

**SUMMARY**  
**OF**  
**DRAFT EIA/EMP REPORT**  
**FOR**  
**ROUGHSTONE, JELLY**  
**AND GRAVEL QUARRY**

<b>Extent</b>	<b>2.38.0 Ha</b>
<b>Land Type</b>	<b>Patta Land</b>
<b>5 yrs Production</b>	<b>Roughstone – 4,02,450 m<sup>3</sup></b> <b>Weathered Rock – 35,700 m<sup>3</sup></b> <b>Gravel – 18,408 m<sup>3</sup></b>
<b>Depth</b>	<b>53m bgl</b>
<b>Location</b>	<b>Anaikulam Village, Veerakeralampudur Taluk, Tenkasi District, Tamil Nadu</b>

**PROJECT PROPONENT**

**THIRU R. PONKALIRAJ**

18/7/23, Thirumalai Andavar Kovil Street, Sivagurunathapuram Surandai -  
627859, V.K. Pudur Taluk, Tenkasi District.

**CONSULTANT**

**CREATIVE ENGINEERS & CONSULTANTS**



Creating Possibilities

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**AUGUST 2022**

**ROUGH STONE, JELLY AND GRAVEL QUARRY OF THIRU.R.PONKALIRAJ, AT SURVEY NO.280/6 OVER AN AREA OF 2.38.0HA IN ANAIKULAM VILLAGE, VEERAKERALAMPUDUR TALUK, TENKASI DISTRICT, TAMIL NADU.**

**SUMMARY**

**1.1 INTRODUCTION:**

Thiru.R.Ponkaliraj proposes to operate a **Rough Stone, Jelly and Gravel Quarry** Survey No.280/6 over an extent of 2.38.0Ha in Anaikulam village, Veerakeralampudur Taluk, Tenkasi District, Tamil Nadu, for the production capacity of 4,02,450m<sup>3</sup> of Roughstone, 35,700m<sup>3</sup> of Weathered Rock and 18,408m<sup>3</sup> of Gravel for a period of 5 years upto a depth of 53m and has initiated action towards obtaining environmental clearance.

Although the individual lease area of this project is less than 5 Ha, the other existing quarries within the 500m radius cluster along with this subject project works out to >5 Ha. Hence, this proposal is considered under Category – B1 and as per MoEF & CC notification necessitates preparation of EIA/EMP report and public hearing.

**500m radius existing Quarries**

S.No	Name of the Lessee	S.F.No & Village	Extent - Hectares	Lease Status
<b>a. Abandoned Quarries</b>				
1	Thiru.M.Abdul Ali, No.8, Moonusuli Road, Vadakarai	S.F.No.1, 2, 11/2 & 12 Village: Surandai - 1	4.00.0 Ha	Proceedings No. M1/19230/2015, dated 20.02.2016 for a period 5 years from 10.06.2016 to 09.06.2021 Lease expired on 09.06.2021
2	Thiru.N.H.M.Pandian, No.4/7, Kurunthanmozhi, Kurichampatti Post, V.K.Pudur Taluk	S.F.No.302/1 Village: Anaikulam	2.51.0 Ha	Proceedings No. M1/31088/2010, dated 28.07.2010 for a period 5 years from 19.08.2010 to 18.08.2015 Lease expired on 18.08.2015
3	Thiru.N.H.M.Pandian, No.4/7, Kurunthanmozhi, Kurichampatti Post, V.K.Pudur Taluk	S.F.No.303 Village: Anaikulam	3.10.0 Ha	Proceedings No. M1/1742/2010, dated 21.01.2010 for a period 5 years from 05.04.2010 to 04.04.2015 Lease expired on 04.04.2015
<b>a. Existing Quarries</b>				
Nil				
<b>b. Proposed Quarries</b>				
1	Thiru.R.Ponkaliraj, S/o.(late) P.Rajendran, 18/7/23, Thirumalai Andavar Kovil Street,	S.F.No.280/6 Village: Anaikulam	2.38.0 Ha	Under Proposed Quarry



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	Sivagurunathapuram Surandai - 627859, V.K.Pudur Taluk, Tenkasi District			
2	Thiru.D.Sankaranarayanan S/o.Durairaj, No.9-7-7/1, Surandai Village, V.K.Pudur Taluk, Tenkasi District	S.F.Nos. 279/3A (P) & 279/4 (P) Village: Anaikulam	0.98.5 Ha	Proposed Quarry
3	Thiru.Arumugasamy, S/o.Kajendran, No.14/1/185, Near Anna Statue, Surandai Village, V.K.Pudur Taluk, Tenkasi District	S.F.No.3 Village: Surandai - 1	2.45.5 Ha	Proposed Quarry

The total lease area (expired + proposed) (1no + 3nos) within the 500m radius works out to 9.82.0ha including this lease area.

