

EXECUTIVE SUMMARY FOR PROPOSED ROUGH STONE AND GRAVEL QUARRY CATEGORY – B1

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

ToR Identification No. TO25B0108TN5329247N (F.No. 12576), dated 25.09.2025

PROPOSED QUARRY LEASE DETAILS	
SURVEY NOS	394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P) and 698(P)
VILLAGE	MELKARAIPATTI
TALUK	PALANI
DISTRICT	DINDIGUL
EXTENT	14.40.00 Ha
CLUSTER EXTENT	24.79.50 Ha
PROPOSED PRODUCTION OF ROUGH STONE AND GRAVEL- FIVE YEARS	ROUGH STONE : 57,26,860 m ³ GRAVEL : 2,15,410 m ³
PEAK PRODUCTION	ROUGH STONE : 11,63,350 m ³ GRAVEL : 1,15,488 m ³
LAND	PATTA LAND

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

Category of the Project: B1 Cluster Mining, Total Cluster Area – 24.79.50 ha
Baseline Monitoring Period – March 2025 to May 2025

APPLICANT

**M/S.SHRI RAJRUDHRA MINERALS PRIVATE LIMITED,
NO.99/2B1B, 1ST FLOOR, VELLORE MAIN ROAD,
ARCOT TALUK, RAIPET DISTRICT.**

ENVIRONMENTAL CONSULTANT	LABORATORY
M/s. GLOBAL MINING SOLUTIONS <i>(NABET Accredited & ISO 9001 Certified Consultant)</i> Plot No. 6, S.F.No. 13/2, A2, VS City, RC Chettypatty, Kottamettupatty, Omalur, Salem, Tamil Nadu – 636 455. NABET Accreditation No: NABET/EIA/23-26/SA 0241, Valid Until - January 4, 2026 Contact: 97502 23535 & 94446 54520 Email: infoglobalmining@gmail.com, globalminingsolutionsaleam@gmail.com	M/s. SHRIENT ANALYTICAL & RESEARCH LABS PRIVATE LIMITED <i>(NABL Accredited Testing Laboratory)</i> Valid Until -30.11.2025 #416/15, Dhargas Road, Perungalathur, West Tambaram, Chennai, Tamil Nadu, India.



NOVEMBER- 2025



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 and Gravel Quarry located at survey nos. S.F. No. 394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P) and 698(P) of Melkaraipatti Village, Palani Taluk, Dindigul District, Tamil Nadu State., for production capacity of 57,26,860 m³ of Rough Stone and 2,15,410 m³ of Gravel for the period of first 5 years with ultimate depth up to 82 m BGL. The mining plan has prepared and same was approved by Assistant Director, Department of Geology and Mining, Dindigul , vide Rc.No.587 / 2025 / Mines, Dated 07.08.2025.

As per EIA notification, 2006 and its subsequent amendments the proposed "Rough Stone and Gravel Quarry of M/s. Shri Rajrudhra Minerals Private Limited, mines cluster falls under Schedule 1(a) of EIA Notification and its subsequent amendments the project comes under Category B1. The ToR for preparation of EIA/EMP report of the project was approved vide ToR Identification No. TO25B0108TN5329247N (F.No. 12576), dated 25.09.2025. This report has been prepared in line with the approved TOR for production of maximum excavation of 57,26,860 m³ of Rough Stone and 2,15,410 m³ Gravel for the period of 5 years with ultimate depth up to 82m BGL.

PROPOSED ROUGH STONE & GRAVEL QUARRY OF M/S.SHRI RAJRUDHRA MINERALS PRIVATE LIMITED, OVER AN EXTENT OF 14.40.00 HA LOCATED AT THE S.F.NO. 394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P) AND 698(P) OF MELKARAIPATTI VILLAGE, PALANI TALUK, DINDIGUL DISTRICT, TAMIL NADU STATE

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	Already operated by other lessee
5.	Extent of the lease	14.40.00 Ha
6.	Proposed depth of Mining	82 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 years	57,26,860 m ³ of Rough Stone and 2,15,410m ³ Gravel for the period of 5 years with ultimate depth up to 82m BGL.

The lessee, M/s. Shri Rajrudhra Minerals Private Limited, is a company experienced in the identification, quarrying, and marketing of Rough Stone and Gravel. The proposed land is patta land.

1.2 LOCATION

The proposed Quarry lease area is situated at S. F. Nos. 394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P) And 698(P) of Melkaraipatti Village, Palani Taluk, Dindigul District, Tamil Nadu State. The area lies in the north Latitude: 10°36'38.18"N to 10°36'54.46"N and Longitude: 77°27'37.45"E to 77°27'59.56"E. with Survey of India Topo Sheet No. 58-F/06. 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).

1.3GEOLOGY

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 N40°W –S40°E with vertical dipping.

1.4 PROJECT DESCRIPTION

This is a proposed Rough Stone and Gravel quarry by Opencast Mechanized mining method with drilling and blasting. The quarrying is restricted up to a depth of 82 m below ground level. The geological reserves are estimated to be 1,11,59,390 m³ of Rough Stone & 2,38,210 m³ of Gravel. The mineable reserve calculated by deducting 7.5 m safety distance and bench loss. The mineable reserves are 57,26,860 m³ of Rough Stone & 2,15,410 m³ Gravel which will be recovered at the rate of 100% recovery upto a depth of 82 m Below ground level for the period of five years.

It is proposed to quarry out rough stone with 5m bench height, 5m width with overall slope is 82° 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	Already operated by some other lessee
3	Category	B1
4	Nature of mineral	Minor mineral
5	Production	57,26,860 m ³ of Rough Stone & 2,15,410 m ³ Gravel
6	Life	5 years
7	Waste generation and management	There is no overburden anticipated during the quarrying operation. Hence, no waste generation.
8	Bench height and width	Height and Width – 5m
9	Ultimate pit depth	82 m (BGL)
10	End use	Rough Stone will be loaded into tippers to needy buyers for producing aggregates, M-sand.

PROPOSED ROUGH STONE & GRAVEL QUARRY OF M/S.SHRI RAJRUDHRA MINERALS PRIVATE LIMITED, OVER AN EXTENT OF 14.40.00 HA LOCATED AT THE S.F.NO. 394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P) AND 698(P) OF MELKARAIPATTI VILLAGE, PALANI TALUK, DINDIGUL DISTRICT, TAMIL NADU STATE

1.5 PROJECT REQUIREMENTS

The requirements of the project are given below.

S.No.	Nature of requirement	Description
1	Water requirement	Total water requirement of 9.0 KLD which will be procured from the outside agencies. Out of 3.0 KLD drinking water requirements, Green belt development is 3.0 KLD and dust suppression is 3.0 KLD.
2	Power requirement	No electricity is needed for mining operations, for office demands, it will be met from the state grid. Total Fuel requirement is 4617.39 L (Entire Project Life) for entire life of the project.
3	Manpower requirement	66 Nos
4	Financial requirement	Rs. 337.75 Lakhs (Including operational + Fixed Asset + EMP cost + CER cost).
5	Funds for Socio economic development	INR 8.0 Lakhs is allocated. In addition, any demand raised by people during public hearing will also be met.

