EXECUTIVE SUMMARY FOR PROPOSED ROUGH STONE QUARRY

CATEGORY - B1 (CLUSTER AREA - 11.75.0 Ha.)

(Submitted for Public Hearing as per the provisions of EIA Notification 2006 & its amendments thereof)

APPROVED TOR vide TO25B0108TN5661791N, Dated: 30.07.2025

PROPOSED QUARRY LEASE DETAILS						
SURVEY NOS	123 (BLOCK-2)					
VILLAGE	PADALUR (EAST)					
TALUK	ALATHUR					
DISTRICT	PERAMBALUR					
EXTENT	1.50.0 Ha					
PROPOSED PRODUCTION QUANTITY	3,02,470 m3 / 8,31,792.50 Ts (FIVE YEARS)					
LAND	GOVERNMENT LAND					

(Sector No. 1(a) (Sector no.1 as per NABET)

Category of the Project: B1 Cluster Mining, Total Cluster Area – 11.75.00 Ha
Baseline Monitoring Period – March to May 2025

APPLICANT

M/s. SHRIVARI BLUE METAL, No.C-21, 4th Cross, North East Extension, Thillai Nagar, Trichy - 620 018.

ENVIRONMENTAL CONSULTANT

LIVVINOIVIVILIVIAL CONSOLIAIVI	LABORATORT
M/s. GLOBAL MINING SOLUTIONS	
(NABET Accredited & ISO 9001 Certified Consultant)	M/s. SHRIENT ANALYTICAL & RESEARCH LABS
Plot No. 6, S.F.No. 13/2, A2, VS City,	PRIVATE LIMITED
RC Chettypatty, Kottamettupatty, Omalur,	(NABL Accredited Testing Laboratory)
Salem, Tamil Nadu – 636 455.	Valid Until -29.09.2025
NABET Accreditation No: NABET/EIA/23-26/SA 0241, Valid	#416/15, Dhargas Road, Perungalathur, West
Until - January 4, 2026	Tambaram, Chennai,
Contact: 97502 23535 & 94446 54520	Tamil Nadu, India.
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LARORATORY





EXECUTIVE SUMMARY

1.1 INTRODUCTION

Environmental Impact Assessment (EIA) as a tool used to identify the environmental, social and economic impacts of a project prior to decision-making. It aims to predict environmental impacts at an early stage in project planning and design, find ways and means to reduce adverse impacts, shape projects to suit the local environment and present the predictions and options to decision-makers.

This proposal is towards obtaining environmental clearance for Rough Stone Quarry located at survey nos. S.F.Nos. 123 (Block-2) over an extent of 1.50.00 Hectares at Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State. for production capacity of 3,02,470 m³ of Rough Stone for the period of first 5 years with ultimate depth up to 57m (22m above ground level and 35m below ground level).

The mining plan has prepared and same was approved by Assistant Director, Department of Geology and Mining, Perambalur, vide Rc.No.134/G & M / 2025, Dated 05.05.2025.

As per EIA notification, 2006 and its subsequent amendments the proposed "Rough Stone Quarry of M/s.Shrivari Blue Metal," is falls under Schedule 1(a) Mining of Minerals. It is further classified under Category B1 due to the overall extent of cluster area is 11.75.00 Ha which is >5 Ha. The ToR for the preparation of EIA/EMP was approved vide ToR identification number TO25B0108TN5661791N, Dated 30.07.2025. This report has been prepared in line with the approved TOR for maximum excavation of 3,02,470 m³ of Rough Stone for the period of first 5 years with ultimate depth up to 57m (22m above ground level and 35m below ground level).

S.No.	Description	Status/Remarks
1.	Sector	1(a), non-coal mining
2.	Category of the project	B1
3.	Proposed mineral	Rough Stone and Gravel
4.	Type of Lease	The applied lease area is fresh lease
5.	Extent of the lease	1.50.00 Ha
6.	Proposed depth of Mining	57 m (22 m AGL + 35 m BGL)
7.	Method of mining	Opencast Mechanized
8.	Proposed lease period	5 Years
9.	Proposed Environmental Clearance	5 Years
10.	Proposed production quantity for Five	Rough Stone – 3,02,470 m ³
	years	

The Lessee M/s.Shrivari Blue Metal, is an individual with sound experience in the identification, quarrying and marketing of Rough Stone. The proposed land is a Government Poramboke Land and attached as **Annexure 6.**

1.2 **LOCATION**

The proposed Quarry lease area is situated at 123 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State. The area lies in the north latitude of 11°06'03.07"N to 11°06'08.57"N and eastern longitude of 78°51'25.59"E to 78°51'29.93"E with Survey of India Topo Sheet No. 58 I/16. To conduct the study, the proposed mine lease area (core zone) and an impact zone of 10 km radius (called buffer zone) around the proposed mine site were considered. The EIA report is based on three months baseline data (i.e. March 2025 to May 2025)

1.3 **GEOLOGY**

The rock type noticed in the area for lease is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian minerals. The Charnockite is part of peninsular Gneisses, a high grade metamorphic rock. The strike of the Charnockite formation is N30°E –S30°W with vertical dipping.

.1.4 PROJECT DESCRIPTION

This is a proposed Rough Stone quarry by Opencast Mechanized mining method with drilling and blasting. The quarrying is restricted up to a depth of 57 m (22 m AGL + 35 m BGL). The geological reserves are estimated to be 7,43,820 m³ Rough Stone. The mineable reserve calculated by deducting safety distance and bench loss. The mineable reserves are 3,02,470 m³ of Rough Stone which will be recovered at the rate of 100% recovery upto a depth of 57 m (22 m AGL + 35 m BGL) for the period of five years.

- It is proposed to quarry out rough stone with 5m bench height, 5m width with overall slope is 47° using Open cast Mechanized method. The quarry operation involves shallow jack hammer drilling, slurry blasting, excavation, Loading and transportation of Rough Stone.
- There is no overburden anticipated during entire rough stone & Gravel quarrying operation.