**1.2 STATUTORY APPROVALS:**

**Table 1:Statutory Approvals**

S.No	Statutory Approval	Authority	Letter Number and Date
1.	<b>Precise Area Communication Letter</b>	Assistant Director, Dep. of Geology & Mining, Tenkasi	Rc.No:M1/11657/2017, dated 16.11.2021.
2.	<b>Mining Plan Approval</b>	Assistant Director, Dep. of Geology & Mining, Tenkasi	Rc.No:M1/11657/2017, dated 08.12.2021.
3.	<b>Details of other quarries within 500m radius</b>	Assistant Director, Dep. of Geology & Mining, Tenkasi	Rc.No:M1/11657/2017, dated 09.12.2021.
4.	<b>Terms of Reference</b>	Received from SEIAA, Tamil Nadu vide their letter No. SEIAA-TN/F.No.8954/SEAC/ToR-1136/2022 dated 25.03.2022	

Based on the conditions of Precise Area Communication letter, a safety distance of 10m is left on the northern and southern side of the lease area for the cart tracks and 7.5m safety distance has been left for the adjoining patta lnds.



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As per TOR Condition, the draft EIA/EMP report for the Rough Stone, Jelly and Gravel Quarry of Thiru R.Ponkaliraj is prepared. Salient details of the report is given below.

**2.1 SITE DESCRIPTION:**

**Table 2: Site Details**

S.No	Particulars	Details
1.	Name of the Project	Rough Stone, Jelly and Gravel Quarry of Thiru.R.Ponkaliraj
2.	Location of the project	Anaikulam village, Veerakeralampudur Taluk, Tenkasi District, Tamil Nadu
3.	Survey No.	280/6
4.	Proposed production	Roughstone - 4,02,450m <sup>3</sup> Weathered Rock - 35,700m <sup>3</sup> Gravel - 18,408m <sup>3</sup>
5.	Latitude & Longitude	<b>Latitude:</b> 09°00'03"N to 09°00'11"N <b>Longitude:</b> 77°28'21"E to 77°28'26"E
6.	Mining Lease area	2.380 Ha
7.	Type of land	Private Patta land
8.	Mine site topography	Lease area exhibits almost plain topography covered by Gravel formation. The elevation of the area is above 150m (maximum) from MSL.
9.	Accessibility	Existing road from the area leads to Anaikulam – Kurichanpatti village road on northern side of the area.
10.	Nearest Highway	(SH-39A) Alangulam – Tenkasi – 6.5Km (S)
11.	Nearest major Railway station	Pavoorchatram RS – 14.1km - SW
12.	Nearest Airport	Tuticorin – 68Km – SE
13.	Nearest major water bodies	➤ Chittar Ar 6.3km (SW), ➤ Chittar River 8.1km (S), ➤ Manur Channel – 8.4km (S), Marandai Channel – 9.4km (SW)
14.	Environmental sensitive areas, Protected areas as per Wildlife Protection Act, 1972 (Tiger reserve, Elephant reserve, Biospheres, National parks, Wildlife sanctuaries, community reserves and conservation reserves)	Nil within 10 Km radius
15.	Local Places of Historical and Tourism Interest	Nil within 10 Km radius
16.	Reserved / Protected Forests	➤ Reserve Forest – 5.3km (S), ➤ Uttumalai Reserve Forest 9.8km (E)
17.	Seismic Zone	Zone – II (Least Active)

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**Table 3: Technical Description**

S.No	Particulars	Details			
1.	Geological reserve	Roughstone-11,89,500 cum , Weathered Rock- 47,580cum, Gravel-23,790cum			
2.	Mineable reserve	Roughstone – 4,02,450 cum , Weathered Rock- 35,700cum, Gravel-18,408cum			
3.	Method of Mining	Open cast mechanized mining method with drilling, blasting, excavation, loading and transportation of Roughstone to needy buyers.			
4.	Production	<b>YEAR</b>	<b>ROUGHSTONE (m3)</b>	<b>Weathered Rock m3</b>	<b>Gravel In (m3)</b>
		I	80800	32640	16744
		II	81690	3060	1664
		III	80475	-	-
		IV	80260	-	-
		V	79225	-	-
		<b>Total</b>	<b>402450</b>	<b>35700</b>	<b>18408</b>
5.	Lease Period	5 Years			
6.	Waste Generation and Management	Since the entire material will be used there will be no waste generation			
7.	Ultimate Mine depth	53m			
8.	Manpower	Direct – 22, Indirect – 50			
9.	Water Requirement & source	Total water – 10 KLD Will be procured from outside agencies initially. Later, water collected in the mine pit will be used to meet the needs.			
10.	Power Requirement	All the equipment will be diesel operated. No electricity is needed for mining operation. The minimum power requirement for office, etc will be met from state grid.			
11.	Site services	Mine office, first aid room, rest shelters, toilets etc. will be provided as semi-permanent structures.			
12.	Project cost	Rs.78,37,000/-			
13.	CER cost	Rs.5.0 Lakhs			

**3.1 EXISTING ENVIRONMENTAL SCENARIO:**

The studies and data collection have been carried out systematically and meticulously as per relevant IS codes, CPCB and MoEF&CC guidelines and as per approved ToR during **Summer Season (March 2022 to May 2022)**



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For the purpose of this study, the area has been divided into two zones, namely, core and buffer zones. Core zone is considered as the total lease area of the cluster, while buffer zone encompasses an area of 10 km radius distance from the periphery of core zone.

