

Application Form (Draft EIA Report)

For

Proposed Rough Stone Quarry – 2.80.33 Ha
at

S. F Nos. 94 (Part-1) in Sithannavasal Village, Illuppur
Taluk, Pudukottai District, Tamil Nadu State

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

Category of the Project: B1 Cluster Mining

Baseline Period: February, March & April 2025

***Environmental Consultant
& Laboratory details:***

Ecotech Labs Pvt Ltd,



**No 48, 2nd Main road,
South extension Ram nagar,
Pallikaranai, Chennai -
600100.**

Proponent details:

Thiru.C.Palanisamy,

S/o.Chinnakannu,

No.129, Edatheru,

Sithannavasal,

Illuppur Taluk,

Pudukkottai District –

622 101.

Date:

From

Thiru.C.Palanisamy,
S/o.Chinnakannu,
No.129, Edatheru,
Sithannavasal, Illuppur Taluk,
Pudukkottai District – 622 101.

To

The District Environmental Engineer

Tamilnadu Pollution Control Board,
SIPCOT Industrial Complex,
Thiruvengaivasal,
Pudukkottai - 622 002

Sir,

Sub: Request to conduct Public Hearing – “Thiru.C.Palanisamy Rough Stone Quarry” over a total extent of 2.80.33 Ha at S. F. Nos. 94 (Part-1) in Sithannavasal Village, Illuppur Taluk, Pudukkottai District, Tamil Nadu – Regarding.

Ref: File No: 11674 & ToR Identification No: TO24B0108TN5775960N

Please find enclosed herewith the application of Draft EIA Report along with necessary enclosures towards seeking Environmental clearance for the “Thiru.C.Palanisamy Rough Stone Quarry” over a total extent of 2.80.33 Ha at S. F. Nos. 94 (Part-1) in Sithannavasal Village, Illuppur Taluk, Pudukkottai District, Tamil Nadu. In this regard, we had obtained the Terms of Reference from State Environmental Impact Assessment Authority (SEIAA) Tamil Nadu; vide reference mentioned above for conducting EIA studies. We wish to inform that the draft EIA report complying with all the conditions mentioned in the ToR has been prepared and the copies of the same are enclosed with this letter. With reference to the above, we kindly request the TNPCB to make the necessary arrangements for **conducting the public hearing for the Rough Stone Quarry**. With the above, we request the TNPCB to accept and process our application for conducting the Public Hearing at the earliest.

Thanking you

Yours Sincerely

Authorized Signatory

Enclosures: Draft EIA report

Thiru.C.Palanisamy,
S/o.Chinnakannu,
No.129, Edatheru,
Sithannavasal, Illuppur Taluk,
Pudukkottai District – 622 101.

UNDERTAKING

I, Thiru.C.Palanisamy, undertaking that the Draft Environmental Impact Assessment (EIA) Report for Rough Stone Quarry over an extent of 2.80.33 Ha at S.F.No. 94 (Part-1) in Sithannavasal Village, Illuppur Taluk, Pudukkottai District, Tamil Nadu State under project category B1 and Schedule S.No.1(a)

TOR issued by the State Expert Appraisal Committee, TN vide ToR Identification Number: TO24B0108TN5775960N and File No: 11674.

I, hereby assure that all the information and data provided in the EIA report is accurate, true and correct and owns responsibility for the same.

Place: Pudukkottai

Date:

Yours faithfully

Thiru.C.Palanisamy

Plot No.48A, 2nd Main Road,
Ram Nagar, South Extension,
Pallikarantal, Chennai - 600 100.
GST NO. 33AADCE6103A22H
PAN NO. AADCE6103A



Eco Tech Labs Pvt Ltd

Cell No. 98400 87542
Email : info@ecotechlabs.in
Website : www.ecotechlabs.in
CIN : U74900TN2014PTC094895

UNDERTAKING

I, Dr. A. Dhamodharan, Managing Director confirms that this Draft EIA Report of Rough Stone Quarry over an extent of 2.80.33 Ha at S.F.No. 94 (Part-1) in Sithannavasal Village, Illuppur Taluk, Pudukkottai District, Tamil Nadu State has been prepared at M/s. Ecotech Labs Pvt. Ltd., Chennai.

I also confirm that I shall be fully accountable for any miss-leading information mentioned in this Report.

Signature:

Name: Dr. A. Dhamodharan

Designation: Managing Director

Name of the EIA Consultant Organization: M/s. Ecotech Labs Pvt Ltd., Chennai.

NABET Certificate No: NABET/EIA/25-28/SA 0400

Date:

Place: Chennai

Declaration of Experts contributing to the EIA



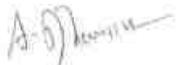
Declaration by experts contributing to the EIA report for Rough Stone Quarry (minor mineral) mining project of Thiru.C.Palanisamy Rough Stone Quarry over a total extent of 2.80.33 Ha at S.F.No. 94 (Part-1) of Sithannavasal Village, Illuppur Taluk, Pudukkottai District, Tamilnadu State.





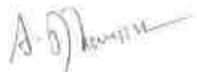
I, hereby certify that I was a part of the EIA team in the following capacity that developed the above EIA.


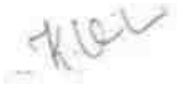


Project	Rough Stone Quarry – 2.80.33 Ha
Type & Category	1 (a) Mining of Minerals
Project Proponent	Thiru.C.Palanisamy
Environment Consultant with their Accreditation Status	M/s. Eco Tech Labs Pvt. Ltd., QCI Accredited
NABET Certificate No.	NABET/ EIA/25-28/ SA 0400
EIA Coordinator Name Signature	Dr. A. Dhamodharan (Mining of Minerals)  Dr. A. DHAMODHARAN (NABET APPROVED EIA COORDINATOR) NABET/EIA/25-28 / RA 0400 Environmental Consultant Eco Tech Labs Pvt. Ltd Plot No. 48A, 2nd Main Road, Ram Nagar South Extn: Pallikaranai, Chennai - 600 100.
Period of Involvement	February to April 2025
Contact Information	M/s. Eco Tech Labs Pvt. Ltd. No. 48, 2nd Main Road, Ram Nagar South Extension Pallikaranai, Chennai - 600 100 Mobile: +91 9789906200 E-mail: dhamo@ecotechlabs.in

Functional Area Experts

The basic fact division that environment and laboratory are accredited by NABL and Ministry of Environment and Forests, India and by other international bodies, stand testimony to its emphasis.

S. No.	Functional areas	Name of the experts	Involvement (period and task)	Signature and date
1	AP	Mrs. K. Vijayalakshmi	1. Selection of Baseline Monitoring stations based on the wind direction 2. Interpretation of Baseline data by comparing it with standards prescribed by CPCB against the type of area 3. Identification of sources of air pollution and suggesting mitigation measures to minimize impact <i>Period: March 2022 – Till now</i>	
2	WP	Dr. A. Dhamodharan	1. Selection of baseline Monitoring Locations for Ground water analysis and also identifying nearest surface water to be studied. 2. Interpretation of baseline data collected 3. Identification of impacts based on the baseline study conducted and also to the ground water and nearby surface water due to the proposed project 4. Preparation of suitable and appropriate mitigation plan. <i>Period: March 2022 – Till now</i>	
3	SHW	Dr. A. Dhamodharan	1. Identification of nature of solid waste generated 2. Categorization of the generated waste and estimating the quantity of waste to be generated based on the per capita basis. Identification of impacts of SHW on Environment 3. Suggesting suitable mitigation measures by recommending appropriate disposal method for each category of waste generated 4. Top soil and refuse management <i>Period: March 2022 – Till now</i>	

4	SE	Mr. S. Pandian	<p>1. Primary data collection through the census questionnaire</p> <p>2. Obtaining Secondary data from authenticated sources and incorporating the same in EIA report.</p> <p>3. Impact assessment & proposing suitable mitigation plan</p> <p>4. CSR budget allocation by discussing with the local body and allotting the same for need based activity.</p> <p>Period: March 2022 – Till now</p> <p>*INVOLVES PUBLIC HEARING</p>	
5	EB	Dr. A. Dhamodharan	<p>1. Primary data collection through field survey and sheet observation for ecology and biodiversity</p> <p>2. Secondary Collection through various authenticated sources</p> <p>3. Prediction of anticipated impacts and suggesting appropriate mitigation measures.</p> <p>Period: March 2022 – Till now</p>	
6	HG	Dr. T. P. Natesan	<p>1. Study of existing surface drainage arrangements in the core and buffer zone, impact due to mining on these drainage courses and suggestion of mitigative measures</p> <p>2. Determination of groundwater use pattern, development of rainwater harvesting program. Storm water management through garland drainage system.</p> <p>Period: March 2022 – Till now</p>	
7	GEO	Dr. T. P. Natesan	<p>1. Field survey for assessing regional and local geology, aquifer distribution, Determination of groundwater use pattern, development of rainwater harvesting program.</p> <p>Period: March 2022 – Till now</p>	
8	SC	Dr. A. Dhamodharan	<p>1. Interpretation of baseline report</p> <p>2. Identification of possible impacts on soil, prediction of soil conservation and suggesting suitable mitigation measures.</p> <p>Period: March 2022 – Till now</p>	

9	AQ	Mrs. K. Vijayalakshmi	<ol style="list-style-type: none"> 1. Collection of Meteorological data for the baseline study period 2. Plotting wind rose plot and thereby selecting the monitoring locations based on the wind pattern 3. Estimation of sources of air emissions and air quality modeling is done 4. Interpretation of the results obtained 5. Identification of the impacts and suggesting suitable mitigation measures. <p>Period: March 2022 – Till now</p>	
10	NV	Mrs. K. Vijayalakshmi	<ol style="list-style-type: none"> 1. Selection of monitoring locations 2. Interpretation of baseline data 3. Prediction of impacts due to noise pollution and suggestion of appropriate mitigation measures <p>Period: May 2022 – Till now</p>	
11	LU	Dr. T. P. Natesan	<ol style="list-style-type: none"> 1. Collection of Remote sensing satellite data to study the land use pattern. 2. Primary field survey and limited field verification for land categorization in the study area 3. Preparation of Land use map using Satellite data for 10km radius around the project site. <p>Period: March 2022 – Till now</p>	
12	RH	Mrs. K. Vijayalakshmi	<ol style="list-style-type: none"> 1. Identification of the risk 2. Interpreting consequence contours 3. Suggesting risk mitigation measures <p>Period: March 2022 – Till now</p>	

Declaration by the Head of the accredited consultant organization/ authorized person

I, Dr. A. Dhamodharan, hereby confirm that the above-mentioned experts prepared the EIA report of mining project at S.F.No. 94 (Part-1) of Sithannavasal Village, Illuppur Taluk, Pudukkottai District, Tamilnadu State.

I also confirm that the consultant organization shall be fully accountable for any misleading information mentioned in this statement.

Signature:



Name: Dr.A.Dhamodharan

Designation: Managing Director

Name of the EIA consultant organization: M/s. Eco Tech Labs Private Limited

NABET Certificate No: NABET/ EIA/25-28/ SA 0400

DRAFT EIA REPORT

Project	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
Project Proponent	<i>Thiru.C.Palanisamy</i>	
Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

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Project Location	<i>Sithannaval Village, Illuppur Taluk, Pudukkottai District.</i>	

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<i>Project Proponent</i>	<i>Thiru.C.Palanisamy</i>	
<i>Project Location</i>	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

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<i>Project Proponent</i>	<i>Thiru.C.Palanisamy</i>	
<i>Project Location</i>	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

Abbreviation

LU –Land use

AP – Air Pollution monitoring, prevention and control

AQ- Meteorology, Air quality modeling and prediction

WP – Water pollution monitoring, prevention and control

EB- Ecology and Biodiversity

NV- Noise & Vibration

SE- Socio-economics

HG- Hydrology, ground water and water conservation

GEO –Geology

RH – Risk assessment and hazards management

SHW –Solid and Hazardous waste management

SC- Soil conservation

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EXECUTIVE SUMMARY

1. Project Background:

The New Rough Stone Quarry over an extent of 2.80.33 Ha, Government Poramboke land S.F. No: 94 (Part-1) of Sithannaval Village, Illuppur Taluk, Pudukkottai District. The category of the project is B1 (cluster), the lease area exhibits plain terrain covered by massive charnockite rough stone formation.

The quarry operation is proposed to carry out with conventional open cast mechanized mining with 5.0meter vertical bench with a bench width of 5.0meter. The Quarry operation involves shallow jack hammer drilling, slurry blasting, loading and transportation.

The quarry operation is proposed up to depth for 47.0m (Topsoil 2.0m & Rough stone 40.0m). The Total Geological reserve is about 116m³ of Topsoil and 6,85,630m³ of Rough Stone. The Mineable Reserves are 96m³ of Topsoil and 2,77,305m³ of Rough stone. Production schedule is proposed an average production of 96m³ of Topsoil and 2,77,305m³ of Rough stone for (Sixty months) Five years only.

The Mining Plan was approved by the Assistant Director, Geology & Mining, Pudukkottai vide letter Rc.No.1062/2023 (G&M) dated 14.03.2024. There is no CRZ zone, Western Ghats, notified Bird sanctuaries, wild life sanctuaries as per Wild life protection Act 1972, within the radius of 15Km.

2. Nature & Size of the Project

The Rough Stone Quarry over an extent of 2.80.33 Hectares land is located Sithannaval Village, Illuppur Taluk, Pudukkottai District.

Mineral intends to quarry	: Rough stone.
District	: Pudukkottai
Taluk	: Illuppur
Village	: Sithannaval

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Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

S. F. Nos. : 94 (Part-1)
Extent : 2.80.33 Hectares

Table 1: Brief Description of the Project

S. No	Particulars	Details
1	Latitude	10°27'49.9231"N to 10°27'43.2157"N
2	Longitude	78°44'07.9289"E to 78°44'01.1168"E
3	Site Elevation above MSL	135.0m above MSL.
4	Topography	Plain terrain
5	Land use of the site	Government Poramboke land
6	Extent of lease area	2.80.33 Ha
7	Nearest highway	NH 336 – Trichy to Pudukkottai Road – 4.97 Km - E SH 71 – Manapparai to Pudukkottai Road – 2.70 Km - SW
8	Nearest railway station	Vellalur Railway Station – 6.87 km - E
9	Nearest airport	Tiruchirapalli International Airport – 33.59 km - N
10	Nearest town / city	Town - Pudukkottai – 10.20 km - SE City - Pudukkottai – 10.20 km - SE District - Pudukkottai – 10.20 km - SE
11	Rivers / Canal	Vellar River – 10.04 Km - SW
12	Lake/Pond	❖ Vellar River – 10.04 Km - SW ❖ Periya Kulam – 0.43 Km – W ❖ Sithannavasal boating pond – 2.04 Km – SW ❖ Temple Pond – 2.16 Km – SE ❖ Panangudi Periya kulam – 2.83 Km - SW ❖ Periya vellala kulam – 2.91 Km – E ❖ Alankulam – 3.49 Km – E ❖ Mel kulam – 3.65 Km - E ❖ Pai Kulam – 3.71 Km – E ❖ Mela Kulam – 3.72 Km - S

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		<ul style="list-style-type: none"> ❖ Annavasal Periyakulam Lake – 3.75 Km – W ❖ Melur oorani – 4.05 Km – E ❖ Kalamuthi Kulam – 4.24 Km – E ❖ Kila Kulam – 4.62 Km – SE ❖ Perunjunai Lake – 4.92 Km - SE ❖ Thottiya kulam – 5.10 Km – E ❖ Kili Kulam – 5.39 Km – E ❖ Kundu Pallam Lake – 5.75 Km - S ❖ Vellanur Local Pond – 5.91 Km – E ❖ Thiruvengainathar Lake – 6.54 Km – SE ❖ Kavinadu Kanmai – 9.96 Km – SE ❖ Ponnappan Urani – 11.39 Km - SE ❖ Adappan kulam – 11.54 Km - SE ❖ Keerankudi Kanmai – 11.77 Km – SSW ❖ Akkachiyar Kulam – 12.08 Km - SE ❖ Old Keerankudi Kanmai – 12.86 Km – SSW ❖ Melathemuthupatti Pond – 13.62 Km – SE ❖ Kotti Kanmai – 14.42 Km – S
13	Dams	<ul style="list-style-type: none"> ❖ Senthamangalam Dam – 11.18 Km – S ❖ Holdsworth Anaicut – 18.57 Km - SE
14	Hills / valleys	<ul style="list-style-type: none"> ❖ Ancient Jain Cave Hills – 1.59 Km - SW ❖ Ural Hills – 2.57 Km – NE
15	Archaeologically places	<ul style="list-style-type: none"> ❖ Rock cut Jain Temple – 1.32 Km – SW ❖ Natural Cavern with stone beds – Eladipattam – 1.81 Km – SW ❖ Jain Image, Annavasal – 4.23 Km – W ❖ Siva Temple, Ariyur – 4.50 Km - S ❖ Kailasanatha temple, Agastisvara temple – Vellanur – 6.38 Km – E ❖ Devar Malai Rock cut cave Temple – 11.82 Km - S

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16	National parks / Wildlife Sanctuaries	❖ Vettangudi Birds Sanctuary – 45.88 Km - SW
17	Reserved / Protected Forests	❖ Narthamalai RF – 4.30 Km – NE ❖ Kudumiyamalai RF – 6.29 Km – SW ❖ Perungudipatti RF – 7.30 Km - NE ❖ Permabur RF – 7.36 Km - SW ❖ Aladukkadu RF – 8.89 Km – NE ❖ Chinna valakkad RF – 10.62 Km – SE ❖ Vellar RF – 12.26 Km – S ❖ Mallangudi RF – 13.26 Km - S
18	Seismicity	Proposed Lease area come under Seismic zone-II (Moderate risk area)

3. Need for the Project

- ❖ The mining activities as proposed are the backbone of all construction and infrastructure projects as the raw material for construction is available only from such mining. The Rough stone extracted will be transported to be Stone crusher of district Pudukkottai.
- ❖ The raw Rough stone as well as the crushed material of stone is in high demand in real estate, construction projects as well as in building construction projects.
- ❖ Rough stone is quarried for producing crusher aggregates to the nearby building contractors, road contractors and nearby villagers.
- ❖ After quarrying the entire reserves mined out, the area will be used as water reservoir to have an artificial recharge to the nearby wells.
- ❖ No damage to the land is caused, no reclamation or backfilling is required.

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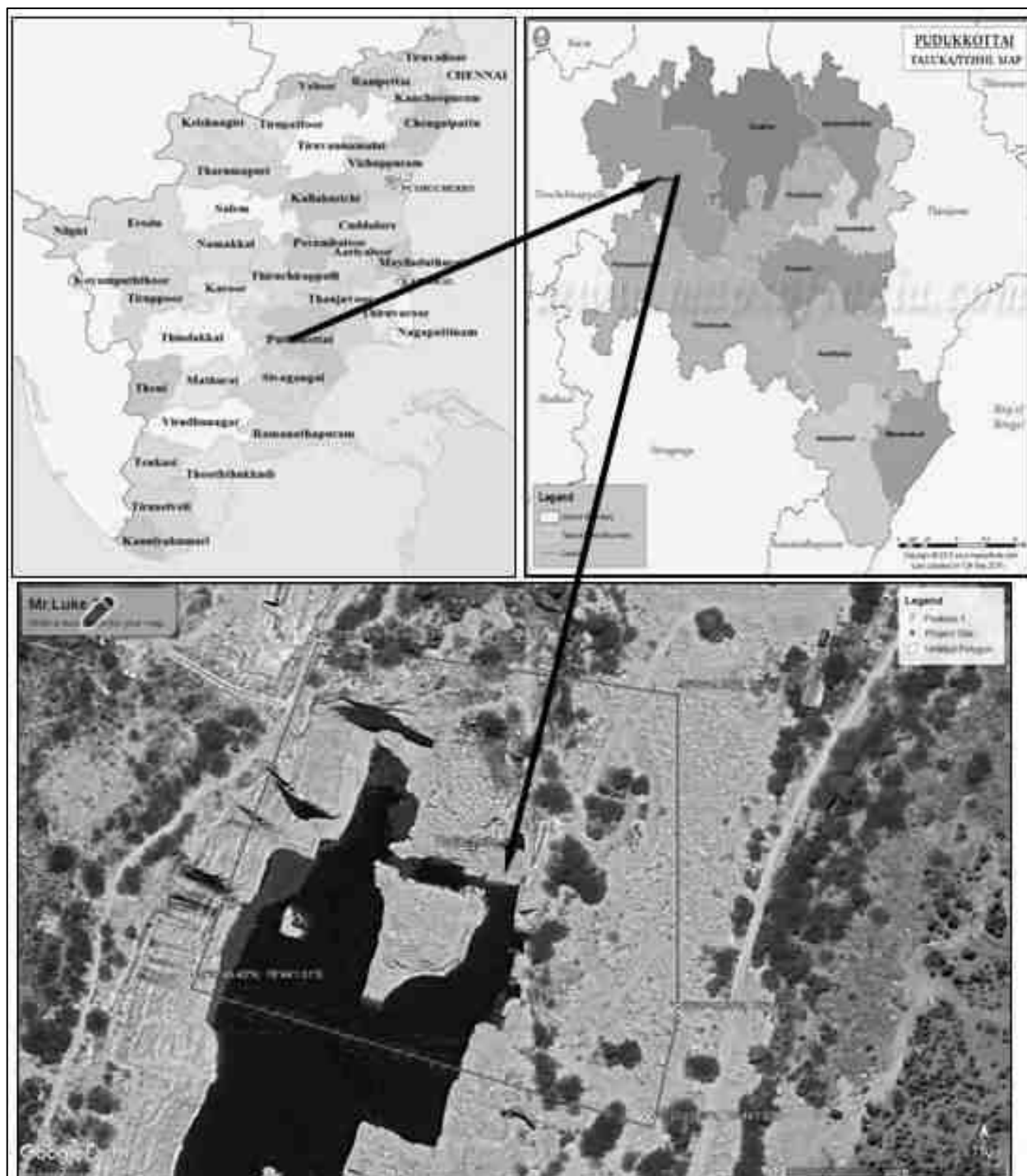


Figure 1: Location Map of the Project Site

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
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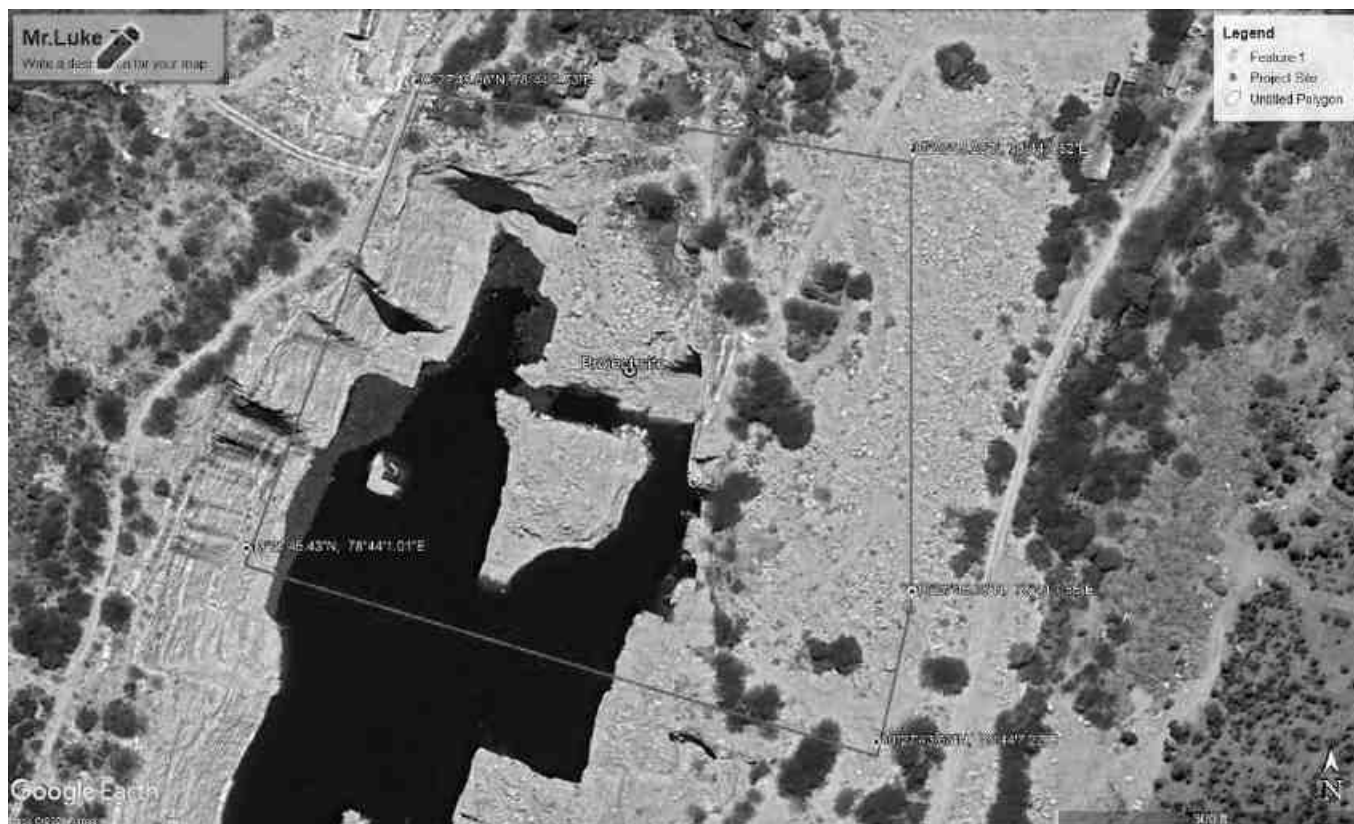


Figure 2: Google Image of the Project Site

4. Charnockite

Generally, the Charnockite is grey to greenish colored, coarse to medium grained, greasy nature with or without garnet. Because of the limited outcrops, the quarry sections are studied to infer the various interrelationships between the litho units. Charnockite is interbanded nature with crystalline carbonate rocks are observed in most of the quarry in the areas of Kunnandavarkoil, Thirumayam, Kulathur, Weathering of the Charnockite on the surface gives a deceptive look of gneiss and in the quarry sections at depth the fresh charnockite is exposed, which are well exemplified in almost all the Charnockite quarry sections.

5. Geological Resources

Top Soil :

The Thickness of Topsoil in this area is 2.0m and the total volume of Topsoil will be 116m³.

Rough Stone :

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The Available Geological Reserve is estimated as 685630m³ respectively at the rate of 100% recovery upto the permissible depth. Topsoil is calculated up to a depth of 2m and Rough Stone at a depth of 45m. **Total Depth - 47m.**

Table 2. Geological resources

GEOLOGICAL RESOURCES							
Section	Bench	L (m)	W (m)	D (m)	Volume in (Cu.m.)	Geological Reserve in Cu.m(100%)	Topsoil in Cu.m.
XY-AB	I	58	1	2			116
	II	77	4	5	1540	1540	
	III	77	13	5	5005	5005	
	IV	77	13	5	5005	5005	
	V	138	112	5	77280	77280	
	VI	138	112	5	77280	77280	
	VII	191	112	5	106960	106960	
	VIII	191	120	5	114600	114600	
	IX	191	156	5	148980	148980	
	X	191	156	5	148980	148980	
Total					685630	685630	116

Table 2.1 Mineable Resources

MINEABLE RESERVES							
Section	Bench	L (m)	W (m)	D (m)	Volume in (Cu.m.)	Mineable Reserve in Cu.m (100%)	Topsoil in Cu.m.
XY-AB	I	48	1	2			96
	II	65	1	5	325	325	
	III	60	1	5	300	300	
	IV	55	1	5	275	275	

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	V	99	90	5	44550	44550	
	VI	94	85	5	39950	39950	
	VII	131	80	5	52400	52400	
	VIII	121	83	5	50215	50215	
	IX	111	89	5	49395	49395	
	X	101	79	5	39895	39895	
Total=					277305	277305	96

Table 3. Year wise Production Plan

YEARWISE DEVELOPMENT AND PRODUCTION								
Year	Section	Bench	L (m)	W (m)	D (m)	Volume in (m³)	Recoverable Reserve in m³ (100%)	Topsoil in m³
I-Year	XY-AB	I	48	1	2			96
		II	65	1	5	325	325	
		III	60	1	5	300	300	
		IV	55	1	5	275	275	
		V	99	90	5	44550	44550	
TOTAL						45450	45450	96
II-Year	XY-AB	VI	94	85	5	39950	39950	
TOTAL						39950	39950	
III-Year	XY-AB	VII	131	80	5	52400	52400	
TOTAL						52400	52400	
IV-Year	XY-AB	VIII	121	83	5	50215	50215	
TOTAL						50215	50215	
V-Year	XY-AB	IX	111	89	5	49395	49395	
		X	101	79	5	39895	39895	
TOTAL						89290	89290	
GRAND TOTAL						277305	277305	96

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6. Mining

Opencast Mining

The quarry operation is proposed to be carried out with conventional open cast mechanized mining with 5.0meter vertical bench with a bench width of 5.0 meter. The Quarry operation involves shallow jack hammer drilling, slurry blasting, loading and transportation.

Process Description

- The reserves and resources are arrived based upon the Geological investigation.
- Removal of Topsoil by Excavators and directly Loaded into Tippers.
- Removal of Rough Stone by Excavators by Drilling and Blasting.
- Shallow Drilling With Jackhammer of 25.5mm Dia.
- Minimum Blasting With Class 3 Explosives.
- Loading of Rough Stone By Excavators Into Tippers.

7. Water Requirement

Total water requirement for the mining project is 1.675 KLD. Domestic water will be sourced from nearby Sithannaval Village and other water will be source from nearby road tankers supply.

Table 4. Water Balance

Purpose	Quantity	Source
Drinking Water	0.675 KLD	Packaged Drinking water vendors available in Sithannaval village which is about 1.04 km W from the project site.
Green belt	0.5 KLD	Other domestic activities through road tankers supply.
Dust suppression	0.5 KLD	From road tankers supply.
Total	1.675 KLD	

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8. Manpower

Total manpower required for the project is approximately 15 persons. The workers will be from nearby villages.

Table 5. Man Power

1.	Skilled	Operators	2 Nos
		Mechanic	1 No
		Blaster/Mat	1 No
2.	Semi – skilled	Drivers	2 Nos
3.	Unskilled	Musdoor/Labours	4 Nos
		Cleaners	2 Nos
		Office Boy	1 No
4.	Management & Supervisory staff		2 Nos
Total			15 Nos

No child less than 18 years will be entertained during quarrying operations.

9. Solid Waste Management

Table 6 Solid Waste Management

S. No	Type	Quantity	Disposal Method
1	Organic	4.05 kg/day	Municipal bin including food waste
2	Inorganic	2.70 kg/day	TNPCB authorized recyclers

As per CPCB guidelines: MSW per capita/day =0.45 kg/day

Table 7 500m Radius Cluster Mine

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1) Existing other quarries:

S. No.	Name of the lessee / Permit Holder	Village & Taluk	S. F. No.	Extent	Lease Period
1.	Tmt.D.Adaikalamary W/o. Durai Diviyanathan, 205, Housing Unit, Rajagopalapuram, Pudukkottai – 622003	Kulathur Irumbali	80/1 76/2	1.38.0	01.2015 to 31.02.2035
2.	Thiru.R.Sathiyamoorthy, S/o.Ramasamy, Ellaiyapatti, Mathiyanallur village, Illuppur Taluk, Pudukkottai Dt	Illuppur Sithannavasal	95/22 & etc.,	0.94.5	31.07.2023 to 30.07.2028
Total				2.32.5	

2) Proposed Area:

S. No.	Name of the applicant	Village & Taluk	S. F. No.	Extent
1.	Thiru.C.Palanisamy, S/o.Chinnakannu, No.129, Edatheru, Sithannavasal, Illuppur Taluk, Pudukkottai Dt	Illuppur Sithannavasal	94 (Part-1)	2.80.33
2.	Thiru.K.Muthukumar, S/o.Karuppaiah, No.94, North street, Sithannavasal, Illuppur Taluk, Pudukkottai Dt	Illuppur Sithannavasal	94 (Part-2)	2.50.0
3	Thiru.Bennet Antony Raj, S/o.Durai Dhiviyathan, No.205, Housing Unit, Periyar Nagar, Rajagopalapuram, Pudukkottai District.	Irumbali, Kulathur	75/2 (P) (1.02.5) & 75/4 (P) (1.05.5)	2.08.0
4	Tmt.K.Indirani W/o.Karuppaiah,	Illuppur Sithannavasal	95/12, 95/16, 95/18, 95/20 (P) & 95/21 (P)	1.44.0

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Project Location	<i>Sithannaval Village, Illuppur Taluk, Pudukkottai District.</i>	

	Door No.45, Thayinipatti, Vilathupatti Post, Illuppur Tk, Pudukkottai Dt.			
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Total				8.82.33
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3) Lease Expired

S. No.	Name of the lessee / Permit Holder	Village & Taluk	S. F. No.	Extent	Lease Period
1.	Thiru.C.Ponnusamy, S/o.Chinnaiya, Sithannaval post, Illuppur Taluk, Pudukkottai District.	Illuppur Sithannaval	210/12B etc.,	2.50.0	28.06.2017 to 27.06.2022
2.	Thiru.Poosairaj, S/o.Mariyappan Sithannaval post, Illuppur Taluk, Pudukkottai District.	Illuppur Sithannaval	211 (Q.No.1)	2.50.0	28.06.2017 to 27.06.2022
3.	Thiru.R.Radha, S/o.Ramesh, Thayinipatti village, Illuppur Taluk, Pudukkottai District.	Illuppur Sithannaval	211 (Part)	2.00.0	28.06.2017 to 27.06.2022
4.	Thiru.K.R.N.Ramesh, S/o.Rasu Nattar, Thayinipatti, Vilathupatti post, Illuppur Taluk, Pudukkottai Dt	Illuppur Sithannaval	95/1 & etc	0.96.0	11.08.2017 to 10.08.2022
5.	Thiru.G.Murugesan, S/o.Ganesan, Pudupatti, Mathiyanallur Taluk, Pudukkottai District.	Irumbali Kulathur	98/1,2	0.70.0	24.11.2017 to 23.01.2022

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6.	L.Soosainathan, S/o.Loordhusamy, 448, Housing Unit, Rajagopalapuram, Pudukkottai District	Illuppur Sithannvasal	95/8 & 97/32	0.93.5	14.03.2010 to 13.03.2015
7.	Thiru.A.S.Pichai, S/o.Subbiah, 21/22, Old Perumalkoil street, Annavaasal, Illuppur Taluk, Pudukkottai District.	Illuppur Mathiyanallur	241/3 (p)	1.21.5	29.05.2015 to 28.05.2020
8.	Tmt.S.Sooriya, W/o.Sathiya-moorthy, Ellaiyapatti, Mathiyanallur (post), Illuppur Taluk, Pudukkottai District.	Mathiyanallur Illuppur	280 (part)	1.00.0	14.10.2016 to 13.10.2021
Total				11.81.0	

The Total extent of the Existing / Lease expired / Proposed quarries is **11.14.83 Ha.**

10. Land Requirement

The total extent area of the project is 2.80.33 Ha, Government Poramboke land in Sithannavasal Village of Illuppur Taluk, Pudukkottai District.

Table 8 Land Use Breakup

S. No.	Land Use	Present Area (Hect)	Area in use during the quarrying period (Hect)
1.	Area under quarrying	2.08.0	2.64.67
2.	Infrastructure	Nil	0.01.0
3.	Roads	0.01.0	0.01.0
4.	Green Belt & Dump	Nil	0.13.66
5.	Unutilized Area	0.71.33	Nil
	Total	2.80.33 Ha	2.80.33 Ha

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Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

11. Human Settlement

There are no habitations within a 500m radius. There are villages located in this area within a 5km radius of the quarry.

Table 9 Habitation

SL. NO.	DIRECTION	VILLAGE	DISTANCE	POPULATION
1	North	Meivazhi	3.0Kms	300
2	East	Irumbali	2.0Kms	180
3	South	Madiyanallur	2.0Kms	200
4	West	Annavasal	3.2Kms	1200

12. Power Requirement

The Rough Stone Quarry project does not require huge water and electricity for the project.

16 Litre diesel per hour for excavator for mining and loading for Rough stone needed.

13. Scope of the Baseline Study

This chapter contains information on existing environmental scenarios on the following parameters.

1. Micro – Meteorology
2. Water Environment
3. Air Environment
4. Noise Environment
5. Soil / Land Environment
6. Biological Environment
7. Socio-economic Environment

13.1 Micro – Meteorology

Meteorology plays a vital role in affecting the dispersion of pollutants, once discharged into the atmosphere. Since meteorological factors show wide fluctuations with time, meaningful interpretation can be drawn only from long-term reliable data.

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Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

- i) Average Minimum Temperature: 3 3.7 °C
- ii) Average Maximum Temperature: 2 4 °C
- iii) Average Annual Rainfall of the area: 922.8 mm

13.2 Air Environment

Ambient air monitoring was carried out on a monthly basis in the surrounding areas of the Mine Lease area to assess the ambient air quality at the source. To know the ambient air quality at a larger distance i.e., in the study area of 5 km. radius, an air quality survey has been conducted at 5 locations. Major air pollutants like Particulate Matter (PM₁₀), Sulphur Dioxide (SO₂), Nitrogen Dioxide (NO₂) were monitored, and the results are summarized below.

The baseline levels of PM₁₀ (57 – 36 µg/m³), PM_{2.5} (26 - 10 µg/m³), SO₂ (18 – 4 µg/m³), NO₂ (30 - 10 µg/m³), all the parameters are well within the standards prescribed by National Ambient Air Quality during the study period from February to April 2025

13.3 Noise Environment

Ambient noise levels were measured at 7 locations around the proposed project site. The maximum Day noise and Night noise were found to be 66 dB(A) and 53 dB(A) respectively in Vinayagar Temple, Sithuppatti. The minimum Day Noise and Night noise were 41 dB(A) and 35 dB(A) respectively, which was observed in Project Site and Government Higher Secondary School in Maruthanthalai.

13.4 Water Environment

- The average pH ranges from 7.77 – 8.22.
- TDS value varied from 410 mg/l to 1836 mg/l
- Hardness varied from 232 to 864 mg/l
- Chloride varied from 30.5 to 580 mg/l

13.5 Land Environment

Project	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
Project Proponent	<i>Thiru.C.Palanisamy</i>	
Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

The analysis results show that the majority of soil in the project and surrounding area is slightly alkaline in nature and pH value ranges from 7.12 to 8.51 with organic matter 0.48 % to 0.71 %. The concentration of Nitrogen, Phosphorus & Potassium has been found to be in good amount in the soil samples.

13.6 Biological Environment

The proposed Mining lease area is mostly dry barren ground with small shrubs and bushes. No specific endangered flora & fauna exist within the mining lease area.

14. Rehabilitation/ Resettlement

- The overall land of the mine is private patta land. There is no displacement of the population within the project area and adjacent nearby area. Social development of nearby villages will be considered in this project.
- The mine area does not cover any habitation. Hence the mining activity does not involve any displacement of human settlement.

15. Greenbelt Development

1. The development of greenbelt in the peripheral buffer zone of the mine area.
2. Green belt has been recommended as one of the major components of Environmental Management Plan, which will improve ecology, environment and quality of the surrounding area.
3. Local trees like, Neem, Pungam, Naval etc will be planted along the lease boundary and avenues as well as over non-active dumps with intervals of 5m.
4. The rate of survival expected to be 80% in this area

Table.10 Plantation/ Afforestation Program

Scientific Name	Common Name	Planted trees
<i>Azadirachta indica</i>	Neem	150
<i>Pongamia pinnata</i>	Pungam	120

Project	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
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Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

<i>Mimusops elengi</i>	Magizhamaram	100
<i>Albizia lebbeck</i>	Vaagai	150
<i>Pterocarpus marsupium</i>	Vengai	130
<i>Madhuca longifolia</i>	Iluppai	100
<i>Thespesia populnea</i>	Poovarasu	100
<i>Syzygium cumini</i>	Naaval	100
<i>Lannea coromandelica</i>	Odham	100
<i>Limonia acidissima</i>	Vila maram	150
TOTAL		1200

16. Anticipated Environmental Impacts

16.1 Air Environment and Mitigation Measures

1. Water sprinkling will be done on the roads & unpaved roads.
2. Proper mitigation measures like water sprinkling will be adopted to control dust emissions.
3. Plantation will be carried out on approach roads, solid waste site & nearby mine premises.
4. To control the emissions regular preventive maintenance of equipments will be carried out.

16.2 Noise Environment and Mitigation Measures

1. Periodical monitoring of ambient noise will be done as per CPCB guidelines.
2. No other equipment except the transportation vehicles and excavator for loading will be allowed.
3. Noise generated by these equipments shall be intermittent and does not cause much adverse impact

17. Responsibilities for Environmental Management Cell (EMC)

The responsibilities of the EMC include the following:

- i. Environmental Monitoring of the surrounding area
- ii. Developing the green belt/Plantation

Project	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
Project Proponent	<i>Thiru.C.Palanisamy</i>	
Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

iii. Ensuring minimal use of water

iv. Proper implementation of pollution control measures

18. Environmental Monitoring Program

A monitoring schedule with respect to Ambient Air Quality, Water & Wastewater Quality, Noise Quality as per Tamil Nadu State Pollution Control Board (TNPCB), shall be maintained.

19. Project Cost

The total project cost is **Rs. 1,23,50,000/-** for deployment of machinery and creation of infrastructural facilities like approach road, Mine office / Workers Shed, First Aid Room etc., including electrifications and water supply.

Table.11 Project Cost details

S. No.	Description	Cost
1	Investment cost	83,25,000/-
2	Operational Cost	40,00,000/-
	Total	1,23,50,000/-

Environmental Management Plan Cost – 2,60,05,407/-

20. Corporate Environmental Responsibility

The Corporate Environment Responsibility (CER) fund will be provided to the below activity.

Table 12 CER Cost

S.No.	CER Activity	CER Cost (Rs.)
1.	Panchayat Union Middle School in Sithannavasal, Illuppur (Taluk), Pudukkottai (Dt). Providing facilities are:	5,00,000/-

Project	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
Project Proponent	<i>Thiru.C.Palanisamy</i>	
Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

	<ul style="list-style-type: none"> ➤ Construction of Classroom, Floor tile & Painting work and ➤ Basic amenities such as Environmental awareness books (Tamil) in Library for students, Green Belt development, RO water purifiers, Hygienic Toilet and maintenance of toilet upto lease period. 	
Total		5,00,000/-

21. Benefits of the Project

- There is a positive impact on socio-economics of people living in the villages. Mining operations in the subject area has a positive impact by providing direct and indirect jobs opportunities.
- The project is environmentally compatible, financially viable and would be in the interest of the construction industry thereby indirectly benefiting the masses.
- Quarrying in this area is not going to have any negative impact on the social or cultural life of the villagers in the near vicinity.

Project	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
Project Proponent	<i>Thiru.C.Palanisamy</i>	
Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

1 Introduction

1.1 Preamble

Environment Impact Assessment (EIA) is a process used to identify the environmental, social & economic impacts of a project prior to decision making. It aims to predict environmental impacts at an early stage of project planning and design, find ways and means to reduce adverse impacts, shape projects to suit the local environment and present the prediction options to the proponent. By using EIA, both environmental & economic benefits can be achieved. By considering environmental effects - prediction & mitigation, early benefits in project planning, protection of the environment, optimum utilization of resources, thus saving overall time & cost of the project.

1.2 General Information on Mining of Minerals

Minerals of Economic importance found in Pudukkottai District are mainly Multicolor Granite, Rough Stone, Red soil, Gravel, Savudu, Pebbles with traces of occurrence of Quartz and Feldspar. Mining activities based on these minerals are very less. However, numerous Rough Stone quarries are under operation for production of construction materials in the areas of Kunnandavarkoil, Thirumayam, Kulathur in the district.

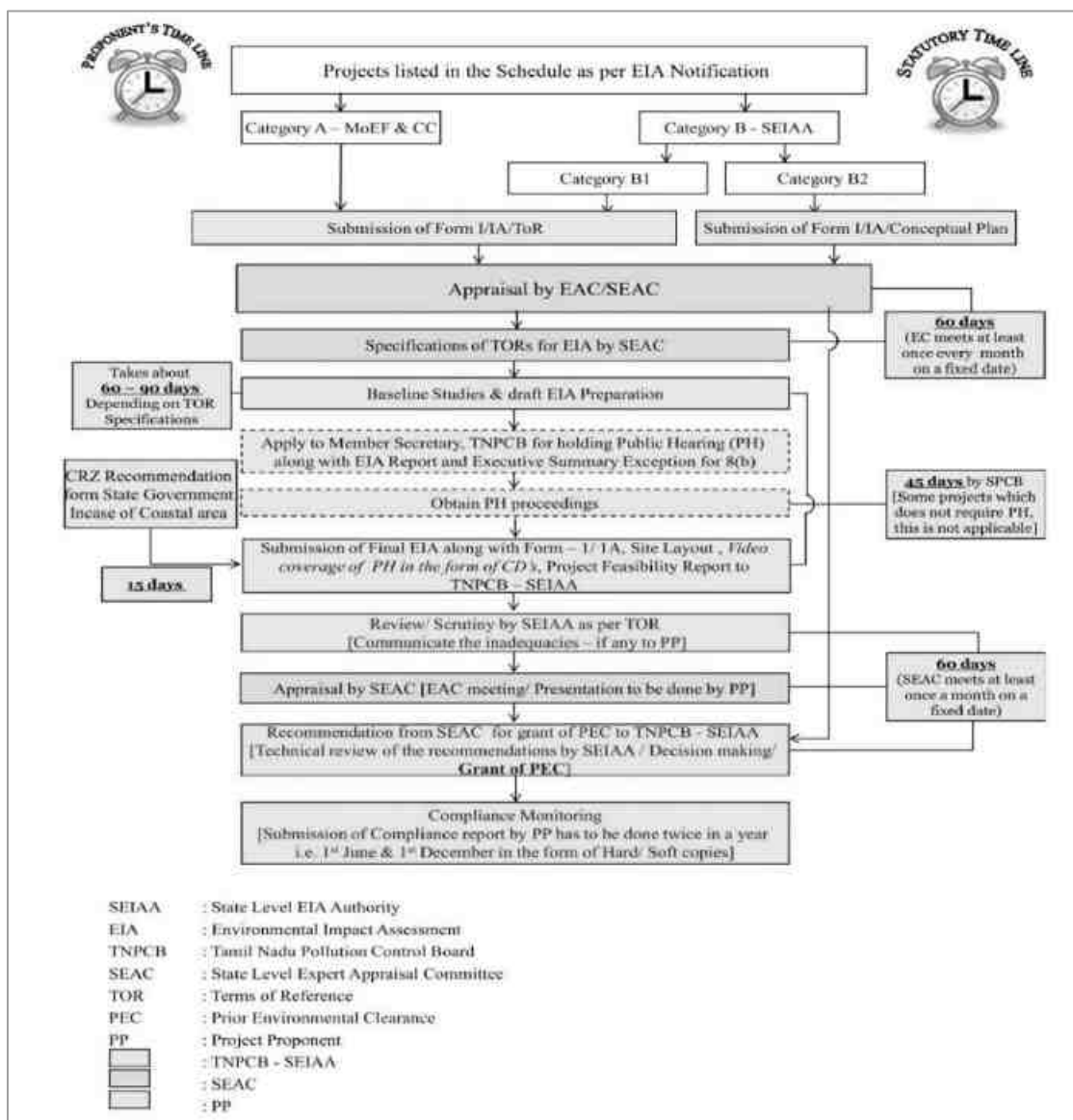
Gneiss rocks are found in the western part of Pudukkottai District. Charnockites and granites rocks are mostly found in the central part including the blocks of Kunnandarkoil, Thirumayam and the southern parts of Pudukkottai Block. The various types of Gneiss rocks are found in the western part of the study area, consisting of the blocks of Viralimalai, Annavasal and Ponamaravathy. Quartzite deposits are found in small quantity in some parts of Annavasal and Thirumayam Blocks. In the Blocks of Kulathur, Thirumayam and parts of Pudukkottai crystalline rocks are found.

1.3 Environmental Clearance

As per EIA Notification, 2006 and its subsequent amendments (O.M vide No.F.No.L- 11011/175/2018-IA-II (M) Govt of India MOEF&CC on December 12th, 2018) project comes under category B1 cluster & schedule 1(a) under item 1

The proposed project is categorized under Category “B1” 1(a) (Cluster) - {Mining of Minerals} as the 500m radius area is more than 5 Ha including the mine lease area. Hence, the project will be considered at SEAC, Tamil Nadu.

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	



1.4 Terms of Reference (ToR)

The terms of Reference have been issued by SEAC TN vide ToR identification number: TO24B0108TN5775960N. 13 Site specific conditions, 43 Standard ToR points were recommended by SEAC TN and in addition to the Standard ToR Points. The replies for the same were addressed in this report.

Project	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
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Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

1.5 Post Environmental Clearance Monitoring

1.5.1 *Methodology adopted*

Post project monitoring will be carried out as per conditions stipulated in the environmental clearance letter issued by SEIAA, consent issued by SPCB as well as according to CPCB guidelines. The lease area is considered as core zone and the area lying within 10 km radius from the lease boundary is considered as buffer zone, where some impacts may be observed on physical and biological environment. In the buffer zone slight impact may be observed and that too is occasional.

Table 1-1: Post Environmental Clearance Monitoring

S. No.	Description	Frequency of Monitoring
1.	Ambient Air Quality Monitoring	Quarterly/ Half Yearly
2.	Water level & Quality Monitoring	Quarterly/ Half Yearly
3.	Noise Level Monitoring	Quarterly/ Half Yearly
4.	Soil Quality Monitoring	Yearly
5.	Medical Check-up	Yearly

1.6 Generic Structure of the EIA Document

Chapter 1: Introduction. This chapter contains general information on the mining of minerals, major sources of environmental impacts in respect of mining projects and details of the environmental clearance process.

Chapter 2: Project Description. In this chapter the proponent should also furnish detailed description of the proposed project, such as the type of the project, need for the project, project location, layout, project activities during construction and operational phases, capacity of the project, project operation i.e., land availability, utilities (power and water supply) and infrastructure facilities such as roads, railways, housing and other requirements. If the project site is near a sensitive area it is to be mentioned clearly why an alternative site could not be considered. The project implementation schedule estimated cost of development as well as operation etc should be also included.

Chapter 3: Analysis of Alternatives (Technology and Site). This chapter gives details of various alternatives both in respect of location of site and technologies to be deployed, in case the initial scoping exercise considers such a need.

Chapter 4: Description of Environment. This chapter should cover baseline data in the project area and study area.

Project	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
Project Proponent	<i>Thiru.C.Palanisamy</i>	
Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

Chapter 5: Impact Analysis and mitigation measures. This chapter describes the anticipated impacts on the environment and mitigation measures. The method of assessment of impacts including studies carried out, modelling techniques adopted to assess the impacts where pertinent should be elaborated in this chapter. It should give the details of the impacts on the baseline parameters, both during the construction and operational phases and suggests the mitigation measures to be implemented by the proponent.

Chapter 6: Environmental Monitoring Program. This chapter should cover the planned environmental monitoring program. It should also include the technical aspects of monitoring the effectiveness of mitigation measures.

Chapter 7: Additional Studies. This chapter should cover the details of the additional studies required in addition to those specified in the ToR and which are necessary to cater to more specific issues applicable to the particular project.

Chapter 8: Project Benefits. This chapter should cover the benefits accruing to the locality, neighbourhood, region and nation as a whole. It should bring out details of benefits by way of improvements in the physical infrastructure, social infrastructure, employment potential and other tangible benefits.

Chapter 9: Environmental Cost Benefit Analysis. This chapter should cover on Environmental Cost Benefit Analysis of the project.

Chapter 10: Environmental Management Plan. This chapter should comprehensively present the Environmental Management Plan (EMP), which includes the administrative and technical setup, summary matrix of EMP, the cost involved to implement the EMP, both during the construction and operational phase and provisions made towards the same in the cost estimates of project construction and operation. This chapter should also describe the proposed post-monitoring scheme as well as inter-organizational arrangements for effective implementation of the mitigation measures.

Chapter 11: Summary and Conclusions. This chapter gives the summary of the full EIA report condensed to ten A-4 size pages at the maximum. It should provide the overall justification for the implementation of the project and should explain how the adverse effects have been mitigated.

Chapter 12: Disclosure of Consultants. This chapter should include the names of the consultants engaged with their brief resume and the nature of consultancy rendered.

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

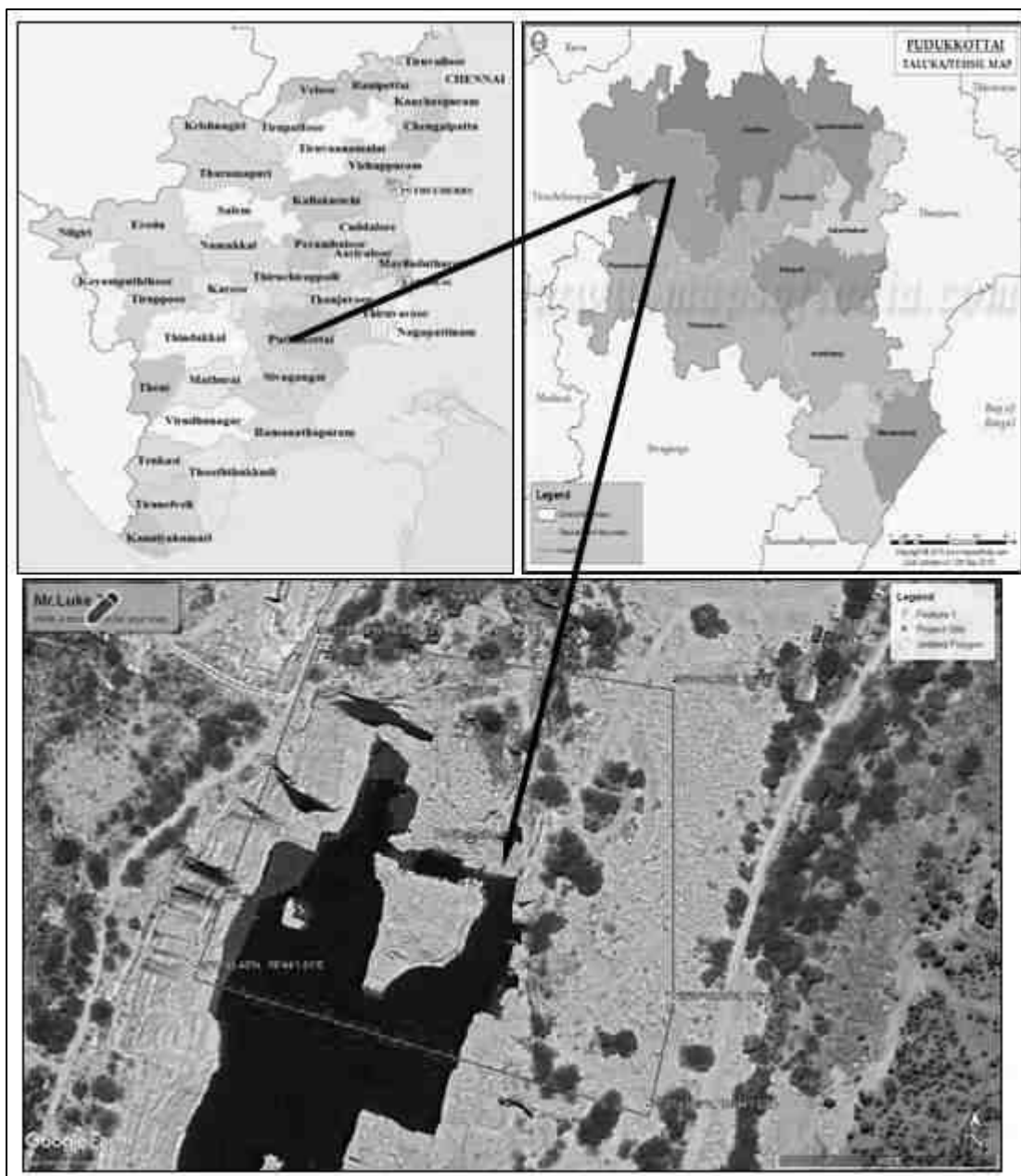


Figure 1-1: Location Map of the Project site

<i>Project</i>	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru.C.Palanisamy</i>	
<i>Project Location</i>	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

2 Project Description

This chapter furnishes detailed descriptions of the proposed project, such as the type of the project, need for the project, project location, layout, project activities during mining, capacity of the project, project operation i.e., land availability, utilities (power and water supply) and infrastructure facilities such as roads, railways, housing and other requirements. The project implementation schedule estimated cost for carrying out entire mining activity is included.

2.1 General

Proposed proposal pertains to rough stone mining project by open cast mechanized method on allotted mine lease area at Sithannavasal Village, Illuppur Taluk of Pudukkottai District, Tamil Nadu. It is a plain terrain. We obtained fresh mining plan from 2024 to 2029 from Department of Geology and Mining, Pudukkottai District for 2.80.33 Ha land area in the S.F.Nos. 94 (Part-1) for a proposed mining depth of 47.0m below ground level and five years production of 277305m³ of Rough Stone and 96m³ of Topsoil.

Type of the project:

As per EIA Notification, 2006 and its subsequent amendments (O.M vide No.F.No. L-11011/175/2018-IA-II(M) Govt of India MOEF&CC on December 12th, 2018) project comes under category B1 cluster & schedule 1(a) under item 1. The project required to be appraised at state level by State Environment Impact Assessment Authority, Tamil Nadu. Environment Clearance study will involve preparation of draft EIA report on the basis of baseline & impact assessment study is carried out. Also, before appraisal, under 7(III) of EIA notification 2006, the project involves the Public Consultation and the same will be conducted under SPCB (TN) in Pudukkottai District. The proceedings of the same will be incorporated in the Final EIA Report.

The mines within 500m radius from the project site are listed below.

Table 2-1: Quarry within 500m Radius

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

1) Existing other quarries:

S. No.	Name of the lessee / Permit Holder	Village & Taluk	S. F. No.	Extent	Lease Period
1.	Tmt.D.Adaikalamary W/o. Durai Diviyanathan, 205, Housing Unit, Rajagopalapuram, Pudukkottai – 622003	Kulathur Irumbali	80/1 76/2	1.38.0	01.2015 to 31.02.2035
2.	Thiru.R.Sathiyamoorthy, S/o.Ramasamy, Ellaiyapatti, Mathiyanallur village, Illuppur Taluk, Pudukkottai Dt	Illuppur Sithannavasal	95/22 & etc.,	0.94.5	31.07.2023 to 30.07.2028
Total				2.32.5	

2) Proposed Area:

S. No.	Name of the applicant	Village & Taluk	S. F. No.	Extent
1.	Thiru.C.Palanisamy, S/o.Chinnakannu, No.129, Edatheru, Sithannavasal, Illuppur Taluk, Pudukkottai Dt	Illuppur Sithannavasal	94 (Part-1)	2.80.33
2.	Thiru.K.Muthukumar, S/o.Karuppaiah, No.94, North street, Sithannavasal, Illuppur Taluk, Pudukkottai Dt	Illuppur Sithannavasal	94 (Part-2)	2.50.0
3	Thiru.Bennet Antony Raj, S/o.Durai Dhiviyanathan, No.205, Housing Unit, Periyar Nagar, Rajagopalapuram, Pudukkottai District.	Irumbali, Kulathur	75/2 (P) (1.02.5) & 75/4 (P) (1.05.5)	2.08.0

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

4	Tmt.K.Indirani W/o.Karuppaiah, Door No.45, Thayinipatti, Vilathupatti Post, Illuppur Tk, Pudukkottai Dt.	Illuppur Sithannvasal	95/12, 95/16, 95/18, 95/20 (P) & 95/21 (P)	1.44.0
Total				8.82.33

3) Lease Expired

S. No.	Name of the lessee / Permit Holder	Village & Taluk	S. F. No.	Extent	Lease Period
1.	Thiru.C.Ponnusamy, S/o.Chinnaiya, Sithannavasal post, Illuppur Taluk, Pudukkottai District.	Illuppur Sithannvasal	210/12B etc.,	2.50.0	28.06.2017 to 27.06.2022
2.	Thiru.Poosairaj, S/o.Mariyappan Sithannavasal post, Illuppur Taluk, Pudukkottai District.	Illuppur Sithannvasal	211 (Q.No.1)	2.50.0	28.06.2017 to 27.06.2022
3.	Thiru.R.Radha, S/o.Ramesh, Thayinipatti village, Illuppur Taluk, Pudukkottai District.	Illuppur Sithannvasal	211 (Part)	2.00.0	28.06.2017 to 27.06.2022
4.	Thiru.K.R.N.Ramesh, S/o.Rasu Nattar, Thayinipatti, Vilathupatti post, Illuppur Taluk, Pudukkottai Dt	Illuppur Sithannvasal	95/1 & etc	0.96.0	11.08.2017 to 10.08.2022
5.	Thiru.G.Murugesan, S/o.Ganesan, Pudupatti, Mathiyanallur Taluk, Pudukkottai District.	Irumbali Kulathur	98/1,2	0.70.0	24.11.2017 to 23.01.2022

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

6.	L.Soosainathan, S/o.Loordhusamy, 448, Housing Unit, Rajagopalapuram, Pudukkottai District	Illuppur Sithannvasal	95/8 & 97/32	0.93.5	14.03.2010 to 13.03.2015
7.	Thiru.A.S.Pichai, S/o.Subbiah, 21/22, Old Perumalkoil street, Annavasal, Illuppur Taluk, Pudukkottai District.	Illuppur Mathiyanallur	241/3 (p)	1.21.5	29.05.2015 to 28.05.2020
8.	Tmt.S.Sooriya, W/o.Sathiya-moorthy, Ellaiyapatti, Mathiyanallur (post), Illuppur Taluk, Pudukkottai District.	Mathiyanallur Illuppur	280 (part)	1.00.0	14.10.2016 to 13.10.2021
Total				11.81.0	

The Total extent of the Existing / Lease expired / Proposed quarries is **11.14.83 Ha.**

2.1.1 Need for the project:

The said project plays a significant role in the domestic as well as infrastructural market. To achieve a huge infrastructure being envisaged by Government of India, particularly in road and housing sector, there is a need for basic building materials, the rough stone form the primary building material.

Rough stone is one of the most valuable natural building materials. Aggregates are mostly used for building roads and footpaths. Aggregates – stone used for its strong physical properties – crushed and sorted into various sizes for use in concrete, coated with bitumen to make asphalt or used 'dry' as bulk fill in construction. Mostly used in roads, concrete and building products. Aggregates represent about 98% of quarry output, most of which is used in road construction, maintenance and repair. Much of this goes to the production of asphalt; the remainder is used 'dry' without the addition of other materials to provide a sturdy base for roads.

Since Pudukkottai, a city known for its small-scale industries and also the soil in the area near the project site is not very fertile making it unsuitable for carrying out agricultural activities. The topography near the

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Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

project area is dry lands showing only less chance for crop growth and development of vegetation. Rocks and minerals of economic importance found to occur in Pudukkottai District are Multicolor Granite, Rough Stone, Red soil, Gravel, Savudu, Pebbles with traces of occurrence of Quartz and Feldspar. As a result of developmental activities and market demand for minor minerals, mining of minor minerals is vital. In addition to that, geological reserves of rough stone is abundant in the project area which is evident from the mine activities carried out in the nearby sites.

2.2 Brief Description of the project

Table 2-2 Salient Features of the Project

S. No.	Description	Details
1	Project Name	Existing Rough Stone Quarry
2	Proponent	Thiru.C.Palanisamy
3	Mining Lease Area Extent	2.80.33 Ha
4	Location	S.F. Nos. 94 (Part-1) of Sithannavasal Village, Illuppur Taluk and Pudukkottai District Tamil Nadu State
5	Latitude	10°27'49.9231"N to 10°27'43.2157"N
6	Longitude	78°44'07.9289"E to 78°44'01.1168"E
7	Topography	Plain terrain
8	Site Elevation above MSL	≈135.0m above MSL.
9	Topo sheet No.	58 - G/11
10	Minerals of Mine	Rough Stone
11	Proposed production of Mine	Proposed capacity of Rough stone: 277305m ³ and Topsoil: 96m ³
12	Ultimate depth of Mining	47.0m (Topsoil 2m + 45m Rough stone).
13	Method of Mining	Open cast mechanized mining
14	Water demand	1.675 KLD
15	Source of water	Water will be supplied through tankers supply
16	Manpower	Direct :15 nos, Indirect : Approximately 100 nos

Project	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
Project Proponent	<i>Thiru.C.Palanisamy</i>	
Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

17	Mining Lease	Precise Area Communication Letter received from Assistant Director, Dept. Geology and Mining, Pudukkottai vide letter Na.Ka.No.1062/2023 (Kanimam) dated 11.01.2024
18	Mining Plan Approval	Mining Plan was approved by the Assistant Director, Dept. of Geology & Mining, Pudukkottai vide letter Rc.No.1062/2023 (G&M) dated 14.03.2024
19	Production details	Geological reserves of Rough Stone: 6,85,630m ³ and Topsoil: 116m ³ . Proposed five-year production reserves of Rough Stone: 2,77,305m ³ and Topsoil: 96m ³ .
20	Boundary Fencing	7.5m barrier all along the boundary Fencing will be provided.
21	Disposal of overburden	The entire lease area is covered 2.0m of Topsoil and the estimated quantity of topsoil is 96m ³ . It will be utilized for afforestation purpose.
22	Ground water	The quarry operation is proposed up to a depth of 47.0m (2.0m Topsoil & 45.0m Rough stone) The ground water table is reported as 68m below ground level in nearby open wells and bore wells of this area. Mining depth taken as 47m. Now, the proposed quarry depth is above the water table. Hence, quarrying may not affect the ground water.
23	Habitations within 500m radius of the Project Site	There is no Habitation within 300m radius of the project site.
24	Drinking water	Water will be supplied through tankers from Sittannavasal village which is about 1.04 km W from the project site.

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Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

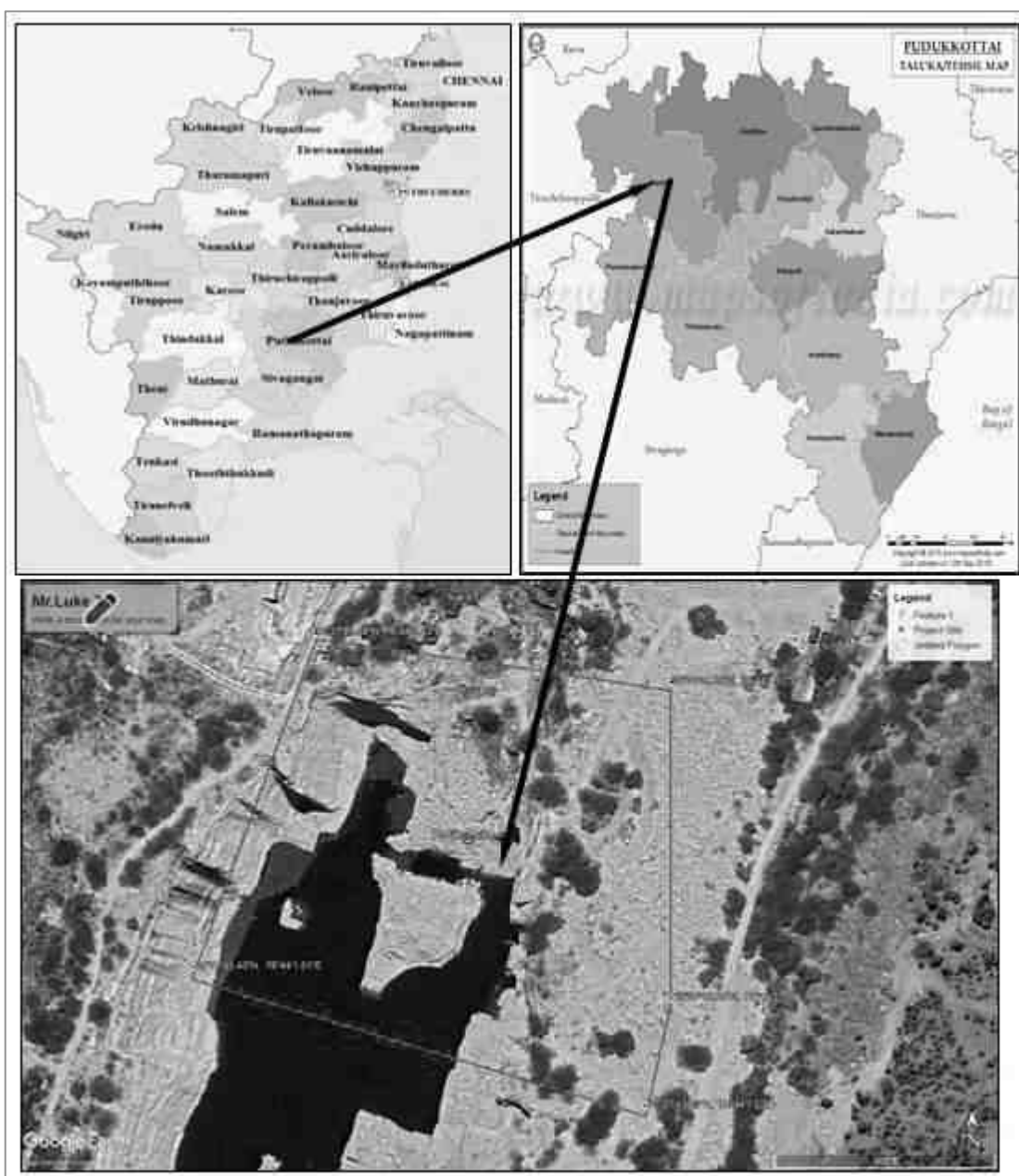


Figure 2-1: Location Map of the Project Site

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

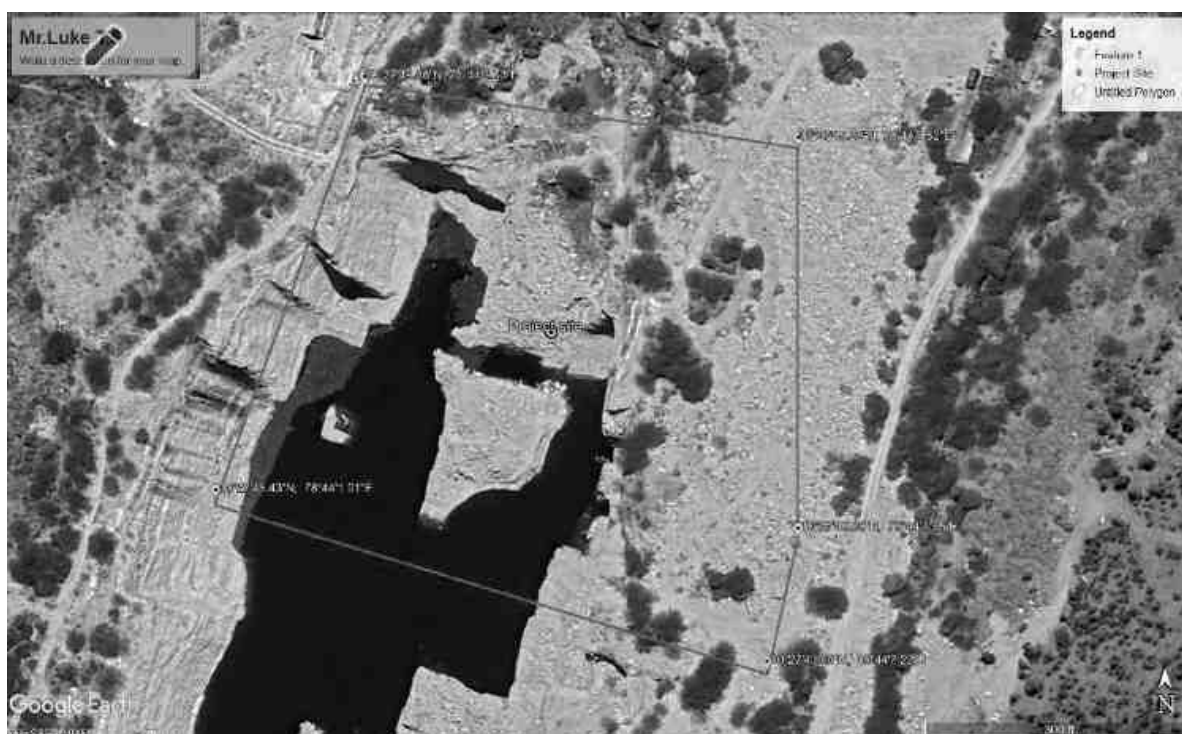


Figure 2-2: Google Earth Image and Coordinates of the Project Site

2.1.2 Site Connectivity:

The site is connected to Sithannavasal Road – 0.17 Km - North side.



Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
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Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

Figure 2-3: Site Connectivity

2.3 Location Details:

Table 2-3: Location Details

S. No	Particulars	Details
1.	Latitude	10°27'49.9231"N to 10°27'43.2157"N
2.	Longitude	78°44'07.9289"E to 78°44'01.1168"E
3.	Site Elevation above MSL	135.0 m from MSL
4.	Topography	Plain terrain
5.	Land use of the site	Government Poramboke land
6.	Extent of lease area	2.80.33 Ha

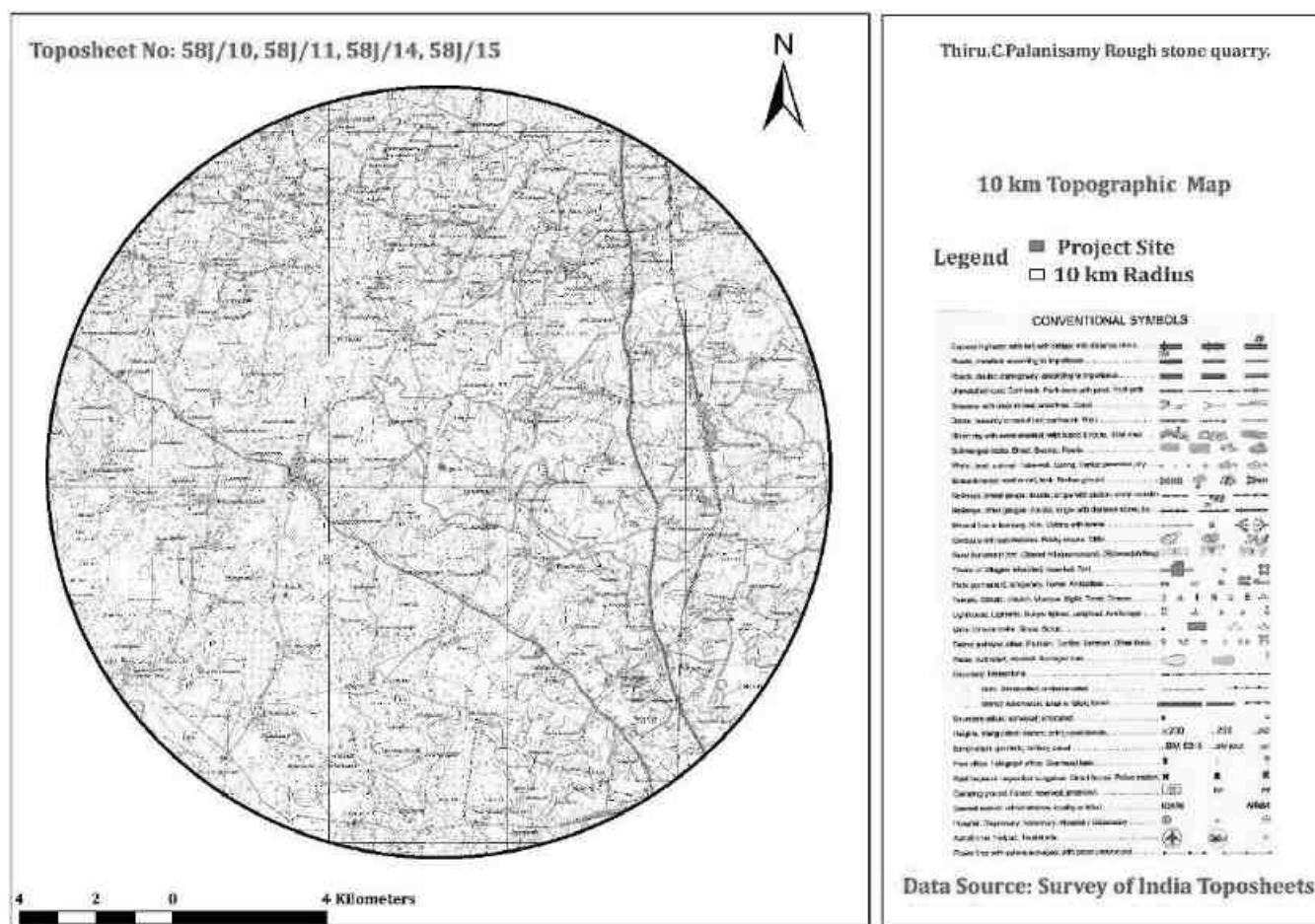


Figure 2-4: Topo Map of Project Site

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
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Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

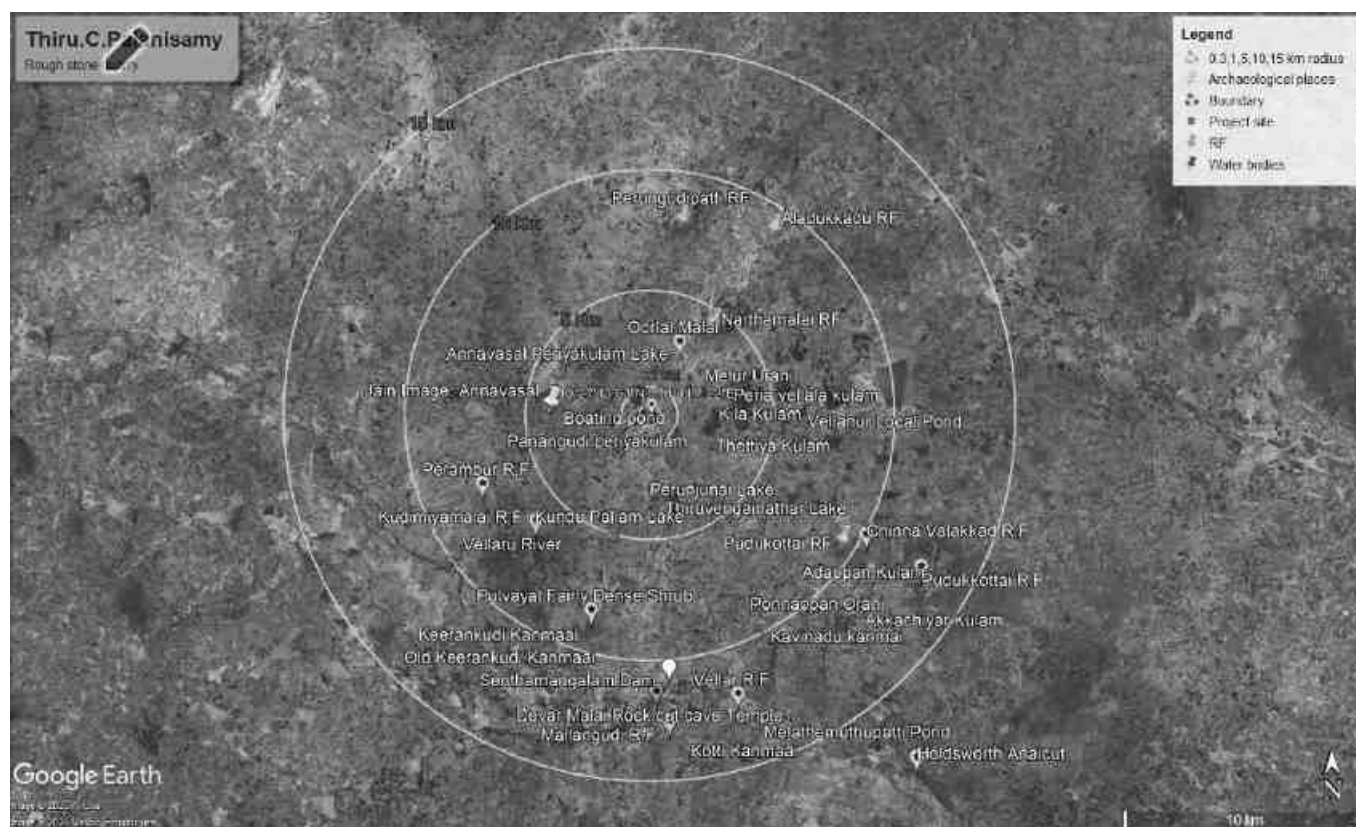


Figure 2-5: Environmental Sensitivity within 15km radius

2.1.3 Site Photographs

The site photographs of the project site are as follows.



Figure 2-6: Site Photographs

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

2.1.4 Land Use Breakup of the Mine Lease Area

The Mine Lease area is undulated terrain. The land use pattern of the mine lease area as follows.

Table 2-4: Land use pattern

S. No.	Land Use	Present Area (Hect)	Area in use during the quarrying period (Hect)
1.	Area under quarrying	2.08.0	2.64.67
2.	Infrastructure	Nil	0.01.0
3.	Roads	0.01.0	0.01.0
4.	Green Belt & Dump	Nil	0.13.66
5.	Unutilized Area	0.71.33	Nil
	Total	2.80.33 Ha	2.80.33 Ha

2.1.5 Human Settlement

There are no habitations within the radius of 500m. The nearby habitations are as follows.

Table 2-5: Habitation

SL. NO.	DIRECTION	VILLAGE	DISTANCE	POPULATION
1	North	Meivazhi	3.0Kms	300
2	East	Irumbali	2.0Kms	180
3	South	Madiyanallur	2.0Kms	200
4	West	Annavasal	3.2Kms	1200

2.4 Leasehold Area

The Rough Stone Quarry mine of 2.80.33 Ha is the Government poramboke land of Thiru.C.Palanisamy. The lease area falls in S.F No: 94 (Part-1) of Sithannavasal Village, Illuppur Taluk and Pudukkottai District Tamil Nadu State. There is no reserve forest or protected forest land within the lease area. There is neither human settlement within 500m radius from the lease area.

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

2.5 Geology

Geologically the entire study area can be divided into hard rock and sedimentary rock regions. The hard rocks are found on the western side and sedimentary formation towards the eastern direction. About 45 per cent of the study area is under hard massive formation of the Archean age and the rest 55 per cent comprises of the sedimentary formation ranging from Pre-Cambrian to Quaternary period.

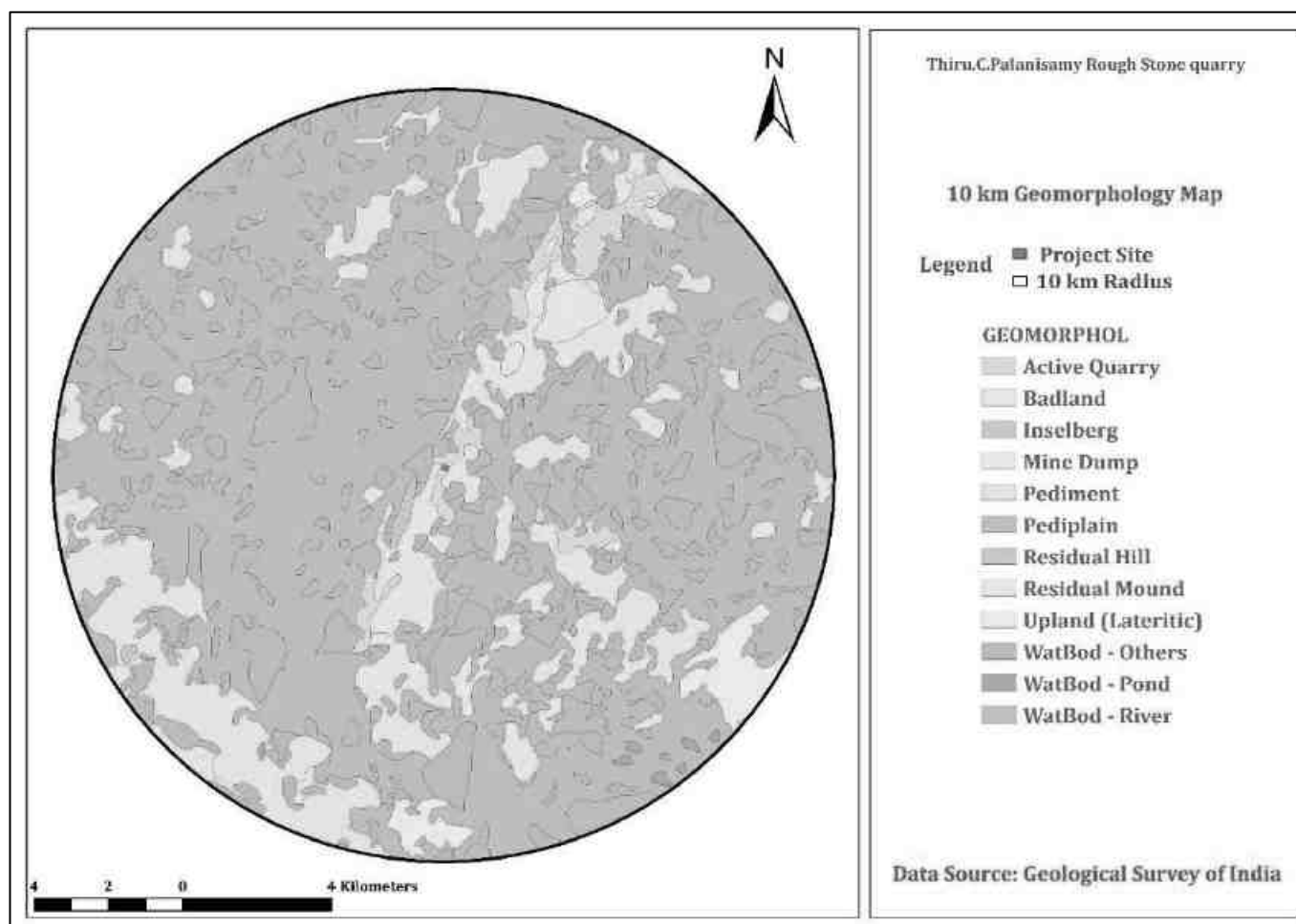


Figure 2-7: Geomorphology

The area applied for quarry lease is undulated terrain sloping towards the Northwestern side covered with Rough stone which does not sustain any type of vegetation.

Pudukkottai District is underlain by the wide range of metamorphic rocks of peninsular gneissic complex. These rocks are extensively weathered and overlain by the recent valley fills and alluvium at places. The geological formations found in the district are Archaean rocks like Gneisses, Granites, Charnockite basic granulites and calc-gneisses. The younger formations are Quartz veins and pegmatite.

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

The water table is found at a depth of 70m to 75m below ground level. Average annual rainfall is about 800mm to 900mm. Charnockite is part of peninsular Gneisses, a high-grade metamorphic rock. On regional scale the Charnockite formations trends along NE-SW with a dip of 80° towards NW.

The general geological sequences of the rocks in this area are given below.

AGE FORMATION

Recent to Sub recent - Soil, Alluvium

Archean - Granites, basic granulites, Peninsular Gneiss, Calc Gneiss and Charnockites

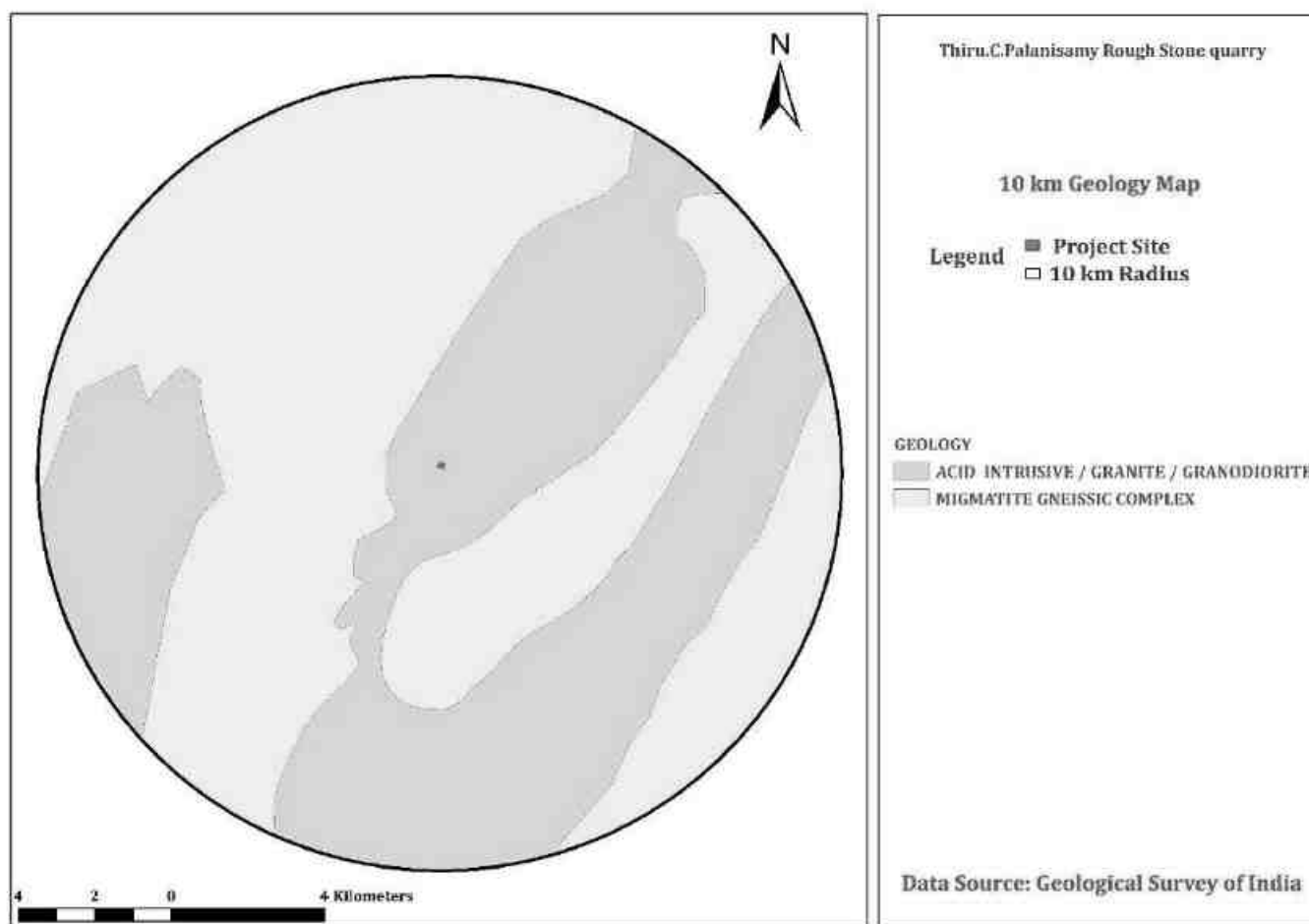


Figure 2-8 Lithology

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

2.6 Quality of Reserves:

The mining lease area is 2.80.33 Ha, with production capacity of **2,77,305m³** of Rough Stone, Due to significant role in the domestic as well as infrastructural market, making the mining of Stone along with associated minor minerals is economically viable.

Table 2-6: Details of Mining

S. No	Particulars	Details
1	Method of Mining	Open Cast mechanized
2	Geological Reserves	Rough stone – 6,85,630 m ³ & Topsoil – 116 m ³
3	Mineable Reserves	Rough stone – 2,77,305 m ³ & Topsoil – 96 m ³
4	Proposed Production schedule for 5 years	Rough stone – 2,77,305 m ³ & Topsoil – 96 m ³
5	Elevation Range of the Mine Site	135m MSL

2.6.1 *Estimation of Reserves*

The practical method of the systematic geological mapping and delineation of Rough stone (Charnockite) within the field was done and careful evaluation of body luster, physical properties, engineering properties, commercial aspects, etc. The Topographical, Geological plan and sections demarcated the commercial marketable Rough stone (Charnockite) deposit has been prepared in 1:1000 scale and the estimated balance Geological Reserves as 6,85,630 Cum of Rough Stone.

2.6.2 *Geological Reserves*

The geological reserves have been calculated based on the cross-section method.

Top Soil :

The Thickness of Topsoil in this area is 2.0m and the total volume of Topsoil will be 116m³.

Rough Stone :

The Available Geological Reserve is estimated as 685630m³ respectively at the rate of 100% recovery upto the permissible depth. Topsoil is calculated up to a depth of 2m and Rough Stone at a depth of 45m. Total Depth-47m.

Table 2-7: Geological Reserves

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

GEOLOGICAL RESOURCES							
Section	Bench	L (m)	W (m)	D (m)	Volume in (Cu.m.)	Geological Reserve in Cu.m(100%)	Topsoil in Cu.m.
XY-AB	I	58	1	2			116
	II	77	4	5	1540	1540	
	III	77	13	5	5005	5005	
	IV	77	13	5	5005	5005	
	V	138	112	5	77280	77280	
	VI	138	112	5	77280	77280	
	VII	191	112	5	106960	106960	
	VIII	191	120	5	114600	114600	
	IX	191	156	5	148980	148980	
	X	191	156	5	148980	148980	
Total					685630	685630	116

2.6.3 Mineable Reserves

The Mineable reserves are calculated by deducting 7.5m & 10.0m Safety distance and bench loss.

Top Soil:

The Thickness of Topsoil in this area is 2.0m and the total volume of Topsoil will be 96m³.

Rough Stone:

The mineable reserves and the Recoverable Reserves are 277305m³ respectively, at the rate of 100% recovery up to the permissible depth. Total Depth-47m (2m Topsoil + 45m Rough Stone).

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

Table 2-8: Mineable Reserves

MINEABLE RESERVES							
Section	Bench	L (m)	W (m)	D (m)	Volume in (Cu.m.)	Mineable Reserve in Cu.m (100%)	Topsoil in Cu.m.
XY-AB	I	48	1	2			96
	II	65	1	5	325	325	
	III	60	1	5	300	300	
	IV	55	1	5	275	275	
	V	99	90	5	44550	44550	
	VI	94	85	5	39950	39950	
	VII	131	80	5	52400	52400	
	VIII	121	83	5	50215	50215	
	IX	111	89	5	49395	49395	
	X	101	79	5	39895	39895	
Total=					277305	277305	96

2.6.4 Year wise Production Plan

Rough stone and Topsoil Production Details as follows:

The proposed rate of production of Rough Stone is about 277305m³ for Five Years. The average proposed rate of production of Rough Stone is about 55461m³ per year at the rate of 100% recovery up to the permissible depth. Reserves Calculated up to 47m (2m Topsoil + 45m Rough Stone).

Table 2-9: Year wise Production Plan

<i>Project</i>	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru.C.Palanisamy</i>	
<i>Project Location</i>	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

YEARWISE DEVELOPMENT AND PRODUCTION

Year	Section	Bench	L (m)	W (m)	D (m)	Volume in (m³)	Recoverable Reserve in m³ (100%)	Topsoil in m³
I-Year	XY-AB	I	48	1	2			96
		II	65	1	5	325	325	
		III	60	1	5	300	300	
		IV	55	1	5	275	275	
		V	99	90	5	44550	44550	
TOTAL						45450	45450	96
II-Year	XY-AB	VI	94	85	5	39950	39950	
TOTAL						39950	39950	
III-Year	XY-AB	VII	131	80	5	52400	52400	
TOTAL						52400	52400	
IV-Year	XY-AB	VIII	121	83	5	50215	50215	
TOTAL						50215	50215	
V-Year	XY-AB	IX	111	89	5	49395	49395	
		X	101	79	5	39895	39895	
TOTAL						89290	89290	
GRAND TOTAL						277305	277305	96

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Chapter 2 Project Description
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

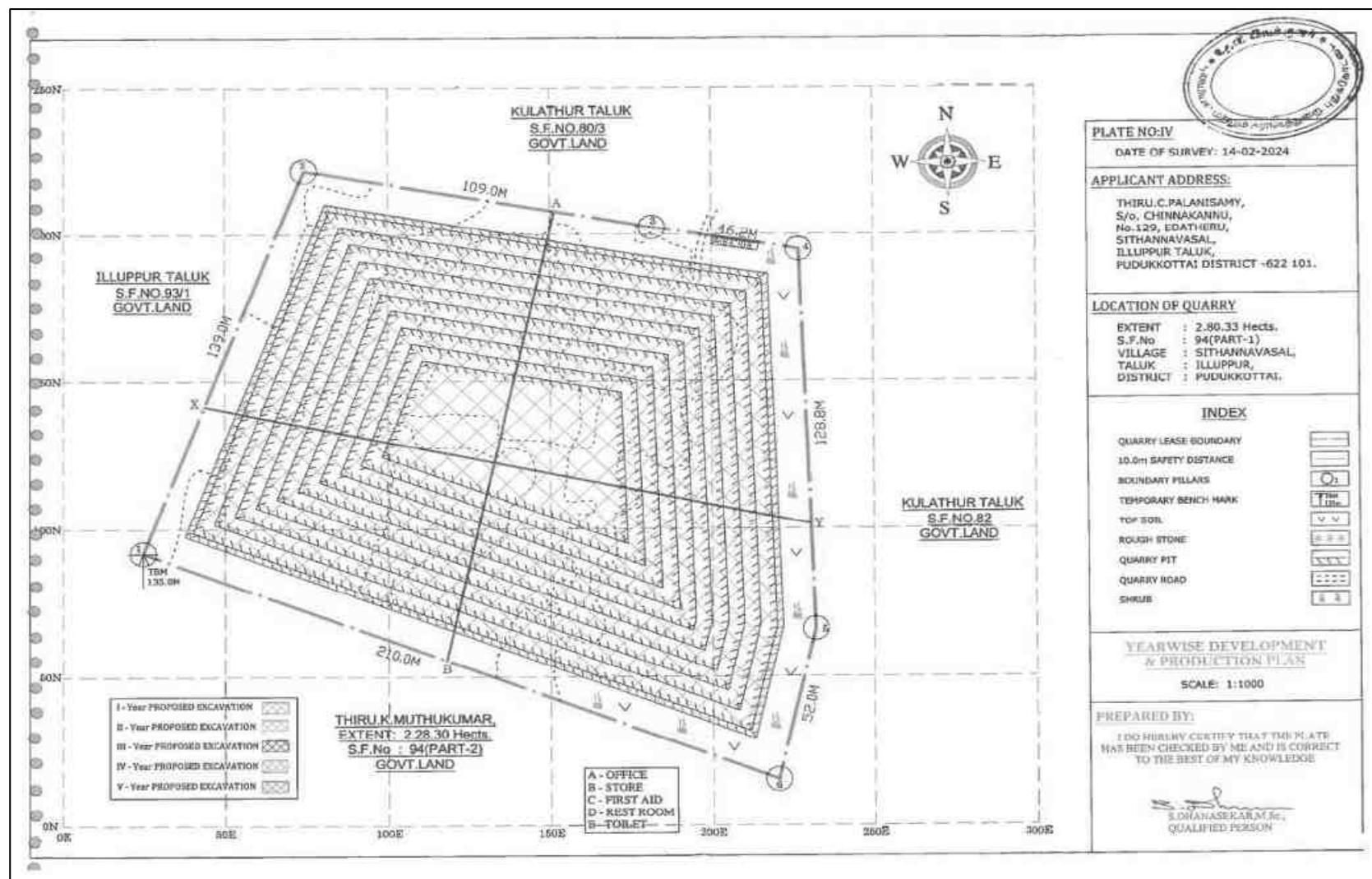


Figure 2-9 Year wise Production Plan

<i>Project</i>	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru.C.Palanisamy</i>	
<i>Project Location</i>	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

2.7 Type of Mining

The proposed project is an open cast semi mechanized mining with one 5.0 m bench for Topsoil and followed by a 5.0m vertical bench with a bench width not less than the bench height. However, as far as the quarrying of Rough Stone is concerned, observance of the provisions of regulations 106(2) (b) as above is seldom possible due to various inherent Petro genetic factors coupled with mining difficulties. Hence, it is proposed to obtain relaxation to the provisions of the above regulation from the Director of Mines Safety for which necessary provision is available with Regulation 106 (2) (b) of MMR-1961, under Mines Act- 1952.

2.7.1 Method of Working:

The rough stone is proposed to quarry at 5m bench height & width with conventional Open cast mechanized method. The quarry operation involves Shallow jack hammer drilling, Slurry Blasting, Loading & transportation of Rough Stone to the nearby crusher units/road formation works. The production of Rough Stone in this quarry involves the following method which is typical for Rough Stone quarrying in contrast to other major mineral mining.

Splitting of rock mass of considerable volume from the parent rocks by jackhammer drilling and blasting by manually braking and loading the Rough Stone from pit head to the needy crushing units/civil works for the needy sectors.

2.7.2 Overburden

The entire lease area is covered 2.0m of Topsoil and the estimated quantity of topsoil is 96m³. It will be utilized for afforestation purposes.

2.7.3 Machineries to be used

The type of machinery proposed for quarrying operation for the entire project is listed below.

Table 2-10: List of Machineries used

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

Type	Nos	Dia of hole	Size / Capacity	Make	Motive power	H.P.
Jack Hammer	3	25.5 mm	Handheld	Atlas Copco 2 Nos	Diesel	60
Tipper	3	-	10 M. T	Ashok Leyland	Diesel	110
Hydraulic Excavator	2	-	1.2 m ³	L7T or Ex200	Diesel Drive	120

2.7.4 Blasting:

2.7.4.1 Blasting Pattern:

The quarrying operation will be carried out by Mechanized Opencast method in conjunction with conventional method of mining using jack hammer drilling and blasting for shattering effect and loosening the rough stone.

2.7.4.2 Drilling & Blasting:

Drilling and Blasting Parameters are as follows.

Table 2-11: Drilling and Blasting Parameters

1	Diameter of the hole	32-36 mm
2	Spacing	60 Cms
3	Depth of each hole	1 to 1.5 m
4	Charge/Hole	D.Cord with water or 70 gms of gun powder or Gelatine
5	Pattern of hole	Zig Zag
6	Inclination of hole	70° from the horizontal.
7	Quantity of rock broken	0.45 MT x 2.6 = 1.17 MT
8	Control Blasting efficiency @ 90%	1.17 x 90% = 1.05MT / hole
9	Charge per hole	140 gms of 25mm dia catridge
10	Quantity of rock broken per day	83.81m ³

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

2.7.4.3 Types of Explosives to be used:

Small diameters of 32-36 mm Slurry explosives are proposed to be used for shattering and heaving effect for removal and winning of Rough Stone. No deep hole drilling or primary blasting is proposed.

2.7.4.4 Measures to minimize ground vibration due to blasting:

The quarry is situated more than 1.04 km from the nearby villages. Controlled blasting measures will be adopted for minimizing the ground vibration and flying of rocks. Shallow depths jackhammer drilling & blasting is proposed to be carried out with minimum use of explosive mainly to give shattering effect in rough stone for easy excavation and to control fly of rock.

Table 2-12: Blasting Details

Parameters	Details
Diameter of holes	32-36 mm
Spacing	0.6m
Powder factor	6 to 7 tons/kg of explosives
Pattern of hole	Zig Zag
Charge/hole	140 gms of 25 mm dia cartridge
Blasted at day time	5.00 PM to 6.00 PM. (or whenever required)

2.7.4.5 Storage & Safety measures taken during blasting:

The project proponent “Thiru.C.Palanisamy” will engage an authorized explosive agency to carry out the small amount of blasting and it will be supervised by Permit Mines Manager. The copy of the explosive certificate is attached as *Annexure*.

2.8 Man Power Requirements

The manpower requirement to meet out the production Schedule and the machinery strength envisaged in the mining plan and to comply with the statutory provisions of the Mines Safety Regulations is as follows.

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

Table 2-13: Man Power Requirements

1.	Skilled	Operators	2 Nos
		Mechanic	1 No
		Blaster/Mat	1 No
2.	Semi – skilled	Drivers	2 Nos
3.	Unskilled	Musdoor/Labours	4 Nos
		Cleaners	2 Nos
		Office Boy	1 No
4.	Management & Supervisory staff		2 Nos
Total			15 Nos

No child less than 18 years will be entertained during quarrying operations.

2.8.1 Water Requirement

Total water requirement for the mining project is 1.675 KLD. Domestic water will be sourced from nearby Sithannavasal Village and other water will be source from nearby road tankers supply.

Table 2-14: Water Requirment

Purpose	Quantity	Sources
Drinking Water	0.675 KLD	Water will be supplied through tankers from Sittannavasal village which is about 1.04 km W from the project site.
Green belt	0.5 KLD	Other domestic activities through road tankers supply
Dust suppression	0.5 KLD	From road tankers supply
Total	1.675 KLD	

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

2.9 Project Implementation Schedule

The implementation schedule of the proposed Mine Lease of Thiru.C.Palanisamy (2.80.33 Ha) is as follows.

Table 2-15: Mining Schedule

MINING SCHEDULE					
Activity	Dec-25	Dec-26	Dec-27	Dec-28	Dec-29
Site Clearance					
Excavation - Top Soil Removal/Overburden					
I Year Production – 96 Cum – Topsoil & Rough Stone – 45450 Cum					
II Year Production – 39950 Cum Rough Stone					
III Year Production – Rough Stone – 52400 Cum					
IV Year Production - 50215 Cum - Rough Stone					
V Year Production - 89290 Cum - Rough Stone					

2.10 Solid Waste Management

Table 2-15: Solid Waste Management

S.No	Type	Quantity	Disposal Method
1	Organic	4.05 kg/day	Municipal bin including food waste
2	Inorganic	2.70 kg/day	TNPCB authorized recyclers

As per CPCB guidelines: MSW per capita/day =0.45 kg/day

2.11 Mine Drainage

The quarry operation is proposed upto a depth of 47.0m (2.0m Topsoil & 45.0m Rough stone)

The ground water table is reported as 68m below ground level in nearby open wells and bore wells of this area. Mining depth taken as 47m. Now, proposed quarry depth is above the water table.

Hence, quarrying may not affect the ground water.

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

2.12 Power Requirement

This rough stone quarry project does not require huge water and electricity for the project.

16 Litre diesel per hour for excavator for mining and loading for Rough Stone needed.

10 Litre diesel per hour for excavator for mining and loading for Gravel needed

2.13 Project Cost

a. Fixed Asset Cost:

S.No	Description of cost	Cost in Rs
A	Fixed Asset cost:	
	Land cost (Leased tender amount for Government Poramboke Land)	Rs.80,50,000/-
	Labours shed	Rs.1,20,000/-
	Fencing cost	Rs.1,00,000/-
	Sanitary facilities	Rs.80,000/-
	Total Fixed Assest cost	Rs.83,50,000/-
B	Operational cost:	
	Machinery cost	Rs.40,00,000/-
	Total Operational Cost	Rs.40,00,000/-
Total Project cost (A+B)		Rs.1,23,50,000/-

b. EMP Cost

Total EMP Cost = **Rs. 2,60,05,407/-** for the period of five years.

2.14 Greenbelt

1. The development of greenbelt in the peripheral buffer zone of the mine area.
2. Greenbelt has been recommended as one of the major components of the Environmental Management plan, which will improve ecology, environment and quality of the surrounding area.

Project	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	Draft EIA Report
Project Proponent	<i>Thiru.C.Palanisamy</i>	
Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

3. Local trees like, Neem, Pungam, Naval etc will be planted along the lease boundary and avenues as well as over non-active dumps with intervals of 5m.

4. The rate of survival expected to be 80% in this area

Table. 2-17 Plantation/ Afforestation Program

Scientifical Name	Common Name	Planted trees
<i>Azadirachta indica</i>	Neem	150
<i>Pongamia pinnata</i>	Pungam	120
<i>Mimusops elengi</i>	Magizhamaram	100
<i>Albizia lebbeck</i>	Vaagai	150
<i>Pterocarpus marsupium</i>	Vengai	130
<i>Madhuca longifolia</i>	Iluppai	100
<i>Thespesia populnea</i>	Poovarasu	100
<i>Syzygium cumini</i>	Naaval	100
<i>Lannea coromandelica</i>	Odhiam	100
<i>Limonia acidissima</i>	Vila maram	150
TOTAL		1200

Project	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
Project Proponent	<i>Thiru.C.Palanisamy</i>	
Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

3 Description of the Environment

3.1 General:

The method of mining for extracting rough stone quarry is required to be selected in such a manner to ensure sustainable development. Mining activities invariably affect the existing environmental status of the site. It has both adverse and beneficial effects. In order to maintain the environmental commensuration with the mining operation, it is essential to undertake studies on the existing environmental scenario and assess the impact on different environmental components. This would help in formulating suitable management plans and sustainable resource extraction.

To understand the existing environmental scenario, Baseline data helps in identification, prediction and evaluation of impacts in Environmental Impact assessment. Through field study, baseline data are collected considering various factors of the project. This includes-

- Physical- the area, the soil properties, the geological characteristics, the topography, etc
- Chemical- water, air, noise and soil pollution levels, etc.
- Biological- the biodiversity of the area, types of flora and fauna, species richness, species distribution, types of ecosystems, presence or absence of endangered species and/or sensitive ecosystems etc.
- Socioeconomic- demography, social structure, economic conditions, developmental capabilities, displacement of locals, etc.

3.1.1 *Study Area:*

The study area for the mining projects is as follows:

- Mine lease area as the “core zone”
- A study area of 10 km radius from the project boundary is designated as buffer Zone and for the study of Socio-economic status, 10 km radius from the boundary limits of the mine lease area has been selected.

We have obtained Terms of Reference from SEIAA vide ToR Identification Number - TO24B0108TN5775960N and file Number - 11674. The baseline monitoring is carried out from February to April 2025, and the analysis is briefed in the EIA report. The proponent has engaged M/s. Ecotech labs Pvt. Ltd to carry out the existing baseline study.

Project	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
Project Proponent	<i>Thiru.C.Palanisamy</i>	
Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

3.1.2 Instruments Used

The following instruments were used at the site for baseline data collection.

1. Respirable Dust Sampler with attachment for gaseous Pollutants, Envirotech APM 460, APM411.
2. Fine Particulate Matter (FPM) Sampler, APM 550
4. Sound Level Meter Model SL–4010
5. 2000 series watchdog automatic weathering monitoring station

3.1.3 Baseline Data Collection Period:

The baseline data is collected in accordance with the CPCB Guidelines. The Baseline study is carried out from January to March 2024.

3.1.4 Frequency of Monitoring

Table 3-1: Frequency of Sampling and Analysis

Attributes	Sampling	Frequency
Air environment – Meteorological (wind speed, wind direction, rainfall, humidity, temperature)	Project site	1 hourly continuous
Air environment – Pollutants PM 10 PM 2.5 SO ₂ NO _x	7 locations	24 hourly twice a week 4 hourly. Twice a week, One non-monsoon season 8 hourly, twice a week 24 hourly, twice a week
Noise	7 locations	24 hourly Once in 7 locations
Water (Ground water) pH, Temperature, Turbidity, Magnesium Hardness, Total Alkalinity, Chloride, Sulphate, Fluoride, Nitrate, Sodium,	7 locations	Once in 7 locations

Project	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
Project Proponent	<i>Thiru.C.Palanisamy</i>	
Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

Potassium, Salinity, Total nitrogen, Total Coliforms, Fecal Coliforms		
Water (surface water) pH, Temperature, Turbidity, Magnesium Hardness, Total Alkalinity, Chloride, Sulphate, Fluoride, Nitrate, Sodium, Potassium, Salinity, Total nitrogen, Total Coliforms, Fecal Coliforms	Sample from nearby lakes/river	One-time Sampling
Soil (Organic matter, Texture, pH, Electrical Conductivity, Permeability, Water holding capacity, Porosity)	7 locations	Once in 7 locations
Ecology and biodiversity Study	Study area covering 10 km radius	One-time Sampling
Socio- Economic study (Population, Literacy Level, employment, Infrastructure like school, hospitals & commercial establishments)	Villages around 10 km radius	One-time Sampling

3.1.5 Secondary data Collection

Apart from the primary data, Secondary data is also used for the collection; collation; synthesis and interpretation.

- Flora & Faunal Study
- Land use study

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

- Demography and Socio-Economic Analysis
- Meteorological data, from Indian Meteorological Department (IMD)

3.1.6 Study area details

Table 3-2 Study area details

S. No	Description	Details	Source
1.	Project Location	94 (Part-1), Sithannavasal Village, Illuppur Taluk, Pudukkottai District, TamilNadu State	Field Study
2.	Latitude & Longitude	Latitude: 10°27'49.9231"N to 10°27'43.2157"N Longitude: 78°44'07.9289"E to 78°44'01.1168"E	Topo Sheet
3.	Topo Sheet No.	58 J/11	Survey of India Toposheet
4.	Mine Lease Area	2.30.88 Ha	--
Demography in the study area (as per Census 2011)			
5.	Total Population	1935	Census Survey of India
6.	Total Number of Households	410	
7.	Maximum Temperature (°C)	33.7	IMD
8.	Minimum Temperature (°C)	24	
9.	Ecological Sensitive Areas - Wetlands, watercourses or other waterbodies, coastal zone, biospheres, mountains, forests	<ul style="list-style-type: none"> ❖ Vellar River – 10.04 Km - SW ❖ Periya Kulam – 0.43 Km – W ❖ Sithannavasal boating pond – 2.04 Km – SW ❖ Temple Pond – 2.16 Km – SE ❖ Panangudi Periya kulam – 2.83 Km - SW ❖ Periya vellala kulam – 2.91 Km – E ❖ Alankulam – 3.49 Km – E ❖ Mel kulam – 3.65 Km - E ❖ Pai Kulam – 3.71 Km – E ❖ Mela Kulam – 3.72 Km - S 	Google Earth/ Field Study

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		<ul style="list-style-type: none">❖ Annavasal Periyakulam Lake – 3.75 Km – W❖ Melur oorani – 4.05 Km – E❖ Kalamuthi Kulam – 4.24 Km – E❖ Kila Kulam – 4.62 Km – SE❖ Perunjunai Lake – 4.92 Km - SE❖ Thottiya kulam – 5.10 Km – E❖ Kili Kulam – 5.39 Km – E❖ Kundu Pallam Lake – 5.75 Km - S❖ Vellanur Local Pond – 5.91 Km – E❖ Thiruvengainathar Lake – 6.54 Km – SE❖ Kavinadu Kanmai – 9.96 Km – SE❖ Ponnappan Urani – 11.39 Km - SE❖ Adappan kulam – 11.54 Km - SE❖ Keerankudi Kanmai – 11.77 Km – SSW❖ Akkachiyar Kulam – 12.08 Km - SE❖ Old Keerankudi Kanmai – 12.86 Km – SSW❖ Melathemuthupatti Pond – 13.62 Km – SE❖ Kotti Kanmai – 14.42 Km – S																						
10.	Densely Populated area	Pudukkottai – 10.20 km - SE																						
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	<table><tr><th>S. No.</th><th>Places</th><th>Dist. From Project Site</th></tr><tr><td colspan="3">Schools & Colleges</td></tr><tr><td>1</td><td>Panchayat union Primary School, Irumbali</td><td>1.36 Km - E</td></tr><tr><td>2</td><td>Government Primary School, Koothinipatti</td><td>1.34 Km - NW</td></tr><tr><td>3</td><td>Government Higher Secondary School, Annavasal</td><td>3.25 Km - W</td></tr><tr><td colspan="3">Hospitals</td></tr><tr><td>1</td><td>Government Hospital, Annavasal</td><td>3.42 Km - W</td></tr></table>	S. No.	Places	Dist. From Project Site	Schools & Colleges			1	Panchayat union Primary School, Irumbali	1.36 Km - E	2	Government Primary School, Koothinipatti	1.34 Km - NW	3	Government Higher Secondary School, Annavasal	3.25 Km - W	Hospitals			1	Government Hospital, Annavasal	3.42 Km - W	Google Earth/ Field Study
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		2	Government Hospital, Mangudi	5.67 Km – SSW	
		Worships			
		1	Nawab Jamia Masjid, Annavasal	3.90 Km - W	
		2	St.Antony's Church, Irumbali	1.59 Km - E	
			Jain Temple – Sithannavasal	1.32 Km – SW	

3.1.7 Site Connectivity:

The site is connected to Sithannavasal Road in North direction.



Figure 3-1: Site Connectivity

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3.2 Land use Analysis

3.2.1 *Land Use Classification*

Land Use / Land Cover - Land Use refers to man's activity and the various uses which are carried out on land. Land Cover refers to natural vegetation, water bodies, rock/soil, artificial cover and others, resulting due to land transformation. The present Land Use/Land Classification map is developed with the following objectives. The main objective of the study is to classify the different land use within 10 km from the project boundary.

3.2.2 *Methodology*

Information of land use and land cover is important for many planning and management activities concerning the surface of the earth (Agarwal and Garg, 2000). Land use refers to man's activities on land, which are directly related to land (Anderson et al., 1976). The land use and the land cover determine the infiltration capacity. Barren surfaces are poor retainers of water as compared to grasslands and forests, which not only hold water for longer periods on the surface, but at the same time allow it to percolate down.

The terms 'land use' and 'land cover' (LULC) are often used to describe maps that provide information about the types of features found on the earth's surface (land cover) and the human activity that is associated with them (land use). Satellite remote sensing is being used for determining different types of land use classes as it provides a means of assessing a large area with limited time and resources. However, satellite images do not record land cover details directly and they are measured based on the solar energy reflected from each area on the land. The amount of multi spectral energy in multi wavelengths depends on the type of material at the earth's surface and the objective is to associate particular land cover with each of these reflected energies, which is achieved using either visual or digital interpretation. In the present study the task is to study in detail the land use and land cover in and around the project site. The study envisages different LULC around the proposed project area and the procedure adopted is as below.

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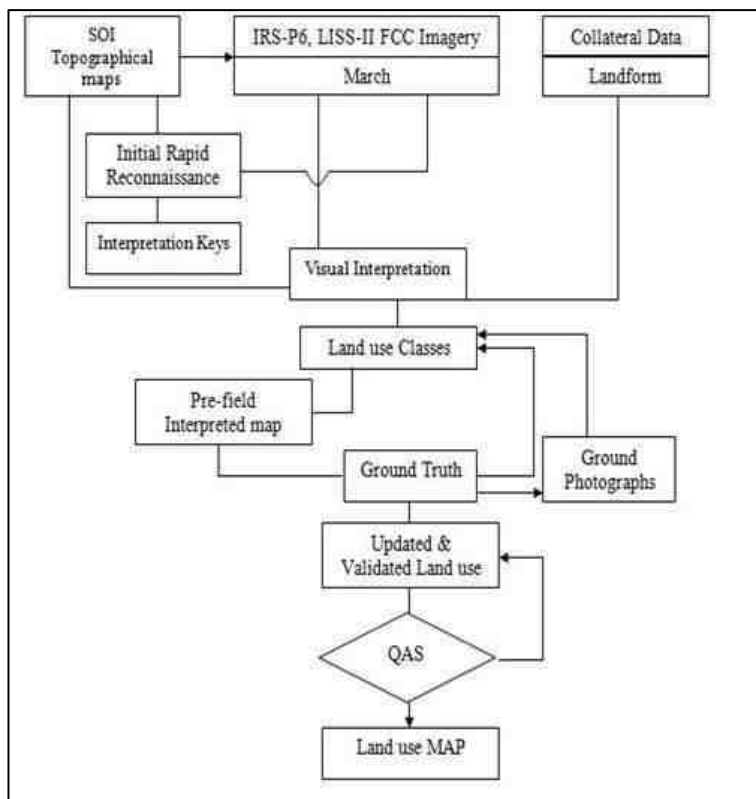


Figure 3-2 Flow Chart showing Methodology of Land use mapping.

3.2.3 Satellite Data

Sentinal 2 multispectral satellite data of 2020 was utilized for the present study. Details of satellite data is given below. The rectification of imagery was carried out on to bring the digital data on the earth coordinate system by means of ground control point (GCP) assignments/SOI topo sheets.

3.2.4 Scale of mapping

Considering the user defined scale of mapping, 1:50000 Sentinal 2 was used for Land use / Land cover mapping of 10 km radius for proposed site. The description of the land use categories for 10 km radius and the statistics are given for 10 km radius.

3.2.5 Interpretation Technique

Standard on screen visual interpretation procedure was followed. The various Land use / Land cover classes interpreted along with the SOI topographical maps during the initial rapid reconnaissance of the study area. The physiognomic expressions conceived by image elements of color, tone, texture, size,

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shape, pattern, shadow, location and associated features are used to interpret the FCC imagery. Image interpretation keys were developed for each of the LU/LC classes in terms of image elements.

June 2016 FCC imagery (Digital data) of the study area was interpreted for the relevant land use classes. On screen visual interpretation coupled with supervised image classification techniques are used to prepare the land use classification.

1. Digitization of the study area (10 km radius from the proposed site) from the topo maps
2. In the present study the Sentinel satellite image and SOI topo sheets of 58-J/15 and 58-N/02 have been procured and interpreted using the ERDAS imaging and ARC-GIS software adopting the necessary interpretation techniques.
3. Satellite data interpretation and vectorization of the resulting units
4. Adopting the available guidelines from manual of LULC mapping using Satellite imagery (NRSA, 1989)
5. Field checking and ground truth validation
6. Composition of final LULC map

The LULC Classification has been done at three levels where level -I being the broad classification about the land covers that is Built-up land, agriculture land, waste land, wet lands, and water bodies. These are followed by level –II where built-up land is divided into towns/cities as well villages. The Agriculture land is divided into different classes such as cropland, Fallow, Plantation, while wastelands are broadly divided into, Land with scrub and without Scrub and Mining and Industrial wasteland. The wetlands are classified into inland wetlands, coastal wetlands and islands. The water bodies are classified further into River/stream, Canal, Tanks and bay. In the present study level II classification has been undertaken. The SOI Topo map is presented in Annexure and Satellite imagery of 10 km radius from the project site is presented Annexure

3.2.6 Field Verification

Field verification involved collection, verification and record of the different surface features that create specific spectral signatures / image expressions on FCC. In the study area, doubtful areas identified in course of interpretation of imagery is systematically listed and transferred on to the corresponding SOI topographical maps for ground verification. In addition to these, traverse routes were planned with

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reference to SOI topographical maps to verify interpreted LU/LC classes in such a manner that all the different classes are covered by at least 5 sampling areas, evenly distributed in the area. Ground truth details involving LU/LC classes and other ancillary information about crop growth stage, exposed soils, landform, nature and type of land degradation are recorded and the different land use classes are taken the Land use map is presented in Annexure

3.2.7 Description of the Land Use / land cover classes

3.2.7.1 Built-up land

It is defined as an area of human settlements composed of houses, commercial complex, transport, communication lines, utilities, services, places of worships, recreational areas, industries etc. Depending upon the nature and type of utilities and size of habitations, residential areas can be aggregated into villages, towns and cities. All the man-made construction covering land belongs to this category. The built- up in 10 km radius from the proposed project site is as follows.

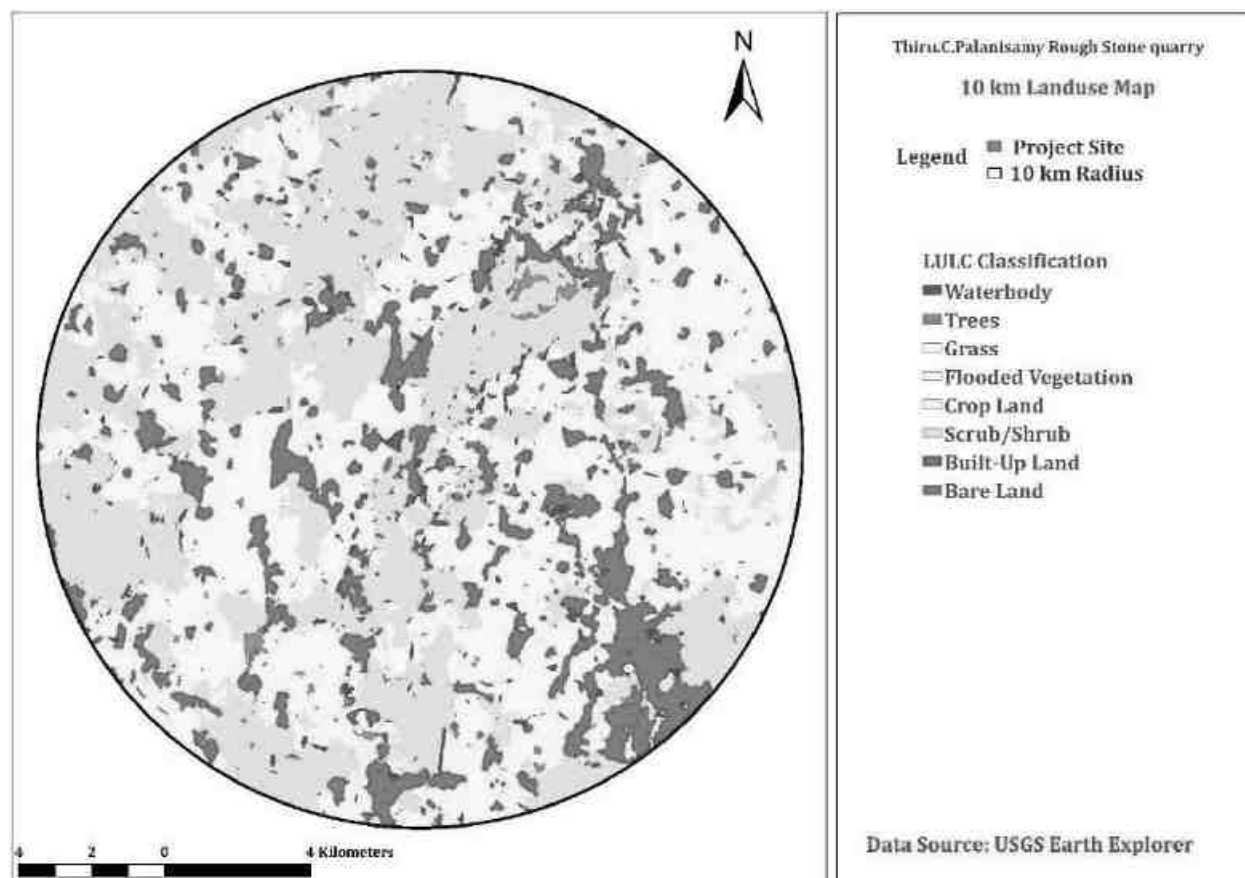


Figure 3-3 Land use classes around 10 km radius from the project site

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3.2.7.2 Different Land use classes around 10 km radius from the project site

Table 3-3 Land use pattern in Pudukkottai District

Sl. No	Categories	Area in Sq.Km
1	Water body	5.85
2	Trees	3.58
3	Grass	0.3
4	Flooded Vegetation	0.47
5	Crops	146.58
6	Scrub/Shrub	115.14
7	Built-up area	42.56
8	Barren Land	1.31

3.2.8 Agricultural land

Agriculture is the primary occupation of Pudukkottai district. Pudukkottai district receives an average annual rainfall of 922.8 mm. Paddy and Groundnut is the important crops of Pudukkottai district. 9000 Ha of the area is covered under paddy and Groundnut is being cultivated in 36000 Ha. Major horticulture crops cultivated in this district are fruits crops like mango, guava, jack, sapota and banana, vegetables like brinjal, bhendi, pumpkin and tapioca, spices like chillies, tamarind and turmeric and plantation crops like cashew and cocoa and flowers like tuberose and marigold and rose.

3.2.9 Water bodies

3.3.1 Contour & Drainage

The project site is 135.0m AMSL. The drainage pattern within 10 km of the project site is dendritic.

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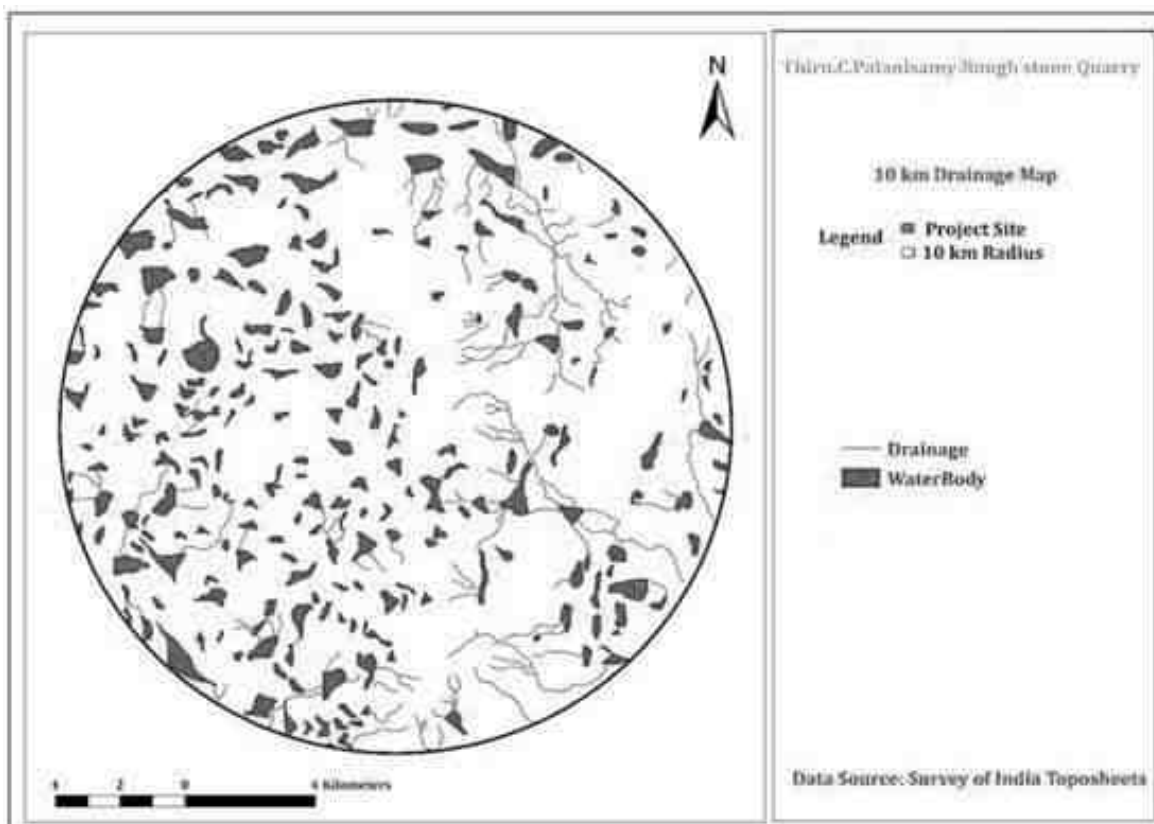


Figure 3-4 10 km Drainage Map

3.3.2 Geomorphology

The geomorphic evolution of the area is mainly controlled by denudational, structural and fluvial processes. The evolution of various landforms has been governed mainly by the varying resistance of geological formations to these processes. Various landforms are occurring in the area, such as erosional plains, residual hills, pediments, buried pediments and deltaic plain. The shallow pediments possess poor to moderate yields with thin soil cover. The buried pediments and deltaic plain possess good ground water potential.

Soils

Black soils are formed in the western part of the district. Red ferruginous lateritic soils are formed on the high grounds, south of Annavasal, west of Illuppur, north of Malaipatti around Kulakurichchi near Gandarvakottai, east of Arantangi around Arimalam and Alangudi. Alluvial soils consisting of blackish and brownish sandy and silty soils are observed along the course of the Vellar, Agniyar and Ambuliyar rivers, whereas the beach sands are noticed along the coast of the district.

The geomorphologic study is done within 10 km from the project site. The major formations are

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- Denudational Origin- Pediment Pediplain Complex: The groundwater condition in pediments generally varies depending upon the type of underlying folded structures, fracture systems and degree of weathering. Groundwater prospecting in pediments is considered as normal to poor.

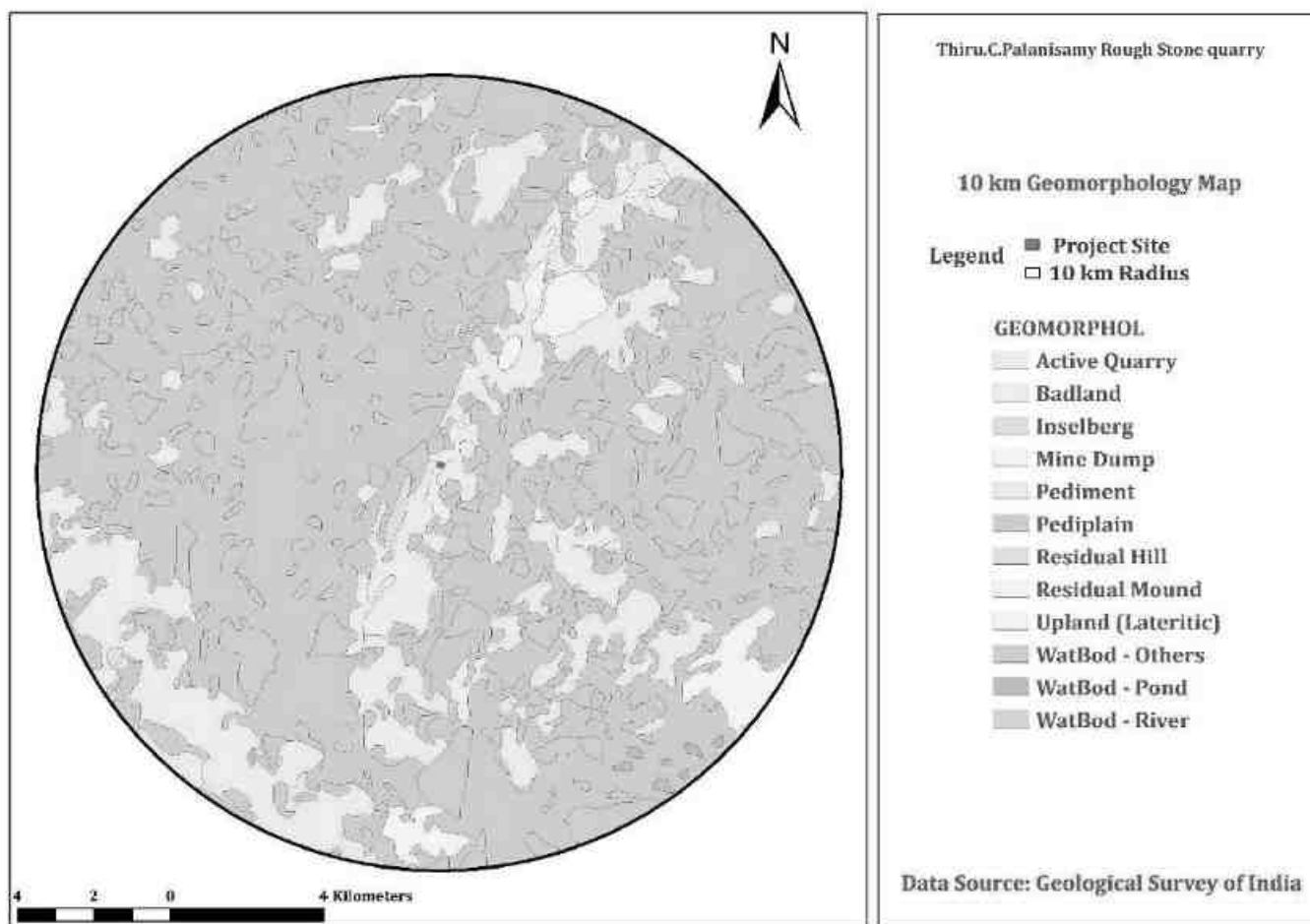


Figure 3-5 Geomorphology within 10km from the project site

3.3.3 Geology:

The geological formation of Pudukkottai District comprises of the hard rocks formed in the Archean age to the sedimentary deposits of the Quaternary period. Geologically the entire study area can be divided into hard rock and sedimentary rock regions. The hard rocks are found on the western side and sedimentary formation towards the eastern direction of the study area. About 45 per cent comprises of the sedimentary formation ranging from Pre-Cambrian to Quaternary period. The various types of hard rocks found here are Charnockites, Hornblende Gneiss, Biotite Gneiss, Granite and Quartzite's. Various types of Gneiss rocks are found in the western part of Pudukkottai

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District. Charnockites and granites rocks are mostly found in the central part including the blocks of Kunnandavarkoil, Thirumayam and the southern parts of Pudukkottai Block. Various types of Gneiss rocks are found in the western part of the study area, consisting of the blocks of Viarlimalai, Annavasal and Ponamaravathy. Quartzite deposits are found in small quantity in some parts of Annavasal and Thirumayam Blocks. In the Blocks of Kulathur, Thirumayam and parts of Pudukkottai crystalline rocks are found.

The sedimentary deposits found in this region consist of shaly sandstone, sand, clay and gravel. The sedimentary deposits formed during the Tertiary period consist of laterite, arenaceous and argillaceous sandstone clay. These deposits are found in the Blocks of Arantangi, Gandarvakottai, Alangudi and Thiruvarankulam. Cretaceous deposits consisting of clay, limestone, sandstone and clayey sandstone are found in some parts of Gandarvakottai, Thirumayam and Pudukkottai. Unconsolidated coastal alluvial deposits consisting of sand gravel and silt are found along the riverbed. Silt and clay deposits of Quaternary period are found in the blocks of Avudaiyarkoil and Manalmelkudi. Sand deposits with beach ridges and dunes are identified near the coastal boundary of Pudukkottai District.

3.3.4 Hydrogeology

Geologically Pudukkottai district is covered by hard rocks and sedimentary regions.

Hard Rock Regions

Around 45% of this district is underlain by the hard massive formations of Archaean age. Granitic gneiss, hornblende biotite gneiss, charnockites, pegmatites and quartzites are the various types of rocks encountered in the hard rock region. Kulathur, major part of Thirumayam and parts of Pudukkottai taluk are occupied by crystalline rocks.

Sedimentary Regions

The area occupied by sedimentary formations belonging to 1. Cretaceous 2.Tertiary and 3. Recent ages fall on the eastern half of the district. The total extent occupied by sedimentary formations amounts to 55% of the total geographical area of the district. Tertiary deposits of Pudukkottai district consists of laterite, arenaceous and argillaceous sand stone and clay.

Cretaceous deposits consists of clay, limestone, sand stone and clayey sand stone. The coastal alluvial deposits consists of unconsolidated sands, gravels and clay. Aranthangi, major parts of Gandarvakottai, Alangudi, Avudaiyarkoil and half of Manamelkudi and Pudukkottaitaluk are occupied by tertiary

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deposits. Minor parts of Gandarvakottai, Thirumayam and half of Pudukottai taluks are occupied by cretaceous deposits. Half of Manamelkudi and minor parts of Avudaiyarkoil taluks are occupied by Quarternary deposits.

Drilling of bore holes:

The occurrence and movement of groundwater in hard rock formations are restricted to the porous zones of weathered formations and the open systems of fractures, fissures and joints. Generally, in hard rock regions, occurrence of weathered thickness is discontinuous both in space and depth. Hence recharge of groundwater in hard rock formations is influenced by the intensity and depth of weathering. The subsurface lithological condition and the aquifer characters can be ascertained by drilling exploratory boreholes and conducting pump tests.