S.No.	Type of Detail	Description						
1	Sector	1(a) Non coal mining						
2	Fresh/Existing project	The applied lease area is fresh lease						
3	Category	B1						
4	Nature of mineral	Rough Stone						
5	Production	Rough Stone - 3,02,470 m ³						
6	Life	5 years						
7	Waste generation and	There is no overburden anticipated during the						
	management	quarrying operation. Hence, no waste generation.						
8	Bench height and width	Height and Width – 5m						
9	Ultimate pit depth	57 m (22 m AGL + 35 m BGL)						
10	End use	Rough Stone and Gravel will be loaded into tippers to						
		needy buyers for producing aggregates, M-sand.						

1.5 **PROJECT REQUIREMENTS**

The requirements of the project is given below.

S.No.	Nature of requirement	Description									
1	Water requirement	Total water requirement of 4.0 KLD which will be									
		procured from the outside agencies. 1.5 KLD									
		drinking and domestic water requirement, gree									
		belt development is 1.5 KLD and dust									
		suppression is 1.0 KLD.									
2	Power requirement	No electricity is needed for mining operations, for									
		office demands, it will be met from the state grid.									
3	Manpower requirement	Permanent employees – 14, temporary									
		employees - 16									
4	Financial requirement	Project cost - Rs. 515.92 Lakhs (including EMP &									
		CER cost).									
5	EMP Cost	Total EMP Cost for 5 years is 18.42 lakhs i.e.,									
		Rs.7.45 Lakhs of Capital + Recurring cost Rs.									
		10.97 lakhs for Five years.									
5	Funds for Socio economic	INR 3 Lakhs is allocated for CER activities.									
	development										

1.6 DESCRIPTION OF LEASE AREA

The features in the study area is given below.

	Description of the lease area									
S.No.	Areas	Distance from project site								
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil within 15km radius								
2	Areas which are important or sensitive for	r ecological reasons								
		Core Zone - NIL								
	Wetlands, water courses or other water	Buffer Zone								
Α	bodies,	Tank - 0.87 km (NE),								
		Therani Lake - 1.94 km (NE),								

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		Nanthai River -2.80 km (S),		
		Lake - 7.22 km (NE),		
		Stream - 7.22 km (NE),		
		Stream - 7.55 km (W),		
		Maniyankurichy Eri -7.56 km (W)		
		Uppar R - 8.7 km (SW).		
В	Coastal zone, biospheres,	Nil within 10km radius		
С	Mountains, forests	Nedungur R.F - 3.58 km (SW), Naranamangalam R.F - 5.40 km (NW), Maniyankurichi R.F - 6.89 km (W), Maramareddi palaiyam R.F 7.20 km (SW), Velur R.F - 7.44 km (NW) & Siruvachur R.F - 7.85 km (NW).		
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting,	Trichy Zoological Park – 7.92 km (SW)		
	overwintering, migration	Karaivetti Bird Sanctuary – 23.90 km (SE)		
4	Inland, coastal, marine or underground waters	Nil within 10 km radius		
5	State, National boundaries	Nil within 10km radius		
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	Nil within 10 km radius		
7	Defense installations	Nil within 10km radius		
8	Nearest Village	Therani – 590 m (E)		
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Padalur west – 2.93 km (W)		
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Nil		

11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	Nil
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earth quakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions) similar effects	No. The area is not prone to earthquakes, floods, etc.

The baseline data collection for meteorology, air, water, noise and soil environments have been carried out during March to May 2025.

Air, water, noise and soil samples are collected and analyzed through NABL accredited lab.

1.7 **AIR ENVIRONMENT**

The air monitoring have been carried out in 7 locations and the results are given below.

S.NO	Location	Monitoring	Latitude and longitude
	Code	Locations	
1	A1	Within Mine Lease	11° 6'5.72"N & 78°51'27.42"E
		area	
2	A2	Therani	11° 6'12.69"N & 78°52'6.34"E
3	A3	Padalur	11° 6'16.95"N & 78°50'41.93"E
4	A4	Ootathur	11° 4'21.69"N & 78°51'21.99"E
5	A5	Pudhukkurichi	11° 8'6.26"N & 78°51'55.57"E
6	A6	Padalur West	11° 5'33.06"N & 78°49'41.36"E
7	A7	Alathur	11° 7'42.42"N & 78°50'19.96"E

Ambient Air Quality Data

	Ambient Air Quality										All Value in μg/m3			
	Parameters		PM10		PM2.5			SO2			NO2			
S.NO	Locations	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	
1	A1 - Within Mine Lease area	53.9	65.5	76.5	25.9	31.5	36.7	5.6	6.8	8.1	8.7	9.9	10.9	
2	A2 - Therani	46.7	53.4	59.5	22.4	25.6	28.6	5.8	7.0	8.2	8.9	10	11	
3	A3 - Padalur	45.7	49.8	56.5	21	23.4	26.7	5.9	7.1	8.2	9.2	10.5	11.8	
4	A4 - Ootathur	47.8	53.4	59.1	21.8	25.3	29.4	4.2	5.4	6.6	8.6	9.8	10.9	
5	A5 - Pudhukkurichi	41	45.7	51.3	19.3	22	24.7	3.6	4.9	6.2	7.8	9.0	10.1	
5	A6 - Padalur West	44.3	50	57.2	21.0	23.7	27.1	3.8	4.8	5.5	6.2	7.3	8.5	
6	A7 - Alathur	42.3	47.0	53.3	20.2	22.4	25.4	3.6	4.6	5.7	6.9	8.1	9.2	
7	CPCB NAAQS 2009		100			60			80			80		

All the values of pollutant concentrations were found to be within the NAAQs Standards.

