

Pre- Feasibility Report

of

Sirigeri Pink Granite Quarry Project

QL. No. 493

Area 1-00 Acres (0.4047 Ha.),

at Survey No Sy No. 486/A

Sirigeri village, Siruguppa Taluk,

Bellary District, Karnataka State.

of

Sri. S. N. Mallikarjuna,

3/33, Pata Shaala Street,

Sirigere-583120,

Siruguppa Taluk,

Bellary Dist.,

Karnataka State

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PRE-FEASIBILITY REPORT

1. INTRODUCTION OF THE PROJECT/BACK GROUND INFORMATION

Sri. S. N. Mallikarjuna posses a “**Pink Granite Quarrying (Q L NO. 493)**” over an extent of 1-00 Acre of Government land in Sy No. 486/A Sirigeri village, Siruguppa Taluk, Bellary Dist., Karnataka.

Initially lease granted for a period of 10 years on 04.09.1999, w.e.f 16.02.2002 and was valid up to 15.02.2012. Lessee submitted the application for renewal of quarry lease (Form-R) on 14.07.2011. Subsequently Lessee approached the concerned authorities for extension of the lease period from 10 years to 20 years. After processing the application lease period has been granted for a period of 20 years w.e.f 16.02.2002 and it is valid up to 15.02.2022. The quarrying /license deed is enclosed. Quarrying plan was prepared in 1999 and was submitted to DMG Bengaluru. In virtue of Notification grant, the “No Objection Certificate” obtained from the Assistant Commissioner & Tahsildar are enclosed as respectively.

Quarrying Plan including Progressive Quarry Closure Plan is prepared now under rule 8F of GoK Notification No. CI 357MMM2012 of KMMC Rule, 1994, Bangalore Dated: 16-12-2013. The quarrying plan was prepared for the maximum production **1,250 cubic meter per annum** and approved by the Senior Geologist, Dept. of Mines & Geology Ballari.

The Lessee intends to supply the granite to export oriented industries, which is found to have use for monuments, Flooring slabs/tiles, kitchen articles and sculptures for domestic use.

The area is found to have prominent exposures of Pink Granite covering most of the Quarry lease area. Detailed study of the area has been carried-out by the lessee by sampling exposed blocks of Pink Granite and depth of the existing working pit in and around the quarry area. In view of the proposal for development and production of Pink Granite, the Lessee intends to produce maximum of **1,250 Cum/annum** of saleable granite by carrying out medium scale quarrying by engaging both men and machineries i.e. Semi-mechanized Open cast method of quarrying.

The Quarrying Plan is prepared with main emphasis on Systematic Method of working with an aim to ensure systematic development & conservation of granite deposits, protection of environment and pre requisite to obtain Environmental Clearance from the Concerned Department.

The details of achieved production of Pink Granite from 2001-02 to 2017-18 are furnished in below table.

Year	Proposed in Cum	Production in Cum	Dispatched in Cum
2001-02	--	Nil	Nil
2002-03	--	10.404	10.404
2003-04	--	10.87	10.87
2004-05	--	Nil	Nil
2005-06	--	177.183	177.183
2006-07	--	446.202	446.202
2007-08	--	104.811	104.811
2008-09	--	Nil	Nil
2009-10	--	10.922	10.922
2010-11	--	1.80	1.80
2011-12	--	Nil	Nil
2012-13	--	Nil	Nil
2013-14	--	Nil	Nil
2014-15	--	Nil	Nil
2015-16	--	Nil	Nil
2016-17	--	Nil	Nil
2017-18	--	Nil	Nil
Total	--	762.192	762.192

Note: In 2002 after getting grant of quarry lease, lessee started production of pink granite in the said sy no. In 2006-07 the lessee was required to submit scheme of quarrying and the same was to get approval from DMG Bengaluru. But Lessee did not submit it and get approval from concerned authorities. In 2013 amendments were brought to the KMMC Rule and MoEF, which required lessee to get approval of Quarrying Plan and Environmental Clearance from SEIAA/DEIAA.

Further the lessee was directed by the Director Office DMG Bengaluru to get approval and grant of Quarrying Plan and Environmental Clearance to which lessee has responded. But later lessee had undergone a major eye surgery which restricted him from exposing to dust for 4 years. Because of this ill health of lessee he could not submit and get approval from concerned authorities and further there was no production from the quarrying activities in the subsequent years (2011-12 to till date).