Based on 2011 census data, in the 10km radius there are 24 Rural villages, 3 urban areas from Veerakeralampudur, Sankarankoil Tenkasi & Senkottai taluk of Tirunelveli district.

**Table 4: Social, Economic & Demographic Profile of The Study Area**

Details	Population	Percentage
<b>A. Gender-wise distribution</b>		
Male Population	93147	49.65%
Female Population	94461	50.35%
<b>Total</b>	<b>187608</b>	<b>100</b>
<b>B. Caste-wise population distribution</b>		
Scheduled Caste	27347	14.58%
Scheduled Tribes	139	0.07%
Other	160122	85.35%
<b>Total</b>	<b>187608</b>	<b>100</b>
<b>C. Literacy Levels</b>		
Total Literate Population	129144	68.84%
Others Population	58464	31.16%
<b>Total</b>	<b>187608</b>	<b>100</b>
<b>D. Occupational structure</b>		
Main workers	96570	51.50%
Marginal workers	7766	4.10%
<b>Total Workers</b>	<b>104336</b>	<b>55.60%</b>
<b>Total Non-workers</b>	<b>83272</b>	<b>44.40%</b>
<b>Total</b>	<b>187608</b>	<b>100</b>

**3.2.1 EXISTING ENVIRONMENTAL QUALITY:**

Baseline monitoring was carried out during **Summer Season (March 2022 to May 2022)** The details of the same are provided below:

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**Table 5: Baseline Data**

<b>A) AMBIENT AIR QUALITY</b>		<b>Monitoring Location – 5 locations</b>	
<b>PARAMETER</b>	<b>RESULT (µg/m3)</b>		<b>*LIMIT (µg/m3)</b>
<b>Location</b>	<b>Core Zone</b>	<b>Buffer Zone</b>	
Particulate Matter (Size <10 µm)	48.5 – 62.2	38.1 – 64.4	100
Particulate Matter (Size <2.5 µm)	23.1 – 29.6	17.6 – 31.0	60
Sulphur Dioxide (as SO <sub>2</sub> )	4.6 – 6.9	3.4 – 7.5	80
Nitrogen Dioxide (as NO <sub>2</sub> )	7.1 – 9.4	6.2 – 9.7	80
<b>Conclusion:</b> The existing Ambient Air Quality levels for PM10, PM2.5, SO <sub>2</sub> and NO <sub>2</sub> , are within the NAAQ standards prescribed CPCB limits of 100 µg/m <sup>3</sup> , 60 µg/m <sup>3</sup> , 80 µg/m <sup>3</sup> & 80 µg/m <sup>3</sup> . The CO values in all the locations were found to be below detectable limit.			
<b>B) WATER QUALITY</b>		<b>Monitoring Location – 4 Groundwater locations and 1 Surface water location</b>	
<b>PARAMETER</b>	<b>Ground Water</b>	<b>Surface Water</b>	<b>*LIMIT (µg/m3)</b>
pH at 25 °C	7.32 – 7.91	8.15	<b>6.5-8.5</b>
Total Dissolved Solids, mg/L	648 – 1120	70	<b>2000</b>
Chloride as Cl <sup>-</sup> , mg/L	137 – 360	2.0	<b>1000</b>
Total Hardness (as CaCO <sub>3</sub> ), mg/L	333 – 482	49	<b>600</b>
Total Alkalinity (as CaCO <sub>3</sub> ), mg/L	150– 301	32.6	<b>600</b>
Sulphates as SO <sub>4</sub> <sup>2-</sup> , mg/L	210 – 352	14.1	<b>400</b>
Iron as Fe, mg/L	BDL(D.L - 0.01)	BDL(D.L - 0.01)	<b>0.3</b>
Nitrate as NO <sub>3</sub> , mg/L	1.97 – 3.21	BDL(D.L – 1.0)	<b>45</b>
Fluoride as F, mg/L	0.38 – 0.66	BDL(D.L – 0.1)	<b>1.5</b>
<b>Conclusion:</b> The water quality is found to be within the prescribed Permissible limits of IS: 10500 Norms in the absence of an alternative source as per Drinking Water Specifications.			
<b>C) NOISE LEVELS</b>		<b>Monitoring Location – 5 locations</b>	
<b>PARAMETER</b>	<b>RESULT dB(A)</b>		<b>*LIMIT (µg/m3)</b>
	<b>Day Equivalent</b>	<b>Night Equivalent</b>	
Core Zone	49.8	42.9	<b>90</b>
Buffer Zone	42.7 – 49.9	38.9 – 40.8	<b>Day Equivalent - 55dB(A), Night Equivalent - 45dB(A)</b>
*Permissible noise for industrial workers as laid down by CPCB (at 8 hrs Exposure Time). While comparing with the MoEF&CC Norms, the monitored ambient noise levels are generally within the limit values.			
<b>D) SOIL QUALITY</b>		<b>Monitoring Location – 3 locations</b>	
<b>PARAMETER</b>	<b>Range of values</b>		
pH	6.89 - 7.02		
Electrical Conductivity (µmho/cm)	39.87 – 56.58		
Organic matter (%)	0.72 – 1.21		
Total Nitrogen (mg/kg)	135 - 226		
Phosphorus (mg/kg)	1.28 – 2.12		