1.8 WATER ENVIRONMENT

Ground Water Analysis Results

Paramet er	GW1	GW2	GW3	GW4	GW5	GW6	GW7	Standards a 10500: 2012	
								Acceptable Limits	Permissible Limits
Odour	Agreeable	Agreea ble	Agreea ble	Agreea ble	Agreea ble	Agreea ble	Agreea ble	Agreeable	Agreeable
Turbidity, NTU	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1	5
pH at 25 °C	7.87	7.84	7.19	7.91	7.45	7.77	7.36	6.5- 8.5	No Relaxation
Electrical Conducti vity, µS/cm	518.6	1665	1975.0	2068.0	1286.0	1989.0	2137.0	-	-
Total Dissolved Solids, mg/l	312	1002	1186	1240	772	1194	1282	500	2000
Total hardness as CaCO ₃ mg/l	172	354	392	424	235	385	454	200	600
Calcium as Ca mg/l	42.8	64.4	84	96.8	57.6	83.2	102	75	200

Magnesiu m as Mg mg/l	15.6	46.3	43.7	43.7	21.8	42.5	47.5	30.0	100
Calcium as CaCO ₃ mg/l	107	161	210	242	144	208	256	-	-
Magnesiu m as CaCO ₃ mg/l	65.0	193	182	182	91.0	177	198	-	-
Total alkalinity as CaCO ₃ mg/l	156	327	380	399	260	376	392	200	600
Chloride as Cl ⁻ mg/l	73.6	342	365	380	241	363	510	250	1000
Free Residual chlorine as Cl ⁻ mg/l	BDL(D.L- 0.2)	BDL(D. L-0.2)	BDL(D. L-0.2)	BDL(D. L-0.2)	BDL(D. L-0.2)	BDL(D. L-0.2)	BDL(D. L-0.2)	0.2	1
Sulphate s as SO ₄ ²⁻ mg/l	51.5	270	342	355	206	338	212	200	400
Iron as Fe mg/l	0.06	0.12	0.11	0.12	0.04	BDL(D. L-0.01)	0.03	0.3	No Relaxation
Nitrate as NO₃ mg/I	BDL(D.L- 1.0)	2.14	4.65	5.23	4.32	5.62	5.51	45	No Relaxation
Fluoride as F mg/l	0.12	0.48	0.55	0.62	0.42	0.63	0.58	1	1.5

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All the values were found to be within permissible limits

Surface Water Analysis Results

Parameter	SW1	SW2	SW3	Surface water standard s (IS 2296 Class-A)
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity, NTU	<1.0	<1.0	<1.0	1
pH at 25 °C	7.52	7.94	7.85	6.5- 8.5
Electrical Conductivity, µS/cm	218.6	167.9	192.3	-
Total Dissolved Solids, mg/l	132	102	115	500
Total Suspended Solids, mg/l	22.0	12.0	10.0	-
Total hardness as CaCO₃ mg/l	47.2	35.2	42.5	300
Calcium as Ca, mg/l	10.56	10.36	9.8	-
Magnesium as Mg mg/l	4.99	2.23	4.3	-
Calcium as CaCO ₃ mg/l	26.4	25.9	24.5	-
Magnesium as CaCO ₃ mg/l	20.8	9.30	18.0	-
Total alkalinity as CaCO ₃ , mg/l	45.6	37.2	42.2	-
Chloride as Cl ⁻ mg/l	42.8	40.8	39.8	250
Free Residual chlorine as Cl ⁻ mg/l	BDL(DL-0.2)	BDL(DL-0.2)	BDL(DL- 0.2)	0.2
Sulphates as SO ₄ ^{2-,} mg/l	15.2	16.9	16.1	400

Iron as Fe, mg/l	0.15	0.12	0.1	0.3
Nitrate as NO ₃ , mg/l	BDL(D.L-1.0)	2.14	1.95	20
Fluoride as , mg/l	0.21	0.45	0.42	1.56
Manganese as Mn,			BDL(DL-	0.1
mg/l	BDL(DL-0.05)	BDL(DL-0.05)	0.05)	0.1
60D as 0, ms/l			BDL(DL-	
COD as O ₂ , mg/l	BDL(DL-4.0)	BDL(DL-4.0)	4.0)	-
BOD, 3 days @ 27°C,			BDL(DL-	2
mg/l	BDL(DL-2.0)	BDL(DL-2.0)	2.0)	2
DO	5.8	6.1	6.3	-

1.9 NOISE ENVIRONMENT

Noise levels were measured in 7 locations and the results are given below.

Monitoring Location	N1	N2	N3	N4	N5	N6	N7
DAY EQUIVALENT	52.1	50.0	49.1	47.9	45.1	49.4	50.8
NIGHT EQUIVALENT	39.6	38.3	41.9	41.1	37.5	43.3	39.2
DAY & NIGHT EQUIVALENT	50.5	48.4	47.8	46.5	43.7	48.2	49.2

Limits as per MoEF&CC

Day equivalent - 55 dB (A); Night equivalent - 45 dB (A);

Work zone Exposure in 8 hr - 90 dB (A)

1.10 SOIL ENVIRONMENT

Soil samples are collected from 7locations and the results are given below.

Parameter	Units	S1	S2	S3	S4	S5	S6	S7
PH		7.28	7.94	8.06	7.95	7.89	8.12	7.92
EC	µmho s/cm	186.8	290.8	220.4	273.5	190.2	295.6	265.7
DRY MATTER	%	96.79	96.52	97.21	86.54	97.25	93.67	92.58
WATER CONTENT	%	3.21	3.48	2.79	13.46	2.75	6.33	7.42
ORGANIC MATTER	%	0.76	0.95	0.82	1.32	0.77	0.95	1.03
SOIL TEXTURE		Silty Clay Ioam	Silty Clay	Silty Clay	Clay	Silty Clay	Silty Clay	Silty Clay
Grain Size Distribution								
SAND	%	15.56	10.42	8.55	17.05	13.22	10.79	7.89
SILT	%	45.41	44.33	42.75	38.97	42.76	45.66	41.32
CLAY	%	39.03	45.25	48.7	43.98	44.02	43.55	50.79

PHOSPHORUS	mg/k g	1.37	1.62	1.24	1.67	1.36	1.61	1.74
SODIUM	mg/k g	302	322	346	498	535	420	396
POTASSIUM	mg/k g	575	664	735	904	1030	634	652
NITROGEN & NITOGENOUS	mg/k g	264	405	146	205	254	312	175
		BDL(D.	BDL(D.	BDL(D	BDL(BDL(D	BDL(BDL(
		L -	L-	.L -	D.L -	.L -	D.L -	D.L -
SULPHUR	%	0.02)	0.02)	0.02)	0.02)	0.02)	0.02)	0.02)
Water Holding Capacity	%	41	38	40	41	42	40	42
Porosity	%	18.6	19.4	17.9	17.1	18.9	18.2	17.3

1.11 BIOLOGICAL ENVIRONMENT

FLORA

For measuring the extent of flora present in the study area, the area is divided in to 4 quadrants. The flora population in each quadrant is summed up for the total population in the study area. Field survey is done. Erukku, Aavarai and Nayuruvi are found in lease area. In the buffer zone, common trees like Neem, papaya, mango, teak, etc and shrubs like Avarai, Aloe vera, etc, climbers like Kovai,jasmine etc are found.