The State Ground and Surface Water Resources Data Centre, during the course of investigation has drilled more than 92 boreholes spread over the entire district to find out the nature and behaviour of the subsurface material and their water holding and water yielding capability. The weathering zone in the district varies from 7 to 22 metres below ground level.

Aquifer Parameters:

Hard rock

The thickness of aquifer in Pudukottai district varies between 12 m to 45 m below G.L. The intensity and degree of weathering and fracture development in the crystalline formations play a vital role in the development of intergranular porosity. Whenever gneissic formations occur deep and very high intensity of weathering is observed. While in the charnockite area weathering is moderate. The aquifer parameter in hard rock region of the district is observed to be as follows:

Parameters	Range
Well yield in LPM	1-2 lpm
Transmissivity (T) m ² /day	5-25 m ² /day
Permeability (K) m/day	3-16 m/day

Sedimentary formations:

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Cretaceous formations

The cretaceous formations are the oldest among the sedimentary formations occurring in the district, cropping out along a narrow belt of 6-8 kms width adjoining the archaean complex. These formations are found in the eastern parts of Thirumayam taluk and nearly in the half of Pudukkottai, Alangudi and Gandarvakottai. Taluks consists mainly of coarse-grained sand, clay, clayey sandstone associated with kankar and gravel. The aquifer parameter values of the cretaceous formations are given below.

Parameters	Range
Well yield in LPM	3-4 lpm
Transmissivity (T) m ² /day	9-47 m ² /day
Permeability (K) m/day	0.5-2.80 m/day

Tertiary formations

The tertiary formations encountered in this district are of Miocene and Pliocene ages and are found in the entire Aranthangi and Avudaiyarkoil taluks and also along the eastern parts of the Pudukkottai and Alangudi taluks consisting mainly of sandstones, claybound sands, sandy clay, shales, etc., The aquifer parameters values of tertiary formations are given below:

Parameters	Range
Well yield in LPM	5-10 lpm
Transmissivity (T) m ² /day	89-157 m ² /day
Permeability (K) m/day	1.5-3 m/day

Drilling

The drilling types are different according to the formation of the terrain. In general, DTH rigs are used in Hard rock formations for drilling a bore well at a depth ranges from 30m to 200m, according to the extension of joints, fractures, lineaments, etc in an area. In Sedimentary formations, rotary rigs with different rotors used according to the Tube well's diameter. The Bentonite clay is used in rotary rigs to avoid the collapse of the Tube well. The sedimentary tube wells are drilled up to a depth of 30m to 300m depending on the area, yield, etc. In alluvial formations, the hand rotary used for drilling tube wells ranges from 10m to 15m. In river beds, infiltration tube wells used for extraction of groundwater.

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In Hard rock, the well designing is simple. The upper top soil and highlyweathered zone is cased with PVC pipe and the remaining weathered, Fissured, Jointed portion is left as it is. In Pudukkottai District, the weathered zone ranges from 1.0m to 12.0m. In Granitic gneiss area, the highly weathered portion will be more up to 15m but in charnockite area, the weathered zone will extend up to 8.0m to 10.m only. In Sedimentary area, the well construction depends on the occurrence of sand thickness inthe referred area. The logger is also used in the construction to identify the area of goodquality of water.

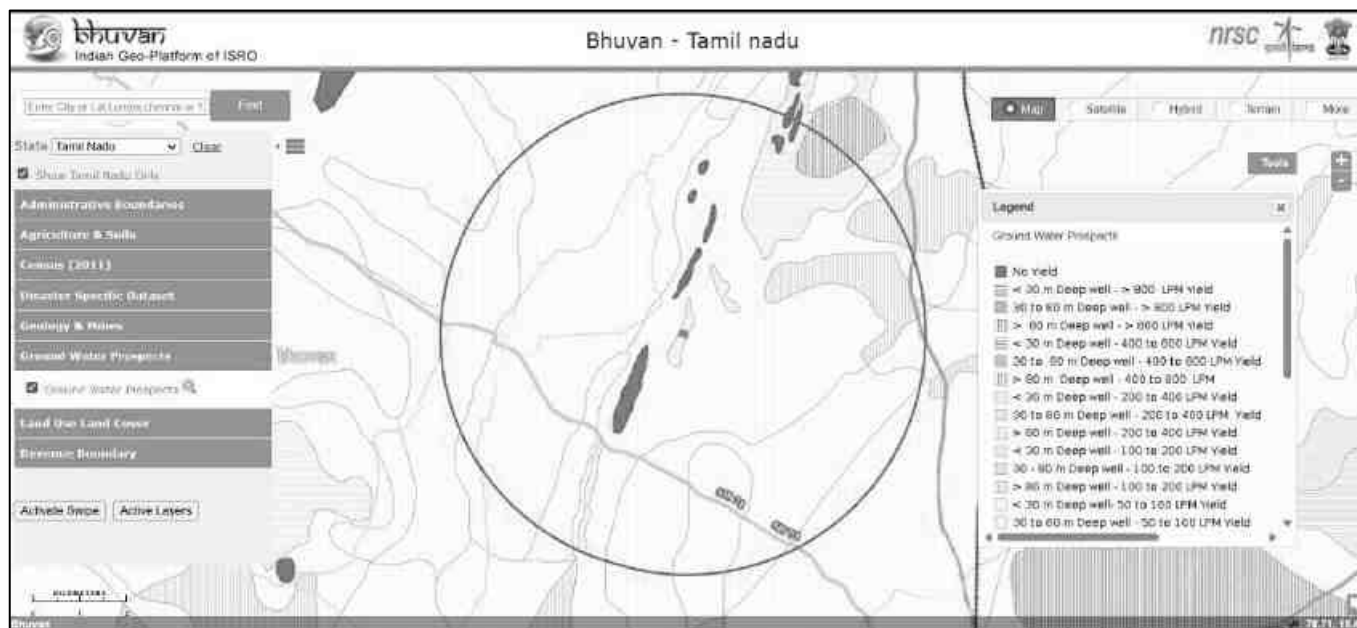


Figure 3-6 Ground water prospects within 5 km radius of the project site

3.3.5 Ground water quality monitoring

Ground water quality monitoring is done in the following locations and analysis will be done for physical, chemical & Biological parameters.

Table 3-4 Ground water Quality Analysis

Environmental Parameters: Ground water Quality Analysis	
Monitoring Period	February to April 2025
Design Criteria	Based on the Environmental settings in the study area
Monitoring Locations	Project Site – GW 1 Udaiyandippatti government school – GW 2 Muththamil park – GW 3

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	Vinayagar Temple, Sithuppatti – GW 4 Vinayagar kovil velangudippatti – GW 5 St. Anthony's Church, Magudhupatti – GW 6 Goverment Higher Secondary School in Maruthanthalai – GW 7
Methodology	Water Samples were collected in 5 Litre fresh cans as per IS 3025 Part I and transported to the laboratory in Iceboxes
Frequency of Monitoring	Once in a season

3.3.5.1 Sampling Procedure

Quality of ground water was compared with IS: 10500: 1991 (Reaffirmed 1993 With Amendment NO -3 July 2010) for drinking purposes. Water samples were collected as Grab samples from five sampling locations in a 5-liter plastic jerry can and 250 ml sterilized clean glass/pet bottle for complete physico-chemical and bacteriological tests respectively. The samples were analyzed as per standard procedure / method given in IS: 3025 (Revised Part) and standard method for examination of water and wastewater Ed. 21st, published jointly by APHA.

Table 3-5: Standard Procedure

S. No	Parameters	Test Method
1	pH (at 25°C)	IS:3025(P -11)1983 RA: 2012
2	Electrical Conductivity	IS:3025(P -14) 2013
3	Colour	IS:3025 (P -4)1983 RA: 2012
4	Turbidity	IS:3025(P -10)1984 RA: 2012
5	Total Dissolved Solids	APHA 22 nd Edn.2012-2540-C
6	Total Suspended Solids	IS:3025(P-17)-1984 RA:2012
7	Total Hardness as CaCO ₃	APHA 22 nd Edn.2012-2340-C
8	Calcium as Ca	APHA 22 nd Edn.2012-3500 Ca-B
9	Magnesium as Mg	APHA 22 nd Edn.2012-3500 Mg-B
10	Chloride as Cl	IS:3025(P -32)-1988 RA: 2014
11	Sulphate as SO ₄	APHA 22 nd Edn.2012-4500 SO ₄ ⁻ -E
12	Total Alkalinity as CaCO ₃	APHA 22 nd Edn.2012-2320-B
13	Iron as Fe	IS:3025(P -53):2003 RA: 2014
14	Silica as SiO ₂	IS:3025(P -35)1988 RA: 2014
15	Fluoride as F	APHA 22 nd Edn.2012-4500-F-D

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16	Nitrate as NO ₃	IS:3025(P -34):1988 RA: 2014
17	Sodium as Na	IS:3025(P -45):1993 RA: 2014
18	Potassium as K	IS:3025(P -45):1993 RA: 2014
19	Coliform	IS: 1622:1981:RA:2014
20	E. coli	IS: 1622:1981:RA:2014

Table 3-6 Ground water sampling results

S. No	Parameters	Units	GW1	GW 2	GW 3	GW 4	GW 5	GW 6	GW 7
1	pH (at 25°C)	-	7.77	8.1	8.17	8.22	8.12	7.77	8.05
2	Electrical Conductivity	µS/cm	683	888	720	3338	2325	690	1533
3	Colour	Hazen Unit	BQL (LOQ:5)	BQL (LOQ:5)	BQL (LOQ:5)	BQL (LOQ:5)	BQL (LOQ:5)	BQL (LOQ:5)	BQL (LOQ:5)
4	Turbidity	NTU	BQL (LOQ:1)	BQL (LOQ:1)	BQL (LOQ:1)	BQL (LOQ:1)	BQL (LOQ:1)	BQL (LOQ:1)	BQL (LOQ:1)
5	Total Dissolved Solids	mg/L	410	506	453	1836	1508	441	924
6	Total Suspended Solids	mg/L	BQL (LOQ:2)	BQL (LOQ:2)	BQL (LOQ:2)	BQL (LOQ:2)	BQL (LOQ:2)	BQL (LOQ:2)	BQL (LOQ:2)
7	Total Hardness as CaCO ₃	mg/L	308	234	254	864	476	232	472
8	Calcium Hardness as CaCO ₃	mg/L	142	182	178	352	404	124	248
9	Magnesium Hardness as CaCO ₃	mg/L	166	52	75.8	512	72	108	224
10	Calcium as Ca	mg/L	56.9	72.9	71.3	141	98.2	49.7	99.2
11	Magnesium as Mg	mg/L	40.4	12.6	18.5	124	56.1	26.3	54.5
12	Chloride as Cl	mg/L	30.5	112	32.5	580	461	48.3	292
13	Sulphate as SO ₄	mg/L	87.3	53.6	25	250	171	24.9	6.72

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14	Total Alkalinity as CaCO ₃	mg/L	276	279	318	289	391	293	137
15	Iron as Fe	mg/L	2.23	0.112	BQL (LOQ:0.1)	BQL (LOQ:0.1)	0.464	BQL (LOQ:0.1)	BQL (LOQ:0.1)
16	Silica as SiO ₂	mg/L	46.7	77.3	84.5	74.9	24.2	66.7	73.8
17	Fluoride as F	Mg/L	1.594	1.076	1.672	1.466	1.554	1.982	0.864
18	Nitrate as NO ₃	mg/L	11.1	13.3	10.5	14.4	12.4	9.9	7.7
19	Potassium as K	mg/L	6.6	15.2	5.6	470	70.7	5.5	30
20	Sodium as Na	mg/L	25	90.5	25	54	390	38.7	268

3.3.6 Interpretation of results:

3.3.6.1 Physical parameters of water:

The basic physical parameters of water include

Colour:

Value observed in Project Site (True/Apparent Color): BQL (LOQ:5).

Acceptable and permissible limits: 5 Hazel units and 15 Hazel units respectively. The value in the project site is as same as the acceptable limits prescribed by IS 10500: 2012 (referred as “Standards” from herein).

Odour & Taste:

The water is odourless. The taste of the water is slightly salty which is due to the presence of hardness in water, which is attributed to the presence of calcium and magnesium in the water. As per the standards, the odour and taste should be agreeable.

pH:

Value observed in the Project Site: 7.77

Acceptable and permissible limits: 6.5-8.5. The pH value is the measure of acid – base equilibrium. The value of pH in the project site clearly indicates that water is slightly neutral in nature.

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Project Proponent	<i>Thiru.C.Palanisamy</i>	
Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

Turbidity:

Value observed in the Project Site: BQL(LOQ:1)

Acceptable and permissible limits: 1 NTU & 5 NTU respectively. The value of turbidity generally indicates the presence of phytoplanktons and other sediments. The value in the project site indicates the water is less turbid and no any physical treatment is required to treat the turbidity of the water.

Total Dissolved Solids:

Value observed in the Project Site: 410 mg/L.

Acceptable and permissible limits: 500 mg/L and 2000 mg/L respectively.

TDS is the presence of the inorganic salts and small amounts of organic matter present in the water. This is mainly due to the result of surface runoff as the cations and anions in the topsoil are carried away by the water. The value in the project site indicates the water is less turbid.

3.3.6.2 Chemical parameters of water:

The chemical parameters of the drinking water include,

Calcium:

Value observed in the Project Site: 56.9mg/L.

Acceptable and permissible limits: 75mg/L and 200 mg/L respectively.

Calcium is the essential macronutrient. The value of the calcium is within the prescribed permissible standards. The higher level of calcium may cause hardening in domestic equipment and will also reduce the detergent efficiency. Higher levels of calcium will lead to constipation, gas, and bloating. Apart from that, extra calcium may also increase the risk of kidney stones. If the calcium deposit in blood is high, it may lead to hypercalcemia.

Magnesium:

Value observed in the Project Site: 40.4 mg/L.

Acceptable and permissible limits: 30 mg/L and 100 mg/L respectively.

The value of Magnesium in the project site is higher than acceptable limit and less than the permissible limit. The increase in the level of magnesium will cause diarrhea and vomiting in children.

Chloride

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Project Proponent	<i>Thiru.C.Palanisamy</i>	
Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

Value observed in the project site: 30.5 mg/L.

Acceptable and permissible limits: 250 mg/L and 1000 mg/L respectively.

The chloride level in the project site is within the acceptable and permissible limit. If the level of chloride is more, it may cause galvanic and pitting corrosion, increases level of metals. It imparts bitter taste to the water.

Total Alkalinity as CaCO₃:

Value observed in the project site: 276 mg/L.

Acceptable and permissible limits: 200 mg/L and 600 mg/L respectively.

Total Alkalinity is the measure of the concentration of all alkaline substances dissolved in the water which includes carbonates, bicarbonates and hydroxides. The value of the total alkalinity is slightly greater in the project site, which will impart soda taste to the water.

Hardness:

Value observed in the Project Site: 308 mg/L.

Acceptable and permissible limits: 200 mg/L and 600 mg/L respectively.

The value of Hardness in the project site is within the acceptable and permissible limit. The increase in the level of hardness may cause corrosion and scaling problems, increased soap consumption and it also contributes to the salty taste of water.

3.3.6.3 Biological parameters of water:

The biological parameters of water includes E- Coli & Coliform

Value observed in the project site: <2 mpn/100ml – e-coli and <2 mpn/100ml – Coliforms

The E- coli and coliform shall not be detectable in any 100 ml sample as per the drinking water standards IS 10500:2012.

E- coli is one of the fecal coliform bacteria. The presence of this indicates the water is feacally contaminated. Without treatment, when consumed, will have water borne diseases like cholera, typhoid and diarrhea.

3.3.7 Surface Water Analysis

Surface water samples were taken from Periya Kulam and Vellanur Local Pond. The results are summarized below.

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Table 3-7 Surface Water Sample Results

S. No	Parameters	Units	Periya Kulam	Vellanur Local Pond
1	pH (at 25°C)	-	7.89	8.23
2	Electrical Conductivity	µS/cm	245	216
3	Colour	Hazen Unit	10	8
4	Turbidity	NTU	6	5
5	Total Dissolved Solids	mg/L	170	131
6	Total Suspended Solids	mg/L	BQL(LOQ:2)	BQL(LOQ:2)
7	Total Hardness as CaCO ₃	mg/L	68	45
8	Calcium Hardness as CaCO ₃	mg/L	63	42
9	Magnesium Hardness as CaCO ₃	mg/L	5	3
10	Calcium as Ca	mg/L	25.2	16.8
11	Magnesium as Mg	mg/L	1.21	BQL(LOQ:1)
12	Chloride as Cl	mg/L	32.5	24.6
13	Sulphate as SO ₄	mg/L	5.08	5.87
14	Total Alkalinity as CaCO ₃	mg/L	79	62.4
15	Iron as Fe	mg/L	0.546	BQL(LOQ:0.1)
16	Silica as SiO ₂	mg/L	6.26	8.3
17	Fluoride as F	Mg/L	1.022	0.704
18	Nitrate as NO ₃	mg/L	16.6	12.6
19	Potassium as K	mg/L	3.2	6.1
20	Sodium as Na	mg/L	25.6	18.2
21	Total Kjeldahl Nitrogen as N	mg/L	18.2	16.1
22	Biochemical oxygen Demand @ 27°C	mg/L	9.8	9.4
23	Chemical Oxygen Demand	mg/L	32.5	30.2

Inference: The surface water quality is compared with the CPCB Water Quality Criteria against A, B, C, D & E class of water. From the test result, it is found that the both the water does not fit Class A (Drinking Water Source without conventional treatment but after disinfection). But they can be used for outdoor bathing as it meets the requirements shown for class B water.

3.3.8 Climatology & Meteorology:

Climate and meteorology of a place can play an important role in the implementation of any developmental project. Meteorology is also the key to understand local air quality as there is an essential relationship between meteorology and atmospheric dispersion involving wind in the broadest sense of the term.

Project	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
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Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

The year may broadly be divided into four seasons:

Winter season	:	December to February
Pre-monsoon season	:	March to May
Monsoon season	:	June to September
Post-monsoon season	:	October to November

i) Climate

High temperature throughout the year. Generally, a dry and hot climate prevails in the district. The district receives the rainfall under the influence of northeast monsoon. The heaviest rainfall in the district used to be received in the month of October was 233.8 mm (Average).

ii) Temperature

The average daily temperature ranges from a maximum of 33.7 °C to a minimum of 24 °C

iii) Rainfall:

The normal rainfall recorded at various rain gauge stations in the area ranged from 833.40 mm (Viralimalai) to 1033.8 mm (Perungalur) with an average of 910.8 mm for the district. There is a gradual increase in precipitation from east to southwest over the district. The rainfall is highest in Southeastern part of the district, which includes the coastal blocks of Manamelgudi and Avudaiyarkoil. It gradually decreases towards the northeast, where the average annual rainfall is found to be the lowest in Malaiyanur.

PUDUKKOTTAI DISTRICT -NORMAL AND ACTUAL RAINFALL (2008 TO 2017)

Unit in mm.

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2016	0	0	0	0	77.7	32.1	50.1	80.7	70.9	80.1	22.1	57.3
2017	53.9	1.3	34.6	0	19.8	54.8	41.7	217.3	93.5	89.3	88.6	29.6
2018	6.5	0.8	7	13.5	73.7	67	93.9	38.5	78.3	124.4	166.2	22.6
2019	0	0	0	6.2	3.9	17	55.6	79.3	193.1	233.8	173.3	113.9
2020	1	0	0.2	23.9	33.6	75.6	158.2	84.2	133.9	107	131.5	197.6

Source: District survey report

Metrological Data

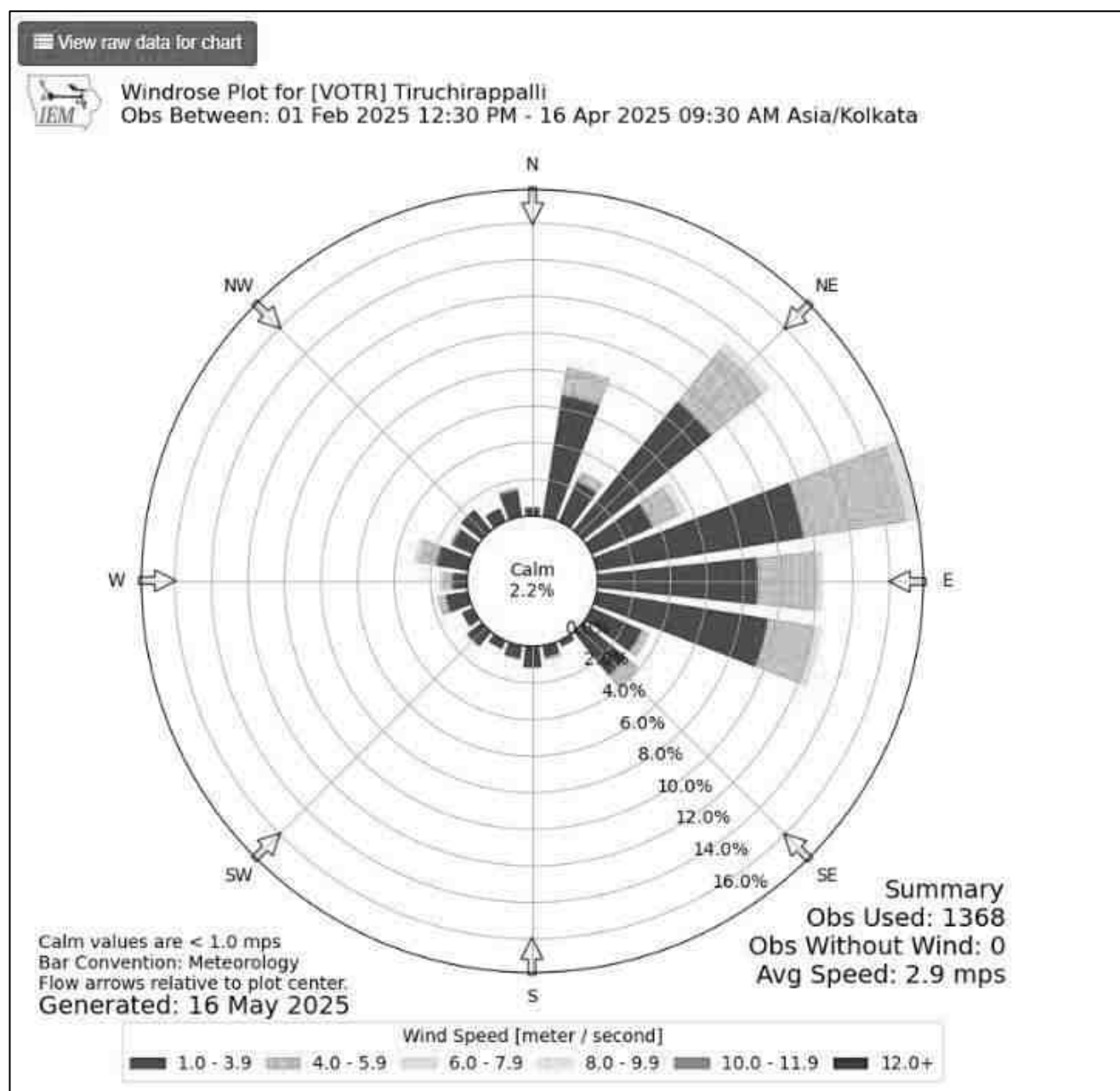
Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

The meteorological data – Temperature, rainfall, Wind Speed, Wind direction are recorded through AWS by setting it up in the site.

vi) Wind Rose Diagram

The wind rose denotes a class of diagrams designed to display the distribution of wind direction at a given location over a period of time. Wind roses are also useful as they project a large quantity of data in a simple graphical plot.

The wind speed & wind direction data are taken, and wind rose is plotted for February 2025 to April 2025



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Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

Figure 3-7 Wind rose.

3.3.9 Selection of Sampling Locations:

Four Monitoring locations along with the project site is selected based on Wind Direction & Wind Speed. All the monitoring locations are chosen in the downwind direction.

3.3 Ambient Air Quality

Table 3-8: Selection of Sampling Location

Environmental Parameters: <i>Ambient Air</i>																											
Monitoring Period	February to April 2025																										
Design Criteria	The monitoring stations are selected based on factors like topography/terrain, prevailing meteorological conditions like predominant wind direction (January to March 2024), etc, play a vital role in the selection of air sampling stations. Based on these criteria, 7 air sampling station were selected in the area as shown below.																										
Monitoring Locations	<table><tr><th>Location & Code</th><th>Distance</th><th>Direction</th></tr><tr><td>Project Site - AAQ 1</td><td>-</td><td>-</td></tr><tr><td>Udaiyandippatti government school - AAQ 2</td><td>2.02 km</td><td>Upwind NEE</td></tr><tr><td>Muththamil park - AAQ 3</td><td>1.62 km</td><td>Downwind SWW</td></tr><tr><td>Vinayagar Temple, Sithuppatti - AAQ 4</td><td>5.62 km</td><td>Crosswind N</td></tr><tr><td>Vinayagar kovil velangudippatti - AAQ 5</td><td>7.57 km</td><td>Crosswind S</td></tr><tr><td>St. Anthony's Church, Magudhupatti - AAQ 6</td><td>9.35 km</td><td>Crosswind NW</td></tr><tr><td>Goverment Higher Secondary School in Maruthanthalai - AAQ 7</td><td>3.65 Km</td><td>Crosswind SE</td></tr></table>			Location & Code	Distance	Direction	Project Site - AAQ 1	-	-	Udaiyandippatti government school - AAQ 2	2.02 km	Upwind NEE	Muththamil park - AAQ 3	1.62 km	Downwind SWW	Vinayagar Temple, Sithuppatti - AAQ 4	5.62 km	Crosswind N	Vinayagar kovil velangudippatti - AAQ 5	7.57 km	Crosswind S	St. Anthony's Church, Magudhupatti - AAQ 6	9.35 km	Crosswind NW	Goverment Higher Secondary School in Maruthanthalai - AAQ 7	3.65 Km	Crosswind SE
Location & Code	Distance	Direction																									
Project Site - AAQ 1	-	-																									
Udaiyandippatti government school - AAQ 2	2.02 km	Upwind NEE																									
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Vinayagar kovil velangudippatti - AAQ 5	7.57 km	Crosswind S																									
St. Anthony's Church, Magudhupatti - AAQ 6	9.35 km	Crosswind NW																									
Goverment Higher Secondary School in Maruthanthalai - AAQ 7	3.65 Km	Crosswind SE																									
Methodology	Respirable Particulate Matter (PM10) - Gravimetric (IS 5182: Part 23:2006) Particulate Matter PM2.5 - Gravimetric (Fine particulate matter) Sulphur Dioxide - Calorimetric (West & Gaeke Method) (IS 5182: Part 02:2001) Nitrogen Dioxide - Calorimetric (Modified Jacob & Hocheiser Method) (IS 5182: Part 06:2006)																										
Frequency of Monitoring	2 days in a week, 4 weeks a month for 3 months in a season.																										

<i>Project</i>	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru.C.Palanisamy</i>	
<i>Project Location</i>	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

3.4.1 Ambient Air Quality: Results & Discussion

The test results of the ambient air quality monitored in project site and other four locations is summarized below.

Code	Location	PM 10 ($\mu\text{g}/\text{m}^3$)				PM 2.5 ($\mu\text{g}/\text{m}^3$)				SO ₂ ($\mu\text{g}/\text{m}^3$)				NO _x ($\mu\text{g}/\text{m}^3$)			
		Min	Max	Avg	98 %	Min	Max	Avg	98 %	Min	Max	Avg	98 %	Min	Max	Avg	98 %
AAQ 1	Project Site	40	54	47.6	54	14	24	19.7	24	6	11	9.0	11	11	22	17.0	22
AAQ 2	Udaiyandippatti government school	40	55	45.9	54.54	14	23	17.6	22.5	5	11	7.7	10.5	10	23	15.5	21.6
AAQ 3	Muththamil park	38	50	43.5	49.08	12	20	16.3	20	4	9	6.2	8.5	16	21	14.3	20.0
AAQ 4	Vinayagar Temple, Sithuppatti	41	55	48.0	54.54	10	23	17.8	22.5	8	18	12.1	17.08	12	28	20.7	26.6
AAQ 5	Vinayagar kovil velangudippatti	36	50	43.9	49.63	12	24	17.4	24	6	16	11.1	16	12	23	17.5	23
AAQ 6	St. Anthony's Church, Magudhupatti	47	57	52.9	56.54	18	26	22.2	26	5	14	8.5	13.08	13	28	19.9	27.5
AAQ 7	Goverment Higher Secondary School in Maruthanthalai	43	55	48.6	54.08	16	23	18.2	21.6	9	17	12.6	16.54	17	30	21.5	29.0
NAAQ Standards - Residential Area		100 ($\mu\text{g}/\text{m}^3$)				60 ($\mu\text{g}/\text{m}^3$)				80 ($\mu\text{g}/\text{m}^3$)				80 ($\mu\text{g}/\text{m}^3$)			

Table 3-9 Ambient Air Quality

Project	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
Project Proponent	<i>Thiru.C.Palanisamy</i>	
Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

3.4.2 Interpretation of ambient air quality:

To assess the impact, AAQ were monitored in project site and four locations.

Observation:

The Maximum value of PM₁₀ (57 (µg/m³), PM_{2.5} (26 (µg/m³), SO_x 18 (µg/m³) ,NO_x (30 (µg/m³) is observed in different places.

Inference:

The monitoring results for PM₁₀, PM_{2.5}, NO_x was found to be high in St. Anthony's Church, Magudhupatti and Goverment Higher Secondary School in Maruthanthalai Village which densely populated small rural area where there is no commercial development like industry, college, etc. The only contributing factor to the higher values is due to the vehicular movement. In the absence of vehicular movement, the values of PM₁₀, PM_{2.5}, NO_x was found to be less.

The observed values are all well within the Standards prescribed by NAAQ.

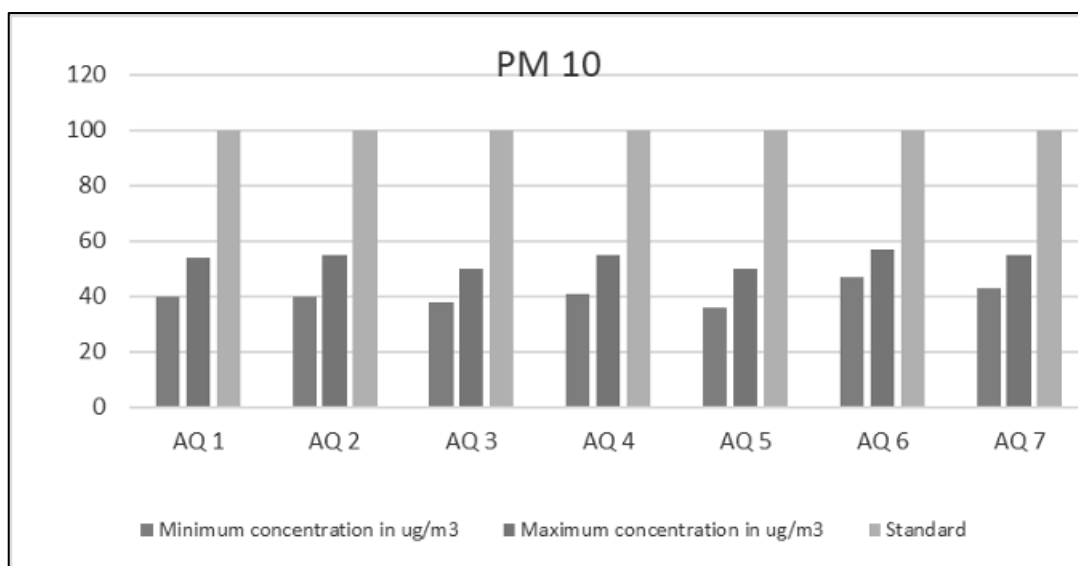


Figure 3-8 Concentration of PM₁₀ (µg/m³) in Study Area

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

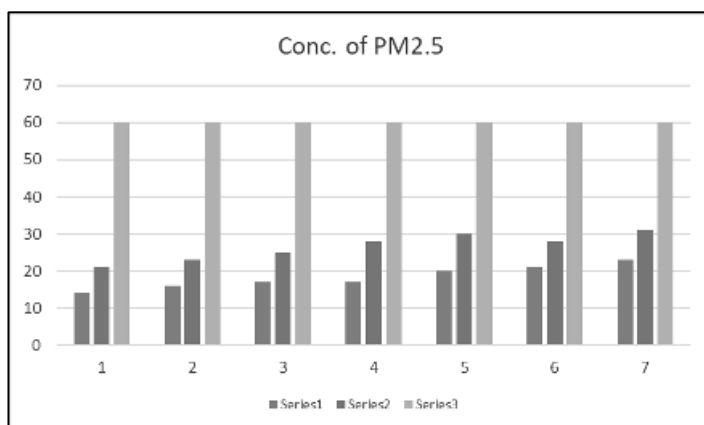


Figure 3-9 Concentration of PM2.5 (µg/m³) in Study Area

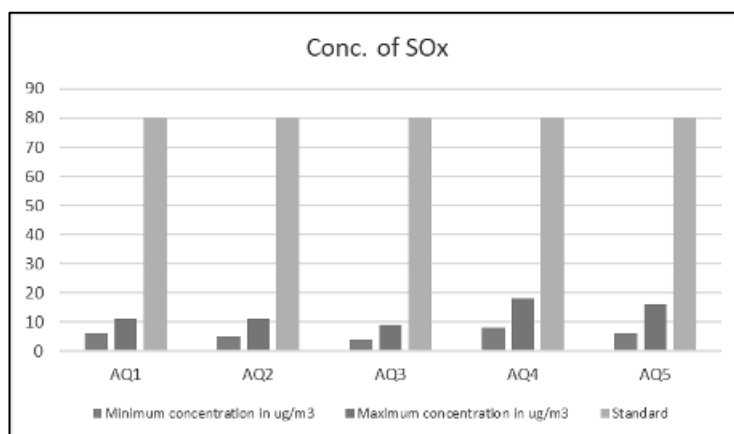


Figure 3-10 Concentration of SOx (µg/m³) in Study Area

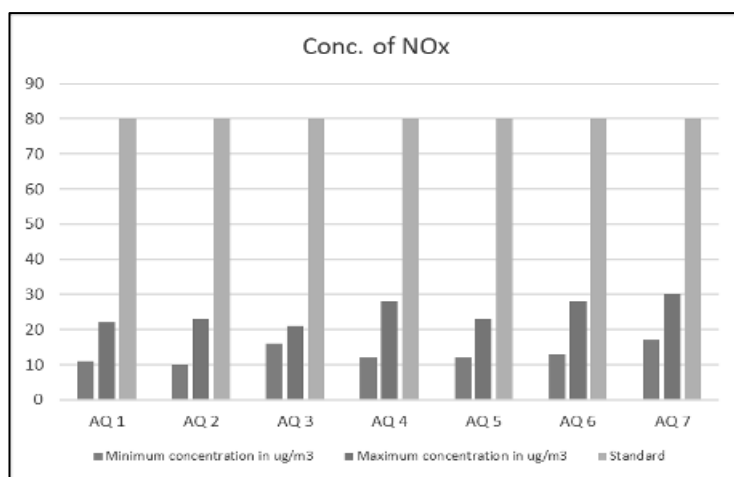


Figure 3-11 Concentration of NOx (µg/m³) in Study Area

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

3.4 Noise Environment:

Table 3-10 Noise Analysis

Environmental Parameters: <i>Noise Analysis</i>	
Monitoring Period	February to April 2025
Design Criteria	Based on the Sensitivity of the area
Monitoring Locations	Project Site – N1, Udaiyandippatti government school – N2 Muththamil park – N3 Vinayagar Temple, Sithuppatti – N4 Vinayagar kovil velangudippatti – N5 St. Anthony's Church, Magudhupatti – N6 Goverment Higher Secondary School in Maruthanthalai – N7
Methodology	Noise level measurements were taken at the selected locations using noise level meter both during day and nighttime. Noise level measurements were taken continuously for 24 hours at hourly intervals
Frequency of Monitoring	Noise samples were collected from 7 locations - Once in a season

Ambient Noise Levels are monitored in the chosen 7 Locations including the project Site and the monitoring results are summarized below.

3.5.1 Day Noise Level (Leq day)

Table 3-11 Day Noise Level (Leq day)

Location	Leq day in dB(A)		
	Max	Min	Average
Project Site	51	41	48
Udaiyandippatti government school	57	46	53
Muththamil park	65	55	60
Vinayagar Temple, Sithuppatti	66	56	61

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Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

Vinayagar kovil velangudippatti	55	45	52
St. Anthony's Church, Magudhupatti	60	49	55
Goverment Higher Secondary School in Maruthanthalai	55	43	50

3.5.2 Night Noise Level (Leq Night)

Table 3-12 Night Noise Level (Leq Night)

Location	Leq Night in dB(A)		
	Max	Min	Average
Project Site	43	36	39
Udaiyandippatti government school	47	39	42
Muththamil park	52	45	48
Vinayagar Temple, Sithupatti	53	46	49
Vinayagar kovil velangudippatti	44	36	40
St. Anthony's Church, Magudhupatti	46	39	42
Goverment Higher Secondary School in Maruthanthalai	42	35	38

Observation:

The maximum Day noise and Night noise were found to be 66 dB(A) and 53 dB(A) respectively in Vinayagar Temple, Sithupatti. The minimum Day Noise and Night noise were 41 dB(A) and 35 dB(A) respectively, which was observed in Project Site and Government Higher Secondary School in Maruthanthalai.

The observed values are all well within the Standards prescribed by CPCB.

3.5 Soil Environment

The soil environment is studied for 10 km radius from the project site. The 5 km radius image shows that the soil is not affected by any kind of erosion.

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

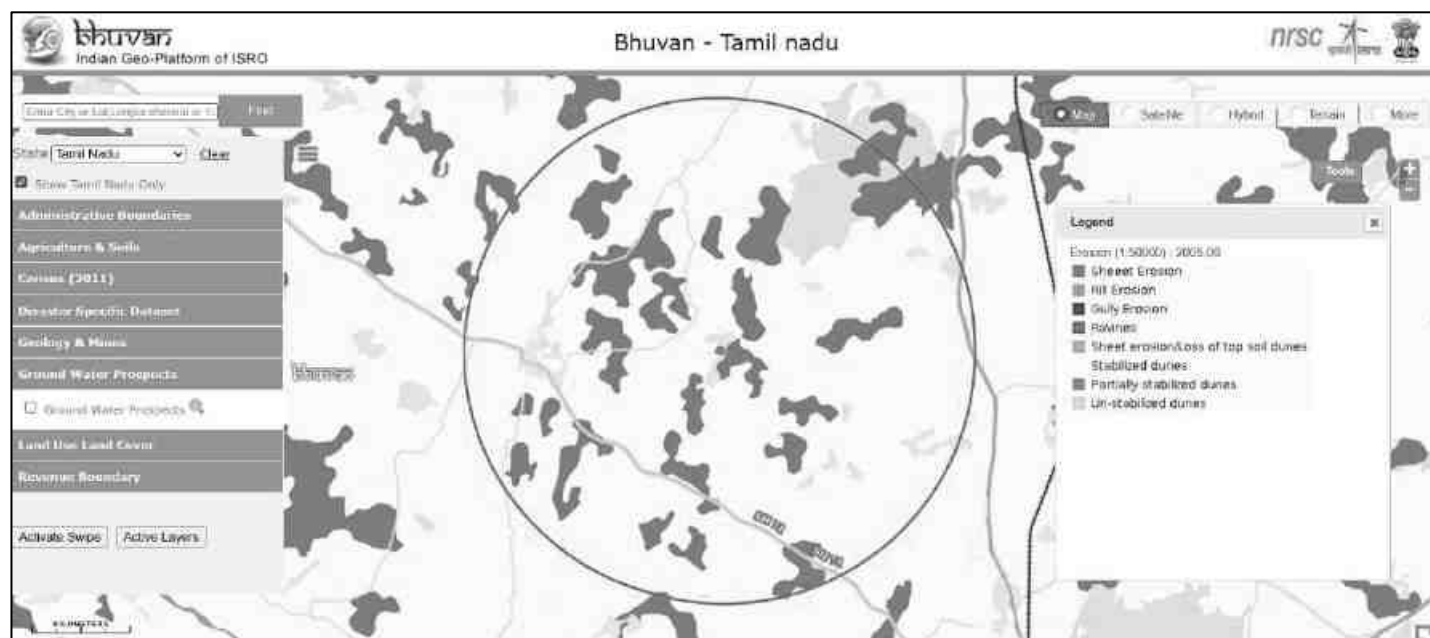


Figure 3-12 Soil Erosion pattern within 10 km radius of the project site.

3.6.1 Baseline Data:

The present study of the soil quality establishes the baseline characteristics which will help in future in identifying the incremental concentrations if any, due to the operation Phase of the proposed project. The sampling locations have been identified with the following objectives:

- To determine the impact of proposed project on soil characteristics and
- To determine the impact on soils more importantly from agricultural productivity point of view.

Table 3-13 Soil Quality Analysis

Environmental Parameters: <i>Soil Quality Analysis</i>	
Monitoring Period	February to April 2025
Design Criteria	Based on the environmental settings of the study area
Monitoring Locations	Project Site – SQ 1, Udaiyandippatti government school – SQ 2 Muththamil park – SQ 3, Vinayagar Temple, Sithuppatti – SQ 4,

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Project Proponent	<i>Thiru.C.Palanisamy</i>	
Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

	Vinayagar kovil velangudippatti – SQ 5, St. Anthony's Church, Magudhupatti – SQ 6, Government Higher Secondary School in Maruthanthalai – SQ 7,
Methodology	Composite soil samples using sampling augers and field capacity apparatus
Frequency of Monitoring	Soil samples were collected from 7 locations Once in a season

To assess the soil quality of the study area, 7 monitoring stations were selected and the results are summarized below.

Table 3-14 Soil Quality Analysis

S.No	Parameters	Unit	SQ 1	SQ 2	SQ 3	SQ 4	SQ5	SQ 6	SQ 7
1	pH (at 25°C)	-	7.42	7.98	8.51	7.84	7.79	7.6	7.12
2	Specific Electrical Conductivity	ms/cm	0.344	0.324	1.184	0.199	0.262	0.377	0.159
3	Water Holding Capacity	ml/L	5.7	6.6	5.1	4.4	6.3	6.1	5.2
4	Chloride	mg/Kg	55.5	72.2	90.6	70.1	80.3	88.8	90.3
5	Calcium	mg/Kg	76	120	64.1	80.2	60.5	86.5	150
6	Sodium	mg/Kg	410	435	380	320	370	395	410
7	Pottasium	mg/Kg	275	288	210	191	195	80.5	92.7
8	Organic matter	%	0.56	0.49	0.63	0.52	0.71	0.48	0.63
9	Soluble Magnesium	mg/Kg	40	30.5	1.96	23.3	122	22.7	22.5
10	Sulphate	mg/Kg	24.2	30.3	56.6	50.5	66.6	70.1	50.5
11	CEC	meq/100g	11.1	13.3	12.4	11.6	13.7	12.1	10.6
12	Carbonate	mg/Kg	NIL	NIL	NIL	Nil	NIL	NIL	NIL

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13	BiCarbonate	mg/Kg	66.6	110	161	181	150	177	130
14	TKN	%	0.18	0.17	0.22	0.19	0.16	0.11	0.13
15	Bulk Density	g/cm ³	1.26	1.18	1.31	1.22	1.09	1.15	1.11
16	Phosphorous	mg/Kg	70.2	86.6	81.1	95.5	79.8	80.8	92.2
17	Sand	%	60	55	45	50	61	52	49
18	Clay	%	16	25	20	20	20	18	22
19	Silt	%	24	20	35	30	19	30	29
20	SAR	meq/Kg	9.4829	9.183069	12.7580	8.09404	6.3007	9.77470	8.257
21	Silicon	%	0.018	0.017	0.019	0.021	0.018	0.021	0.017

3.6.1.1 Physical Properties:

Regular cultivation practices increase the bulk density of soils thus inducing compaction. This results in reduction in water percolation rate and penetration of roots through soils. Soils with low bulk density have favorable physical conditions whereas those with high bulk density exhibit poor physical conditions for agriculture crops. The bulk density of the soil in the study area ranged between 1.09 to 1.31 mg/kg which indicates favorable physical condition for plant growth. The water holding capacity was found in the range of 4.4 ml/l to 6.6 ml/l.

3.6.1.2 Chemical Properties:

Chemical characteristics of soils include pH, exchangeable cations and fertility status in the form of NPK values and organic matter. The value of the pH ranges from 7.12 to 8.51, which indicates majority of pH of the soil is slightly alkaline. The soil in the project site is sodic in nature, which challenges because they tend to have very poor structure which limits or prevents water infiltration and drainage. The organic matter varies from 0.48 to 0 mg/kg, which indicates the soil is slightly unfertile.

3.6 Ecology and Biodiversity

Ecology and Biodiversity is studied for a 10 km radius around the project site. Project site and 2 km around the project site is considered as core zone and from 2 km to 10 km radius, it is considered as buffer zone.

- Primary field survey is carried out for the assessment of flora and fauna in the core zone.

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- Secondary data from Journals/Literature were studied and compiled to understand the species present in the buffer zone.

3.7.1 Methods available for floral analysis:

3.7.1.1 Plot Sampling Methods

- Quadrat – 2D shape (e.g., square or rectangle, or other shape) used as a sampling unit.
- Transect
 - Line transects feature only a length dimension, usually defined by a tape stretched across the area to be sampled.
 - Belt transects have a width as well as length.
 - Pace-transects are established when the observer strides along an imaginary line across the sample site and uses their foot placement to determine specific sampling points.

3.7.1.2 Plot less Sampling Methods

- Closest individual method - Distance is measured from each random point to the nearest individual.
- Nearest neighbour method - Distance is measured from an individual to its nearest neighbour.
- Random pairs method - Distance is measured from one individual to another on the opposite side of the sample point.
- Point-centered quarter (PCQ) method - Distance is measured from the sampling point to the nearest individual in each quadrat.

3.7.2 Field study& Methodology adopted:

To assess the suitability of the methodology, a random field survey was done. Field survey was conducted around 2 km radius from the project site and five locations were chosen based on the species density. Quadrat method is chosen for the proposed study as compared to other sampling methods, because they are relatively simple to use. Quadrat plots are uniform in size and shape and distributed randomly throughout the sample area, which makes the study design straightforward. They are also one of the most affordable techniques because they require very few materials.

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3.7.3 Study outcome:

Phyto-sociological parameters, such as *Density, Frequency, Basal Area, Abundance and Importance Value Index* of individual species (Trees) were determined in randomly placed quadrats of different sizes in the study area. Relative frequency, relative basal area and relative density were calculated and the sum of these three represented Importance Value Index (IVI) for various species. For shrubs, herbs and grasses, *Density, Frequency, Relative Density & Relative Frequency were found.*

Sample plots were selected in such a way to get maximum representation of different types of vegetation and plots were laid out in different part of the study area of 2 km radius. Analysis of the vegetation will help in determining the relative importance of each species in the study area and to reveal if any economically valuable species is threatened in the process.

Table 3-15 Calculation of Density, Frequency (%), Dominance, Relative Density, Relative Frequency, Relative Dominance & Important Value Index

Parameters	Formula
Density	Total No. of individuals of species/ Total No. of Quadrats used in sampling
Frequency (%)	(Total No. of Quadrats in which species occur/ Total No. of Quadrats studied) * 100
Dominance	Total Basal Area /Total area sampled
Abundance	Total No. of individuals of species/ No. of Quadrats in which they occur
Relative Density	(Total No. of individuals of species/Sum of all individuals of all species) * 100
Relative Frequency	(Total No. of Quadrats in which species occur/ Total No. of Quadrats occupied by all species) * 100
Relative Dominance	Dominance of a given species/Total Dominance of all species
Important Value Index	Relative Density + Relative Frequency + Relative Dominance

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Table 3-16 Tree Species in the core Zone

S. No.	Scientific Name	Local Name	Total No. of species	Total of Quadrants with species	Total No. of Quadrants	Density	Frequency (%)	Abundance	Dominance	Relative Density	Relative Frequency	Relative Dominance	IVI	IUCN Conservation Status
1	Ficus Carica	Athi Maram	2	2	6	0.33	33.33	1	0.28	1.68	2.17	4.45	8.31	Least Concern
2	Cassia siamea	ManjalKonrai	3	2	6	0.50	33.33	1.5	0.07	2.52	2.17	1.11	5.81	Least Concern
3	Acacia nilotica	Karuvelai	4	4	6	0.67	66.67	1	0.28	3.36	4.35	4.45	12.16	Least Concern
4	Bambusa vulgaris	Moongil	4	4	6	0.67	66.67	1	0.50	3.36	4.35	7.92	15.63	Not assessed
5	Anacardium occidentale	Cashew	1	1	6	0.17	16.67	1	0.44	0.84	1.09	6.96	8.88	Not assessed
6	Alstonia scholaris	Elilaipalai	2	2	6	0.33	33.33	1	0.27	1.68	2.17	4.31	8.16	Least Concern
7	Psidium guajava	Guava	3	3	6	0.50	50.00	1	0.23	2.52	3.26	3.61	9.39	Not assessed
8	Aegle marmelos	Vilvam	1	1	6	0.17	16.67	1	0.16	0.84	1.09	2.50	4.43	Not assessed
9	Causuarina equisetifolia	Savukku	2	2	6	0.33	33.33	1	0.21	1.68	2.17	3.34	7.20	Not assessed
10	Albizia amara	Wunja	1	1	6	0.17	16.67	1	0.20	0.84	1.09	3.22	5.14	Not assessed
11	Cocos nucifera	Thennai	10	6	6	1.67	100.0	1.67	0.15	8.40	6.52	2.39	17.32	Not assessed
12	Artocarpus heterophyllus	Palaa	2	2	6	0.33	33.33	1	0.18	1.68	2.17	2.85	6.70	Not assessed
13	Bombax ceiba	Sittan	4	4	6	0.67	66.67	1	0.08	3.36	4.35	1.27	8.98	Not assessed
14	Azadirachta indica	Veppam	17	6	6	2.83	100.0	2.83	0.13	14.29	6.52	1.98	22.79	Not assessed
15	Delonix regia	Cemmayir-Konrai	1	1	6	0.17	16.67	1	0.21	0.84	1.09	3.34	5.27	Least Concern
16	Delonix elata	Perungondrai	1	1	6	0.17	16.67	1	0.17	0.84	1.09	2.62	4.54	Least Concern
17	Dalbergia sissoo	Shisham	1	1	6	0.17	16.67	1	0.15	0.84	1.09	2.29	4.21	Not assessed
18	Ficus benghalensis	Alai	2	2	6	0.33	33.33	1	0.08	1.68	2.17	1.19	5.04	Not assessed

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19	Annona squamosa	Sitapalam	1	1	6	0.17	16.67	1	0.23	0.84	1.09	3.61	5.53	Not assessed
20	Pithecellobium dulce	Kodukapuli	1	1	6	0.17	16.67	1	0.14	0.84	1.09	2.18	4.11	Not assessed
21	Ficus religiosa	Arasa maram	3	3	6	0.50	50.00	1	0.09	2.52	3.26	1.35	7.13	Not assessed
22	Couroupita guianensis	Nagalingam	5	3	6	0.83	50.00	1.67	0.14	4.20	3.26	2.18	9.64	Not assessed
23	Musa paradise	Vaazhai	3	3	6	0.50	50.00	1	0.08	2.52	3.26	1.19	6.97	Not assessed
24	Prosopis juliflora	Vaelikaruvai	3	3	6	0.50	50.00	1	0.21	2.52	3.26	3.34	9.13	Not assessed
25	Mangifera indica	Mamaram	7	6	6	1.17	100.0	1.16	0.07	5.88	6.52	1.11	13.52	Data insufficient
26	Mimusops elengi	Magizham	2	2	6	0.33	33.33	1	0.18	1.68	2.17	2.85	6.70	Not assessed
27	Morinda pubescens	Nuna	6	6	6	1.00	100.0	1	0.24	5.04	6.52	3.74	15.31	Not assessed
28	Thespesia populnea	Poovarasam	3	3	6	0.50	50.00	1	0.15	2.52	3.26	2.39	8.18	Not assessed
29	Tectona grandis	Thekku	3	3	6	0.50	50.00	1	0.12	2.52	3.26	1.88	7.66	Not assessed
30	Tamarindus indica	Puli	10	6	6	1.67	100.0	1.66	0.20	8.40	6.52	3.09	18.02	Not assessed
31	Syzygium cumini	naval	5	1	6	0.83	16.67	5	0.11	4.20	1.09	1.79	7.07	Not assessed
32	Carica papaya	Papaya	3	3	6	0.50	50.00	1	0.09	2.52	3.26	1.43	7.21	Not assessed
33	Ziziphus mauritiana	Elandai	1	1	6	0.17	16.67	1	0.28	0.84	1.09	4.45	6.38	Not assessed
34	Citrus medica	Elumichai	2	2	6	0.33	33.33	1	0.23	1.68	2.17	3.61	7.46	Not assessed
Total			119	92					6.35					

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Table 3-17 Shrubs in the Core Zone

S. No.	Scientific Name	Local Name	Total No. of species	Total of Quadrants with species	Total No. of Quadrants	Density	Frequency (%)	Abundance	Relative Density	Relative Frequency	IUCN Conservation Status
1	Jatropagossypifolia	Kaatamanaku	28	17	24	1.17	0.71	1.65	14.43	17.17	Not Assessed
2	Lantana trifolia	Shrub verbana	10	3	24	0.42	0.13	3.33	5.15	3.03	Not Assessed
3	Robiniapseudoacacia	Black locust	17	5	24	0.71	0.21	3.4	8.76	5.05	Least Concern
4	Lantana camara	Unnichedi	9	6	24	0.38	0.25	1.5	4.64	6.06	Not Assessed
5	Calotropis gigantea	Erukam	14	12	24	0.58	0.50	1.17	7.22	12.12	Not Assessed
6	Stachytarpeaurticifolia	Rat tail	15	9	24	0.63	0.38	1.67	7.73	9.09	Not Assessed
7	Datura metal	Ummattangani	5	4	24	0.21	0.17	1.25	2.58	4.04	Not Assessed
8	Hibiscus rosa sinensis	Sembaruthi	3	2	24	0.13	0.08	1.5	1.55	2.02	Not Assessed
9	Tabernaemontanadivaricata	Crepe Jasmine	3	3	24	0.13	0.13	1	1.55	3.03	Not Assessed
10	Chloromolaena odorata	Venapacha	9	6	24	0.38	0.25	1.5	4.64	6.06	Least Concern
11	Euphorbia geniculata	Amman Pacharisi	3	3	24	0.13	0.13	1	1.55	3.03	Not Assessed
12	Catharanthus roseus	Nithyakalyani	3	3	24	0.13	0.13	1	1.55	3.03	Not Assessed
13	Woodfordiafruticosa	Velakkai	3	3	24	0.13	0.13	1	1.55	3.03	Least Concern
14	Morindapubescens	Mannanunai	2	2	24	0.08	0.08	1	1.03	2.02	Not Assessed
15	Acalypha indica	Kuppaimeni	20	8	24	0.83	0.33	2.5	10.31	8.08	Not Assessed
16	Parthenium hysterophorous	Vishapoondur	50	13	24	2.08	0.54	3.85	25.77	13.13	Not Assessed

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Table 3-18 Herbs & Grasses in the core zone

S. No.	Scientific Name	Local Name	Total No. of species	Total of Quadrants with species	Total No. of Quadrants	Density	Frequency (%)	Abundance	Relative Density	Relative Frequency	IUCN Conservation status
1	Plumbago zeylanica	Chittiramoolam	3	3	30	0.10	0.10	1	1.19	3.23	Not assessed
2	Mimosa pudica	Thottacherungi	6	5	30	0.20	0.17	1.2	2.38	5.38	Least concern
3	Sida acuta	Malaidangi	10	3	30	0.33	0.10	3.33	3.97	3.23	Not assessed
4	Scrophularia nodosa	Sarakkothini	15	7	30	0.50	0.23	2.14	5.95	7.53	Not assessed
5	Helicteresisora	Valampuri	2	2	30	0.07	0.07	1	0.79	2.15	Not assessed
6	Cynodondactylon	Arugu	12	6	30	0.40	0.20	2	4.76	6.45	Not assessed
7	Sporobolus fertilis	Giant Parramatta Grass	9	4	30	0.30	0.13	2.25	3.57	4.30	Not assessed
8	Viburnum dentatum	Viburnum	5	5	30	0.17	0.17	1	1.98	5.38	Least concern
9	Heraculem spondylium	Hog Weed	20	10	30	0.67	0.33	2	7.94	10.75	Not assessed
10	Laportea canadensis	Peruganchori	30	20	30	1.00	0.67	1.5	11.90	21.51	Not assessed
11	Euphorbia hirta	Amman Pacharisi	5	4	30	0.17	0.13	1.25	1.98	4.30	Not assessed
12	Tridax procumbens	Vettukaayathalai	5	4	30	0.17	0.13	1.25	1.98	4.30	Not assessed
13	Tephrosia purpurea	Kavali	20	4	30	0.67	0.13	5	7.94	4.30	Not assessed
14	Sida cordifolia	Maanikham	45	4	30	1.50	0.13	11.25	17.86	4.30	Not assessed
15	Tridax procumbens	Cuminipachai	15	4	30	0.50	0.13	3.75	5.95	4.30	Not assessed
16	Ruellia strepens	Grandinayagam	25	4	30	0.83	0.13	6.25	9.92	4.30	Not assessed
17	Senna occidentalis	Nattamsakarai	25	4	30	0.83	0.13	6.25	9.92	4.30	Not assessed

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3.7.4 Calculation of species diversity by Shannon – wiener Index, Evenness and richness by Margalef:

Biodiversity index is a quantitative measure that reflects how many different types of species, there are in a dataset, and simultaneously takes into account how evenly the basic entities (such as individuals) are distributed among those types of species. The value of biodiversity index increases both when the number of types increases and when evenness increases. For a given number of type of species, the value of a biodiversity index is maximized when all type of species are equally abundant. Interpretation of Vegetation results in the study area is given below.

Table 3-19 Calculation of species diversity

Description	Formula
Species diversity – Shannon – Wiener Index	$H = -\sum [(p_i) * \ln(p_i)]$ Where p_i : Proportion of total sample represented by species. i : number of individuals of species i / total number of samples
Evenness	H / H_{\max} $H_{\max} = \ln(s) =$ maximum diversity possible $S =$ No. of species
Species Richness by Margalef	$RI = S - 1 / \ln N$ Where S = Total Number of species in the community N = Total Number of individuals of all species in the community

3.7.5 Calculation of species diversity by Shannon – wiener Index, Evenness and richness by Margalef for trees

i. Species Diversity

Scientific Name	Common Name	No. of Species	Pi	ln (Pi)	Pi x ln (Pi)
Ficus Carica	Athi Maram	2	0.017857	-4.02535	-0.07188
Cassia siamea	ManjalKonrai	2	0.017857	-4.02535	-0.07188
Acacia nilotica	Karuvelai	4	0.035714	-3.3322	-0.11901
Bambusa vulgaris	Moongil	4	0.035714	-3.3322	-0.11901
Anacardium occidentale	Cashew	2	0.017857	-4.02535	-0.07188
Alstonia scholaris	Elilaipalai	2	0.017857	-4.02535	-0.07188

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Psidium guajava	Guava	3	0.026786	-3.61989	-0.09696
Aegle marmelos	Vilvam	1	0.008929	-4.7185	-0.04213
Causuarina equisetifolia	Savukku	2	0.017857	-4.02535	-0.07188
Albizia amara	Wunja	1	0.008929	-4.7185	-0.04213
Cocos nucifera	Thennai	15	0.133929	-2.01045	-0.26926
Artocarpus heterophyllus	Palaa	2	0.017857	-4.02535	-0.07188
Bombax ceiba	Sittan	4	0.035714	-3.3322	-0.11901
Azadirachta indica	Veppam	10	0.089286	-2.41591	-0.21571
Delonix regia	Cemmayir-Konrai	1	0.008929	-4.7185	-0.04213
Delonix elata	Perungondrai	1	0.008929	-4.7185	-0.04213
Dalbergia sissoo	Shisham	1	0.008929	-4.7185	-0.04213
Ficus benghalensis	Alai	2	0.017857	-4.02535	-0.07188
Annona squamosa	Sitapalam	1	0.008929	-4.7185	-0.04213
Pithecellobium dulce	Kodukapuli	1	0.008929	-4.7185	-0.04213
Ficus religiosa	Arasa maram	3	0.026786	-3.61989	-0.09696
Couroupita guianensis	Nagalingam	5	0.044643	-3.10906	-0.1388
Musa paradise	Vaazhai	3	0.026786	-3.61989	-0.09696
Prosopis juliflora	Vaelikaruvai	3	0.026786	-3.61989	-0.09696
Mangifera indica	Mamaram	8	0.071429	-2.63906	-0.1885
Mimusops elengi	Magizham	2	0.017857	-4.02535	-0.07188
Morinda pubescens	Nuna	6	0.053571	-2.92674	-0.15679
Thespesia populnea	Poovarasam	3	0.026786	-3.61989	-0.09696
Tectona grandis	Thekku	3	0.026786	-3.61989	-0.09696
Tamarindus indica	Puli	8	0.071429	-2.63906	-0.1885
Syzygium cumini	naval	1	0.008929	-4.7185	-0.04213
Carica papaya	Papaya	3	0.026786	-3.61989	-0.09696
Ziziphus mauritiana	Elandai	1	0.008929	-4.7185	-0.04213
Citrus medica	Elumichai	2	0.017857	-4.02535	-0.07188
Total		112			-3.22

H (Shannon Diversity Index) = 1.76

Shrubs

Scientific Name	Common Name	No. of Species	Pi	ln (Pi)	Pi x ln (Pi)
Jatropagossypifolia	Kaatamanaku	28	0.14433	-1.93565	-0.27937
Lantana trifolia	Shrub verbana	10	0.051546	-2.96527	-0.15285
Robiniapseudoacacia	Black locust	17	0.087629	-2.43464	-0.21335
Lantana camara	Unnichi	9	0.046392	-3.07063	-0.14245
Calotropis gigantea	Erukam	14	0.072165	-2.6288	-0.18971
Stachytarphaeurticifolia	Rat tail	15	0.07732	-2.55981	-0.19792
Datura metal	Ummattangani	5	0.025773	-3.65842	-0.09429

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Hibiscus rosa sinensis	Sembaruthi	3	0.015464	-4.16925	-0.06447
Tabernaemontanadivariata	Crepe Jasmine	3	0.015464	-4.16925	-0.06447
Chloromolaena odorata	Venapacha	9	0.046392	-3.07063	-0.14245
Euphorbia geniculata	Amman Pacharisi	3	0.015464	-4.16925	-0.06447
Catharanthus roseus	Nithyakalyani	3	0.015464	-4.16925	-0.06447
Woodfordiafruticosa	Velakkai	3	0.015464	-4.16925	-0.06447
Morindapubescens	Mannanunai	2	0.010309	-4.57471	-0.04716
Acalypha indica	Kuppaimeni	20	0.103093	-2.27213	-0.23424
Parthenium hysterophorous	Vishapoondur	50	0.257732	-1.35584	-0.34944
Total		194			-2.3656

H (Shannon Diversity Index) =1.97

Herbs

Scientific Name	Common Name	No. of Species	Pi	ln (Pi)	Pi x ln (Pi)
Plumbago zeylanica	Chittiramoolam	3	0.011905	-4.43082	-0.05275
Mimosa pudica	Thottacherungi	6	0.02381	-3.73767	-0.08899
Sida acuta	Malaidangi	10	0.039683	-3.22684	-0.12805
Scrophularia nodosa	Sarakkothini	15	0.059524	-2.82138	-0.16794
Helicteresisora	Valampuri	2	0.007937	-4.83628	-0.03838
Cynodondactylon	Arugu	12	0.047619	-3.04452	-0.14498
Sporobolus fertilis	Giant Parramatta Grass	9	0.035714	-3.3322	-0.11901
Viburnum dentatum	Viburnum	5	0.019841	-3.91999	-0.07778
Heraculem spondylium	Hog Weed	20	0.079365	-2.5337	-0.20109
Laportea canadensis	Peruganchori	30	0.119048	-2.12823	-0.25336
Euphorbia hirta	Amman Pacharisi	5	0.019841	-3.91999	-0.07778
Tridax procumbens	Vettukaayathalai	5	0.019841	-3.91999	-0.07778
Tephrosia purpurea	Kavali	20	0.079365	-2.5337	-0.20109
Sida cordifolia	Maanikham	45	0.178571	-1.72277	-0.30764
Tridax procumbens	Cuminipachai	15	0.059524	-2.82138	-0.16794
Ruellia strepera	Grandinayagam	25	0.099206	-2.31055	-0.22922
Senna occidentalis	Nattamsakarai	25	0.099206	-2.31055	-0.22922
Total		252			-2.56298

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H (Shannon Diversity Index) =2.39

i. Evenness

Details	H	H _{max}	Evenness	Species Richness (Margalef)
Trees	3.22	3.5	0.9	7
Shrubs	2.36	2.77	0.85	2.84
Herbs	2.56	2.83	0.9	2.89

From the above, it can be interpreted that herb community has higher diversity. While the tree community shows less diversity. It is also observed that most of the quadrates have controlled generation of plant species with older strands. Higher herb species diversity can be interpreted as a greater number of successful species and a more stable ecosystem where more ecological niches are available, environmental change is less likely to be damaging to the ecosystem as a whole. Species richness is high for herb community when compared with tree and shrubs.

3.7.6 Frequency Pattern

To understand the frequency pattern, the observed frequency is compared with the Raunkiaer's frequency. Any deviation from Raunkiaer's frequency implies disturbed community. Classes of species in a community and normal value of class according to Raunkiaer.

Table 3-20 Frequency Pattern

Class	Frequency (%)	Normal Value in the class
A	1-20	53
B	21-40	14
C	41-60	9
D	61-80	8
E	81-100	16

Where A>B>C>= <D<E

Raunkiaer's class for the observed species

S. No.	Scientific Name	Local Name	Frequency (%)	Class as per Raunkiaer's Law
1.	Ficus Carica	Athi Maram	33.33	B
2.	Cassia siamea	ManjalKonrai	33.33	B

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3.	Acacia nilotica	Karuvelai	66.67	D
4.	Bambusa vulgaris	Moongil	66.67	D
5.	Anacardium occidentale	Cashew	33.33	B
6.	Alstonia scholaris	Elilaipalai	33.33	B
7.	Psidium guajava	Guava	50.00	C
8.	Aegle marmelos	Vilvam	16.67	A
9.	Causuarina equisetifolia	Savukku	33.33	B
10.	Albizia amara	Wunja	16.67	A
11.	Cocos nucifera	Thennai	100	E
12.	Artocarpus heterophyllus	Palaa	33.33	B
13.	Bombax ceiba	Sittan	66.67	D
14.	Azadirachta indica	Veppam	100	E
15.	Delonix regia	Cemmayir-Konrai	16.67	A
16.	Delonix elata	Perungondrai	16.67	A
17.	Dalbergia sissoo	Shisham	16.67	A
18.	Ficus benghalensis	Alai	33.33	B
19.	Annona squamosa	Sitapalam	16.67	A
20.	Pithecellobium dulce	Kodukapuli	16.67	A
21.	Ficus religiosa	Arasa maram	50.00	C
22.	Couroupita guianensis	Nagalingam	50.00	C
23.	Musa paradise	Vaazhai	50.00	C
24.	Prosopis juliflora	Vaelikaruvai	50.00	C
25.	Mangifera indica	Mamaram	100	E
26.	Mimusops elengi	Magizham	33.33	B
27.	Morinda pubescens	Nuna	100	E
28.	Thespesia populnea	Poovarasam	50.00	C
29.	Tectona grandis	Thekku	50.00	C
30.	Tamarindus indica	Puli	100	E
31.	Syzygium cumini	naval	16.67	A
32.	Carica papaya	Papaya	50.00	C
33.	Ziziphus mauritiana	Elandai	16.67	A
34.	Citrus medica	Elumichai	33.33	B

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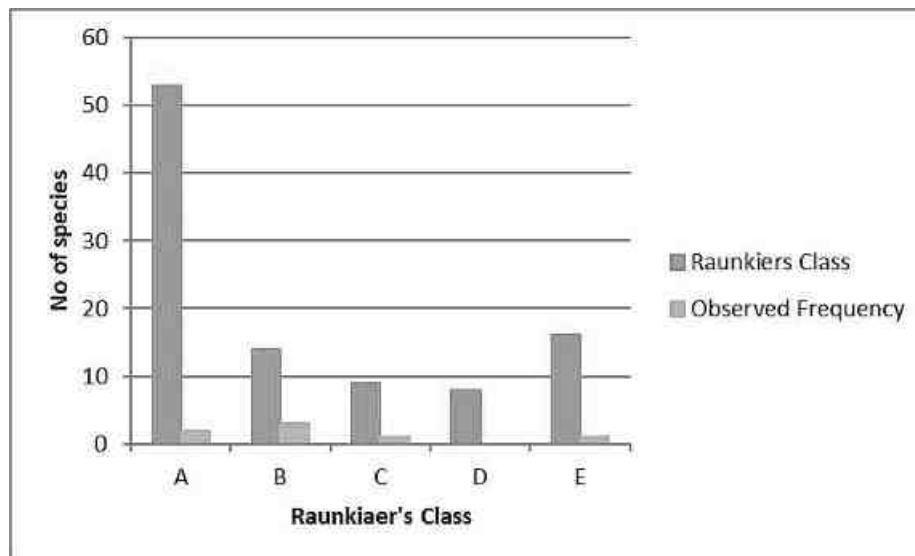


Figure 3-13 Raunkiaer's class for the observed species

Interpretation: The observed frequency is $A < B > C > D < E$, which does not follow Raunkiaer's Distribution Frequency and hence the ecology is disturbed.