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 10 km radius
2	Areas which are important or sensitive for ecological reasons	

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A	Wetlands, water courses or other water bodies,	Water bodies	Distance	Direction
		Odai	80m	E
		Tank	700m	NE
		Tank	949 m	NW
		Tank	1.5 km	SE
		Tank	1.6 km	SE
		Amaravathi River	2.3 km	NW
		Shanmukha River	3.4 km	SE
B	Coastal zone, biospheres,	Nil within 10km radius		
C	Mountains, forests	Dalavaipattinam R.F. – 6.8km(N)		
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil within 10km radius		
4	Inland, coastal, marine or underground waters	Nil within 10 km radius		
5	State, National boundaries	Nil within 10 km 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 10 km radius		
8	Densely populated or built-up area	Palani – 17.00 km - SE		
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Palani – 17.00 km - SE		
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		

PROPOSED ROUGH STONE & GRAVEL QUARRY OF M/S.SHRI RAJRUDHRA MINERALS PRIVATE LIMITED, OVER AN EXTENT OF 14.40.00 HA LOCATED AT THE S.F.NO. 394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P) AND 698(P) OF MELKARAIPATTI VILLAGE, PALANI TALUK, DINDIGUL DISTRICT, TAMIL NADU STATE

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

Table 11.2 : Details Of Ambient Air Quality Monitoring Locations				
S. No.	Station Code	Locations	Distance & Direction	Coordinates
1	AAQ 1	Project site	Core Zone	10°36'55.79"N & 77°28'11.26"E
2	AAQ 2	Panampatty	1.90 km (SW)	10°35'38.89"N & 77°27'19.75"E
3	AAQ 3	Kottathurai	1.21 km (NE)	10°37'11.27"N & 77°28'26.86"E
4	AAQ 4	Melkaraipatty	1.74 km (SE)	10°35'52.90"N & 77°28'24.56"E
5	AAQ 5	Keeranur	3.98 km (SE)	10°35'49.56"N & 77°29'53.13"E
6	AAQ6	Rajampatti	1.52 km (W)	10°37'10.21"N & 77°26'52.67"E
7	AAQ7	Bommanallur	6.18 km (E)	10°36'43.79"N & 77°31'22.60"E

PROPOSED ROUGH STONE & GRAVEL QUARRY OF M/S.SHRI RAJRUDHRA MINERALS PRIVATE LIMITED, OVER AN EXTENT OF 14.40.00 HA LOCATED AT THE S.F.NO. 394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P) AND 698(P) OF MELKARAIPATTI VILLAGE, PALANI TALUK, DINDIGUL DISTRICT, TAMIL NADU STATE

Station ID	Min	Max	Avg.
Particulate matter PM_{2.5} (µg/m³)			
AAQ-1	25.5	37.10	31.97
AAQ-2	24.8	32.6	27.9
AAQ-3	22.4	27.6	24.4
AAQ-4	19.7	29.2	24.1
AAQ-5	23.3	31.4	26.8
AAQ-6	24.3	29.5	26.3
AAQ-7	20.5	25.7	22.5
CPCB NAAQS 2009 for PM_{2.5} - 60 µg/m³			
Particulate matter PM₁₀ (µg/m³)			
AAQ-1	55.6	80.4	69.36
AAQ-2	52.8	69.4	59.4
AAQ-3	48.6	59.9	53.1
AAQ-4	42.8	59.4	51.8
AAQ-5	50.8	68.4	58.3
AAQ-6	52.8	64.1	57.3
AAQ-7	44.4	55.7	48.9
CPCB NAAQS 2009 for PM₁₀ - 100 µg/m³			
Sulphur Di-oxide as SO₂ (µg/m³)			
AAQ-1	6.7	9.6	7.79
AAQ-2	4.9	7.2	6.0
AAQ-3	4.6	6.6	5.7
AAQ-4	4.4	6.7	5.5
AAQ-5	5.7	7.7	6.7
AAQ-6	5.5	7.5	6.6
AAQ-7	4.8	6.8	5.9
CPCB NAAQS 2009 for SO₂ - 80 µg/m³			
Oxide of Nitrogen as NO₂ (µg/m³)			
AAQ-1	10.8	15.5	12.84
AAQ-2	7.1	10.2	8.8
AAQ-3	6.7	9.9	8.3
AAQ-4	6.0	8.3	7.2
AAQ-5	9.4	11.4	10.5
AAQ-6	9.7	12.9	11.3
AAQ-7	7.7	10.9	9.3
CPCB NAAQS 2009 for NO₂ - 80 µg/m³			

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

PROPOSED ROUGH STONE & GRAVEL QUARRY OF M/S.SHRI RAJRUDHRA MINERALS PRIVATE LIMITED, OVER AN EXTENT OF 14.40.00 HA LOCATED AT THE S.F.NO. 394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P) AND 698(P) OF MELKARAIPATTI VILLAGE, PALANI TALUK, DINDIGUL DISTRICT, TAMIL NADU STATE

1.8 WATER ENVIRONMENT

Surface Water Analysis Results					
Sr.No	Parameter	Unit	SW1	SW2	Surface water standard s (IS 2296 Class-A)
1	Odour	-	Agreeable	Agreeable	-
2	Turbidity	NTU	<1.0	<1.0	1
3	pH at 25 °C	-	7.90	7.82	6.5-8.5
4	Electrical Conductivity	µs/cm	228	194	-
5	Total Dissolved Solids	mg/l	138	116	500
6	Total hardness as CaCO ₃	mg/l	80.2	75	-
7	Calcium as Ca	mg/l	16.1	15.4	300
8	Magnesium as Mg	mg/l	9.6	8.8	-
9	Calcium as CaCO ₃	mg/l	40.3	38.4	-
10	Magnesium as CaCO ₃	mg/l	39.9	36.8	-
11	Total alkalinity as CaCO ₃	mg/l	42.8	36.7	-
12	Chloride as Cl ⁻	mg/l	30.6	35.2	250
13	Free Residual chlorine as Cl ⁻	mg/l	BDL (D.L - 0.2)	BDL (D.L - 0.2)	-
14	Sulphates as SO ₄ ²⁻	mg/l	14.9	15.2	400
15	Iron as Fe	mg/l	BDL(D.L - 0.01)	BDL(D.L - 0.01)	0.3
16	Nitrate as NO ₃	mg/l	BDL(D.L-1.0)	1.65	20
17	Fluoride as F	mg/l	0.26	0.21	1.5
18	Manganese as Mn	mg/l	BDL (D.L - 0.05)	BDL(D.L-0.05)	0.5
19	COD	mg/l	BDL (D.L - 4.0)	BDL (D.L - 4.0)	-
20	BOD	mg/l	BDL (D.L - 2.0)	BDL (D.L - 2.0)	-
21	TSS	mg/l	BDL(D.L-2.0)	BDL(D.L-2.0)	-
22	DO	Mg/l	6.3	6.2	6.0

All the values were found to be within permissible limits

PROPOSED ROUGH STONE & GRAVEL QUARRY OF M/S.SHRI RAJRUDHRA MINERALS PRIVATE LIMITED, OVER AN EXTENT OF 14.40.00 HA LOCATED AT THE S.F.NO. 394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P) AND 698(P) OF MELKARAIPATTI VILLAGE, PALANI TALUK, DINDIGUL DISTRICT, TAMIL NADU STATE

