

SUMMARY
OF
DRAFT EIA / EMP REPORT

FOR
ROUGHSTONE AND GRAVEL QUARRY
EXTENT- 14.85.5Ha

FIVE YEAR PRODUCTION OF
23,93,988m³ OF ROUGHSTONE, 18,031m³ OF
WEATHERED ROCK AND 36,062m³ OF GRAVEL

SURVEY NO – 718(Part), 719/1A(Part), 722/1, 722/2, 730/3

VILLAGE - PADMANABAMANGALAM, TALUK- SRIVAIKUNDAM,
DISTRICT - THOOTHUKUDI, STATE - TAMILNADU

M/s. SHRI VENKATESHWARA
CONSTRUCTION MATERIALS
AND INDUSTRIES

189, Palayamkottai Road, Thoothukudi District – 628008.

CREATIVE ENGINEERS & CONSULTANTS

NABET ACCREDITED, NABL ACCREDITED TESTING Laboratory

ISO 9001: 2015 CERTIFIED COMPANY

9B/4, BHARATHWAJAR STREET, EAST TAMBARAM,

CHENNAI-600 059.

Ph: 044-22395170, Cell: 09444133619

Email : cecgiri@yahoo.com,

Web: www.creativeengineers.co.in



Creating Possibilities

MAY 2021

ROUGH STONE AND GRAVEL QUARRY OF M/S. SHRI VENKATESHWARA CONSTRUCTION MATERIALS AND INDUSTRIES OVER AN AREA OF 14.85.5HA AT S.F.NO.718(PART), 719/1A(PART), 722/1, 722/2 AND 730/3IN PADMANABAMANGALAM VILLAGE, SRIVAIKUNDAM TALUK, THOOTHUKUDI DISTRICT, TAMIL NADU.

SUMMARY

1.0 GENERAL:

M/s. Shri Venkateshwara Construction Materials and Industries propose to operate a **Rough Stone and Gravel Quarry** at Survey Nos. 718(Part), 719/1A(Part), 722/1, 722/2 and 730/3 over an area of 14.85.5Ha in Padmanabamangalam Village, Srivaikundam Taluk, Thoothukudi District, Tamil Nadu, for production capacity of 23,93,988m³ of Rough Stone, 18,031m³ of Weathered Rock and 36,062m³ of gravel for the period of Five years. Entire lease area is a patta land in the proponent's possession. Part of the lease area was already quarried out in the earlier lease period.

Precise area communication letter was obtained from the District Collector Thoothukudi Vide Rc.No.180/2015-Mines dated 17.09.2019. Mine plan for this project was approved by Joint Director / Assistant Director (i/c) Department of Geology & Mining Thoothukudi vide Rc.No.G.M.1/180/2015 dated 06.01.2020.

ToR for this project has been received from SEIAA, Tamil Nadu vide their letter No. SEIAA-TN/F.No.8272/SEAC/ToR-946/2021 dated 30.04.2021. Based on the ToR granted by SEIAA, Tamil Nadu and in conformance with the MOEF&CC 2006 guidelines, EIA/EMP report has been prepared. Salient details of the EIA/EMP report are as follows:

2.0 SITE DESCRIPTION:

The salient features of the project are briefly given below.

S.No	Particulars	Details
1.	Name of the Project	Rough Stone and Gravel Quarry of M/s. Shri Venkateshwara Construction Materials and Industries
2.	Location of the project	Padmanabamangalam Village, Srivaikundam Taluk, Thoothukudi District, Tamil Nadu
3.	Mining Lease area (ML area)	14.85.5 Ha
4.	Latitude & Longitude	Latitude: 08°39'40"N to 08°39'55"N Longitude: 77°55'09"E to 77°55'24"
5.	Mine site topography	Plain terrain with altitude of about 107m AMSL.
6.	Type of land	Private patta land registered in the name of



ROUGH STONE AND GRAVEL QUARRY OF M/S. SHRI VENKATESHWARA CONSTRUCTION MATERIALS AND INDUSTRIES OVER AN AREA OF 14.85.5HA AT S.F.NO.718(PART), 719/1A(PART), 722/1, 722/2 AND 730/3IN PADMANABAMANGALAM VILLAGE, SRIVAIKUNDAM TALUK, THOOTHUKUDI DISTRICT, TAMIL NADU.