3.7.7 Floral study in the Buffer Zone:

Economically important Flora of the study area

Agricultural crops: Paddy and Maize are the main crop grown. Different fruits like Banana, papaya, mangoes, guava and vegetables like brinjal, drumsticks, onion, Coriander also grown by the local people.

Medicinal species: The nearby area is also endowed with the several medicinal species which are commonly available in the shrub forest and waste lands. The common medicinal species of the region are *Asparagus racemosus* (satamulli), *Aegle marmelos* (golden apple), *Azadirachta indica* (Neem) etc.

Rare and endangered floral species: There are no rare or endangered or threatened (RET) species of in the study area. During the vegetation survey, there are no any species which are endangered or threatened under IUCN (International Union for Conservation of Nature and Natural resources) guidelines.

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3.7.8 Faunal Communities

Both direct and indirect observation methods were used to survey the fauna.

- Point Survey Method: Observations were made in each site for 15 minutes duration.
- Roadside Counts: The observer traveled by motor vehicles from site to site, all sightings were recorded (this was done both in the day and night time). An index of abundance of each species was also established.
- Pellet and Track Counts: All possible animal tracks and pellets were identified and recorded (South Wood, 1978).

Additionally, a survey of relevant literature was also done to consolidate the list of fauna distributed in the buffer zone.

Based on the Wildlife Protection Act, 1972 (WPA 1972, Anonymous. 1991, Upadhyay 1995, Chaturvedi and Chaturvedi 1996) species were short-listed as Schedule II or I and considered herein as endangered species. Species listed in Ghosh (1994) are considered as Indian Red List species.

Methodology Adopted:

The Point Survey method was adopted for this development project where observations were made in each site for 15 minutes duration (10 times).

Study in the core zone:

The Point Survey method was adopted for the study within 2 km radius and the following species were observed.

Mammals: No wild mammalian species was directly sighted during the field survey. Discussion with local villagers located around the study area also could not confirm presence of any wild animal in that area. Three striped Palm Squirrel, Common Indian Hare, Common mongoose, Common Mouse etc were observed during primary survey.

Avifauna: Since birds are considered to be the indicators for monitoring and understanding human impacts on ecological systems (Lawton, 1996) attempt was made to gather quantitative data on the avifauna by walk through survey within the entire study area and surrounding areas. From the primary survey, a total of 26 species of avifauna were identified and recorded in the study area. The diversity of avifauna from this region was found to be quite high and encouraging.

The list of fauna species found in the study area is mentioned in the Table below.

Table 3-21 List of fauna species

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Scientific Name	Common Name	Schedule of wildlife protection act	IUCN conservation status
Mammals			
Funambulus pennanti	Palm Squirrel	IV	Least Concern
Mus rattus	Indian rat	IV	Not listed
Bandicota bengalensis	Indian mole rat	IV	Least Concern
Funambulus palmarum	Three stripped palm squirrel	IV	Least Concern
Herestes edwardsii	Common Mongoose	IV	Not listed
Mus musculus	Common Mouse	IV	Least Concern
Bandicota indica	Rat	IV	Least Concern
Lepus nigricollis	Indian Hare	IV	Least Concern
Felis catus	Cat	Not listed	Not listed
Canis lupus familiaris	Indian dog	Not listed	Not listed
Bos Indicus	Indian Cow	Not listed	Not listed
Bubalus bubalis	Buffalo	I	Not listed
Sus scrofa domesticus	Domestic pig	Not listed	Not listed
Birds			
Milvus migrans	Black kite	IV	Least concern
Saxicoloides fulicatus	Indian Robin	IV	Least concern
Pycnonotus cafer	Red vented Bulbul	IV	Least concern
Phragamaticola aedon	Thick billed warbler	IV	Least concern
Pericrocotus cinnamomeus	Small Minivet	IV	Least concern
Eudynamys scolopaceus	Koel	IV	Least concern
Psittacula krameni	Rose ringed parakeet	IV	Least concern
Dicrurus marcocercus	Black drongo	IV	Least concern
Columba livia	Rock pigeon	IV	Least concern
Corvus splendens	House crow	IV	Least concern
Alcedo atthis	Small blue kingfisher	IV	Least concern
Cuculus canorus	Common Cukoo	IV	Least concern
Reptiles & Amphibians			
Chameleon zeylanicum	Chameleon	IV	Not listed
Calotes versicolor	Common garden lizard	II	Not listed

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Table 3-22: Demography Survey Study

Source: Census of India, 2011

Villages	Household	Population	Sex Ratio		Literacy Rate		SC	ST
			Male	Female	Male	Female		
Irumbali	283	1311	684	627	224	332	0	0
Melur	602	2534	1230	1304	880	756	512	1
Vellannur	1454	6014	3061	2953	2286	1809	1365	217
Madiyanallur	353	1552	766	786	509	407	349	0
Panampatti	516	2292	1167	1125	810	632	657	0
Thiruvengavasal	142	615	314	301	217	151	86	0
Perunjunai	223	919	448	471	306	238	416	0
Ariyur	261	1194	645	549	503	318	294	3
Marayappatti	389	1757	891	866	593	459	743	0
Ayingudi	600	2582	1328	1254	968	657	1143	0
Poongudi	403	1564	738	826	556	483	657	2
Vagavasal	686	3060	1550	1510	1149	901	576	4
Siruvayal	7	29	16	13	12	8	0	0
Sellukudi	111	470	239	231	164	115	232	0
Pudukkottai R.F.	8	26	12	14	10	10	0	0
Nathampannai (CT)	2261	8915	4454	4461	3617	3194	1535	9
Agarapatti	793	3607	1812	1795	1125	1320	625	104

3.8 Traffic Impact Assessment

Traffic data collected continuously for 24 hours by visual observation and counting of vehicles under three categories, viz., heavy motor vehicles, light motor vehicles and two/three wheelers. As traffic densities on the roads are high, two skilled persons were deployed simultaneously at each station during each shift- one person on each of the two directions for counting the traffic. At the end of each hour, fresh counting and recording was undertaken. Total numbers of vehicles per hour under the three categories were determined.

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Figure 3-16: Site Connectivity

Table 3-23: No. of Vehicles per Day

S. No	Vehicles Distribution	Number of Vehicles Distribution/Day	Passenger Car Unit (PCU)	Total Number of Vehicle in PCU
		MDR	-	NH-336
1	Cars	634	1	634
2	Buses	274	3	822
3	Trucks	176	3	528
4	Two wheelers	422	0.5	211
5	Three wheelers	286	1.5	429
Total		1734	-	2624

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Table 3-24: Existing Traffic Scenario and LOS

Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS
NH45	2624/24=109.3	297	0.36	B

Note: The existing level may be “Very Good” for Chithannavasal village road.

V/C	LOS	Performance
0.0-0.2	A	Excellent
0.2-0.4	B	Very Good
0.4-0.6	C	Good/ Average/ Fair
0.6-0.8	D	Poor
0.8-1.0	E	Very Poor

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4 Anticipated Environmental Impacts & Mitigation Measures

This chapter describes the anticipated impacts on the environment and mitigation measures. The method of assessment of impacts, including studies carried out, modeling techniques adopted to assess the impacts where pertinent should be elaborated in this chapter. It should give details of the impacts on the baseline parameters, both during the construction and operational phases and suggests the mitigation measures to be implemented by the proponent.

4.1 Introduction

An environmental impact is defined as any change to the environment, whether adverse or beneficial, resulting from a facility's activities, products, or services. The anticipation of the possible & potential Environmental impact due to the proposed project is a key step in EIA. Based on the impacts assessed, appropriate mitigation measures should be adopted to maintain the environment with less or no damage.

Environmental Impacts can be grouped into Primary impacts & Secondary Impacts

Primary Impacts: These impacts are directly attributed by the project.

Secondary Impacts: These are those which are induced by primary impacts and include the associated investments and changed patterns of social and economic activities by the action.

Assessment of impacts is done for the following Environmental Parameters:

- Land Environment
- Water Environment
- Air Environment
- Noise Environment
- Biological Environment
- Socio Economic Environment

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4.2 LAND ENVIRONMENT:

Aspect	Impact	Mitigation Measures												
<i>Mining of rough stone</i>	<p>The proposed 2.80.33 Ha mine located in Sithannavasal Village, Production of rough stone about 277305m³ and 96m³ of Topsoil respectively. The quarry operation is proposed to carry out with conventional open cast mechanized mining with 5.0-meter vertical bench and bench width of 5.0 meter. At the end of 5 years, mining lease area will be converted into ultimate pit.</p> <table><tr><th colspan="4">ULTIMATE PIT DIMENSION</th></tr><tr><th>Pit No.</th><th>Length (m)</th><th>Width (m)</th><th>Depth (m)</th></tr><tr><td>I</td><td>171</td><td>136</td><td>47.0</td></tr></table>	ULTIMATE PIT DIMENSION				Pit No.	Length (m)	Width (m)	Depth (m)	I	171	136	47.0	<p>The proposed project site is not prone to any kind of soil erosion (Source: Bhuvan).</p> <p>In addition, garland drainage of 1m x 1m will be provided to avoid storm water run- off.</p> <p>Already we were planted 1200 no of trees (Neem, Magizham, Tamarind, Elandhai and Vilvam) along the roads, outer periphery of the mining area which enhances the binding property of the soil.</p> <p>It is proposed to improve the affected land wherever possible for better land use, so as to support vegetation and creation of water reservoir in the ultimate pit after quarrying.</p> <p>The Topsoil of the lease area is estimated as 96m³. Topsoil formation will be removed and transported to the needy end user, only after obtaining permission and paying necessary seigniorage fees to the Government.</p>
ULTIMATE PIT DIMENSION														
Pit No.	Length (m)	Width (m)	Depth (m)											
I	171	136	47.0											

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	<p>The main impact of open cast mining on land-use is land degradation. The land is bound to be excavated for mining of Rough Stone Quarry.</p> <p>Impact on soil of the study area will be minimal as there are no wastewater generated, heavy metal infusion, stack emissions.</p> <p>Impact due to transformation of terrain characteristics over the large area results in soil degradation.</p> <p>Solid waste will be generated from the mining activity as there will be refuse also generation of domestic waste. If it is not properly managed, may cause odor and health problem to the workers.</p>	<p>The source of dust generation is majorly due to drilling, blasting, loading & unloading of the mined-out mineral, the impact will be mitigated by water sprinkling regularly once in 3hrs.</p> <p>The proposed mining activity is carried out in almost plain terrain where the contour level difference is 5m.</p> <p>After removal of minerals, undulating portion will be created. Excavated area or ultimate pit at the end of the mine period will be converted into water reservoir. Two tier tree belts will be planted along the safety distance.</p> <p>The 100% recovery is achieved by extracting the entire mineable reserve. Hence there will be no refuse generation due to the mining activity. Apart from that, a very meagre quantity of domestic waste will be generated in the project, which will be handed over to the local body on daily basis.</p>
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4.3 WATER ENVIRONMENT:

Aspect	Impact	Mitigation Measures
<i>Drilling, Blasting, Loading and unloading, Transportation of the excavated mineral.</i>	<p>The mining in the area may cause ground water contamination due to intersection of the water table and mine runoff.</p> <p>The ground water depletion may occur due to mining activity.</p> <p>Chemicals consisting of nitrate used for blasting may pollute the surface run off.</p>	<p>The water table will not be intersected during mining, as the ultimate depth is limited upto 47.0meter below the ground level, whereas the ground water table is at 68m below the ground level. The municipal wastewater will be disposed into septic tanks of 5 cum and soak pit. No chemicals consisting of toxic elements will be used for carrying out mining activity.</p> <p>The ground water table is at a depth of 68m BGL, the mining operation will not affect the aquifer. The ultimate pit at the end of the mining operation will be used for rainwater storage, the stored water will be used for green belt development and further the stored water will be used for domestic purposes (other than drinking) after proper treatment.</p> <p>Further, the run-off water will be stored in sumps and after proper treatment; water will be used in the mining operation for dust suppression.</p>

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	Improper management of Domestic wastewater in the Mine lease may create unhygienic conditions in the site thereby causing health impacts to the labours.	Provision of urinals/Latrines along with septic tank followed by soak pit arrangement will be provided in the Mine Lease area for the proper management of wastewater
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4.4 AIR ENVIRONMENT:

Aspect	Impact	Mitigation Measures
<i>Drilling, Blasting, Loading and unloading, Transportation of the excavated mineral.</i>	<p><i>Impacts during Operation Phase</i></p> <p>During mining operation, fugitive dust and other air pollutants like particulate matter (PM₁₀ & PM_{2.5}) will be generated.</p> <p>The main source of pollutants arises due to drilling and blasting. 3 No of Tipper will be used for loading and unloading, 2 No of Excavator (0.90m³ bucket capacity (with rock breaker attachment) will be used for excavation of the mineral which contributes to the generation of fugitive dust. In addition, blasting will be done using explosives leading to the generation of dust.</p>	<p><i>Mitigation Measures during Operation Phase</i></p> <p>It is proposed to plant 1400 Nos of local species (already 1200 no. of saplings were planted) along the haul roads, outer periphery within the lease area to prevent the impact of dust in consultation with Forest department for the plantation of trees (Neem, Magizham, Tamarind, Elandhai and Vilvam) in two tier to combat air pollution and with herbs (Nerium) in between the tree species.</p> <p>Planning transportation routes of the mined-out mineral, so as to reach the nearest paved roads (an approach road) by shortest route connecting to Sithannavasal road.</p> <p>Alternatively, gravelled road may be constructed</p>

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	<p><u><i>Effect on Human</i></u></p> <ul style="list-style-type: none"> • Adverse effect on human health of working labourers and neighbouring villagers like effect on breathing and respiratory system, damage to lung tissue, influenza or asthma. • Dust generation due to loading and unloading of mineral and due to transportation can also affect the workers as well as nearby villagers. <p><u><i>Effect on Plants</i></u></p> <ul style="list-style-type: none"> • Stomatal index may be minimized due to dust deposit on leaf. 	<p>between mine lease area and nearest paved road connectivity. The speed of trucks plying on the haul road will be limited to 20km/hr to avoid generation of dust.</p> <p>The trucks will be covered by tarpaulin.</p> <p>Overloading will be avoided.</p> <p>Personal Protective Equipments (PPEs) like eye goggles, dust mask, leather gloves, safety shoes & boots will be provided to the workers engaged at dust generation points like excavation and loading points.</p> <p>0.5 KLD of water will be proposed for sprinkling on unpaved roads to avoid dust generation during transportation.</p>
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Air Quality Modeling:

The AERMOD is actually a modeling system with three separate components:

- AERMOD (AERMIC Dispersion Model),
- AERMAP (AERMOD Terrain Preprocessor)
- AERMET (AERMOD Meteorological Preprocessor)

Special features of AERMOD include its ability to treat the vertical homogeneity of the planetary boundary layer special treatment of surface releases, irregularly shaped area sources, a plume model for the convective boundary layer, limitation of vertical mixing in the stable boundary layer, and fixing the reflecting surface at the stack base.

The AERMET is the meteorological preprocessor for the AERMOD. Input data can come from hourly cloud cover observations, surface meteorological observations and twice-a-day upper air soundings. Output includes surface meteorological observations and parameters and vertical profiles of several atmospheric parameters.

The AERMAP is a terrain preprocessor designed to simplify and standardize the input of terrain data for the AERMOD. Input data include receptor terrain elevation data. Output includes, for each receptor, location and height scale, which are elevations used for the computation of airflow around hills.

4.4.1 Source Characterization

A detailed listing of all emission sources and their corresponding modelling input release parameters and emission rates is listed in this report. A general description of how each source type was treated is presented below.

The emission Sources from the proposed operation are.

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Point Sources:

Point sources for mining operations typically include dust collectors, hot water heaters, and emergency generator(s). Since at the present project the following sources are anticipated.

1. Hydraulic excavator – 1.2 Cum Bucket Capacity (with Rock Breaker Attachment)
2. Jack Hammer 25.5mm Dia
3. Tipper
4. Tractor Mounted - Compressor
5. Drilling and excavating with Accessories

Road Sources:

A road network was developed to depict the anticipated haul truck routes and truck discharge locations during the mine operations. The anticipated emissions from the road sources and corresponding anticipated impact during the monitoring period of January to March 2023 emissions were estimated. Emissions due to haul road and general plant traffic on the unpaved road network were modelled as volume sources. The model volume source parameter for the haul roads initially utilized USEPA developed emission factors for hauling trucking. The haul road sources utilized source to source spacing of 6 meters along the simulated haul roads. The initial lateral dimension of the sources were set to 3m and were used as an input to replicated a 3 truck travel adjacent for a typical mining scenario.

The parameters considered for the hauling operation include the following,

- size of haul trucks commonly used.
- degree of dust control/compaction of permanent haul roads

Other fugitive particulate emission sources:

Other fugitive particulate emission sources that were modelled as volume sources include the following:

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- Fugitive emissions from trucks unloading at the primary crusher were represented by a single volume source. The release height was set to 0 meters (dump pocket is at grade level).
- Fugitive emissions due to wind erosion is not considered as the mining area is predominately rocky surface with minimal wind erosion. If a wind erosion is anticipated to occur, it would be localized.
- Fugitive emissions from transfer points were represented by single volume sources. The release heights for these sources were set to the actual height of the truck transfer process.

Post Project Scenario

Emissions from operations will result from process equipment and mining operations. Process equipment was modeled at maximum capacity. Emissions from mining were based upon the mining rate and haul truck travel necessary to transport the stones and waste from the pit to the storage area.

Predicted maximum ground level concentrations considering micro meteorological data of February to April 2021 are superimposed on the maximum baseline concentrations obtained during the study period to estimate the post project scenario, which would prevail at the post operational phase. The overall scenario with predicted concentrations over the maximum baseline concentrations is shown in the following table along with isopleths.

Table 4-1 Controlled emission calculation (24Hour- average modelling inputs)

Activity	Emission Factor		References	
Topsoil handling	Scraper	0.029 Kg TSPM/ average time between spray application	USEPA (2008)	Jose I. Huertas & Dumar A. Camacho & Maria E. Huertas, Standardized emissions inventory methodology for

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	Bulldozing	15.048 kg PM10/ Hr excavation	USEPA (2008)	open-pit mining areas, Environmental Science Pollution Research, 2012.
	Loading	2.3237E-04 kg PM10/ average time between spray application	USEPA (2006a)	
	Haulage	0.69718 kg PM10/VKT	USEPA (2006a) Cowherd (1988)	
Rough stone mining	Wet drilling	8.00E-5 lbs PM10/ Ton produce	EPA. August, 2004. Section 11.19.2, Crushed Stone Processing and Pulverized Mineral Processing. In: Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, Fifth Edition, AP-42. U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. Research Triangle Park, North Carolina.	
	Loading	1.00E-4 lbs PM10/ Ton produce		

4.5 NOISE ENVIRONMENT:

Aspect	Impact	Mitigation Measures
<i>Drilling, Blasting, Loading and unloading, Transportation of the excavated mineral.</i>	Usage of Equipments (Excavator, Tipper, Jack Hammer), Machinery and trucks used for transportation will generate noise.	<ul style="list-style-type: none"> • The machinery will be maintained in good running condition so that noise will be reduced to minimum possible level. • Awareness will be imparted to the workers once in six months about the permissible noise level and effect of maximum exposure to those

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	<p>Noise from the machinery can cause hypertension, high stress level, hearing loss, sleep disturbance etc due to prolonged exposure.</p> <p>Number of vehicles will be increased due to the proposed mining activity hence vehicle may collate which may result in unwanted sound and can also cause impact on human health like breathing and respiratory system, damage to lung tissue, influenza or asthma.</p>	<p>levels. Adequate silencers will be provided in all the diesel engines of vehicles.</p> <ul style="list-style-type: none"> • It will be ensured that all transportation vehicles carry a valid PUC Certificates. • Speed of trucks entering or leaving the mine will be limited to moderate speed (20km/hr) to prevent undue noise from empty vehicles. <p>The noise generated by the machinery will be reduced by proper lubrication of the machinery and other equipments.</p> <ul style="list-style-type: none"> • It is proposed to plant 1400 Nos. of (1200 already planted) local species (Neem, Mandharai, Athi, Tamarind, Ashoka, Casuarinas and Villam) to reduce the impact of noise in the study area. The development of green belts around the periphery of the mine will be implemented to attenuate noise. • The trucks will be diverted on two roads viz. SH 71 & NH 336 to avoid traffic congestion. • Health check-up camps will be organized once in six months.
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		<ul style="list-style-type: none"> • Use of personal protective devices i.e., earmuffs and earplugs by workers, who are working in high noise generating areas. • Provision of quiet areas, where employees can get relief from workplace noise.
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4.6 BIOLOGICAL ENVIRONMENT:

Aspect	Impacts	Mitigation Measures
Site Clearance	Loss of habitat due to site clearance which may lead to ecological disturbance.	The proposed mining lease is already dry land hence no site clearance is required. Only a few shrubs and herbs like parthenium sp., prosopis juliflora were present.
Planting of trees	Development of afforestation in the mine lease area will have a positive impact as the land was initially a barren.	7.5m safety distance will be provided all along the boundary of the mine lease area and safety. Around 0.13.66 Ha of land is utilized for greenbelt development (1400 Nos – 5 years). This will attract avifauna thus enhancing the existing ecological environment.

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4.7 SOCIO ECONOMIC ENVIRONMMENT:

Aspect	Impact	Mitigation Measures
Proposed implementation of Mining activity	Land acquisition for the implementation of the project may result in loss of assets, which in return will make the PAP to shift, losing their normal routine and livelihood	The proposed project is a own patta land of <i>Thiru.C.Palanisamy</i> and the land is vacant where there is no human settlement within 500m radius. Hence the project does not involve Rehabilitation and resettlement
Drilling, Blasting, Loading and Transportation of the mined-out mineral	The mining activities may cause dust emission, noise pollution thereby causing disturbance to the local habitat	No human activity is envisaged near the project site. The nearest human settlement is observed in Sithannavasal village which is 1.04 km-W away from the project site.
Grazing and Rearing activities in the nearby villages	The Grazing and rearing of local animals like Sheep, Goat and cows is observed in the nearby villages, which may be affected due to the project as the movement of the vehicles may affect/injure the animals	It is proposed to use gravelled road and nearest paved road and preferred not to use unpaved roads. In addition to that, the speed of trucks will be limited to 20km/hr to avoid any accidents.
Employment opportunity	The project will improve the livelihood of the local people	After the development of the proposed mine, it will improve the livelihood of local people and also provide the direct and indirect employment opportunities. The rough stone for the infrastructural development in the area will be

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		made available from the local markets at reasonably lower price.
Corporate Environmental Responsibility	The proposed project will help in natural resource augmentation & Community resource development.	<p>As a part of CER, 5 Lakhs will be allocated. Panchayat Union Middle School in Sithannavasal, Illuppur (Taluk), Pudukkottai (Dt).</p> <p>Providing facilities are:</p> <ul style="list-style-type: none"> ➤ Construction of Classroom, Floor tile & Painting work and ➤ Basic amenities such as Environmental awareness books (Tamil) in Library for students, Green Belt development, RO water purifiers, Hygienic Toilet and maintenance of toilet upto lease period.

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4.8 Other Impacts:

S. No	Aspect	Impact	Mitigation measure
1.	Risk due to the proposed mining	Accidents may occur in the mine area	Proper PPE kit (Safety jacket, Helmet, Safety Shoes, Gloves) etc will be provided to each and every employee in the mine lease concerning the safety of each labour
2.	Blasting	Injury to the labours due to the blasting activity	Alarm system in the form of Siren will be engaged in the project site to caution the blasting activity. In addition to that, the blasting activity will be scheduled at particular time – 1.00 P.M to 2.30 P.M (or whenever required) so that the employees will be aware of the activity. Smoking will be banned in the site and sign boards will be displayed in various places at site.
3.	Screening of Labors	Labours will be checked for health condition before employing them in mining activity	All the labours will be checked and screened for health before employing them. After employing them, periodical medical check-ups will be held once in every six months.

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5 Analysis Of Alternatives

5.1 General

Analysis of alternatives is a significant aspect in planning and designing any project. Cost benefit analysis should be worked out along with other parameters while choosing an alternative in such a way that production is maximum, and the mining operation is environmentally friendly and cost effective. The mine plan and mine closure plan has been approved by the Deputy Director, Department of Mining and Geology, Pudukkottai District prior to submission of the Form-1 and PFR.

ToR issued by the SEIAA-TN vide ToR Identification Number - TO24B0108TN5775960N and File No – 11674 Dated: 01.03.2025. The study for alternative analysis involves in-depth examination of sites and technology.

5.1.1 Analysis for Alternative Sites and Mining Technology

5.1.1.1 Alternative Site

The proposed project is the mining of Rough Stone Quarry and is proposed after prospecting the area. In other words, these can be implemented in the mineral available zone. Since the mining block has been allotted in principle by the State Government, there is no case for studying and exploring any other site as an alternative.

5.1.1.2 Alternative Technology

The open cast mining could be manual/semi-mechanized/mechanized depending upon the geological and topographical setup of the mineral (ROM) to be won and the daily/annual targeted production.

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Table 5-1: Alternative for Technology and other Parameters

S. No.	Particular	Alternative Option 1	Alternative Option 2	Remarks
1.	Technology	Opencast semi mechanized mining	Opencast mechanized mining	Opencast semi mechanized Involving drilling and blasting are preferred. Benefits: Material is hard so to make it loose and to bring it to appropriate size.
2.	Employment	Local employment.	Outsource employment	Local employment is preferred Benefits: Provides employment to local people along with financial benefits. No residential building/ housing is required.
3.	Labour transportation	Public transport	Private transport	Local labours will be deployed from Sithannavasal village so they will either reach mine site by bicycle or by foot. Benefits: Cost of transportation of labors will be negligible
4.	Material transportation	Public transport	Private transport	Material will be transported through trucks/trolleys on the contract basis. Benefits: It will give indirect employment.
5.	Water	Tanker supplier	Ground water/	Tanker supply will be preferred. Water will be sourced from Sithannavasal Village which is located in 1.04 km from the W side from the project site.

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6 Environmental Monitoring Program

6.1 General:

This chapter covers the planned environmental monitoring program. It also includes the technical aspects of monitoring the effectiveness of mitigation measures.

Monitoring is important to measure the efficiency of control measures. Post project monitoring of environmental parameters is of key importance to assess the status of environment. The monitoring program will serve as an indicator for identifying environmental degradation due to operation of the project and help in selection of appropriate mitigation measures to safeguard the environment.

Regular monitoring is as important as control of pollution since the efficacy of control measures can only be determined by monitoring. The project proponent has awarded **M/s. Ecotech Labs Pvt Ltd** for carrying out the post project environmental monitoring (PPM) and timely compliance report submission to various regulatory authorities.

Therefore, a regular monitoring programme of the environmental parameters is essential to take into account the changes in the environmental quality. The objectives of monitoring are to: -

- Verify effectiveness of planning decisions.
- Measure effectiveness of operational procedures.
- Confirm statutory and corporate compliance; and
- Identify unexpected changes.

Table 6-1: Environmental Monitoring Programme

Parameters	Sampling	Frequency	Location
Air environment – Pollutants PM 10 PM 2.5	7 locations	24 hourly twice a week 4 hourly.	Project site, Udaiyandippatti government school, Muththamil park, Vinayagar Temple- Sithuppatti, Vinayagar

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SO ₂ NO _x		Twice a week, One non monsoon season 8 hourly, twice a week 24 hourly, twice a week	kovil velangudippatti, St. Anthony's Church, Magudhupatti, Goverment Higher Secondary School In Maruthanthalai.
Noise	7 locations	24 hourly Once in 7 locations	Project site, Udaiyandippatti government school, Muththamil park, Vinayagar Temple- Sithupatti, Vinayagar kovil velangudippatti, St. Anthony's Church, Magudhupatti, Goverment Higher Secondary School In Maruthanthalai.
Water (Ground water) <ul style="list-style-type: none"> • pH • Temperature • Turbidity • Magnesium Hardness • Total Alkalinity • Chloride • Sulphate • Fluoride • Nitrate • Sodium • Potassium • Salinity • Total nitrogen 	7 locations	Once in 7 locations	Project site, Udaiyandippatti government school, Muththamil park, Vinayagar Temple- Sithupatti, Vinayagar kovil velangudippatti, St. Anthony's Church, Magudhupatti, Goverment Higher Secondary School In Maruthanthalai.
Water (surface water) <ul style="list-style-type: none"> • pH • Temperature • Turbidity 	Sample from nearby lakes/river	One time Sampling	Periya kulam and Vellanur local pond

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<ul style="list-style-type: none"> • Magnesium Hardness • Total Alkalinity • Chloride • Sulphate • Fluoride • Nitrate • Sodium • Potassium • Salinity • Total nitrogen 			
Soil (Organic matter, Texture, pH, Electrical Conductivity, Permeability, Water holding capacity, Porosity)	7 locations	Once in 7 locations	Project site, Udaiyandippatti government school, Muththamil park, Vinayagar Temple- Sithuppatti, Vinayagar kovil velangudippatti, St. Anthony's Church, Magudhupatti, Goverment Higher Secondary School In Maruthanthalai.
Ecology and biodiversity Study	Study area covering 10 km radius	One time Sampling	
Socio- Economic study (Population, Literacy Level, employment, Infrastructure like school, hospitals & commercial establishments)	Villages around 10 km radius	One time Sampling	

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Table 6-2: Monitoring Schedule during Mining

S. No.	Attributes	Parameters	Frequency	Location
1.	Ambient Air Quality at Mine Site & Fugitive Dust Sampling	PM 10 PM 2.5 SO ₂ NO _x	Once in a Month	Project Site
2.	Ground water Quality	Drinking Water Parameters, As per IS - 10500: 2012	Half yearly	Project Site
3.	Surface Water Quality	Class will be assessed as per the CPCB Guidelines	Half yearly	Project Site
4.	Soil Quality	(Organic matter, Texture, pH, Electrical Conductivity, Permeability, Water holding capacity, Porosity)	Half yearly	Project Site
5.	Noise Level Monitoring	Noise level in dB(A) Quarterly/half yearly	Half yearly	Project Site

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7 Additional Studies

7.1 General

This chapter covers the details of the additional studies viz. Risk assessment, Disaster Management, Public Hearing, Rehabilitation and Resettlement.

7.1.1 *Public Hearing:*

As the proposed mining project falls under 1(a), Category B1 – Cluster Mining (includes

Existing Other Quarries

Tmt.D.Adaikalamary – 1.38.0 Ha

Thiru.R.Sathiyamoorthy – 0.94.5 Ha

Proposed Area

Thiru.C.Palanisamy – 2.80.33 Ha

Thiru.K.Muthukumar – 2.50.0 Ha

Thiru.Bennet Antony Raj – 2.08.0 Ha

Tmt.K.Indirani – 1.44.0 Ha

Lease Expired:

Thiru.C.Ponnusamy – 2.50.0 Ha

Thiru.Poosairaj – 2.50.0 Ha

Thiru.R.Radha – 2.00.0 Ha

Thiru.K.R.N.Ramesh – 0.96.0 Ha

Thiru.G.Murugesan – 0.70.0 Ha

L.Soosainathan – 0.93.5 Ha

Thiru.A.S.Pichai – 1.21.5 Ha

Tmt.S.Sooriya – 1.00.0 Ha

The Total extent of the Existing / Lease expired / Proposed quarries is 11.14.83 Ha

Hence under 7(III) of EIA notification 2006 and its subsequent amendments, the project involves the Public Consultation and the same will be conducted under SPCB (TN) in Pudukkottai District. The proceedings of the same will be incorporated in the Final EIA Report.

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7.1.2 Risk assessment:

For mining projects to be successful, it should meet not only the production requirements but also maintain the highest safety standards for all the workers. Industry has to identify the hazards, assess the associated risks and bring the risks to a tolerable level regularly. Mining has considerable safety risk to miners. Unsafe conditions and practices in mines lead to a number of accidents and causes loss and injury to human lives, damage property, interrupt production etc. Risk assessment is a systematic method of identifying and analyzing the hazards associated with an activity and establishing a level of risk. The hazards cannot be completely eliminated, and thus there is a need to define and estimate an accident risk level possible to be presented either in quantitative or qualitative way.

7.1.3 Identification of Hazard

7.1.3.1 Blasting Pattern:

The quarrying operation will be carried out by Opencast Mechanized method in conjunction with conventional method of mining using Jack Hammer drilling and blasting for shattering effect and loosen the Rough Stone.

7.1.3.2 Drilling and Blasting:

Drilling and Blasting parameters are as follows:

Diameter of Hole	32-36 mm
Spacing between holes	0.60 m
Depth	1 to 1.5 m
Pattern of hole	Zigzag
Inclination of holes	70° from Horizontal
Use of delay detonators	25 milli-second delays
Detonating fuse	“Detonating” Cord

a. Types of explosives to be used:

Small dia of 32-36mm Slurry explosives are proposed to be used for shattering and heaving effect for removal and winning of Rough Stone. No deep hole drilling or Primary blasting is proposed.

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b. Measures proposed to minimize ground vibration due to Blasting:

The quarry is situated more than 0.50 km from the nearby villages. Controlled blasting measures will be adopted for minimizing ground vibration and fly of rock. Shallow depths jackhammer drilling & blasting is proposed to be carried out with minimum use of explosive mainly to give the shattering effect in rough stone for easy excavation and to control fly of rocks.

Diameter of Holes	=	32 - 36 mm
Powder factor	=	6 to 7 Tons/Kg of explosives
Depth	=	1 to 1.5 m
Charge/Hole	=	140 gms of 25mm dia cartridge
Blasted at daytime	=	5 to 6 PM (or whenever required)

Storage and safety measures to be taken while blasting: The proponent will engage an authorized explosive agency to carry out the small amount of blasting and it will be supervised by competent and statutory Foreman/Permit Mines Manager.

Heavy Machineries: The following heavy machineries will be used in the proposed area:

- For Mining – Excavator of 1.20 Cum Bucket capacity (with Rock Breaker attachment), Jack Hammers 25.5 mm Dia) of 2 Nos.
- Loading Equipment – Excavator of 1.20 Cum Bucket Capacity (with Bucket attachment)
- Transportation (includes within the mine and mine to destination) – Tipper 3 No of 10 M.T capacity (from quarry to needy peoples and local crushers)

a. Risk:

Most of the accidents during transport of mined out mineral using other heavy vehicles are often attributed to mechanical failures and human errors.

b. Mitigation measures to minimize the risk.

- At the time of loading no person will be allowed within the swing radius of the excavation.
- The dumpers/ trucks will stand near the loading equipment and fully braked when the muck is filled in it.

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- The truck would be brought to a lower level so that the loading operation suits the ergonomic condition of the workers.
- The workers will be provided with helmets, gloves and safety boots; loading and unloading operations will be carried out only during daylight.
- All the mining machineries will be regularly maintained and checked such as brakes, lights and horns to keep in the efficient working order.

7.1.4 General Precautionary measures for the Risk involved in the proposed mine:

- In order to take care of above hazard/disaster, the following control measures will be adopted:
- All safety precautions and provisions of Mine Act, 1952, Metalliferous Mines Regulation, 1961 and Mines Rules, 1955 will be strictly followed during all mining operations;
- Entry of unauthorized persons will be prohibited.
- Firefighting and first-aid provisions in the ECC and mining area.
- Provisions of all the safety appliances such as safety boot, helmets, goggles etc. will be made available to the workers (22 Nos.) and regular inspection for their use;
- In case of eventuality, first aid will be given by the senior safety officer in the mine area initially to the injured person. The safety officer will give notice of accident as per Rule-23 of Mines Act-1952.
- The safety officer (common for 3 mines within 500m radius) will be responsible for coordination between management district authorities/DGMS etc. Regarding general safety as per Rule-181 of MMR 1961, “No person shall negligently or will fully do anything likely to endanger life or limb in the mine, or negligible or will fully omit to do anything necessary for the safety of the mine or of the persons employed there in”. The workers will be provided with protective foot wear and safety helmets.
- Cleaning of mine faces will be regularly done;
- Handling of explosives, charging and blasting will be carried out by highly skilled labours only;
- Regular maintenance and testing of all mining equipment as per manufacturer’s guidelines;
- Suppression of dust by sprinkling water on the haulage roads;

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7.1.5 Safety Team:

The effective implementation of compliance of Safety Rules/ Statutory Provisions will be ensured. The safety officer will be engaged, meeting the requirement of Mines Act and their duties and responsibilities. The safety officer will be responsible for identification of the hazardous conditions and unsafe acts of workers and advice on corrective actions, conduct safety audit, organize training programs and provide professional expert advice on various issues related to occupational safety and health. Organizing safety training will be conducted to employees and contractor labors periodically.

7.1.6 Emergency Control Centre

The emergency control center will be provided to handle the emergency. The site main controller, key personnel and the senior officers of the fire and police services will attend it. The center will be equipped to receive and transmit information and directions from and to the incident controller and other areas of the works, as well as outside. The emergency control center will be sited in an area of minimum risk. This common Emergency control center will be used for the mines around the 500m radius.

7.2 Disaster Management:

The possible risks in the case of stone along with associated minor minerals mining projects are fly rock, vibration failure of pit, slope and waste dump, accidents due to transportation. Mining and allied activities are associated with several potential hazards to both the employees and the public at large. Safety of the mine and the employees is taken care of by the mining rules & regulations, which are well defined with laid down procedure for safety, which when scrupulously followed, safety is ensured not only to manpower but also to machines & working environment.

7.2.1 Emergency Management Plan For Proposed Mines On Site- Offsite Emergency Preparedness Plan:

The emergency plan delineates the procedures for dealing with accidents or unexpected events and natural calamities arising from mining activity. Experience of any accidents that have occurred in other manufacturing/mining projects is considered to prepare this plan. This Emergency plan should be periodically reviewed and modified. It should also be changed based on the observations of emergency mock drills and experience of handling actual emergencies.

Major objectives of this onsite – offsite emergency plan are:

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- To take necessary proactive and preventive actions to avoid emergencies.

The main aim of any emergency plan should be to prevent emergency situations.

To train the manpower to handle the emergencies of the following nature:

- Onsite (Within ML boundary)
- Offsite (Outside ML boundary)

7.3.2 Onsite off-site emergency Plan:

1- Emergency on account of:

- Fire
- Explosion
- Major accidents involving man-made collapse of the mining edges.
- Snake bites, attack by honeybees or attack by wild animals.

2- Disaster due to natural calamities like:

- Flood/ heavy rains which can involve natural landslides.
- Earth quake
- Cyclone
- Lightening

7.3.3 Emergency Plan:

- The mining operations should be immediately stopped in case of any emergency. A siren will be sounded during emergency time.
- An emergency assembly point will be created and all the workers will guide visitors or contractors to approach assembly point.
- Emergency vehicle (Ambulance) will be available in the nearby place, in proximity to the three mines and will rush to the emergency control centre at the blowing of emergency siren. The driver of emergency vehicle will follow the instructions of Incident Controller/Site Main Controller.
- Workers will be trained for the precautions to be taken during natural disasters like heavy rain, floods, earthquake and cyclone.
- All escape routes from mines to the assembly point or any other safe location will be made and the escape plan will be displayed in many places in the mine area

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7.3.4 Emergency Control:

- Shut down of mining operations: Raising the alarm or siren followed by immediate safe shut down of the power supply, and isolation of affected areas.
- Treatment of injured: First aid and hospitalization of injured persons
- Protection of environment and property: During mitigation, efforts will be made to prevent impacts on environment and property to the extent possible.
- Preserving all evidences and records: This will be done to enable a thorough investigation of the true causes of the emergency.
- Ensuring safety of personnel prior to restarting of operations: Efforts required will be made to ensure that work environment is safe prior to restarting the work.

7.3 Natural Resource Conservation

There are no natural resources within the premises. The conservation strategies for energy will be followed in the proposed mine lease area. The pollutants of the mine will be minimized by adopting appropriate mitigation measures as mentioned Chapter 5 to prevent the effects on nearest water bodies. No surface runoff from the project site will be let into the nearest water bodies.

7.4 Resettlement and Rehabilitation:

The proposed Mine lease area is private land of Thiru.C.Palanisamy. There is no displacement of the population within the project area and adjacent nearby area and hence Rehabilitation & Resettlement is not applicable.

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8 Project Benefits

8.1 General

This chapter covers the benefits accruing to the locality, neighborhood, region and nation as a whole. It brings out the details of benefits by way of improvements in the physical infrastructure, social infrastructure, employment potential and other tangible benefits.

8.1.1 Physical Benefits

The opening of the proposed project will enhance the following physical infrastructure facilities in the adjoining areas:

- a. **Market:** Generating useful economical resource for construction. Due to demand supply chain, excavated mineral (Rough stone & Topsoil) will sold in the market in the affordable price.
- b. **Infrastructure:** The excavated rough stone will be used for *Laying Roads, Building & Construction Projects, Bridges.*
- c. **Enhancement of Green Cover & Green Belt Development:** As a part of reclamation plan, native tree species will be planted along the safety boundary (0.13.66 Ha) of the mine lease area. A suitable combination of trees that can grow fast and also have good leaf cover will be adopted to develop the green belt. It is proposed to plant 1200 numbers were planted like native species along with some fruit bearing and medicinal trees during the mining plan period.

8.2 Social Benefits

The mining in the area will create rural employment. During site visit, it has been observed that the economic conditions of the villages in the study area is quite normal. After the development of the proposed mine, it will improve the livelihood of local people and also provide the indirect employment opportunities. The rough stone for the infrastructural development in the area will be made available from the local markets at reasonably lower price.

As a part of CER, 2% of the project cost i.e., 5 Lakhs will be allocated. The detailed agenda, which is to be executed has been framed. The salient features of the programme are as follows:

- Panchayat Union Middle School in Sithannavasal, Illuppur (Taluk), Pudukkottai (Dt).
- Providing facilities are:
- Construction of Classroom, Floor tile & Painting work and

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- Basic amenities such as Environmental awareness books (Tamil) in Library for students, Green Belt development, RO water purifiers, Hygienic Toilet and maintenance of toilet upto lease period.

8.3 Project Cost / Investment Details

(a) Project cost / investment cost :

S. No	Description of cost	Cost of lakhs
A.	Investment cost:	
	Land cost (Leased tender amount for Government Poramboke Land)	Rs.80,50,000/-
	Labours shed	Rs.1,20,000/-
	Fencing cost	Rs.1,00,000/-
	Sanitary facility	Rs.80,000/-
	Total	Rs.83,25,000/-
B.	Operational cost:	
	Machinery cost	Rs.40,00,000/-
	Total operational cost	Rs.40,00,000/-
Total Project cost (A+B)		Rs.1,23,50,000/-

(b) EMP (Estimation) Cost :

Total EMP Cost – Rs.2,60,05,407/- (Two crore Sixty lakhs five thousand and four hundred seven) rupees only

GRAND TOTAL PROJECT COST (A+B) = Rs.1,23,50,000/-

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9 Environmental Management Plan

9.1 Introduction

This chapter comprehensively presents the Environmental Management Plan (EMP), which includes the administrative and technical setup, summary matrix of EMP, and the cost involved to implement the EMP, during various Mining activities and provisions made towards the same in the cost estimates of project. This chapter describes the proposed monitoring scheme as well as inter-organizational arrangements for effective implementation of the mitigation measures.

9.2 Subsidence

Mining will be carried out by opencast semi mechanized mining method with drilling & blasting as per the mining plan approved by the Department of Mining and Geology, Pudukkottai. Subsidence/slope failures are not envisaged because there are no loose strata overlying the deposit (mineral to be excavated). The bench height will be an average of 5m. The individual bench slope has been proposed to be kept at 60° from horizontal. Moreover, all safety standards/ safeguards will be implemented as per guidelines prescribed by the Director General of Mines Safety.

9.3 Mine Drainage

9.1.1 *Storm water Management*

The following measures will be taken with respect to the prevailing site conditions.

- Storm water drains with silt traps of size 1m x 1m will be suitably constructed all along the periphery of the pit area to collect the run-off from the mine area and divert into the pit.
- All measures will be taken not to disturb the existing drainage pattern adjacent to the mine lease area.
- The storm water collected from the mine area will be utilized for dust suppression on haul roads, plantation within the premises, etc.,

9.1.2 *Drainage*

Local workers will be deployed for the project. But urinals and Latrines will be provided and the same will be connected to septic tank followed by soak pit arrangement. No domestic waste will be deposited into the nearby area. Regular checking will be carried out to find any blockage

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due to silting or accumulation of loose materials. The drains will also be checked for any damage in lining / stone pitching, etc.

9.1.3 Administrative and Technical Setup

The Environment Management Plan (EMP) will consist of all mitigation measures for each component of the environment due to the activities increased during mining operation to minimize adverse environmental impacts resulting from the activities of the project.

To carry out the above activities, Thiru.C.Palanisamy will work in association with M/s. Ecotech Labs Pvt Ltd.

Table 9-1: Impacts and mitigation measures

	Mitigation Measure	Provision for Implementation	Capital	Recurring
Air Environment	Compaction, gradation and drainage on both sides for Haulage Road	Rental Dozer & drainage construction on haul road @ Rs. 10,000/- per hectare; and yearly maintenance @ Rs. 10,000/- per hectare	28033	28033
	Fixed Water Sprinkling Arrangements + Water sprinkling by own water tankers	Fixed Sprinkler Installation and New Water Tanker Cost for Capital; and Water Sprinkling (thrice a day) Cost for recurring	800000	50000
	Muffle blasting – To control fly rocks during blasting	Blasting face will be covered with sandbags / steel mesh / old tyres / used conveyor belts	0	5000
	Wet drilling procedure / latest eco-friendly drill machine with separate dust extractor unit	Dust extractor @ Rs. 25,000/- per unit deployed as capital & @ Rs. 2500 per unit recurring cost for maintenance	50000	5000

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	No overloading of trucks/ tippers/ tractors	Manual Monitoring through Security guard	0	2005840
	Stone carrying trucks will be covered by tarpaulin	Monitoring if trucks will be covered by tarpaulin	0	10000
	Enforcing speed limits of 20 km/hr within ML area	Installation of Speed Governors @ Rs. 5000/- per Tipper/Dumper deployed	15000	1500
	Regular monitoring of exhaust fumes as per RTO norms	Monitoring of Exhaust Fumes by Manual Labour	0	5000
	Regular sweeping and maintenance of approach roads for at least about 200 m from ML Area	Provision for 2 labours @ Rs.10,000/labour (Contractual) per Hectare	0	56066
	Installing wheel wash system near gate of quarry	Installation + Maintenance + Supervision	50000	20000
Noise Environment	Source of noise will be during operation of transportation vehicles, HEMM for this proper maintenance will be done at regular intervals.	Provision made in Operating Cost	0	0
	Oiling & greasing of Transport vehicles and HEMM at regular interval will be done	Provision made in Operating Cost	0	0
	Adequate silencers will be provided in all the diesel engines of vehicles.	Provision made in Operating Cost	0	0

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	It will be ensured that all transportation vehicles carry a fitness certificate.	Provision made in Operating Cost	0	0
	Safety tools and implements that are required will be kept adequately near blasting site at the time of charging.	Provision made in OHS part	0	0
	Line Drilling all along the boundary to reduce the PPV from blasting activity and implementing controlled blasting.	Provision made in Operating Cost	0	0
	Proper warning system before blasting will be adopted and clearance of the area before blasting will be ensured.	Blowing Whistle by Mining Mate / Blaster / Compentent Person	0	0
	Provision for Portable blaster shed	Installation of Portable blasting shelter	50000	2000
	NONEL Blasting will be practiced controlling Ground vibration and fly rocks	Rs. 30/- per 6 Tonnes of Blasted Material	0	1116125.5
Waste Management	Waste management (Spent Oil, Grease etc.,)	Provision for domestic waste collection and disposal through authorized agency	25000	20000
		Installation of dust bins	5000	2000
	Bio toilets will be made available outside mine lease on the land of owner itself	Provision made in Operating Cost	0	0

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Mine Closure	1. Progressive Closure Activity - Surface Runoff Management	Provision for garland drain @ Rs. 10,000/- per Hectare with maintenance of Rs. 5,000/- per annum	28033	5000
	2. Progressive Closure Activity Barbed Wire Fencing to quarry area will be Provisioned	Per Hectare fencing Cost @ Rs. 2,00,000/- with Maintenance of Rs 10,000/- per annum	560660	10000
	3. Progressive Closure Activity Green belt development - 500 trees per one hectare - (200 Inside Lease Area & 300 Outside Lease Area)	Site clearance, preparation of land, digging of pits/trenches, soil amendments, transplantation of saplings @ 200 per plant (capital) for plantation inside the lease area and @ 30 per plant maintenance (recurring)	112132	16819.8
		Avenue Plantation @ 300 per plant (capital) for plantation outside the lease area and @ 30 per plant maintenance (recurring)	252297	25229.7
	4. Implementation of Final Mine Closure Activity as per Approved Mining Plan on Last Year.	For Final Closure activities 15% of the proposed closure cost will be spent during final mine closure stage - Last year	15126	0
	5. Contribution towards Green Fund. As per TNMMCR 1959, Rule 35 A	The Contribution towards Green Funds @ 10% of Seigniorage fee are indicated as part of EMP Budget and not necessarily implemented in the Project Site	2495745	0

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	Size 6' X 5' with blue background and white letters as mentioned in MoM Appendix II by the SEAC TN	Fixed Display Board at the Quarry Entrance as permanent structure mentioning Environmental Conditions	10000	1000
	Air, Water, Noise and Soil Quality sampling every 6 Months for Compliance Report of EC Conditions	Submission of 2 Half Yearly Compliance - Lab Monitoring Report as per CPCB norms	0	50000
Implementation of EC, Mining Plan & DGMS Condition	Workers will be provided with Personal Protective Equipment's	Provision of PPE @ Rs. 4000/- per employee with recurring based on wear and tear (say, @ Rs. 1000/- per employee)	60000	15000
	Health check up for workers will be provisioned	IME & PME Health check up @ Rs. 1000/- per employee	0	15000
	First aid facility will be provided	Provision of 2 Kits per Hectare @ Rs. 2000/-	0	5606.6
	Slope Stability Action Plan	Slope Stability action plan in the end of fourth year plan period	200000	0
	Mine will have safety precaution signages, boards.	Provision for signages and boards made	10000	2000
	No parking will be provided on the transport routes. Separate provision on the south side of the hill will be made for vehicles /HEMMs. Flaggers will be deployed for traffic management	Parking area with shelter and flags @ Rs. 50,000/- per hectare project and Rs. 10,000/- as maintenance cost	140165	10000

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	Installation of CCTV cameras in the mines and mine entrance	Camera 4 Nos, DVR, Monitor with internet facility	30000	5000
	Implementation as per Mining Plan and ensure safe quarry working	Mines Manager (1 st Class / 2 nd Class / Mine Foreman) under regulation 34 / 34 (6) of MMR, 1961 and Mining Mate under regulation 116 of MMR, 1961 @ 40,000/- for Manager & @ 25,000/- for Foreman / Mate	0	780000
Total (Rs)			2426320	4267220.6
Grand Total (Rs)			6693541	

Table 9-2: Budgetary Allocation for EMP during Mining

Year	Cost (@ 5% per year inflation adjustment) in Rs.
1 st Year	6693541/-
2 nd Year	4480582/-
3 rd Year	4704611/-
4 th Year	4939841/-
5 th Year	5186833/-
Total	2,60,05,407/- (Two crore Sixty lakhs five thousand and four hundred seven rupees only)

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10 Summary & Conclusion

This chapter summarizes the overall justification for implementation of the project and explains how the potential impacts are mitigated.

10.1 Introduction

Thiru.C.Palanisamy site is a cluster of four mining projects. The individual mine lease area is 2.80.33 Ha of Rough Stone Quarry located at S.F.Nos. 94 (Part-1) of Sithannavasal Village, Illuppur Taluk in Pudukkottai District.

10.2 Project Overview

Table 10-1: Project Overview

S. No.	Description	Details
1	Project Name	Rough Stone Quarry
2	Proponent	Thiru.C.Palanisamy
3	Mining Lease Area Extent	2.80.33 Ha
4	Location	S.F.Nos. 94 (Part-1) of Sithannavasal Village, Illuppur Taluk in Pudukkottai District.
5	Latitude	10°27'49.9231"N to 10°27'43.2157"N
6	Longitude	78°44'07.9289"E to 78°44'01.1168"E
7	Topography	Plain terrain
8	Site Elevation above MSL	≈135.0 m from MSL
9	Topo Sheet No.	58-J/11
10	Minerals of Mine	Rough Stone
11	Proposed production of Mine	Proposed capacity of Rough Stone: 2,77,305m ³ and Topsoil: 96m ³
12	Ultimate depth of Mining	47.0m below ground level
13	Method of Mining	Open cast, mechanized mining

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14	Water demand	1.675 KLD
15	Source of water	Water will be supplied through tankers supply
16	Manpower	Direct :10 nos, Indirect :5 nos
17	Mining Lease	Precise Area Communication Letter received from Assistant Director, Dept. Geology and Mining, Pudukkottai vide letter Na.Ka.No.1062/2023 (Kanimam) dated 11.01.2024
18	Mining Plan Approval	Mining Plan was approved by the Assistant Director, Dept. of Geology & Mining, Pudukkottai vide letter Rc.No.1062/2023 (G&M) dated 14.03.2024
19	Production details	Geological reserves of Rough stone: 6,85,630m ³ Proposed year wise recoverable reserves of Rough Stone: 2,77,305m ³ for five years
20	Boundary Fencing	7.5m barrier all along the boundary Fencing will be provided
21	Disposal of overburden	The entire lease area is covered 2.0m of Topsoil and the estimated quantity of topsoil is 96m ³ . It will be utilized for afforestation purpose.
22	Ground water	The ground Water Level is noticed at the depth of 68m below Ground Level by monitoring nearby bore hole, during the climatic conditions, the fluctuations of water level are 68m in Rainy seasons and 73m in summer seasons of this quarry area.
23	Habitations within 500m radius of the Project Site	There is no Habitation within 500m radius of the project site.
24	Drinking water	Water will be supplied through tankers from Sithannavasal Village which is 1.04 km West from the proposed project site.

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10.3 Justification of the proposed project

The said project plays a significant role in the domestic as well as infrastructural market. To achieve a huge infrastructure being envisaged by Government of India, particularly in road and housing sector, there is a need for basic building materials. The rough stone form the primary building material.

Rough stone is one of the most valuable natural building materials. Aggregates are mostly used for building roads and footpaths Aggregates – stone used for its strong physical properties – crushed and sorted into various sizes for use in concrete, coated with bitumen to make asphalt or used 'dry' as bulk fill in construction. Mostly used in roads, concrete and building products. Aggregates represent about 98% of quarry output, most of which is used in road construction, maintenance and repair. Much of this goes to the production of asphalt; the remainder is used 'dry' without the addition of other materials to provide a sturdy base for roads.

Since Pudukkottai, a city known for its small-scale industries and also the soil in the area near project site is not very fertile making it unsuitable for carrying out agricultural activities. The topography near the lease area is barren dry lands showing only less chance for crop growth and development of vegetation. In addition to that, geological reserves of rough stone is abundant in the lease area which is evident from the mine activities carried out in the nearby sites.

Table 10-2: Anticipate Impacts & Appropriate Mitigation Measures

S. No.	Potential Impact	Mitigation Measure
1	The main impact in the air environment is dust emission during various mining activities such drilling, blasting, excavation, loading and transportation. The dust emission may affect the quality of ambient air in the and around the mine area. The increased emission may cause respiratory & Cardiovascular problems in human health	Proper mitigation measures like water sprinkling on haul roads will be adopted to control dust emissions. To control the emissions regular preventive maintenance of equipments will be carried out on contractual basis. Plantation will be carried out along approach roads & mine premises.

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2	Waste water will be generated due to mining activity and from other domestic activities. These may contaminate the ground water leading to ground water. The mining activity may affect the ground water table	No waste water will be generated from the mining activity of minor minerals as the project only involves lifting of over burden from mine site. The wastewater generated from the domestic activity will be disposed off safely through the proposed septic tank. Mining will not intersect ground water table. Hence the water table will not be impacted due to the proposed project
3	Noise will be generated in the mine area during various mining activities such as blasting, drilling, excavation. During transportation of the mined out mineral, there may be noise generation due to the movement of vehicles. This may impact the health condition of the workers by creating headache	Periodical monitoring of noise will be done. No other equipments except the transportation vehicles and Excavator (as & when required) for loading will be allowed at site. Noise generated by these equipments shall be intermittent and does not cause much adverse impact. Plantation will be carried out along approach roads. The plantation minimizes propagation of noise and also arrest dust.
4	Solid waste will be generated from the mining activity as there will be refuse after 95% recovery and also generation of domestic waste	The 100% recovery is achieved by extracting the entire mineable reserve. Hence there will be no refuse generation due to the mining activity. Apart from that, a very meagre quantity of domestic waste will be generated in the project, which will be handed over to the local body on daily basis.

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5	During mining activities, there are chances of workers getting health issues or may be prone to accidents	<p>Dust masks will be provided as additional personal protection equipment to the workers working in the dust prone area.</p> <p>Periodical trainings will be conducted to create awareness about the occupational health hazards due to activities like blasting, drilling, excavation.</p> <p>Workers health related problem if any, will be properly addressed.</p>
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11. Disclosure of Consultant

10.4 Introduction

This chapter presents the details of the environmental consultants engaged, their background and the brief description of the key personnel involved in the project. Specific studies on the mining project have been carried out by engaging engineers/experts of Ecotech Labs Pvt. Ltd, Chennai. Ecotech Labs Pvt. Ltd (ETL), Chennai is NABET accredited consultancy organization. ETL is equipped with in-house, spacious laboratory, accredited by NABL (National Accreditation Board for Testing & Calibration Laboratories), Department of Science & Technology, Government of India and MoEF & CC.

11.2 Eco Tech Labs Pvt. Ltd – Environment Consultant

Eco Tech Labs Pvt. Ltd is a multi-disciplinary testing and research laboratory in India. Eco Tech labs provides high quality services in environmental consultancy, engineering solution, chemical and microbiological laboratory analysis of food, water and environment (Air, Water, Soil) with highest accuracy.

11.1.1 *The Quality policy*

- We, at Eco Tech Labs Pvt. Ltd. engaged in providing Environmental consulting services and we are committed to strengthen our capabilities in all areas of our operations in line with customer requirements & expectations, applicable legal requirements & stakeholders expectations.
- We are committed to establish and maintain Quality Management System (QMS) for continual improvement in processes and Services
- We are committed to provide customized solutions in realistic, time bound and cost effective to achieve highest degree of customer satisfaction and Environmental improvement.
 - We shall establish, maintain & periodically review our documented management systems, objectives and performance in consultation with our employees and prevailing best practices.
 - Effective communication of organization's policy and objectives to employees and seeking feedbacks from all our employees and concerned stakeholders for continual improvement.

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Declaration by Experts contributing to the EIA of Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy at S.F.No. 94 (Part-1), Sithannavasal Village, Illuppur Taluk, Pudukkottai District, Tamil Nadu State

I, hereby, certify that I was a part of the EIA team in the following capacity that developed the above EIA.

EIA Coordinator: Dr. A. Dhamodharan



Dr. A. DHAMODHARAN
(NABET APPROVED EIA COORDINATOR)
NABET/EIA/2124/SA 0147
Environmental Consultant
Eco Tech Labs Pvt. Ltd
Plot No.48A, 2nd Main Road, Ram Nagar South Extn,
Pallikaranai, Chennai - 600 100.


Signature:

Period of involvement:


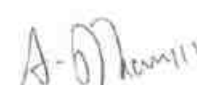

Contact information: M/s. Ecotech Labs Pvt Ltd.,

No. 48, 2nd Main Road, Ram Nagar South Extension,





Pallikaranai, Chennai – 600 100

S. No	Functional areas	Name of the experts	Involvement (Period and task)	Signature and date
1	AP	Mrs. K. Vijayalakshmi	1. Selection of Baseline Monitoring stations based on the wind direction. 2. Interpretation of Baseline data by comparing it with standards prescribed by CPCB against the type of area. 3. Identification of sources of air pollution and suggesting mitigation measures to minimize impact. Period: December 2024 – Present	





Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

2	WP	Dr. A. Dhamodharan	<ol style="list-style-type: none"> 1. Selection of baseline Monitoring Locations for Ground water analysis and also identifying nearest surface water to be studied. 2. Interpretation of baseline data collected 3. Identification of impacts based on the baseline study conducted and also to the ground water and nearby surface water due to the proposed project 4. Preparation of suitable and appropriate mitigation plan. 5. <p>Period: December 2024 – Present</p>	
3	SHW	Dr. A. Dhamodharan	<ol style="list-style-type: none"> 1. Identification of nature of solid waste generated. 2. Categorization of the generated waste and estimating the quantity of waste to be generated based on the per capita basis. Identification of impacts of SHW on Environment 3. Suggesting suitable mitigation measures by recommending appropriate disposal method for each category of waste generated 4. Topsoil and refuse management <p>Period: December 2024 – Present</p>	
4	SE	Mr. S. Pandian	<ol style="list-style-type: none"> 1. Primary data collection through the census questionnaire 2. Obtaining Secondary data from authenticated sources and incorporating the same in EIA report. 3. Impact assessment & proposing suitable mitigation plan. 4. CSR budget allocation by discussing with the local body and allotting the same for need based activity. <p>Period: December 2024 – Present</p>	

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

5	EB	Dr. A. Dhamodharan	<ol style="list-style-type: none"> 1. Primary data collection through field survey and sheet observation for ecology and biodiversity 2. Secondary Collection through various authenticated sources 3. Prediction of anticipated impacts and suggesting appropriate mitigation measures. <p>Period: December 2024 – Present</p>	
6	HG	Dr. T. P. Natesan	<ol style="list-style-type: none"> 1. Study of existing surface drainage arrangements in the core and buffer zone, impact due to mining on these drainage courses and suggestion of mitigative measures 2. Determination of groundwater use pattern, development of rainwater harvesting program. 3. Storm water management through garland drainage system. <p>Period: December 2024 – Present</p>	
7	GEO	Dr. T. P. Natesan	<ol style="list-style-type: none"> 1. Field survey for assessing regional and local geology, aquifer distribution, Determination of groundwater use pattern, development of rainwater harvesting program. <p>Period: December 2024 – Present</p>	
8	SC	Dr. A. Dhamodharan	<ol style="list-style-type: none"> 1. Interpretation of baseline report 2. Identification of possible impacts on soil, prediction of soil conservation and suggesting suitable mitigation measures. <p>Period: December 2024 – Present</p>	

Project	Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy	Draft EIA Report
Project Proponent	Thiru.C.Palanisamy	
Project Location	Sithannavasal Village, Illuppur Taluk, Pudukkottai District.	

9	AQ	Mrs. K. Vijayalakshmi	<ol style="list-style-type: none"> 1. Collection of Meteorological data for the baseline study period 2. Plotting wind rose plot and thereby selecting the monitoring locations based on the wind pattern 3. Estimation of sources of air emissions and air quality modeling is done 4. Interpretation of the results obtained 5. Identification of the impacts and suggesting suitable mitigation measures. <p>Period: December 2024 – Present</p> 	
10	NV	Mrs. Neha Singh	<ol style="list-style-type: none"> 1. Selection of monitoring locations 2. Interpretation of baseline data 3. Prediction of impacts due to noise pollution and suggestion of appropriate mitigation measures <p>Period: December 2024 – Present</p> 	
11	LU	Dr. T. P. Natesan	<ol style="list-style-type: none"> 1. Collection of Remote sensing satellite data to study the land use pattern. 2. Primary field survey and limited field verification for land categorization in the study area 3. Preparation of Land use map using Satellite data for 10km radius around the project site. <p>Period: December 2024 – Present</p> 	
12	RH	Mr. Pinaki Dasgupta	<ol style="list-style-type: none"> 1. Identification of the risk 2. Interpreting consequence contours 3. Suggesting risk mitigation measures <p>Period: December 2024 – Present</p> 	

Project	<i>Rough Stone Quarry – 2.80.33 Ha by Thiru.C.Palanisamy</i>	<i>Draft EIA Report</i>
Project Proponent	<i>Thiru.C.Palanisamy</i>	
Project Location	<i>Sithannavasal Village, Illuppur Taluk, Pudukkottai District.</i>	

Declaration by the Head of the accredited consultant organization/ authorized person

I, Dr. A. Dhamodharan, hereby, confirm that the above-mentioned experts prepared the EIA report on the mining project at Survey Numbers. 94 (Part-1) Sithannavasal Village, Kulathur Taluk, Pudukkottai District. I also confirm that the consultant organization shall be fully accountable for any misleading information mentioned in this statement.

Signature:




Name: Dr. A. Dhamodharan

Designation: Managing Director

Name of the EIA consultant organization: M/s. Eco Tech Labs Private Limited

NABET Certificate No. & Issue Date: NABET/EIA/25-28/RA 0400

ANNEXURE-I

**STANDARD TOR CONDITIONS WITH
ADDITIONAL TOR POINTS**



File No: 11674
Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment Authority(SEIAA),
TAMIL NADU)



Dated 01/03/2025



To,

Thiru. C. Palanisamy
 No.129, Edatheru, Sithannavasal, Illuppur Taluk, Pudukkottai District., PUDUKKOTTAI, TAMIL
 NADU, 622101
 palanisamyrs1977@gmail.com

Subject: Grant of Terms of Reference under the provision of the EIA Notification 2006- as amended regarding.

Sir/Madam,

Sub: SEIAA, Tamil Nadu – Proposed Rough Stone Quarry over an extent of 2.80.33Ha of Government Poramboke Land in S.F.Nos. 94 (Part-1) of Sithannavasal Village, Illuppur Taluk, Pudukkottai District, Tamil Nadu by Thiru. C. Palanisamy - under project category – “B1” and Schedule S.No.1(a) “Mining of Minerals Projects” of EIA Notification, 2006, as amended – **ToR issued along with Public Hearing - preparation of EIA report – Regarding.**

Ref:

1. Online proposal No. SIA/TN/MIN/514621/2024, Dated: 12/02/2025.
2. Your application submitted for Terms of Reference dated:07.01.2025.
3. Minutes of the 532nd SEAC meeting held on 13.02.2025.
4. Minutes of the 798th SEAC meeting held on 26.02.2025.

2. The particulars of the proposal are as below :

(i) TOR Identification No.	TO24B0108TN5775960N
(ii) File No.	11674
(iii) Clearance Type	TOR
(iv) Category	B1
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vii) Name of Project	Thiru.C.Palanisamy Rough Stone Quarry
(viii) Name of Company/Organization	C PALANISAMY
(ix) Location of Project (District, State)	PUDUKKOTTAI, TAMIL NADU
(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	no
(xiii) Applicability of Specific Conditions	no

- 3.
4. 1.In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1(Part A and B) were submitted to the SEIAA for an appraisal by the SEAC under the provision of EIA notification 2006 and its subsequent amendments.
5. 2.The above-mentioned proposal has been considered by SEIAA in the meeting held on 26.02.2025. The minutes of the meeting and all the Application and documents submitted [(viz. Form-1 Part A, Part B,] are available on PARIVESH portal which can be accessed by scanning the QR Code above.
6. 3.The State Expert Appraisal Committee (SEAC), based on the information & clarifications provided by the project proponent and after detailed deliberations on all technical aspects recommended the proposal for grant of Terms of Reference with public hearing under the provision of EIA Notification, 2006 and as amended thereof subject to the stipulation of specific and general conditions as detailed in Annexure (2).
7. 4.The SEIAA has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the SEAC hereby decided to issue the following Terms of Reference with public hearing for instant proposal of Thiru. C. Palanisamy under the provisions of EIA Notification, 2006 and as amended thereof.
8. 5.The Ministry/SEIAA-TN reserves the right to stipulate additional conditions, if found necessary.
9. 6.The Terms of Reference with public hearing to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
10. 7.This issues with the approval of the Competent Authority.
11. 8.The TORs with public hearing prescribed shall be valid for a period of three years from the date of issue, for submission of the EIA/EMP report as per OM No. J-11013/41/2006-IA-II(I)(part) dated 29th August, 2017.

Copy To

1. The Additional Chief Secretary to Government, Environment & Forests Department, Govt. of Tamil Nadu, Fort St. George, Chennai - 9
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD Cum-Office Complex, East Arjun Nagar, New Delhi 110032.
3. The Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-600 032.
4. Monitoring Cell, IA Division, Ministry of Environment, Forests &CC, Paryavaran Bhavan, CGO Complex, New Delhi 110003
5. The District Collector, Pudukkottai District.
6. Stock File.

Annexure 1

Specific Terms of Reference for (Mining Of Minerals)

1. Seiaa Specific Conditions:

S. No	Terms of Reference
1.1	1. The Public Hearing concerns with respect to impact of mining on water bodies & agriculture should be obtained and addressed in the EMP.