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	7.66	7.51	6.94	6.5- 8.5
Electrical Conductivity, μ S/cm	262	276	158.2	-
Total Dissolved Solids, mg/l	162	170	95	500
Total Suspended Solids, mg/l	BDL(DL-2.0)	BDL(DL-2.0)	BDL(DL-2.0)	-
Total hardness as CaCO ₃ mg/l	73.3	77.2	39.6	300
Calcium as Ca, mg/l	15.0	16.6	4.75	-
Magnesium as Mg mg/l	8.55	8.55	6.65	-
Calcium as CaCO ₃ mg/l	37.6	41.6	11.9	-
Magnesium as CaCO ₃ mg/l	35.6	35.6	27.7	-
Total alkalinity as CaCO ₃ , mg/l	70.7	74.7	32.3	-
Chloride as Cl ⁻ mg/l	59.7	57.7	29.4	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	32.5	38.9	10.9	400
Iron as Fe, mg/l	0.06	0.06	0.03	0.3
Nitrate as NO ₃ , mg/l	3.24	3.58	2.35	20
Fluoride as , mg/l	0.55	0.58	0.44	1.56
Manganese as Mn, mg/l	BDL(DL-0.05)	BDL(DL-0.05)	BDL(DL-0.05)	0.1
COD as O ₂ , mg/l	BDL(DL-4.0)	BDL(DL-4.0)	BDL(DL-4.0)	-
BOD, 3 days @ 27°C, mg/l	BDL(DL-2.0)	BDL(DL-2.0)	BDL(DL-2.0)	2

All the values were found to be within permissible limits

PROPOSED ROUGH STONE & GRAVEL QUARRY OF M/S.SHRI RAJRUDHRA MINERALS PRIVATE LIMITED, OVER AN EXTENT OF 14.40.00 HA LOCATED AT THE S.F.NO. 394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P) AND 698(P) OF MELKARAIPATTI VILLAGE, PALANI TALUK, DINDIGUL DISTRICT, TAMIL NADU STATE

1.9 NOISE ENVIRONMENT

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

Noise monitoring results					
S. No	Location	Day equivalent	Night equivalent	Day equivalent limits by CPCB	Night equivalent limits by CPCB
1	Project site	50.1	40.4	75	70
2	Panampatty	45.7	39.8	55	45
3	Kottathurai	43.6	40.5		
4	Melkaraipatty	46.5	41.0		
5	Keeranur	51.3	42.2		
6	Rajampatti	47.7	42.5		
7	Bommanallur	50.0	42.0		

1.10 SOIL ENVIRONMENT

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

S.No	Parameter	Unit	S1	S2	S3	S4	S5	S6	S7
1	pH at 25 °C	-	7.85	6.52	6.97	7.05	7.12	6.78	6.99
2	Electrical Conductivity	µmhos/cm	105	75.62	152	90.47	165	89.74	95.47
3	Dry matter content	%	91.24	94.65	94.72	95.74	94.21	95.66	94.23
4	Water Content	%	8.76	5.35	5.28	4.26	5.79	4.34	5.77
5	Organic Matter	%	0.62	1.33	1.21	0.94	1.24	1.05	1.33
6	Soil texture	-	SILT LOAM	silty clay	silty clay loam	silt loam	silty clay loam	silt loam	loam
7	Grain Size Distribution	%	26.54	8.92	13.55	24.74	13.69	29.21	34.52
	i. Sand								
	ii. Silt								
9	iii. Clay	%	14.84	43.62	38.93	6.54	38.10	17.15	15.15
10	Phosphorous as P	mg/kg	0.94	1.72	2.31	1.74	1.89	1.77	1.34
11	Sodium as Na	mg/kg	778	432	725	597	705	375	402
12	Potassium as K	mg/kg	520	662	895	794	870	712	616
13	Nitrogen and Nitrogenous Compounds	mg/kg	356	269	288	642	321	230	450
14	Total Soluble Sulphate	%	BDL(D.L. 0.02)	BDL(D.L. 0.02)	BDL(D.L. 0.02)	BDL(D.L. 0.02)	BDL(D.L. 0.02)	BDL(D.L. 0.02)	BDL(D.L. 0.02)
15	Porosity	%	19.4	18.5	19.4	18.3	19.2	19.6	19.8
16	Water Holding Capacity	Inches/foot	42	40	42	40	42	40	42

1.11 BIOLOGICAL ENVIRONMENT

FLORA

For measuring the extent of flora present in the study area, the area is divided into 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

Sl.No.	LAND USE / LAND COVER	Area in Sq.Km	Area in Percentage
1	Built-up land	5.93	1.79
3	Crop land	160.23	48.24
4	Existing mining area	2.05	0.62
5	Fallow land	4.51	1.36
6	Land with scrub	3.13	0.94
7	Land without scrub	98.72	29.72
	Plantation	50.16	15.10
8	Water bodies	7.43	2.24
	Total Area	332.16	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 6 villages in the study area namely Panampatty, Kottathurai, Melkaraipatty, Keeranur, Rajampatti and Bommanallur Villages. 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.

1.14 HYDROGEOLOGY OF THE LEASE AREA

In Dindugal District, during the pre monsoon, the water level generally in declining trend ranges from G.L. to 15m. The depth of well below Ground Level 12.0m are become dry during hot season like May, June, July. In the post monsoon, the water level generally in upward trend due to rainfall and it may reach the Ground Level also. Dindugul district is almost made up of hard rock covered by thin soil.

There are many tanks located in the study area, which are mostly dry throughout the year. These tanks get water only during monsoons. The factors may be monsoon failure, insufficient rainfall, poor rain water management and water consuming patterns.

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.

During field visit, it is observed that water is available in wells only after monsoon. The yield is obtained at deep levels only.

As far as the mining lease area is considered, the area is rocky and no major seepage is envisaged. The depth proposed is 82 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 82 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, 12.73.00 Ha of lease area will be left as rain water harvesting pond. 1.61.00 Ha will be developed with green belt. For this, plants like Pongamia pinnata, Syzigium cumini, Albizia lebbeck, Thespesia populnea, Bauhinia racemose, Cassia siamea, Azadirachta indica are selected. A total of 1610 trees are planned to be planted. Spacing will be 3m x 3m.

1.17 WATER ENVIRONMENT: IMPACT AND MITIGATION MEASURES

There is no water body present inside the lease area. The entire water requirement for the project is 9.0 KLD which will be sourced from outside agencies. Negligible sewage will be generated, for which a septic tank with soak pit will be set up.

During monsoon season, the excess rain water, if any, will be led through garland drain of 0.6m width and 0.3 m depth to the collection pond with silt traps. Since the mining operation will be limited upto depth of 82m (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.