		M/s Shri Venkateshwara Construction Materials and Industries.
7.	Temperature °C (Minimum & Maximum)	The annual mean minimum and maximum temperature are 23°C and 34°C respectively.
8.	Average Annual rainfall	655.7mm
9.	Nearest Highway	(NH-7A) Tirunelveli – Thoothukudi - 8.0km – N, (SH-40) Tirunelveli – Alwarthirunagari- 4.0km - SW
10.	Nearest Railway station	Srivaikundam – 4.5 km (SW)
11.	Nearest Airport	Tuticorin – 13.0 Km (NE)
12.	Nearest major water bodies	Channel – 65m (South) , FewTanks Marudur East Canal – 2.6KM –SW Marudur West Canal – 7.1KM-SW Tambaraparni River – 3.3KM-SW
13.	Environmental sensitive areas, Protected areas as per Wildlife Protection Act, 1972 (Tiger reserve, Elephant reserve, Biospheres, National parks, Wildlife sanctuaries, community reserves and conservation reserves)	Vallanadu Black buck sanctuary – 2.4KM – NW. ESZ of sanctuary – 2.0 km Since the lease area is outside ESZ, NBWL is not applicable.
14.	Reserved / Protected Forests	Vallanadu RF – 2.5KM (NW)
15.	Nearest Town	Srivaikundam – 3.2 km (SW)
16.	Nearest villages	Srimulakkarai Melur -1.0km – (SE) Padmanabhamangalam – 1.8km – NE Alwarkarkulam -4.3km - NE
17.	Other Industries (in Aerial distance)	Other than crushers, Roughstone quarries, no other major industries are located in the study area.
18.	Seismic Zone	Area falls in Zone – II (Least Active)



ROUGH STONE AND GRAVEL QUARRY OF M/S. SHRI VENKATESHWARA CONSTRUCTION MATERIALS AND INDUSTRIES OVER AN AREA OF 14.85.5HA AT S.F.NO.718(PART), 719/1A(PART), 722/1, 722/2 AND 730/3IN PADMANABAMANGALAM VILLAGE, SRIVAIKUNDAM TALUK, THOOTHUKUDI DISTRICT, TAMIL NADU.

2.1 PROJECT DESCRIPTION:

S.No	Particulars	Details			
1.	Geological resources	Roughstone: 62,32,884cum Weathered Rock: 1,48,402cum Gravel: 2,96,804 cum			
2.	Mineable reserves	Roughstone: 23,93,988cum Weathered Rock: 18,031cum Gravel: 36,062cum			
3.	Production Capacity for 5 years lease period	YEAR	ROUGHSTONE (m3)	WEATHERED ROCK (m3)	GRAVEL (m3)
		I	478770	18031	36,062
		II	478812	-	-
		III	478572	-	-
		IV	478692	-	-
		V	479142	-	-
		Total	23,93,988	18,031	36,062
4.	Life of the mine	5 years			
5.	Total Waste	There is no waste generation anticipated in this quarry operation since the entire excavated material will be utilized.			
6.	Method of mining	Quarry operations involve drilling, blasting, excavation, loading and transportation of Roughstone to needy buyers.			
7.	Bench parameters	Bench height - 5 m, bench widths - 5m			
8.	Depth	Existing Depth: 15m Ultimate Depth: 45m			
9.	Manpower	Direct 30 persons, Indirect 100 persons. .			
10.	Water Requirement & source	Total requirement - 20KLD. Domestic water requirement will be met from the existing bore well and the industrial water requirement for dust suppression and green belt development will be met from the rain water collected in the mine pit.			
11.	Power Requirement	All the equipment will be diesel operated. No electricity is needed for mining operation. The minimum power requirement for office, etc will be met from state grid.			
12.	Site services	Site services like mine office, first aid room, rest shelters, toilets etc. are already available and will be utilized.			
13.	Project cost	Rs. 1.58 Crores			



ROUGH STONE AND GRAVEL QUARRY OF M/S. SHRI VENKATESHWARA CONSTRUCTION MATERIALS AND INDUSTRIES OVER AN AREA OF 14.85.5HA AT S.F.NO.718(PART), 719/1A(PART), 722/1, 722/2 AND 730/3IN PADMANABAMANGALAM VILLAGE, SRIVAIKUNDAM TALUK, THOOTHUKUDI DISTRICT, TAMIL NADU.