2. Seac Conditions - Site Specific

S. No	Terms of Reference
2.1	<p>1. As seen from the KML, it is observed that there is numerous jain cave temple around the vicinity of the site. The details of enumeration of all such structures and temples should be submitted along with the EIA Report.</p> <p>2. As Sittanavasal heritage cave/temple is situated within 2 km from the lease boundary, the PP should study the implications of mining activities and furnish mitigation measures and should submit along with EIA Report.</p> <p>3. A Cluster Management Committee (CMC) shall be constituted including all the mines in the cluster as Committee Members for the effective management of the mining operation in the cluster through systematic & scientific approach with appointment of statutory personnel, appropriate environmental monitoring, good maintenance of haul roads and village/panchayat roads, authorized blasting operation etc. The PP shall submit the following details in the form of an Affidavit during the EIA appraisal:</p> <p>(i) Copy of the agreement forming CMC.</p> <p>(ii) The Organisation chart of the Committee with defining the role of the members</p> <p>(iii) The ‘Standard Operating Procedures’ (SoP) executing the planned activities.</p> <p>4. The Boundary pillars to be erected as per the mine rules and the evidence should be submitted along with the EIA report.</p> <p>5. Since waterbodies are situated nearby, the PP shall carry out the hydrological study including the details of waterflow pattern to determine the impacts of the mining operation in the waterbodies.</p> <p>6. The details of enumeration of structures including schools, colleges, primary health centres should be submitted along with the EIA report.</p> <p>7. The structures within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m & upto 1km shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc. and spell out the mitigation measures to be proposed for the protection of the above structures, if any during the quarrying operations.</p> <p>8. The proponent shall furnish photographs of adequate fencing, garland drainage built with siltation tank & green belt along the periphery including replantation of existing trees; maintaining the safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.</p> <p>9. The Proponent shall carry out Bio diversity study as a part of EIA study and the same shall be included in the Report.</p> <p>10. The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.</p> <p>11. The P shall carry out the comprehensive studies on the cumulative environmental impacts of the existing & proposed quarries which included drilling & blasting, loading & hauling on the surrounding village and structures.</p> <p>12. The PP shall prepare a conceptual action plan accommodating the inclusion of haul road accessibility keeping the benches intact, by ensuring the slope stability of the working benches to be constructed and existing quarry wall.</p> <p>13. The PP shall install the CCTV camera for the continuous surveillance of mining activity & furnish the photographic/videographic evidence along with the EIA report.</p>

3. Seac Standard Conditions

S. No	Terms of Reference
3.1	<p>1. In the case of existing/operating mines, a letter obtained from the concerned AD (Mines) shall be submitted and it shall include the following:</p> <p>(i) Original pit dimension</p>

S. No	Terms of Reference
	<p>(ii) Quantity achieved Vs EC Approved Quantity</p> <p>(iii) Balance Quantity as per Mineable Reserve calculated.</p> <p>(iv) Mined out Depth as on date Vs EC Permitted depth</p> <p>(v) Details of illegal/illicit mining</p> <p>(vi) Violation in the quarry during the past working.</p> <p>(vii) Quantity of material mined out outside the mine lease area</p> <p>(viii) Condition of Safety zone/benches</p> <p>(ix) Revised/Modified Mining Plan showing the benches of not exceeding 6 m height and ultimate depth of not exceeding 50m.</p> <p>2. Details of habitations around the proposed mining area and latest VAO certificate regarding the location of habitations within 300m radius from the periphery of the site.</p> <p>3. The proponent is requested to carry out a survey and enumerate on the structures located within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m (v) 500m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc.</p> <p>4. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the waterbodies like lake, water tanks, etc are located within 1 km of the proposed quarry.</p> <p>5. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.</p> <p>6. The DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.</p> <p>7. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall the PP shall carry out the scientific studies to assess the slope stability of the working benches to be constructed and existing quarry wall, by involving any one of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. The PP shall submit a copy of the aforesaid report indicating the stability status of the quarry wall and possible mitigation measures during the time of appraisal for obtaining the EC.</p> <p>8. However, in case of the fresh/virgin quarries, the Proponent shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond 30 m below ground level.</p> <p>9. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent.</p> <p>10. The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site.</p> <p>11. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.</p> <p>12. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,</p> <p>13. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?</p> <p>14. Quantity of minerals mined out.</p> <ul style="list-style-type: none"> · Highest production achieved in any one year · Detail of approved depth of mining. · Actual depth of the mining achieved earlier.

S. No	Terms of Reference
	<ul style="list-style-type: none"> · Name of the person already mined in that leases area. · If EC and CTO already obtained, the copy of the same shall be submitted. · Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches. <p>15. All corner coordinates of the mine lease area, superimposed on a High-Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).</p> <p>16. The PP shall carry out Drone video survey covering the cluster, green belt, fencing, etc.,</p> <p>17. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.</p> <p>18. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment, and the remedial measures for the same.</p> <p>19. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of the Mines Act'1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.</p> <p>20. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of groundwater pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds, etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.</p> <p>21. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.</p> <p>22. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.</p> <p>23. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.</p> <p>24. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.</p> <p>25. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.</p> <p>26. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.</p> <p>27. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.</p>

S. No	Terms of Reference
	<p>28. Impact on local transport infrastructure due to the Project should be indicated.</p> <p>29. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.,) both within the mining lease applied area & 300m buffer zone and its management during mining activity.</p> <p>30. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.</p> <p>31. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.</p> <p>32. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.</p> <p>33. Taller/one year old Saplings raised in appropriate size of bags, preferably ecofriendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner</p> <p>34. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.</p> <p>35. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.</p> <p>36. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.</p> <p>37. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.</p> <p>38. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.</p> <p>39. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.</p> <p>40. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.</p> <p>41. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.</p> <p>42. The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.</p> <p>43. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.</p>

4. Seiaa Standard Conditions:

S. No	Terms of Reference
4.1	<p><u>Cluster Management Committee</u></p> <ol style="list-style-type: none"> 1. Cluster Management Committee shall be framed which must include all the proponents in the cluster as members including the existing as well as proposed quarry. 2. The members must coordinate among themselves for the effective implementation of EMP as committed including Green Belt Development, Water sprinkling, tree plantation, blasting etc., 3. The List of members of the committee formed shall be submitted to AD/Mines before the execution of mining lease and the same shall be updated every year to the AD/Mines. 4. Detailed Operational Plan must be submitted which must include the blasting frequency with respect to the nearby quarry situated in the cluster, the usage of haul roads by the individual quarry in the form of route map and network. 5. The committee shall deliberate on risk & emergency management plan, fire safety & evacuation plan and sustainable development goals pertaining to the cluster in a holistic manner especially during natural calamities like intense rain and the mitigation measures considering the inundation of the cluster and evacuation plan. 6. The Cluster Management Committee shall form Environmental Policy to practice sustainable mining in a scientific and systematic manner in accordance with the law. The role played by the committee in implementing the Environmental policy devised shall be given in detail in the EIA Report. 7. The committee shall furnish action plan regarding the restoration strategy with respect to the individual quarry falling under the cluster in a holistic manner. 8. The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public in the vicinity. <p><u>Agriculture & Agro-Biodiversity</u></p> <ol style="list-style-type: none"> 9. Impact on surrounding agricultural fields around the proposed mining Area. 10. Impact on soil flora & vegetation around the project site. 11. Details of type of vegetation including no. of trees & shrubs within the proposed mining area and. If so, transplantation of such vegetation all along the boundary of the proposed mining area shall committed mentioned in EMP. 12. The Environmental Impact Assessment should study the agro-biodiversity, agro- forestry, horti-cultural plantations, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem. 13. Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services. 14. The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock. <p><u>Forests</u></p> <ol style="list-style-type: none"> 15. The project proponent shall detailed study on impact of mining on Reserve forests and free ranging wildlife. 16. The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna. 17. The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection. 18. The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site. <p><u>Water Environment</u></p> <ol style="list-style-type: none"> 19. Hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) so as to assess the impacts on the nearby waterbodies due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided, covering the entire mine lease period. 20. Erosion Control measures.

S. No	Terms of Reference
	<p>21. Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area on the nearby Villages, Water-bodies/ Rivers, & any ecological fragile areas.</p> <p>22. The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.</p> <p>23. The project proponent shall study and furnish the details on potential fragmentation impact on natural Environment, by the activities.</p> <p>24. The project proponent shall study and furnish the impact on aquatic plants and animals in water bodies and possible scars on the landscape, damages to nearby caves, heritage site, and archaeological sites possible land form changes visual and aesthetic impacts.</p> <p>25. The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.</p> <p>26. The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.</p> <p>27. The EIA shall include the impact of mining activity on the following:</p> <ol style="list-style-type: none"> Hydrothermal/Geothermal effect due to destruction in the Environment. Bio-geochemical processes and its foot prints including Environmental stress. Sediment geochemistry in the surface streams. <p><u>Energy</u></p> <p>28. The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished.</p> <p><u>Climate Change</u></p> <p>29. The Environmental Impact Assessment shall study in detail the carbon emission and also suggest the measures to mitigate carbon emission including development of carbon sinks and temperature reduction including control of other emission and climate mitigation activities.</p> <p>30. The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock, soil health and physical, chemical & biological soil features.</p> <p>31. Impact of mining on pollution leading to GHGs emissions and the impact of the same on the local livelihood.</p> <p><u>Mine Closure Plan</u></p> <p>32. Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued.</p> <p><u>EMP</u></p> <p>33. Detailed Environment Management Plan along with adaptation, mitigation & remedial strategies covering the entire mine lease period as per precise area communication order issued and the scope for achieving SDGs.</p> <p>34. The Environmental Impact Assessment should hold detailed study on EMP with budget for Green belt development and mine closure plan including disaster management plan.</p> <p><u>Risk Assessment</u></p> <p>35. To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.</p> <p><u>Disaster Management Plan</u></p> <p>36. To furnish disaster management plan and disaster mitigation measures in regard to all aspects to avoid/reduce vulnerability to hazards & to cope with disaster/untoward accidents in & around the proposed mine lease area due to the proposed method of mining activity & its related activities covering the entire mine lease period as per precise area communication order issued.</p> <p><u>Others</u></p> <p>37. The project proponent shall furnish VAO certificate with reference to 300m radius regard to approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odai, vaari, canal, channel, river, lake pond, tank etc.</p> <p>38. As per the MoEF& CC office memorandum F.No.22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020 the proponent shall address the concerns raised during the public consultation and</p>

S. No	Terms of Reference
	<p>all the activities proposed shall be part of the Environment Management Plan.</p> <p>39. The project proponent shall study and furnish the possible pollution due to plastic and microplastic on the Environment. The ecological risks and impacts of plastic & microplastics on aquatic Environment and fresh water systems due to activities, contemplated during mining may be investigated and reported.</p>

Standard Terms of Reference for (Mining of minerals)

1.

S. No	Terms of Reference
1.1	Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994
1.2	A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given
1.3	All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee
1.4	All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone)
1.5	Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics
1.6	Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority
1.7	It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report
1.8	Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided

S. No	Terms of Reference
1.9	The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period
1.10	Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given
1.11	Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given
1.12	A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the State Expert Appraisal Committees
1.13	Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished
1.14	Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated
1.15	The vegetation in the RF / PF areas in the study area, with necessary details, should be given
1.16	A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted
1.17	Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished
1.18	A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost

S. No	Terms of Reference
1.19	Proximity to Areas declared as Critically Polluted or the Project areas likely to come under the Aravali Range, (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered
1.20	Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority)
1.21	R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report
1.22	One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)]primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given
1.23	Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map
1.24	The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated
1.25	Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided
1.26	Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided
1.27	Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided
1.28	Based on actual monitored data, it may clearly be shown whether working will intersect

S. No	Terms of Reference
	groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from State Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished
1.29	Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out
1.30	Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same
1.31	A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution
1.32	Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines
1.33	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report
1.34	Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report
1.35	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed
1.36	Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations
1.37	Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation
1.38	Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if

S. No	Terms of Reference
	any, occupational health impacts besides other impacts specific to the proposed Project
1.39	Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project
1.40	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given
1.41	The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out
1.42	A Disaster management Plan shall be prepared and included in the EIA/EMP Report
1.43	Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc
1.44	<p>Besides the above, the below mentioned general points are also to be followed:- a) All documents to be properly referenced with index and continuous page numbering. b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated. c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project. d) Where the documents provided are in a language other than English, an English translation should be provided. e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted. f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed. g) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation. h) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable. i) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area</p>

A. STANDARD TERMS OF REFERENCE

- 1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- 2) A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- 3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
- 4) All corner coordinates of the mine lease area, superimposed on a High-Resolution Imagery/ topo sheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
- 5) Information should be provided in Survey of India Topo sheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
- 6) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- 7) It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.
- 8) Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The

proposed safeguard measures in each case should also be provided.

- 9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
- 10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- 11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- 12) Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- 13) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of Net Present Value (NPV) and Compensatory Afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- 14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- 15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- 17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from

the Standing Committee of National Board of Wildlife and copy furnished.

- 18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.
- 20) Similarly, for Coastal Projects, a CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease with respect to CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- 21) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
- 22) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The

location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.

- 23) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of Vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
- 24) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
- 25) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- 26) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
- 27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
- 28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
- 29) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
- 30) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.

- 31) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
- 32) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
- 33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 34) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- 35) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 36) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- 37) Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- 38) Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the

proposed Project.

- 39) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 41) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 42) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 43) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- 44) Besides the above, the below mentioned general points are also to be followed:-
 - a) Executive Summary of the EIA/EMP Report
 - b) All documents to be properly referenced with index and continuous page numbering.
 - c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
 - e) Where the documents provided are in a language other than English, an English translation should be provided.
 - f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
 - g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
 - h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the ToR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

- i) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the Environment Clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
- j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

In addition to the above, the following shall be furnished:-

The Executive summary of the EIA/EMP report in about 8-10 pages should be prepared incorporating the information on following points:

1. Project name and location (Village, District, State, Industrial Estate (if applicable)).
2. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes.
3. Measures for mitigating the impact on the environment and mode of discharge or disposal.
4. Capital cost of the project, estimated time of completion.
5. The proponent shall furnish the contour map of the water table detailing the number of wells located around the site and impacts on the wells due to mining activity.
6. A detailed study of the lithology of the mining lease area shall be furnished.
7. Details of village map, "A" register and FMB sketch shall be furnished.
8. Detailed mining closure plan for the proposed project approved by the Geology of Mining department shall be submitted along with EIA report.
9. Obtain a letter /certificate from the Assistant Director of Geology and Mining standing that there is no other Minerals/resources like sand in the quarrying area within the approved depth of mining and below depth of mining and the same shall be furnished in the EIA report.
10. EIA report should strictly follow the Environmental Impact Assessment Guidance Manual for Mining of Minerals published February 2010.
11. Detail plan on rehabilitation and reclamation carried out for the stabilization and restoration of the mined areas.
12. The EIA study report shall include the surrounding mining activity, if any.
13. Modeling study for Air, Water and noise shall be carried out in this field and incremental

increase in the above study shall be substantiated with mitigation measures.

14. A study on the geological resources available shall be carried out and reported.
15. A specific study on agriculture & livelihood shall be carried out and reported.
16. Impact of soil erosion, soil physical chemical and biological property changes may be assumed.
17. Site selected for the project - Nature of land - Agricultural (single/double crop), barren, Govt./ private land, status of its acquisition, nearby (in 2-3 km.) water body, population, within 10km other industries, forest, eco-sensitive zones, accessibility, (note - in case of industrial estate this information may not be necessary)
18. Baseline environmental data - air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
19. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
20. Likely impact of the project on air, water, land, flora-fauna and nearby population
21. Emergency preparedness plan in case of natural or in plant emergencies
22. Issues raised during public hearing (if applicable) and response given
23. CER plan with proposed expenditure.
24. Occupational Health Measures
25. Post project monitoring plan
26. The project proponent shall carry out detailed hydro geological study through intuitions/NABET Accredited agencies.
27. A detailed report on the green belt development already undertaken is to be furnished and also submit the proposal for green belt activities.
28. The proponent shall propose the suitable control measure to control the fugitive emissions during the operations of the mines.
29. A specific study should include impact on flora & fauna, disturbance to migratory pattern of animals.
30. Reserve funds should be earmarked for proper closure plan.
31. A detailed plan on plastic waste management shall be furnished. Further, the proponent should strictly comply with, Tamil Nadu Government Order (Ms) No.84 Environment and forests (EC.2) Department dated 25.06.2018 regarding ban on one time use and throw away plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986. In this connection, the project proponent has to furnish the action plan.

Besides the above, the below mentioned general points should also be followed:-

- a. A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b. All documents may be properly referenced with index, page numbers and continuous page numbering.
- c. Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF& CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.
- e. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. In this regard circular no F. No.J -11013/77/2004-IA-II(I) dated 2nd December, 2009, 18th March 2010, 28th May 2010, 28th June 2010, 31st December 2010 & 30th September 2011 posted on the Ministry's website <http://www.moef.nic.in/> may be referred.
 - After preparing the EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned points, the proponent will take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.
 - The final EIA report shall be submitted to the SEIAA, Tamil Nadu for obtaining Environmental Clearance.
 - The TORs with public hearing prescribed shall be **valid for a period of three years** from the date of issue, for submission of the EIA/EMP report as per OMNo.J-11013/41/2006-IA-II(I)(part) dated 29th August, 2017.

TOR Reply of Proposed Rough stone Quarry Over an Extent of 2.80.33 Ha

COMPLIANCE OF TOR CONDITIONS

Point wise compliance of ToR points issued by SEIAA, TN vide letter No. SEIAA-11674 & ToR Identification No: TO24B0108TN5775960N Dated: 01.03.2025 for Mining of Minor Minerals in the Mine of “Proposed Rough stone Quarry Over an Extent of 2.80.33 Ha at S.F.No. 94 (Part-1) of Sithannavasal Village, Illuppur Taluk, Pudukkottai District, Tamil Nadu State.

ToR Ref.	Description	Response	Page Ref. in EIA Report
1	Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification, 1994 came into force w.r.t. the highest production achieved prior to 1994.	<p>This is a fresh mining project of Proposed Rough stone and Gravel quarry.</p> <p>Precise Area Communication Letter received from Assistant Director, Dept. Geology and Mining, Pudukkottai vide letter Na.Ka.No.1062/2023 (Kanimam) dated 11.01.2024</p> <p>Mining Plan was approved by the Assistant Director, Dept. of Geology & Mining, Pudukkottai vide letter Rc.No.1062/2023 (G&M) dated 14.03.2024</p> <p>As area is being exploited for the first time hence Year-wise production details since 1994 and before 1994 are not relevant or applicable.</p>	<p>Chapter-2</p> <p>Table No.2.9</p> <p>Page No.50</p>

TOR Reply of Proposed Rough stone Quarry Over an Extent of 2.80.33 Ha

		<table><tr><th>Year</th><th>Rough stone (m³)</th><th>Topsoil (m³)</th></tr><tr><td>I</td><td>45450</td><td>96</td></tr><tr><td>II</td><td>39950</td><td>-</td></tr><tr><td>III</td><td>52400</td><td>-</td></tr><tr><td>IV</td><td>50215</td><td>-</td></tr><tr><td>V</td><td>89290</td><td>-</td></tr><tr><td>Total</td><td>277305</td><td>96</td></tr></table> <p>Proposed Production of Rough Stone & Gravel for five years is proposed in the EIA/EMP in chapter no-2.</p>	Year	Rough stone (m³)	Topsoil (m³)	I	45450	96	II	39950	-	III	52400	-	IV	50215	-	V	89290	-	Total	277305	96	
Year	Rough stone (m³)	Topsoil (m³)																						
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III	52400	-																						
IV	50215	-																						
V	89290	-																						
Total	277305	96																						
2.	A copy of document in support of the fact that the Proponent is the rightful lessee of the mine should be given.	The mine lease area of 2.80.33 hectare in Sithannavasal Village for Rough stone quarry approved by Assistant Director, Dept. of Geology & Mining, Pudukkottai vide Rc.No.1062/2023 (G&M) dated 14.03.2024	Annexure-III																					
3	All documents including approved mine plan, EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.	<p>All the documents i.e., Mining Plan, EIA and public hearing are compatible with each other in terms of ML area production levels, waste generation and its management and mining technology are compatible with one another.</p> <p>The mining plan of the project site has been submitted to The Assistant Director, Dept. of Geology & Mining, Pudukkottai.</p>	Annexure-VI Chapter- II																					

TOR Reply of Proposed Rough stone Quarry Over an Extent of 2.80.33 Ha

4	All corner coordinates of the mine lease area, superimposed on a High-Resolution Imagery/toposheet should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).	Details of coordinates of all corners of proposed mining lease area have been incorporated in mining plan and Chapter 2 of EIA/ EMP Report.	Chapter-2, Fig no. 2.2 Page. no. 42
5	Information should be provided in Survey of India Topo sheet in 1:50,000 scale indicating geological map of the area, important water bodies, streams and rivers and soil characteristics	Topo map as attached in Chapter-2	Chapter-2, Fig no. 2.4 Page. no. 43
6.	Details about the land proposed for mining activities should be given with information as to whether conforms to the land use policy of the state; land diversion for mining should have approval from State land use board or the concerned authority	Details about the land proposed for mining activities given in Chapter 2.	Chapter-2 Page 35
7	It should be clearly stated whether the proponent company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA report with description of the prescribed operating process/procedures to	Noted.	

TOR Reply of Proposed Rough stone Quarry Over an Extent of 2.80.33 Ha

	<p>bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions?</p> <p>The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large may also be detailed in the EIA report.</p>		
8	<p>Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.</p>	<p>It is an open cast mining project. Blasting details are incorporated in chapter 2.</p>	<p>Chapter-2, Page no.54</p>
9	<p>The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA</p>	<p>Study area comprises of 10 km radius from the mine lease boundary. Key Plan showing core zone (ML area).</p>	<p>Chapter-2 Fig no. 2.5</p>

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	such as waste generation etc should be for the life of the mine / lease period.		Page no.44
10	<p>Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.</p> <p>Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.</p>	<p>Land Use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, National Park, migratory routes of fauna, water bodies, human settlement and other ecological features has been prepared and incorporated in Chapter-3 of EIA/ EMP Report.</p> <p>There is no wildlife sanctuary and national park, migratory routes of fauna in the study area.</p>	<p>Chapter-2, Table no. 2.4 Page no.45</p>
11	Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.	<p>The entire lease area is covered 2.0m of Topsoil and the estimated quantity of topsoil is 96m³.</p> <p>It will be utilized for afforestation purposes.</p>	<p>Chapter-2, Page no.53</p>
12	A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent	<p>Complied.</p> <p>The proposed mining lease area is not falling under forest land.</p>	

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	regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.		
13	Status of forestry clearance for the broken-up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.	The proposed mining lease area is not falling under forest land.	
14	Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.	Not Applicable. There is no involvement of forest land in the project area.	
15	The vegetation in the RF / PF areas in the study area, with necessary details, should be given.	Details of flora have been discussed in Chapter-3 of the EIA/EMP Report.	Chapter-3 Pg No. 94

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16	A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigative measures required, should be worked out with cost implications and submitted.	There is a relatively poor sighting of animals in the core and buffer areas of the mining lease is anticipated	
17	Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves/ (existing as well as proposed), if any, within 10km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of	There is no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger / Elephant Reserves / Critically Polluted areas within 10 km radius of the mining lease area.	
18	A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and	Details biological study (flora & fauna) within 10 km radius of the project site have been incorporated in Chapter-3 of EIA/ EMP Report.	Chapter – 3 Pg No. 103

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	fauna, duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.	No flora & fauna listed in scheduled I have been found in study area so there is no need of conservation plan. However, all care will be taken for protection of flora & fauna, if any in the lease hold area.	
19	Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.	The proposed mining lease area is not falling under critically polluted area.	
20	Similarly, for coastal projects, A CRZ map duly authenticated by	There is no Coastal Zone within 15km radius of the project site.	

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	<p>one of the authorized agencies Similarly, for coastal projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority)</p>		
21	<p>R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly</p>	<p>There is no Rehabilitation and resettlement is involved. Land classified as Patta land</p>	

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	brought out whether the village located in the mine lease area will be shifted or not. The issues relating to shifting of Village including their R&R and socio-economic aspects should be discussed in the report.		
22	<p>One season (non-monsoon) and (Summer Season), (Post monsoon) primary baseline data on ambient air quality CPCB Notification of 2009 water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report.</p> <p>Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre- dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500m of the mine lease in the pre- dominant downwind direction. The mineralogical composition of PM10,</p>	<p>Baseline data collected during Pre-Monsoon Season and Monsoon (February to April 2025) has been incorporated in EIA/EMP report.</p> <p>The key plan of monitoring station has been discussed in Chapter-4. Locations of the monitoring stations have been selected keeping in view the pre- dominant downwind direction and location of the sensitive receptors and also that they represent whole of the study area.</p>	Chapter 3

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	particularly for free silica, should be given.		
23	<p>Air quality modelling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided.</p> <p>The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing predominant wind direction may also be indicated on the map.</p>	<p>Air quality modelling & Impact of Air quality will be furnished in Final EIA report.</p> <p>Transportation of mineral during operation of mines will be done by road & NH 336 through dumpers and the impact of movement of vehicles are incorporated in EIA/EMP report.</p> <p>Air quality modelling & Impact of Air quality will be furnished in Final EIA report.</p>	<p>Chapter-4</p> <p>Page No.110</p>
24	The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.	<p>Total water requirement: 1.675 KLD</p> <p>Dust Suppression: 0.5 KLD</p> <p>Domestic Purpose: 0.675 KLD</p> <p>Plantation :0.5 KLD</p> <p>Domestic Water will be sourced from nearby Sithannavalal which is about 1.04 Km-W of the area.</p>	<p>Chapter-2</p> <p>Page no.53</p>
25	Necessary clearance from the Competent Authority for drawl of requisite quantity of	<p>Not Applicable</p> <p>Water will be taken from nearby villages</p>	

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	water for the Project should be provided.		
26	Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.	At the last stage of mining operation, almost complete area will be worked to restore the land to its optimum reclamation for future use as water reservoir.	
27	Impact of the project on the water quality, both surface and groundwater should be assessed and necessary safeguard measures, if any required, should be provided.	Impact of the project on the water quality & its mitigation measures has been incorporated in Chapter-4 of EIA/EMP report.	Chapter-4 Page No.112
28	Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.	The ground water table is reported as 68m below ground level in nearby open wells and bore wells of this area. Mining depth taken as 47m. Now, proposed quarry depth is above the water table. Hence, quarrying may not affect the ground water	Chapter-2 Page no. 57
29	Details of any stream, seasonal or otherwise, passing through the	There is no any stream crossing in the proposed quarry.	Executive Summary

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	lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.		
30	Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.	Highest elevation: 135.0m from MSL The ground Water Level is noticed at the depth of 68m BGL.	Chapter-2 Table no. 2.2 Page no. 39
31	A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local	Green Belt Development plan is proved given in Chapter 2.	Chapter-2

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	and native species and the species which are tolerant pollution		
32	Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project proponent shall conduct impact of Transportation study as per Indian Road Congress Guidelines	Impact on local transport infrastructure due to the project has been assessed. There shall not be much impact on local transport. Traffic density from the proposed mining activity has been incorporated in EIA/EMP report.	Chapter-3 Page No.107
33	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA report.	Adequate infrastructure & other facilities shall be provided to the mine workers. Details are given in chapter-2 of EIA/EMP	Chapter-2
34	Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.	Conceptual post mining land use and Reclamation and restoration sectional plates are given in Mining Plan followed by Scheme of mining.	Mining plates Annexure VII
35	Occupational Health impacts of	Suitable measure will be adopted to	Chapter-10

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	the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre- placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project in the mining area may be detailed	minimize occupational health impacts of the project. The project shall have positive impact on local environment. Details are given in chapter-10 of EIA/EMP.	Pg No. 149
36	Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.	Suitable measure will be adopted to minimize occupational health impacts of the project.	Chapter-10 Pg No. 149
37	Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.	Suitable measures have been discussed in Chapter 4	Chapter-4 Pg No. 112

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38	Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.	Environment Management Plan has been described in detail in Chapter-9 of the EIA/EMP Report.	Chapter-9 Pg No. 142												
39	Public hearing points raised and commitment of the project proponent on the same along with time bound action plan to implement the same should be provided and incorporated in the final EIA/EMP Report of the Project.	Public Hearing proceedings will be furnished in Final EIA report													
40	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.	Not applicable No. litigation is pending against the project in any court.													
41	The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.	<table><tr><th>S. No</th><th>Description</th><th>Cost</th></tr><tr><td>1</td><td>Fixed Asset Cost</td><td>83,25,000/-</td></tr><tr><td>2</td><td>Operational Cost</td><td>40,00,000 /-</td></tr><tr><td></td><td>Total</td><td>1,23,50,000/-</td></tr></table> EMP Cost: Rs. 2,60,05,407/-	S. No	Description	Cost	1	Fixed Asset Cost	83,25,000/-	2	Operational Cost	40,00,000 /-		Total	1,23,50,000/-	Chapter-8 Pg No. 140
S. No	Description	Cost													
1	Fixed Asset Cost	83,25,000/-													
2	Operational Cost	40,00,000 /-													
	Total	1,23,50,000/-													

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42	Disaster Management Plan	Disaster Management and Risk Assessment has been incorporated in Chapter-7	Chapter-7 Pg No. 127
43	Benefits of the project if the project is implemented should be spelt out. The benefits of the project shall clearly indicate environmental, social economic, employment potential etc.	Benefits of the project has incorporated	Chapter-8 Pg No. 135
44	Besides the above, the below mentioned general points are also to be followed:		
(a)	Executive Summary of the EIA/EMP report	Executive Summary of EIA Report is given from page No.10-28	
(b)	All documents to be properly referenced with index and continuous page numbering.	Complied	
(c)	Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.	Complied	
(d)	Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF & CC NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the project.	Complied	
(e)	Where the documents provided	Complied	

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	are in a language other than English, an English translation should be provided.		
(f)	The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.	The complete questionnaire has been prepared	
(g)	While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA. II(I) dated 4 th August 2009, which are available on the website of this Ministry, should also be followed.	The EIA report has been prepared and complying with the circular issued by MoEF vide O.M. No. J-11013/41/2006-IA. II(I) dated 4 th August 2009.	
(h)	Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the	There are no changes in prepared EIA as per submitted Form-1 & PFR.	

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	revised documentation		
(i)	As per the circular no. J-11011/618/2010-IA. II(I) dated 30.5.2012, report on the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project by the Regional Office of Ministry of Environment & Forests, if applicable.	Will be complied after grant environment clearance from SEIAA, Tamilnadu	
(j)	The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections (iii) sections of mine pit and external dumps, if any clearly showing the features of the adjoining area.	All Sectional Plates of Quarry is enclosed in Mining Plan.	

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Specific Terms of Reference for (Mining of Minerals)

1. SEIAA Specific Conditions:

S.No	Condition	Compliance
1.	The Public Hearing concerns with respect to impact of mining on water bodies & agriculture should be obtained and addressed in the EMP	Noted and agreed to comply. We will enclose the public hearing concerns with final EIA submission.

2. Seac Conditions - Site Specific

S.No.	Condition	Compliance
1.	As seen from the KML, it is observed that there is numerous Jain cave temple around the vicinity of the site. The details of enumeration of all such structures and temples should be submitted along with the EIA Report.	Noted and agreed to comply.
2.	The As Sittanavasal heritage cave/temple is situated within 2 km from the lease boundary, the PP should study the implications of mining activities and furnish mitigation measures and should submit along with EIA Report.	Noted and agreed to comply.
3.	A Cluster Management Committee (CMC) shall be constituted including all the mines in the cluster as Committee Members for the effective management of the mining operation in the cluster through systematic & scientific approach with appointment of statutory personnel, appropriate environmental monitoring, good maintenance of haul roads and village/panchayat roads, authorized blasting operation etc. The PP shall submit the	Noted All the proponents in the cluster is discussed in Chapter-2. Cluster management committee will be form and submit the same along with final EIA presentation.

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	<p>following details in the form of an Affidavit during the EIA appraisal:</p> <p>(i) Copy of the agreement forming CMC.</p> <p>(ii) The Organisation chart of the Committee with defining the role of the members</p> <p>(iii) The 'Standard Operating Procedures' (SoP) executing the planned activities</p>	
4.	The Boundary pillars to be erected as per the mine rules and the evidence should be submitted along with the EIA report	We will erect the boundary pillars before commencement of mining activity with the guidance of mines department instructions.
5.	Since waterbodies are situated nearby, the PP shall carry out the hydrological study including the details of waterflow pattern to determine the impacts of the mining operation in the waterbodies.	We will conduct the hydrogeological study and the same will be submitted along with final EIA presentation,
6.	The details of enumeration of structures including schools, colleges, primary health centres should be submitted along with the EIA report.	Noted and agreed to comply.
7.	The structures within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m & upto 1km shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc. and spell out the mitigation measures to be proposed for the protection of the above structures, if any during the quarrying operations.	We have conducted enumeration study and furnished the photographic evidence within 300m radius from the proposed project site in ToR appraisal meetings.

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8.	The proponent shall furnish photographs of adequate fencing, garland drainage built with siltation tank & green belt along the periphery including replantation of existing trees; maintaining the safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.	Fencing and greenbelt photographs are also incorporated in ToR appraisal meeting presentation.
9.	The Proponent shall carry out Bio diversity study as a part of EIA study and the same shall be included in the Report.	The biodiversity has been studied and discussed in chapter 3.
10.	The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.	Noted. Agree to comply.
11.	The PP shall carry out the comprehensive studies on the cumulative environmental impacts of the existing & proposed quarries which included drilling & blasting, loading & hauling on the surrounding village and structures.	The rough stone is proposed to quarry at 5m bench height & width with conventional Open cast mechanized method. The quarry operation involves Shallow jack hammer drilling, Slurry Blasting, Loading & transportation of Rough Stone to the nearby crusher units/road formation works. The production of Rough Stone in this quarry involves the following method which is typical for Rough Stone quarrying in contrast to other major mineral mining.
12.	The PP shall prepare a conceptual action plan accommodating the inclusion of haul road accessibility keeping the benches intact, by	This is an existing quarry. Slope stability study will be conduct once the quarrying operation reaches 30m BGL depth.

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	ensuring the slope stability of the working benches to be constructed and existing quarry wall	
13.	The PP shall install the CCTV camera for the continuous surveillance of mining activity & furnish the photographic/videographic evidence along with the EIA report.	Noted and agreed to comply. The photographic evidence of the CCTV camera will submit along with final EIA presentation

SEAC Standard Conditions

1.	<p>In the case of existing/operating mines, a letter obtained from the concerned AD (Mines) shall be submitted and it shall include the following:</p> <p>(i) Original pit dimension</p> <p>(ii) Quantity achieved Vs EC Approved Quantity</p> <p>(iii) Balance Quantity as per Mineable Reserve calculated.</p> <p>(iv) Mined out Depth as on date Vs EC Permitted depth</p> <p>(v) Details of illegal/illicit mining</p> <p>(vi) Violation in the quarry during the past working.</p> <p>(vii) Quantity of material mined out outside the mine lease area</p> <p>(viii) Condition of Safety zone/benches</p> <p>(ix) Revised/Modified Mining Plan showing the benches not exceeding 6 m height and ultimate depth of not exceeding 50m.</p>	<p>156m (L) * 133m (W) * 25m (D)</p> <p>518700m³</p> <p>-</p> <p>25m</p> <p>Nil</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p>
2.	Details of habitations around the proposed	VAO certificate is enclosed as

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	mining area and latest VAO certificate regarding the location of habitations within 300m radius from the periphery of the site.	Annexure.
3.	The proponent is requested to carry out a survey and enumerate on the structures located within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m (v) 500m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc.	<p>We have conducted enumeration study and furnished the photographic evidence within 300m radius from the proposed project site in ToR appraisal meetings.</p> <p>There are eight structures located within 300m radius geotagged photographs are attached and the same will be furnished along with final EIA presentation.</p>
4.	The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the waterbodies like lake, water tanks, etc., located within 1 km of the proposed quarry.	We will submit the hydrological report indicating the impact and mitigations measure due to this mining operation along with final EIA presentation.
5.	The Proponent shall carry out Biodiversity study through reputed Institution and the same shall be included in EIA Report	The biodiversity has been studied and discussed in chapter 3.
6.	The DFO letter stating that the proximity distance of Reserve Forests, Protected Areas. Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.	The DFO letter will be submitted during final EIA.
7.	In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall carry out	Slope stability study will be conduct once the quarrying operation reaches 30m BGL depth.

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	the scientific studies to assess the slope stability of the working benches to be constructed and existing quarry wall, by involving any one of the reputed Research and Academic Institutions- CSIR-Central Institute of Mining & Fuel Research/Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg. Surathkal, and Anna University Chennai-CEO Campus. The PP shall submit a copy of the aforesaid report indicating the stability status of the quarry wall and possible mitigation measures during the time of appraisal for obtaining the EC.	
8.	However, in case of the fresh/virgin quarries, the Proponent shall submit a conceptual Slope Stability Plan for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond the 30m BGL.	This is an existing quarry. Slope stability study will be conduct once the quarrying operation reaches 30m BGL depth.
9.	The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent.	The PP will furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent
10.	The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly	Noted. Agree to comply.

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	rock travel beyond 30 m from the blast site.	
11.	The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidence.	It is a government Poramboke land. As per 500m radius letter the quarry was previously operated by Thiru.C.Ponnusamy.
12.	If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, Mines.	Earlier operated period 28.06.2017 to 27.06.2022
13.	What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?	Earlier operated period 28.06.2017 to 27.06.2022
14.	<p>Quantity of minerals mined out.</p> <p>Highest production achieved in any one year.</p> <p>Detail of approved depth of mining.</p> <p>Actual depth of the mining achieved earlier.</p> <p>Name of the person already mined in that leases area.</p> <p>If EC and CTO already obtained, the copy of the same shall be submitted.</p> <p>Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.</p>	<p>31789.2 Cum</p> <p>25m</p> <p>25m</p> <p>Thiru.C.Ponnusamy</p>
15.	All corner coordinates of the mine lease area, superimposed on a High-Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show	<p>Complied.</p> <p>All corners with coordinates of the mine lease area have attached with EIA report in chapter 2</p>

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	the land use and other ecological features of the study area (core and buffer zone).	
16.	The PP shall carry out Drone video survey covering the cluster, green belt, fencing, etc.,	Drone video survey will be submitted in final EIA report
17.	The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.	The proponent will furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan will be furnished in Final EIA.
18.	The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment, and the remedial measures for the same.	The details of Geological reserves, Mineable reserves and Yearwise production reserves are tabulated in Chapter 2. The mining methodology and impacts are followed as on prescribed norms by Government.
19.	The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of the Mines Act 1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.	Complied. Manpower requirements table attached in EIA report chapter 2
20.	The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of	Hydro geological study report will be submitted along final EIA presentation.

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	groundwater pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds, etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD/TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.	
21.	The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.	The proponent has furnished the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study details attached in EIA report chapter 3
22.	The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.	Noted. Agree to comply.
23.	Rainwater harvesting management with recharging details along with water balance (both	Noted. Agree to comply.

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	monsoon & non-monsoon) be submitted.	
24.	Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water hes, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.	Current land use of the study area has attached in EIA report chapter 3. Operational and post operational land use will be submitted.
25.	Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.	The entire lease area is covered 2.0m of Topsoil and the estimated quantity of topsoil is 96m ³ . It will be utilized for afforestation purpose.
26.	Proximity to Areas declared as "Critically Polluted (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.	The proposed mining lease area is not falling under critically polluted area.
27.	Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.	The ultimate pit at the end of the mining operation will be used for rainwater storage, the stored water will be used for green belt development and further the stored water will be used for domestic purposes (other than drinking) after

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		proper treatment.
28.	Impact on local transport infrastructure due to the Project should be indicated.	Traffic impact assessment has given in EIA report chapter 3.
29.	A tree survey study shall be carried out (nos., name of the species, age, diameter etc.,) both within the mining lease applied area & 300m buffer zone and its management during mining activity.	No tree species were found inside the project site. only few shrubs and thorny bushes were present. Tree survey study details given in EIA report chapter 3.
30.	A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.	Noted. The mine plan and mine closure plan has been approved by the Assistant Director, Department of Mining and Geology, Pudukkottai District
31.	As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.	Noted. Agree to comply.
32.	The purpose of green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-1 in consultation with the DFO, State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.	Already we were planted 1200 no of trees (Neem, Magizham, Tamarind, Elandhai and Vilvam) along the roads, outer periphery of the mining area which enhances the binding property of the soil. Photographs of the same has attached in ToR appraisal meetings.

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33.	Taller/one year old Saplings raised in appropriate size of bags, preferably ecofriendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner	The green belt plan enclosed with mining plates in Annexure VII
34.	A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.	Disaster management plan has prepared and enclosed in Chapter 7.
35.	A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.	Risk assessment and management plan has prepared and enclosed in chapter 7.
36.	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.	Suitable measure will be adopted to minimize occupational health impacts of the project. The project shall have positive impact on local environment. Details are given in chapter 10 of EIA/EMP.
37.	Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed	Public health implication and remedial measures is given in EIA/EMP report.

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	along with budgetary allocations	
38.	The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.	The socio-economic study has been discussed in chapter 3.
39.	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.	No. litigation is pending against the project in any court.
40.	Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.	Benefits of the project has incorporated in EIA report chapter 8
41.	If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office. Chennai for) the concerned DFE TNPCB	Certified compliance report will be furnish in Final EIA.
42.	The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.	Noted. Agree to comply.
43.	Concealing any factual information or submission of false fabricated data and failure to	Noted.

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	comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act 1986	
SEIAA Standard Condition:		
Cluster Management Committee		
1	Cluster Management Committee shall be framed which must include all the proponents in the cluster as members including the existing as well as proposed quarry.	Noted All the proponents in the cluster is discussed in Chapter-2. Cluster management committee will be form and the same has submitted along with final EIA presentation.
2	The members must coordinate among themselves for the effective implementation of EMP as committed including Green Belt Development, Water sprinkling, tree plantation, blasting etc.,	Green belt development, water sprinkling, tree plantation is discussed in chapter 2
3	The List of members of the committee formed shall be submitted to AD/Mines before the execution of mining lease and the same shall be updated every year to the AD/Mines.	Agreed to comply
4	Detailed Operational Plan must be submitted which must include the blasting frequency with respect to the nearby quarry situated in the cluster, the usage of haul roads by the individual quarry in the form of route map and network.	Agreed to comply and will be submitted with final EIA report.
5	The committee shall deliberate on risk management plan pertaining to the cluster in a holistic manner especially during natural calamities like intense rain and the mitigation measures considering the inundation of the	Risk management plan is discussed in Chapter-7

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	cluster and evacuation plan	
6	The Cluster Management Committee shall form Environmental Policy to practice sustainable mining in a scientific and systematic manner in accordance with the law. The role played by the committee in implementing the environmental policy devised shall be given in detail.	Agreed to comply. It will be furnished in final EIA report.
7	The committee shall furnish action plan regarding the restoration strategy with respect to the individual quarry falling under the cluster in a holistic manner.	Agreed to comply. It will be furnished in final EIA report.
8	The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public in the vicinity.	We will insure all the employees who worked in the mines during operation phase.
Agriculture & Agro-Biodiversity		
9	Impact on surrounding agricultural fields around the proposed mining area.	There is no agricultural fields around the proposed mining area
10	Impact on soil flora & vegetation around the project site	Impact on soil flora & vegetation around the project site discussed in Chapter 4
11	Details of type of vegetations including no. of trees & shrubs within the proposed mining area and. If so, transplantation of such vegetations all along the boundary of the proposed mining area shall be committed mentioned in EMP.	The detailed study will be carried out and will be furnished in the Final EIA Report.
12	The Environmental Impact Assessment should study the biodiversity, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem	Obtained and same has been attached as Annexure.

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13	Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services	Noted and public hearing details will be included along with final EIA report.
14	The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.	Noted and will be complied with in Final EIA report.
Forests		
15	The project proponent shall detailed study on impact of mining on Reserve forests free ranging wildlife.	The biodiversity has been studied and discussed in chapter 3.
16	The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.	The biological environment impacts, and its mitigation measures has been given in Chapter 4
17	The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection.	There is no existing trees in the project site and surrounding the project site. Only thorny shrubs were present.
18	The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site.	The water environment impacts and its mitigation measures has been given in Chapter 4
Water Environment		
19	Hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) so as to assess the impacts on the nearby waterbodies due to mining activity. Based on actual monitored data, it may	The EMP details has been given in Chapter 8

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	clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided, covering the entire mine lease period.	
20	Erosional Control Measures.	Noted and will be complied in Final EIA report.
21	Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area on the nearby Villages, Water bodies/ Rivers, & any ecological fragile areas.	There is no Reserve Forest within 1 km radius of the Project Site. Hence our project will not cause any damage to reserve forest. Also, we have received letter from DFO indicating the nearest reserve forest and attached with Annexures. There is no protected areas, National Parks, Corridors and Wildlife pathways near project site.
22	The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.	Noted and will be complied in Final EIA report.
23	The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.	Noted. Agree to comply.
24	The PP shall study and furnish the impact on aquatic plants and animals in water bodies and possible scars on the landscape, damages to nearby caves, heritage site and archaeological sites possible landform changes in visual and aesthetic impacts.	Noted. Agree to comply.
25	The Terms of Reference should specifically study	Noted.

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	impact on soil health, soil erosion, the soil physical, chemical components and microbial components.	Agree to comply.
26	The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites	Environmental Impact Assessment study is detailed in Chapter 3.
27	<p>The EIA shall include the impact of mining activity on the following:</p> <p>a) Hydrothermal/Geothermal effect due to destruction in the Environment.</p> <p>b) Bio-geochemical processes and its footprints include Environmental stress.</p> <p>c) Sediment geochemistry in the surface streams.</p>	<p>It is a minor mineral quarrying project. There is no impact on Hydrothermal/Geothermal, Bio-geochemical processes and its footprints and Sediment geochemistry.</p>
Energy		
28	The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished.	<p>Noted.</p> <p>Agree to comply.</p>
Climate Change		
29	The Environmental Impact Assessment shall study in detail the carbon emission and also suggest the measures to mitigate carbon emission including development of carbon sinks and temperature reduction including control of other emission and climate mitigation activities	Agreed to comply
30	The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock.	A Risk Assessment and management Plan will be prepared and included in the final EIA/EMP Report.
31	Impact of mining on pollution leading to GHGs	There is no impact GHGs emissions and

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	emissions and the impact of the same on the local livelihood.	the impact of the same on the local livelihood.
Mine Closure Plan		
32	Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued	Mine closure plan has been attached along with mining plates as Annexure.
EMP		
33	Detailed Environment Management Plan along with adaptation, mitigation & remedial strategies covering the entire mine lease period as per precise area communication order issued	Environment Management Plan has been described in detail in Chapter 10 of the Draft EIA/EMP Report.
34	The Environmental Impact Assessment should hold detailed study on EMP with budget for Green belt development and mine closure plan including disaster management plan.	
Risk Assessment		
35	To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.	A Risk Assessment and management Plan will be prepared and included in the final EIA/EMP Report.
Disaster Management Plan		
36	To furnish disaster management plan and disaster mitigation measures in regard to all aspects to avoid/reduce vulnerability to hazards & to cope with disaster/untoward accidents in & around the proposed mine lease area due to the proposed method of mining activity & its related activities covering the entire mine lease period as per precise area communication order issued.	A disaster management Plan will be prepared and included in the final EIA/EMP Report.
Others		

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37	The project proponent shall furnish VAO certificate with reference to 300m radius regard to approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odal, vaari, canal, channel, river, lake pond, tank etc.	VAO certificate is enclosed as Annexure.
38	As per the MoEF& CC office memorandum F.No 12-65/2017-IA III dated: 30.09.2020 and 20.10.2020 the proponent shall address the concerns raised during the public consultation and all the activities proposed shall be part of the Environment Management Plan	Agreed to comply
39	The project proponent shall study and furnish the possible pollution due to plastic and microplastic on the environment. The ecological risks and impacts of plastic & microplastics on aquatic environment and freshwater systems due to activities, contemplated during mining may be investigated and reported.	Agreed to comply

ANNEXURE-II

PRECISE AREA COMMUNICATION LETTER

ந.க.எண். 1062/2023/கனிமம்
நாள்: 11.01.2024

புலியியல் மற்றும் சுரங்கத்துறை,
மாவட்ட ஆட்சியாகம்,
புதுக்கோட்டை.



குறிப்பாணை

பொருள் கனிமங்களும் குவாரிகளும் - சிறுகனிமம் - சாதாரண வகை கற்கள் - புதுக்கோட்டை மாவட்டம் - அரசு புறம்போக்கு புலங்களில் அமைந்துள்ள கற்குவாரிகள் - டெண்டர் / ஏலம் முறையில் குத்தகை வழங்குவது - இலுப்பூர் வட்டம் - சித்தன்னவாசல் கிராமம் - புல எண்.94(பகுதி-1), 2.80.33 ஹெக்டேர் பரப்பில் 16.11.2023 அன்று டெண்டருடன் இணைந்த ஏலம் நடத்தப்பட்டது - ஏலத்தில் அதிகபட்ச குத்தகை தொகை குறிப்பிட்ட திரு.சி.பழனிச்சாமி என்பவருக்கு ஏலம் உறுதி செய்யப்பட்டது - ஏற்பளிக்கப்பட்ட சுரங்கத் திட்டம் மற்றும் சுற்றுச்சூழல் ஆணைய இசைவு பெற்று சமர்ப்பிக்கக் கோருதல் - தொடர்பாக.

- பார்வை: 1. புதுக்கோட்டை மாவட்ட அரசிதழ் சிறப்பு வெளியீடு எண்.14 நாள்:19.10.2023.
2. தினமணி நாளிதழில் விளம்பரம் நாள்:01.11.2023.
3. திரு.சி.பழனிச்சாமி என்பவரின் ஏல விண்ணப்பம் நாள்:16.11.2023.
4. திரு.சி.பழனிச்சாமி என்பவரது கடிதம் நாள்: 07.12.2023
5. தொடர்புடைய ஆவணங்கள்.

பார்வையில் காணும் கடிதங்களின்பால் கனிவான கவனம் வேண்டப்படுகிறது.

2. புதுக்கோட்டை மாவட்டத்தில் அரசு புறம்போக்கு நிலங்களில் உள்ள சாதாரண கற்களை வெட்டியெடுத்துச் செல்ல உரிமம் வழங்க ஏதுவாக புதுக்கோட்டை மாவட்ட அரசிதழ் சிறப்பு வெளியீடு எண்.14 நாள்:19.10.2023-ன்படி பிரகாரம் செய்யப்பட்டது. அதன்படி 15.11.2023-ம் நாள் பிற்பகல் 05.00 மணிக்குள் மூடி முத்திரை இடப்பட்ட டெண்டர் மனுக்களை அளிக்க இறுதி நாளாக அறிவித்து, 16.11.2023 அன்று பொது ஏலம் நடத்தப்பட்டு டெண்டர் மனுக்கள் ஏலத்தில் கலந்து கொண்டவர்கள் முன்னிலையில் திறக்கப்பட்டன.

3. மேற்கண்ட அரசிதழில் விளம்பரம் செய்யப்பட்டிருந்த குவாரிப்பட்டியலில் வரிசை எண்.14, இலுப்பூர் வட்டம், சித்தன்னவாசல் கிராமம், அரசு புறம்போக்கு புல எண்.94(பகுதி-1)-ல் 2.80.33 ஹெக்டேர் பரப்பில் உள்ள கற்குவாரிக்கு டெண்டர் / பொது ஏலத்தில் கலந்து கொண்டவர்களில் திரு.சி.பழனிச்சாமி ஏலத்தில் கோரிய தொகை ரூ.80,50,000/- மாவட்ட ஆட்சித்தலைவர் அவர்களால் நிர்ணயம் செய்யப்பட்டிருந்த ஏலத் தொகையை விட அதிகமாக இருந்ததால் ஏலத்தொகை முழுவதையும் செலுத்த

கேட்டுக்கொள்ளப்பட்டது. மேற்கண்ட ஏலதாரர் மொத்த குத்தகை தொகையையும் விதிகளின்படி 30.11.2023-க்குள் செலுத்தியுள்ளார்.

4. எனவே, ஏலதாரர் குத்தகை தொகை முழுவதும் செலுத்திவிட்டபடியால், மேற்படி கற்குவாரி ஏலமானது விதிகளின்படி உயர்ந்தபட்ச ஏலம் கோரிய திரு.சி.பழனிச்சாமி என்பவருக்கு உறுதி செய்யப்படுகிறது. மேலும், மேற்படி நபருக்கு இலுப்பூர் வட்டம், சித்தன்னவாசல் கிராமம், அரசு புறம்போக்கு புல எண்.94(பகுதி-1)-ல் 280.33 ஹெக்டேர் பரப்பில் ஐந்து (5) ஆண்டுகளுக்கு குவாரி உரிமம் வழங்க ஏதுவாக 1959ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள், விதி எண்.41-ன்படி கீழ்க்கண்ட நிபந்தனைகளுடன் ஏற்பளிக்கப்பட்ட சுரங்கத் திட்டத்தினை 90 தினங்களுக்குள் சமர்ப்பிக்கவும், அதன் தொடர்ச்சியாக 1959ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள், விதி எண்.42-ன்படி மாவட்ட சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணைய இசைவு பெற்று சமர்ப்பிக்கும் பட்சத்தில் சாதாரண கற்குவாரி உரிமம் வழங்கப்படும் என்ற விவரம் இதன் மூலம் தெரிவிக்கப்படுகிறது.

நிபந்தனைகள்:

- 1959ம் வருடத்திய தமிழ்நாடு சிறு கனிம சலுகை விதிகள், அட்டவணை-II-ல் கண்டுள்ளபடி குவாரி செய்யப்படும் கனிமங்களுக்குரிய சீனியரேஜ் தொகை அவ்வப்போது செலுத்தி கனிமம் கொண்டு செல்லப்பட வேண்டும்.
- அருகிலுள்ள பட்டாதாரர்களுக்கு எவ்வித இடையூறும் ஏற்படாத வண்ணம் குவாரிப் பணி மேற்கொள்ள வேண்டும்.
- விதிகளின் படி ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினை உரிய காலத்திற்குள் சமர்ப்பிக்க வேண்டும்.
- குவாரி உரிமம் வழங்க உள்ள பகுதிக்கு சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் முன் அனுமதி பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும்.

இணைப்பு: குத்தகை உரிமம் வழங்க
பரிந்துரைக்கப்பட்ட புல வரைபடம்.

(ஓம்) . . . மெர்சி ரம்யா,
மாவட்ட ஆட்சித்தலைவர்,
புதுக்கோட்டை

// உண்மை நகல்// உத்தரவுபடி//

மாவட்ட ஆட்சியருக்காக,

பெறுநர்:

திரு.சி.பழனிச்சாமி
த/பெ.சின்னக்கண்ணு,
எண்.129, எடத்தெரு, சித்தன்னவாசல்,
இலுப்பூர் தாலுகா, புதுக்கோட்டை.

நகல்: 1. ஆணையர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை
2. தமிழ்நாடு மாநில சுற்றுச்சூழல் மதிப்பீட்டு ஆணையம், சென்னை


S. DHANASEKAR, M.Sc., (Geo)
Qualified Person

ANNEXURE-III
MINING PLAN APPROVED LETTER

From

Dr.A.Lalitha,M.Sc.,M.Phil.,Ph.D:
Assistant Director,
Geology and Mining
Pudukkottai.

To

Thiru.C.Palanisamy,
S/o.Chinnakkannu,
No.129, Edatheru,
Sithannavasal, Illuppur Taluk,
Pudukkottai District

Rc.No. 1062/2023 (G&M) dated.14.03.2024

Sir,

Sub: Mines and Quarries – Minor Mineral – Rough Stone Quarry - Pudukkottai District – Illuppur Taluk – Sithannavasal village – S.F.No.94(part-1) - over an extent of 2.80.33 Hects. of Government poramboke land - Sale of Rough Stone quarry through Tender cum auction - Precise area communicated – Draft Mining plan submitted – Approval of Mining Plan – Regarding.

- Ref:
1. Pudukkottai District Gazette No.14, dated 19.10.2023.
 2. Advertisement published in Tamil Daily – Dinamani dated.01.11.2023.
 3. Tender cum Auction application from Thiru.C.Palanisamy dt. 16.11.2023.
 4. Thiru.C.Palanisamy letter dated 07.12.2023
 5. District Collector Memo Rc.No.1062/2023 (G&M) dated 11.01.2024.
 6. Thiru.C.Palanisamy letter dated 28.02.2024.

Thiru.C.Palanisamy, S/o.Chinnakkannu, No.129, Edatheru, Sithannavasal, Illuppur Taluk, Pudukkottai District has been declared as successful tenderer for the grant of Rough stone quarry lease in Government poramboke land bearing S.F.No.94(part-1), over an extent of 2.80.33 Hects. hects of Sithannavasal Village, Illuppur Taluk, Pudukkottai District for a period of five years, under Rule 8(6)(a)-of Tamil Nadu Minor Mineral Concession Rules, 1959.


2) Since Thiru.C.Palanisamy has remitted entire lease amount, the precise area has been communicated to the applicant with a direction to submit mining plan for the subject area vide reference 5th cited.

3)Accordingly the Thiru.C.Palanisamy, has submitted the mining plan for quarrying Rough stone over an extent of 2.80.33 Hects of Government poramboke land in S.F.No.94(part-1) of Sithannavasal Village, Illuppur Taluk, Pudukkottai District and the proposed mineable reserves are **277305 M³** of

rough stone after leaving necessary safety distance from the lease boundary for the period of five years.

4) In exercise of the powers conferred in Rule 41 (2) of Tamilnadu Minor Mineral Concession Rules 1959, the mining plan is hereby approved. This approval is 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 time whether such laws are 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 (Development & Regulation) Act 1957, or any other connected laws including Forest (Conservation) Act 1980, Forest Conservation Rules, 1981, Environment Protection Act, 1980, Indian Explosives Act, 1884 (Central Act IV of 1884) and the rules made there under and the Tamil Nadu Minor Mineral Concession Rules, 1959.
- iii) That the mining plan is approved without prejudice to any other order or direction 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 upto the subsistence of the lease period only.
- vi) This approval is subject to the instructions issued in Rule 41 and 42 of Tamil Nadu Minor Mineral Concession Rules 1959.
- vii) The applicant is directed to submit the application in Form-I as prescribed by the MoEF along with the approved Mining Plan to the State Environment Impact Assessment Authority to issue Environment Clearance.

 4/13/24
Assistant Director,
Geology and Mining,
Pudukkottai

Encl: Approved Mining Plan

Copy to :

1. The Chairman, State Level Environment Impact Assessment Authority, Chennai.
2. The Director, Geology and Mining, Guindy, Chennai—600 032.

ANNEXURE-IV
500M Radius letter

From

Dr.A.Lalitha,M.Sc.,M.Phil.,Ph.D.
Assistant Director,
Geology and Mining
Pudukkottai.

To

Thiru.C.Palanisamy,
S/o.Chinnakkannu,
No.129, Edatheru,
Sithannavasal,Illuppur Taluk,
Pudukkottai District .

Sir,

Rc.No.1062/2023 (G&M) dated.14.07.2024

Sub : Mines and Quarries – Minor Mineral – Rough Stone Quarry - Pudukkottai District – Illuppur Taluk – Sithannavasal village – S.F.No.94(part-1) - over an extent of 2.80.33 Hects. of Government poramboke land - Sale of Rough Stone quarry through Tender cum auction - Reg.

Ref : 1. Pudukkottai District Gazette No.14, dated 19.10.2023.
2. Advertisement published in Tamil Daily – Dinamani dated.01.11.2023.
3. Tender cum Auction application from Thiru.C.Palanisamy dt. 16.11.2023.
4. Thiru.C.Palanisamy letter dated 07.12.2023
5. District Collector Memo Rc.No.1062/2023 (G&M) dated 11.01.2024.
6. Thiru.C.Palanisamy letter dated 28.02.2024.

.....

With reference to your letter in the reference 6th cited, the details of existing and abandoned quarries located within 500m radius from the proposed Rough stone quarry, over an extent of 2.80.33 Hects in Government poramboke land in S.F.No.94(part-1) of Sithannavasal Village, Illuppur Taluk, Pudukkottai District are as follows:

1) Existing Other Quarries:

S. No	Name of the Lessee / Permit Holder	Village & Taluk	S.F.No	Extent	Lease period
1	Tmt.D.Adaikalamary W/o.Durai Diviyanathan, 205,Housing Unit, Rajagopalapuram, Pudukkottai - 622003	Kulathur Irumbali	80/1 76/2	1.38.0	01.06.2015 to 31.05.2035
2	Thiru.R.Sathiyamoorthy, S/o.Ramasamy, Ellaiyapatti, Mathiyanallur Village, Illuppur Taluk, Pudukkottai District	Illuppur Sithanna vasal	95/22 & etc.,	0.94.5	31.07.2023 to 30.07.2028
	Total			2.32.5	

2) Proposed Area

S. No	Name of the applicant	Village & Taluk	S.F.No	Extent
1	Thiru.C.Palanisamy, S/o.Chinnakkannu, No.129, Edatheru, Sithannavasal, Illuppur Taluk, Pudukkottai District	Illuppur Sithanna vasal	94(part-1)	2.80.33
2.	Thiru.K.Muthukumar, S/o.Karuppaiah, No.94, North Street, Sithannavasal, Illuppur Taluk, Pudukkottai District	Illuppur Sithanna vasal	S.F.No.94 (Part-2),	2.50.0
3	Thiru.D.Benet Antony Raj, S/o.Durai Dhivyanathan, No.205, Housing Unit, Periyar Nagar, Rajagopalapuram, Pudukkottai	Irumbali, Kulathur	75/2(P)(1.02.5) & 75/4(P)(1.05.5)	2.08.0
4	Tmt.K.Indirani, W/o. Karuppaiah, Door No.45,Thayinipatti Vilathupatti post, Illuppur Taluk, Pudukkottai District	Illuppur Sithanna vasal	95/12, 95/16, 95/18, 95/20 (part) and 95/21 (part)	1.44.0
Total				8.82.33

3) Lease Expired

S. No	Name of the Lessee / Permit Holder	Village & Taluk	S.F.No	Extent	Lease period
1	Thiru.C.Ponnusamy,, S/o.Chinnaiya, Sithannavasal post, Illuppur Taluk, Pudukkottai District	Illuppur Sithanna vasal	94-part (Q.No.1) (N)	2.50.0	28.06.2017 to 27.06.2022
2.	Thiru.Poosairaj, S/o.Mariyappan Sithannavasal post, Illuppur Taluk, Pudukkottai District	Illuppur Sithanna vasal	94-part (Q.No.2) (N)	2.50.0	28.06.2017 to 27.06.2022
3	Thiru.R.Radha, S/o.Ramesh, Thayinipatti village, Illuppur Taluk, Pudukkottai District	Illuppur Sithanna- vasal	94-part (Q.No.3) (south)	2.00.0	28.06.2017 to 27.06.2022

4	Thiru.K.R.N.Ramesh, S/o.Rasu Nattar, Thayinipatti, Villathupatti post, Illuppur Taluk, Pudukkottai District	Illuppur Sithanna vasal	95/1 & etc	0.96.0	11.08.2017 to 10.08.2022
5	Thiru.G.Murugesan, S/o.Ganesan, Puduppatti, Mathiyanallur Taluk, Pudukkottai District	Irumbali Kulathur	98/1,2	0.70.0	24.01.2017 to 23.01.2022
6	L.Soosainathan, S/o.Loordhusamy, 448, Housing Unit, Rajagopalapuram, Pudukkottai	Illuppur Sithanna vasal	95/8 & 97/32	0.93.5	14.03.2010 to 13.03.2015
7	Thiru.A.S.Pitchai, S/o.A.Subbiah, 21/22, Old Perumalkoil street, Annavaasal, Illuppur Taluk, Pudukkottai District	Illuppur Mathiya- nallur	241/3(p)	1.21.5	29.05.2015 to 28.05.2020
8	Tmt.S.Sooriya, W/o.Sathiya-moorthy, Ellaiyapatti, Mathiyanallur (post), Illuppur Taluk, Pudukkottai District	Mathiya- nallur Illuppur	280 (part)	1.00.0	14.10.2016 to 13.10.2021
Total				11.81.0	

14/3/24
Assistant Director,
Geology and Mining,
Pudukkottai

gky
14/3/24

**EXISTING PIT DIMENSION LETTER
&
PERMIT ISSUED QUANTITY LETTER**

From

Dr.A.Lalitha,M.Sc.,M.Phil.,Ph.D.
Assistant Director,
Geology and Mining
Pudukkottai.

To

Thiru.C.Palanisamy,
S/o.Chinnakkannu,
No.129, Edatheru,
Sithannavasal,Illuppur Taluk,
Pudukkottai District .

Rc.No.1062/2023 (G&M) dated 14.07.2024

Sub : Mines and Quarries - Minor Mineral - Rough Stone Quarry - Pudukkottai District - Illuppur Taluk - Sithannavasal village - S.F.No.94 (Part-I) - over an extent of 2.80.33 Hects. of Government poramboke land - Sale of Rough Stone quarry through Tender cum auction - Reg.

Ref : 1. Pudukkottai District Gazette No.14, dated 19.10.2023.
2. Advertisement published in Tamil Daily - Dinamani dated.01.11.2023.
3. Tender cum Auction application from Thiru.C.Palanisamy dt. 16.11.2023.
4. Thiru.C.Palanisamy letter dated 07.12.2023
5. District Collector Memo Rc.No.1062/2023 (G&M) dated 11.01.2024.
6. Thiru.C.Palanisamy letter dated 28.02.2024.

.....

With reference to your letter in the reference 3rd cited, the details of existing pit dimension noticed in S.F.No.94 (Part-I) of Sithannavasal village, which was already held under quarrying is detailed as below:

Existing pit dimension:

S. No	Length	Width	Depth
1.	156.0m	133.0m	25.0m

Assistant Director,
Geology and Mining,
Pudukkottai

28/2
14/3/24

From
Dr.A.Lalitha,M.Sc.,M.Phil.,Ph.D.
Assistant Director,
Geology and Mining
Pudukkottai.

To
Thiru.C.Palanisamy,
S/o.Chinnakkannu,
No.129, Edatheru,
Sithannavasal,Iluppur Taluk,
Pudukkottai District .

Rc.No.1062/2023 (G&M) dated 07.05.2024

Sir,

Sub : Mines and Minerals - Rough stone - Minor Mineral -
Pudukkottai District - Quarry lease for rough stone granted to
Thiru.C.Ponnsamy, over an extent of 2.50.0 Hects of
Government land in S.F.No.94(Part-1), of Sithannavasal
Village, Iluppur Taluk, for a period of 5 years - Details of
quantity approved and permit issued quantity - requested by
the lessee - Details furnished - Reg.

Ref : 1.The District Collector, Pudukkottai proceedings Rc.No.
Rc.No.411/2016 (G&M) dated 13.06.2017.
2.Mining plan approved by the Deputy Director of Geology
and Mining, Pudukkottai in Rc.No.411/2016(G&M),
dt.20.05.2016.
3.Letter from Thiru.C.Palanisamy, S/o.Chinnakkannu
letter dt.03.05.2024.

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Kind attention is invited to the references cited above.

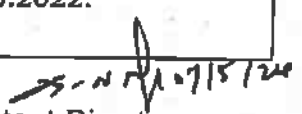
2) A quarry lease had been granted in favour of Thiru.C.Ponnsamy,
S/o.Chinnaiah, to quarry rough stone, over an extent of 2.50.0 Hects of
Government land in S.F.No.94(Part-1), of Sithannavasal Village, Iluppur
Taluk, Pudukkottai District for a period of 5 years vide District Collector,
Pudukkottai Proceedings Rc.No.411/2016 (G&M) dated 13.06.2017. The lease
deed has been executed on 28.06.2017 to 27.06.2022.

3) The mining plan for the said rough stone quarry had been approved by
the Assistant Director of Geology and Mining, vide letter dated 20.05.2016.

4) In this connection, Thiru.C.Palanisamy, S/o.Chinnakkannu has
requested vide letter dated 03.05.2024 to issue the details of permit issued
quantity to the subject quarry to furnish the same to apply for SEIAA.

5) In the view of the above, it is informed that the approved quantity of
approved mining plan and permit issued quantity is detailed below:

As per mining plan Period	Approved Quantity	Permit issued Quantity
28.06.2017 to 27.06.2022	: Rough Stone - 158946 cbm	Rough Stone - 126450 cbm upto 24.06.2022.


Assistant Director,
Geology and Mining,
Pudukkottai

ANNEXURE-VI

MINING PLAN REPORT & PLATES

MINING PLAN

FOR

GRANT OF ROUGH STONE QUARRY LEASE IN
GOVERNMENT PORAMBOKE LAND
PROPOSED PERIOD OF MINING 5 YEARS

(Prepared Under Rule 8(6)(b) Tamil Nadu Minor Mineral Concession Rules, 1959 & As Per
Amendment Under Rule 41 & 42)

LOCATION OF THE APPLIED AREA

EXTENT : 2.80.33 Ha.
S.F. No. : 94 (Part-1)
VILLAGE : SITHANNAVASAL
TALUK : ILLUPPUR
DISTRICT : PUDUKKOTTAI
STATE : TAMIL NADU.

APPLICANT

THIRU. C.PALANISAMY,
S/o. CHINNAKANNU,
No.129, EDATHERU,
SITHANNAVASAL,
ILLUPPUR TALUK
PUDUKKOTTAI DISTRICT- 622 101.

PREPARED BY:

S. DHANASEKAR, M.Sc.(Geol).,
QUALIFIED PERSON,
NO. 5/30-7 B, AVVAI NAGAR,
PONKUMAR MINES ROAD,
JAGIR AMMAPALAYAM,
SALEM DISTRICT- 636 382.