FAUNA

In the study area, commonly found animals like dogs, cats, bush rat, cows, birds like crow, Myna, Sparrow, etc were found.

1.12 LAND USE

The land use land cover data is found using the LANDSAT – 9 satellite imagery. The number of bands used are 11. The land use pattern is given below:

Major Land Use Units of the Study Area in Percentage

SI.No.	LAND USE / LAND COVER	Area in Sq.Km	Area in Percentage
1	Built-up land	6.4	2.01
2	Crop land	210.4	65.99
3	Fallow land	9.54	2.99
4	Hill & Forest	16.8	5.27
5	Land with scrub	28.19	8.84
6	Land without scrub	3.9	1.22
7	Plantations	1.09	0.34
8	Salt affected land	26.55	8.33
9	Water bodies	12.48	3.91
10	Existing Quarry	3.47	1.09
	Total Area	318.82	100.00

1.13 SOCIO ECONOMIC ENVIRONMENT

The socio economic environment of the study area is studied by conducting primary sites through site visits and conducting sample surveys. The secondary data obtained from Census 2011 is also used.

The following data area collected from secondary data.

- Demographic pattern.
- Health pattern
- Occupational structure.
- Amenities available.

The expert visited 4 villages in the study area namely Therani Village, Padalur, Ootathur and Pudhukkurichi Village. Discussions were held with the people from nearby locality to study the social and economic conditions prevailing in the area. The

expert also visited nearby hospitals, primary health centres and Tharuvai. The following observations were made.

The following observations were made.

Primary and higher secondary schools are available in many villages. For hospital facilities, people in the locality have to go to hospital within 5 km from the project site.

1.14 HYDROGEOLOGY OF THE LEASE AREA

There is no Water bodies (River, Pond, Lake, Odai, Channel etc) within a radius of 500m. The following water bodies are located in the buffer zone:

Therani Lake - 1.94 km (NE)

Tank - 0.87 km (NE)

Nanthai River -2.80 km (S)

Uppar R - 8.7 km (SW)

Stream - 7.55 km (W)

Lake - 7.22 km (NE)

Maniyankurichy Eri -7.56 km (W)

Stream - 7.22 km (NE)

The major aquifer systems in the district are constituted by Basal crystalline rocks consisting mainly of Charnockites, Granites and Gneisses of Archean age and Sedimentary formations range in age from Cretaceous to Recent.

Pre-monsoon water level: The Depth to Water Level during pre-monsoon (May- 2006) ranges from 1.10 to 8.55 m bgl. In major part of the district the depth to water level during pre-monsoon is in the range of >2-5 m bgl.

The quarrying activity will not intersect ground water table as quarrying is proposed upto a depth of 57 m (22 m AGL + 35 m BGL) and water table is found at a depth of 64 m BGL.

1.15 GROUND WATER STUDY

For Ground water study, satellite imagery is used. Water levels from monitoring levels are collected through imaging. The pre-monsoon and post-monsoon data are collected and the results are analyzed.

As far as the mining lease area is considered, the area is rocky and no major seepage is envisaged. The production quantity is very less and the depth proposed is 57 m (22 m AGL + 35 m BGL). Hence, there will not be any major impact due to mining on water levels or ground water levels in the area.

ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental impacts on the following environments are identified.

- Land environment
- Water environment
- Vegetation
- Fauna
- Air environment
- Noise environment
- Socio-economic impacts

1.16 LAND ENVIRONMENT: IMPACT AND MITIGATION MEASURES

The major impact due to this project on land environment is the change in land use. Since this quarry is a small one and the production is less, mining activity will be carried out upto 57 m (22 m AGL + 35 m BGL). Other than quarrying of minerals, no other change will be done since there is no dumping. To prevent soil erosion during monsoon season, garland drain will be constructed with silt traps. At the mine closure stage, 1.04.0 Ha of lease area will be left as rain water harvesting pond. 0.44.0 Ha will be developed with green belt. For this, plants like Pongamia pinnata, Syzigium cumini, Albizia lebbeck, Thespesia populnea, Bauhinia racemose, Cassia siamea, Azadirachta indiaca are selected. A total of 440 trees are planned to be planted. Spacing will be 3m x 3m.

1.17 WATER ENVIRONMENT: IMPACT AND MITIGATION MEASURES

There is no Water bodies (River, Pond, Lake, Odai, Channel etc) within a radius of 500m. The area is studded with few tanks that serve as the source for agriculture and also their surplus feeds adjoining tanks. The rainfall over the area is moderate, the rainwater storage in open wells, trenches is in practice over the area and the stored water acts as source of freshwater.

Since the mining operation will be limited upto depth of 57 m (22 m AGL + 35 m BGL), there will not be any seepage. However, the rain water percolation and collection of water from seepage shall be less than 300lpm and it shall be pumped out periodically by a stand by diesel powered Centrifugal pump motivated with 7.5H.P. Motor. The quality of water is expected to be potable. Hence, water stored in the quarry pit will be pumped into the adjacent agricultural fields. Further the water can also be used for plantation purposes

The major water bodies found in the buffer zone are.

