

Pre-Feasibility Report

Summary

Name of Stone Quarry	Salaimendha Stone Quarry
Area (In Ha.)	4.90 Ha.
Survey No	10 & 11
Village	Salaimendha
Tehsil	Umred
District	Nagpur
State	M.S.

Name of Lessee	M/s. Pawan Putra Buildcon Private Limited of Owner Shri Yogesh Ghanshyam Taori
Address	Shrika Corporate, 202, 203, Pande layout, Khamla, Nagpur
Post	Khamla
Tehsil	Nagpur
District	Nagpur
State	M.S.

1.	Geographical co-ordinates	Corner	Latitude	Longitude
		BP1	21°00'08.47"N	79° 08'57.66"E
		BP2	21°00'09.82"N	79° 08'53.73"E
		BP3	21°00'14.64"N	79° 08'54.22"E
		BP4	21°00'15.48"N	79° 08'53.03"E
		BP5	21°00'18.26"N	79° 08'53.69"E
		BP6	21°00'18.62"N	79° 08'54.41"E
		BP7	21°00'19.63"N	79° 08'54.68"E
		BP8	21°00'19.59"N	79° 08'56.62"E
		BP9	21°00'18.50"N	79° 09'00.22"E

		BP10	21°00'14.28"N	79° 08'59.36"E
2.	Name of rivers/nallas/tanks/spring/lakes etc.	Small ponds are present at a distance of 4.5 km in SSW direction.		
3.	Ownership	Private Land		
4.	Name of Reserve Forest (s), Wild life Sanctuary/National parks etc.	None within 5km/ 10 km radius.		
5.	Topography of Mining area	The Stone (Basalt) area is flat while surrounding is gently undulating. The highest RL of 324m has been recorded of the lease area and the lowest RL is of 306m.		
6.	Name of Mineral mined	Murrum & Basalt is occurring in the lease area.		
7.	Size or magnitude of operation	This is a stone mine having area of 4.90 Ha. for the maximum production of stone @ 390000 Tonnes/year (97500 Brass).		
8.	Bench Height	3 M		
9.	Bench Width	5 M		
10.	Bench Slope	85°		
11.	Period of Mining Plan	2018-19 To 2022-2023		
12.	Drilling/Blasting	Basalt is hard and it cannot be removed without drilling and blasting. The holes will be drilled by compressor operated Jackhammer drill machine of 34 mm diameter. Drilling and blasting will be carried out by hiring licensing Agency.		
13.	Mining Method	Semi-mechanized adopting benching method operation.		
14.	Vegetation	Area is mostly devoid of vegetation.		

(i) Brief description & nature of the project

This Mine located in Salaimendha Village, Survey No. 11 & 11 Tehsil Umred, District Nagpur, Maharashtra over an area of 4.90 Ha & falls under Category 'B2' project as per new mineral policy of Maharashtra. The mined out Limestone will be used for manufacturing of Lime and others/etc, Stone (Basalt) will also be used in construction and road material also as per demand.(e.g. as building blocks, in the groundwork, filling material). It is mostly used as manufacturing of lime. The mining will be done by opencast semi-mechanized method. It is proposed to produce 390000 TPA stone (97500 Brass) from the mine by semi-mechanized method of mining.

(ii) Need for the project and its importance to the country and or region

The stone is abundantly available in the Proposed mine as well as surrounding area. A stone material serves as a back bone for Building and other infrastructure development. It has played a great role in development of civilization and industrialization. The occurrence of stone in the area is proved by the way of geological explorations and its production has important role in the local infrastructure development. The stone mine marginally benefits the local people by way of direct and indirect employment. State Government will also be benefitted by the project through royalty and Direct & Indirect Taxes.

(iii) Demand-Supply Gap

Stone is an essential constituent for infrastructural development projects like road, dams, bridges and building. It has high demand in Nagpur region due to increase in industrial and other infrastructural activities.

(iv) Imports vs Indigenous production

In the current Stone quarry business scenario, import of Stone is not envisaged. Maharashtra is one of the major producers of building stone in the country.

(v) Export Possibility

Not applicable.