Email: geodhana@yahoo.co.in

CELL : 98946-28979 & 93733-74702

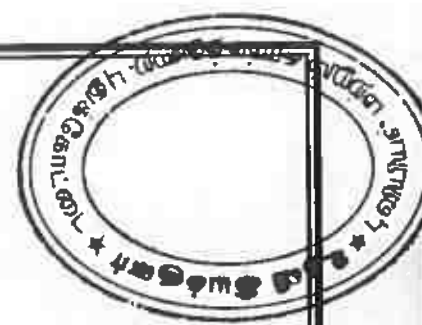
This mining plan is approved in exercise of the powers conferred
under Rule 41(2) and (5) TNMMCR 1959 and subject to the
conditions / stipulations indicated in the mining plan approved letter
Rc.No: 1062/2023 (GEM) Dated: 03-2024

ASSTANT DIRECTOR
GEOLOGY AND MINING
PUDUKKOTTAI



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ANNEXURES

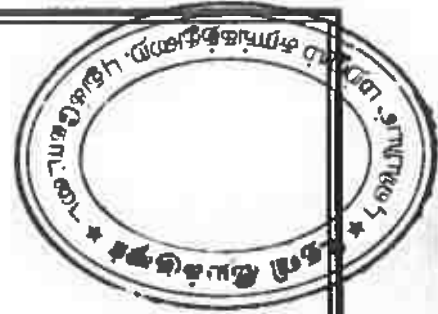
SL. NO.	DESCRIPTION	ANNEXURE NO.
1.	Precise Area Communication Letter	I
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3.	Topo Sheet Map of the Lease Area	IB	1:50,000
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8.	Geological Sections	III-A	HOR-1:1000 VER-1: 500
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11.	Mine Layout, Land Use Pattern & Afforestation Plan	V	1:1000
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15.	Progressive Mine Closure Plan	VIII	1:1000

C.Palanisamy,
S/o. Chinnakannu,
No.129, Edatheru,
Sithannavasal
Iluppur Taluk,
Pudukkottai District- 622 101.



CONSENT LETTER FROM THE APPLICANT

I hereby give my consent for preparing the Mining Plan in respect of Rough Stone quarry over an extent of 2.80.33 Hectares of Government Poramboke Land in S.F.No. 94 (Part-1) at Sithannavasal Village, Iluppur Taluk, Pudukkottai District, Tamil Nadu State to Shri. S. Dhanasekar, M.Sc., Qualified Person.

I request the Assistant Director, Department of Geology and Mining, PUDUKKOTTAI District to make further correspondence regarding modifications if any in the Mining Plan with the said Qualified Person on this following address.

S.DHANASEKAR, M.Sc.,


Qualified Person

No.5/30-7B, Avvai Nagar,
Ponkumar Mines Road,
Jagir Ammapalayam,
Salem District - 636 302.

E-Mail: geodhana@yahoo.co.in

Cell: 98946-28970

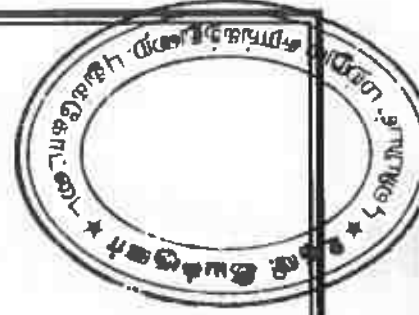
I hereby undertake that all modifications so made in the Mining Plan by the Qualified Person may be deemed to have been made with my knowledge and consent and shall be acceptable to me and binding on me in all respect


(C.Palanisamy)
Signature of the Applicant

Place: Pudukkottai.

Date:

C.Palanisamy,
S/o. Chinnakannu,
No.129, Edatheru,
Sithannavasal
Illuppur Taluk,
Pudukkottai District- 622 101.



DECLARATION

I hereby declare that the Mining Plan in respect of **Rough Stone** quarry over an extent of **2.80.33 Hectares** of **Government Poramboke Land** in **S.F.No. 94 (Part-1)** at **Sithannavasal Village, Illuppur Taluk, Pudukkottai District, Tamil Nadu State** has been prepared with my consultation and I have understood the contents and agree to implement the same in accordance with the Mining Laws.



(C.Palanisamy)

Signature of the Applicant

Place: Pudukkottai.

Date:

S.Dhanasekar.M.Sc.,(Geol),

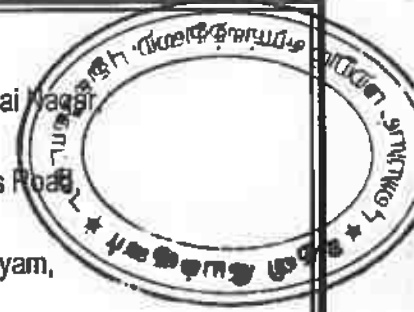
Qualified Person,

No.5/30-7B, Avvai Nagar

Ponkumar Mines Road,

Jagir Ammapalayam,

Salem- 636 302.




CERTIFICATE

This is to certify that, the provisions of Minor Minerals Conservation and Development Rules, 2010 (MMCDR) have been observed in the Mining Plan for the grant of **Rough Stone** quarry lease over an extent of **2.80.33 Hectares of Government Poramboke Land** in **S.F.No. 94 (Part-1)** at **Sithannavasal Village, Iluppur Taluk, Pudukkottai District, Tamil Nadu State** obtained by **Thiru.C.Palanisamy**, for applied quarry lease.

Wherever specific permission / exemptions / relaxations or approvals are required, the Applicant will approach the concerned authorities of State and Central Governments for obtaining such permissions etc.

Certified


Signature of Qualified Person.
S. DHANASEKAR, M.Sc., (Geo)
Qualified Person

Place: SALEM

Date:

S.Dhanasekar.M.Sc.,

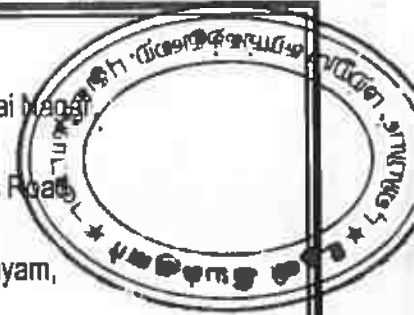
Qualified Person,

No.5/30-7B, Avvai Manai,

Ponkumar Mines Road,

Jagir Ammapalayam,


Salem- 636 302.



CERTIFICATE

This is to certify that during preparation of Mining Plan for **Rough Stone** quarry over an extent of **2.80.33 Hectares** of **Government Poramboke Land** in **S.F.No. 94 (Part-1)** at **Sithannavasal Village, Illuppur Taluk, Pudukkottai District, Tamil Nadu State** for **Thiru. C.Palanisamy** covers all the provisions of Mines Act, Rules, and Regulations etc made there under and whenever specific permission are required, the Applicant will approach the Director General of Mines Safety, Chennai. The standards prescribed by DGMS in respect of Mines Health will be strictly implemented.

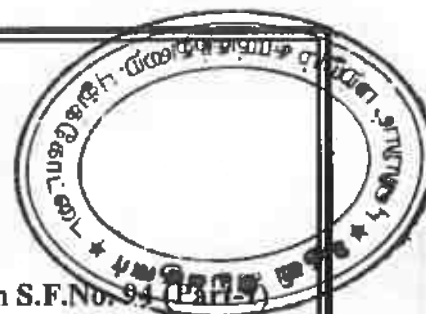
Certified


Signature of Qualified Person.
S. DHANASEKAR, M.Sc., (Geo)
Qualified Person

Place: SALEM

Date:

MINING PLAN FOR MINOR MINERALS
ROUGH STONE QUARRY
PROPOSED PERIOD OF MINING 5 YEARS



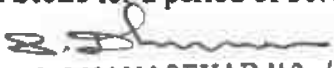
Over an extent of 2.80.33 Hectares of Government Poramboke Land in S.F.No. 94 (Part-1)

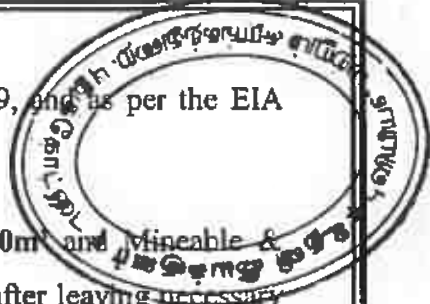
at Sithannaval Village, Illuppur Taluk, Pudukkottai District, and Tamil Nadu State.

(Prepared Under Rule 8(6)(b) Tamil Nadu Minor Mineral Concession Rules, 1959 &
As Per Amendment Under Rule 41 & 42)

1.0 INTRODUCTION :

1. Thiru. C.Palanisamy S/o. Chinnakannu, residing at No.129, Edatheru, Sithannaval, Illuppur Taluk, Pudukkottai District - 622 101, has applied quarry lease for **Rough Stone** over an extent of **2.80.33 Hectares of Government Poramboke Land** in **S.F.No. 94(Part-1)** at **Sithannaval Village, Illuppur Taluk, Pudukkottai District** of **Tamil Nadu State** for a period of **Five years**.
2. The Applicant has been the **Successful Highest Bidder** for an **Amount Rs.80,50,000/-** in a tender cum Auction conducted by the Government of Tamilnadu Notified vide Gazette No.14 dated 19.10.2023 and Precise area had been given for the proposed grant of Rough Stone quarry lease to **Thiru. C.Palanisamy** over an extent of **2.80.33 Hectares** in **Government Poramboke Land** in **S.F.No.94 (Part-1)** of **Sithannaval Village, Illuppur Taluk, Pudukkottai District** of **Tamil Nadu State** for a period of **Five Years** Vide Letter Rc.No.1062/2023/Mines dated 11.01.2024 and directed to submit the approved Mining Plan and Environmental Clearance certificate from the State Environment Impact Assessment Authority (SEIAA) for the grant of quarry lease for the applied area.
3. Accordingly, Mining Plan is prepared under Rule 8(6)(b) Tamil Nadu Minor Mineral Concession Rules, 1959 & As per Amendment under Rule 41 & 42 by incorporating the conditions imposed in the precise area communication letter and by incorporating all the details proposed in the letter to obtain Environmental clearance from State Environment Impact Assessment Authority.
4. In the above circumstances **Thiru. C.Palanisamy** is hereby preparing the Mining Plan for approval for Applied Rough Stone Quarry. And subsequent submission of Form-I and Pre-Feasibility report to obtain environmental clearance from the SEIAA of Tamil Nadu.
5. This Mining Plan is prepared for the Applied **Rough Stone** for a period of **Five Years**.


S. DHANASEKAR, M.Sc., (Geo)
Qualified Person

- 
6. This Mining Plan is prepared by considering the TNMMCR 1959, and as per the EIA Notification 2006 and subsequent amendments and judgments.
 7. The Geological Reserves available in the lease period is 685630m³ and mineable & recoverable Reserves is estimated as 277305m³ of Rough Stone after leaving necessary safety distance from the lease boundary as indicated in the precise area communication letter and relevant mining laws in force.
 8. The proposed production scheduled for the five years about 277305m³ of Rough stone. The proposed average annual production of Rough stone is about 55461m³.
 9. Estimated Life of the Quarry

Total Mineable ROM	= 277305 M ³
Recoverable Reserves @ 100%	= 277305 M ³
Average production per year	= 55461 M ³
Estimated Life of the Quarry	= 277305 / 55461 = 5.0 years
Life = 5.0 years	

The Life of mine may change depend upon the prospecting results, rate of production and the extent of mechanization done by the applicant in near future.

10. Environmental parameters,

- i) There is no interstate boundary around 10Kms radius.
- ii) There is no wild life animal sanctuary within 10Kms radius form the project site area under the Wildlife (Protection) Act, 1972. Therefore the project seeks clearance only from State Environment Impact Assessment Authority (SEIAA), under B2 Category.

11. Environmental measures already adopted are,

- i) Dust Control at source while drilling and blasting,
- ii) Dust suppression at loading point and transport haul roads,
- iii) Noise Control in blasting, control of fly rock missiles and vibration by doing peak particle velocity with in standard as prescribed by the DGMS and MoEF.
- iv) Unnecessary land degradation should be avoided or damaged land should be reclaimed or rehabilitated.
- v) Uneven rat hole mining is avoided and follows scientific and systematic mining by safe bench system of open cast mining.

- vi) Mining near major fracture zones already avoided to control ground water fluctuation in the adjacent agricultural lands.
- vii) Emission test of vehicles should be in stack maintain minimum emission level of flue gases.
- viii) Noise level should not exceed 80db and the vehicles use only permitted Air Horn while on road near residential areas.
- ix) Safety zones as prescribed by the Department of Geology and Mining from adjacent infrastructures should be strictly adhering to.
- x) And any other conditions as stipulated by the concerned authorities will be followed to protect the environment.

2.0 EXECUTIVE SUMMARY:

a.	Name of the Village	: Sithannavasal
b.	Name of the Panchayat / Union	: Sithannavasal
c.	The proposed total Mineable Reserves	: 277305m ³
d.	The proposed quantity of reserves (level of production)) Rough Stone	: 277305m ³ of Rough Stone
e.	Total extent of the area	: 2.80.33 Ha
f.	Proposed Period of mining	: Five Years
g.	Proposed Depth of mining	: 47m
h.	Existing Pit Dimension	: 156.0m(L) X 133.0m(W) X 25.0m(D)(Avg)
i.	Average Production Per Year Rough Stone	: 55461m ³ of Rough stone
j.	Method of mining / level of mechanization	: Opencast, Semi-mechanized Mining with a bench height of 5m and bench width of 5m is proposed.
k.	Types of Machineries used in the quarry	: i) Compressor with jack hammer. ii) Excavator of 0.90Cbm bucket Capacity.
l.	Cost of the Project	
	a. Fixed Cost	Rs. 83,50,000/-
	b. Operational Cost	Rs. 40,00,000/-
	c. EMP Cost	Rs. 3,80,000/-

m.	The Applied lease area is bounded by four corners and the coordinates are	: Toposheet No. 58 – J/1
	Latitude	: 10° 27' 49.9231" N to 10° 27' 43.2157" N
	Longitude	: 78° 44' 07.9289" E to 78° 44' 01.1168" E
	North East	: 10° 27' 49.0526" N 78° 44' 07.7686"E
	South East	: 10° 27' 43.2157" N 78° 44' 07.5483"E
	North West	: 10° 27' 49.9231" N 78° 44' 02.7436"E
	South West	: 10° 27' 45.6971" N 78° 44' 01.1168"E

3.0. GENERAL INFORMATION:

3.1	a.	Name of the Applicant	: Thiru. C.Palanisamy,
	b.	Address of the Applicant with phone No and e-mail id if any	: C.Palanisamy, S/o. Chinnakannu, No.129, Edatheru, Sithannavasal Illuppur Taluk, Pudukkottai District- 622 101.
	c.	Status of the Applicant	: Individual
3.2	a.	Mineral Which the Applicant intends to mine	: Rough Stone
	b.	Precise area letter	: Rc. No.1062/2023/Mines dated 11.01.2024
	c.	Period of permission	: 5 Years
	d.	Name and Address of the Qualified Person preparing Mining Plan	: S.Dhanasekar, M.Sc., Qualified Person No.5/30-7B, Avvai Nagar, Ponkumar Mines Road, Jagir Ammapalayam, Salem District - 636 302. E-Mail: geodhana@yahoo.co.in Cell: 98946-28970 & 73733-74702

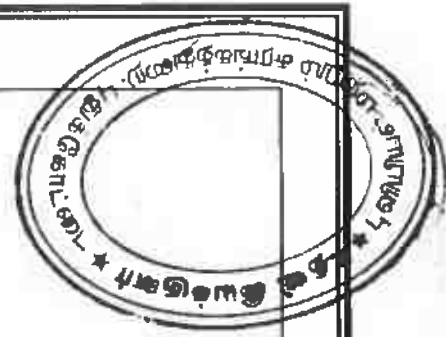
4.0 LOCATION: DETAILS AREA:

State	District	Panchayat / Union	Taluk	Village	S.No	Extent In Hectare
Tamilnadu	Pudukkottai	Sithannavalas / Illuppur	Illuppur	Sithannavalas	94 (Part - 4)	2.80.33
TOTAL =						2.80.33Ha
b.	Classification of the Area (Ryotwari / Poramboke / others)		:	It is a Government Poramboke Land, which is not fit for vegetation/cultivation.		
c.	Ownership / Occupancy of the Applied Lease area (Surface rights)		:	It is a Government Poramboke land. The applicant had been given precise area for the proposed grant of Rough Stone Quarry Lease.		
d.	Toposheet No. with Latitude and Longitude		:	Toposheet No. 58 – J/11, 10° 27' 49.9231" N to 10° 27' 43.2157" N 78° 44' 07.9289" E to 78° 44' 01.1168" E		
e.	Existence of Public Road / Railway line if any nearby the area and approximate distance		:	Pudukkottai – Panangudi = 14.6 Kms. Quarry site is located in Northern side at a distance of 3.0kms from Panangudi village.		

PART - A

5.0 GEOLOGY AND MINERAL RESERVES:

5.1	a.	Topography	:	<ol style="list-style-type: none"> 1. The applied lease area is plain terrain and sloping towards Southern side covered with Rough Stone which does not sustain any type of vegetation. The altitude of the lease area is 135m above MSL. 2. No major river is found nearby the lease area. 3. Water table is noticed at a depth of 68m from below the surface in the adjacent open well and bore well. 4. Temperature of the area is reported to be 18°C to a maximum of 40°C during summer. 5. Rainfall of this area is about 800mm to 900 mm during the monsoons in a year.
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	b. Infrastructures nearby the Applied Lease area: 1. Post Office 2. Police Station 3. G.H 4. Fire service 5. Railway Station 6. School 7. Airport 8. Seaport	: Sithannaval – 2.6 kms : Annaval – 4.6 kms : Annaval – 5.0 kms : Pudukkottai – 16.0 kms : Pudukkottai – 17.0 kms : Annaval – 6.0 kms : Trichy – 43.0 kms : Tuticorin – 273.0 kms									
	c. Regional Geology	: Pudukkottai District is underlined by the wide range of metamorphic rocks of peninsular gneissic complex. These rocks are extensively weathered and overlain by the recent valley fills and alluvium at places. The geological formations found in the District are Archaean rocks like Gneisses, Granites, Charnockite basic granulites and calc-gneisses. The younger formations are Quartz veins and pegmatite. The generalized stratigraphic succession of the geological formations met within this District is as follows. <table border="1"> <thead> <tr> <th></th><th>Age</th><th>Rock Formation</th></tr> </thead> <tbody> <tr> <td>1.</td><td>Recent to Sub recent</td><td>Soil, Alluvium</td></tr> <tr> <td>2.</td><td>Archaean</td><td>Granites, basic granulites, Peninsular Gneiss, Calc Gneiss and Charnockites</td></tr> </tbody> </table>		Age	Rock Formation	1.	Recent to Sub recent	Soil, Alluvium	2.	Archaean	Granites, basic granulites, Peninsular Gneiss, Calc Gneiss and Charnockites
	Age	Rock Formation									
1.	Recent to Sub recent	Soil, Alluvium									
2.	Archaean	Granites, basic granulites, Peninsular Gneiss, Calc Gneiss and Charnockites									
	d. Geology of the Lease Area	: <ol style="list-style-type: none"> 1. The area is mainly composed of Archaean crystalline metamorphic complex. 2. The rock type noticed in the area for lease is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian minerals. 3. The Charnockite is part of peninsular Gneisses, a high grade metamorphic rock. 4. The general trend of formation Strike is NW-SE and dip steeply. 									

The general geological succession of the area is given under

S. No	Age	Rock Formation
1.	Recent to Sub recent	Soil, Alluvium
2.	Archaean	Charnockites
3.	Archaean	Peninsular Gneiss, and Calc Gneiss

5.2 Details of Exploration already carried out if any : Since the **Rough Stone** is seen from the Surface itself, No needed to exploration. However, the area was personally examined by the Geologist who prepared the Mining Plan.

5.3 a. Already excavated in pit dimensions : 156.0m (L) X 133.0m(W) X 25.0m (D) (Avg)

b. Geological Reserves:

Top Soil :

The Thickness of Topsoil in this area is 2.0m and the total volume of Topsoil will be **116m³**.

Rough Stone :

The Available Geological Reserve is estimated as **685630m³** respectively at the rate of 100% recovery upto the permissible depth. Topsoil is calculated up to a depth of 2m and Rough Stone at a depth of 45m. **Total Depth-47m.**

GEOLOGICAL RESERVES

Section	Bench	L (m)	W (m)	D (m)	Volume in (Cu.m.)	Geological Reserve in Cu.m(100%)	Topsoil in Cu.m.
XY-AB	I	58	1	2			116
	II	77	4	5	1540	1540	
	III	77	13	5	5005	5005	
	IV	77	13	5	5005	5005	
	V	138	112	5	77280	77280	
	VI	138	112	5	77280	77280	
	VII	191	112	5	106960	106960	
	VIII	191	120	5	114600	114600	
	IX	191	156	5	148980	148980	
	X	191	156	5	148980	148980	
Total=					685630	685630	116

c. **Mineable Reserves:**

The Mineable reserves are calculated by deducting 10.0m Safety distance and bench loss.

Top Soil :

The Thickness of Topsoil in this area is 2.0m and the total volume of Topsoil will be 96m³.

Rough Stone :

The mineable reserves and the Recoverable Reserves are 277305m³ respectively, at the rate of 100% recovery upto the permissible depth. **Total Depth-47m (2m Topsoil + 45m Rough Stone).**

MINEABLE RESERVES							
Section	Bench	L (m)	W (m)	D (m)	Volume in (Cu.m.)	Mineable Reserve in Cu.m (100%)	Topsoil in Cu.m.
XY-AB	I	48	1	2			96
	II	65	1	5	325	325	
	III	60	1	5	300	300	
	IV	55	1	5	275	275	
	V	99	90	5	44550	44550	
	VI	94	85	5	39950	39950	
	VII	131	80	5	52400	52400	
	VIII	121	83	5	50215	50215	
	IX	111	89	5	49395	49395	
	X	101	79	5	39895	39895	
Total=					277305	277305	96

6.0 MINING:

6.1	Method of Mining :	<ol style="list-style-type: none"> 1. Opencast method of semi mechanized mining is being adopted to extract Rough Stone of required size. 2. Machineries like Tractor mounted compressor attached with Jack hammers is used for drilling and blasting. Excavators are used for quarrying of Rough Stone and Tippers / Lorries are used for the transportation of Rough Stone to the destination.
6.2	Mode of Working :	It is a semi mechanized quarrying operation using shot hole drilling with the help of compressor and jack hammers and smooth blasting. Rough Stone are removed using Hydraulic excavator and loaded directly to the tippers and transported to the needy end users.

6.3	Proposed bench height & Width	:	Bench height = 5mts. Bench width = 5mts.
6.4	Details of Topsoil / Mineral Production proposed for five years.	:	Topsoil / Overburden production details follows: The entire lease area is covered 2.0m of Topsoil and the estimated quantity of topsoil is 96m ³ . It will be utilized for afforestation purpose.

Year wise reserves calculations :

Rough stone production details as follows:

The proposed rate of production of Rough Stone is about 277305m³ for Five Years. The average proposed rate of production of Rough Stone is about 55461m³ per year at the rate of 100% recovery upto the permissible depth. Reserves Calculated upto 47m (2m Topsoil + 45m Rough Stone).

YEARWISE DEVELOPMENT AND PRODUCTION								
Year	Section	Bench	L (m)	W (m)	D (m)	Volume in (m3)	Recoverable Reserve in m3 (100%)	Top Soil in m3
I-Year	XY-AB	I	48	1	2			96
		II	65	1	5	325	325	
		III	60	1	5	300	300	
		IV	55	1	5	275	275	
		V	99	90	5	44550	44550	
TOTAL						45450	45450	96
II-Year	XY-AB	VI	94	85	5	39950	39950	
TOTAL						39950	39950	
III-Year	XY-AB	VII	131	80	5	52400	52400	
TOTAL						52400	52400	
IV-Year	XY-AB	VIII	121	83	5	50215	50215	
TOTAL						50215	50215	
V-Year	XY-AB	IX	111	89	5	49395	49395	
		X	101	79	5	39895	39895	
TOTAL						89290	89290	
GRAND TOTAL						277305	277305	96

6.5	a.	Mining	: Drilling of shot holes will be carried out using compressor and jack hammer. Depth of holes shall be 1 to 2m bench height and spacing shall be 0.75m and burden shall be 0.60m from the preface. Details of drilling equipments are given below														
			<table><tr><th>Type</th><th>Nos</th><th>Dia of hole</th><th>Size / Capacity</th><th>Make</th><th>Motive power</th><th>H.P</th></tr><tr><td>Jack Hammer</td><td>3</td><td>25.5 mm</td><td>Hand held</td><td>Atlas copco 2Nos</td><td>Diesel</td><td>60</td></tr></table>	Type	Nos	Dia of hole	Size / Capacity	Make	Motive power	H.P	Jack Hammer	3	25.5 mm	Hand held	Atlas copco 2Nos	Diesel	60
Type	Nos	Dia of hole	Size / Capacity	Make	Motive power	H.P											
Jack Hammer	3	25.5 mm	Hand held	Atlas copco 2Nos	Diesel	60											
	b.	Loading	: Loading of waste and Rough stone is being carried out by Excavator into 10 tonne capacity tippers from the working place periodically. Details of loading equipment are given as under.														
			<table><tr><th>Type</th><th>Nos</th><th>Bucket Capacity(MT)</th><th>Make</th><th>Motive power</th><th>H.P</th></tr><tr><td>Hydraulic excavator</td><td>2</td><td>1.2 M³</td><td>L&T or Ex200</td><td>Diesel</td><td>120</td></tr></table>	Type	Nos	Bucket Capacity(MT)	Make	Motive power	H.P	Hydraulic excavator	2	1.2 M ³	L&T or Ex200	Diesel	120		
Type	Nos	Bucket Capacity(MT)	Make	Motive power	H.P												
Hydraulic excavator	2	1.2 M ³	L&T or Ex200	Diesel	120												
	c.	Transportation	: Transport of raw materials and waste shall be done by 10 tonnes tipper.														
			<table><tr><th>Type</th><th>Nos</th><th>Size / Capacity</th><th>Make</th><th>Motive power</th><th>H.P.</th></tr><tr><td>Tipper</td><td>3</td><td>10 M.T</td><td>Ashok Leyland</td><td>Diesel</td><td>110</td></tr></table>	Type	Nos	Size / Capacity	Make	Motive power	H.P.	Tipper	3	10 M.T	Ashok Leyland	Diesel	110		
Type	Nos	Size / Capacity	Make	Motive power	H.P.												
Tipper	3	10 M.T	Ashok Leyland	Diesel	110												
6.6	a.	Disposal of Overburden/ Topsoil	: The entire lease area is covered 2.0m of Topsoil and the estimated quantity of topsoil is 96m ³ . It will be utilized for afforestation purpose.														
6.7	a.	Brief Note on Conceptual Mining Plan for the entire lease period	: Conceptual Mining Plan is prepared with an object of systematic development of bench lay outs, selection of ultimate pit limit, depth of quarrying, ultimate pit slope, etc., Average Ultimate Pit dimension in given as Under, <table><tr><th colspan="3">ULTIMATE PIT DIMENSION</th></tr><tr><td colspan="3">171.0m(L)X 136.0m(W)X 47.0m (D)</td></tr></table> Ultimate pit size is designed based on certain practical factors such as the economical depth of mining, safety zones, permissible areas etc. Afforestation has been proposed on the boundary barrier by planting trees.	ULTIMATE PIT DIMENSION			171.0m(L)X 136.0m(W)X 47.0m (D)										
ULTIMATE PIT DIMENSION																	
171.0m(L)X 136.0m(W)X 47.0m (D)																	

All the baseline information studies like Air Quality monitoring, Noise and Vibration monitoring, Water Analysis studies are being carried out every year as per the MOEF norms.



b. Energy:

Electricity for mines and lights only at nights (working is restricted on day time only between 8Am to 4Pm). Diesel (HSD) will be used for quarrying machines around 221856 liters for the entire project life. Diesel will be brought from nearby diesel pumps. No power is required for the project. Lightings on the night is taken from nearby electric poles after obtaining permission from concerned authorities.

For Top Soil:







Per hour excavator will consume = 10 litres / hour
 Per hour excavator will excavate = 60m³ of Topsoil
 For 96m³ = 96/ 60 = 1.6hours
 Diesel consumption 1.6working hours = 1.6 x 10 litres
 Total diesel consumption = 16 litres of HSD will be utilized for Topsoil.

For Rough stone:

Per hour excavator will consume = 16 liters / hour
 Per hour excavator will excavate = 20m³ of rough stone
 For 277305m³ = 277305 / 20 = 13865.25 hours
 Diesel consume 13865 working hours = 13865 hours x 16 liters
 Total diesel consumption = 221840 liters of HSD will be utilized for Rough stone
 Total diesel consumption is around 221856 litres of HSD for the entire period of life.

7.0 BLASTING:

7.1	Proposed Control Blasting Pattern	: The massive formation shall be broken into pieces of portable size by drilling and Proposed Control Blasting using jack hammers and shot hole Blasting. Powder factor of explosives for breaking such hard rock shall be in the order of 6 to 7 tonnes per K.g of explosives.
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		<div> <div>  <p>1 face survey</p> </div> <div>  <p>2 drilling of shot holes</p> </div> </div> <div> <div>  <p>3 checking the holes</p> </div> <div>  <p>4 charging with explosives & stemming the hole</p> </div> </div> <div> <div>  <p>5 detonating the explosives</p> </div> <div>  <p>6 shotpile ready for loading</p> </div> </div>																				
7.2	Types of Explosives	<div> <div> <p>: Following explosives are recommended for efficient blasting with safe practice.</p> <table> <tr> <th>S. No</th> <th>Description</th> <th>Class / Division</th> <th>Type</th> <th>Size</th> </tr> <tr> <td>1.</td> <td>Slurry</td> <td>Class - 3</td> <td>Nitro Compound</td> <td>25 x 200</td> </tr> <tr> <td>2.</td> <td>Detonators</td> <td>Class - 3</td> <td>Ordinary and elec (OD & ED)</td> <td>6.5 x 32</td> </tr> <tr> <td>3.</td> <td>Safety fuse</td> <td>Class - 6</td> <td>Blue sump fuse coils of 10mts each</td> <td></td> </tr> </table> </div> </div>	S. No	Description	Class / Division	Type	Size	1.	Slurry	Class - 3	Nitro Compound	25 x 200	2.	Detonators	Class - 3	Ordinary and elec (OD & ED)	6.5 x 32	3.	Safety fuse	Class - 6	Blue sump fuse coils of 10mts each	
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3.	Safety fuse	Class - 6	Blue sump fuse coils of 10mts each																			
7.3	Measures proposed to minimize ground vibration due to blasting	<div> <div> <p>: The following steps are being adopted to control ground vibration due to blasting.</p> <ol style="list-style-type: none"> 1. The minimum recommended delay time of 8ms was introduced to minimize ground vibration to avoid constructive interference of blast vibration waves and hence its impact or amplitude is less. 2. Use of Ammonium nitrate fuel oil mixture for shot holes is avoided because which cause high fly of rocks in view critical diameter problem. Only high strength explosives like slurry are used in the form of cartridge. 3. Charge per hole will exceed the powder factor designed for each hole based on the quantum of blasting, strength of rocks, fracture pattern etc. </div> </div>																				
7.4	Storage of Explosives and safety measures to be taken while blasting.	<div> <div> <p>: </p> <ol style="list-style-type: none"> 1. An authorized explosive agency is engaged to carry out blasting. 2. The blasting time in a day is between 5 PM to 6 PM. 3. First Aid Box is kept ready at all the time. 4. Necessary precautionary announcement is being carried out before the blasting operation. </div> </div>																				

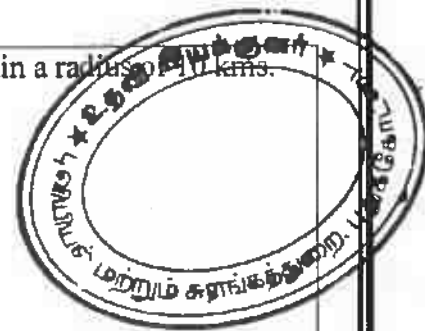
8.0 MINE DRAINAGE:

8.1	Depth of Water table	:	The ground water table is reported as 6m below ground level in nearby open wells and bore wells of this area. Mining depth taken as 47m. Now, proposed quarry depth is above the water table. Hence, quarrying may not affect the ground water.
8.2	Arrangement and Places where the mine water is finally proposed to be discharged	:	The ground water may not rise immediately in this type of mining. However, the rain water percolation and collection of water from the seepage shall be less than 300 lpm and it shall be pumped about periodically by a stand by diesel powered Centrifugal pump motivated with 7.5 H.P. Motor. The quality of water is potable and it is not contaminated with any hazardous things.

9.0 OTHER PERMANENT STRUCTURES:

9.1	Habitations / Village	:	There are no villages within a radius of 500m. The nearest habitations with the population is given as under,																				
			<table> <tr> <th>Direction</th><th>Village</th><th>Distance in Kms</th><th>Population</th></tr> <tr> <td>North</td><td>Meivazhi</td><td>3.0Kms</td><td>300</td></tr> <tr> <td>East</td><td>Irumbali</td><td>2.0Kms</td><td>180</td></tr> <tr> <td>South</td><td>Madiyanallur</td><td>2.0Kms</td><td>200</td></tr> <tr> <td>West</td><td>Annavaasal</td><td>3.2Kms</td><td>1200</td></tr> </table>	Direction	Village	Distance in Kms	Population	North	Meivazhi	3.0Kms	300	East	Irumbali	2.0Kms	180	South	Madiyanallur	2.0Kms	200	West	Annavaasal	3.2Kms	1200
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9.2	Power lines (HT/LT)	:	There is no Power line is located in the lease area.																				
9.3	Water bodies (River, Pond, Lake, Odai, Channel etc)	:	There are no other Water bodies (River, Pond, Lake, etc) is located in this area.																				
9.4	Archeological / Historical Monuments	:	There are no Archeological / Historical Monuments within a radius of 500m.																				
9.5	Road (NH, SH, Village Road etc)	:	Pudukkottai – Panangudi = 14.6 Kms. Quarry site is located in Northern side at a distance of 3.0kms from Panangudi village.																				
9.6	Places of Worship	:	There are no Places of Worship within a radius of 500m.																				
9.7	Reserved Forest / Forest / Social Forest / Wild Life Sanctuary etc.,	:	There are no Reserved Forest/ Forest/ Social Forest within a radius of 10km. There are no Wild Life Sanctuary within a radius of 10km.																				

9.8	Any Interstate Border, Protected areas under the Wild Life (Protection) Act, 1972, Critically Polluted Areas as Identified by Central Pollution Control Board and Notified Eco sensitive areas	:	There are No inter State border within a radius of 10 kms.
9.9	Any Other Structures	:	Nil.



10.0 EMPLOYMENT POTENTIAL & WELFARE MEASURES:

10.1	Employment Potential (Management & Supervisory personal)	:	<p>1. As per Mines safety under the provisions of MMR, 1961 under the Mines Act, 1952, whenever the workers are employed more than 10, it is preferred to have a qualified Mining Mate to keep all the production workers directly under his control and supervision.</p> <p>2. The following man power is proposed for quarrying Rough Stone & Topsoil during the five years period to achieve the proposed production and to comply the provisions of the Government norms</p> <table border="1"> <tr> <td>1.</td><td>Skilled</td><td>Operator</td><td>2 No.</td></tr> <tr> <td></td><td></td><td>Mechanic</td><td>1 No.</td></tr> <tr> <td></td><td></td><td>Blaster/Mat</td><td>1 No.</td></tr> <tr> <td>2.</td><td>Semi – skilled</td><td>Driver</td><td>2 Nos</td></tr> <tr> <td>3.</td><td>Unskilled</td><td>Musdoor / Labors</td><td>4 Nos</td></tr> <tr> <td></td><td></td><td>Cleaners</td><td>2Nos</td></tr> <tr> <td></td><td></td><td>Office Boy</td><td>1No</td></tr> <tr> <td>4.</td><td colspan="2">Management & Supervisory staff</td><td>2No.</td></tr> <tr> <td></td><td colspan="2">Total =</td><td>15Nos</td></tr> </table>	1.	Skilled	Operator	2 No.			Mechanic	1 No.			Blaster/Mat	1 No.	2.	Semi – skilled	Driver	2 Nos	3.	Unskilled	Musdoor / Labors	4 Nos			Cleaners	2Nos			Office Boy	1No	4.	Management & Supervisory staff		2No.		Total =		15Nos
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		Cleaners	2Nos																																				
		Office Boy	1No																																				
4.	Management & Supervisory staff		2No.																																				
	Total =		15Nos																																				

10.2	Welfare Measures		
a.	Drinking Water	:	Drinking water at the rate of 2Ltrs per person shall be provided as per the Mines Rules, 1960. It is proposed to make a borehole for providing uninterrupted supply of drinking water and other utilities.
b.	Sanitary facilities	:	Semi-permanent latrines & urinals shall be maintained at convenient places for use of labours as per the provisions of Rule (33) of the Mines Rules, 1960 separately for males and females. Washing facilities shall also be arranged as per rule (36) of the Mines Rules, 1960.
c.	First Aid Facility	:	Being a small mine First Aid station as per provisions under Rule (44) of the Mines Rules 1960 is provided with facilities as per the third schedule as prescribed. Qualified First Aid personnel should be appointed or nominated to attend emergency first aid treatment.
d.	Labor Health	:	As per Mines Rule, Periodic medical examination has been arranged for occupational health once in a year in addition to attending medical treatment of occupational injuries under the Rule 45 (A), MR, 1960.
e.	Precautionary safety measures to the Laborers	:	<p>Safety provisions like helmet, goggles, safety shoes, Dust mask, Ear muffs etc have to be provided as per the circulars and amendments made for Mine labours under the guidance of DGMS being a mechanized operation.</p> <p>Necessary training will be conducted once in a year to all the employees with the help of qualified and experienced officers to train about the safe and system at quarrying operation.</p>

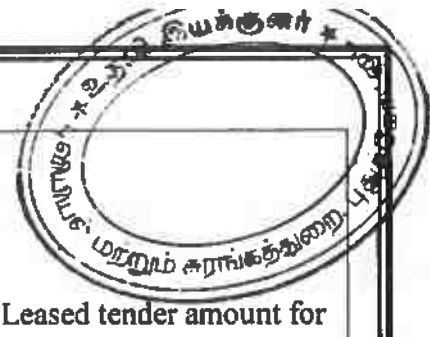
PART - B

11.0 ENVIRONMENTAL MANAGEMENT PLAN:

11.1	Area Land Use Pattern	:	The applied land use pattern is given as under			
			SL. NO.	LAND USE	PRESENT AREA (HECT)	AREA IN USE DURING THE QUARRYING PERIOD (HECT)
			1.	Area under Quarrying	2.08.0	2.64.67
			2.	Infrastructure	Nil	0.01.0
			3.	Roads	0.01.0	0.01.0
			4.	Green Belt	Nil	0.13.66
			5.	Un-Unutilized Area	0.71.33	Nil
				Grand Total =	2.80.33Ha	2.80.33Ha
11.2	Water Regime	:	Water table in this area is noticed at a depth of 68m below the surface ground level and presently, the quarrying of Rough Stone is proposed up to a depth of 47m. Hence, it will not affect the ground water depletion of this area.			
11.3	Flora and Fauna	:	Except acacia bushes, no other valuable trees are noticed in the Applied Lease area. Further, neither flora of botanical interest nor fauna of zoological interest is noticed in this area.			
11.4	Climatic conditions	:	Generally sub tropical climatic condition prevails throughout the year and this District receives rain both in South west and North east monsoon. The average rainfall is about 800mm to 900mm and the temperature ranges from 18 ⁰ C during winter and to a maximum of 40 ⁰ C during the summer.			
11.5	Human Settlement	:	The nearest habitations with the population.			
			Direction	Village	Distance in Kms	Population
			North	Meivazhi	3.0Kms	300
			East	Irumbali	2.0Kms	180
			South	Madiyanallur	2.0Kms	200
			West	Annavasal	3.2Kms	1200

11.6	Plan for Air, Dust Suppression	:	<p>Air or dust expected to be generated from drilling process, hauling roads, places of excavation etc., is being suppressed by periodical wetting of land by water spraying.</p> <p>For the sampling of air, high volume air sampler (Model VFC-PM10) was used (10 meter above and 5 meter away from road) and the particulates were collected on what man GFA glass fiber filters dried in a hot air oven at 105°C for 1hr and weighed. The average flow rate was about 1.1 cubic meters.</p>
11.7	Plan for Noise Control	:	<p>Quarrying of Rough Stone will be carried out by drilling and blasting by using low power explosives, and hence, noise is very minimum.</p> <p>However, periodical noise level monitoring will be carried out to check the noise level in and around the quarry site. In order to assess the extent of noise pollution due to vehicular traffic different zones viz., Silence zone, Residential Zone, Commercial zone, Traffic signals and Industrial zones were identified in urban and suburban areas of Pudukkottai. Adequate number of observations were made in all the selected sites by using the sound level meter (LT Lutron SL-4001).</p>
11.8	Environmental Impact Assessment Statement Describing Impact on mining on the next Five Years.	:	<p>Factors to be considered for EIA are,</p> <ol style="list-style-type: none"> 1. Dust generation, 2. Land degradation 3. Stabilization and vegetation of dumps 4. Adverse effect on water regime 5. Socio economic benefits arising out of Mining. 6. Noise and Vibration.
	a. Dust	:	Dust is expected to be generated from drilling, hauling roads place of excavation etc and it will be suppressed by periodical wetting of lands.

	b. Land degradation	:	Land degradation is by means of cutting the trees and removal of fertile soil does not arise. Proposed usage of land for the five years shall be less than 2.80.33Ha. Afforestation will be started during the first year of mining operation itself.
	c. Stabilization and vegetation of dumps	:	Since there is no top soil no dump will be formed. Hence stabilization and vegetation of trees does not arise.
	d. Socio economic benefits arising out of mining	:	<ol style="list-style-type: none"> 1. To provide Employment opportunities of the nearby villagers. 2. For the cultural development of the nearby villagers.
	e. Noise and vibration	:	Since, no deep hole blasting is proposed with small dia explosives are used for breaking the hard rock and boulders, the noise and vibration is very minimum and are within the permissible limits.
11.9	Proposal for Waste Management	:	There is no waste generation as there is 100% recovery.
11.10	Proposal of Reclamation of Land affected during mining activities and at the end of mining.	:	The present mining is proposed to a depth of 47m. The mined out area will be fenced on top of open cast working with S1 fencing. Low lying areas with water logging shall be used for fish culture. No immediate proposals for closure of pit as the Rough Stone persist still at deeper level.
11.11	Program for Afforestation	:	Trees like Neem, pungan & panai etc were planted along the lease boundary and avenues as well as over non active dumps at a rate 100 trees per year with an interval of 5m. The rate of survival expected to be 60% in this area.



11.12	Proposed Financial Estimate / Budget for (EMP) Environment Management	:	
	<u>Fixed Asset Cost:</u>		
	1. Land Cost	:	Rs.80,50,000/- (Leased tender amount for Government Poramboke Land)
	2. Labour Shed	:	Rs. 1,20,000/-
	3. Sanitary Facility	:	Rs. 80,000/-
	4. Fencing cost	:	Rs. 1,00,000/-
	Total=	:	Rs.83, 50, 000/-
	<u>Operational Cost:</u>		
	<u>Machinery cost</u>	:	Rs.40,00,000/-
	<u>EMP Cost:</u>		
	1. Drinking water facility	:	Rs. 1,20,000/-
	2. Safety kits	:	Rs. 70,000/-
	3. Water sprinkling	:	Rs. 70,000/-
	4. Afforestation	:	Rs. 30,000/-
	5. Water quality test	:	Rs. 30,000/-
	6. Air quality test	:	Rs. 30,000/-
	7. Noise/vibration test	:	Rs. 30,000/-
	Total=	:	Rs. 3,80,000/-
	Total Project Cost	:	Rs.1,27,30,000/-

12.0 MINE CLOSURE PLAN:

12.1	Steps proposed for phased restoration, reclamation of already mined out area.	:	The present mining is proposed to a depth of 47m. The mined out area will be fenced on top of open cast working with S1 fencing to arrest the entry of cattle's and public in to the quarry site.
12.2	Measures to be under taken on mine closure as per Act & Rules	:	Measures will be taken as per the Acts and Rules. The quarried pit will be fenced by using Barbed wire fencing. Green belt development at the rate of 100 trees per year will be proposed.
12.3	Mitigation measures to be undertaken for safety and restoration/ reclamation of the already mined out area	:	The pits were already opened by earlier Quarrying. Hence, the quarrying operation will be continued in the existing pit after making proper benches within the lease Area.

13.0 ANY OTHER DETAILS INTEND TO FURNISH BY THE APPLICANT

- (i) Permission will be obtained from the Director of Mines Safety for extracting the Rough Stone from the Boundary barriers and from slopes.
- (ii) Care and precautionary measures will be taken for the safety of workers as per Rules and Acts.
- (iii) The applicant will endeavor every attempt to quarry the Rough Stone economically without any wastage and to improve the environment and ecology.
- (iv) Accordingly, Mining Plan is prepared under Rule 41 & 42 as amended in Tamil Nadu Minor Mineral Concession Rules, 1959 by incorporating the conditions imposed in the precise area communication letter and by incorporating all the details proposed in the letter to obtain environment clearance from State Environment Impact Assessment Authority.
- (v) In the above circumstances, this Mining Plan is prepared for approval of Applied Rough Stone Quarry for a period of Five Years.

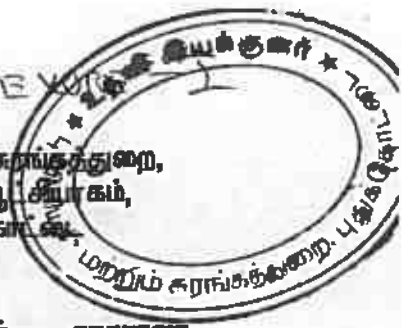

S. DHANASEKAR, M.Sc., (Geo)
Qualified Person

This mining plan is approved in exercise of the powers conferred under Rule 41(2) and (5) TNMMCR 1959 and subject to the conditions / stipulations indicated in the mining plan approved letter
Rc.No: 1062/2023/01 Dated: 03.03.2024


ASSISTANT DIRECTOR
GEOLOGY AND MINING
PUDUKKOTTAI

ந.க.எண். 1062/2023/கனிமம்
நாள்: 11.01.2024

புலியியல் மற்றும் சுரங்கத்துறை,
மாவட்ட ஆட்சியாகம்,
புதுக்கோட்டை.



குறிப்பாணை

பொருள் கனிமங்களும் குவாரிகளும் - சிறுகனிமம் - சாதாரண வகை கற்கள் - புதுக்கோட்டை மாவட்டம் - அரசு புறம்போக்கு புலங்களில் அமைந்துள்ள கற்குவாரிகள் - டெண்டர் / ஏலம் முறையில் குத்தகை வழங்குவது - இலுப்பூர் வட்டம் - சித்தன்னவாசல் கிராமம் - புல எண்.94(பகுதி-1), 2.80.33 ஹெக்டேர் பரப்பில் 16.11.2023 அன்று டெண்டருடன் இணைந்த ஏலம் நடத்தப்பட்டது - ஏலத்தில் அதிகபட்ச குத்தகை தொகை குறிப்பிட்ட திரு.சி.பழனிச்சாமி என்பவருக்கு ஏலம் உறுதி செய்யப்பட்டது - ஏற்பளிக்கப்பட்ட சுரங்கத் திட்டம் மற்றும் சுற்றுச்சூழல் ஆணைய இசைவு பெற்று சமர்ப்பிக்கக் கோருதல் - தொடர்பாக.

- பார்வை: 1. புதுக்கோட்டை மாவட்ட அரசிதழ் சிறப்பு வெளியீடு எண்.14 நாள்:19.10.2023.
2. தினமணி நாளிதழில் விளம்பரம் நாள்:01.11.2023.
3. திரு.சி.பழனிச்சாமி என்பவரின் ஏல விண்ணப்பம் நாள்:16.11.2023.
4. திரு.சி.பழனிச்சாமி என்பவரது கடிதம் நாள்: 07.12.2023
5. தொடர்புடைய ஆவணங்கள்.

பார்வையில் காணும் கடிதங்களின்பால் கனிவான கவனம் வேண்டப்படுகிறது.

2. புதுக்கோட்டை மாவட்டத்தில் அரசு புறம்போக்கு நிலங்களில் உள்ள சாதாரண கற்களை வெட்டியெடுத்துச் செல்ல உரிமம் வழங்க ஏதுவாக புதுக்கோட்டை மாவட்ட அரசிதழ் சிறப்பு வெளியீடு எண்.14 நாள்:19.10.2023-ன்படி பிரகாரம் செய்யப்பட்டது. அதன்படி 15.11.2023-ம் நாள் பிற்பகல் 05.00 மணிக்குள் மூடி முத்திரை இடப்பட்ட டெண்டர் மனுக்களை அளிக்க இறுதி நாளாக அறிவித்து, 16.11.2023 அன்று பொது ஏலம் நடத்தப்பட்டு டெண்டர் மனுக்கள் ஏலத்தில் கலந்து கொண்டவர்கள் முன்னிலையில் திறக்கப்பட்டன.

3. மேற்கண்ட அரசிதழில் விளம்பரம் செய்யப்பட்டிருந்த குவாரிப்பட்டியலில் வரிசை எண்.14, இலுப்பூர் வட்டம், சித்தன்னவாசல் கிராமம், அரசு புறம்போக்கு புல எண்.94(பகுதி-1)-ல் 2.80.33 ஹெக்டேர் பரப்பில் உள்ள கற்குவாரிக்கு டெண்டர் / பொது ஏலத்தில் கலந்து கொண்டவர்களில் திரு.சி.பழனிச்சாமி ஏலத்தில் கோரிய தொகை ரூ.80,50,000/- மாவட்ட ஆட்சித்தலைவர் அவர்களால் நிர்ணயம் செய்யப்பட்டிருந்த ஏலத் தொகையை விட அதிகமாக இருந்ததால் ஏலத்தொகை முழுவதையும் செலுத்த

கேட்டுக்கொள்ளப்பட்டது. மேற்கண்ட ஏலதாரர் மொத்த குத்தகை தொகையையும் விதிகளின்படி 30.11.2023-க்குள் செலுத்தியுள்ளார்.

4. எனவே, ஏலதாரர் குத்தகை தொகை முழுவதும் செலுத்திவிட்டபடியால், மேற்படி கற்குவாரி ஏலமானது விதிகளின்படி உயர்ந்தபட்ச ஏலம் கோரிய திரு.சி.பழனிச்சாமி என்பவருக்கு உறுதி செய்யப்படுகிறது. மேலும், மேற்படி நபருக்கு இலுப்பூர் வட்டம், சித்தன்னவாசல் கிராமம், அரசு புறம்போக்கு புல எண்.94(பகுதி-1)-ல் 280.33 ஹெக்டேர் பரப்பில் ஐந்து (5) ஆண்டுகளுக்கு குவாரி உரிமம் வழங்க ஏதுவாக 1959ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள், விதி எண்.41-ன்படி கீழ்க்கண்ட நிபந்தனைகளுடன் ஏற்பளிக்கப்பட்ட சுரங்கத் திட்டத்தினை 90 தினங்களுக்குள் சமர்ப்பிக்கவும், அதன் தொடர்ச்சியாக 1959ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள், விதி எண்.42-ன்படி மாவட்ட சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணைய இசைவு பெற்று சமர்ப்பிக்கும் பட்சத்தில் சாதாரண கற்குவாரி உரிமம் வழங்கப்படும் என்ற விவரம் இதன் மூலம் தெரிவிக்கப்படுகிறது.

நிபந்தனைகள்:

- 1959ம் வருடத்திய தமிழ்நாடு சிறு கனிம சலுகை விதிகள், அட்டவணை-II-ல் கண்டுள்ளபடி குவாரி செய்யப்படும் கனிமங்களுக்குரிய சீனியரேஜ் தொகை அவ்வப்போது செலுத்தி கனிமம் கொண்டு செல்லப்பட வேண்டும்.
- அருகிலுள்ள பட்டாதாரர்களுக்கு எவ்வித இடையூறும் ஏற்படாத வண்ணம் குவாரிப் பணி மேற்கொள்ள வேண்டும்.
- விதிகளின் படி ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினை உரிய காலத்திற்குள் சமர்ப்பிக்க வேண்டும்.
- குவாரி உரிமம் வழங்க உள்ள பகுதிக்கு சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் முன் அனுமதி பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும்.

இணைப்பு: குத்தகை உரிமம் வழங்க
பரிந்துரைக்கப்பட்ட புல வரைபடம்.

(ஓம்) . . . மெர்சி ரம்யா,
மாவட்ட ஆட்சித்தலைவர்,
புதுக்கோட்டை

// உண்மை நகல்// உத்தரவுபடி//

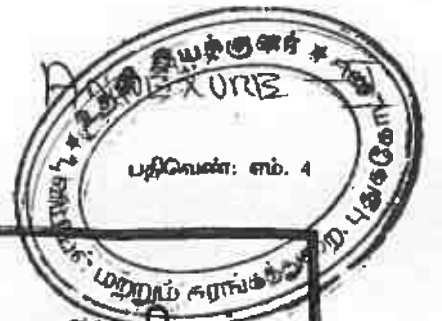
மாவட்ட ஆட்சியருக்காக,

பெறுநர்:

திரு.சி.பழனிச்சாமி
த/பெ.சின்னக்கண்ணு,
எண்.129, எடத்தெரு, சித்தன்னவாசல்,
இலுப்பூர் தாலுகா, புதுக்கோட்டை.

நகல்: 1. ஆணையர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை
2. தமிழ்நாடு மாநில சுற்றுச்சூழல் மதிப்பீட்டு ஆணையம், சென்னை


S. DHANASEKAR, M.Sc., (Geo)
Qualified Person



புதுக்கோட்டை மாவட்ட அரசிதழ்

சிறப்பு வெளியீடு

ஆணையின்படி வெளியிடப்பட்டது

புதுக்கோட்டை, அக்டோபர் 19, 2023

[எண் 14

ஐப்பசி 2, சோபகிருது, திருவள்ளூர் ஆண்டு—2054

மாவட்ட ஆட்சியர் அறிவிக்கை

கனிமங்களும் குவாரிகளும் - மதுரை மாவட்டம் - 1959 ஆம் ஆண்டு தமிழ்நாடு சிறுகனிம சலுகை விதிகள் விதி 8(1) என்படி டெண்டர் இணைந்த பொது ஏலத்தில் விடுவது குறித்த அறிவிப்பு.

மாவட்ட ஆட்சியர் ந.க.எண் 611/2022 (புமசு), நாள்: 18-10-2023

புதுக்கோட்டை மாவட்டத்தில் அரசு புறம்போக்கு நிலங்களில் தேர்வு செய்யப்பட்டுள்ள கல் குவாரியிலிருந்து சாதாரண பொது உபயோக சிறு கனிமங்களைக் குவாரி செய்து எடுத்து செல்வதற்கான குத்தகை உரிமம் வழங்க வேண்டி மூடி முத்திரையிட்ட டெண்டர் விண்ணப்பங்கள் கோருதல் மற்றும் பொது ஏல அறிவிப்பு.

(அ) 1959 ஆம் ஆண்டு தமிழ்நாடு சிறுகனிம சலுகை விதிகள் விதி 8-ன் உள்விதி (1)-ன்படி இந்த அறிவிக்கையுடன் இணைக்கப்பட்டுள்ள அட்டவணையில் குறிப்பிடப்பட்டுள்ள அரசுப் புறம்போக்கு நிலங்களில் அமைந்துள்ள கல்குவாரிகளிலிருந்து சாதாரண உடைகல், குண்டுக்கல், சக்கைக்கல், ஜல்லி, கலுக்கால் வெட்டி எடுத்துச் செல்ல ஏற்கனவே கல் உடைக்கப்பட்ட குவாரிகளுக்கு ஐந்து ஆண்டு காலத்திற்கும், கல் உடைக்கப்படாத குவாரிக்கு பத்து ஆண்டு காலத்திற்கும் குத்தகை பெற மூடி முத்திரையிடப்பட்ட மறைமுக டெண்டருடன் இணைந்த திறந்த முறை ஏலத்தின் மூலம் குவாரி குத்தகை கோரும் டெண்டர் மனுக்கள் முப்பிரதிகளில் புதுக்கோட்டை மாவட்ட ஆட்சியரால் 15.11.2023 மாலை 5.00 மணி வரையிலும் வரவேற்கப்படுகிறது.

(ஆ) திறந்த முறை ஏலம் மற்றும் மறைமுக டெண்டர் உறைகள் திறப்பது ஆகிய நடைமுறைகள் புதுக்கோட்டை மாவட்ட ஆட்சியர் அலுவலக வளாகத்தில் உள்ள கூட்ட அரங்கில் 16.11.2023 அன்று காலை 11.00 மணிக்கு தொடங்கி நடத்தப்படும்.

பகுதி - I மனு செய்வதற்கான நிபந்தனைகள்

1. இவ்வறிக்கை தொடர்பாக குவாரி குத்தகை கோரும் டெண்டர் மனுக்கள் 1959-ஆம் ஆண்டு தமிழ்நாடு சிறுகனிம சலுகை விதிகளின் இணைப்பு VI-ல் கண்டுள்ள படிவத்தில் அசல் மற்றும் இரண்டு நகல்களுடன் கொடுக்கப்பட வேண்டும். அதன் மாதிரிப்படிவம் இவ்வறிக்கையின் கடைசி இணைக்கப்பட்டுள்ளது. பிற்சேர்க்கையில் பிரகரிக்கப்பட்டுள்ள படிவம் VI-ன் படி பூர்த்தி செய்து அனுப்பப்பட விண்ணப்பங்கள் ஏற்றுக்கொள்ளப் படமாட்டாது. மேற்படி படிவம் VI-ன் படி உரிய இணைப்புகளுடன் இல்லா விண்ணப்பங்கள் மாவட்ட ஆட்சியரால் நிராகரிக்கப்படும்.

2. இந்த அறிவிக்கையின் இறுதியில் கண்டுள்ள அட்டவணையில் கொடுக்கப்பட்ட ஒவ்வொரு இனத்திற்கும் தனித்தனியாக மனுக்கள் கொடுக்கப்பட வேண்டும்.

3. டெண்டர் மனுவுடன் கீழ்க்கண்ட ஆவணங்கள் அசல் மற்றும் இரண்டு நகல்களில் முறையே அசல் மற்றும் நகல் மனுக்களுடன் இணைத்து கொடுக்கப்பட வேண்டும்.

(அ) திரும்பப்பெற இயலாத விண்ணப்ப படிவ கட்டணமான ரூ.1500/-ஐ அரசு கருவூதத்தில் செலுத்திய சலான் மனுவுடன் இணைக்க வேண்டும் அல்லது ஏதேனும் ஒரு தேசியமயமாக்கப்பட்ட வங்கியில், வங்கி வரைவோலை (Demand Draft) "மாவட்ட ஆட்சியர், புதுக்கோட்டை" என்ற பதவி குறிப்பிட்டு எடுத்து இணைக்கப்பட வேண்டும்.

(ஆ) பிணை வைப்புத் தொகையாக (Earnest Money Deposit) ரூ.25,000/- மட்டும் மாவட்ட ஆட்சியர் புதுக்கோட்டை என்ற பெயருக்கு ஏதேனும் ஒரு தேசிய மயமாக்கப்பட்ட வங்கியில் வங்கி வரைவோலை (Demand Draft) பெற்று மனுவுடன் இணைக்கப்பட வேண்டும். தனி நபர் பெயருக்கு எடுத்துக் கொடுக்கப்படும் வங்கி வரைவோலை ஏற்றுக்கொள்ளப்பட மாட்டாது.

(இ) டெண்டர் மனுதாரர், தான் மறைமுகமாக குறிப்பிடும் அதிகபட்ச டெண்டர் தொகையில் 10 சதவீதம் தொகைக்கான வங்கி வரைவோலையை (Demand Draft) ஏதேனும் ஒரு தேசியமயமாக்கப்பட்ட வங்கியில் "மாவட்ட ஆட்சியர், புதுக்கோட்டை" என்ற பெயரில் மனுவுடன் இணைக்க வேண்டும்.

(ஈ) டெண்டர் மனுதாரர் தனியாகவோ அல்லது மற்றவருடன் கூட்டாகவோ இணைந்து தமிழ்நாட்டில் எந்தவொரு மாவட்டத்திலும் (i) ஏற்கனவே காலாவதியான குவாரி குத்தகை விபரம், (ii) நடப்பில் உள்ள குவாரி குத்தகை விபரம், (iii) குத்தகை

கேள்வி மனு செய்யப்பட்டு, நிலுவையில் உள்ள மனுக்கள் விபரம் மற்றும் (iv) தற்போதைய மனுவுடன் ஒரே கோத்தில் வேறு பகுதியில் குத்தகை கோரும் மனுக்கள் விபரம் ஆகியவைகள் அடங்கிய ஆணை உறுதி ஆவணத்தை, சான்று உறுதி அலுவலரின் ஒப்புதல் பெற்று இணைக்க வேண்டும்.

(உ) டெண்டர் மனுதாரர் நிபந்தனை (ஈ) யில் கண்ட விபரப்படி ஏற்கனவே உள் மற்றும் வெளி மாவட்டங்களில் குவாரி குத்தகை பெற்றிருப்பவராயின் சுரங்க வரியினங்களான, ராயல்டி, சீனியரேஜ் தொகை, முடக்குவரி, பரப்புவரி, மாவட்ட கனிம அறுக்கட்டளை நிதி மற்றும் அபராதம் ஏதேனும் விதிக்கப்பட்டிருப்பின் அந்த தொகைகளை செலுத்தியதற்கான "சுரங்க வரி நிலுவையில்லா சான்று" பெற்று ஒப்படைக்க வேண்டும்.



(ஊ) டெண்டர் மனுதாரர், வருமானவரி செலுத்துபவராக இருப்பின், செலுத்தியதாகத்தக்க வருமானவரிச் சான்று பெற்று ஒப்படைப்பதுடன் (ii) நாளது தேதியவர் வருமான வரி தொடர்பான இணைப்புகளை அத்துறைக்கு சமர்ப்பித்ததாகவும், (iii) 1961-ம் ஆண்டு வருமான வரிச் சட்டத்தின்படி கணக்கிடு செய்து அதன் அடிப்படையில் வருமான வரி செலுத்தியதாகவும் குறிப்பிட்டு, ஆணை உறுதி ஆவனத்தில் ஒப்பமிட்டு சான்று உறுதி அலுவலரின் ஒப்புதல் பெற்று மனுவுடன் இணைக்க வேண்டும்.

(எ) மேற்கண்ட ஆணை உறுதி வாக்குமூலங்கள் (Affidavit) ரூ.20/- மதிப்புள்ள முத்திரைத்தாள்களில் நோட்டரி பப்ளிக் முன்பு கையொப்பமிட்டதாக இருக்க வேண்டும்.

4. மேற்கண்ட இணைப்புகளுடன், அசல் மனு மற்றும் இரண்டு நகல்கள் ஆகியவற்றை எழுத்துக்கள் தெரியாத வகையில் உள்ள காகித உறையிலிட்டு, அதில் வேண்டிய இடங்களில் அரக்கு கொண்டு சீல் வைத்து பின்னர் உறையின் மேல் அட்டவணையில் கண்ட குவாரி வரிசை எண், கிராமம் மற்றும் புல எண்ணைக் குறிப்பிட்டு, குத்தகை கோரும் டெண்டர் மனு என்று தலைப்பிட்டும், அதன் கீழ் டெண்டர் மனுதாரரின் பெயர் மற்றும் சரியான முகவரி எழுதியும், பெறுநர், "மாவட்ட ஆட்சியர், புதுக்கோட்டை மாவட்டம்" என்று தெளிவாகவும் எழுதி கீழ் குறிப்பிடப்பட்ட அலுவலருக்கு 15.11.2023 அன்று மாலை 5.00 மணிக்குள் கிடைக்குமாறு அனுப்பி வைக்க வேண்டும்.

உதவி இயக்குநர்,
புலியியல் மற்றும் சுரங்கத்துறை,
மாவட்ட ஆட்சியர் அலுவலகம்,
புதுக்கோட்டை.

5. நேரடியாக அலுவலகத்தில் கொடுக்கப்படும் முத்திரை இடப்பட்ட டெண்டர் உறைகளை பெற்றுக் கொண்டமைக்கான தமிழ்நாடு சிறுகனிம சலுகை விதிகள், 1959-ன் பின்னிணைப்பு IX-ல் கண்ட டிவீஷனில் ஒப்புதல் கடிதம் வழங்கப்படும். பதிவுத்தபாலில் அனுப்பி வைக்கப்படும் உறைகளுக்கு, அவை அலுவலகத்தில் கிடைக்கப்பெறும் நாளிலிருந்து மூன்று தினங்களுக்குள் ஒப்புதல் கடிதம் அனுப்பி வைக்கப்படும்.

6. குறிப்பிட்ட காலக்கெடு முடிந்த பின்னர், அலுவலரால் பெறப்படும் முத்திரை வைத்த டெண்டர் உறைகள் மற்றும் உறையின் மீது பெறுநர் "மாவட்ட ஆட்சியர், புதுக்கோட்டை மாவட்டம்" எனக் குறிப்பிடப்படாத டெண்டர் உறைகள் ஏற்றுக்கொள்ளப்படாமலேயே டெண்டர் மனுதாரருக்கு திருப்பப்படும்.

7. டெண்டர் விண்ணப்பப்படிவத்தில் மனுச் செய்யும் நபர்கள் தாங்கள் மனுச் செய்யும் குவாரிக்கு குத்தகையாகச் செலுத்த விரும்பும் தொகையை விண்ணப்பத்தில் குறிப்பிடாமல் இருந்தாலோ, அல்லது பிணை வைப்புத் தொகைக்கான காசோலைகளை விண்ணப்பத்தில் இணைக்காமல் இருந்தாலோ, விண்ணப்பதாளில் விண்ணப்பதாரர் தன் கையொப்பம் செய்யாமல் இருந்தாலோ, தமிழ்நாடு சிறு கனிம சலுகை விதிகளில் கூறப்பட்ட ஆணை உறுதி வாக்கு மூலங்கள் எதுவும் இணைக்கப்படாமல் இருந்தாலோ, மேற்படி டெண்டர் விண்ணப்பம் மாவட்ட ஆட்சியரால் அல்லது அவரால் அங்கீகரிக்கப்பட்ட அலுவலரால் நிராகரிக்கப்படும்.

8. மேற்குறிப்பிட்டவாறு விண்ணப்பம் நிராகரிக்கப்பட்ட டெண்டர் விண்ணப்பதாரர்களுக்கு டென்ப் திற்கும் சமயத்தில் அவர் இருந்திருப்பின் மாவட்ட ஆட்சியர் அல்லது அவரது அங்கீகாரம் பெற்ற அலுவலரால் விண்ணப்பதாரரிடம் தக்க ஒப்பதல் பெற்று காசோலை திருப்பி வழங்கப்படும். டெண்டர் திறக்கும் சமயத்தில் ஆஜரில் இல்லாத நபருக்கு பதிவஞ்சல் கடிதத்தில் கேட்பு காசோலை (Demand-Draft)-தான் அனுப்பி வைக்கப்படும். ஆனால் அவ்வாறான விண்ணப்பதாரர் ஏலத்தில் அதிகத் தொகைக்கு ஏலம் கேட்டிருந்து, ஏற்கனவே பிணை வைப்புத் தொகையும் செலுத்தியிருப்பின் அவரது விண்ணப்பம் ஏற்றுக் கொள்ளப்படும்.

9. முன் குறிப்பிடப்பட்ட நிபந்தனைகளின்படி பெறப்பட்ட டெண்டர் உறை அனுப்பிய மனுதாரர்கள் டெண்டர் உறைகள் திறக்கப்படும் போது ஏல அரங்கில் இருக்க அனுமதிக்கப்படும்.

10. அலுவலரால் பெறப்பட்ட முத்திரை இடப்பட்ட டெண்டர் உறைகள் திறக்கப்படுவதற்கு முன் இந்த அறிவிக்கையுடன் இணைக்கப்பட்டுள்ள அட்டவணையில் குறிப்பிடப்பட்ட ஒவ்வொரு இனங்களுக்கும் திறந்த முறை பொது ஏலம் 16.11.2023 அன்று காலை 11.00 மணியளவில் தொடங்கி தொடர்ந்து நடத்தப்படும்.

பகுதி - II திறந்த முறை பொது ஏலத்தில் கலந்து கொள்வதற்கான நிபந்தனைகள்

1. பொது ஏலத்தில் கலந்து கொள்ள விரும்புபவன் பகுதி I-ல் குறிப்பிடப்பட்டவாறு மனு மற்றும் ஆவணங்களை அசல் மற்றும் இரண்டு நகல்களுடன் ஏல நாளான 16.11.2023 அன்று காலை 11.00 மணிக்கு ஒவ்வொரு கல்குவாரிக்கும் பொது ஏலம் நடக்கும் போது நேரிடையாக பொது ஏலத்தில் கலந்து கொள்ளலாம்.

2. திறந்த முறை ஏலத்தில் கலந்து கொள்ள மனு கொடுப்போர், மனுவின் இனம் 9-ல் கண்டுள்ள வினாவில் டெண்டர் / கேட்புத் தொகை குறிப்பிடத் தேவையில்லை.

3. முடி முத்திரையிடப்பட்ட உறையின் மூலம் டெண்டர் மனு கொடுத்துள்ள நபர் இரண்டாம் முறையாக மனு கொடுக்க தேவையில்லை. ஆனால் அவர்கள் நேடியாக திறந்தமுறை பொது ஏலத்திலும் கலந்து கொள்ளலாம்.