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Sodium (mg/kg)	368 – 424
Potassium (mg/kg)	586 - 654
Soil is of Loam type	

**3.2.2 LAND ENVIRONMENT:**

Land use pattern study carried out through remote sensing satellite data around the 10km buffer zone shows that 28.19 % of the study area is agriculture land and 52.36 % are fallow land. Land with scrub constitutes 8.17 %, lands without scrub constitute 7.74% and waterbodies constitute 1.72% and remaining constitute 1.82 %.

**3.2.3 BIOLOGICAL ENVIRONMENT:**

Flora: The lease area is a non-forest, private land. Major part of lease area is barren fallow land with few bushes ( Prosopis juliflora) and grasses. The buffer zone is dominated by species like Prosopis juliflora, Azadirachta indica, Borassus flabellifer, Acacia nilotica, Albizia lebbeck, Acacia leucophloea, Acacia auriculiformis, etc.

Fauna: There is no Wild Life Sanctuary or National Park within the study area of 10 km. Domesticated animals are commonly found. There is no Schedule I species in the core & buffer zone.

**3.2.4 HYDROLOGICAL STUDY:**

In the study area, the shallow aquifer is developed through dug wells and deeper aquifer through tube wells. The groundwater has revealed that potential fractures are encountered at deeper levels. From the Geophysical survey, it is found that the subsurface litho units are gravel, weathered layers poorly fractured and terminated with hard and compact massive rocks with fully devoid of fractures. The occurrence of groundwater mainly in the porous soil are weathered layers, very negligible amount of groundwater percolated through the poorly fractured layer. Besides, the mining area consists of hard compact rock, no major water seepage within the mine is expected. From the nearby working mines no such seepage is observed.

**4.1 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

This is a proposed project and Semi – Mechanized Open Cast mining will be carried out to quarry out Rough Stone, Jelly & Gravel. The identified impacts due to this mine during mining and associated activities have been studied in relation to various environmental components like Air, water, noise, vibration, land, transport etc.





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**4.1.1 AIR ENVIRONMENT:**

The principal sources of air pollution in general due to mining and allied activities will be Excavation, Drilling, Movement of HEMM such as Excavators, tippers etc., Loading and unloading operation and transportation. In case of this mine, the following measures will be adopted to control impact on the air quality due to mining operations in the lease area:

- Regular wetting of transport road using mobile water tanker. Proponent has already installed fixed water sprinkler in the road connecting the mine and the nearby crusher..
- Wet drilling / Covering of drill holes with wet clothes
- Proper maintenance of roads.
- Avoiding overloading of tippers & Transportation of material by tarpaulin covered trucks
- Proper maintenance of HEMM to minimize gaseous emission
- Setting up of tyre washing facility in the lease area exit.
- Vehicular emission tests with digital smoke meter.
- Provision of tin sheet/ green netting around the lease periphery on all sides.
- Development of green belt/ plantation in various areas within the mine lease area etc.

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

The impact on air quality due to the proposed project is estimated using AERMOD View Gaussian Plume Air Dispersion Model.

The impact on air quality due to the proposed project estimated using computer dispersion model (AERMOD) show that the resultant added concentrations with baseline figures even at worst scenario, the values of ambient air quality with respect to PM<sub>10</sub> are in the range of 52.9 g/m<sup>3</sup> to 72.5 g/m<sup>3</sup> and with respect to PM<sub>2.5</sub> are in the range of 25.1 µg/m<sup>3</sup> to 33.6 µg/m<sup>3</sup> which are within the statutory limits in each case.

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



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**4.1.2 WATER ENVIRONMENT:**

The total water requirement for this project will be 10.0 KLD. The water will be sourced initially from outside agencies. Later the rainwater collected in the mine pit sump will be used for this purpose.

