PRE-FEASIBILITY REPORT

1) Executive Summary

Project	**:**	**Rangapuram Dolomite Mine**
Name of Company / Mine Owner	**:**	**M/s South West Mining Limited**
Location		Sy Nos 70/1, 70/2,74 & 84/B
Village	:	Rangapuram
Taluk	:	Bethamcherla
District	:	Kurnool
State	:	Andhra Pradesh

1	Mining Lease Area & production	37.042 Ha (Govt waste Land) 5,00,000 TPA Dolomite (5.0 LTPA)
2	Type of land	Government waste Land
3	Geographical co-ordinates	Corner Coordinates 1. 15^0 26'' 13.31" N, 78^0 04' 51.86" E 2. 15^0 26'' 13.72" N, 78^0 04' 36.06" E 3. 15^0 26'' 38.92" N, 78^0 04' 41.39" E 4. 15^0 26'' 49.79" N, 78^0 05' 03.15" E 5. 15^0 26'' 24.84" N, 78^0 05' 03.15" E 6. 15^0 26'' 28.39" N, 78^0 04' 58.67" E
4	Nearest Habitation	Kommurikotala 1.0 km
5	Name of Rivers/ Nallahs/ Tanks/ Spring/ Lakes etc	None
6	Name of Reserve Forest(s), Wild life Sanctuary/ National parks etc.	Betamcherla R.F- 858m N Rangapuram Block A, R.F- 4.5 km SE Ragapuram Block B, R.F- 6.1 km ESE North Dhone R.F- 5.3 km W Lanjabanda R.F- 5.0 Km NW
7	Topography of ML area	446.0 m and 466.0 m AMSL
8	Name of Mineral mined	Dolomite
9	Rate of Production	500,000 TPA Dolomite (5.0 LTPA)
10	Life of mine	40 years
11	Mineral Reserves	19.29 Million Tonnes

12	Drilling/ Blasting	Drilling and Controlled Blasting is involved
13	Ultimate depth of Mining	434 m MSL (26 m from surface level 460 m MSL)
14	Ground water level	375 - 382 m MSL (15 – 18M bgl from general ground level of 400 m MSL)
15	GWT intersection	Mine workings will not intersect ground water table.
16	Drainage pattern/ water courses	There are no perennial sources of water in the mine lease area or in the study area. The entire study area is having dendritic pattern because of seasonal streams
17	Break-up of Land Utilization Pattern	Existing and proposed land utilization pattern of the mine lease area is given in **Table 1**.
18	Water requirement & Source	Total Water Requirement: 30 KLD (Bore wells).
19	Solid waste	0.48 million tonnes of waste will be generated
20	IBM approval : Date	Approval of Scheme of Mining is under process.
21	Cost of the Project	Rs 3.60 Crores
22	Court Cases, if any	None

2) Introduction of the Project / Background Information

(i) Identification of Project and Project Proponent

Name of the Project:	**Rangapuram Dolomite Mine**
Mine Lease Area:	37.042 ha (Government waste Land)
Location:	Sy Nos 70/1, 70/2,74 & 84/B in Rangapuram Village, Bethamcherla Mandal, Kurnool District of Andhra Pradesh State
Project Proponent:	M/s South West Mining Limited

Background Information of the project:
Rangapuram Dolomite Mine of M/s South West Mining Limited of Vidyanagar, Torangallu, Sandur Taluka, Bellary Dist., Karnataka has applied for Mining lease over an area of 37.042 ha in the Sy Nos 70/1, 70/2,74 & 84/B in Rangapuram Village, Bethamcherla Mandal, Kurnool District to mine the Dolomite.

The applied area is demarcated on the topo sheet no. 57 I/3. The applied area is a Government waste land. It comprises mainly a moderately undulating terrain. The nearest village Kommurikottala is at 1.0 km from the applied area.