(vi) Domestic / Export Markets

Domestic demand is one of the chief reasons for the rapid growth of Stone business in India. Thus, domestic market for stone as building material is well established.

(vii) Surface Transport

It is small mine and transportation Basalt will be carried out by tippers from quarry to dumping site and onwards dispatch to construction site by tippers.

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

The Statutory Manpower requirement is a part of total Manpower which includes Mine Foreman, Mine Mate/Blaster etc. Apart from the above, skilled and unskilled laborers will be required for drilling and blasting manual breaking and loading and transportation etc.

Following will be the manpower requirements.

Sr. No.	Designation	Numbers
1.	Mine Manager/Geologist	1
2.	Mine Mate	1
3.	Clerk	1
4.	Worker Skilled	4
5.	Worker unskilled	10
Total		17

Land Use Pattern

Sr. No.	Type of Land use	As on Today in Ha.	After 5 years in Ha.	As at the end of life of mine in Ha.
1.	Area to be excavation	1.738	2.945	3.500
2.	Storage for Topsoil	0.000	0.000	0.000
3.	Overburden/dump	0.000	0.000	0.000

4.	Mineral Storage	0.000	0.000	0.000
5.	Infrastructure (administrative office, Store etc.)	0.000	0.003	0.003
6.	Mine Road	0.114	0.125	0.125
7.	Green belt / Plantation	0.000	0.065	0.080
8.	Tailing Pond	0.000	0.000	0.000
9.	Mineral Separation Plant	0.000	0.000	0.000
10.	Effluent Treatment Plant	0.000	0.000	0.000
11.	Township Area	0.000	0.000	0.000
12.	Other to Specify	0.000	0.000	0.000
Total		1.852	3.138	3.708

1.0 PROJECT DESCRIPTION

(i) Type of Project (including interlinked and interdependent project, if any)

The project is exclusively for the quarrying of Stone (Basalt). No any interlinked project is included.

(ii) Type of explosive used/to be used

Basalt is medium to hard and as such light charges of special Gelatine with detonators will be used for breaking the rock formation.

(iii) Storage of Explosive (Like capacity and type of explosive magazine)

The production rate proposed very low and hence there will be limited blasting for mining. As such the use of explosive such as Gelatine and Detonators will be also be low. The work of drilling, explosive supply, controlled blasting work means charging of shot holes, stemming of shot holes and firing of shot holes

etc work related to controlled blasting given in contract basis to authorized agency. They have their magazine under the Indian Explosive Act 1884 and Explosive Rule 2008. They will supply the explosive by the used of proper Approved Explosive Vans. They will comply the provision of the Act and of the regulation and order made there under regarding controlled Blasting. They will supply the slurry explosive in Cartridge form only. Blasting will be carried out as per requirement and at convenient time depending upon the local conditions. A portable magazine box and other material will be brought by licensed shot fire and blasting will be carried out.

(iv) Raw material/consumable required along with estimated quantity, likely source, marketing area of final product, mode of transport of raw material and finished products

No any raw material/consumables are required for Stone (Basalt) removal.

(v) Nature of Waste

The small quantity of top Murrum soil, weathered Basalt will be handled separately and used for making of roads, filling wherever required and proposed to plant local variety sapling over it to generate greenery. Very small amount of waste material will be generated as the weathered formation and physical rejects generated would be sold as Murrum.

(vi) Selection of Dumping Site

The small quantity of Murrum soil and weathered Basalt will be used for making approach roads, filling wherever required outside the quarry area.

(vii) Stacking of Sub-Grade Material

The Basalt of homogenous rock and hence there will not any sub-grade material which might be generated during mining operations. Therefore, there is no consideration for stacking of sub-grade material.

2.0 SITE CONNECTIVITY

(i) Connectivity

Road:– The area is approachable by and all weather road up to Panchgaon and then Pachagaon to Salaimendha & upto the mine.

Police Station:– At Kuhifata at a about 10km from the mining site area.

Medical Facility:– Primary Health Centre at Panchgaon village at a distance of 2.5 km from mining site.

School:– In Pachgaon Village. (2.5 Km.)