The domestic effluent to be generated from the project will be collected in septic tank with soak pits arrangements. This being a mining project there will not be any process effluent. The rain water falling in the quarry will be harvested in the sump at the lowest level of the quarry. This sump will act as a settling pond to prevent solids escaping along with discharge, before outlet. etc. Towards surface runoff management, garland drain will be constructed around the quarry and will be connected to a settling pond with silt traps. The supernatant clear water from the settling pond will be flow to the downstream users.

**4.1.3 NOISE ENVIRONMENT:**

During mining operation there will be noise generation due to working of excavators, movement of vehicles, etc. However, it will be felt near the active working area only and at away from its source it will get reduced. There will also be attenuation due to vegetation, tin sheet/ green netting to be erected by the proponent all around the lease and as such there will not be any adverse noise propagation outside the lease boundary Due to natural attenuation effects, by proper green belt development, design / maintenance of machines, etc., the impact on noise levels will be negligible and are expected to be well within the prescribed limits.

**4.1.4 VIBRATION:**

To reduce ground vibratory conditions, various control measures will be implemented such as controlled blasting using NONEL delay detonator, optimum design for burden and spacing, reducing explosive charge per delay to minimum, not carrying out blasting during strong winds, etc. By adoption of above measures, it will be ensured that ground vibrational levels due to blasting will be maintained within the prescribed DGMS conditions of 10 mm/s for the domestic houses/structures.

**4.1.5 IMPACT ON LAND ENVIRONMENT:**

At the end of the life of the mine, 1.84.0Ha of mined out area will be left as water body. 0.02.0Ha will be the mine roads and 0.52.0Ha will be covered with vegetation. Entire mined out area will be properly fenced to prevent inadvertent entry of men and animals. In the post mining stage the rainwater harvested in the mined out void shall be utilized.



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**4.1.6 BIOLOGICAL ENVIRONMENT:**

Other than clearing the shrubs and bushes within the lease area, no clearance of major vegetation is involved. Necessary mitigative measures like dust suppression, proper maintenance of equipment's, greenbelt and plantation etc., will be carried out to prevent dust generation & any further impact on the vegetation or agricultural activity nearby. Greenbelt / Plantation will be carried out to enhance the vegetative growth and aesthetic in the safety zone area

**4.1.7 SOCIO ECONOMIC ENVIRONMENT:**

The entire lease area is private patta land. There are no habitations or hutments in the core zone area and no rehabilitation or resettlement problems will arise here.

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

- Direct Employment for about 22 persons.
- Besides through allied opportunities in logistics, trading, repairing works etc. good employment potential will arise in this area, which will provide raising income levels and standards of living in the area through various service-related activities connected with the project operations.
- Benefit to State and central exchequer by way of royalty, taxes.

Towards the socio-economic development of the surrounding area, the proponent has earmarked an amount of Rs.5.0 Lakhs under Corporate Environmental Responsibility. The activities identified under CER will be implemented in a phased manner in the nearby Government school. In consultation with the locals based on the need & priority it will be implemented.

By carrying out systematic and scientific mining and implementing all the environmental mitigative measures it will be ensured that there will be no adverse impact on this front.

**4.1.8 IMPACT ON LOCAL LOGISTICAL SYSTEM DUE TO PROJECT:**

The material mined out from this lease area will be directly transported to the required customers. During the project operations, there will be 9 trips/hr. The transport route will be properly maintained to absorb this traffic due to this project. The following mitigative measures are suggested for mitigation of adverse impacts on the logistical aspect of the project:

- ❖ Water sprinkling on mineral in the transport vehicles before transporting, so that no dust nuisance during transport will arise.

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- ❖ Plantation on either side of the transport road in consultation with the concerned department.
- ❖ Proper maintenance of transport road.
- ❖ Proper maintenance of transport vehicles.
- ❖ Avoiding overloading of material.
- ❖ Covering of loaded vehicles with tarpaulins sheet.
- ❖ Limiting of speed

#### **4.1.9 WASTE MANAGEMENT:**

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

#### **5.1 ENVIRONMENTAL MONITORING PROGRAMME:**

Regular, systematic and sustained programme schedules for implementation and monitoring of various control measures are devised with clear cut guidelines of various concerned plans for keeping a continuous surveillance on the various environmental quality parameters in the area. The Mines Manager in the mine project site will be directly responsible for various environmental activities in the mine and will undertake effective monitoring and implementation of various environmental control measures promptly and effectively and to oversee various environmental management schemes for air quality control, water quality status, noise level control, plantation programme, social development schemes, etc in the mine. Towards EMP measures, Rs.15.2 lakhs is allocated under capital cost. Besides, Rs.15.1 lakhs per annum is allocated as recurring cost. The baseline monitoring carried out for this project reflects the cumulative impact of this existing quarry.