Water bodies	Distance	Direction
Odai	80m	E
Tank	700m	NE
Tank	949 m	NW
Tank	1.5 km	SE
Tank	1.6 km	SE
Amaravathi River	2.3 km	NW
Shanmukha River	3.4 km	SE

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 canal 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 PM₁₀, 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 7.5m 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 85 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 well-being 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 8,00,000 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 50.35 (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 66 people. Local people will be hired for unskilled labour.
- Through CSR, nearby schools, hospitals will be benefitted.
- For CSR, INR 8,00,000 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 50.35 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

புவியியல் மற்றும் சுரங்கத்துறை

ந.க.எண்: 587/2025 (கனிமம்)

உதவி இயக்குநர் அலுவலகம்,
மாவட்ட ஆட்சியர் அலுவலக வளாகம்,
திண்டுக்கல்.

நாள்: 28.07.2025

குறிப்பாணை

பொருள்: கனிமங்களும் சுரங்கங்களும் - திண்டுக்கல் மாவட்டம் - திண்டுக்கல் மாவட்டம், திண்டுக்கல் மாவட்டம், பழனி வட்டம், மேல்கரைப்பட்டி கிராமம், புல எண்கள்.394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P), 698(P) ஆகியவற்றில் 14.40.00 ஹெக்டேர் பரப்பில் மட்டும் - ஐந்து வருடங்களுக்கு உடைகல் மற்றும் கிராவல் குவாரி குத்தகை உரிமம் வழங்கல் - உகந்த பரப்பு (Precise Area) தேர்வு செய்யப்பட்டது - சுரங்கத்திட்டம் மற்றும் மாநில அளவிலான சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் இசைவினைப் பெற்று சமர்ப்பிக்க கோருவது - தொடர்பாக.

- பார்வை:**
1. தி/ள்.ஸ்ரீ ராஜ்ருத்ரா மினரல்ஸ் பிரைவேட் லிமிடெட், மேல்கரைப்பட்டி, பழனி வட்டம், திண்டுக்கல் என்பவரது மின்னணு விண்ணப்பம் எண் 25DGL0403339 நாள்: 05.06.2025
 2. இவ்வலுவலக கடிதம் ந.க. எண்: 587/2025 (கனிமம்), நாள்: 09.06.2025 பழனி வருவாய் கோட்டாட்சியருக்கு முகவரியிட்டது.
 3. பழனி, வருவாய் கோட்டாட்சியர் கடிதம் எண்: 4782/2025/அ7, நாள்: 30.06.2025
 4. உதவி இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை அவர்களின் புலத்தணிக்கை அறிக்கை நாள்: 03.07.2025
 5. 1959-ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 41 மற்றும் 42.
 6. அரசாணை எண்.169 தொழில் (எம்.எம்.சி.1) துறை, நாள்: 04.08.2020.
 7. அரசாணை எண்.208, தொழில் (எம்.எம்.சி.1) துறை, நாள்: 21.09.2020.
 8. தொடர்புடைய ஆவணங்கள்.

திண்டுக்கல் மாவட்டம், பழனி வட்டம், மேல்கரைப்பட்டி கிராமம், புல எண்கள்.394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P), 698(P) ஆகியவற்றில் 14.40.00 ஹெக்டேர் பரப்பில் மட்டும் உடைகல் மற்றும் கிராவல் குவாரி குத்தகை உரிமம் வழங்கக்கோரி திண்டுக்கல் மாவட்டம், பழனி வட்டம், மேல்கரைப்பட்டி கிராமத்தில் உள்ள தி/ள்.ஸ்ரீ ராஜ்ருத்ரா மினரல்ஸ் பிரைவேட் லிமிடெட் நிறுவனத்தினர் பார்வை 1-ல் கானும் விண்ணப்பத்தினை சமர்ப்பித்துள்ளார்.



பழனி, வருவாய் கோட்டாட்சியர் மற்றும் புலியியல் மற்றும் சுரங்கத்துறை, உதவி இயக்குநர் ஆகியோரின் அறிக்கையில் விண்ணப்பிக்கப்பட்ட புலங்கள் புரட்சி வகைப்பாடுடைய தரிசு நிலங்களாகும். புலங்கள் சமதளமாகவும் விவசாயபணிகள் ஏதுமின்றி உள்ளது. புலங்களில் முதன் முறையாக குவாரி குத்தகை உரிமம் கேட்டு விண்ணப்பம் செய்யப்பட்டுள்ளது. புலங்களின் மேற்பரப்பில் மண்/கிராவல் கனிமங்களும் அதன் தொடர்ச்சியாக சிதைந்த பாறைகள் (Weathered Rock), சார்னகைட் (Charnockite) எனப்படும் கடினபாறைகள் (Hard Rock) உள்ளது அருகில் செயல்பட்டு வரும் மனுதாரர் நிறுவனத்திற்கு சொந்தமான குவாரிகளை ஆய்வு செய்ததில் தெரியவருகிறது. கடினபாறைகளில் காணப்படும் வேறுபட்ட நிறங்கள் (Different in colours), இணைப்புகள் (Joints), பிளவுகள், கீரல்கள் (Cracks) வெடிப்புகள் மற்றும் மாறுபட்ட அளவு கொண்ட கனிமங்கள் காரணமாக இப்பாறைகளில் மெருகேற்ற கூடிய வண்ணகற்களை (Polished Granite / Blocks) உற்பத்தி செய்ய இயலாது. இவ்வகை பாறைகளில் இருந்து கட்டிடப்பணிகளுக்கு பயன்படுத்தப்படும் உடைகற்களை உற்பத்தி செய்ய இயலும். கல் உடைக்கும் தொழிற்சாலைகளில் இக்கற்களிலிருந்து ஜல்லி, எம்-சாண்ட், பி-சாண்ட் ஆகியவற்றை உற்பத்தி செய்யலும் இயலும். புலங்களுக்கு சென்றுவர மனுதாரரின் பட்டா நிலங்களின் வழியே பாதைவசதி உள்ளது. 300 மீட்டர் சுற்றளவில் குடியிருப்புகள், 50 மீட்டர் சுற்றளவில் ஓடைகள், ஆறுகள், உயர் அழுத்த மின்கம்பங்கள், உயர் வகை மரங்கள் ஆகியவை இல்லை எனவும், வனத்துறையால் பாதுகாக்கப்பட்ட பகுதியாக அறிவிக்கப்பட்ட சரணாலயங்கள், தேசிய பூங்காக்கள் சுற்றுச்சூழல் உணர் திறன் மிக்க பகுதிகள் (ECO-SENSITIVE ZONE) ஆகியவை 10 கி.மீ சுற்றளவிற்குள் இல்லை எனவும், 1 கி.மீட்டர் சுற்றளவில் காப்புக்காடுகள், 500 மீட்டர் சுற்றளவில் அருங்காட்சியக துறையின் மூலம் பாதுகாக்கப்பட்ட பகுதிகளாக அறிவிக்கப்பட்ட இடங்கள் மற்றும் வரலாற்று சின்னங்கள் எதும் இல்லை எனவும், சாதாரண கற்கள் மற்றும் கிராவல் குவாரி குத்தகை உரிமம் வழங்கல் தொடர்பாக மேல்கரைப்பட்டி கிராமத்தில் அ1 அறிவிக்கை பிரசுரம் செய்யப்பட்டதில் பொதுமக்களிடமிருந்து ஆட்சேபணை ஏதும் வரப்பெறவில்லை எனவும், புலங்களில் முதல் முறையாக குவாரி உரிமம் கோரப்பட்டுள்ளது என தெரிவித்து கீழ்க்காணும் நிபந்தனைகளுக்குப்பட்டு மேற்கண்ட புலங்களில் உடைகல் குவாரி குத்தகை உரிமம் ஐந்து (5) ஆண்டுகளுக்கு வழங்க பரிந்துரை செய்துள்ளனர்.