Core Zone - NIL

Buffer Zone

- Therani Lake 1.94 km (NE)
- Tank 0.87 km (NE)
- Nanthai River -2.80 km (S)
- Uppar R 8.7 km (SW)
- Stream 7.55 km (W)
- Lake 7.22 km (NE)
- Maniyankurichy Eri -7.56 km (W)
- Stream 7.22 km (NE)

Since these water bodies are located outside the lease area and there is no discharge of effluent or any untreated water from the mines will be made in to these water bodies, there is no major impact. The proponent will restrict the mining operation only within the lease and no other work will be carried out near the water bodies or any area outside the lease.

It is planned to carryout appropriate rainwater harvesting schemes and artificial recharge schemes in the area.

- > Rain water falling in the quarry will be collected efficiently through garland drains.
- > Water thus collected will be passed through collection tank with silt traps. This water can be used by the proponent for water sprinkling and for green belt purposes.
- > Excess water after desiltation will be provided to downstream users, if any

1.18 BIOLOGICAL ENVIRONMENT: IMPACT AND MITIGATION MEASURES Impacts

- Fauna is affected due to noise and vibration.
- Dust generation due to mining activities
- Change in land use of the lease area
- · Accidental falling of animals

Mitigation measures

- Sirens will be blown before blasting in the mines. To reduce noise levels,
 plantation will be done. Blasting will be carried out only in the allotted time.
- To reduce dust generation, mist sprayers will be used. During transportation, the material will be covered with tarpaulin. Water sprinkling will be done to reduce generation of pollutants
- After the mine closure stage, the mine pit will be left as rain water collecting tank, which can attract bird population in the nearby areas.
- To prevent entry of animals, the mining area will be properly fenced.

1.19 AIR ENVIRONMENT: IMPACT AND MITIGATION MEASURES

The major air pollutants due to mining operations are fugitive emissions like PM_{10} , $PM_{2.5}$. Other than these pollutants, gaseous emissions of sulfur dioxide (SO₂) and oxides of nitrogen (NO_x) due to excavation/loading equipment and vehicles plying on haul roads are the cause of air pollution in the project area.

The major impacts are Dust emission due to drilling, blasting and transportation. The major mitigation measures include Using Wet drilling methods, Allowing drilling only with PPE, Carrying out blasting only during specified times, Avoiding blasting during unfavourable weather conditions, Using explosives of good quality, Using mist sprayers Regular wetting of transport, Covering the materials carried in tippers with tarpaulin, Proper maintenance of vehicles used for transportation, Conducting regular emission tests for vehicles used for transport Development of greenbelt is proposed in the safety zone of 10 m barriers in the lease area.

The anticipated data is calculated using AERMOD software and the projected values are found to be within limits.

1.20 NOISE ENVIRONMENT: IMPACT AND MITIGATION MEASURES

Impacts

- Noise generation in mining is due to operation like drilling, blasting and transportation of minerals within and outside the lease area.
- As per DGMS (Directorate General of Mines Safety) and OSHA (Occupational Safety and Health Administration) limits, the acceptable noise level is 90 dB(A) for an exposure period of 8 hours.
- **↓** Exposure to loud noise can also cause high blood pressure, heart disease, sleep disturbances, and stress. Noise pollution also impacts the health and wellbeing of wildlife.
- Noise exceeding prescribed limits may cause impairment like abnormal loudness perception, tinnitus, which causes a persistent high-pitched ringing in the ears, paracusis or distorted hearing

Mitigation measures

- ♣ As the distance between the source and receptor increases, the noise level also decreases. Hence, there will be a natural attenuation
- ♣ The proposed has planned to develop green belt in the periphery of the lease area, which diminishes sound volume by dampening them.
- ♣ All the equipment/machinery/trucks involved will be properly maintained to

control noise generation

- Conducting regular health checkups for employees involved
- ♣ Employees will be made to work on shifts to reduce their exposure time
- Providing earplugs to all employees

By adopting these measures, the noise levels will be maintained well within MoEF & CC limits since the baseline value is low.

VIBRATION: IMPACT AND MITIGATION MEASURES

Impacts

- ♣ Though vibration will be only felt by the people working inside the lease area, it is usually undesired.
- Vibration may also cause flyrocks
- ♣ It may frighten the birds and small insects in the lease area. However, it will be felt only for a short period

Mitigation measures

- ♣ Carrying out blasting on limited scale, only from 12:00 PM to 2:00 PM
- ♣ Control of fly rock and vibration by maintaining peak particle velocity with in standard as prescribed by the DGMS and MOEF & CC.
- ♣ Shallow depths jackhammer drilling and blasting is proposed to be carried out with minimum use of explosive
- ♣ Supervising blasting by competent and statutory foreman/ mines manager

1.21 SOCIO ECONOMIC ENVIRONMENT

Impact and Mitigation measures

No land is acquired from anyone. No rehabilitation is needed. Hence, there is no negative impact. The proponent has planned to spend INR 3,00,000 for CER activities. This amount will be subjected to change after public hearing.

1.22 OCCUPATIONAL HEALTH

Impacts

Dust generation due to drilling and blasting, Noise generation due to drilling and blasting, unexpected accidents. Continuous exposure to dust causes Pneumonia, Tuberculosis, Rhematic arthritis and Segmental Vibration, Short term impact will be lack of sleep, high blood pressure and heart ailments. Long term exposure may lead to partial or permanent deafness, Risks include fly rocks, cracks or fissures due to improper mining methods

Mitigation measures

- Using dust suppression measures like water spraying on roads to reduce rise of air pollutants
- Providing green belt for air pollutant and noise attenuation
- Ensuring slope stability
- Employing only trained professionals for blasting
- Conducting Pre-Medical Examination for employees before inducting
- Conducting periodical Medical Examination once in 6 months.
- Making all first aid kits available in mines office
- Keeping fire extinguisher in place
- Educating the employees about how to handle unexpected happenings
- Posting information containing emergency contact numbers in mines office
- By adopting all these measures, the safety of the employees working in the quarry will be ensured.