#### **7.1 CONCLUSION:**

By systematic and scientific mining adhering to all the statutory norms and enforcing and strictly implementing the above said mitigation measures mentioned in this report, no adverse impact is envisaged. The proposed mining project will benefit this region in the fields of potential employment opportunities, improved income for local people, improved social welfare facilities in



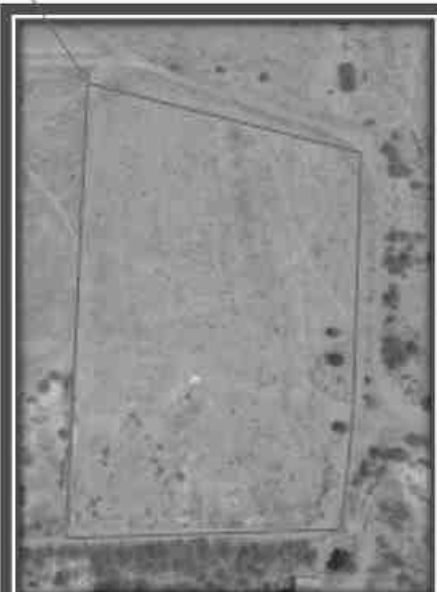
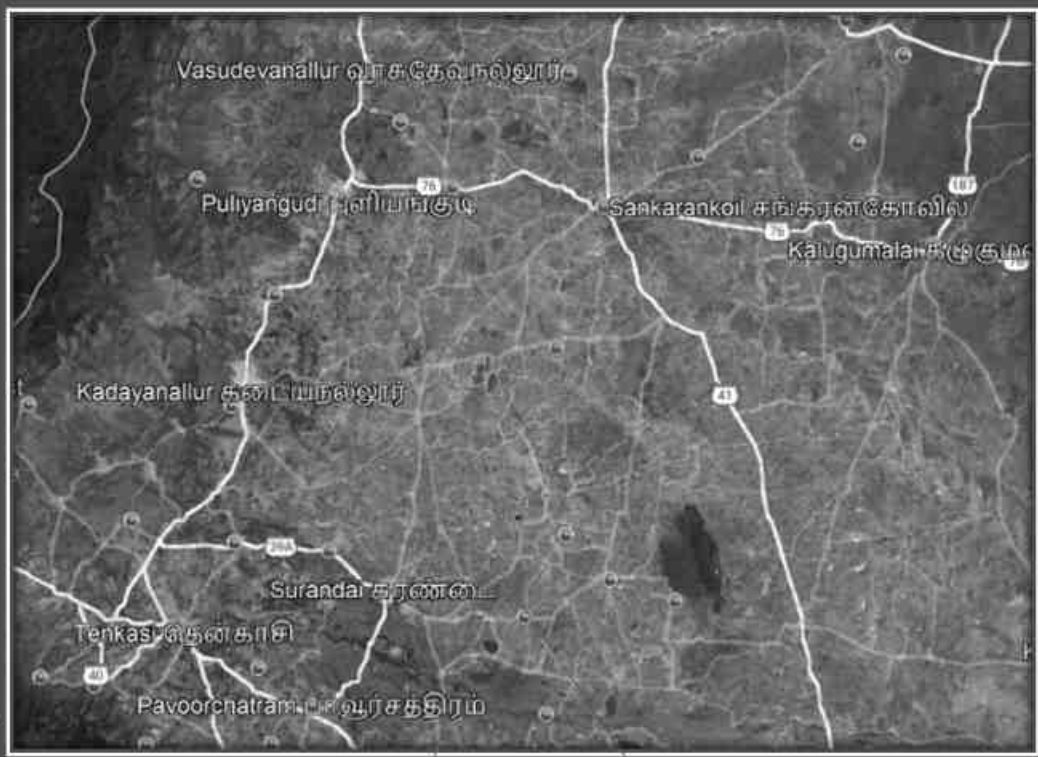
**ROUGH STONE, JELLY AND GRAVEL QUARRY OF THIRU.R.PONKALIRAJ, AT SURVEY NO.280/6 OVER AN AREA OF 2.38.0HA IN ANAIKULAM VILLAGE, VEERAKERALAMPUDUR TALUK, TENKASI DISTRICT, TAMIL NADU.**