Project Proponent: M/s South West Mining Limited

Registered Office Address:	**Address for Correspondence:**
M/S SOUTH WEST MINING LIMITED Vidyanagar, Torangallu, Sandur Taluka,Bellary Dist., Karnataka Phone: +91-8395- 240350 Fax: +91-8395 -240365 Email: anil.sood@jsw.in	**M/S SOUTH WEST MINING LIMITED** 2/15/9/3, Gooty Road, Dhone, Kurnool District, Andhra Pradesh – 518 222 Phone: 08516 – 222962/220139 Email: swml.dhone11@gmail.com

(ii) Brief Description of the Nature of the Project.

Rangapuram Dolomite Mine of M/s South West Mining Limited of Vidyanagar, Torangallu, Sandur Taluka,Bellary Dist., Karnataka. has applied for Mining lease over an area of 37.042 ha in the survey nos, Sy Nos 70/1, 70/2,74 & 84/B in Rangapuram Village, Bethamcherla Mandal, Kurnool District.

The mine will be operated by opencast mechanised method of mining. The mining operations involves drilling and blasting using control blasting technology. The proposed Dolomite production is upto a tune of 5,00,000 tonnes per annum.

iii) Employment Generation (Direct and Indirect) Due to Project.

Total manpower requirement in this mine is 36. Preference will be given to local employable youth for the mining operations.

3) Project Description

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

The Rangapuram Dolomite Mine of M/s South West Mining Limited, is an opencast mechanised mine. There are no interlinked or interdependent projects involved..

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

District and State : Kurnool District, Andhra Pradesh
Mandal : Bethamcherla
Village : Rangapuram village

The applied area and the 10 km radius study area falls within Survey of India Topo sheet No. 57 I/3.

The Rangapuram Dolomite Mine of M/s South West Mining Limited,– Geographical Co-ordinates:

Corner Coordinates

1. 15^0 26'' 13.31" N, 78^0 04' 51.86" E
2. 15^0 26'' 13.72" N, 78^0 04' 36.06" E
3. 15^0 26'' 38.92" N, 78^0 04' 41.39" E
4. 15^0 26'' 49.79" N, 78^0 05' 03.15" E
5. 15^0 26'' 24.84" N, 78^0 05' 03.15" E
6. 15^0 26'' 28.39" N, 78^0 04' 58.67" E

Location Map of the Mine Lease Area is enclosed in maps section.

(iii) Details of alternate sites considered and the basis of selecting the proposed site, particularly the environmental considerations gone into should be highlighted.

Not applicable. The mining is site specific activity hence no alternate sites were considered area.

(iv) Size or Magnitude of operation.

It is proposed to produce 5 LTPA of Dolomite by mechanised mining operation with drilling and blasting.

(v) Project Description with Process details

Mining Process

The Rangapuram Dolomite Mine of M/s. South West Mining Ltd., is an opencast mechanised mine. This mine is planned for an annual production of 5.00 lakh tonnes per annum considering various Geo-technical parameters.

It is proposed to work this deposit by opencast mechanized mining methods using 115 mm dia DTH drilling and blasting. The blasted material shall be loaded in to the tippers and sent to the crushing plant & stock by the help of Excavators. The same Excavator will also be used for handling of waste/rejection. Wheel loaders will be utilised for feeding to the plant from stock and loading for despatch as and when required.

The Mine shall be opened along the strike & dip in the ore zone and faces shall be advanced across and along the strike in benches of 6m height and minimum bench width of 6m.The overall slope angle shall be maintained 45 degrees as per MMR 1961. During the process, the clay over burden, sub grade mineral shall be stacked separately in the predetermined dumping place outside the ultimate pit limit.

The top soil if encountered shall be stacked separately and utilised for afforestation. During the proposed plan period most of the work shall be confined to eastern block only The approximate ore waste ratio shall be 1:0.05. It is planned to work the deposit up to the depth of 434m MSL. Approach roads right from the working pits to crushing plant will be developed. the ROM ore produced will be taken to the crushing plant for processing.

This deposit is mainly being developed for the production of Dolomite for supply to steel plant. The mineable reserves are available are 19.29 million tonnes. In this mine the entire benches leaving 7.5m buffer on either sides. The ultimate pit limit is marked using general pit slope of 45º to the horizontal as per the provisions of MMR 1961. From the present knowledge of the ore body, taking a proved depth of 20m. At present there is market for low grade dolomite ore also.