1.23 ENVIRONMENTAL MONITORING PROGRAMME

Monitoring is done to measure the efficiency of control measures implemented. Regular monitoring of various environmental parameters like air, water, noise and soil environments is needed to assess the status of environment during the project operation. A schedule is framed with timeline to monitor various parameters during the operation of the project. To evaluate the effectiveness of environmental management programme, regular monitoring of the important environmental parameters will be taken up. Air monitoring will be carried out once in 3 months, water sample will be collected once in a season, noise will be monitored once in 3 months, soil samples will be analyzed once per season. For EMP, a budget of INR 18.42 (5 years) Lakhs is allocated.

1.24 PROJECT BENEFITS

Financial benefits

- This project will contribute financially through payment of taxes like royalty, GST, etc.,
- The project will also contribute via CSR.
- > The demands of people during public hearing will also be considered by the project proponent

Social benefits

- > This project provides employment to 30 people directly. Local people will be hired for unskilled labour.
- > Through CSR, nearby schools, hospitals will be benefitted.
- > For CSR, INR 3,00,000 is allocated.
- Based on the demand of the people during public hearing, further funds will be allocated, if necessary.
- > Various aspects of mining activities were considered and related impacts were evaluated. Considering all the possible ways to mitigate the environmental

concerns Environmental Management Plan was prepared and 18.42 lakhs for the five years has been allocated as EMP cost. The EMP is dynamic, flexible and subjected to periodic review. For project where the major environmental impacts are associated, EMP will be under regular review. Thus, the proper steps will be taken to accomplish all the goals mentioned in the EMP and the project will bring the positive impact in the study area.

ANNEXURE-1

Rc.No.134/G&M/2025, Dated:05.05.2025

Department of Geology & Miniatory Collectorate,
Perambalur - 621212.

PRECISE AREA COMMUNICATION LETTER

Sub:

Mines and Minerals - Perambalur District - Rough Stone - e-Tender cum auction conducted on 27.03.2025 under Tender ID: 2025_CGAM_525779_1 - M/s. Shrivari Blue Metal (BID ID:1275811) quoted highest Bid amount (H1) For the quarry listed in Serial Number 34 - Declared as H1 bidder - H1 Bid Amount remitted - Precise Area Communicated -Note submitted - Reg.

Ref:

- G.O.(Ms).No.21, Natural Resources (MMC.1) Department, Dated 31.07.2024
- Perambalur District Gazette (Extraordinary) Notification No.1. dated: 18.02,2025.
- 3. E-Tender published under Tender ID:2025_CGAM_525779_1 in Tamil Nadu Governmente-tender portal.
- 4. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.134/G&M/2025, dated:28.03.2025 (to remit 10% of highest bid amount)
- 5. Remittance challan No.20250328019273 dated: 29.03.2025 submitted by M/s. Shrivari Blue Metal (BID ID:1275811)
- 6. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.134/G&M/2025, dated 01.04.2025 (to remit remaining 90% of the bid amount)
- 7. Remittance challan No.20250423010305 dated:23.04.2025 submitted by M/s. Shrivari Blue Metal (BID ID:1275811)

I invite your attention to the references cited above

Notice Inviting Tender (NIT) was published vide Perambalur District Gazette Extraordinary Notification No.1, dated 18.02.2025, inviting applications for grant of rough stone quarry leases in Government poramboke lands in Perambalur District through e-Tender cum Auction. Online tender was published in Tamil Nadu Government e-tender portal (https://tntenders.gov.in/) under Tender ID: 2025_CGAM_525779_1 and e-Auction was conducted on 27.03.2025 for the bidders whos' bids were qualified technically and financially.

After Financial Evaluation, M/s. Shrivari Blue Metal (BID ID:1275811) was declared as H1 bidder for the quarry listed in Serial Number 34 of the Gazette as the firm quoted highest bid amount of Rs.4,10,00,000/- for the said quarry. The H1 bidder was directed to remit 10% of the Highest bid amount vide notice in the reference 4th cited and accordingly, the H1 bidder remitted 10% of the bid amount to a sum of Rs. 41,00,000/- and submitted remittance challan No.20250328019273 dated:29.03.2025 to this office.

Subsequently, M/s. Shrivari Blue Metal (BID ID:1275811) was directed the remaining 90% of Highest bid amount after adjusting the Bid Security already by them within one month to Government head of account and to submit original remittance challan to this office. Accordingly, M/s. Shrivari Blue Metal (BID ID:1275811) has remitted Rs.3,55,40,700/- after deducting Rs.13,59,300/- (the Bid Security amount already paid by the bidder) in Government account within one month and submitted remittance challans to this office.

The details of H1 Bidder for the quarry listed in Serial No.34 of the District Gazette, H1 Bid Amount offered and remittance of Bid amount by bidder are as follows.

l. Quarry Detail	
Serial No. in District (No.01, dated 18.02.2025.	Gazette 34
Taluk	Alathur
Village	Padalur(E)
S.F.No.	123 Block 2
Extent	1.50.0 Hectares
Lease Period	5 Years
2. H1 Bidder, Bid Amount Re	mittance
H1 Bidder	M/s. Shrivari Blue Metal (BID ID:1275811) No.C-21, 4th Cross, North East Extension, Thillai Nagar, Trichy- 620 018.
H1 Bid Amount	Rs.4,10,00,000/-
10% of H1 bid amount remit	ted Rs. 41,00,000/- (Challan No. 20250328019273 dated:29.03.2025)
Bid Security (EMD) remitted	Rs. 13,59,300/-
90% of bid amount paid	l after Rs.3,55,40,700/-
adjusting Bid Security alread	ly paid (Challan No. 20250425045540 dated:25.04.2025)

The H1 Bidder, M/s. Shrivari Blue Metal (BID ID:1275811) has remitted entire H1 Bid Amount of Rs.4,10,00,000/- in Government account within one month as per sub-rule 16 of Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959.