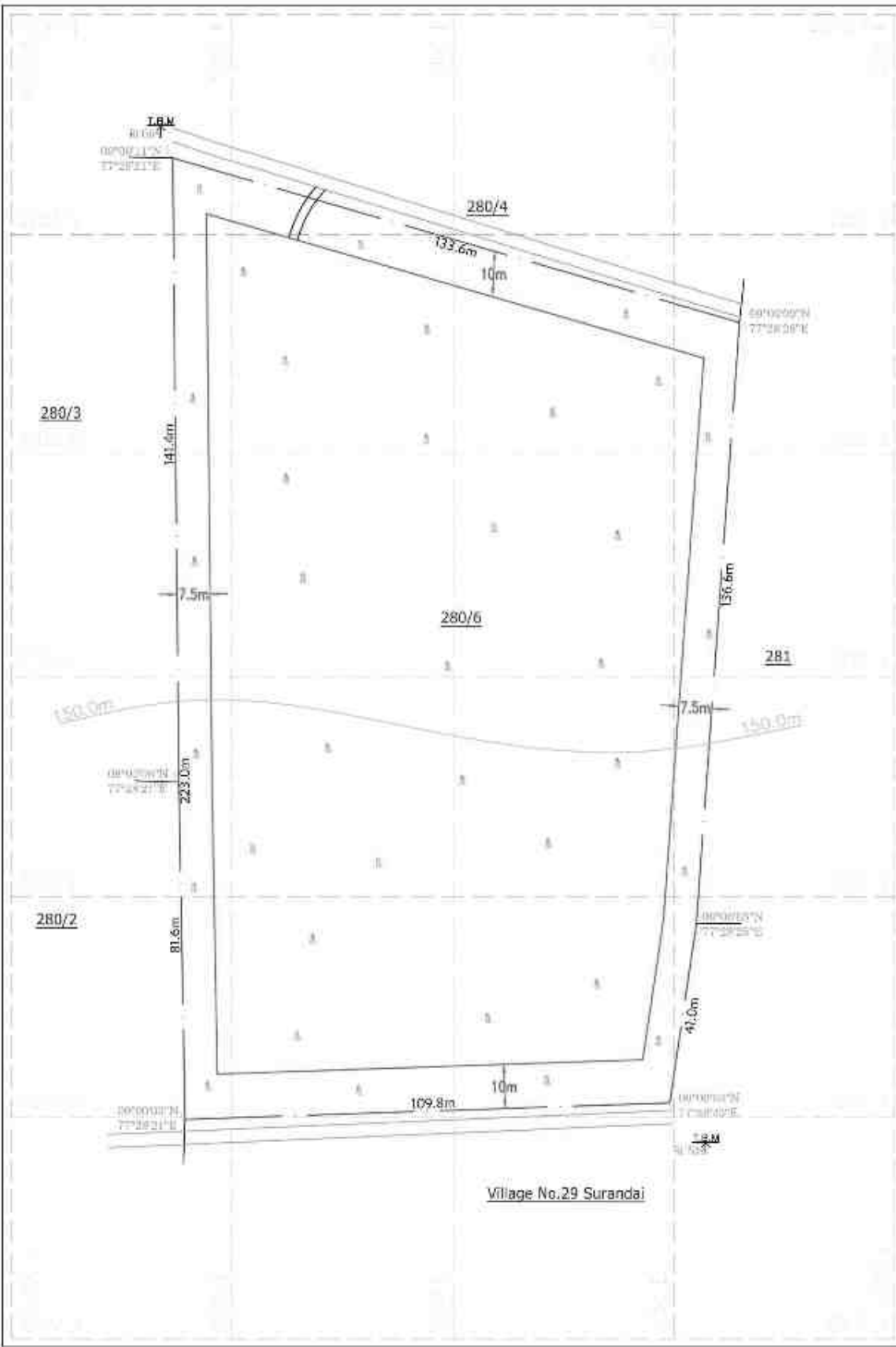
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respect of education, medical healthcare systems, etc. in its own way and also revenue to Government through royalty, taxes etc. Besides, it will meet the raw material requirement of the construction industry also.

\* \* \* \* \*







**PLATE NO-II**  
DATE OF SURVEY : 17.11.2021

**APPLICANT:**  
THIRU R. PONKALIRAJ,  
S/o (Late) P. RAJENDRAN,  
18/7/23, THIRUMALAI ANDAVAR KOVIL STREET,  
SIVAGUR/NATHAPURAM,  
SURANDAI - 627859,  
V.K.RUPUR TALUK,  
TENKASI DISTRICT.

**QUARRY LEASE APPLIED AREA:**  
S.F.NO : 280/6,  
EXTENT : 2.38.0 Ha,  
VILLAGE : ANAKULAM,  
TALUK : VEERAKERALAMPUDUR,  
DISTRICT : TENKASI.