4. முத்திரை இடப்பட்ட டெண்டர் உறை கொடுத்துள்ள மனுதாரர் மற்றும் பொது ஏலத்தில் கலந்து கொள்ள உள்ள மனுதாரர் ஆகியோர், பொது ஏலத்தில் கலந்து கொள்ள இயலாத நிலையில் அவர்களது நியமனம் பெற்ற மற்றொரு நபர் மனுதாரரின் ஒப்பதல் கடிதம் பெற்று அதனை சான்று உறுதி அலுவலரின் மேலொப்பம் பெற்று அதனையும், விண்ணப்பம் கொடுத்ததற்கான அலுவலரிடமிருந்து பெறப்பட்ட அசல் ஒப்பதல் கடிதத்தையும் ஏலம் நடத்தும் அலுவலரிடம் ஒப்படைத்துவிட்டு, ஏலத்தில் கலந்து கொள்ள வேண்டும். ஏலம் முடிவடைந்தவுடன் அலுவலர் கொடுத்த ஒப்பதல் கடிதம் மட்டும் திரும்ப ஒப்படைக்கப்படும்.

5. (அ) மாவட்ட ஆட்சியரோ அல்லது அவரது அதிகார அனுமதி பெற்ற அலுவலரோ குவாரி குத்தகை தொடர்பாக திறந்தமுறை ஏலம் நடத்துவார். அப்போது திறந்தமுறை ஏலத்திற்கு மனு கொடுத்தவர்கள் மற்றும் டெண்டர் உறை கொடுத்தவர்களும் தான் கொடுக்க விரும்பும் ஏலத்தொகையை கூற அனுமதிக்கப்படும்.

(ஆ) மனுதாரர் அல்லது அவரது அதிகாரம் பெற்ற நபர் யாரேயினும் ஏலத்தில் கலந்து கொள்ளாதபோதும், ஏலம் நடத்தப்பட்டு டெண்டர் உறைகள் திறக்கப்பட்டு விதிமுறைகளின்படி மேற்படிவடிக்கை தொடரப்படும்.



6. ஏலம் முடிந்தபின் ஏலம் நடத்தும் அலுவலர், திறந்தமுறை ஏலத்திற்கு பெறப்பட்ட மொத்த மனுக்களின் எண்ணிக்கை மனு கொடுத்துள்ளவர்களின் பெயர், அதிகபட்சமாக கூறப்பட்ட ஏலத் தொகையை குறிப்பிட்டு ஏலம் கூறிய நாள் மற்றும் முகவரி ஆகியவற்றை ஏலம் நடத்தப்படும் இடத்திலேயே அறிவிக்கப்படும்.

7. பின்னர் குத்தகை கோரி பெறப்பட்ட எல்லா முடி முத்திரை இடப்பட்ட டெண்டர் உறைகளும் திறக்கப்பட்டு, அவற்றில் உள்ள மனுக்கள், ஏலதாரர்கள் மற்றும் டெண்டர்தாரர்கள் முன்னிலையில் ஆய்வு செய்யப்படும்.

8. பகுதி-1ல் கண்ட நிபந்தனை 3-ல் குறிப்பிடப்பட்டுள்ள ஆவணங்கள் மற்றும் தொகைக்கான வரைவோலைகள் இணைக்கப்படாத மனுக்களும், மனுவின் இனம் 9-ல் டெண்டர் தொகைக்கான குறிப்பிடாத மனுக்களும், டெண்டர்தாரரின் கையொப்பம் இடப்படாத மனுக்களும் தவறான விபரங்கள் எழுதப்பட்ட மனுக்களும் செல்லத்தகாதவை என்று முடிவு செய்யப்பட்டு ஏலக்கூட்டத்திலேயே அறிவிக்கப்படும். இதற்கான தனியே எழுத்து மூலமாக ஆணை ஏதும் பிறப்பிக்கப்பட மாட்டாது. இதுபற்றி மனுவின் மீது விபரம் எழுதப்பட்டு டெண்டர்தாரரின் ஒப்புதல் பெறப்படும்.

9. செல்லுபடியாகத்தக்க மனுக்கள் ஆய்வு செய்யப்பட்டு அவற்றில் அதிகபட்ச டெண்டர் தொகை குறிப்பிடப்பட்டுள்ள டெண்டர்தாரரின் பெயர் மற்றும் முகவரி ஆகியவை ஏலக்கூட்டத்தில் அறிவிக்கப்படும்.

10. ஒவ்வொரு குவாரிக்கும் பெறப்பட்ட டெண்டர் விண்ணப்பங்களில் குறிப்பிடப்பட்டுள்ள அதிகபட்சமான குத்தகைத்தொகை அல்லது ஏலத்தின் மூலம் கேட்கப்படும் அதிகபட்ச ஏலத்தொகை இவற்றில் எது அதிகமோ அந்த தொகைக்கு டெண்டர்/ஏலம் கேட்ட நாள் குத்தகை பெற தகுதியாளவர் என ஏல அரங்கில் மாவட்ட ஆட்சியர் அல்லது மாவட்ட ஆட்சியரால் அங்கீகரிக்கப்பட்ட அலுவலரால் அறிவிக்கப்படும்.

11. முதல் நிலை பொது ஏலத்தில் கூறப்பட்ட அதிகபட்ச ஏலத் தொகையைவிட அதிகமாக மறைமுக டெண்டர் முறையில் இரண்டு அல்லது அதற்கு மேற்பட்ட நாட்கள் ஒரே டெண்டர் தொகை குறிப்பிட்டிருந்தால் அவ்வாறு குறிப்பிட்ட டெண்டர்தாரர்களிடையே இரண்டாம் நிலை திறந்த முறை பொது ஏலம் நடத்தப்பட்டு அதில் அதிகத்தொகை செலுத்த முன் வருபவர் குவாரி குத்தகை பெற தகுதியாளவர் என்று அறிவிக்கப்படுவார்.

12. முதல் நிலை திறந்த முறை பொது ஏலத்தில் கூறப்பட்ட அதிகபட்ச ஏலத் தொகையையும் மறைமுக டெண்டர் முறையில், குறிப்பிட்ட அதிகபட்ச டெண்டர் தொகையும், ஒரே தொகையாக இருந்தால் அவ்விரு தொகைகளை கூறிய நாட்களிடையே இரண்டாம் நிலை திறந்த முறை ஏலம் நடத்தப்பட்டு அதில் அதிகத்தொகை செலுத்த முன்வருபவர் குவாரி குத்தகை பெற தகுதியாளவர் என்று அறிவிக்கப்படுவார்.

13. (அ) அதிகபட்ச ஏலத் தொகை கோரி குவாரி குத்தகை பெற தகுதியாளவர் என்று அறிவிக்கப்பட்ட நாள், அதிகபட்ச ஏலத் தொகையில் 10% சதவீத தொகையை உடனடியாக ஏலம் நடத்திய அலுவலரிடம் செலுத்தி ஒப்புதல் கடிதம் பெற்றுக் கொள்ள வேண்டும். மீதி 90% சதவீதத் தொகையை ஏலம் நடைபெறும் நாளிலிருந்து பதினாந்து நாட்களுக்குள் செலுத்தக் கோரி அறிவிப்பு ஒப்புதல் கடிதத்திலேயே குறிப்பிடப்பட்டிருக்கும்.

(ஆ) மேலே குறிப்பிட்டவாறு அந்தந்த குவாரிக்கான ஏலக்கேட்டு முடிவு செய்யப்பட்ட உடன் 10% சதவீத தொகை செலுத்தாத பட்சத்தில் அந்த நபரால் ஏற்கனவே அரசுக்கு வழங்கி வரைவோலை மூலம் செலுத்தியுள்ள தொகைகள் அரசுடனாய்வுக்கப்படும்.

14. (அ) நிபந்தனை 13-ன்படி அதிகபட்ச ஏலத் தொகை கூறி குத்தகை பெறத் தகுதியானவர் எவ் அறிவிக்கப்பட்ட நபர் உடனடியாக 10% சதவீத தொகை செலுத்தாத நிலையில், அவருக்கு அடுத்தபடியாக அதிக ஏலத் தொகை அல்லது டெண்டர் தொகை குறிப்பிட்ட நபரின் ஏலத்தொகை ஏற்படையதாக இருக்கும் பட்சத்தில் குத்தகை பெறத் தகுதியானவர் என்று அறிவிக்கப்பட்டு அவர் குறிப்பிட்டுள்ள குத்தகைத் தொகையில் மீதமுள்ள சதவீதத் தொகையை உடனே செலுத்துமாறு கோரப்படுவார். உரிய தொகையை அவர் அரசுக்குச் செலுத்தினால் அவர் குத்தகை பெறத் தகுதியானவர் என்று அறிவிக்கப்படுவார்.

(ஆ) மேற்கண்டவாறு குத்தகை பெற தகுதியானவர் என்று அறிவிக்கப்பட்ட இரண்டாவது நபரும் 10% சதவீத தொகை செலுத்தாத போது மேற்கண்ட வழிமுறையை மாவட்ட ஆட்சியர் மீண்டும் நடைமுறைப்படுத்தலாம் அல்லது ஏலத் தொகை ஏற்படையது அல்ல என்று மாவட்ட ஆட்சியர் கருதினால் உரிய குவாரியை மறு டெண்டர் / ஏலம் மூலம் குத்தகைக்கு விடலாம்.

15. குவாரி குத்தகை பெற தகுதியானவர் பெயர் அறிவிக்கப்பட்ட பின்னர், இது மனுதாரருக்கு வரைவோலையை திரும்ப வழங்க பின்னர் நடவடிக்கை எடுக்கப்படும்.

16. (அ) குத்தகை பெற தகுதியானவர் என்று அறிவிக்கப்பட்ட நபர் நிலுவையிலுள்ள 90% சதவீத குத்தகைத் தொகையை ஏலம் நடைபெறும் நாளிலிருந்து 15 நாட்களுக்குள் அதனை அரசுக்கு செலுத்த வேண்டும்.

(ஆ) உயர்ந்த மட்ச ஏலதாரர்/டெண்டர்தாரர் என அறிவிக்கப்படும் நபர் குத்தகை தொகை செலுத்துவதுடன், குத்தகை தொகைக்கு உண்டான வருமான வரி 2% செலுத்தப்படவேண்டும். செலுத்தப்பட்ட வருமானவரிக்கு 10% கூடுதல் வரி செலுத்தப்பட வேண்டும். மேலும் செலுத்தப்பட்ட வருமானவரி மற்றும் கூடுதல் வரிக்கு 3% தீர்வை செலுத்தப்படவேண்டும்.

(இ) மேற்குறிப்பிட்ட 90% சதவீதத் தொகை குறிப்பிட்ட காலத்திற்குள் செலுத்தப்படாவிட்டால், குத்தகை கோரும் நபர் ஏற்கனவே செலுத்தியுள்ள 10 சதவீத தொகை மற்றும் முன்வைப்பு தொகையான ரூ.25,000/- ஆகியவை அரசுடமையாக்கப்படும்.

(ஈ) நிபந்தனை 16(அ)-ன்படி குத்தகைத் தொகை செலுத்தப்படாதபோது தொகை செலுத்தக் கோரப்பட்ட நபருக்கு அடுத்தபடியாக அதிக தொகை செலுத்த டெண்டர் / ஏலம் கூறிய நபர் குத்தகை பெறத் தகுதியானவர் என்று எழுத்து மூலம் அறிவிக்கப்பட்டு அவர் கூறிய மொத்த ஏலத்தொகையை மீத நாட்களுக்குள் அரசுக்கு செலுத்துமாறு கோரப்படும்.

(உ) நிபந்தனை 16(இ)-ன்படியும் கோரப்பட்ட குத்தகைத் தொகை செலுத்தப்படா விட்டால் தொடர்புடைய கங்குவாரி டெண்டர் / பொது ஏலம் மூலம் குத்தகைக்கு விட மறு அறிவிப்பு செய்யப்படு நடவடிக்கை தொடரப்படும்.

17. (அ) குவாரி குத்தகை கோரி ஒரே ஒரு மறைமுக டெண்டர் மனு கொடுக்கப்பட்டு திறந்த முறை பொது ஏலத்தில் கலந்து கொள்ள யாரும் முன்வரவில்லைபெனில், டெண்டர் தொகை அரசுக்கு ஆதாயமானது என்று மாவட்ட ஆட்சியர் கருதினால், அந்த டெண்டர் மனுதாரருக்கு குவாரி குத்தகை வழங்க மாவட்ட ஆட்சியர் ஒப்புதல் அளிக்கலாம். டெண்டர் தொகை அரசுக்கு ஆதாயமானதல்ல என்று மாவட்ட ஆட்சியர் கருதும் பட்சத்தில், மனுவைத் தள்ளுபடி செய்து ஆணையிடப்பட்டு மறு ஏலத்தின் மூலம் குவாரி குத்தகை வழங்க மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு.

(ஆ) இரண்டு அல்லது அதற்கு அதிகமான மனுக்கள் பெறப்பட்டாலும் கூட அதிபர் / டெண்டர் / ஏலத்தொகை அரசுக்கு ஆதாயமானதல்ல என்று மாவட்ட ஆட்சியர் கருதினால் மனுக்கள் தள்ளுபடி செய்து மறு ஏலம் நடத்த மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு.



பகுதி - III குவாரி குத்தகை பெறுவதற்கான நிபந்தனைகள்

1. (அ) தமிழ்நாட்டில் எல்லா மாவட்டங்களிலும் சேர்த்து ஒரு மனுதாரருக்கு இரண்டு குவாரி குத்தகைக்கு மேல் வழங்கப்பட மாட்டாது. தவறான தகவல் தந்து இரண்டுக்கு மேற்பட்ட குத்தகைகள் பெறப்பட்டிருப்பது பின்னர் தெரியவந்தால் கடைசியாக கொடுக்கப்பட்ட குத்தகையை ரத்து செய்ய நடவடிக்கை எடுக்கப்படும்.

(ஆ) குவாரி உரிமம் பெறுவது தொடர்பாக உயர்நீதிபட்ச டெண்டர் / ஏலதாரர் குத்தகை தொகையைச் செலுத்தி அதற்குரிய சலுகை மாவட்ட ஆட்சியரிடம் ஒப்படைத்த பின்பு குவாரி உரிமம் வழங்க உத்தேசிக்கப்பட்டுள்ள பரப்பாக கருதி அறிவித்து குறிப்பானை வழங்கப்படும்.

(இ) மேற்படி குறிப்பானையை பெற்ற அதிக தொகை செலுத்த டெண்டர் / ஏலம் கோரிய நபர் தகுதியான கரங்கத்திட்ட அறிக்கையை அங்கீகரிக்கப்பட்ட (RQP) நரிபரிசுத்து தயார் செய்து சமர்ப்படுத்தப்பட உதவி இயக்குநரின் ஒப்புதலுக்கு 90 நாட்களுக்குள் சமர்ப்பிக்க வேண்டும்.

(உ) உயர்நீதிபட்ச டெண்டர் / ஏலதாரர் சமர்ப்பித்த கரங்கத்திட்டத்தினை மரிசலனை செய்து திட்டத்தில் மாற்றம் இருப்பின் திருத்தி அமைக்கும் பொருட்டும் கரங்கத்திட்டம் புலியியல் மற்றும் கரங்கத்துறை உதவி இயக்குநரால் ஒப்புதல் செய்யவும், கரங்கத்திட்டம் பெறப்பட்ட நாளிலிருந்து 90 நாட்கள் கால அவகாசமாகும்.

(ஊ) சமர்ப்படுத்தப்பட உதவி இயக்குநரால் ஒப்புதல் செய்யப்பட்ட கரங்கத்திட்ட அறிக்கையை அதிக தொகை செலுத்த டெண்டர் / ஏலம் கூறிய நபர் மாநில கற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் தடையின்மை சான்று கோரி விண்ணப்பித்து தடையின்மை சான்று பெற்று சமர்ப்பிக்கும் பட்சத்தில் மாவட்ட ஆட்சித்தலைவர் அவர்களால் அதிக தொகை செலுத்த டெண்டர் / ஏலம் கூறிய நபருக்கு குவாரி உரிமம் வழங்க நடவடிக்கை எடுக்கப்படும்.

(எ) உரிய காலக்கெடுவிற்குள் உயர்நீதிபட்ச டெண்டர் / ஏலதாரர் மாநில கற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் தடையின்மை சான்று பெற்று சமர்ப்பிக்கத் தவறும் பட்சத்தில் மாவட்ட ஆட்சித்தலைவர் அவர்களால் மேற்படி ஆணைய இரத்து செய்ய நடவடிக்கை மேற்கொள்ளப்படும்.

(ஏ) குவாரி குத்தகை வழங்குவதற்கு ஒப்புதல் அளித்து குவாரி குத்தகை ஒப்பந்தம் நிறைவேற்றுவது தொடர்பாக தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959-ன் பின்னிணைப்பு 1-ல் கண்டுள்ள படிவத்தில் ஒப்பந்த கருத்துகளில் சேர்க்கை, நீக்கம் மற்றும் மாற்றங்கள் செய்யப்பட்ட வரைவு ஒப்பந்தம் மற்றும் குத்தகை பரப்பைக் காட்டும் புலப்பட நகலும் மனுதாரரின் ஏற்புக்கு அனுப்பப்படும்.

(ஐ) மாவட்ட ஆட்சியரால் குறிப்பிடப்படும் காலக்கெடுவிற்குள் மனுதாரர் கீழ்க்கண்ட ஆவணங்கள் மற்றும் தொகைகளை செலுத்தி அவற்றை மாவட்ட ஆட்சியரிடம் ஒப்படைக்க வேண்டும்.

i) மொத்த குத்தகை தொகையில் 20 சதவீத தொகையை காப்புத் தொகையாக உரிய தகவரில் செலுத்தியமைக்கான சலாள்.

ii) மாவட்ட ஆட்சியரின் அறிவிக்கையில் கோரியுள்ளவாறு நீதியன்றம் சாரா முத்திரைத்தாள் ஒப்பந்த ஆவணம் தயாரிக்கும் பொருட்டு கொடுக்கப்பட வேண்டும்.

2. (அ) உரிய காலகெடுவுக்குள் முன் குறிப்பிடப்பட்ட கார்ப்து தொகையை அரசுக்குச் செலுத்த ஆவணங்களை மாவட்ட ஆட்சியரிடம் ஒப்படைக்காத நபருக்கு ஏற்கனவே குவாரி குத்தகை வழங்கியுள்ளது என்று ஏற்கனவே கொடுக்கப்பட்ட அறிவிப்பு எத்து செய்யப்பட்டு அத்த நான்வண அவரால் செலுத்தப்பட்ட தொகைகள் மற்றும் ஆவணங்கள் அரசுடையமாக்கப்படும்.

(ஆ) பெற்றுவண் வறு குத்தகை அறிவிப்பினை எத்து செய்யப்பட்டால், எத்து ஆணை பெற்ற நபருக்கு அடுத்தபடியாக அறிவுத் தொகை செலுத்த டெண்டர்/ஏலம் கூறிய நபருக்கு குத்தகை வழங்க முன்வைப்பித்தனை டன்பு நடவடிக்கை தொடரப்படும்.

(இ) குத்தகை வழங்க அறிவிப்பு செய்யப்பட்ட இரண்டாவது நபரும் முழு குத்தகைத் தொகை, கார்ப்து தொகை, முத்திரைத்தாள், மரப்புலரி ஆகியவற்றை மாவட்ட ஆட்சியரின் அறிவிக்கையைப் பெற்றுக் கொண்ட பத்து நாட்களுக்குள் செலுத்தவில்லையெனில் உரிய குவாரி மறு டெண்டர்/ஏலம் மூலம் குத்தகைக்கு விட்ட நடவடிக்கை எடுக்கப்படும்.

3. (அ) கோரப்படும் ஆவணங்களை மற்றும் தொகைகளை குத்தகை பெறவுள்ள மனுதாரர் அரசுக்குச் செலுத்தியின், அறிவிக்கை மூலம் தெரிவிக்கப்படும் நாளில் மேற்படி குத்தகைதாரர் மாவட்ட ஆட்சியரின் முன்பு ஆஜராகி குத்தகை ஒப்பந்த ஆவணங்களில் கையெழுத்திட்டின் குத்தகையாளராக அறிவிக்கப்படுவார்.

(ஆ) குத்தகை ஒப்பந்தப்பத்திரம் மற்றும் குத்தகை புலப்படும் ஆகியவற்றை மேற்படி குத்தகையாளர் கையொப்பம் இட்ட பின்னர், அவைகளில் மாறுதல் செய்யவோ, அவற்றின் மீது மாற்றுக்கருத்து தெரிவிக்கவோ குத்தகைதாரர் அனுமதிக்கப்படமாட்டார்கள்.

4. (அ) குத்தகை காலம் ஏற்கனவே கல் உடைக்கப்பட்ட கங்குவாரிகளுக்கு ஐந்து ஆண்டுகள் மற்றும் கல் உடைக்கப்படாத கங்குவாரிகளுக்கு பத்து ஆண்டுகள் மட்டுமே. குத்தகை காலத்தின் ஆரம்பம் மற்றும் முடிவு தேதிகள் ஒப்பந்த ஆவணத்தில் தெளிவாக குறிப்பிடப்பட்டிருக்கும்.

(ஆ) ஒப்பந்த ஆவணத்தில் குறிப்பிட்டுள்ளபடி குத்தகை முடிவுறும் தேதிக்கு பின்னர் குத்தகை கால நீட்டிப்பு எந்த கோரிக்கையின் அடிப்படையிலும் செய்யப்படமாட்டாது.

(இ) குவாரி குத்தகையை பழுப்பிக்கக்கோரி மனு அளிக்கப்பட்டால் அது விசாரணையின்று தள்ளுபடி செய்யப்படும்.

5. குவாரி குத்தகை ஒப்பந்தப் பத்திரத்தில் மாவட்ட ஆட்சியருடன் மனுதாரர் கையொப்பம் இடுவதற்கு முன் குத்தகை மர்ப்பில் உடைக்கல், ஐல்வி, கட்டக்கல் போன்ற கனிமங்கள் வெட்டியெடுத்தாராளால் அப்பணி குத்தகை பெறாமல் செய்ததாக கருதப்பட்டு விதிமுறைகளின்படி மேற்படவடிக்கை தொடரப்படும்.

6. (அ) குவாரி குத்தகை காலம் முடிவடைந்தவுடன் குத்தகைதாரர் குத்தகை மர்ப்பை அரசுக்கு திரும்ப ஒப்படைத்து அதற்கான கடிதத்தை உரிய கிராம நிர்வாக அலுவலர் வசம் ஒப்பிடுத்து அதற்கான ஆணை உறுதி ஆவணம் தயாரித்து மாவட்ட ஆட்சியரிடம் ஒப்படைக்க வேண்டும்.

பகுதி - IV குவாரிப்பணி செய்வது தொடர்பான விதிமுறைகள்



1. (அ) குவாரிப்பணி செய்தவர்களான பொது விதிமுறைகள், மாவட்ட ஆட்சியருடைய கையொப்பமிடும் குத்தகை ஆவணத்தில் குறிப்பிடப்பட்டிருக்கும்.

(ஆ) கல் குவாரி குத்தகைக்காலம் குத்தகை ஒப்பந்தப்பத்திரம் நிறைவேற்றப்பட அனுமதி காலமாக கருதப்படும்.

(இ) மேலும், 1959ம் ஆண்டு தமிழ்நாடு சிறுகனிம சலுகை விதிகள் அனுபந்தம் 1ல் கண்ட நபரான உரிய முத்திரைத்தாளில் குத்தகை ஒப்பந்த பத்திரம் நிறைவேற்றி அதனை அவரது சொந்த செலவில் பதிவு செய்து கொடுக்க வேண்டும்.

(ஈ) செலுத்தப்பட்ட குத்தகை தொகை தவிர, தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959-ன் பின்னிணைப்பு II-ல் கண்டவாறு குவாரியிலிருந்து வெளியில் கொண்டு செல்லப்படும் கனிமத்திற்கு அரசால் அவ்வப்போது திருத்தி நிர்ணயிக்கப்படும் சீனியரேஜ் தொகை அல்லது ஒவ்வொரு ஆண்டிற்கான மூலக்குவரி இவற்றில் எது அதிகமோ அது செலுத்தப்பட வேண்டும். அவ்வாறு செலுத்தப்படாவிட்டால் குவாரி குத்தகையை ரத்து செய்ய நடவடிக்கை எடுக்கப்படும்.

2. மேலும் ஒவ்வொரு தனி குத்தகை புலத்திற்கும், சிறப்பு நிபந்தனைகள் ஏதும் இருக்குமானால் அவைகள் மாவட்ட ஆட்சியரால் வழங்கப்படும் பணி அனுமதி ஆணையில் குறிப்பிடப்படும். குத்தகை பெற்றவர் அவ்வனுமதி ஆணையையும் ஏற்று நடக்க வேண்டும்.

3. மேற்குறிப்பிட்டவை தவிர பின்வரும் சிறப்பு நிபந்தனைகளும் குத்தகைதாரரால் குத்தகை காலத்தில் கடைபிடிக்கப்பட வேண்டும்.

i. குத்தகையாளர் ஏற்பாடுக்கப்பட்ட சுரங்கத்திட்டத்தின்படி குவாரிப்பணி மேற்கொள்ள வேண்டும். தவறும் பட்சத்தில் தமிழ்நாடு சிறுகனிம சலுகை விதிகள் விதி 41 (10) (ii)-ன்படி நடவடிக்கை மேற்கொள்ளப்படும்.

ii. அனுமதி பெற்ற வெடிபொருள் கையாலும் நபர்கள் மூலம் வெடிமருந்துகள் பயன்படுத்தவேண்டும். வெடிபொருட்கள் சட்டம் கண்டிப்பாக கடைபிடிக்கப்பட வேண்டும். குவாரியில் வெடி பொருட்கள் பயன்படுத்துவர் தொடர்பாக சென்னை மண்டல சுரங்க பாதுகாப்பு இயக்கக பொது இயக்குநர் அவர்களின் வழிகாட்டு நெறிமுறைகளை பின்பற்றி குறைந்த அழுத்தமுள்ள வெடிமருந்துகளை பயன்படுத்தி குவாரிப்பணி செய்ய வேண்டும்.

iii. குத்தகையாளர் குத்தகைப் பகுதியில் வெட்டியெடுத்து வெளியில் அனுப்பும் சிறுவகைக் கனிமத்திற்கு உரிய கணக்குகளை புதுக்கோட்டை மாவட்ட புவியியல் மற்றும் சுரங்கத்துறை உதவி இயக்குநர் குறிப்பிடும் படிவத்தில் சுரங்க விபரப்பதிவேடு ஏற்படுத்தி விபரங்கள் எழுதி பிரதி மாதம் 5-ம் தேதிக்குள் தணிக்கைக்கு சமர்ப்பிக்க வேண்டும்.

iv. குத்தகை காலத்தில் ஏற்படுத்தப்பட்ட சுரங்க விபரப் பதிவேடுகளை குத்தகையாளர் குத்தகைக்காலம் முடிந்த பின்னரும் பாதுகாத்து அாக அலுவலர்கள் ஆய்வுக்கு கேட்கும் போது ஒப்படைக்க வேண்டும்.

v. குத்தகையாளர் கனிமங்களை வெளியில் அனுப்ப அனுப்புகை சீட்டுகளில் (பில்புக) உதவி இயக்குநர் ஒப்புதல் பெற வரும்போது, சீனியரேஜ் தொகையை செலுத்தி, அலுவலகத்திலிருந்து வழங்கப்படும் முசைவாணைச்சீட்டு மற்றும் அனுப்புகை சீட்டுகளில் உரிய அலுவலரின் மேலொப்பம் பெற்றுச் சென்று பயன்படுத்த வேண்டும்.

vi. கனிமங்களை குத்தகைப் பகுதியிலிருந்து வெளியில் அனுப்பும் போது அனுப்பப்படும் கனிமத்தின் வகை, அதன் அளவு, கனிமம் எடுத்துச் செல்லும் வாகனத்தின் வகை மற்றும் பதிவு எண், கனிமம் கொண்டு சேர்க்கப்படும் இடம், குவாரியிலிருந்து வரீசனம் புறப்படும் நேரம் மற்றும் சென்றடைய உத்தேச நேரம் ஆகிய விபரங்களை அசல் சிட்டில் ஒரே போளாவாலும் நகலை கார்பன் பேப்பர் அழுத்தும் மூலமும் எழுதி அசலை வாகனத்துடன் அனுப்பி நகலை (அடிக்கட்டு) அடுத்தமுறை அனுமதிபெற வரும்போது ஆய்வுக்கு காண்பித்துவிட்டு திரும்ப பெற்றுச் சென்று பாதுகாப்பாக வைத்திருக்க வேண்டும்.

vii. அனுப்புச் சிட்டில் எல்லா விபர விவரங்களுக்கும் விபரங்கள் எழுதப்படாமலே அல்லது திருத்தப்பட்டோ அல்லது மேல் எழுதப்பட்டோ அல்லது வெவ்வேறு மையினால் எழுதப்பட்டிருப்பின் அந்த அனுப்புகைச் சிட்டின் எடுத்துச் செல்லப்படும் கனிமம், அனுமதியின்றி எடுத்துச் செல்லப்படுவதாக கருதி, விதிமுறைகளின்படி நடவடிக்கை எடுக்கப்படும்.

viii. குத்தகை பகுதிக்குச் சென்றுவர பாதைவசதி குத்தகைதாரர், தனது சொந்த பொறுப்பில் ஏற்படுத்திக் கொள்ள வேண்டும். கல்குவாரிப்பணியில் குழந்தை தொழிலாளர்களை பயன்படுத்தக்கூடாது.

ix. குவாரிகளுக்கு அருகில் உள்ள போக்குவரத்துச் சாலைகள், குடியிருப்பு வீடுகள், வண்டிப்பாதைகள், மின் கம்பங்கள், டிரான்ஸ்பார்மர்கள் மற்றும் இதர நிலையான அமைப்புகள் இவற்றிலிருந்து நிர்ணயிக்கப்பட்ட பாதுகாப்பு இடைவெளியிட்டு மீதமுள்ள இடத்திற்குள்ள்தான் குவாரி செய்யும் பணி செய்யப்பட வேண்டும். மேற்கண்ட அமைப்புகளுக்கு சேதம் ஏதும் நேரிட்டால் அதற்கு குத்தகைதாரரே முழுப் பொறுப்பேற்க வேண்டும். இந்நேரில் பாதுகாக்கப்பட்ட புராதனச்சின்னங்களிலிருந்து 300 மீட்டர் பாதுகாப்பு இடைவெளி விட்டு குவாரிப்பணி மேற்கொள்ள வேண்டும்.

x. குத்தகைதாரரை மேற்குறிப்பிட்ட நிபந்தனைகளும் 1959-ஆம் ஆண்டைய தமிழ்நாடு சிறுகனிம சலுகை விதிகள் மற்றும் சுரங்கங்கள் மற்றும் கனிமங்கள் (அபிவிருத்தி மற்றும் ஒழுங்குமுறை) சட்டம், 1957 மற்றும் அரசால் அவ்வப்போது கொண்டு வரப்படும் ஆணைகளும், விதிகளும் கட்டுப்படுத்தும்.

xi. கல்குவாரிகளிலிருந்து சாதாரண கல், சக்கைக்கல், கட்டுக்கல், ஐயலிக்கற்கள், கலுக்கால் ஆகிய பொது உபயோக சிறு கனிமங்களை மட்டுமே குவாரி செய்ய வேண்டும். இவ்வனுமதியை பயன்படுத்தி வெளிநாட்டிற்கு ஏற்றுமதி செய்வதற்கும், அலங்கார வகை மற்றும் மெருகேற்றம் செய்வதற்கும் பயன்படும் வகையில் பெரிய/சிறிய கிரானைட் கந்துண்டங்களை வெட்டி எடுக்கக்கூடாது.

xii. குத்தகை விடப்படும் குவாரிகளை நீக்கவோ, புதிதாக சேர்க்கவோ, குவாரிப் பரப்பளவை மாற்றவோ, மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு. நிர்வாக குழல் காரணமாக ஏலத்தை ரத்து செய்ய மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு.

xiii. குத்தகை உரிமம் கோரும் முன் சம்பந்தப்பட்ட குவாரியினை நேரில் பார்வைப்பிட்டு பாதை வசதி, கனிமத்தின் தரம், கனிமத்தின் இருப்பு ஆகியவற்றை ஆராய்ந்து பின்னர் குத்தகை உரிமங்களை விண்ணப்பிக்க வேண்டும். பின்னாளில் இது தொடர்பான எந்த ஒரு பின் நிகழ்வுக்கும் மாவட்ட நிர்வாகம்/அரசு பொறுப்பில்லை.

xiv. 1959-ஆம் ஆண்டு தமிழ்நாடு சிறு கனிம சலுகை விதிகள் அட்டவணை படிவம் 1-ல் கண்டிப்பாகப் பத்திரத்தில் தேவையான அளவுக்கு நிபந்தனைகளை புதியதாக சேர்க்கவோ, நீக்கவோ, மாற்றியமைக்கவோ மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு. குத்தகைப் பத்திரம் ஏற்படுத்திய பின்பு புலனான மற்றும் குவாரி செய்ய ஒதுக்கப்பட்ட பரப்பு குறித்து எவ்வித தாவாயும் செய்ய குத்தகைதாரருக்கு உரிமை விலையாது.



xv. விண்ணப்பதாரர் குத்தகை தொகையைச் செலுத்தாமலும், செலுத்தியிருப்பின் முத்திரைத்தாளில் ஒப்பந்தப் பத்திரம் மாவட்ட ஆட்சியரிடம் நிறைவேற்றி சாள்-பதிலாளர் அலுவலகத்தில் பதிவு செய்து தராமலும் குவாரிப் பணியை ஆரம்பிக்கக்கூடாது. அவ்வாறு செய்தால் கண்டத்தொகை குவாரி செய்ததற்குக் கருதப்பட்டு 1959-ஆம் ஆண்டு தமிழ்நாடு சிறுகணிச் சலுகை விதிகளின்படி நடவடிக்கை மேற்கொள்ளப்படும்.

xvi. ஒரு மனுதாரருக்கு மாநிலத்தில் இரு குவாரி குத்தகைக்கு மேல் குத்தகை வழங்கப்பட மாட்டாது.

xvii. மேற்படி சிறு கணிமங்கள் எடுக்கும் இடத்தில் சிறு கணிமங்கள் எடுப்பதிலாவது அப்பறப்படுத்துவதிலாவது மேற்படி குத்தகைதாரருக்கு ஏற்படக்கூடிய யாதொரு நஷ்டங்களுக்கான சலுகை எதுவும் அரசினரால் அளிக்கப்பட மாட்டாது.

xviii. டெண்டர் அறிவிக்கை பிரசுரிக்கப்பட்ட பின்னரோ அல்லது குத்தகை உறுதி ஆணை பிறப்பிப்பதற்கு முன்னரோ நிபந்தனைகளை மாற்றவோ அல்லது ரத்துச் செய்யவோ மற்றும் பட்டியலில் கண்டுள்ள எல்லா குவாரிகளுக்கும் குத்தகை உரிமம் கோரும் டெண்டர் மனுக்களை எக்காரணத்தையும் காட்டாமல் இரத்து செய்யவோ அல்லது மூடி முத்திரையிட்ட உறைகளை திறக்கும் நான், நேரம் ஆகியவைகளைத் தள்ளி வைக்கவோ, நிறுத்தி வைக்கவோ மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு.

xix. டெண்டர் விளம்பரத்தின்படி ஏதாவது காரணத்தால் மூடி முத்திரையிடப்பட்ட உறைகள் திறக்கும் நான் மற்றும் நேரம் ஆகியவை ஒத்தி வைக்க நேர்ந்தால் அதற்கு மனுதாரர்கள் நஷ்ட ஈடு கேட்க உரிமையில்லை. மனுதாரர் ஒவ்வொரு குவாரிக்கும் தனித் தனியே ஒரு ஒப்பந்தப்புள்ளி மனுவை உரிய இணைப்புகளோடு அனுப்ப வேண்டும். ஒரே மனுவில் ஒரு குவாரிக்கு மேல் பல குவாரிகளைக் குறிப்பிட்டு மனு செய்தால் அம்மனு நிராகரிக்கப்படும்.

xx. 1959-ஆம் ஆண்டு தமிழ்நாடு சிறு கணிச் சலுகை விதிகளில் கண்டுள்ள அனைத்து சாரம்சங்களையும் மாவட்ட அரசிதழில் கண்டுள்ள அனைத்து நிபந்தனைகளையும் நன்கு தெரிந்து கொண்டபின் டெண்டர் மனுக்களை அனுப்ப வேண்டும். மனு அனுப்பிய பிறகு விதிகள் மற்றும் குத்தகை நிபந்தனைகள் பற்றி சரியாகத் தெரியாது என மனுதாரர் வாதிட்டால் அது ஏற்றுக் கொள்ளப்படமாட்டாது.

xxi. உறுதி செய்யப்பட்ட குத்தகை உரிமத்தை சம்பந்தப்பட்ட உயர் அலுவலர்கள் கொது நன்மையைக் கருதி ரத்துச் செய்ய நேரிட்டால் அதனால் ஏற்படும் இழப்புக்கு ஈடுகோர குத்தகைதாரருக்கு உரிமையில்லை.

xxii. குத்தகைதாரர் குவாரியை வேறு யாருக்கும் மாற்றவோ, உள்குத்தகைக்கு விடவோ கூடாது. அப்படி ஏதாவது செய்திருப்பது தெரியவந்தால் மேற்படி குத்தகை ரத்து செய்யப்படுவதுடன் அவர் செலுத்திய தொகையும் அரசுக்கு ஆதாயமாக்கப்படும்.

xxiii. குத்தகைக்கு விடப்பட்ட புலத்தில் புல வரைபடத்தில் வரையறை செய்யப்பட்டுள்ள இடத்திலும், விஸ்தரினத்தில் மட்டுமே குத்தகைதாரர் குவாரி செய்ய வேண்டும். அதற்குக் கூடுதலான விஸ்தரினத்தில் குவாரி செய்வது தெரியவந்தால் குத்தகை ரத்துச் செய்யப்படும்.

xxiv. அனுமதிக்கப்படாத பிற இடங்களில் முறைகேடாக குத்தகைதாரர் குவாரி செய்து அதனால் அவர் மீது வழக்கு தொடரப்பட்டாலோ, அவ்வது அரசுக்கு நஷ்டம் ஏற்பட்டாலோ, வழக்கிற்கான செலவுத் தொகை அல்லது நஷ்டஈடு முழுவதும் குத்தகைதாரரிடமிருந்து வசூல் செய்யப்படும்.

xxv. குத்தகைதாரர் உரிய அனுப்புகைச் சீட்டை குத்தகைக்கு வழங்கப்பட்ட குவாரியில் இருந்துதான் வாகனங்களுக்கு கொடுத்தனுப்ப வேண்டும்.

xxvi. உரிய அதிகாரிகள் ஒப்பந்தப் பெறப்படாத அனுப்புகைச் சீட்டுகள் கொண்டு செல்லவருகின்ற கனிமங்கள் முறையற்ற வகையில் எடுத்ததாகக் கருதப்பட்டு உரிய சட்டத்தின்படி கைப்பற்றப்பட்டு அபராத விதிக்கப்படும்.

xxvii. புவியியல் மற்றும் சுரங்கத்துறை இலுவலர்கள் அல்லது வருவாய்த்துறை அலுவலர்கள் முதலானோர் தணிக்கை செய்யும் போது உரிய கணக்குகள் மற்றும் அனுப்புகைச் சீட்டு முதலானவைகளை குவாரி உரிமப் பெற்றவர்கள் அவர்களுக்கு காண்பிக்க வேண்டும்.

xxviii. அனுப்புகைச் சீட்டில் உள்ள காலங்கள் பூர்த்தி செய்யப்படாமலோ அல்லது தவறாக எழுதப்பட்டோ அல்லது திருத்தங்களிடனோ வாகனங்களுக்கு கொடுக்கப்பட்டிருந்தால் குத்தகைதாரர் மற்றும் சிறு கனிமம் கொண்டு செல்லும் வாகன உரிமையாளர் ஆகியவர்களுக்கு அபராதம் விதிக்கப்பட்டு வசூல் செய்யப்படும்.

xxix. ஏலதாரர் ஒவ்வொரு நாளும் குவாரியில் எவ்வளவு சிறு கனிமங்கள் எடுக்கப்பட்டது என்பதையும், எந்த அளவு கனிமங்கள் லாரி/வண்டி மூலம் வெளியே அனுப்பப்பட்டது என்ற விவரத்தையும் காட்டும் பதிவேடு பராமரித்து வர வேண்டும்.

xxx. குவாரி செய்வதற்கு அனுமதிக்கப்பட்டுள்ள இடத்தில் மட்டும் தான் குவாரி செய்ய உரிமையுண்டு.

xxxi. அரசு மற்றும் மாவட்ட ஆட்சியரால் இது விஷயமாக ஏற்படுத்தப்பட்டுள்ள மற்றும் அவ்வப்போது ஏற்படுத்தப்படும் சட்ட திட்டங்களுக்கும், நிபந்தனைகளுக்கும் குத்தகைதாரர் கட்டுப்பட்டு நடக்க வேண்டும்.

xxxii. குவாரியில் வேட்டு வைப்பதிலும், கட்டைப்போட்டு கடுவதிலும் யாதொரு அபாயமும் நேரிடாமல் இருக்க வேண்டியதைப் பற்றி குத்தகைதாரர் உடனடியாக இருக்க வேண்டியது. அப்படி வேட்டு வைப்பதிலோ அல்லது கட்டைப் போட்டு கடுவதிலோ அரசு சொத்துக்களுக்காவது அல்லது பிறர் சொத்துக்களுக்காவது அல்லது வேறு எந்த நபருக்காவது அபாயம் அல்லது சேதம் நேர்ந்தால் குத்தகைதாரர் அவ்விதம் நேரக்கூடிய சேதங்களை தங்கள் செலவிலேயே நிவர்த்தி செய்து கொடுக்க வேண்டியதோடு, அந்த நபருக்கு நஷ்ட ஈடு கொடுக்க குத்தகைதாரர் கடமைப்பட்டவர் ஆவார்.

xxxiii. குவாரியில் வேலை செய்யும் தொழிலாளர்களுக்கும் மற்றும் இதர நபர்களுக்கும் விபத்து ஏற்பட்டால் அதற்கு அரசு பொறுப்பல்ல. முழுப்பொறுப்பும் குத்தகைதாரரைச் சேரும்.

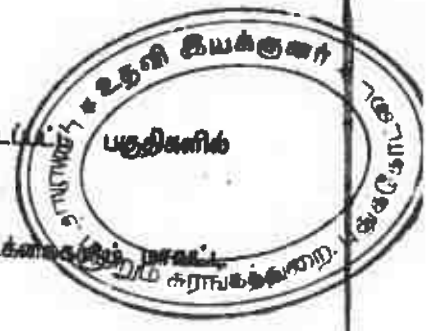
xxxiv. குத்தகை பகுதிக்குச் சென்றுவர பாதைவசதி குத்தகைதாரர், தனது சொந்த பொறுப்பில் ஏற்படுத்திக் கொள்ள வேண்டும்.

xxxv. அருகில் அமைந்துள்ள விவசாய நிலங்களுக்கு எவ்வித பாதிப்பும் இல்லாத வகையில் குவாரிப்பணி மேற்கொள்ள வேண்டும்.

xxxvi. தமிழ்நாடு மாகாணக் கட்டுப்பாட்டு வாரிய இசைவாணையை குவாரிப்பணி தொடங்கும் முன் பெற்று சமர்ப்பிக்க வேண்டும்.

xxxvii. குத்தகை எடுத்தவர் குத்தகையை அனுபவிக்காவிட்டாலும், செலுத்தப்பட்ட குத்தகைத் தொகை எக்காரணத்தால் முன்னிட்டும் வாபஸ் செய்யப்படமாட்டாது.

xxxviii. குவாரியில் எல்லைகள் பற்றிய பிரச்சனைகள் ஏற்பட்டால் மாவட்ட ஆட்சியரின் தீர்ப்பே இறுதியானது.



xxxix. குத்தகைக்காலம் முடிந்தபின் குத்தகைதாரர்கள் குத்தகைக்கு விடப்பட்ட பகுதிகளில் எந்தவிதமான உரிமையும் கொண்டாடக்கூடாது.

xi. குவாரி குத்தகை வழங்குவது, மற்றும் சம்பந்தப்பட்ட எவ்வித நடவடிக்கைகளும் மாவட்ட ஆட்சியர் அவர்களின் முடிவுக்கு கட்டுப்பட்டதாகும்.

xii. டெண்டரில் கோரப்படும் கல்குவாரிகளின் பேரில் நீதிமன்றத்தில் ஆணை/தடையாணை பெறப்பட்டால் சம்பந்தப்பட்ட குவாரிக்கு குத்தகை உரிமம் வழங்குவது குறித்து மாவட்ட ஆட்சியரின் முடிவே இறுதியாகும்.

xiii. குத்தகைக்கு எடுத்தவர் எந்த காரணத்தை முன்னிட்டும் தனக்கு இழப்பு ஏற்பட்டதாக தெரிவித்து நஷ்டஈடு கேட்கக் கூடாது.

xiv. குத்தகைதாரர் குவாரியில் புல எண், பரப்பு, குத்தகைதாரர் பெயர், குத்தகை ஆணை எண், குத்தகை தொகை போன்ற விபரங்கள் குறிக்கப்பட்ட தகவல் பலகையை தமது சொந்த செலவில் வைத்து பராமரிக்க வேண்டும்.

xv. குத்தகைதாரர் குவாரியில் எல்லைகளை தெளிவாக தெரியும்படியாக கல் ஊன்றி அடையாளமிட்டு வைத்த பின் குவாரி செய்ய வேண்டும். எல்லைக்கற்களை குத்தகைக் காலம் முழுமைக்கும் நன்கு பராமரிக்க வேண்டும்.

xvi. குத்தகைக்கு வழங்கப்பட்ட குவாரிகளிலிருந்து அரசு வேலைகளுக்கு கனிமங்கள் வெட்டி எடுத்துச் செல்ல அரசுக்கு சகல உரிமையும் உண்டு.

xvii. (அ) சிறப்பு நிபந்தனைகள்:

- இந்த டெண்டர் மற்றும் ஏலமுறையில் கலந்து கொள்ளும் விண்ணப்பதாரர்கள் அனைவரும் இந்திய அரசின் வருமான வரித்துறைபிளரால் வழங்கப்படும் நிரந்தர கணக்கு எண். (PAN CARD) அட்டையை பெற்றிருக்க வேண்டும்.
- மேலும் குத்தகை உரிமம் பெற்ற பின்னர் கனிமங்களை எடுத்துச் செல்ல போக்குவரத்து அலுவலர் சீட்டுபெற ஒவ்வொருமுறையும் செலுத்துகின்ற சீனியரேஜ் தொகையின் மீது 2 சதவீத வருமான வரி தொகை செலுத்த வேண்டும்.
- மேலும் குத்தகை உரிமம் பெற்ற பின்னர் கனிமங்களை எடுத்துச் செல்ல போக்குவரத்து அலுவலர் சீட்டுபெற ஒவ்வொருமுறையும் செலுத்துகின்ற சீனியரேஜ் தொகையின் மீது பங்களிப்பு தொகையான அதாவது 10 சதவீத தொகையை புதுக்கோட்டை மாவட்ட கனிம அறக்கட்டளையின் வங்கி கணக்கில் செலுத்த வேண்டும்.
- மேலும் குத்தகை உரிமம் பெற்ற பின்னர் கனிமங்களை எடுத்துச் செல்ல போக்குவரத்து அலுவலர் சீட்டுபெற ஒவ்வொருமுறையும் செலுத்துகின்ற சீனியரேஜ் தொகையின் மீது 10 சதவீத தொகையை பசுமை நிதி (Green Fund) செலுத்த வேண்டும்.

கல் குவாரி விவரம்

வ. எண்	வட்டம்	கிராமம்	புல எண்	பரப்பு (ஹெக்)	பழைய/புதிய குவாரி
1	குளத்தூர்	மேலூர்	207/8	0.90.00	பழையகுவாரி
2	குளத்தூர்	மேலூர்	207/4	0.97.00	புதிய குவாரி
3	குளத்தூர்	மேலூர்	211(பகுதி-1)	1.56.00	பழையகுவாரி
4	குளத்தூர்	மேலூர்	211 (பகுதி-2)	1.50.00	பழையகுவாரி
5	குளத்தூர்	மேலூர்	211 (பகுதி-3)	2.10.00	பழையகுவாரி
6	குளத்தூர்	மேலூர்	216/1	1.47.50	பழையகுவாரி
7	குளத்தூர்	சத்தியமங்கலம்	47/4 பகுதி	2.00.00	பழையகுவாரி
8	குளத்தூர்	இரும்பாளி	98/1, 98/2	0.78.00	பழையகுவாரி
9	குளத்தூர்	நார்த்தாமலை	94(பகுதி-1)	1.67.0	புதிய குவாரி
10	குளத்தூர்	நார்த்தாமலை	94(பகுதி-2)	1.50.0	புதிய குவாரி
11	குளத்தூர்	நார்த்தாமலை	94(பகுதி-3)	1.32.5	புதிய குவாரி
12	இலம்பூர்	ஆரியூர்	17/2 & 17/4	0.76.50	புதிய குவாரி
13	இலம்பூர்	மதியநல்லூர்	247(பகுதி)	1.00.00	பழையகுவாரி
14	இலம்பூர்	சித்தன்னவாசல்	94(பகுதி-1)	2.80.33	பழையகுவாரி
15	இலம்பூர்	சித்தன்னவாசல்	94(பகுதி-2)	2.28.30	பழையகுவாரி
16	இலம்பூர்	சித்தன்னவாசல்	94(பகுதி-3)	3.48.00	பழையகுவாரி
17	இலம்பூர்	சித்தன்னவாசல்	94(பகுதி-4)	3.18.37	பழையகுவாரி
18	இலம்பூர்	கட்டக்குடி	203 (பகுதி-A)	1.50.00	புதிய குவாரி
19	இலம்பூர்	கட்டக்குடி	203 (பகுதி-B)	1.00.00	புதிய குவாரி
20	இலம்பூர்	கட்டக்குடி	203 (பகுதி-C)	1.00.00	புதிய குவாரி
21	இலம்பூர்	கட்டக்குடி	203 (பகுதி-D)	1.00.00	புதிய குவாரி
22	பொன்னமராவதி	சாத்தனூர்	37/1 (பகுதி)	1.15.00	பழையகுவாரி
23	குளத்தூர்	பள்ளத்துப்பட்டி	6	1.20.00	பழையகுவாரி
24	வீரலிமலை	விட்டமார்பட்டி	81	0.77.50	பழையகுவாரி

இடம் : புதுக்கோட்டை
நாள் : 18.10.2023

ஐ.சா. வெர்சி ரம்பா,
மாவட்ட ஆட்சியர்,
புதுக்கோட்டை.

(பேசர் அச்சடிப்புகள் மாவட்ட ஆட்சியர், புதுக்கோட்டை மாவட்டம்)
தமிழ்நாடு அரசு எழுதுபொருள் மற்றும் அச்சுத் துறை இயக்குநரால், புதுக்கோட்டை அரசு கிளை அச்சுத்தில் அச்சிட்டு மாவட்ட ஆட்சியரால் வெளியிடப்பட்டது.

இணைப்பு VI

(தமிழ்நாடு சிறுவகைக் களியச் சலுகை விதிகள் 1959-ன் விதி 8-ஐக் கடைசி
 குவாரி குத்தகை கோரும் டெண்டர்/ஏல விண்ணப்பம்
 (அசல் மற்றும் இரண்டு நகல்களில் இணைப்புகளுடன் கொடுக்க).



அனுப்பநர்

அலுவலர் பயன்படுத்த

(அ) மனு பெறப்படும் நாள்

.....

(ஆ) பெறப்படும் இடம்

பெறுநர்

ஒப்பம்

மாவட்ட ஆட்சியர்,
 புதுக்கோட்டை மாவட்டம்,
 புதுக்கோட்டை.

அப்பா,

மாவட்ட அரசிதழ் எண்.....நாள்.அல்லது..... செய்தித்தாள் விளம்பர
 நாள்.....ல் வெளியிடப்பட்டுள்ளது தொடர்பாக, தமிழ்நாடு சிறுவகைக் களியச் சலுகை விதிகள் 1959
 இன் விதி 8-ன் படி நான்/நாங்கள் இந்த விண்ணப்பத்தை சமர்ப்பிக்கிறேன்/சமர்ப்பிக்கிறோம்.

தேவையான விவரங்கள் கீழே கொடுக்கப்படுகிறது :

1. மனுதாரர் பெயர் மற்றும் முழு முகவரி :
2. (அ) மனுதாரர் தனி நபர்/தனியார் கம்பெனியா/ :
 கூட்டு நிறுவனமா (அல்லது) கூட்டமைப்பா.
 (ஆ) மனுதாரர் தனி நபரானால் எந்த நாட்டினர் :
 (இ) மனுதாரர் தனியார் கம்பெனி/வியாபார :
 எந்தாபனம் அல்லது சங்கமாயின் அதன்
 இயக்குநர்/பங்குதாரர்கள்/உறுப்பினர்கள் எந்த
 நாட்டவர் என்ற விபரம் (சான்று
 இணைக்கப்பட வேண்டும்)
3. பிணை வைப்பத்தொகை செலுத்திய விவரம் :
 (வங்கி கேப்பு வரைவோலை எண் மற்றும் நாள்
 ஆகிய விவரங்களை அளிக்கவும்).

4. விண்ணப்பதாரர் கீழ்க்கண்ட விவரங்கள் அடங்கிய :
ஆணை உறுதி ஆவணம் அளித்துள்ளாரா?

அ) நட்பு தேதி வரையிலான வருமானவரி :
விவரப்பட்டியல் சமர்ப்பிக்கப்பட்டுள்ளதா?

ஆ) மனுதாரருக்கு விதிக்கப்பட்ட வருமான வரி :
தொகையை செலுத்தியுள்ளாரா? மற்றும்

இ) வருமான வரி சட்டம் 1961-ல் குறிப்பிட்டவாறு :
கய மதிப்பீட்டின் அடிப்படையில் வருமான வரி
செலுத்தியுள்ளாரா?

5. மனுதாரர் எந்த சிறுவகைக் கனிமத்தைக் குவாரி :
செய்ய விரும்புகிறார் என்ற விபரம்.

6. கோரப்படும் குத்தகையின் கால அளவு :

7. குத்தகைக்கு கோரப்படும் இடத்தின் மொத்த பரப்பு :

8. டெண்டர் மனு அளித்துள்ள புலத்தின் விவரங்கள் :

மாவட்டம்	வட்டம்	கிராமம்	புல எண்	பரப்பு (ஹெக்டேரில்)
(1)	(2)	(3)	(4)	(5)

9. குவாரி குத்தகை பெற விரும்பும் மனுதாரர் :
அளிக்க விரும்பும் அதிகபட்ச டெண்டர்
தொகை (எண்ணாலும், எழுத்தாலும்
குறிப்பிடவும்)

10. மனுதாரர் தமிழ்நாட்டில் ஏற்கனவே குவாரி :
அனுமதி பெற்றுள்ள இடங்கள் குறித்த
விவரங்கள்

11. அ) குவாரி நிலுவைத்தொகை செலுத்தியது :
தொடர்பாக சுரங்கவரி நிலுவையின்மை
சான்று (தேவையெனில் இணைக்க).

(ஆ) விண்ணப்பம் அளிக்கும் நாளில் :
விண்ணப்பதாரர் குவாரி குத்தகை அல்லது
சுரங்க குத்தகை பெற்றிராவிட்டால் அது
குறித்து ஆணை உறுதி ஆவணம்
இணைக்கவும்.



12. விண்ணப்பதாரர் வேறு ஏதேனும் விவரம் :
அளிக்க விரும்பினால் அது குறித்த விவரம்

நான் / நாங்கள் மேலே எங்களால் அளிக்கப்பட்ட விவரங்கள் உண்மையானவை என்று உறுதியளிக்கிறேன்/உறுதியளிக்கிறோம். நான்/நாங்கள், அரசாங்கம் அல்லது மாவட்ட ஆட்சியர் அவர்களால் கோரப்படும் இதர விவரங்கள் மற்றும் காப்புத்தொகை ஆகியவற்றை அளிக்க தயாராக உள்ளேன்/உள்ளேன். தமிழ்நாடு சிறுவகைக் கனிமச் சலுவல விதிகள் 1959-ல் கண்டவாறு குவாரி குத்தகை பெறுவது தொடர்பாகவும், குவாரிப்பணி செய்வது தொடர்பாகவும் மாவட்ட அரசிதழ் வெளியீட்டில் தெரிவிக்கப்பட்டுள்ள நிபந்தனை, சட்ட உடன்படிக்கை குறித்து நன்றாக அறிவேன்/அறிவோம் என உறுதி அளிக்கிறேன்/அளிக்கிறோம்.

2) சாதாரண கற்கள் வெட்ட வழங்கப்பட்ட கற்குவாரியில் அறுத்து மெருகேற்றி கட்டுமானப்பணிக்கு பயன்படும் கிராணைட் கற்குண்டங்கள் வெட்டமாட்டோம் எனவும் அவ்வாறு கிராணைட் கிடைக்குமானால் குத்தகையை மாவட்ட ஆட்சியர் ரத்து செய்ய நான் / நாங்கள் ஒப்புக்கொள்கிறேன் / ஒப்புக்கொள்கிறோம் என உறுதியளிக்கிறேன்.

தங்கள் உண்மையுள்ள,

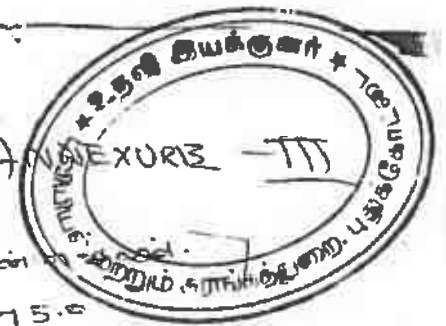
இடம் :

நாள் :

மனுதாரர் கையொப்பம்


S. DHANASEKAR, M.Sc., (Geo)
Qualified Person

அளவைப்படிவ எண் 23



எண்: 86

ANNEXURE - III

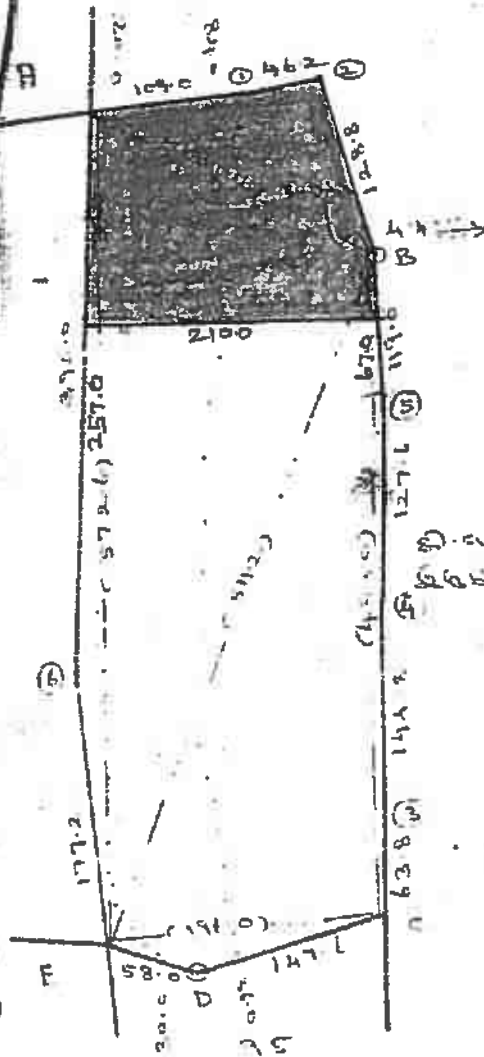
சிராமம்

பெயர்: சித்தன்

பரப்பு: ஹெக்டேர் 11

ஏ. 75.0

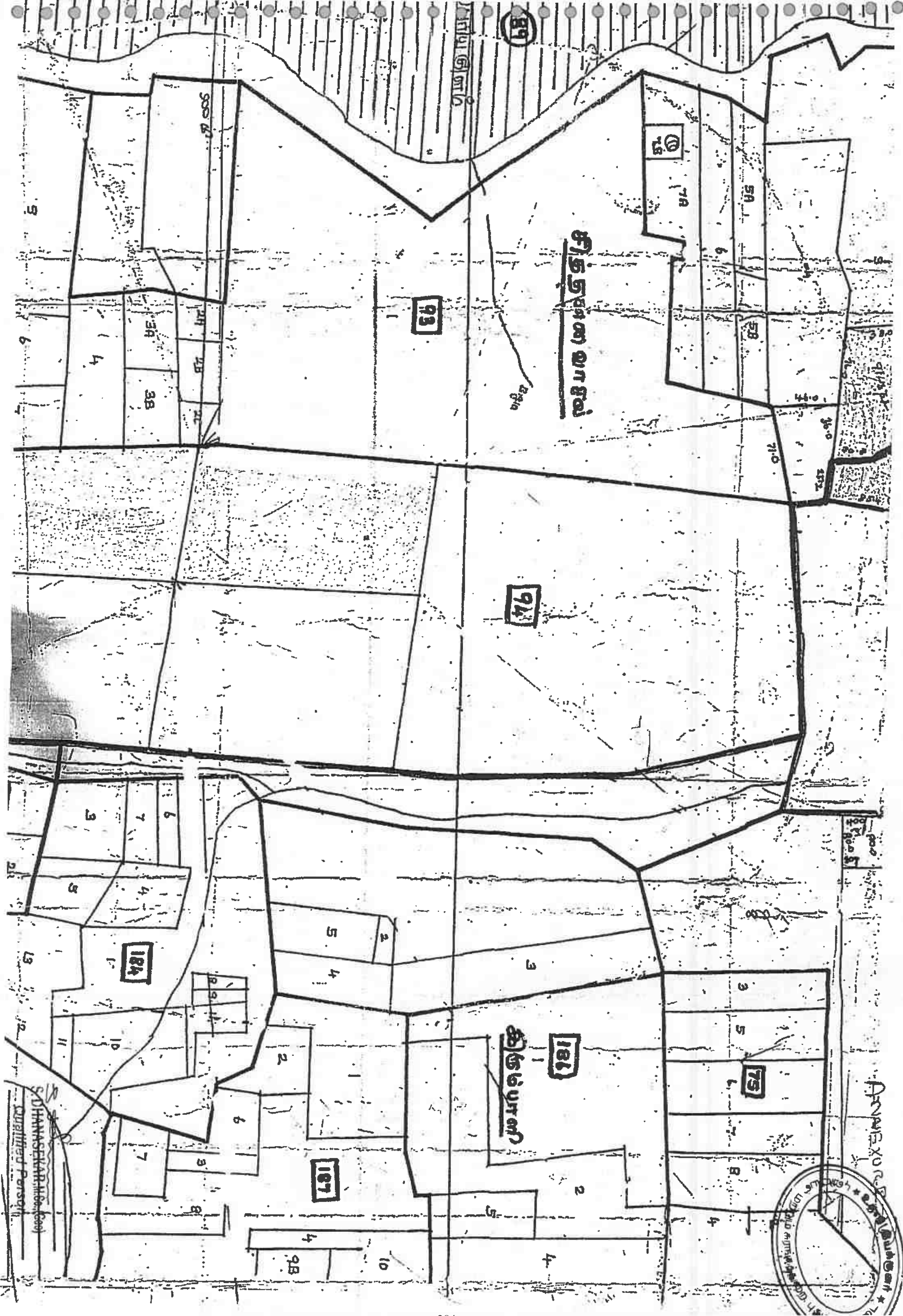
29.02



C	1960	
60.2	232.0	
E		
B	(5112)	
NT 14.0	331.0	
	224.0	Line NT
E		
A	(5126)	
NT 14.6	176.6	
6 14.6	176.6	
E		
B	(4530)	
	334.6	10.9
	207.8	2.8
	636	06 3
C		
B	(2176)	
	2100	
	2004	
NT 6.0	180	
	11	
290.6		
1 6		

அளவு 1 மீட்டர்: 50 மீட்டர்

[Signature]
J. DHANASEKAR, M.Sc. (Geo)
Qualified Person



உதவி செய்கிறார் * 7000

சிந்தனையாளர்

மறையும் சுரங்கத்துறை. 4

கி. மு. 300

முதல் பாகம்

380/38-R.F. III-A 10-10,00,000 Cps.-GBP.-MDU.-7-2020.

இ. எஸ். 86. சித்தன்னவாசல்.



2	3	4	5	6	7	8	9	10	11	12
						கு. பை.	ஹெ. ஏர்ஸ்.	கு. பை.		
93-3பா	ர	பு	...	8-4	7	1 53	0 18.0	0 28	491 சி. அழகன்.	
-4	ர	பு	...	8-4	7	1 53	0 43.0	0 66	394 பெ. ரெங்கம் மாள்.	
-5	அ	பு	...	8-4	7	1 53	0 86.5	1 32	...	தரிக.
-6	ர	பு	...	8-4	7	1 53	0 35.0	0 54	145 ந. சண்முகம்.	
-7	ர	பு	...	8-4	7	1 53	0 36.0	0 55	170 மா. சின்னையா.	
							9 86.0	4 27		
94	அ	தி. ஏ. த.	11 75.0	பாறை.
95-1	அ	பு	...	8-4	7	1 53	1 59.0	2 43	...	தரிக.
-2	அ	பு	...	8-4	7	1 53	0 52.5	0 80	...	தரிக.
-3	ர	பு	...	8-4	7	1 53	1 18.0	1 80	37 பெ. அடக்காயி.	
-4	ர	பு	...	8-4	7	1 53	0 15.0	0 23	336 சு. முக்கியபா.	
-5	ர	பு	...	8-4	7	1 53	0 10.0	0 15	272 மா. பிச்சை.	
-6	அ	பு	...	8-4	7	1 53	0 69.0	1 06	...	தரிக.
-7	அ	பு	...	8-4	7	1 53	0 28.5	0 43	...	தரிக.
-8	ர	பு	...	8-4	7	1 53	0 46.5	0 71	30 பா. அடைக்கன்.	
-9	அ	பு	...	8-4	7	1 53	0 49.0	0 75	...	தரிக.
-10	ர	பு	...	8-4	7	1 53	0 20.0	0 30	89 சு. கருப்பன்.	
-11	ர	பு	...	8-4	7	1 53	0 45.0	0 70	30 பா. அடைக்கன்.	
-12	ர	பு	...	8-4	7	1 53	0 39.5	0 60	132 சு. சேரநாதன்.	
-13	ர	பு	...	8-4	7	1 53	0 27.5	0 42	294 சி. பொன்னத்தாள்.	

J. DHANASEKAR, M.Sc. (Geo)
Qualified Person




Government of India

Issue Date: 23/05/2013





பி பழனிசாமி
C Palanisamy
பிறந்த நாள்/DOB: 23/05/1977
ஆண்/ MALE

8317 6237 6383
UID : 9152 6656 7729 2950

எனது ஆதார். எனது அடை யாளம்

ANNEXURE

Unique Identification Authority of India

முகவரி:
S/O: சின்னசாமி, எண் 129, எடாட் தெரு
சிதம்பரவாசல், திருப்பூர் தாலுகா,
சிதம்பரவாசல், புதுக்கோட்டை,
தமிழ் நாடு - 622101

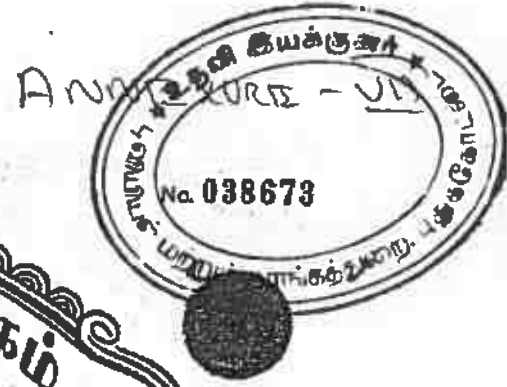
Address:
S/O: Chinnasamy, NO 129, EDATH STREET,
SITHANAVASAL, TIRUPPUR TALUKA,
SITHANAVASAL, Pudukottai,
Tamil Nadu - 622101

8317 6237 6383
UID : 9152 6656 7729 2950

1047 | help@uidai.gov.in | www.uidai.gov.in


S. DHANASEKAR, M.Sc., (Geo)
Qualified Person

Reg. No 01BBB1005
Col Code 106 / 106



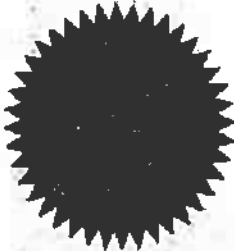
அறிவியல் புலம்

FACULTY OF SCIENCE

பெரியார் பல்கலைக்கழக ஆட்சிக்குழு 2003 ஆம் ஆண்டு ஏப்ரல் மாதம்
நடந்த பயன்பாட்டு புவியமைப்பியல் தேர்வில்
S தனசேகர் என்பவர்
முதல் வகுப்பில் தேர்ச்சி பெற்றார் என்று தக்க தேர்வாளர்கள்
சான்றளித்தபடி அறிவியல் நிறைஞர் என்னும்
பட்டத்தை அவருக்குப் பல்கலைக்கழக இலச்சினையுடன் வழங்குகிறது.