3.0 EXISTING ENVIRONMENTAL SCENARIO:

3.1 GENERAL:

The studies and data collection have been carried out systematically and meticulously as per relevant IS codes, CPCB and MoEF&CC guidelines and as per approved ToR during **Winter Season, (December 2020 to February 2021)** For the purpose of this study, the area has been divided into two zones, namely, core and buffer zones. Core zone is considered as the total lease area, while buffer zone encompasses an area of 10 km radius distance from the periphery of core zone.

3.2 SOCIO-ECONOMIC STATUS:

i. Core Zone:

The total mine lease area of 14.85.5Ha. Entire ML area is a patta land with no forest or agricultural area involved.

ii. Buffer Zone:

Based on 2011 census data, in the 10km radius there are 48 Rural villages from three Taluks namely Srivaikundam, Tiruchendur and Thoothukudi and 3 urban areas of two taluks namely Srivaigundam (TP) & Perungulam (TP) of Srivaikundam Taluk and Alwarthirunagari (TP) of Tiruchendur Taluk.

The distribution of population is as below:

- Male - 67786 (49.24%)
- Female - 69869(50.76%)
- Total - 137655
- Scheduled caste - 24.74%
- Scheduled tribes - 0.35%
- Others - 74.91%
- Total literacy rate in the area - 76.81% of the people are literate and 23.19% of the people are illiterate.

The occupational structure of the area is as below:

Total main workers	-	51618
Total marginal workers	-	7021
Total non-workers	-	79016



ROUGH STONE AND GRAVEL QUARRY OF M/S. SHRI VENKATESHWARA CONSTRUCTION MATERIALS AND INDUSTRIES OVER AN AREA OF 14.85.5HA AT S.F.NO.718(PART), 719/1A(PART), 722/1, 722/2 AND 730/3IN PADMANABAMANGALAM VILLAGE, SRIVAIKUNDAM TALUK, THOOTHUKUDI DISTRICT, TAMIL NADU.

3.3 EXISTING ENVIRONMENTAL QUALITY:

3.3.1 Ambient Air Quality:

The ambient air quality data for PM₁₀, PM_{2.5}, SO₂, NO₂, CO studied at 5 locations as per prescribed guidelines/ methods. The AAQ monitored data for all locations for above parameters are shown in below.

Season: (Winter Season, December 2020 to February 2021)

Values in µg/m³

S.No	PARAMETERS	Cat.* (R,I,S)	PM ₁₀	PM _{2.5}	SO ₂	NO ₂
1	CORE ZONE (1 Location)	I	54.2 to 63.4	25.2 to 29.5	4.8 to 6.9	8.2 to 11.5
2	BUFFER ZONE (4 Locations)	R	39.2 to 58.5	17.6 to 26.8	3.6 to 7.2	5.1 to 13.3
CPCB LIMITS			PM₁₀	PM_{2.5}	SO₂	NO₂
2009 Notification			100	60	80	80
* Note: BDL- Below Detectable Limit, DL- Detectable Limit.						
Conclusion: The existing Ambient Air Quality levels in the monitored locations for PM₁₀, PM_{2.5}, SO₂, NO₂ & CO are within the prescribed CPCB limits.						

3.3.2 Water Environment:

Parameter	No of Samples – 5 Bore well water samples					Season: Winter Season, December 2020 to February 2021)				
	pH	EC (µmhos/cm)	TDS (mg/L)	Chloride (mg/L)	Total Hardness (mg/L)	Total Alkalinity (mg/L)	Sulphate (mg/L)	Iron (mg/L)	Nitrate (mg/L)	Fluoride (mg/L)
BUFFER ZONE (5 Locations)	6.69to 7.40	832.8 to 1454	496 to 886	206 to 254	274 to 388	138 to 272	194 to 299	0.05 to 0.12	1.45 to 3.47	0.35 to 0.75
Limits* Permissible	6.5- 8.5	-	2000	1000	600	600	400	0.3	45	1.5
Conclusion: The water quality of the collected ground water samples were found to be within the prescribed permissible limits of IS: 10500:2012 Norms for Drinking in the absence of an alternative source*.										