As per 8A(1) of KMMC (Amendment) Rule, 2016 the granted lease of specified minerals are deemed to be extended for a period of thirty years. With respect to the above, after getting approval of quarrying plan and obtaining Environmental Clearance from the concerned department lessee intends to request the concerned authorities to extend the lease period for thirty years.

2. PROJECT DESCRIPTION

Type of Project:

Zone falls in the Survey of India Topo sheet No. 57A/15. The site is geographically located between North Latitude N15°25'43.0" to N15°25'45.4" longitude E76°50'33.3" to E76°50'36.3". The area in essence consists of plain land, flat ground with gentle slope/gradient in all directions. The highest elevation is 422 m and lowest elevation is 409 m above the msl. The subject area falls within this region confining to a part of Sirigeri village.

Location of the Quarry:

Topo sheet No.	57A/15
Quarry Lease No.	Q L NO. 493
Latitudes	N15°25'43.0" to N15°25'45.4"
Longitudes	E76°50'33.3" to E76°50'36.3"
Elevation	422m to 409m above MSL
Survey No. & Villages	486/A (P) Sirigeri Village
Taluk & District	Siruguppa & Bellary
Extent Area	1-00 Acres (0.4047 Ha.)
Type of Land	Government Revenue land
Road Connectivity	The quarry lease area is located 1.16 km (Aerial) from the approach road
Nearest Railway station	The nearest railway station is situated at Bellary Railway at the distance of about ~40Kms.
Method of Quarry	Semi Mechanized Opencast quarrying (Category - B)

Topography:

The topography of the area in essence consists of small Pink granite plain area with the general slope/gradient in NNE to SSW direction. Topography is both structurally and lithologically controlled. The subject area falls within this region confining to a part of Sirigere village. The highest elevation is 422 m and lowest elevation is 409 m above the msl. The slopes are drained by nallahs and act as flood channel during the rainy season. None of these nallahs are perennial.

Regional Geology:

Dharwar Craton is one of classical and well studied Archean granite greenstone terrains of the world and is principally composed of low k-tonalitic to trondhjemitic gneisses (peninsular gneiss) with infolded supracrustal (Sargur Group) and capped by younger series of volcano sedimentary sequences (Dharwar super group). Clac-alkaline

granites form the latest Archean magmatic event in the craton. The pronounced N-S elongation of regional grain in the craton is one of the most important and conspicuous feature.

Rocks of Dharwar super group in WDC are divided into lower Bababudan and upper Chitradurga groups (Radhkrishna and Vaidynadhan, 1997) and exposed in two large belts that may be called as super belts viz., (1) Bababudan-Western Ghats-Shimoga and (2) Chitradurga-Gadaga (Ramakrishanan and Vaidyanadhan, 2008).

Local geology:

The area is composed generally of Pink granite exposures trending NNE-SSW with reference to the exposed outcrops of small mound in the lease area and sheet are found 2-3mts below the general ground. The area is completely comprised of Pink granite and is moderately disturbed with three set of well developed joints and gneisses complex. Pink granite out crops is prominently exposed in the lease area.

Geology of the Quarrying/Lease Area: the quarry lease area is composed of Pink granite of about 20% and remaining about 80% is weathered with defective blocks of Pink granite. The granites are medium to fine grained igneous rock of even texture and pale Pink in color, composed chiefly of quartz and feldspars. It usually contains small quantities of mica or hornblend and minor accessory minerals may be present. Depending on the feldspar prominence of mineralization, granite manifestation will be Pink, dark gray or light gray. It is commonly believed to have solidified from molten rock (called magma) under potential origins. Most granites intrusions are emplaced at depth within the crust, usually greater than 1.5 kilometres and up to 50km depth within thick continental crust. The Pink granite and soil cover in the rock units are exposed in the quarry lease area and are marked on the map.

Exploration & Reserves

Estimation of reserves in the project area is carried out by utilizing the information from the Quarry workings and the granite deposits around the adjacent quarry leases in addition to the field survey. These studies are made use of in interpreting continuous Granite blocks in the strike direction.

From the surface observations, Pink Granite is well exposed in the existing pits indicating the presence of potential Pink Granite sheet rock. Based on the field study, out crop exposures, observations and available field measures data, proved reserves are considered average depth of 34 m (from 422 to 388m RL) as it is exposed in applied area.