Post office:– In Pachgaon Village. (2.5 Km.)

(ii) Land Form and land ownership

The area specified for Stone (Basalt) quarrying is a Private individual land barren land, fall in Survey no. 10 & 11 & covering an area of 4.90 Ha. as shown in the map.

(iii) Climatic data form Secondary Sources

April and May are the hottest months in the area. The temperature rises up to 39.3 °C in the month of May. December and January are the coldest months with temperature falls down to as much as 12.0 °C. The average rainfall in the area is 577.8 mm.

(iv) Social Infrastructure Available

There is well developed infrastructure to the Salaimendha village, Primary schooling, Primary health center, etc. Higher Education facilities are available at Umred City.

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

Since there will not be any major influx of people from outside, in this region because of the project, no adverse effect on physical and social infrastructure like roads, electricity, water supplies et are anticipated.

(vi) Industrial Area (Processing Area)

Not required.

(vii) Residential

There is no plan for development of residential area in the region.

(viii) Flora and Fauna

The local varieties of thorny bushes are main vegetation in the area. There are small bushes in the lease area at places. Natural fauna in the area includes mice, rabbits and foxes. No wildlife is reported in the area.

(ix) Green Belt

Year	Plantation	Area
1 st Year	200	0.013
2 nd Year	200	0.013
3 rd Year	200	0.013
4 th Year	200	0.013
5 th Year	200	0.013

(x) Social Infrastructure

It is expected that the project will lead to much needed employment opportunities in the villages which will contribute to the socio-economic development of the area.

(xi) Drinking Water Management (Source and Supply of Water)

The drinking water requirement for personnel working at the site will be met from the river itself or from the nearby village.

(xii) Solid Waste Management

The excavated Over Burden will be kept on the surface at earmarked places as per the DGMS guidelines & requirement. The OB would be utilized for the purpose of backfilling.

(xiii) Power Requirement & Supply / source

The required quantity of electricity (4-5 KWH) will be sourced from Maharashtra State Electricity Board (MSEB)/DG Set.

(xiv) Sewerage System

In view of the personals engaged in the project the system of sewerage will be developed for use on the bank of the river under the guidance from the Tehsildar and local administration.

(xv) Industrial Waste Management

No industrial waste will be generated hence management not required.

ENVIRONMENT MANAGEMENT PLAN

(A) Water Quality Management: -The necessary water requirement for drinking & for water sprinkling will be met from Dug well/Bore well in the lease area, or from outside nearby Dug well. The water is potable. There are no chances of any contamination as there is no chemical processing etc. in the lease area. The water analysis report of Dug well/ Bore well will be submitted to DGM MS every year. The ground water table is a low level.

(B) Air Quality Management: -The air quality at present is good. However the dust due to drilling /blasting machine movement may form. The exhaust of the vehicles and Mining machinery may cause No₂, So₂ % higher. In such cases air sample will be drawn from near such activities shall be analysed & necessary protective measure for quality of air will be adopted from the SPM, APM, No₂ ,So₂ etc will be checked.

(C) Waste Management: -Describe the type, quality and quantity of over burden, mineral reject etc. available and their disposal practice. If no utilization of waste material is proposed, the manner in which the waste material will be stabilized should be described. The protection measures to be taken for prevention of siltation, erosion and dust generation from this waste material should also be described, if toxic and hazardous elements present in the waste material, the protective measures to be taken for prevention of disposal in the air environment, leaching in the surface and ground water etc should be described.

There will be no waste generation during this Mining Plan period as most of the waste material is used for various purposes like preparation of approach and mine roads, construction of check bunds, bunds along the boundary for greenery development, filling for landscaping and construction of infrastructure etc. The waste produced is non-toxic and non-hazardous element.

(D) **Top Soil Management:** Top soil would be used for plantation, making roads, development of infrastructure, filling for landscaping etc.

(E) **Tailing dam Management:** The step to be taken for protection and stability dam, stabilization of falling material and its utilization, periodic desalting measures to prevent water pollution from tailing etc. for arrangement for surplus water, overflow along with detailed design, structured stability studies, the embankment seepage loss in to the receiving environment and ground water contamination, if any, should be described.