3.3.3 Noise Environment:

No of locations – 5			Season: Winter, December 2020 to February 2021)		
Noise Level In dB(A)	Core Zone dB(A) (1 Location)	*Work zone exposure limit dB(A)	Buffer Zone dB(A) (4 Locations)	MOEF&CC Norms dB(A) for Residential area	
Day Equivalent	49.5	90	46.6 to 49.3	55	
Night Equivalent	40.5		38.5 to 41.2	45	
*Permissible noise for industrial workers as laid down by CPCB (at 8 hrs Exposure Time)					
Conclusion: While comparing with the MoEF&CC Norms, the monitored ambient noise levels are within the limit values for Residential areas.					



ROUGH STONE AND GRAVEL QUARRY OF M/S. SHRI VENKATESHWARA CONSTRUCTION MATERIALS AND INDUSTRIES OVER AN AREA OF 14.85.5HA AT S.F.NO.718(PART), 719/1A(PART), 722/1, 722/2 AND 730/3IN PADMANABAMANGALAM VILLAGE, SRIVAIKUNDAM TALUK, THOOTHUKUDI DISTRICT, TAMIL NADU.

3.3.4 Soil Quality:

Parameter	pH	Electrical Conductivity $\mu\text{mhos/cm}$	Soil Type	Organic matter content %	Total Nitrogen mg/kg	Phosphorus mg/kg	Sodium mg/kg	Potassium mg/kg
Core Zone	6.68	48.25	Clay Loam	0.62	122	1.46	512	1420
Buffer Zone	7.08-7.81	48.97 – 53.04	Silty Clay Loam	0.64–1.65	350-644	1.58-4.4	564-940	1190-2582

3.3.5 LAND ENVIRONMENT:

Landuse pattern carried out through remote sensing satellite data show that 39.41 % of the study area is agriculture land and Land with scrub constitutes 23.04% followed by 10.76% of land without scrub.

3.3.6 BIOLOGICAL ENVIRONMENT:

The lease area is a non forest, private land with scrub and thorny bushes. Major part of the lease area is already mined out and exposed with rock. The lease area is dominated with *Prosopis juliflora*, *Calotropis gigantean* and plantation carried out by the proponent. Pea Fowl and Blackbuck are placed under Schedule-I as per Wild Life (Protection) Act, 1972 is found in the Study area.

As per MoEF & CC's final notification S.O.2773(E) dated 31st July 2019, Vallanadu Black buck sanctuary is located at a distance of 2.4km from the lease area. ESZ boundary of the sanctuary lies at 2.0km from the lease boundary. As such the project site is located outside the ESZ. Hence, wildlife clearance is not applicable.

3.3.7 HYDROLOGICAL STUDY:

In the study area, the northern part containing elevated, hard rocky formations contains less ground water potential and mainly bore wells are the dependable source. Recharge of groundwater in hard rock formations is influenced by the intensity and depth of weathering. In the southern part along the Tamirabarani command area, shallow aquifer is developed through dug wells and deeper aquifer through tube wells. The wells are of shallow depth where as the bore wells are 150- 200 ft deep.



ROUGH STONE AND GRAVEL QUARRY OF M/S. SHRI VENKATESHWARA CONSTRUCTION MATERIALS AND INDUSTRIES OVER AN AREA OF 14.85.5HA AT S.F.NO.718(PART), 719/1A(PART), 722/1, 722/2 AND 730/3IN PADMANABAMANGALAM VILLAGE, SRIVAİKUNDAM TALUK, THOOTHUKUDI DISTRICT, TAMIL NADU.

Recharge of groundwater in hard rock formations is influenced by the intensity and depth of weathering. From the Geophysical survey in the lease area, it is found that the subsurface litho units are gravel, weathered layers poorly fractured and terminated with hard and compact massive rocks with fully devoid of fractures. The mining area consists of hard compact rock, no major water seepage within the mine is expected. The nearby working pit/ mine voids also show no visible seepage from the hard rock mine faces.