Therefore, in exercise of the powers conferred under sub rule 17(a) of Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959, an extent of 1.50.0 hectares of Government land in S.F.No.123 Block 2 of Padalur(E) Village, Alathur Taluk, Perambalur District as notified in Serial Number.34 of the Perambalur District Gazette (Extraordinary) Notification No.1, dated: 18.02.2025 is hereby fixed as Precise Area for grant of permission to quarry Roughstone for a period of 5 years to M/s. Shrivari Blue Metal (BID ID:1275811), subject to the following conditions.

1. 10 meters safety distance should be left out for the adjacent Government lands.

2. The applicant shall not make any hindrance to the adjacent lands public.

 The applicant should submit approved Mining Plan, Environment Clearance and Consent to Establish (CTE) & Consent to Operate (CTO) issued by competent authorities for grant of quarrying lease in the subject area.

The applicant M/s. Shrivari Blue Metal (BID ID:1275811) is directed to submit draft Mining Plan for the above area within 90 days for the approval of the Assistant Director, Geology and Mining, Perambalur and to submit Environment Clearance obtained from SEIAA, Tamil Nadu and CTE & CTO issued by the Tamil Nadu Pollution Control Board subsequently for further process.

Encl: Map showing the proposal lease area.

To
M/s. Shrivari Blue Metal (BID ID:1275811)
No.C-21, 4th Cross, North East Extension,
Thillai Nagar,
Trichy- 620 018.

Copy to:

1. The Chairman, SEIAA Level Environment Impact Assessment Authority, Panagal Maligai, Saidapet, Chennai.

2. The Commissioner of Geology and Mining, Chennai-32.

Assistant Director Geology and Mining, Perambalur. PERAMBALU



From

Thiru D.Bernard, M.Sc., Assistant Director, Geology and Mining, Perambalur. To

M/s.Shrivari Blue Metal., No.C-21, 4th Cross, North East Extension, Thillai Nagar, Trichy-620 018

Rc.No.134/G&M/2025, Dated: 15.05.2025

Sir,

Sub:

Mines and Minerals - Perambalur District - Rough Stone - e-Tender cum auction conducted for Roughstone quarries in Government lands - M/s. Shrivari Blue Metal quoted highest Bid amount (H1) for the quarry in S.F.No. 123, Block -2, OAE of 1.50.0 hectares in Padalur (E) Village, Alathur Taluk -Declared as H1 bidder - H1 Bid Amount remitted - Precise Area Communicated - Draft Mining Plan submitted for approval - Approved.

Ref:

- 1. G.O.(Ms). No.21, Natural Resources (MMC.1) Department, Dated 31.07.2024.
- 2 Perambalur District Gazette (Extraordinary) Notification No.1, dated: 18.02.2025.
- 3. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.134/G&M/2025, dated: 28.03.2025 & 01.04.2025
- 4. The Assistant Director, Geology and Mining, Perambalur Precise Area Communication letter Rc.No. 134/G&M/2025, dated 05.05.2025.
- 5. M/s. Shrivari Blue Metal, letter dated. 15.05.2025.

Tender cum Auction for grant of Roughstone quarries in Government lands notified in Perambalur District Gazette Extraordinary Notification No.1,dated. 18.02.2025 was conducted through online as per Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959.

M/s. Shrivari Blue Metal was declared as Highest Bidder for the quarry in S.F.No. 123, Block -2, OAE of 1.50.0 hectares in Padalur (E) Village, Alathur Taluk, Perambalur District and the lease period proposed for the subject quarry is 5 (five) years. The Highest Bidder, M/s. Shrivari Blue Metal remitted entire highest bid amount and other statutory documents in time in accordance with rules and in the reference, 4th cited, precise area was communicated to the firm with a request to submit Mining Plan for the approval of the Assistant Director, Geology and Mining, Perambalur District and Environmental Clearance obtained from SEIAA for further process.

Accordingly, in the reference 5th cited, the successful bidder has submitted.3 copies of Draft Mining Plan prepared by Qualified Person for the above area. The draft Mining Plan submitted by M/s. Shrivari Blue Metal, has been scrutinized as per extant rules and guide lines / instructions issued by the Commissioner of Geology and Mining, Chennai in the letter Rc.No.3868/LC/2012 dated. 19.11.2012. The following observations were made in scrutiny.

- a. 10-meter safety distance is earmarked for the adjoining Government lands.
- b. The Geological reserve of Roughstone in the subject area has been assessed as 20,45,505 metric tonnes.
- c. The mineable reserve has been computed as 8,31,792 metric tonnes of Roughstone up to a depth of 57m below from the existing profile.
- d. The lease period of the subject Roughstone quarry is 5 (five) years and it has been proposed for the production of 8,31,792 metric tonnes of Roughstone up to a depth of 57m in the mining plan in five years.
- e. The depth of water table in the subject area is reported as 67m BGL and workable depth has been proposed to 57m from the existing profile in the mining plan. Hence, the quarrying operation will not affect the water table in the area.
- f. Drilling and blasting using jack hammers and shot hole blasting are proposed. Small dia, 25mm slurry explosives are proposed to be used for shattering and heaving effect for removal and winning of Roughstone. No deep hole drilling or primary blasting is proposed.
- g. It has been proposed to adopt controlled blasting measures for minimizing ground vibration and fly rocks.
- h. Machineries like Tractor mounted compressor attached with Jack hammers, excavators with rock breaker attachment are proposed for quarrying operation. Trucks of 30 MT capacity are proposed for transportation.
- 4) The Mining Plan is prepared in accordance with the guidelines / instructions issued and tallies with the field conditions. The special conditions imposed in the precise area communication letter have been incorporated in the Mining Plan. Therefore, the draft mining plan is hereby approved subject to the following conditions.
 - i. That the Mining Plan is approved without prejudice to any other laws applicable to the quarry area from time to ti0me whether made by the Central Government, State Government or any other authority.
 - ii. That the approval of the Mining Plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines and Minerals (Regulations and Development) Amendment Act 2015 or Mineral (other than Atomic and Hydrocarbon Energy Minerals) concession Rules 2016, or Tamil

Nadu Minor Mineral Concession Rules, 1959 or any other laws including Forest (Conservation) Act 1980, Forest Conservation Rule, 1981, Environment Protection Act, 1980 and the rules made there under.