**INDEX**

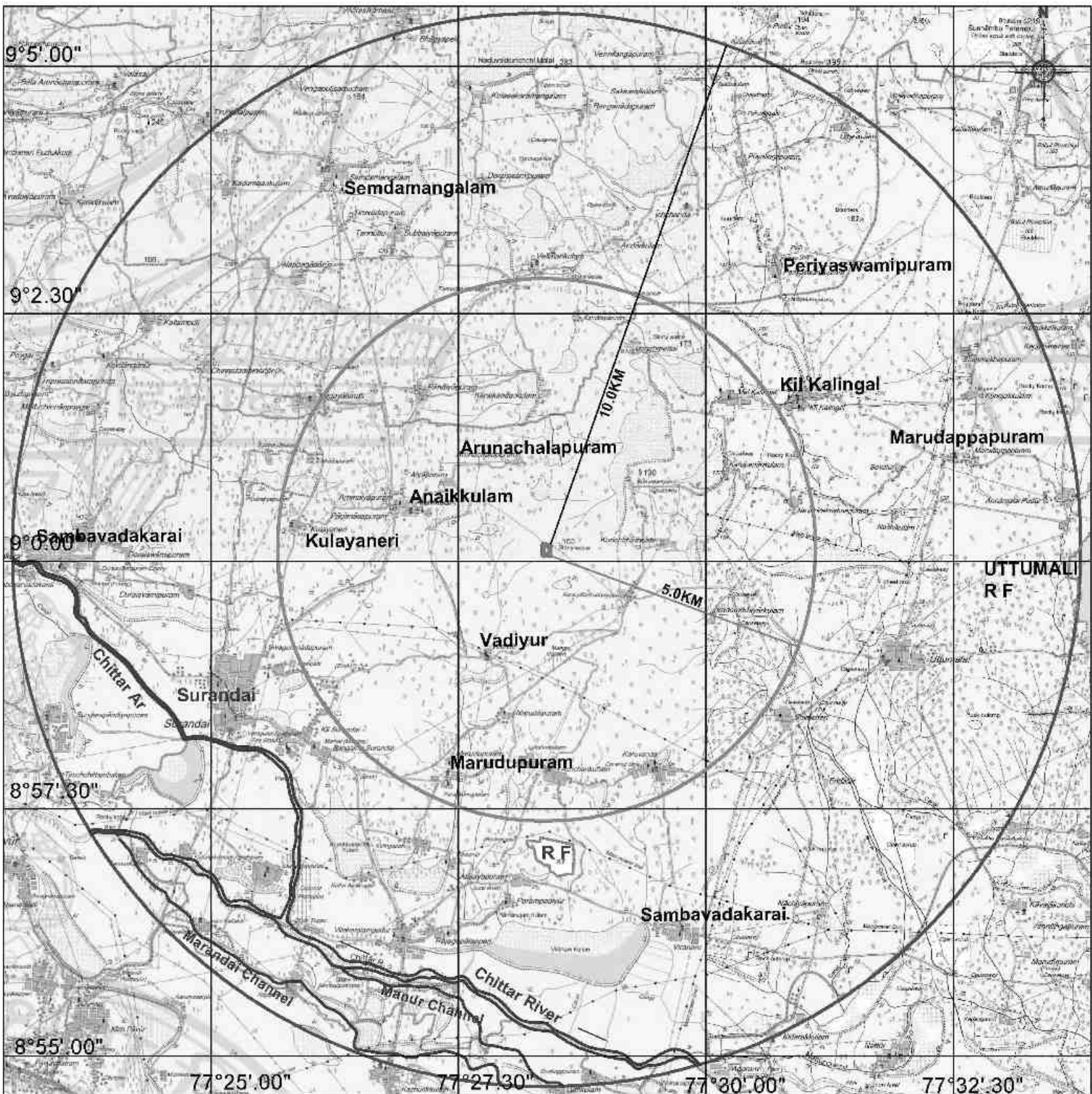
Q.L.APPLIED BOUNDARY	
7.5m & 10m SAFETY DISTANCE	
TEMPORARY BENCH MARK	
APPROACH ROAD	
CART TRACK	
CONTOUR	
SCRUB	

**QUARRY LEASE & SURFACE PLAN**  
SCALE 1 : 1000

**PREPARED BY:**  
THIS IS TO CERTIFY THAT THE INFORMATION  
IN THIS PLATE IS TRUE AND CORRECT TO  
THE BEST OF MY KNOWLEDGE BASED UPON  
THE LEASE MAP AUTHENTICATED BY STATE  
GOVERNMENT

C.NATARAJAN,M.Sc,M.Phil.,  
QUALIFIED PERSON

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT



TOPO SHEET NO - 58 G/ 8, 12, 58 H/ 5 & 9

**INDEX PLAN**

**ROUGH STONE, JELLY AND GRAVEL QUARRY OF THIRU. R. PONKALIRAJ**

LEASE AREA- 2.38.0H3; ANAIKKULAM VILLAGE, VEERAKERALAMPUDUR TALUK, TENKASI DISTRICT, STATE - TAMILNADU

**STUDY AREA WITH IN 10KM RADIUS**



**CREATIVE ENGINEERS & CONSULTANTS**  
 5B-4, SHARATHNAJAR STREET,  
 EAST TAMBARAM, CHENNAI - 46,  
 PIN- 06444109/10

**LEGEND**

- CORE ZONE AREA
- HUTMENTS
- ROAD
- RIVER/NALA
- FOREST