4.0 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES:

M/s. Shri Venkateshwara Construction Materials and Industries are in this field for almost 3 decades carrying our quarrying operations in the nearby lease (lease getting expired shortly) and allied crusher operations. Scientific and systematic development of activities are carried out by the project authorities for preserving as well as improving the environmental conditions by implementing activities such as mobile water sprinkling, controlled blasting, planting of around 10,000 trees in various places like mine periphery, crusher and other places, etc.

For this proposed project, the impacts due to mining and associated activities have been studied in relation to various environmental components like Air, water, noise, vibration, land, transport etc. and given below:

4.1 AIR ENVIRONMENT:

The proposed mining and allied operations may cause deterioration of air quality due to pollution arising from the project operation if prompt care is not taken. The principal sources of air pollution in general due to mining and allied activities will be:

Dust generation in the mine due to:

- ❖ Excavation of material
- ❖ Movement of HEMM such as Excavators, tippers etc.
- ❖ Loading and unloading operation
- ❖ Transportation

In case of this mine, the following measures will be adopted to control impact on the air quality due to mining operations in the lease area:

- Deployment of fixed and mobile water sprinkler for fugitive dust suppression in haul roads.



ROUGH STONE AND GRAVEL QUARRY OF M/S. SHRI VENKATESHWARA CONSTRUCTION MATERIALS AND INDUSTRIES OVER AN AREA OF 14.85.5HA AT S.F.NO.718(PART), 719/1A(PART), 722/1, 722/2 AND 730/3IN PADMANABAMANGALAM VILLAGE, SRIVAIKUNDAM TALUK, THOOTHUKUDI DISTRICT, TAMIL NADU.

- Proper maintenance of roads.
- Avoiding crowding of trucks by properly spacing them to avoid the concentration of dust emission at any time.
- Transportation of material by tarpaulin covered trucks
- Proper maintenance of HEMM to minimize gaseous emission
- Imparting sufficient training to operators on safety and environmental parameters
- Development of green belt/ plantation in various areas within the mine lease area etc.

By adoption of all these measures, no adverse impact on air quality is envisaged due to this proposed opencast mining operation.

The impact on air quality due to the proposed project is estimated using AERMOD View Gaussian Plume Air Dispersion Model developed by Lakes Environmental Software which is based on steady state Gaussian plume dispersion.

The resultant added concentrations with baseline figures even at worst scenario, show that the values of ambient air quality with respect to PM₁₀ are in the range of 51.4 µg/m³ to 77.3 µg/m³ and with respect to PM_{2.5} are in the range of 23.9 µg/m³ to 31.8 µg/m³ which are well within the statutory norms in each case.

For preservation of environment in this mine strict enforcement of management schemes will be undertaken for taking corrective actions, as needed. By adopting the effective implementation of all the mitigative measures, no adverse impact on Air quality due to the mining operation in this lease area is expected.

4.2 WATER ENVIRONMENT:

The total water requirement for this project will be 20 KLD comprising 2.0KLD drinking water, 15.0 KLD for dust suppression, 3.0 KLD for greenbelt. The domestic water requirement will be met from the existing bore well and the industrial water requirement for dust suppression and green belt development will be met from the rain water collected in the mine pit.

This being a mining project there will not be any process effluent. The rain water falling in the quarry will be harvested in the sump at the lowest level of the quarry. This sump will act as a settling pond to prevent solids escaping along with discharge, before outlet etc. Towards



ROUGH STONE AND GRAVEL QUARRY OF M/S. SHRI VENKATESHWARA CONSTRUCTION MATERIALS AND INDUSTRIES OVER AN AREA OF 14.85.5HA AT S.F.NO.718(PART), 719/1A(PART), 722/1, 722/2 AND 730/3IN PADMANABAMANGALAM VILLAGE, SRIVAIKUNDAM TALUK, THOOTHUKUDI DISTRICT, TAMIL NADU.

surface runoff management, garland drain will be constructed around the quarry and will be connected to a settling pond with silt traps. The supernatant clear water from the settling pond will be flow to the downstream users.

There is a channel passing on the southern side of the lease area at a distance of 65m. Earthen bund embankment already exists along the banks of the channel. Barbed wire fencing has been carried out in the southern and western lease periphery. Plantation has already been carried out to stabilize the bund and further gap filling plantation will be done by the proponent. There is no proposal to discharge any effluent into this water body. No major impact is envisaged on the odai due to project operations.