Based on the geological map and cross sections and recovery parameters considered above, the different categories of reserves Resource and Reserves are calculated.

Below table shows the reserves & resource:

In situ Reserves		Unit :
Cum		
Category of Resource and Reserves	Pink Granite	Waste Rock
Mineable Reserves	8,243	39,709
Blocked Resources	17,427	71,901
Geological Resources	25,670	111,609

Note: Geological Resources = Mineable Reserves + Blocked Resources

Mineable Reserves:

Of the above Geological reserves of **25,670** tonnes, only 8,243 tonnes of reserves can be exploited/mineable, while the balance of 17,427 tonnes of reserves is getting blocked which cannot be mined due to the boundary and practical constraints. Hence for all practical purpose (for production and future planning) only Mineable reserves are considered. The Detailed calculation of Geological Resources & Mineable / Quarryable Reserves.

Production & Development

The Year wise Production and Development proposed for five years are presented in the table below:

Year	Pit no.	Total Tentative Excavation (Cum)	Total Soil (Cum)	OB/SB/ IB (Cum)	ROM (Cum)		Mineral Reject	ROM/ Waste Ratio
					Pink Granite @ 30% (Cum)	Waste (Voids & defective Materials) @ 70% (Cum)		
1	2	3	4	5	6	7	8	9
I Year	1	5,435	--	434	1,000	4,000	--	1:4.43
II Year	1	6,077	--	827	1,050	4,200	--	1:4.79
III Year	1	7,951	--	2,451	1,100	4,400	--	1:6.23
IV Year	1	7,732	--	1,732	1,200	4,800	--	1:5.44
V Year	1	7,296	--	1,045	1,250	5,000	--	1:4.84
Total		34,492	--	6,491	5,600	22,401	--	1:5.16

Method of Quarrying:

The quarrying is proposed to be worked by semi-mechanized method of working. In view of the Quarrying Plan production of Pink Granite, is planned by deploying machineries for development & productions, the separations of Pink Granite by utilizing

drilling equipments, blocks cutting by wire saw, excavator, Cranes, loaders and tippers will be deployed for quarrying work. The parameters will thus be Bench height of about 3 mtrs or more depending upon the size of the blocks that can be recovered & width of the workings shall be more than height of bench and Jack hammer drilling will be carried out with dust proof drilling machineries for use of wire saw & no blasting is proposed to be carried out.

Solid Waste Management:

The area selected for dumping is plain land, where dumping will be carried out for a maximum height of 5mtrs with 28° dump slope. Proper terracing will be done along dump slopes to provide better slope stability. The total waste likely to be generated for quarrying of pink Granite over a period of 5 years is about 28,892 Cubic meters of waste (voids and defected material/blocks and OB) is generated. The waste (voids and defected material/blocks)/overburden produced will be stored separately for future use and the overburden/waste generated during quarrying operations will be dumped in the spoil banks earmarked specifically for this purpose. These yards is moderately sloping hard and barren land easily access road within lease boundary.

As a part of zero waste Quarrying concepts, it is proposed to stock the defective Granite blocks separately till demand arises or can be sold according to user specification.

The Quarrying pits after extraction of the granite will be reclaimed by suitable afforestation techniques and portion of the pit may be backfilled by overburden and part of pit will be left as water reservoir, since this region is dry, storage of rain water shall help in recharging the ground water table and improve the water regime of the area. Proper fencing of the lease area shall be taken up to avoid entry of animals & trespassing into the Quarry lease area.

Hydrology

There are no natural springs in the area. The surface water is in the form of seasonal rainfall and the ground water bodies encountered below 80m depth in the area from the surface level. The area is small, so, far no report on hydrological studies has been carried out in the area under question. There is no potential of acid quarry drainage.

3. SITE ANALYSIS

- **Connectivity**

The lease area is easily accessible in all seasons. The quarry lease area is situated ~7.50kms away from the SH-19; the lease area is located at ~32km from Siruguppa which has motor able road. The nearest railway station is situated at Bellary Railway at the distance of about ~40Kms and the nearest Airport is Toranagallu at the distance of about ~70kms and harbor is New Karwar Port which is about ~415kms away.

Land Form, Land Use and Land Ownership:

The Core zone consists of proposed 1-00 acres. Open shrubs marks the general topography of the region. The Proposed land use Pattern of the Core zone is given below:

The details of present and proposed land use are furnished as follows.