- 1) அருகிலுள்ள பட்டா நிலங்களுக்கு 7.5 மீ மற்றும் அரசு புறம்போக்கு நிலங்களுக்கு 10 மீ பாதுகாப்பு இடைவெளி விடுத்து குவாரி செய்தல் வேண்டும்.
- 2) பொதுமக்கள் / விவசாய நிலங்களுக்கு பாதிப்பு ஏற்படாத வகையில் தகுதி வாய்ந்த அங்கீகரிக்கப்பட்ட நபர்கள் மூலம் வெடிமருந்துகள் சேமிக்கப்பட்டு குவாரியில் வெடித்தல் வேண்டும். குவாரியில் குறைந்த சக்தி கொண்ட வெடி மருந்துகளை பயன்படுத்தல் வேண்டும்.

- 3) சுரங்கத்திட்டம் மற்றும் சுற்றுச்சூழல் தடையில்லாச் சான்று குத்தகை உரிமம் வழங்குவதற்கு முன் சமர்ப்பிக்க வேண்டும்.
- 4) குவாரியில் வேலை செய்யும் தொழிலாளர்கள் தொழிலாளர் நலனாரியம் மற்றும் காப்பீடு திட்டத்தில் பதிவு செய்து தொழிலாளர் நலன் கண்காணப்பட வேண்டும்.
- 5) குழந்தை தொழிலாளர்களை குவாரி பணியில் அமர்த்தக் கூடாது.
- 6) கனிமங்களை வாகனங்களில் கொண்டு செல்லும் போது பாதசாரிகள் பொது மக்கள் மற்றும் பிற வாகனங்கள் பாதிக்காதவண்ணம் தார்பாய்கள் கொண்டு மூடி எடுத்துச் செல்ல வேண்டும்.



எனவே, துறை அலுவலர்களின் பரிந்துரையினை ஏற்றும் நிபந்தனைகளுக்கு உட்பட்டும், திண்டுக்கல் மாவட்டம், பழனி வட்டம், மேல்கரைப்பட்டி கிராமம், புல எண்கள் 394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P), 698(P) ஆகியவற்றில் 14.40.00 ஹெக்டேர் பரப்பில் மட்டும் உடைகல் குவாரி குத்தகை உரிமம் 1959-ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள் விதி எண்: 19 (1) மற்றும் 20 -ன் படி ஐந்து (5) வருட காலத்திற்கு உடைகல் மற்றும் கிராவல் குவாரி உரிமம் வழங்க தகுதி வாய்ந்த நிவர்ப்பாக (Precise Area) கருதப்படுகிறது.

தமிழ்நாடு சிறுகனிம சலுகை விதிகள்-1959 விதி எண்: 41 -ன்படி குவாரி பணி மேற்கொள்வது தொடர்பாக வரைவு சுரங்கத் திட்டத்தினை (Mining Plan) 90 தினங்களுக்குள் சமர்ப்பிக்குமாறும், விதி எண்: 42-ன்படி மாநில அளவிலான சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் (State Level Environmental Impact Assessment Authority) இசைவினைப் பெற்று சமர்ப்பிக்குமாறும் மனுதாரர் தி/ள்.ஸ்ரீ ராஜ்ருத்ரா மினரல்ஸ் பிரைவேட் லிமிடெட் நிறுவனத்தினர் கேட்டுக்கொள்ளப்படுகிறனர்.


 உதவி இயக்குநர்,
 புவியியல் மற்றும் சுரங்கத்துறை,
 திண்டுக்கல்.

பெறுநர்
 தி/ள்.ஸ்ரீ ராஜ்ருத்ரா மினரல்ஸ் பிரைவேட் லிமிடெட்,
 எண்.99/2பி1பி, முதல் தளம்,
 வேலூர் மெயின்ரோடு,
 ஆற்காடு சாலை,
 ராணிப்பேட்டை மாவட்டம் - 632 503

நகல்
 உறுப்பினர் செயலர்,
 மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையம் (SEIAA),
 சென்னை.



ANNEXURE-2

From

Thiru.T.Selvasekar, M.Sc.,
Assistant Director,
Geology and Mining,
Dindigul.

To

M/s.Shri Rajrudhra Minerals Private
Limited,
No.99/2B1B, 1st Floor,
Vellore Main Road,
Arcot Taluk, Ranipet District

Roc.No:587/2025/Mines, Dated: 07.08.2025.

Sir,

Sub: Mines and Minerals - Minor Mineral - Dindigul District -Palani Taluk - Melkaraipatti Village - Patta Land - S.F.No. 394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P), 698(P) over an extent of 14.40.0 hecets- Quarry lease application preferred by M/s.Shri Rajrudhra Minerals Private Limited for quarrying Rough Stone and Gravel - Approval of Mining Plan - Regarding.

Ref: 1. Online Application from M/s.Shri Rajrudhra Minerals Private Limited, Melkaraipatti, Palani, Dindigul dated.05.06.2025
2. Precise Area Communication Notice Rc.No.589/2025 (Mines), dated 28.07.2025
3. Mining Plan submitted by M/s.Shri Rajrudhra Minerals Private Limited, Melkaraipatti, Palani, Dindigul dated.04.08.2025

M/s.Shri Rajrudhra Minerals Private Limited has preferred an application for the grant of quarrying lease to quarry Rough Stone and Gravel over an extent of 14.40.0 Hectares of Patta Land in S.F.Nos.394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P), 698(P) of Melkaraipatti Village, Palani Taluk, Dindigul District for a period of 5(Five) Years under Rule 19 of Tamil Nadu Minor Mineral Concession Rules 1959.

2) The application was examined and consented to grant lease to quarrying Rough Stone and Gravel over an extent of 14.40.0 Hectares of Patta Land in S.F.Nos.394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P), 698(P) of Melkaraipatti Village, Palani Taluk, Dindigul District for a period of 5 (Five) years subject to produce

Mining Plan for approval and to obtain Environment Clearance from SEIAA in the reference 2nd cited.

3) The applicant has submitted the Mining Plan, prepared as per guidelines issued by the Commissioner of Geology and Mining and as per Rules and Acts. The Geological and Mineable reserves are discussed in Part –A of the Mining Plan.