The proposed lease area falls in **Srivaikundam block** and the stage of ground water development as per Central Ground Water Authority study is categorized under “**Safe**” **category** from ground water development point of view. Thus there is scope for further ground water development.

4.3 NOISE ENVIRONMENT:

During mining operation there will be noise generation due to working of excavators, movement of vehicles, etc. However, it will be felt near the active working area only and at away from its source it will get reduced. Due to natural attenuation effects, by proper green belt development, design / maintenance of machines, etc., the impact on noise levels will be negligible and are expected to be well within the prescribed limits.

4.3.1 VIBRATION:

In the proposed mine workings, blasting & vibration effects will be controlled by following measures.

- Optimum design for burden and spacing.
- Reducing explosive charge per delay to minimum.
- Controlled blasting using milli second delay detonators/Nonel.
- Blasting through approved competent blasters.

By adoption of above measures, it will be ensured that ground vibrational levels due to blasting will be maintained within the prescribed DGMS conditions of 10 mm/s for the domestic houses/structures.



ROUGH STONE AND GRAVEL QUARRY OF M/S. SHRI VENKATESHWARA CONSTRUCTION MATERIALS AND INDUSTRIES OVER AN AREA OF 14.85.5HA AT S.F.NO.718(PART), 719/1A(PART), 722/1, 722/2 AND 730/3IN PADMANABAMANGALAM VILLAGE, SRIVAIKUNDAM TALUK, THOOTHUKUDI DISTRICT, TAMIL NADU.

4.4 IMPACT ON LAND ENVIRONMENT:

The lease area is a private patta land in possession of the applicant. Major part of the lease area is already mined and with rock exposure. There is no waste generation anticipated in this quarry operation since the entire excavated material will be utilised. Hence, there is no external overburden dump involved. In the post mining stage, 12.66.0Ha of mined out area will be left as a water body, 0.10.0Ha will be mine road and 2.09.5Ha will be covered with vegetation.

4.5 BIOLOGICAL ENVIRONMENT:

Major part of the lease area is already mined and no major clearance of vegetation is involved in this project. Necessary mitigative measures like dust suppression, proper maintenance of equipment's, greenbelt and plantation etc., will be carried out to prevent dust generation & any further impact on the vegetation.

In the existing quarry and crusher operations, proponent has carried out extensive plantation. So far, about 10000 trees are already planted in the southern lease periphery and around the crusher on the eastern side of the lease area.

In the lease area, safety barrier 7.5m around the periphery has been left. Greenbelt / Plantation will be carried out to enhance the vegetative growth and aesthetic in the safety zone and other available places. Besides, it is proposed to carry out gap filling plantation in the bund along the channel in the southern side. In the post mining stage, an area of 2.09.5 Ha will be covered with vegetation.

4.6 SOCIO ECONOMIC ENVIRONMENT:

The entire lease area is in the proponent's possession. Hence, there are no habitations or hutments in the core zone area and no rehabilitation or resettlement problems will arise here.

The mining operations in the proposed mine will provide the following socio economic benefits:

- Direct Employment for about 30 persons.
- Indirect employment opportunity for about 100 persons through various service related activities connected with the project operations like:
 - ✓ Project related logistical operations for transport of Rough Stone & Gravel, etc,
 - ✓ Various trading services for consumer goods, spare parts, sundry items, etc.



ROUGH STONE AND GRAVEL QUARRY OF M/S. SHRI VENKATESHWARA CONSTRUCTION MATERIALS AND INDUSTRIES OVER AN AREA OF 14.85.5HA AT S.F.NO.718(PART), 719/1A(PART), 722/1, 722/2 AND 730/3IN PADMANABAMANGALAM VILLAGE, SRIVAIKUNDAM TALUK, THOOTHUKUDI DISTRICT, TAMIL NADU.

- ✓ Contractual services connected with the project.
- ✓ Green belt development
- Improvement in education, medical care system for the locals.
- Benefit to State and central exchequer by way of royalty, taxes.