Land Use in Acres & Guntas		
Particulars	Existing Land Use	Proposed plan period
Area of excavation	0-10	0-23
Area for waste dump	0-02	0-01
Safety/Buffer Zone/Green belt (also used as temporary waste dump)	--	0-16
Area for Future Use	0-28	--
Total	1.00	1.00

Topography

The topography of the quarry area is a flat & Plain land. The highest point in the area is 422m above M.S.L and the lowest elevation is about 409 m above M.S.L. There are no streams or nallhas flowing in the lease area. Drainage pattern is denritic to sub denritic in nature in the buffer zone.

Present land use pattern:

The present land use and terrain patterns of the study area can be observed as follows:

Land use in Acres & Guntas		
SI. No.	Head	Existing Land Use
1	Area of excavation	0-10
2	Area for future use	0-28
	Grand Total	1.00

The proposed area to be worked during the plan period is shown in the Quarry Layout plan. The future proposed reclamation is by suitably sloping the quarry benches at the end of Quarry lease period and by way of afforestation on the dumps and open places outside the working and lease areas.

Existing Infrastructure:

The infrastructure proposed to be established is of temporary structures for Quarry office, Rest shelter, First aid station, sanitation & etc., and are proposed to be provided in the non mineralized area of Quarry lease.

The details of other existing infrastructure are collected from the core and Buffer zone of the lease. The Drinking water, electricity and primary education facilities are available in almost all the villages. The Police Stations, Post Offices, Dispensary facilities, Phones, College, and Railway station are present in Taluk and District head quarters of Lingasugur & Raichur. There are good approachable weather roads are present in the buffer zone of the area. State highway passing through major towns and nearby villages. No Sensitive areas for ecological reasons within 10 kms.

4. PLANNING BRIEF

- **Conceptual Quarry Plan:**

The entire strike length of the deposit of the Pink granite bodies is exposed and the quarry is envisaged to be worked forming benches of 3mts height (depending upon the size of the blocks that can be recovered) and width shall be more than the height of the bench with a general pit slope of 45°. The ultimate pit limit is marked as shown on the geological plan. However, when the Pink granite deposit is proved to its full depth, the conceptual plan will be dully modified. The possibility of granite below is to be examined further by exploration.

Dumping will be carried within the lease area. At the end of the Conceptual Period complete dumps will be afforested and wherever possible and along road sides afforestation will be carried out. Safety bunds, fencing & retaining walls shall be constructed as per the directions and guidelines of Directorate General of Mines Safety.

- **Population Projection**

The man power of quarry include Mines manager, Engineer, Geologist, skilled and unskilled Labours and medical officers etc. As for the socio-economic is concerned from the Quarry activity nearby villagers shall get direct & indirect employment for about 76 persons. The proposed Quarry activities also shall bring the positive change in the villages as the quarry shall provide socio-economic activities in the region.

- **Land use Planning**

The Land use and Land cover for the Ensuing Plan Period and Conceptual Period.

Land Use in Acres & Guntas		
Particulars	Existing Land Use	Proposed plan period
Area of excavation	0-10	0-23
Area for waste dump	0-02	0-01
Safety/Buffer Zone/Green belt (also used as temporary waste dump)	--	0-16
Area for Future Use	0-28	--
Total	1.00	1.00

- **Afforestation:**

It is proposed to develop a green belt in 7.5m buffer zone of the portion of the lease boundary. In addition, the place around the haul road, outside the lease area and slopes of the dumps shall have plantation. It is proposed to develop a green belt in part of safety zone of the portion of the lease boundary. In addition, the place around the approach road and slopes of the dumps shall have plantation. The year wise proposed Afforestation is furnished in the following table. Proper care will be taken for projection & growth of these sampling. The bio-fuel saplings like Honge, Neem, mango, Seethapal, subabul, Badam and other local species etc are proposed. In order to maintain the ecological balance of the area, the lessee shall obtain necessary permission to take up Plantation outside the lease area as avenue plantation, nearby schools, etc., are proposed. The details of the afforestation program are mentioned below.