The total mineable Dolomite ore reserves are 1,92,97,926 tonnes. The balance reserves at the end of five years will be 17.29 mill tonnes. The life of the mine shall be 1,72,95,702 / 500,000 = 34.59 years and 5 years life in the plan period. Total life of the mine is around 40 years. However, after the proposed exploration, the reserves position will be reviewed and accordingly the life of the mine will be recalculated.

(vi) Availability of water, its source,

Water Requirement & Source

Activity	Water requirement, m^3/d	Source
Drinking water	2.0	Bore well water
Afforestation	8.0	
Dust suppression	20.0	
Total	**30.0**	

(vii) Quantity of wastes to be generated (liquid and solid) and scheme for their management / disposal.

Waste generation and Disposal of waste

Top Soil: There is no top soil observed during mining plan period.

Overburden/ Waste: No Mineral rejects are likely to generate during the next five years. In these workings hardly any topsoil exists as the overburden where mining is proposed. A small quantity may be obtained from mining areas to a tune 24,318 tonnes, which shall be collected and stored separately.

During the plan period the area of South-Easter Block top soil is scraped/dozed off shall be stacked separately and used for afforestation purposes.

Sub-grade Mineral: There is no sub-grade Dolomite and all Dolomite will be sold by blending.

Wastewater: There will not be any process effluent generation from the mine lease area. Domestic effluent from the mine office is discharged in septic tank and soak pit.

4) Site Analysis

(i) Connectivity

Road Connectivity	State Highway is connecting Bethamcherla and Dhone passes nearby 4.0 Kms form the area from the ML applied area
Nearest Railway Station	Rangapuram 4.5 Km (Guntakal –Vijayawada broad gauge line)
Nearest Airport	Hyderabad 240 Km

(ii) Land Form, Land use and Land Ownership

Land Form: The applied mine lease area comprise of 37.042 ha Government waste Land.

Present and proposed land utilization pattern of the mine lease area is given below:

Present & Proposed Land Utilization Pattern Of Mine Lease Area

(Area in Hectare)

Land Particulars	Present Land use in Ha.	Conceptual Land use (In Ha.)
Area under Mining	nil	10.000
Worked out pit to be converted to water recharge pond.	nil	10.000
Area under Dumps	nil	1.7304
Area for Top Soil Storage	nil	0.3930
Area under Sub-Grade	nil	0.3000
Area for Plantation	nil	3.4940
Road	0.3120	0.3120
Area under infrastructure	nil	0.0100
Monsoon Water flow channel	0.7180	0.7180
Area for future use	36.092	10.0846
Total	**37.042**	**37.0420**

(iii) Topography along with maps

Topography of Applied Mine Lease Area

The Rangapuram Dolomite Mine of South West Mining Limited, Bellary is an opencast mechanised mine. The applied mine lease area is covered with vegetation. The elevation of the applied mine lease area varies from 446 m MSL in North part to 466 m MSL in South part and the elevation difference is 20 m. The lease area is gently sloping from South to North. The ultimate depth of mining is 434 m MSL level i.e. 26 m from surface of the 460m. There is no possibility of encountering ground water table. The rain water accumulated in the existing pit during monsoon will be naturally drained in a couple of days.

(iv) Existing infrastructure

Roads: The state highway connecting Bethamcherla and Dhone passes nearby 4.0 Kms form the area.

Railways: The nearest railway station is at Rangapuram which is at a distance of 4.5 Km from the applied area.

Airport: Nearest airport is located at Hyderabad (240 Km).

(v) Social Development & Infrastructure Availability

Developmental activities already undertaken

- Employment to local villagers.
- Donation of furniture to nearby village schools.
- Periodic medical camps in nearby villages
- Scholarships to meritorious students
- Provision of uniforms/ books/stationary to needy students
- Donations for construction / maintenance of schools, public buildings in nearby villages

5) Planning Brief

(i) Planning Concept (type of industries, facilities, transportation etc) Town and Country Planning / Development authority Classification.