Shri Venkateshwara Construction Materials and Industries have actively been involved in generous contributions local community development. Various activities such as distribution of 2000kg rice to nearby villagers during covid period, donation of Rs.5.0 Lakhs to District collector for Chief Minister's Relief Fund, School uniform, books distribution to needy children, sponsoring desilting works, supply of building material for road improvement & other activities, temple renovation, etc. In the future also, such community development activities will be continued with the same spirit. For this project.

Towards the socio economic development of the surrounding area, the proponent has earmarked totally an amount of Rs.15.0 Lakhs under Corporate Environmental Responsibility/community developmental activities. It is planned to utilize the CER fund towards the following:

Improvement in facilities for the nearby schools

- Assistance in conducting regular health camp, eye camp.
- Maintenance of road
- Desilting of nearby ponds, drainage channels.

In consultation with the locals to suit their requirement it will be carried out

4.7 IMPACT ON LOCAL LOGISTICAL SYSTEM DUE TO PROJECT:

From this proposed quarry the output will be transported to the nearby crusher units. The following mitigative measures will be implemented for mitigation of adverse impacts on the logistical aspect of the project:

- Water sprinkling on the material in the transport vehicles before transporting, so that no dust nuisance during transport will arise.
- Proper maintenance of transport roads
- Proper maintenance of transport vehicles.
- Avoiding overloading of material



ROUGH STONE AND GRAVEL QUARRY OF M/S. SHRI VENKATESHWARA CONSTRUCTION MATERIALS AND INDUSTRIES OVER AN AREA OF 14.85.5HA AT S.F.NO.718(PART), 719/1A(PART), 722/1, 722/2 AND 730/3IN PADMANABAMANGALAM VILLAGE, SRIVAIKUNDAM TALUK, THOOTHUKUDI DISTRICT, TAMIL NADU.

- Covering of loaded vehicles with tarpaulins sheet if warranted.

4.8 OCCUPATIONAL HEALTH AND SAFETY ASPECTS:

In order to ensure minimisation of occupational health and safety problems in the project operation, the following preventive remedial measures will be effectively exercised in the project operations, so as to comply with applicable standards.

- Medical examination of workers at pre-entry level stage of workers, etc., by qualified doctors, with periodical examination of all workers/staff at least once a year, as per DGMS circulars.
- Regular awareness campaigns amongst staff and workers
- Staff will be provided with PPE to guard against excess noise levels, Dust generation and inhalation, etc., as per standards prescribed by DGMS.

4.9 WASTE MANAGEMENT:

There is no process effluent generation from this mine. Hence no liquid waste is generated. Single use plastics/ use and throwaway plastics will be banned in the site as directed by the Tamil Nadu Government vide GO(Ms)No.84 regarding ban on use of plastic products. The employees will be encouraged to use compostable material or reusable material.

5.0 ENVIRONMENTAL MONITORING PROGRAMME:

In the existing nearby quarry operations, proponent has implemented Regular, systematic and sustained programme schedules for implementation and monitoring of various control measures on the various environmental quality parameters in the area. All these measures will be effectively continued in this proposed quarry lease also.

Mines Manager will undertake effective monitoring and implementation of various environmental control measures promptly and effectively and to oversee various environmental management schemes for air quality control, water quality status, noise level control, plantation programme, social development schemes, etc in the mine. Towards EMP measures, Rs. 13.0 lakhs is allocated under capital cost. Besides, Rs. 25 lakhs per annum will be spent under recurring cost.



ROUGH STONE AND GRAVEL QUARRY OF M/S. SHRI VENKATESHWARA CONSTRUCTION MATERIALS AND INDUSTRIES OVER AN AREA OF 14.85.5HA AT S.F.NO.718(PART), 719/1A(PART), 722/1, 722/2 AND 730/3IN PADMANABAMANGALAM VILLAGE, SRIVAIKUNDAM TALUK, THOOTHUKUDI DISTRICT, TAMIL NADU.

6.0 CONCLUSION:

By systematic and scientific mining adhering to all the statutory norms and enforcing and strictly implementing the above said mitigation measures mentioned in this report, no adverse impact is envisaged.

The proposed mining project will benefit this region in the fields of potential employment opportunities, improved income for local people, improved social welfare facilities in its own way and also revenue to Government through royalty, taxes etc.

* * * * *