Year	Within Lease Area		Outside Lease Area		Survival Rate	Saplings
	Area in acres	No. of saplings	Road Length in m	No. of saplings		
First	0.04	50	450	185	60 to 70%	Bio fuel plants like Neem. Honge, Badam, subabul, Seethapal, mango & other local species
Second	0.04	50	450	185		
Third	0.05	50	450	185		
Fourth	0.05	50	450	185		
Fifth	0.05	50	450	185		
Total	0.23	250	2,250	925		

During the afforestation work, the combination of different species shall be done. This selection shall be made on the basis of the local plant growth in the surrounding areas. It is always better to plant mixed species together. Guidance from the local forest department shall be taken in the selection of species and their maintenance. The plantation work requires considerable quantities of seeds, seedlings and saplings of different species; Nursery stock for this plantation will be available from the local forest and horticulture department.

- **Assessment of Infrastructure Demand:**

The existing road network will be sufficient to meet the proposed production capacity. However, required infrastructure for transport within the leasehold area will be further strengthened and improved. No new routes or alternations are required in this regards.

- **Amenities/Facilities**

Applicant proposes to employ about 19 persons. This employment has a positive impact on the socio-economic conditions of the surrounding as most of the work force employed will be from the nearby areas. Local persons will be hired for meeting the requirement of trucks loading, plantation, construction of check dams, retaining walls etc.

The following are the benefits due to Quarry to the local population:

- Direct and indirect employment opportunities.
- Improved road and communication network.

5. PROPOSED INFRASTRUCTURE

The proposed method of Quarry operation will be semi-mechanized opencast Quarry with drilling & by use of wire saw cutting, use of excavators & cranes with tippers for internal transport. The lease area does not have any public roads, railways lines, telephone lines, public buildings etc.

Present infrastructure will meet the requirement of the project. The conditions of the roads in the buffer zone are unlikely to be impacted due to the proposed small scale expansion. The project authorities in association with the adjacent quarry owners & district administration will also contribute to development & maintenance of roads.

- **Green belt Development**

It is proposed to develop a green belt along roadside, near proposed office premise of the portion of the lease around the working spots and the places around the roads in the lease area. The saplings shall have deep roots, fast growth and optimum penetrability. To stand firmly against the wind, species of plants which form dense vegetation and maximum canopy shall be selected otherwise the gap in the canopy will act as wind tunnels. Dense vegetation will litter on the floor and improve the quality of the soil, and also act as dust and sound barriers. It is also taken into consideration that the different species of plant include flower bearing, fruit bearing plants and also plants forming food for herbivorous animals to attract the wild life. Out of the above trees, the subabul stands excellent for dust filtering, based on its height, quick growth, leaf density and drought tolerance. This will be able to filter the dust by 80%.

- **Social Infrastructure**

The lease area is easily accessible in all seasons. The quarry lease area is situated ~7.50kms away from the SH-19; the lease area is located at ~32km from Siruguppa which has motor able road. The nearest railway station is situated at Bellary Railway at the distance of about ~40Kms and the nearest Airport is Toranagallu at the distance of about ~70kms and harbor is New Karwar Port which is about ~415kms away.

- **Drinking Water Management**

There are no water courses within or adjacent to the quarry lease and hence there is no possibility of disturbance & rainwater will continue to flow in the same direction as it is in existence. Since the water is not withdrawn (from any sources outside the lease area) for quarrying operations, no adverse impact is foreseen on the existing water regime. The rainwater stored in the pits shall be utilized for mitigating dust and other activities.

The surface water in the buffer zone is in the form of seasonal rainfall and the ground water bodies encountered 50-55 m below the surface level. The area is small, so, far no report on hydrological studies has been carried out in the area under question. There is no potential of acid quarry drainage. The drinking water available for nearby bore wells and water can be stored in to syntax tanks. During the course of Quarry operation no diversion of water course is considered as it doesn't exists.

- **Sewerage System**

The existing watercourses shall not be disturbed and rain water will continue to flow in the same direction. Check dams will be constructed at the toe of the O.B Dumps, water will percolate in the premises of the Quarry area. There is no generation of domestic sewage.

- **Industrial Waste management**

There is no generation of affluent/toxic substance; hence treatment of Quarry water doesn't arise.

- **Solid waste management**

There is little top-soil in the Quarry lease area proposed to be handled. As such there is no generation of waste, whatever little is produced may be of low grade Pink Granite and intercalated waste to the tune of 35%, which is proposed to be dumped and some portion of material is used to make road & bund around the lease area. Defective Pink Granite produced shall be stacked separately and marketed for tiles or slabs as and when the demand arises. No toxic or hazardous elements are reported in the waste & hence, no effect on the surface/ground water.