It is a mining project of Dolomite mineral. The proposed production of Dolomite is 5,00,000 TPA, open cast mechanised method of mining will be adopted and transportation of mineral shall be done through road by trucks.

(ii) Population Projection

Man power requirement for mining is estimated to be 36 nos. Most of the employees will be recruited from neighbouring villages. The laborers are provided along with tractor trolley by contractor or from nearby villages. so there will be no permanently migration of people.

(iii) Land use planning (breakup along with green belt etc).

Land Use Planning Breakup along with Green Belt of Mine Lease Area

(Area in Hectare)

Land Particulars	Plan Period Land use in Ha.	Conceptual Land use(In Ha.)
Area under Mining	8.3520	10.000
Worked out pit will be converted in to water recharge pond	0	10.000
Area under Dumps	0.8342	1.7304
Area for Top Soil Storage	0.3930	0.3930
Area under Sub-Grade	0.3000	0.3000
Area for Plantation	2.0000	3.4940
Road	0.3120	0.3120
Area under infrastructure	0.0100	0.0100
Area for Monsoon water flow channel	0.7180	0.7180
Area for future use	24.1246	10.0846
Total	**37.0420**	**37.0420**

(iv) Assessment of Infrastructure Demand (Physical & Social).

The infrastructure required is office, store, workshop and shelter for workers will be provided at the mine site.

(v) Amenities/Facilities.

A first aid station will be provided and maintained. Drinking water will be brought from the nearby water source. Communication services like post office and telephones are available in the nearby villages. Medical and safety facilities will be provided.

6) Proposed Infrastructure

(i) Green Belt

Plantation will be carried out on upper benches of the worked out pits, non-mineral bearing areas within the mine lease, along the haulage roads, around infrastructure facilities, etc. Native floral species of local origin preferably with low water demand and thick foliage cover will be used for plantation within the mine lease area.

An average of 1500 trees/ha will be planted.

(ii) Social Infrastructure

Following facilities shall be improved / maintained:

- Road facility
- Educational facilities
- Medical facilities
- Staff accommodation
- Direct and secondary employment

(iii) Solid Waste Management

No Mineral rejects are likely to generate during the next five years. In these workings hardly any topsoil exists as the overburden where mining is proposed. A small quantity may be obtained from mining areas to a tune 24,318 tonnes, which shall be collected and stored separately.

7) Rehabilitation & Resettlement (R&R) Plan of mined out area

There is no Rehabilitation & Resettlement policy involved in this project

8) Project Schedule & Cost Estimates

Likely date of start of construction and likely date of completion (Time schedule for the project to be given)

The project activity will be started within one year after obtaining the Environmental Clearance and all other statutory clearances

Estimated project cost along with analysis in terms of economic viability of the project.

The estimated project cost with the proposed production is Rs.3600 Lakhs. The capital cost, production & transportation costs, royalty, other taxes, indicate that the mine is technically and economically viable under foreseeable operating scenario.

9) Analysis of proposal (Final Recommendations)

Financial and social benefits with special emphasis on the benefit to the local people including tribal population, if any, in the area

Project will create direct & indirect employment opportunities within the surrounding region. Unit will use good faith efforts to employ local people from the nearby villages depending upon the availability of skilled & un-skilled man-power surrounding the project site.

- In operation phase, the proposed project would require significant workforce of non-technical and technical persons. Migration of highly education and skilled experience will result in increase of literacy in the surrounding villages.
- In addition, the proposed project shall enhance the prospects of employment.
- Assessment of the potential socioeconomic benefits during mining focused primarily on work force requirements, acquisition of supplies, and the temporary increased demand for services related to the mining project like food, housing, communications, law enforcement, medical care, local transportation etc. Due to these, additional revenue to local suppliers for required products and services related to the construction and operation phases of the project will generate.
- Thus, mining activities will provide numerous new, although temporary, work opportunities for both skilled and unskilled labour, as well as contribute significantly to the local economy.
- Additional government revenue expected from royalty, taxes, duties and other fees.
- An added benefit to the proposed project will result in considerable growth of stimulating the industrial and commercial activities in the state. Small and medium scale industries may be further developed as a consequence.