Geological Resources (As per Mining Plan)

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Gravel in m ³	Rough stone in m ³	Bulk Density	Gravel in Ts	Geological Resources of Rough stone in Ts
XY-AB	I	122	110	2	26840	-	2	53680	-
	II	123	110	5	-	67650	2.75	-	186037.50
	III	124	112	5	-	69440	2.75	-	190960.00
	IV	128	130	5	-	83200	2.75	-	228800.00
	V	196	195	5	-	191100	2.75	-	525525.00
	VI	196	195	5	-	191100	2.75	-	525525.00
	VII	196	195	5	-	191100	2.75	-	525525.00
	VIII	196	195	5	-	191100	2.75	-	525525.00
	IX	196	195	5	-	191100	2.75	-	525525.00
	X	196	195	5	-	191100	2.75	-	525525.00
	XI	196	195	5	-	191100	2.75	-	525525.00
	XII	196	195	5	-	191100	2.75	-	525525.00
	XIII	196	195	5	-	191100	2.75	-	525525.00
	XIV	196	195	5	-	191100	2.75	-	525525.00
	XV	196	195	5	-	191100	2.75	-	525525.00
	XVI	196	195	5	-	191100	2.75	-	525525.00
	XVII	196	195	5	-	191100	2.75	-	525525.00
	Total				26840	2704590	-	53680	7437622.50
XY-CD	I	74	199	2	29452	-	2	58904	-
	II	74	199	5	-	73630	2.75	-	202482.50
	III	74	199	5	-	73630	2.75	-	202482.50
	IV	74	199	5	-	73630	2.75	-	202482.50
	V	74	199	5	-	73630	2.75	-	202482.50
	VI	74	199	5	-	73630	2.75	-	202482.50
	VII	74	199	5	-	73630	2.75	-	202482.50
	VIII	74	199	5	-	73630	2.75	-	202482.50
	IX	74	199	5	-	73630	2.75	-	202482.50
	X	74	199	5	-	73630	2.75	-	202482.50
	XI	74	199	5	-	73630	2.75	-	202482.50
	XII	74	199	5	-	73630	2.75	-	202482.50
	XIII	74	199	5	-	73630	2.75	-	202482.50
	XIV	74	199	5	-	73630	2.75	-	202482.50

	XV	74	199	5	-	73630	2.75	-	202482.50
	XVI	74	199	5	-	73630	2.75	-	202482.50
	XVII	74	199	5	-	73630	2.75	-	202482.50
	Total				29452	1178080	-	58904	3239720.00
XY- EF	I	104	341	2	70928	-	2	141856	-
	II	104	341	5	-	177320	2.75	-	487630.00
	III	104	341	5	-	177320	2.75	-	487630.00
	IV	104	341	5	-	177320	2.75	-	487630.00
	V	104	341	5	-	177320	2.75	-	487630.00
	VI	104	341	5	-	177320	2.75	-	487630.00
	VII	104	341	5	-	177320	2.75	-	487630.00
	VIII	104	341	5	-	177320	2.75	-	487630.00
	IX	104	341	5	-	177320	2.75	-	487630.00
	X	104	341	5	-	177320	2.75	-	487630.00
	XI	104	341	5	-	177320	2.75	-	487630.00
	XII	104	341	5	-	177320	2.75	-	487630.00
	XIII	104	341	5	-	177320	2.75	-	487630.00
	XIV	104	341	5	-	177320	2.75	-	487630.00
	XV	104	341	5	-	177320	2.75	-	487630.00
	XVI	104	341	5	-	177320	2.75	-	487630.00
	XVII	104	341	5	-	177320	2.75	-	487630.00
	Total				70928	2837120	-	141856	7802080.00
XY- GH	I	181	262	2	94844	-	2	189688	-
	II	181	262	5	-	237110	2.75	-	652052.50
	III	181	262	5	-	237110	2.75	-	652052.50
	IV	181	262	5	-	237110	2.75	-	652052.50
	V	181	262	5	-	237110	2.75	-	652052.50
	VI	181	262	5	-	237110	2.75	-	652052.50
	VII	181	262	5	-	237110	2.75	-	652052.50
	VIII	181	262	5	-	237110	2.75	-	652052.50
	IX	181	262	5	-	237110	2.75	-	652052.50
	X	181	262	5	-	237110	2.75	-	652052.50
	XI	181	262	5	-	237110	2.75	-	652052.50
	XII	181	262	5	-	237110	2.75	-	652052.50
	XIII	181	262	5	-	237110	2.75	-	652052.50
	XIV	181	262	5	-	237110	2.75	-	652052.50
	XV	181	262	5	-	237110	2.75	-	652052.50
	XVI	181	262	5	-	237110	2.75	-	652052.50
	XVII	181	262	5	-	237110	2.75	-	652052.50
	Total				94844	3793760	-	189688	10432840.00

XY-IJ	I	117	69	2	16146	-	2	32292	-
	II	117	69	5	-	40365	2.75	-	111003.75
	III	117	69	5	-	40365	2.75	-	111003.75
	IV	117	69	5	-	40365	2.75	-	111003.75
	V	117	69	5	-	40365	2.75	-	111003.75
	VI	117	69	5	-	40365	2.75	-	111003.75
	VII	117	69	5	-	40365	2.75	-	111003.75
	VIII	117	69	5	-	40365	2.75	-	111003.75
	IX	117	69	5	-	40365	2.75	-	111003.75
	X	117	69	5	-	40365	2.75	-	111003.75
	XI	117	69	5	-	40365	2.75	-	111003.75
	XII	117	69	5	-	40365	2.75	-	111003.75
	XIII	117	69	5	-	40365	2.75	-	111003.75
	XIV	117	69	5	-	40365	2.75	-	111003.75
	XV	117	69	5	-	40365	2.75	-	111003.75
	XVI	117	69	5	-	40365	2.75	-	111003.75
	XVII	117	69	5	-	40365	2.75	-	111003.75
	Total					16146	645840	-	32292
					238210	11159390	-	476420	30688322.50

Mineable Reserves (As per Mining Plan)

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Gravel in m ³	Rough stone in m ³	Bulk Density	Gravel in (Ts)	Mineable Reserves of rough stone in (Ts)
XY-AB	I	114	92	2	20976	-	2	41952	-
	II	111	86	5	-	47730	2.75	-	131257.50
	III	107	80	5	-	42800	2.75	-	117700.00
	IV	106	87	5	-	46110	2.75	-	126802.50
	V	169	142	5	-	119990	2.75	-	329972.50
	VI	164	132	5	-	108240	2.75	-	297660.00
	VII	159	122	5	-	96990	2.75	-	266722.50
	VIII	154	112	5	-	86240	2.75	-	237160.00
	IX	149	102	5	-	75990	2.75	-	208972.50
	X	144	92	5	-	66240	2.75	-	182160.00
	XI	139	82	5	-	56990	2.75	-	156722.50
	XII	134	72	5	-	48240	2.75	-	132660.00
	XIII	129	62	5	-	39990	2.75	-	109972.50
	XIV	124	52	5	-	32240	2.75	-	88660.00
	XV	119	42	5	-	24990	2.75	-	68722.50
	XVI	114	32	5	-	18240	2.75	-	50160.00
	XVII	109	22	5	-	11990	2.75	-	32972.50
	Total				20976	923010	-	41952	2538277.50