- **Power requirement and Supply**

There will not be any requirement of power supply to the project site. The Quarry activities are envisaged to be carried out only during day time by manually for drilling and machinery for cutting by wire saw, loading, unloading by excavators & cranes with tippers/dumpers for transport & and all the equipment shall be operated with diesel as motive power.

6. RECLAMATION & REHABILITATION

Surface Quarry will make alteration in the topography of the area by way of excavation and surface dumps. This will lead to water pollution, silting of agricultural lands, air pollution etc. The primary objectives of reclamation are to restore the affected area to the original state as near as possible.

The various reclamation proposals planned during the plan period as well, rest of the Quarry period such as broad working benches with safe angle of slope, stabilization of dumps, installation of effective drainage system, prevention of erosion and excessive run off, & re-vegetation or afforestation.

Since it is a fresh lease, no Quarry area is matured or completely exhausted. Hence, the measures like Retention walls, drainage system and afforestation works etc., shall be taken up.

7. PROJECT SCHEDULE AND COST ESTIMATES

The estimated total cost of the project is Rs. 20 lacks. including the cost of the machinery and additional preliminary works and working capital i.e. for the application and processing fee, etc.,

The return on the investment is by way of sale of mineral. All the minerals shall be marketed. The machinery is of the Company and additional required if any shall be on hire basis as per the requirement for production.

The proposed production of Pink Granite is 1,250 Cubic meters/annum. The major components required to project the financial status of a project are

- Cost of the project
- Means of financing
- Cost of production
- Tax burden and flows
- Profitability

- **Cost of the Project**

The cost of the project consists of the following major components:

- Land and site development
- Buildings and civil works
- Machinery
- Processing charges and Consultancy charges for preparation of Quarry Plan, Environment Monitoring, etc
- Provision for contingencies
- Margin money for working capital

8. Budgetary allocation

SI No.	Activity	Proposed Quantity	Unit Price (in Rs.)	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	Total Budgetary
1	Afforestation/ Green belt development	500 Saplings/ yr	300/ sapling	150,000	150,000	150,000	150,000	150,000	7,50,000
2	Water for Drinking, Dust suppression & Plantation	8.26KLD	200/trip	1,80,000	1,80,000	1,80,000	1,80,000	1,80,000	9,00,000
3	Periodic Medical Checkup & PPE supplies	Frequency: Quarterly	35,000/quarter	1,40,000	1,40,000	1,40,000	1,40,000	1,40,000	7,00,000
4	Environmental Monitoring	Half Yearly	--	50,000	50,000	50,000	50,000	50,000	2,50,000
5	CSR Activities:	Annual	--	1,00,000	1,00,000	1,00,000	1,00,000	1,00,000	5,00,000
	Total	--	--	6,20,000	6,20,000	6,20,000	6,20,000	6,20,000	31,00,000

The total estimated cost of the project is Rupees 20 lacks. The applied Quarry lease area is Govt. Revenue land.

- Cost of Production**

The maximum proposed production of Pink Granite during the first five years is around 1,250 Cubic meters per annum. The proposed maximum ROM to be excavated is 28,001 Cubic meters per annum.

The cost of the project includes the following components

SI No.	Parameters	
1	Mineable Reserves: (in Cum)	8,243
2	Nature of Minerals	Pink Granite
3	Production: Pink Granite cum/annum	1,250
4	Strip Ratio:	01:05.2
5	Maximum Handling during Plan period (in Cum)	34,492
6	Cost per one cum (in Rs)	1,600
7	Capital cost in Rs	55,187,200
8	Total Pit head cost per cum of Pink Granite (in Rs)	17,000
9	Realization for Pink Granite/cum (in Rs)	18,000
10	Profit per cum (in Rs)	1,000
11	Production per Annum (in Cum)	1,250
12	Gross profit per annum	1,250,000
13	Net profit after taxation @ 35%	812,500
14	Profit per cum	650

9. ANALYSIS OF PROPOSAL (FINAL RECOMMENDATION)

The pink granite quarry is already existing quarry with Q.L. No. 493 and proposed rate production is 1,250 cum per annum of pink granite. The financial estimates reveal high rate of returns. The project is economically viable. The estimates have also taken into consideration the occupational health expenses, environmental protective measures, social welfare activities etc., the Form-1, Pre-Feasibility Report and Quarrying Plan are prepared and Annexes with this documents.