- iii. That the Mining plan is approved without prejudice to any other order or directions from any court of competent jurisdiction.
- iv. That the approval of Mining Plan does not confer any rights for the renewal of quarry lease.
- v. The approval is valid up to the subsistence of the lease period only.

Encl: 2 copies of approved Mining Plan.

Assistant Director, Geology and Mining, Perambalur.

Copy to:

- 1. The Chairman, SEIAA Level Environment Impact Assessment Authority, PanagalMaligai, Saidapet, Chennai.
- 2. The Commissioner of Geology and Mining, Chennai-32.



From
Thiru D.Bernard, M.Sc.,
Assistant Director,
Dept of Geology and Mining,
Perambalur.

To M/s.Shrivari Blue Metal., No.C-21, 4th Cross, North East Extension, Thillai Nagar, Trichy-620 018

Rc.No.134/G&M/2025

Dated:15.05.2025

Sir.

Sub: Mines and Minerals - Perambalur District - Rough Stone - e-Tender cum auction conducted for Roughstone quarries in Government lands - M/s. Shrivari Blue Metal quoted highest Bid amount (H1) for the quarry in S.F.No. 123, Block -2, OAE of 1.50.0 hectares in Padalur (E) Village, Alathur Taluk -Declared as H1 bidder- Precise Area Communicated - Draft Mining Plan submitted for approval - Approved -Details of quarries situated within 500 mts radial distance requested - Furnished - Reg.

Ref:

- 1. G.O.(Ms). No.21, Natural Resources (MMC.1) Department, Dated
- 2. Perambalur District Gazette (Extraordinary) Notification No.1, dated: 18.02.2025.
- 3. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.134/G&M/2025, dated: 28.03.2025 &
- 4. The Assistant Director, Geology and Mining, Perambalur Precise Area Communication letter Rc.No.134/G&M/2025, dated 05.05.2025.
- 5. M/s. Shrivari Blue Metal, letter dated. 15.05.2025.

As requested by M/s. Shrivari Blue Metal in the reference 5^{th} cited, the details of quarries situated within a distance of 500 mts from the boundary of the proposed quarry lease area referred to the subject are furnished below.

1) Existing quarries:

S1. No	Name of the Owner	Taluk / Village	S.F.No	Extent	Proc. No.	Lease Period
1	Thiru.S.Pitchai, S/o.Thiru. Subbaiya, No.3/173, West Street, Koothanur Village, 85, Seedevimangalam,	Alathur /Therani	122/1 (Block-5A	1.00.0	R.C.No.150/ G&M/2019 dated: 10.12.2020	18.12.2020 to 17.12.2025
2	Thiru.K.Kannan, S/o.Thiru.Krishnamoorth y, No.189, Reddiyar Street, Vazhiyur Post, Mannachanallur Taluk, Trichy District -621104	Therani, Alathur	122/1 (Block-8)	1.00.0	Rc.No.151/G &M/2019 dated 23.10.2020	30.06.2021 to 29.06.2026
3	Tmt.P.Dhanalakshmi, W/o. G.R.perumal pillai, 1/24, sivan kovil street, (kaliyamman kovil street), Therani (po), Alathur (Tk), Perambalur.	Alathur /Padalur (E)	125/3A, 124/3B	1.00.0	Rc.No.88/ G&M/ 2019 dated 29.04.2022	29.04.2022 to 28.04.2027

4	Thiru.D.Manjunath, S/o.Devendiran, No.25, I.A.S. Nagar, Thiruverumbur, Trichy District 620 013	Alathur/ Therani,	122/1 (Block-5)	1.00.0	Rc.No.149/ G&M/2019 dated 17.08.2022	17.08.2022 to 16.08.2027
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2)Proposed quarries:

S1. No	Name of the Owner	Taluk / Village	S.F.Nos.	Extent	Lease Period	Remarks
1	M/s.Shrivari Blue Metal., No.C-21, 4 th Cross, North East Extension, Thillai Nagar, Trichy-620 018	Alathur / Padalur (East)	123, (Block 2),	1.50.0		Presently proposed
2	M/s.Manjunathan Industries, No. 48/5B2, Sri Shwetha Complex, Thanjavur Main Road, Thiruverumbur, Trichy - 620013.	Alathur / Padalur (East)	123, (Block 4),	2.00.0		Presently proposed
3	M/s. Surya Stones No.63C3, Ace Outspring, Subha Elite Tower, Jayankondam, Ariyalur – 621 802.	Λlathur / Padalur (East)	123, (Block 1),	1.50.0		Presently proposed
4_	Thiru.D.Balaji, S/o.S.Devendiran, No. 25, I A S Nagar, Thiruverumbur Taluk, Tiruchirapalli District-620 013.	Alathur / Padalur (East)	124/1A, 124/1B, 124/3A, 124/3C, 124/4A & 4B	2.75.0		Presently proposed

3) Expired quarries

S1. No	Name of the Owner	Taluk / Village	S.F.Nos.	Extent	Lease Period
1			Nil		

4) Abandoned quarries:

S1. No	Name of the Owner	Taluk /Village	S.F.Nos.	Extent	Lease period
1	T.S.Chandramohan, S/o. Subramaniyan, 11, Raja Colony, Collector's Road, Tiruchirappalli.	Alathur / Padalur (E),	123 Part Block 2 ,	1.00.0	29.03.2006 to 28.03.2016

2	N.Mahamurthy, S/o.Narayanasamy, Door No.1/166, Middle Street, Kanakiliya Nallur Post, Lalgudi Taluk, Trichy.	Padalur(East), Alathur	125/1,125/2A,1 25/2B, 126/2,129/1B, 129/5A2,129/5 B1	2.95.5	28.11.2018 to 27.11.2023
3	Thiru.P.S.Jayaraman S/o.Sivasamy, No.32, periyar nagar, 1st street, Ariyalur District.	Padalur(East), Alathur	122/1,122/2B	2.10.5	28.11.2018 to 27.11.2023

Assistant Director, Geology and Mining, Perambalur.

15/5/24