XY-CD	I	74	182	2	26936	-	2	53872	-
	II	74	176	5	-	65120	2.75	-	179080.00
	III	74	166	5	-	61420	2.75	-	168905.00
	IV	74	156	5	-	57720	2.75	-	158730.00
	V	74	146	5	-	54020	2.75	-	148555.00
	VI	74	136	5	-	50320	2.75	-	138380.00
	VII	74	126	5	-	46620	2.75	-	128205.00
	VIII	74	116	5	-	42920	2.75	-	118030.00
	IX	74	106	5	-	39220	2.75	-	107855.00
	X	74	96	5	-	35520	2.75	-	97680.00
	XI	74	86	5	-	31820	2.75	-	87505.00
	XII	74	76	5	-	28120	2.75	-	77330.00
	XIII	74	66	5	-	24420	2.75	-	67155.00
	XIV	74	56	5	-	20720	2.75	-	56980.00
	XV	74	46	5	-	17020	2.75	-	46805.00
	XVI	74	36	5	-	13320	2.75	-	36630.00
	XVII	74	26	5	-	9620	2.75	-	26455.00
	Total				26936	597920	-	53872	1644280.00
XY EF	I	104	324	2	67392	-	2	134784	-
	II	104	318	5	-	165360	2.75	-	454740.00
	III	104	308	5	-	160160	2.75	-	440440.00
	IV	104	298	5	-	154960	2.75	-	426140.00
	V	104	288	5	-	149760	2.75	-	411840.00
	VI	104	278	5	-	144560	2.75	-	397540.00
	VII	104	268	5	-	139360	2.75	-	383240.00
	VIII	104	258	5	-	134160	2.75	-	368940.00
	IX	104	248	5	-	128960	2.75	-	354640.00
	X	104	238	5	-	123760	2.75	-	340340.00
	XI	104	228	5	-	118560	2.75	-	326040.00
	XII	104	218	5	-	113360	2.75	-	311740.00
	XIII	104	208	5	-	108160	2.75	-	297440.00
	XIV	104	198	5	-	102960	2.75	-	283140.00
	XV	104	188	5	-	97760	2.75	-	268840.00
	XVI	104	178	5	-	92560	2.75	-	254540.00
	XVII	104	168	5	-	87360	2.75	-	240240.00
	Total				67392	2021760		134784	5559840.00
XY-GH	I	181	245	2	88690	-	2	177380	-
	II	181	239	5	-	216295	2.75	-	594811.25
	III	181	229	5	-	207245	2.75	-	569923.75
	IV	181	219	5	-	198195	2.75	-	545036.25
	V	181	209	5	-	189145	2.75	-	520148.75
	VI	176	199	5	-	175120	2.75	-	481580.00
	VII	171	189	5	-	161595	2.75	-	444386.25

	VIII	166	179	5	-	148570	2.75	-	408567.50
	IX	161	169	5	-	136045	2.75	-	374123.75
	X	156	159	5	-	124020	2.75	-	341055.00
	XI	151	149	5	-	112495	2.75	-	309361.25
	XII	146	139	5	-	101470	2.75	-	279042.50
	XIII	141	129	5	-	90945	2.75	-	250098.75
	XIV	136	119	5	-	80920	2.75	-	222530.00
	XV	131	109	5	-	71395	2.75	-	196336.25
	XVI	126	99	5	-	62370	2.75	-	171517.50
	XVII	121	89	5	-	53845	2.75	-	148073.75
	Total				88690	2129670	-	177380	5856592.50
XY-IJ	I	108	52	2	11232	-	2	22464	-
	II	105	46	5	-	24150	2.75	-	66412.50
	III	100	36	5	-	18000	2.75	-	49500.00
	IV	95	26	5	-	12350	2.75	-	33962.50
	Total			17m	11232	54500	-	22464	149875.00
Grand Total				-	215226	5726860	-	430452	15748865.00

Yearwise Development and Production (As per Mining Plan)

Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in m³	Gravel in m³	Rough stone m³	Bulk Density	Gravel in (Ts)	Mineable Reserves of rough stone in (Ts)
I	XY-AB	I	114	92	2	20976	20976	-	2	41952	-
		II	111	86	5	47730	-	47730	2.75	-	131257.50
		III	107	80	5	42800	-	42800	2.75	-	117700.00
		IV	106	87	5	46110	-	46110	2.75	-	126802.50
		V	169	142	5	119990	-	119990	2.75	-	329972.50
	XY-CD	I	74	182	2	26936	26936	-	2	53872	-
		II	74	176	5	65120	-	65120	2.75	-	179080.00
		III	74	166	5	61420	-	61420	2.75	-	168905.00
		IV	74	156	5	57720	-	57720	2.75	-	158730.00
		V	74	146	5	54020	-	54020	2.75	-	148555.00
	XY-EF	I	104	324	2	67392	67392	-	2	134784	-
		II	104	318	5	165360	-	165360	2.75	-	454740.00
		III	104	308	5	160160	-	160160	2.75	-	440440.00
		IV	104	298	5	154960	-	154960	2.75	-	426140.00
		V	104	288	5	149760	-	149760	2.75	-	411840.00
Total							115488	1125150	-	230608	3094162.50
II	XY-GH	I	181	245	2	88690	88690	-	2	177380	
		II	181	239	5	216295	-	216295	2.75	-	594811.25
		III	181	229	5	207245	-	207245	2.75	-	569923.75
		IV	181	219	5	198195	-	198195	2.75	-	545036.25
		V	181	209	5	189145	-	189145	2.75	-	520148.75
		VI	176	199	5	175120	-	175120	2.75	-	481580.00

	XY-IJ	I	108	52	2	11232	11232	-	2	22464	-
		II	105	46	5	24150	-	24150	2.75	-	66412.50
		III	100	36	5	18000	-	18000	2.75	-	49500.00
		IV	95	26	5	12350	-	12350	2.75	-	33962.50
	XY-EF	VI	74	278	5	102860	-	102860	2.75	-	282865.00
Total							99922	1143360		199844	3144240.00
III	XY-EF	VI	30	278	5	41700	-	41700	2.75	-	114675.00
		VII	104	268	5	139360	-	139360	2.75	-	383240.00
		VIII	104	258	5	134160	-	134160	2.75	-	368940.00
	XY-CD	VI	74	136	5	50320	-	50320	2.75	-	138380.00
		VII	74	126	5	46620	-	46620	2.75	-	128205.00
		VIII	74	116	5	42920	-	42920	2.75	-	118030.00
	XY-AB	VI	164	132	5	108240	-	108240	2.75	-	297660.00
		VII	159	122	5	96990	-	96990	2.75	-	266722.50
		VIII	154	112	5	86240	-	86240	2.75	-	237160.00
		IX	149	102	5	75990	-	75990	2.75	-	208972.50
	XY-GH	VII	171	189	5	161595	-	161595	2.75	-	444386.25
		VIII	166	179	5	148570	-	148570	2.75	-	408567.50
Total						-	-	1132705	-	-	3114938.75
IV	XY-CD	IX	74	106	5	39220	-	39220	2.75	-	107855.00
		X	74	96	5	35520	-	35520	2.75	-	97680.00
		XI	74	86	5	31820	-	31820	2.75	-	87505.00
		XII	74	76	5	28120	-	28120	2.75	-	77330.00
	XY-EF	IX	104	248	5	128960	-	128960	2.75	-	354640.00
		X	104	238	5	123760	-	123760	2.75	-	340340.00
		XI	104	228	5	118560	-	118560	2.75	-	326040.00
		XII	104	218	5	113360	-	113360	2.75	-	311740.00
	XY-GH	IX	161	169	5	136045	-	136045	2.75	-	374123.75
		X	156	159	5	124020	-	124020	2.75	-	341055.00
		XI	151	149	5	112495	-	112495	2.75	-	309361.25
	XY-AB	X	144	92	5	66240	-	66240	2.75	-	182160.00
		XI	139	82	5	56990	-	56990	2.75	-	156722.50
		XII	134	72	5	48240	-	48240	2.75	-	132660.00
Total								1163350		-	3199212.50
V	XY-EF	XIII	104	208	5	108160	-	108160	2.75	-	297440.00
		XIV	104	198	5	102960	-	102960	2.75	-	283140.00
		XV	104	188	5	97760	-	97760	2.75	-	268840.00
		XVI	104	178	5	92560	-	92560	2.75	-	254540.00
		XVII	104	168	5	87360	-	87360	2.75	-	240240.00
	XY-GH	XII	146	139	5	101470	-	101470	2.75	-	279042.50
		XIII	141	129	5	90945	-	90945	2.75	-	250098.75
		XIV	136	119	5	80920	-	80920	2.75	-	222530.00
		XV	131	109	5	71395	-	71395	2.75	-	196336.25
		XVI	126	99	5	62370	-	62370	2.75	-	171517.50
		XVII	121	89	5	53845	-	53845	2.75	-	148073.75