(F) **Infrastructure:** The area is very small and at present there are no infrastructure facilities in the lease area.

(G) **Disposal of Mining Machineries:** The decommissioning of mining machineries and their possible post mining utilization, if any to be described.

The mining will be done semi-mechanized. It is proposed to use hired machinery and equipment for operation. Hence the disposal of mining machinery is not considered.

(H) **Safety & Security:** The mine is opencast and mining operation would be carried out throughout the year, fencing shall be provided to prevent the access to the mine pit except the approach road to the working site. The area is not used by the general public and is manned by security guards. Gate will be provided at the entrance and post the security guards to restrict unauthorized entries. Gate passes will be introduced to check the entries of vehicles.

- (I) **Disaster Management & Risk Assessment:** The method of mining throughout the year on a small scale. There is no Perennial Nalla/river of water bodies passing through or existing within the vicinity of lease area which can cause inundation or other water borne disaster in the area. The area is free from any seismic activity and no such record of seismic activity area available in the lease boundary. Apart from this no other risk or disaster are foreseen at present in the area.
- (J) **Care and Maintenance during temporary discontinuance:** An emergency plan for the situation of temporary discontinuance or incomplete program due to court order or due to statutory requirements will be drawn up & executed depending upon the situation. Since the mining is not hazardous and is on small scale, the situation for emergency plan will be evinced.
- (K) **Historical Monuments Etc.**

There are no historical monuments of structures of importance in core zone or in the Buffer zone.

REHABILITATION AND RESETTLEMENT (R & R PLAN)

Policy to be adopted (Central/State) in respect of the project affected persons including home oustees, land oustees and landless labour (A brief outline to be given)

This is a mine and no rehabilitation and resettlement is involved. It is a private land owned by project proponent.

ABANDONMENT COST

Abandonment Cost essentially includes settlement of dues of staff and laborers Government dues such as dead-rent/surface rent, royalty, cess etc. and local taxes of Gram Panchayat, if any. The lessee is having adequate fund to meet these liabilities. The extent of expenditure on this account cannot be quantified at this stage. The lessee is required to give adequate Financial Assurance at the time of execution of Mining lease, as safety against these expenses. In case, the

Lessee fails to fulfill the liabilities, the concerned department can use the amount of Financial Assurance for the purpose.

FINANCIAL ASSURANCE

Sr. No.	Head	Area put on use at start of the Plan (Ha.)	Additional Requirements during Plan period (Ha.)	Total	Area considered as fully reclaimed & rehabilitated (Ha.)	Net area considered for calculation (Ha.)
1.	Area to be excavation	1.738	1.207	2.945	----	2.945
2.	Storage for Topsoil	0.000	0.000	0.000	----	0.000
3.	Overburden/dump	0.000	0.000	0.000	----	0.000
4.	Mineral Storage	0.000	0.000	0.000	----	0.000
5.	Infrastructure (administrative office, Store etc.)	0.000	0.003	0.003	----	0.003
6.	Mine Internal Road	0.114	0.125	0.125	----	0.125
7.	Green belt / Plantation	0.000	0.065	0.065	----	0.065
8.	Tailing Pond	0.000	0.000	0.000	----	0.000
9.	Mineral Separation Plant	0.000	0.000	0.000	----	0.000

10.	Effluent Treatment Plant	0.000	0.000	0.000	----	0.000
11.	Township Area	0.000	0.000	0.000	----	0.000
12.	Other (to be Specify)	0.000	0.000	0.000	----	0.000
Total		1.852	1.276	3.138	----	3.138

The Financial Assurance Amount is 3.138 Ha. X Rs. 50000/- = Rs. 156000/- =
Or Min. amount Rs. 156000/- (Rupees One Lac Fifty Six Thousand Only).

3.0 RECOMMENDATIONS

The removal of Stone (Basalt) and allied activities has no impacts on the surrounding environment. Moreover based on development of this project certain positive impact will be there on the nearby village population in terms of infrastructure development like education, transport, communication, employment, health etc. Hence this project may be cleared and clearances accorded.

Site Photographs



