfilled which will be reclaimed by re-grassing and plantation and 60.4 ha will be converted into water reservoir. Total greenbelt/plantation will be done on 44.746 ha area, in which green belt will be done on 3.746 ha area on 7.5 m safety zone of lease boundary and Plantation will be done on 41 ha

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backfilled area. The trees will be planted @ 1200 saplings per ha of land. 21.90 ha area will remain undisturbed at the end of life of mine

13.0 CONCLUSION

The Proposed Limestone Mining project will prove the beneficial to local people as direct and indirect employment opportunity will be generated for improving their living standard. There will be increase in revenue generation to the government by way of royalty, excise and government taxes etc. Further improvement in infrastructure will take place like education, roads, availability of drinking water, medical facilities and growth of allied in adjacent villages.

There will be no significant pollution of air, water, soil and noise. Regular monitoring of all the components of environment will be done. Increased social welfare measures taken by the company will bring development in the near-by villages.