XY- CD	XIII	74	66	5	24420	-	24420	2.75	-	67155.00
	XIV	74	56	5	20720	-	20720	2.75	-	56980.00
	XV	74	46	5	17020	-	17020	2.75	-	46805.00
	XVI	74	36	5	13320	-	13320	2.75	-	36630.00
	XVII	74	26	5	9620	-	9620	2.75	-	26455.00
XY- AB	XIII	129	62	5	39990	-	39990	2.75	-	109972.50
	XIV	124	52	5	32240	-	32240	2.75	-	88660.00
	XV	119	42	5	24990	-	24990	2.75	-	68722.50
	XVI	114	32	5	18240	-	18240	2.75	-	50160.00
	XVII	109	22	5	11990	-	11990	2.75	-	32972.50
Total					-	-	1162295	-	-	3196311.25
Grand Total					-	215410	5726860	-	430452	15748865.0

The available mineable reserves have been computed as **57,26,860m³** (**1,57,48,865 MTs**) as Rough Stone, **2,15,410m³** (**4,30,452 MTs**) as Gravel up to the depth of **82m** from the ground level.

The Environmental Management Plan and Mine Closure plan are discussed in Part -11& 12 and all conditions have been incorporated in the Mining Plan as laid down by the authorities.

4) In view of the above, in exercise of the powers delegated under Rule 41 of Tamil Nadu Minor Mineral Concession Rules, 1959, I hereby approve the Mining Plan submitted by M/s.Shri Rajrudhra Minerals Private Limited for quarrying Rough Stone and Gravel over an extent of 14.40.0 Hectares of Patta Land in S.F.Nos. 394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P), 698(P) of Melkaraipatti Village, Palani Taluk, Dindigul District for a period of 5 (Five) to obtain Environment Clearance from SEIAA, Chennai subject to the following conditions:

1. The Mining Plan is approved without prejudice to any other law applicable to the quarry permission from time to time where such Laws are made by the State Government or any other authority.
2. This approval of the Mining Plan does not in any way imply the approval of the Government in terms of any other provisions of the Tamil Nadu Minor Mineral Concession Rules, 1959.
3. The Mining Plan is approved without prejudice to any other order or direction from any court of competent jurisdiction.

4. 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 (Development and Regulation) Amendment Act, 2015 or any other connected Laws including, Environment Protection Act, 1986, and the Rules made there under in Tamil Nadu Minor Mineral Concession Rules, 1959.

Encl: Two copies of Mining Plan.


Assistant Director,
Geology and Mining,
Dindigul.

Copy to:

The Member Secretary,
State Level Environmental Impact
Assessment Authority,
PanagalMaligai,
No. 1 Jeenis Road,
Saidapet, Chennai-15



ANNEXURE-3

From

Thiru.T.Selvasekar, M.Sc.,
Assistant Director,
Geology and Mining,
Dindigul

To

M/s.Shri Rajrudhra Minerals Private
Limited,
No.99/2B1B, 1st Floor,
Vellore Main Road,
Arcot Taluk, Ranipet District

Rc.No.587/2025(Mines) dated: 07.08.2025

Sir,

Sub: Mines and Minerals - Minor Mineral - Rough stone - Dindigul
District - Palani Taluk - Melkaraipatti Village - Patta Land -
S.F.No. 394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2,
407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4,
409(P), 698(P) over an extent of 14.40.0 hecets - preferred by
M/s.Shri Rajrudhra Minerals Private Limited - Precise area
communicated - Submission of Mining Plan for approval -
Existing features within 500mts radius requested - reg.

- Ref: 1. Online Application from M/s.Shri Rajrudhra Minerals
Private Limited, Melkaraipatti, Palani, Dindigul
dated.05.06.2025
2. Precise Area Communication Notice Rc.No.587/2025
(Mines), dated 28.07.2025
3. Mining Plan submitted by M/s.Shri Rajrudhra Minerals
Private Limited, Melkaraipatti, Palani, Dindigul
dated.04.08.2025

With reference to your letter 3rd cited, the details of existing and lease
expired quarries located within 500m radius from the proposed Rough stone
& gravel quarry, over an extent of 14.40.0 Hectares of Patta Land in S.F.Nos.
394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A,
407/2B, 408/1(P), 408/2(P), 408/4, 409(P), 698(P) are as follows:

Sl. No	Name of the quarry Owner	Name of the Village & Survey Number	Extent (in Hects)	Remarks
a. Existing Quarries				
1.	M/s.Shri Rajrudhra Minerals Private Limited, No.99/2B1B, 1 st Floor, Vellore Main Road, Arcot Taluk, Ranipet District	392/2(P), 393/2(P), 394/1, 395, 396/1, 397, 398/1A1(P)	4.42.0	06.03.2024 to 05.03.2029
2.	K.Vinjai Mani Oosai, S/o Kandasamy 23, Keezhvadam Street, Palani Taluk. Dindigul Dist.	388(P)	0.40.5	30.08.2023 to 29.08.2028
b. Abandoned Quarries				
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c. Present proposed Quarries				
1.	M/s.Shri Rajrudhra Minerals Private Limited, No.99/2B1B, 1 st Floor, Vellore Main Road, Arcot Taluk, Ranipet District	381/1(P)	5.57.0	Applied area (Rough stone)
2.	M/s.Shri Rajrudhra Minerals Private Limited, No.99/2B1B, 1 st Floor, Vellore Main Road, Arcot Taluk, Ranipet District	394/2, 396/2, 402(P), 403(P), 407/1A1, 407/1A2, 407/1B, 407/2A, 407/2B, 408/1(P), 408/2(P), 408/4, 409(P), 698(P)	14.40.0	Applied area (Rough stone)


 Assistant Director,
 Geology and Mining,
 Dindigul