*The Syndicate of the Periyar University hereby makes known
that DHANASEKAR S has been
admitted to the DEGREE OF MASTER OF SCIENCE in
APPLIED GEOLOGY*

*he/she having been certified by duly appointed Examiners to be qualified
to receive the same and was placed in the FIRST CLASS at the
Examination held in APRIL 2003*



Given under the seal of this University

நாள்

Dated 15-09-2004

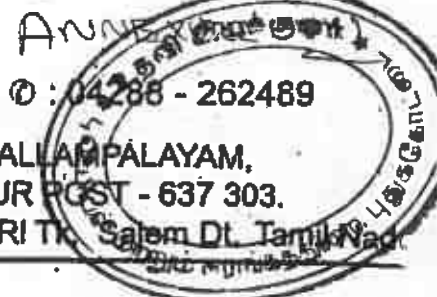
சேலம் 636011, தமிழ்நாடு, இந்தியா.
Salem 636011, TamilNadu, India.


பதிவாளர்
Registrar


நுணைவேந்தர்
Vice-Chancellor


S. DHANASEKAR, M.Sc., (Geo)
Qualified Person

PRITHVI MINERALS,



Date :27.12.08.

TO WHOMSOEVER IT MAY CONCERN

This is to certify that SHRI S. DHANASEKAR, S/o. Shri A. Sundaram residing at No.8/3, Kullappan Street, Onalur Taluk, Salem District - 636 455 is working in our mines for the date of 15.10.2003 to till date as Geologist. During the above tenure of service his execution of the assigned work is exemplary and worth mentioning. We wish him success in his future endeavours.

For PRITHVI MINERALS,


(T.P. THANGAVEL.)
Partner


S. DHANASEKAR, M.Sc., (Geo)
Qualified Person

PHOTO SHOWN PROPOSED APPLIED LEASE AREA VIEW.

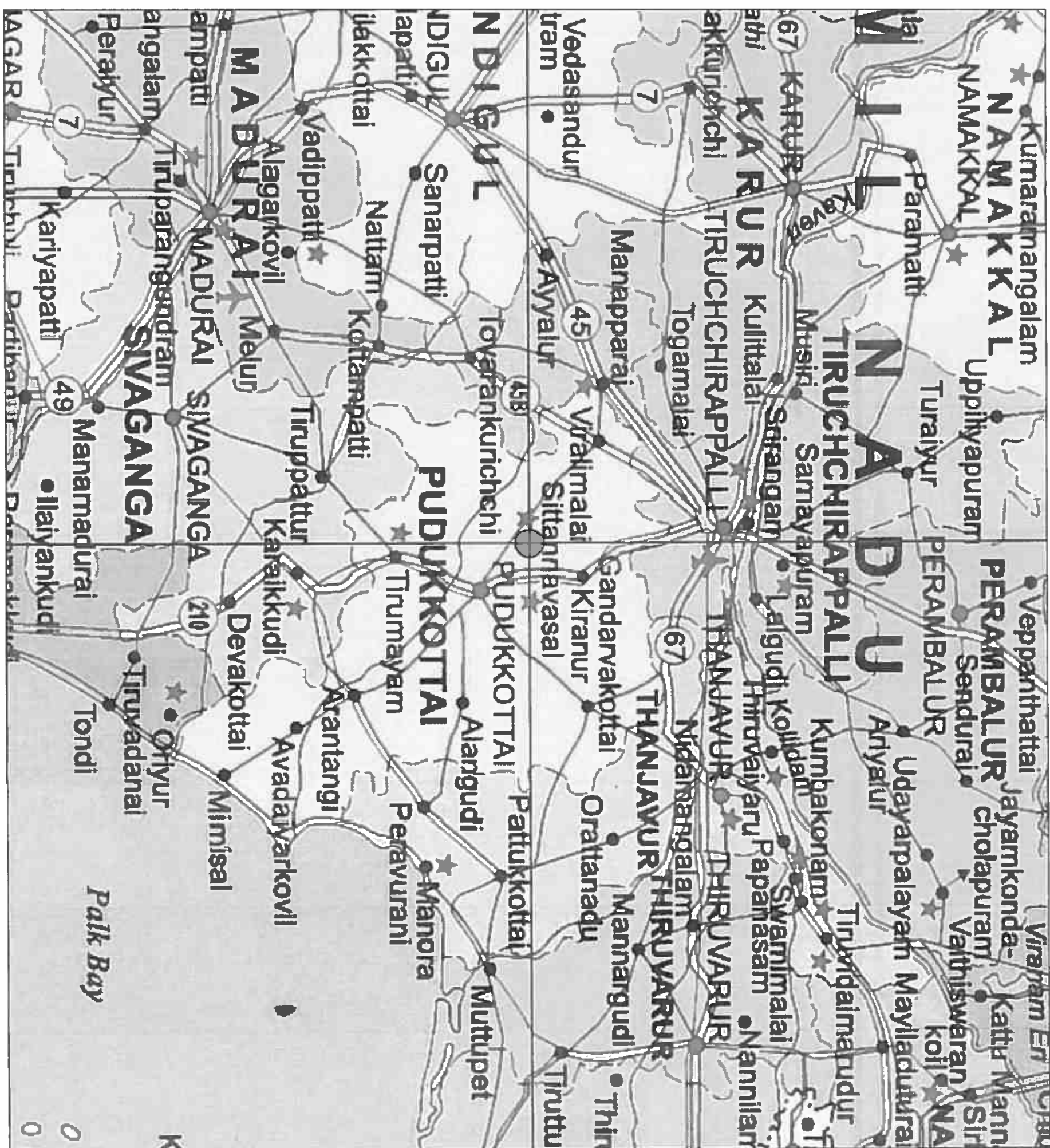


PHOTO SHOWN PROPOSED APPLIED LEASE AREA VIEW-2




S. DHANASEKAR, M.Sc., (Geo)
Qualified Person

10° 27' 49.9231" N



78° 44' 1.1168" E

78° 44' 7.9289" E

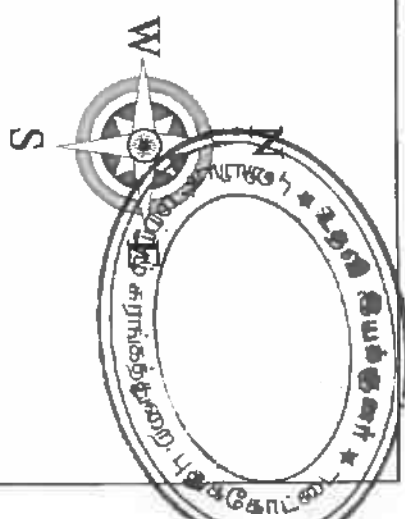


PLATE NO:1

DATE OF SURVEY: 14-02-2024

APPLICANT ADDRESS:

THIRU.C.PALANISAMY,
S/O. CHINNAKANNU,
No.129, EDATHERU,
SITHANNAVASAL,
ILLUPPUR TALUK,
PUDUKKOTTAI DISTRICT -622 101.

LOCATION OF QUARRY

EXTENT : 2.80.33 Hects.
S.F.No : 94(PART-1)
VILLAGE : SITHANNAVASAL,
TALUK : ILLUPPUR,
DISTRICT : PUDUKKOTTAI.

INDEX

QUARRY LEASE AREA :

TOPO SHEET NO.: 58-1/11,

LATITUDE : 10° 27' 49.9231" N to 10° 27' 43.2157" N

LONGITUDE : 78° 44' 7.9289" E to 78° 44' 1.1168" E

LOCATION PLAN

NOT TO SCALE

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE
HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE

S.DHANASEKAR.M.Sc.,
QUALIFIED PERSON

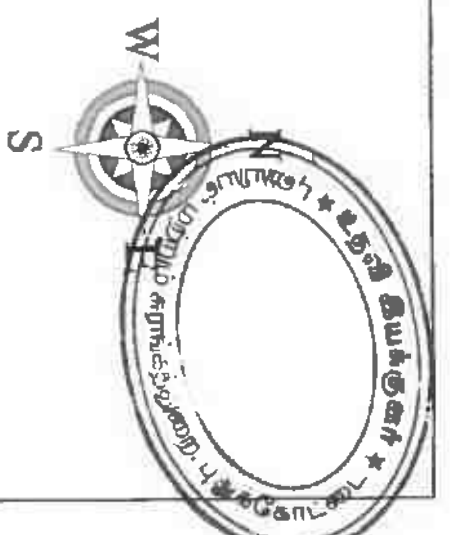


PLATE NO:1A

DATE OF SURVEY: 14-02-2024

APPLICANT ADDRESS:

THIRU.C.PALANISAMY,
S/O. CHINNAKANNU,
No.129, EDATHERU,
SITHANNAVASAL,
ILLUPPUR TALUK,
PUDUKKOTTAI DISTRICT -622 101.

LOCATION OF QUARRY

EXTENT : 2.80.33 Hects.
S.F.No : 94(PART-1)
VILLAGE : SITHANNAVASAL,
TALUK : ILLUPPUR,
DISTRICT : PUDUKKOTTAI.

INDEX

QUARRY LEASE AREA 
ROAD 

ROUTE MAP

NOT TO SCALE

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE
HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE


S. DHANASEKAR.M.Sc.,
QUALIFIED PERSON

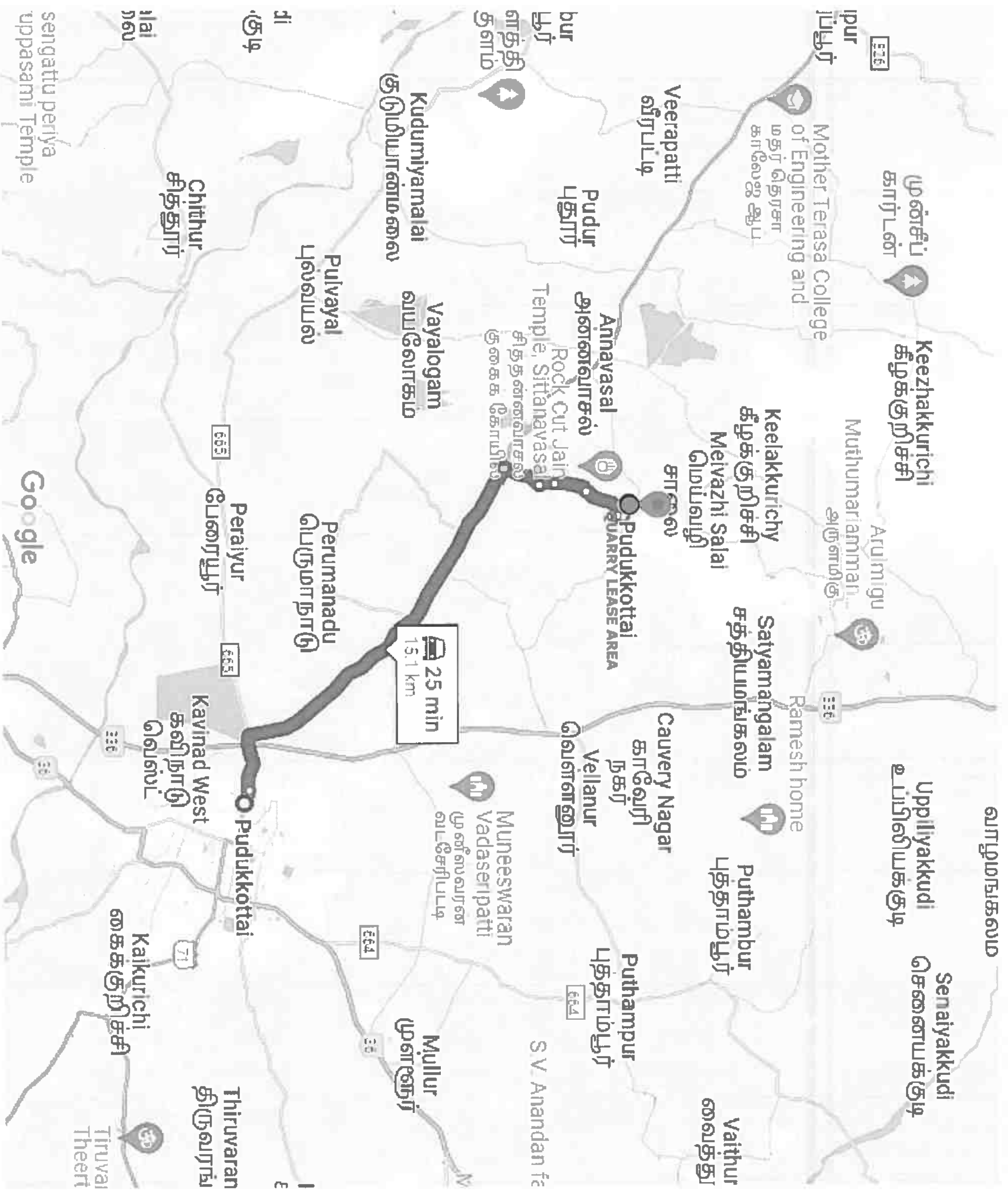
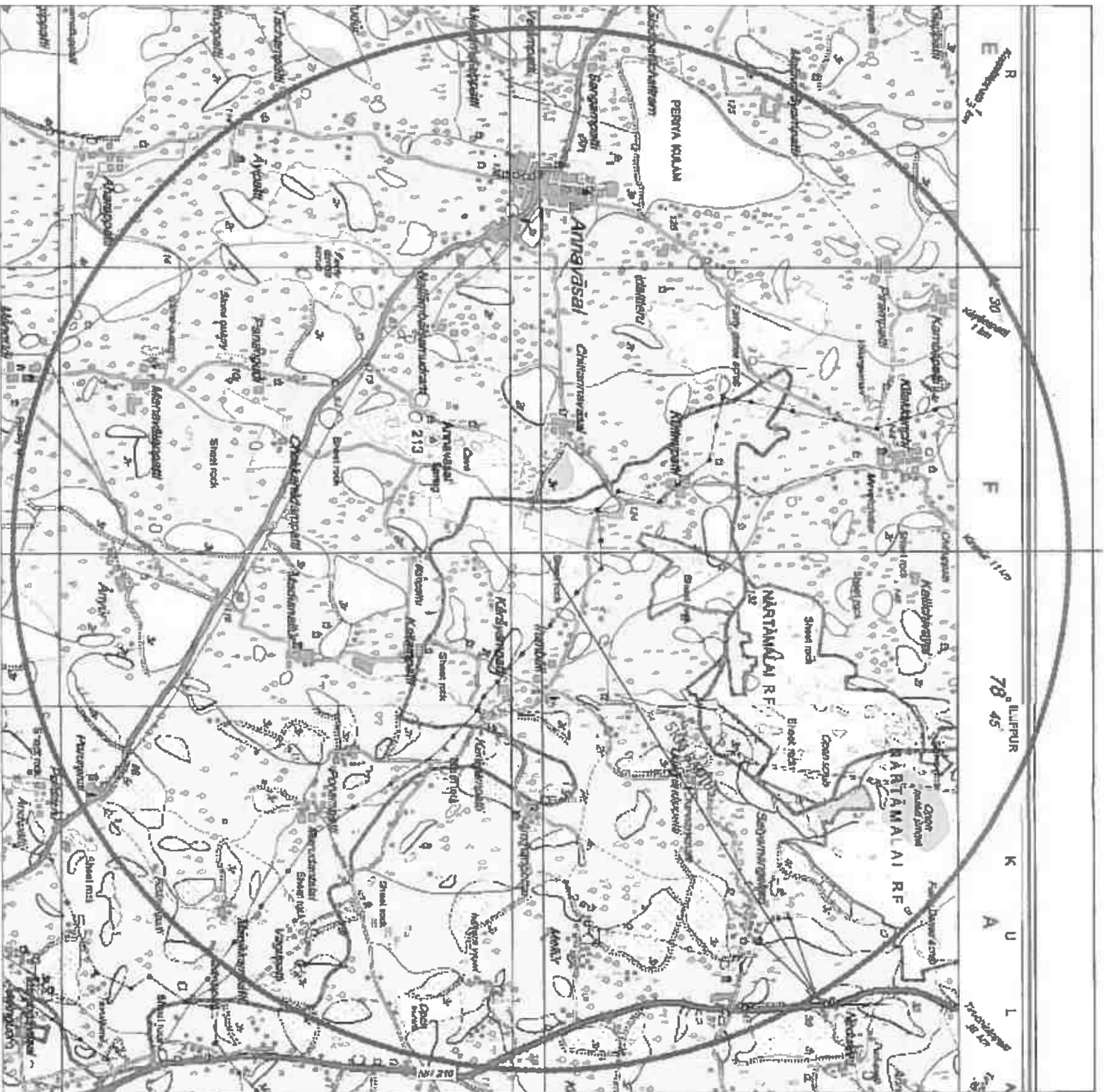
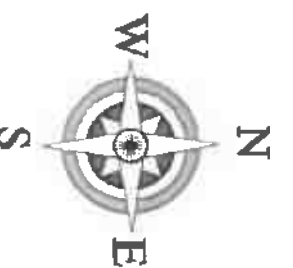
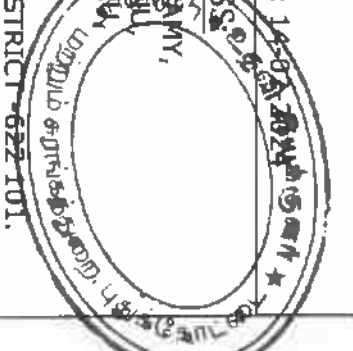


PLATE NO:IB

DATE OF SURVEY: 14-06-2024

APPLICANT ADDRESS:

THIRU.C.PALANISAMY,
S/O. CHINNAKANNILU,
No.129, EDATHERRA,
SITHANNAVASAL,
ILLUPPUR TALUK,
PUDUKKOTTAI DISTRICT-622 101.



78° 44' 1.1168" E

78° 44' 7.9289" E

LOCATION OF QUARRY

EXTENT : 2.80.33 Hects.
S.F.No : 94(PART-1)
VILLAGE : SITHANNAVASAL,
TALUK : ILLUPPUR,
DISTRICT : PUDUKKOTTAI.

INDEX

QUARRY LEASE AREA:

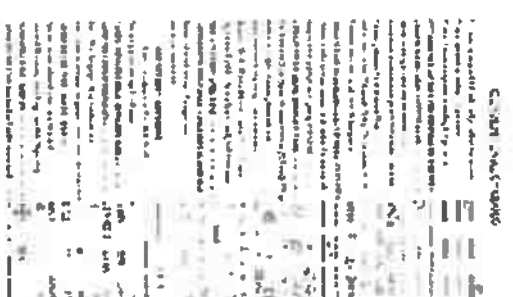


5KM RADIUS

TOPO SHEET NO.: 58-1/11,

LATITUDE : 10° 27' 49.9231" N to 10° 27' 43.2157" N

LONGITUDE : 78° 44' 7.9289" E to 78° 44' 1.1168" E



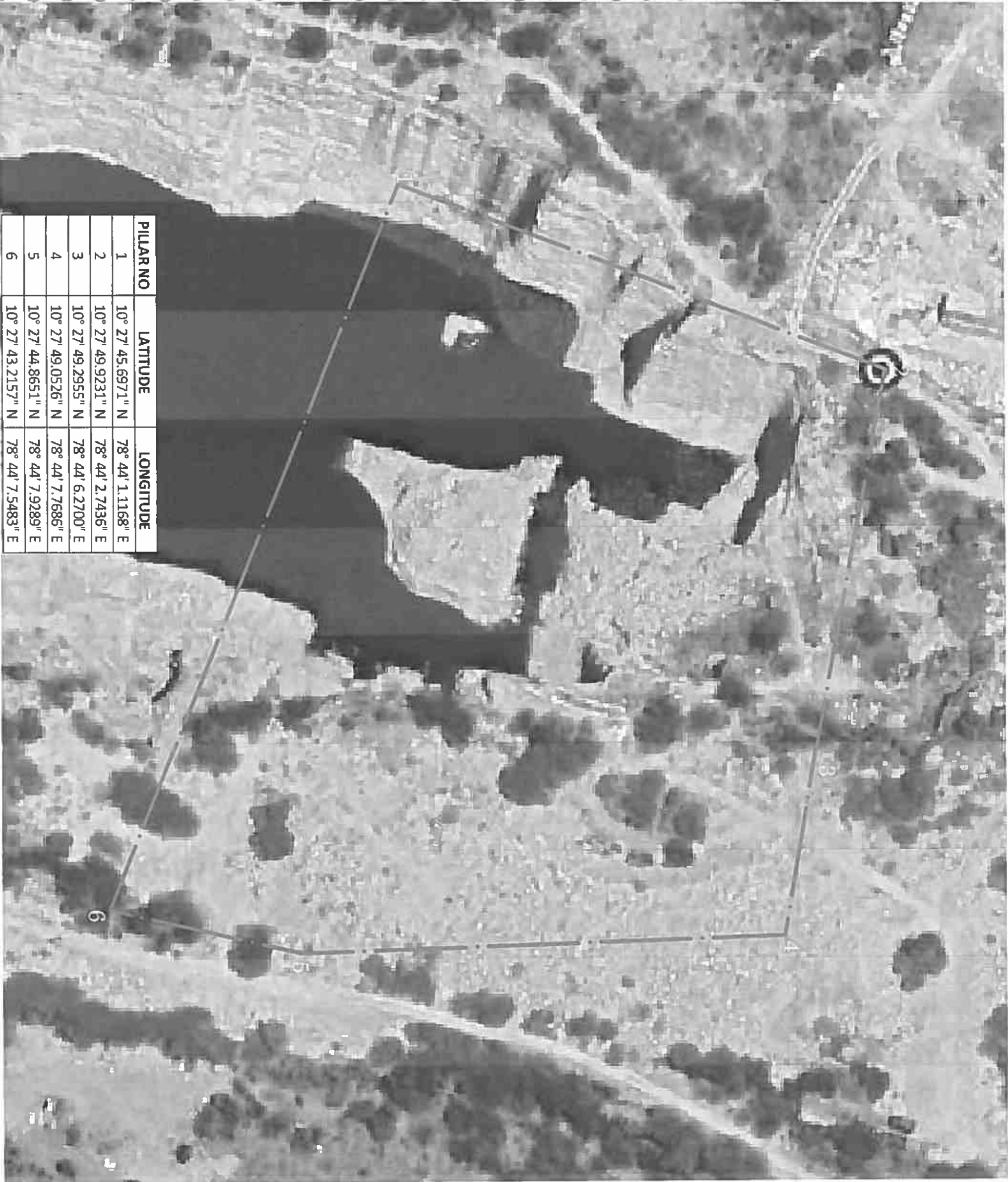
TOPO SHEET MAP OF
THE LEASE AREA

SCALE: 1:50,000

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE
HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE

S.DHANASEKAR,M.Sc.,
QUALIFIED PERSON



PILLAR NO	LATTUDE	LONGITUDE
1	10° 27' 45.6971" N	78° 44' 1.1168" E
2	10° 27' 49.9231" N	78° 44' 2.7436" E
3	10° 27' 49.2955" N	78° 44' 6.2700" E
4	10° 27' 49.0526" N	78° 44' 7.7686" E
5	10° 27' 44.8651" N	78° 44' 7.9289" E
6	10° 27' 43.2157" N	78° 44' 7.5483" E

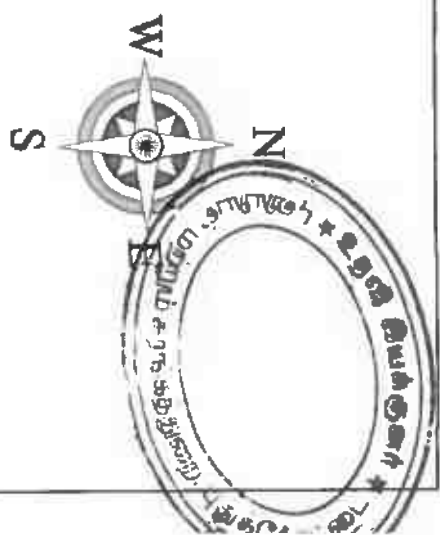


PLATE NO:IC

DATE OF SURVEY: 14-02-2024

APPLICANT ADDRESS:

THIRU.C.PALANISAMY,
S/o. CHINNAKANNU,
No.129, EDATHERU,
SITHANNAVASAL,
ILLUPPUR TALUK,
PUDUKKOTTAI DISTRICT -622 101.

LOCATION OF QUARRY

EXTENT : 2.80.33 Hects.
S.F.No : 94(PART-1)
VILLAGE : SITHANNAVASAL,
TALUK : ILLUPPUR,
DISTRICT : PUDUKKOTTAI.

INDEX

QUARRY LEASE BOUNDARY

SATELLITE IMAGE
(LEASE AREA)

SCALE: 1:1000

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE
HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE

S.DHANASEKAR,M.Sc.,
QUALIFIED PERSON

10° 27' 45.6971" N
78° 44' 1.1168" E

10° 27' 49.9231" N
78° 44' 2.7436" E



10° 27' 49.2955" N
78° 44' 6.2700" E

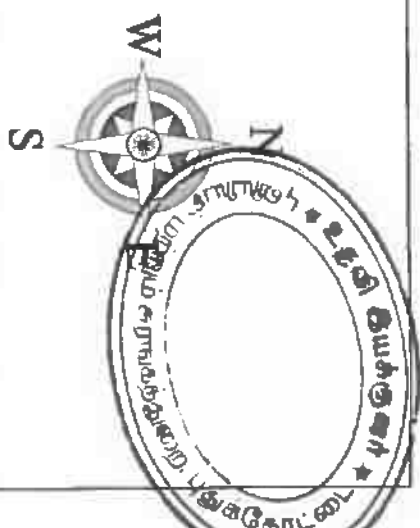


PLATE NO:ID

DATE OF SURVEY: 14-02-2024

APPLICANT ADDRESS:

THIRU.C.PALANISAMY,
S/O. CHINNAKANNU,
No.129, EDATHERU,
SITHANNAVASAL,
ILLUPPUR TALUK,
PUDUKKOTTAI DISTRICT -622 101.

LOCATION OF QUARRY

EXTENT : 2.80.33 Hects.
S.F.No : 94(PART-1)
VILLAGE : SITHANNAVASAL,
TALUK : ILLUPPUR,
DISTRICT : PUDUKKOTTAI.

INDEX

QUARRY LEASE BOUNDARY



500M RADIUS



300M RADIUS



SATELLITE IMAGE
[500m RADIUS]

SCALE: 1:5000

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE
HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE


S.DHANASEKAR,M.Sc.,
QUALIFIED PERSON

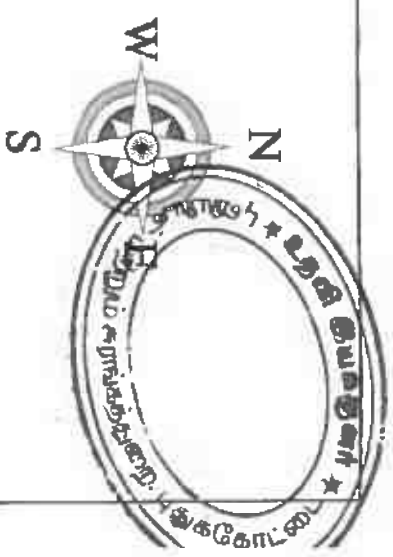


PLATE NO: II

DATE OF SURVEY: 14-02-2024

APPLICANT ADDRESS:

THIRU.C.PALANISAMY,
S/o. CHINNAKANNU,
No.129, EDATHERU,
SITHANNAVASAL,
ILLUPPUR TALUK,
PUDUKKOTTAI DISTRICT -622 101.

LOCATION OF QUARRY

EXTENT : 2.80.33 Hects.
S.F.No : 94(PART-1)
VILLAGE : SITHANNAVASAL,
TALUK : ILLUPPUR,
DISTRICT : PUDUKKOTTAI.

INDEX

- QUARRY LEASE BOUNDARY
- 10.0m SAFETY DISTANCE
- BOUNDARY PILLARS
- TEMPORARY BENCH MARK
- APPROACH ROAD

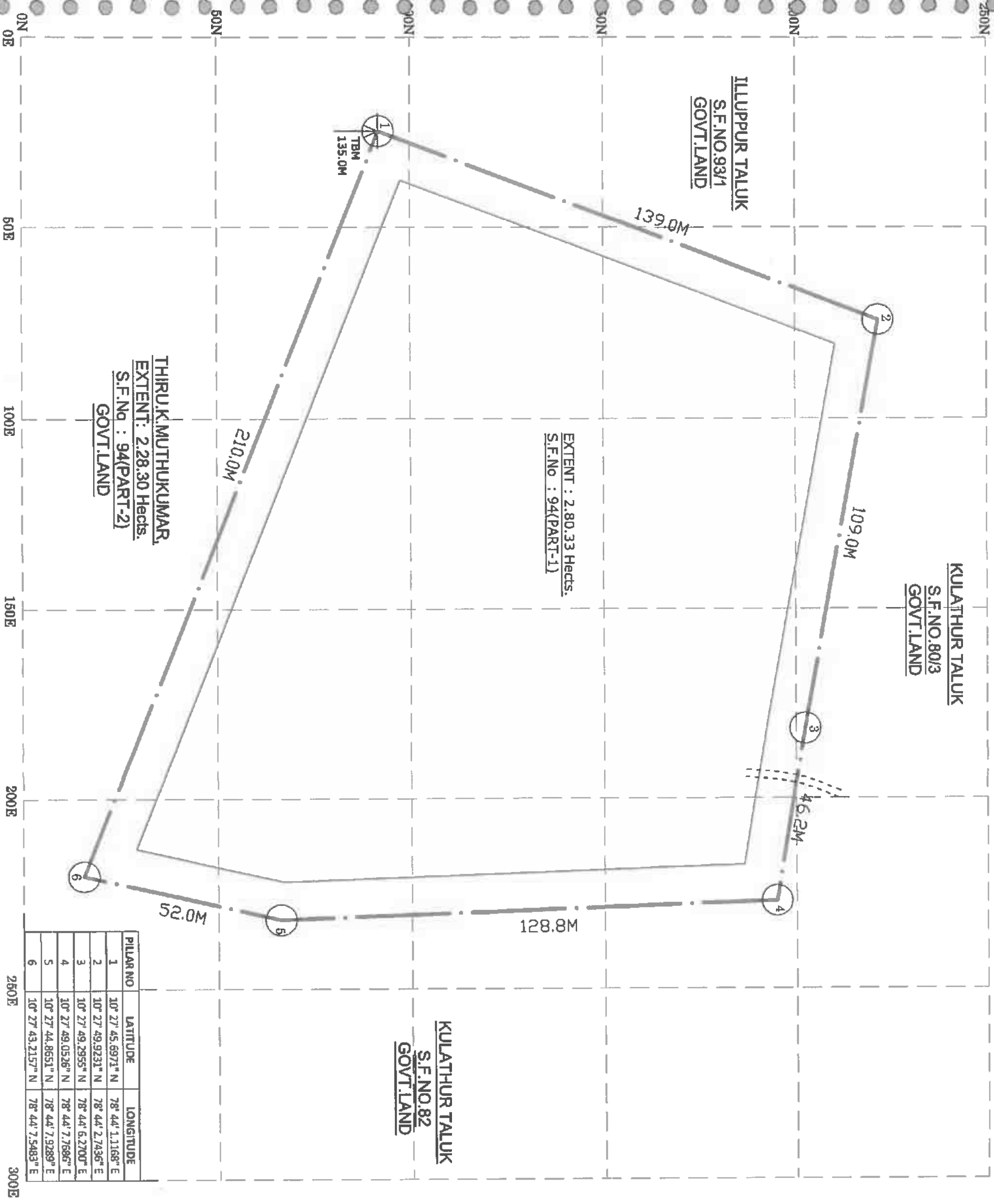
MINE LEASE PLAN

SCALE: 1:1000

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE
HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE

S.DHANASEKAR.M.Sc.,
QUALIFIED PERSON



KULATHUR TALUK
S.F.No.82
GOVT.LAND

THIRU.K.MUTHUKUMAR,
EXTENT: 2.28.30 Hects.
S.F.No : 94(PART-2)
GOVT.LAND

ILLUPPUR TALUK
S.F.No.93/1
GOVT.LAND

KULATHUR TALUK
S.F.No.80/3
GOVT.LAND

PILLAR NO	LATITUDE	LONGITUDE
1	10° 27' 45.6971" N	78° 44' 1.1168" E
2	10° 27' 49.9231" N	78° 44' 2.7436" E
3	10° 27' 49.2955" N	78° 44' 5.2700" E
4	10° 27' 49.0526" N	78° 44' 7.7686" E
5	10° 27' 44.8651" N	78° 44' 7.9289" E
6	10° 27' 43.2157" N	78° 44' 7.5483" E

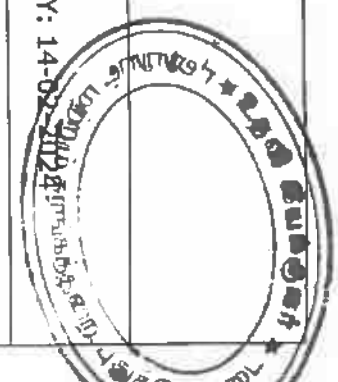


PLATE NO:III

DATE OF SURVEY: 14-02-2024

APPLICANT ADDRESS:

THIRU.C.PALANISAMY,
S/o. CHINNAKANNU,
No.129, EDATHERU,
SITHANNAVASAL,
ILLUPPUR TALUK,
PUDUKKOTTAI DISTRICT -622 101.

LOCATION OF QUARRY

EXTENT : 2.80.33 Hects.
S.F.No : 94(PART-1)
VILLAGE : SITHANNAVASAL,
TALUK : ILLUPPUR,
DISTRICT : PUDUKKOTTAI.

INDEX

- QUARRY LEASE BOUNDARY
- 10.0m SAFETY DISTANCE
- BOUNDARY PILARS
- TEMPORARY BENCH MARK
- TOP SOIL
- ROUGH STONE
- STRIKE & DIP
- EXISTING PIT
- QUARRY ROAD
- SHRUB

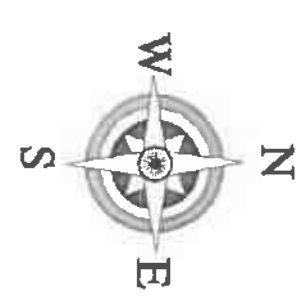
SURFACE & GEOLOGICAL PLAN

SCALE: 1:1000

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE
HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE

S.DHANASEKAR,M.Sc.,
QUALIFIED PERSON

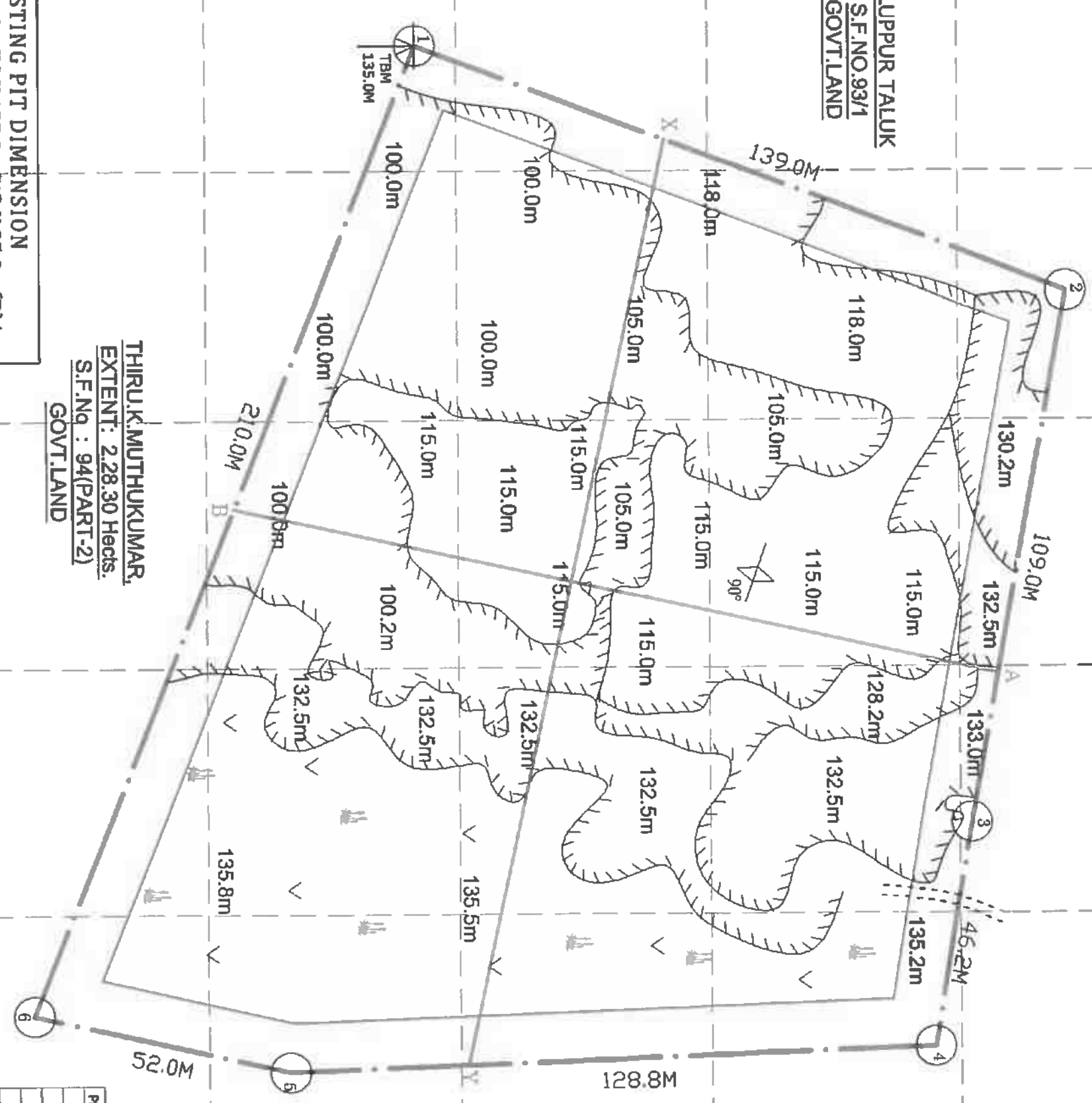


KULATHUR TALUK
S.F.NO.80/3
GOVT.LAND

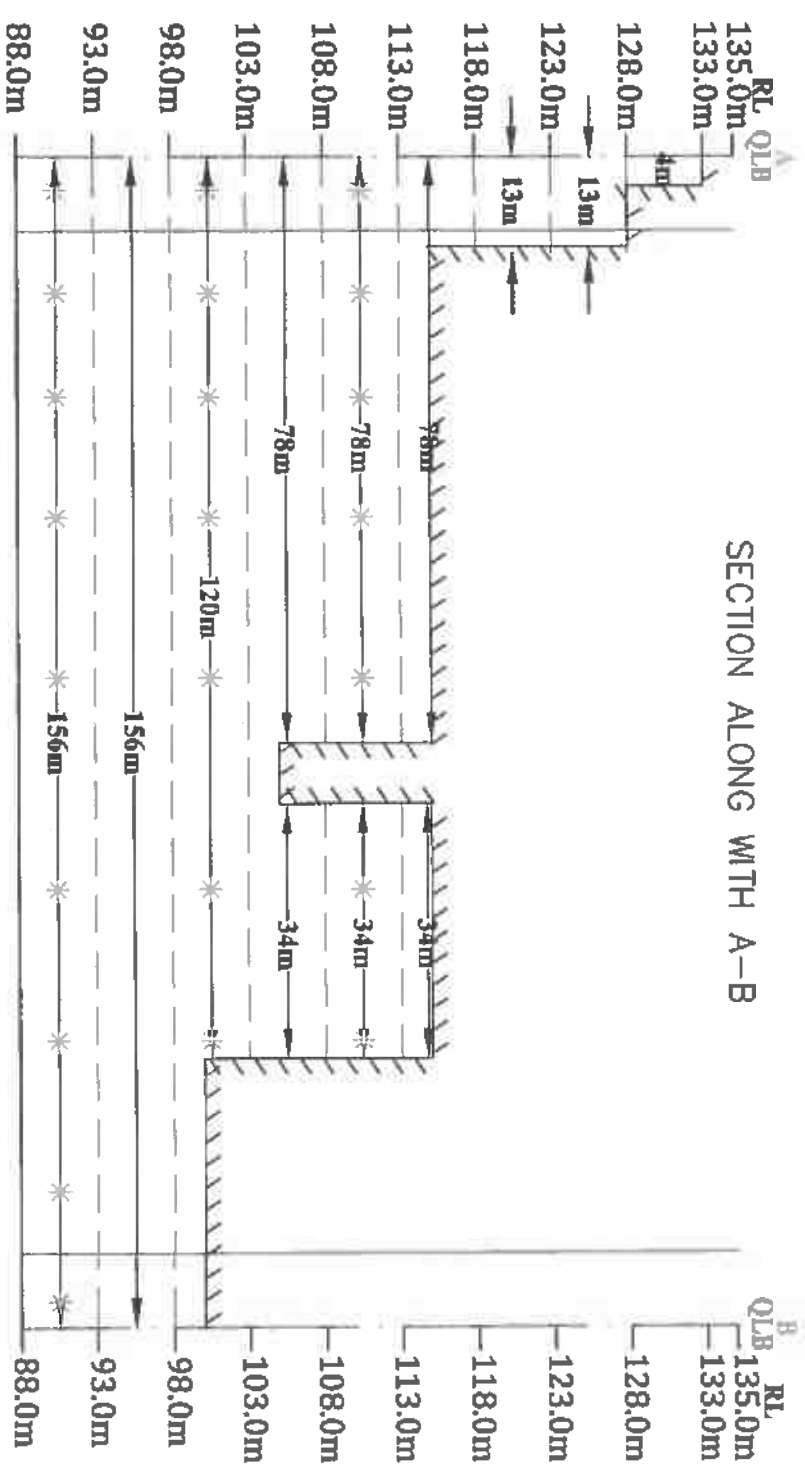
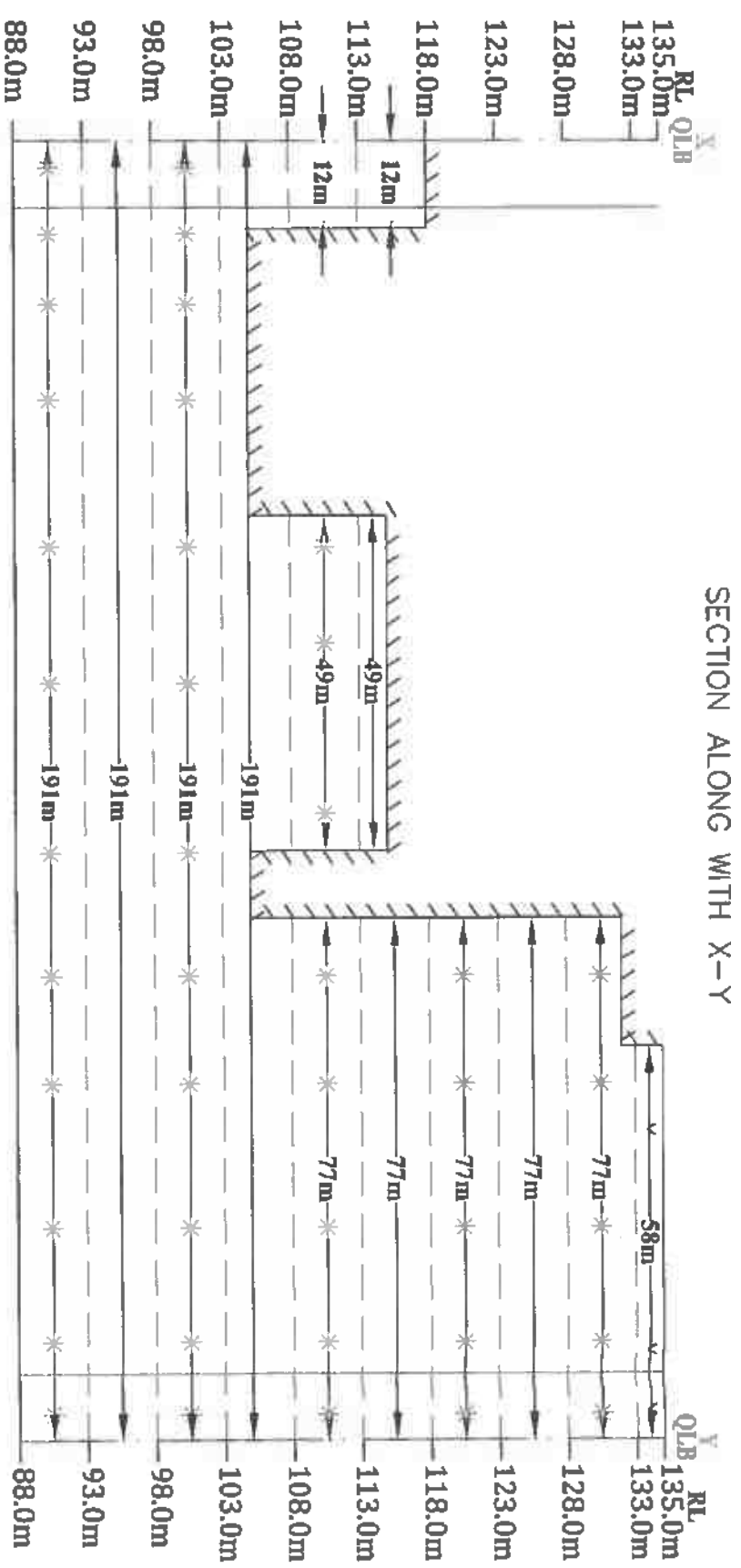
ILLUPPUR TALUK
S.F.NO.93/1
GOVT.LAND

THIRU.K.MUTHUKUMAR,
EXTENT: 2.28.30 Hects.
S.F.No : 94(PART-2)
GOVT.LAND

EXISTING PIT DIMENSION
= 156.0m(L) X 133.0m(W) X 25.0m(D) Avg



PILAR NO	LATITUDE	LONGITUDE
1	10° 27' 45.6971" N	78° 44' 1.1168" E
2	10° 27' 49.9231" N	78° 44' 2.7436" E
3	10° 27' 49.2955" N	78° 44' 6.2700" E
4	10° 27' 49.0526" N	78° 44' 7.7685" E
5	10° 27' 44.8651" N	78° 44' 7.9289" E
6	10° 27' 43.2157" N	78° 44' 7.5483" E



GEOLOGICAL RESERVES							
Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (Cu.m.)	Geological Reserve in Cu.mt (100%)	Topsoil in Cu.m.
XV-AB	I	58	1	2			116
	II	77	4	5	1540	1540	
	III	77	13	5	5005	5005	
	IV	77	13	5	5005	5005	
	V	138	112	5	77280	77280	
	VI	138	112	5	77280	77280	
	VII	191	112	5	106960	106960	
	VIII	191	120	5	114600	114600	
	IX	191	156	5	148980	148980	
	X	191	156	5	148980	148980	
Total=					685630	685630	116

TOTAL DEPOSIT = 47.00

PLATE NO:III-A

DATE OF SURVEY: 14-02-2024

APPLICANT ADDRESS:

THIRU.C.PALANISAMY,
S/O. CHINNAKANNU,
No.129, EDATHERU,
SITHANNAVASAL,
ILLUPPUR TALUK,
PUDUKKOTTAI DISTRICT -622 101.

LOCATION OF QUARRY

EXTENT : 2.80.33 Hects.
S.F.No : 94(PART-1)
VILLAGE : SITHANNAVASAL
TALUK : ILLUPPUR,
DISTRICT : PUDUKKOTTAI.

INDEX

QUARRY LEASE BOUNDAR

10.0m SAFETY DISTANCE

TOP SOIL

ROUGH STONE

EXISTING PIT

GEOLOGICAL SECTIONS

SCALE: HOR-1:1000

PREPARED BY:

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S.DHANASEKAR,M.Sc.,
QUALIFIED PERSON

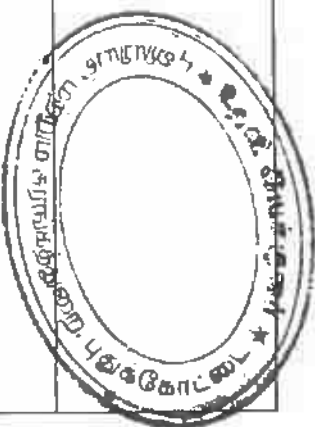


PLATE NO:IV

DATE OF SURVEY : 14-02-2024

APPLICANT ADDRESS:

THIRU.C.PALANISAMY,
S/o. CHINNAKANNU,
No.129, EDATHERU,
SITHANNAVASAL,
ILLUPPUR TALUK,
PUDUKKOTTAI DISTRICT -622 101.

LOCATION OF QUARRY

EXTENT : 2.80.33 Hects.
S.F.No : 94(PART-1)
VILLAGE : SITHANNAVASAL,
TALUK : ILLUPPUR,
DISTRICT : PUDUKKOTTAI.

INDEX

QUARRY LEASE BOUNDARY	
10.0m SAFETY DISTANCE	
BOUNDARY PILARS	
TEMPORARY BENCH MARK	
TOP SOIL	
ROUGH STONE	
QUARRY PIT	
QUARRY ROAD	
SHRUB	

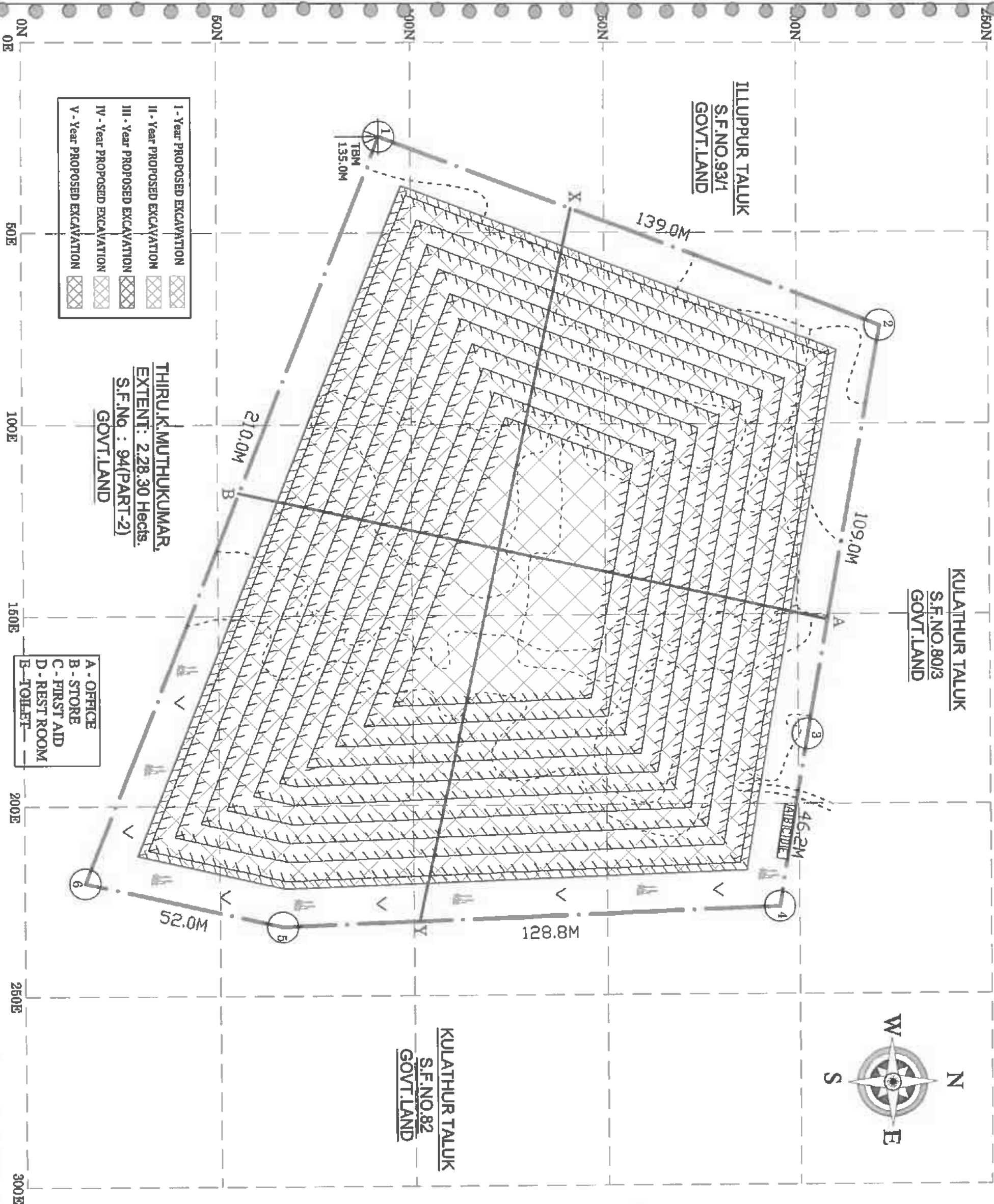
YEARWISE DEVELOPMENT
& PRODUCTION PLAN

SCALE: 1:1000

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE
HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE

S.DHANASEKAR,M.Sc.,
QUALIFIED PERSON

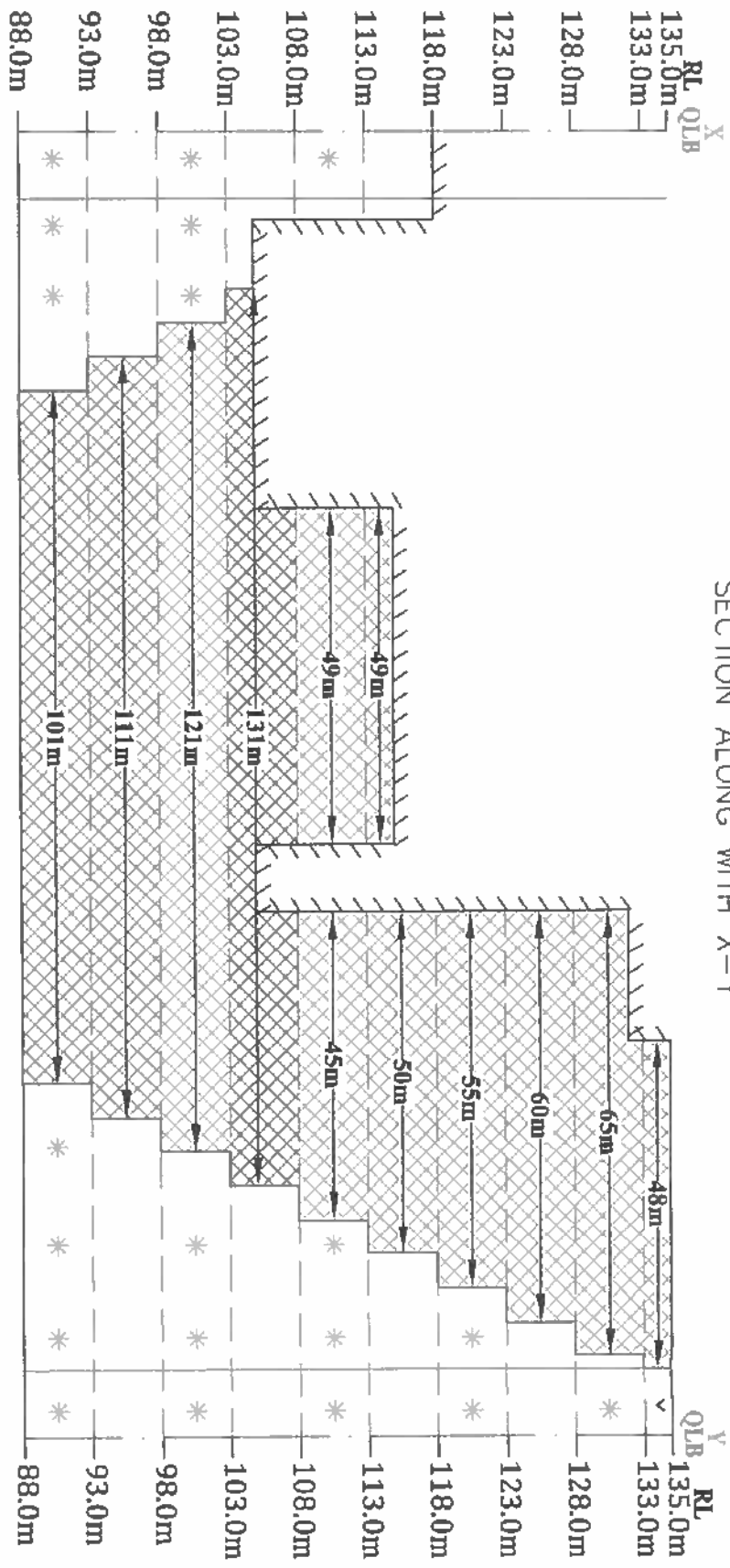


I - Year PROPOSED EXCAVATION	
II - Year PROPOSED EXCAVATION	
III - Year PROPOSED EXCAVATION	
IV - Year PROPOSED EXCAVATION	
V - Year PROPOSED EXCAVATION	

THIRU.K.MUTHUKUMAR,
EXTENT: 2.28.30 Hects.
S.F.No : 94(PART-2)
GOVT.LAND

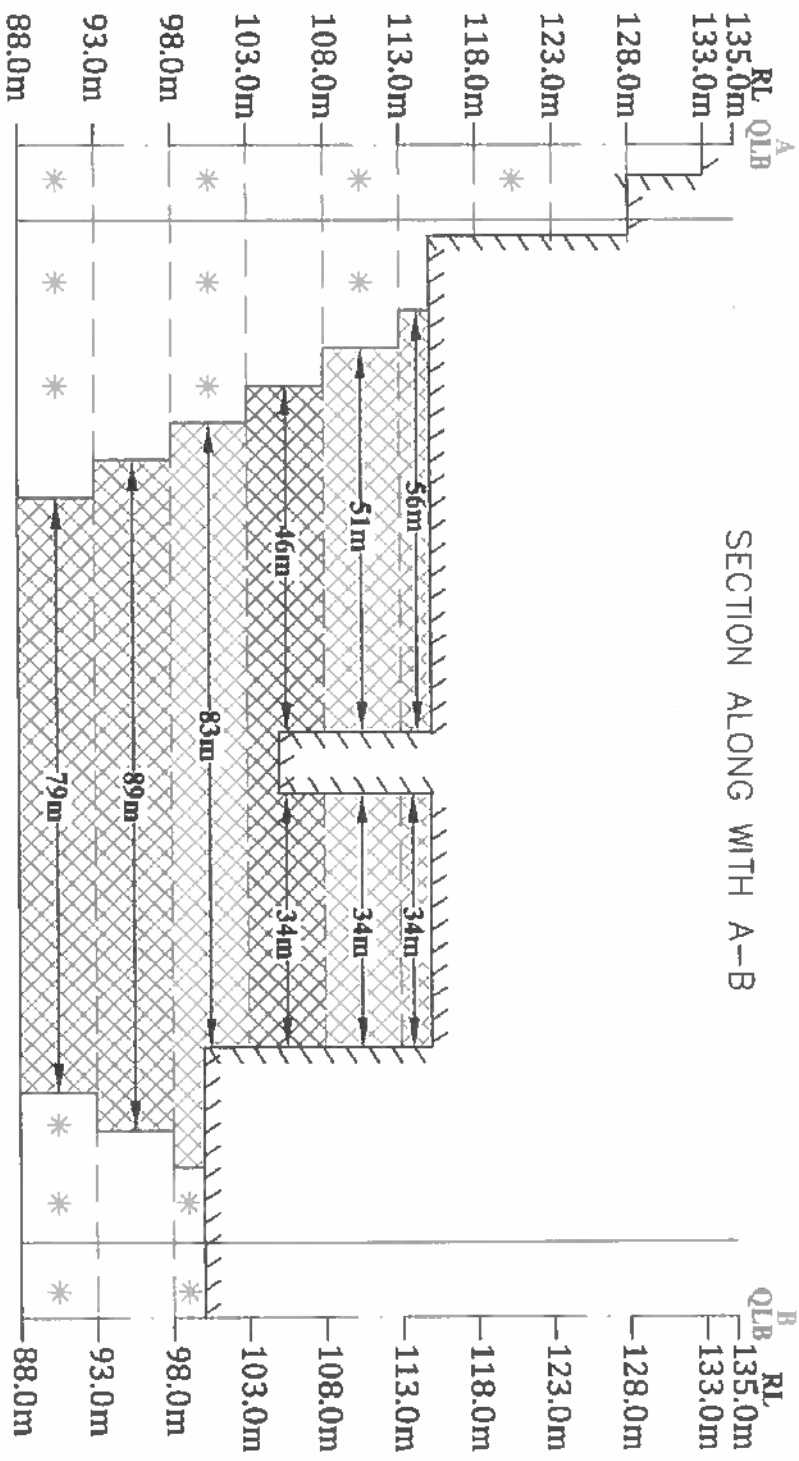
A - OFFICE
B - STORE
C - FIRST AID
D - REST ROOM
E - TOILET

SECTION ALONG WITH X-Y



- I - Year PROPOSED EXCAVATION
- II - Year PROPOSED EXCAVATION
- III - Year PROPOSED EXCAVATION
- IV - Year PROPOSED EXCAVATION
- V - Year PROPOSED EXCAVATION

SECTION ALONG WITH A-B



YEARWISE DEVELOPMENT AND PRODUCTION

YEAR	Section	Bench	Length In (m)	Width In (m)	Depth In (m)	Volume In (m3)	Recoverable Reserve In m3 (100%)	Top Soil In m3
I-YEAR	XY-AB	I	48	1	2			96
		II	65	1	5	325	325	
		III	60	1	5	300	300	
		IV	55	1	5	275	275	
		V	99	90	5	4450	4450	
TOTAL						45450	45450	96
II-YEAR	XY-AB	VI	94	85	5	39950	39950	
		TOTAL						39950
III-YEAR	XY-AB	VII	131	80	5	52400	52400	
		TOTAL						52400
IV-YEAR	XY-AB	VIII	121	83	5	50215	50215	
		TOTAL						50215
V-YEAR	XY-AB	IX	111	89	5	49395	49395	
		X	101	79	5	39895	39895	
TOTAL						89290	89290	
GRAND TOTAL						277305	277305	96

TOTAL DEPTH = 47m

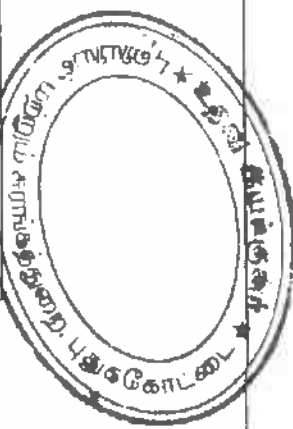


PLATE NO: IV-A

DATE OF SURVEY: 14-02-2024

APPLICANT ADDRESS:

THIRU.C.PALANISAMY,
S/o. CHINNAKANNU,
No.129, EDATHERU,
SITHANNAVASAL,
ILLUPPUR TALUK,
PUDUKKOTTAI DISTRICT - 622 101.

LOCATION OF QUARRY

EXTENT : 2.80.33 Hects.
S.F.No : 94(PART-1)
VILLAGE : SITHANNAVASAL,
TALUK : ILLUPPUR,
DISTRICT : PUDUKKOTTAI.

INDEX

- QUARRY LEASE BOUNDARY
- 10.0m SAFETY DISTANCE
- TOP SOIL
- ROUGH STONE
- QUARRY PIT

YEARWISE DEVELOPMENT & PRODUCTION SECTIONS

SCALE: HOR-1:1000
VER-1:500

PREPARED BY:

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HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE

S.DHANASEKAR,M.Sc,
QUALIFIED PERSON

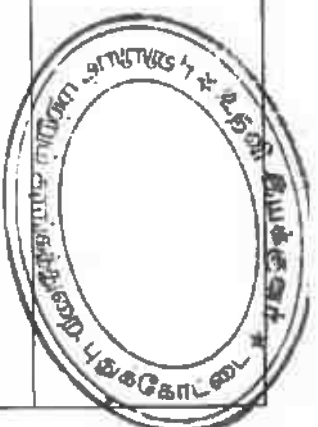


PLATE NO: V

DATE OF SURVEY: 14-02-2024

APPLICANT ADDRESS:

THIRU.C.PALANISAMY,
S/O. CHINNAKANNU,
No.129, EDATHERU,
SITHANNAVASAL,
ILLUPPUR TALUK,
PUDUKKOTTAI DISTRICT -622 101.

LOCATION OF QUARRY

EXTENT : 2.80.33 Hects.
S.F.No : 94(PART-1)
VILLAGE : SITHANNAVASAL,
TALUK : ILLUPPUR,
DISTRICT : PUDUKKOTTAI.

INDEX

QUARRY LEASE BOUNDARY	
10.0m SAFETY DISTANCE	
BOUNDARY PILLARS	
TEMPORARY BENCH MARK	
TOP SOIL	
ROUGH STONE	
QUARRY PIT	
QUARRY ROAD	
MINE LAYOUT	

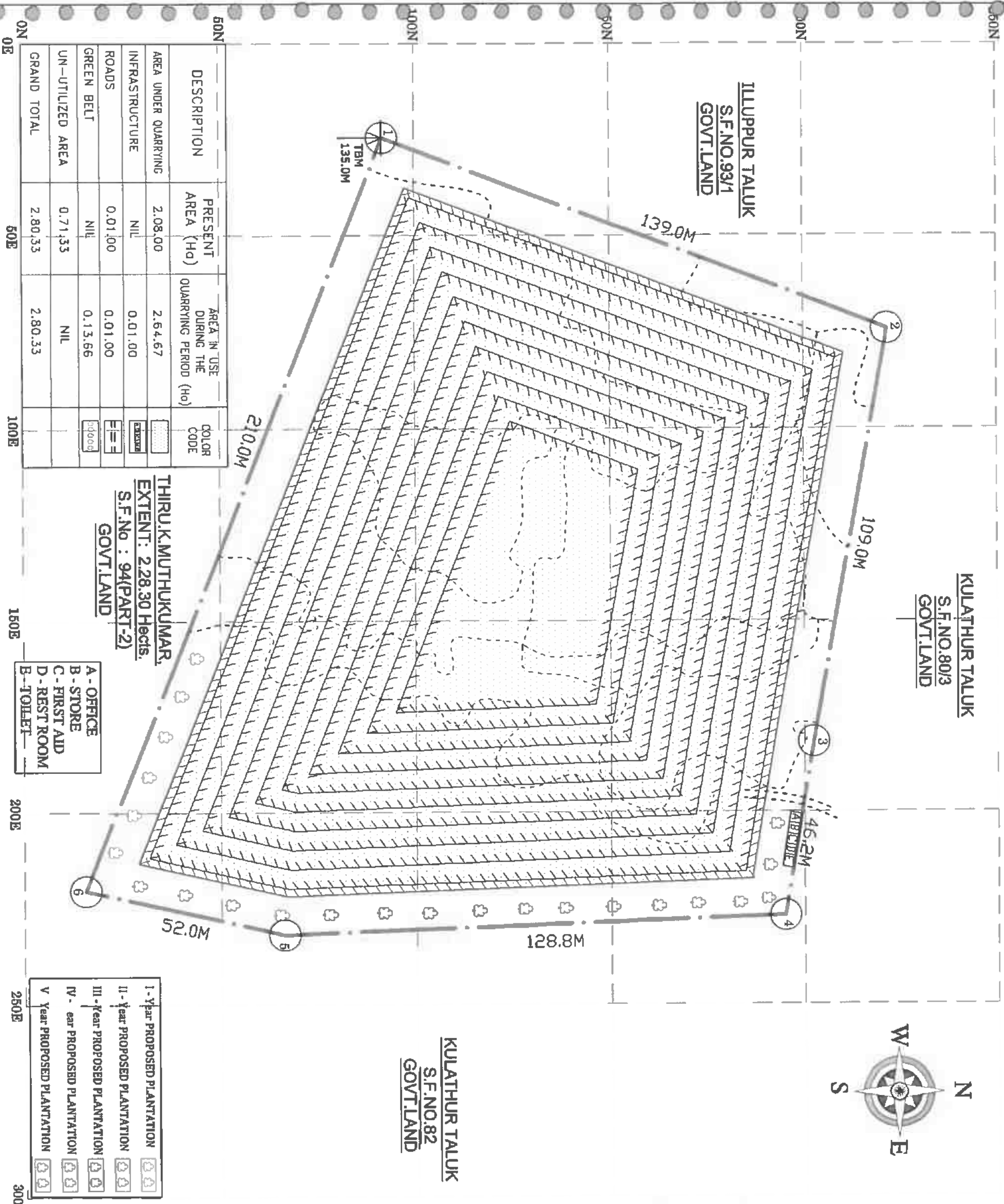
MINE LAYOUT/LAND USE PATTERN &
AFFORESTATION PLAN

SCALE: 1:1000

PREPARED BY:

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HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE

S.DHANASEKAR,M.Sc.,
QUALIFIED PERSON



KULATHUR TALUK
S.F.NO.80/3
GOVT.LAND

ILLUPPUR TALUK
S.F.NO.93/1
GOVT.LAND

KULATHUR TALUK
S.F.NO.82
GOVT.LAND

THIRU.K.MUTHUKUMAR,
EXTENT: 2.28.30 Hects.
S.F.No : 94(PART-2)
GOVT.LAND

A - OFFICE
B - STORE
C - FIRST AID
D - REST ROOM
E - TOILET

I - Year PROPOSED PLANTATION	
II - Year PROPOSED PLANTATION	
III - Year PROPOSED PLANTATION	
IV - Year PROPOSED PLANTATION	
V - Year PROPOSED PLANTATION	

DESCRIPTION	PRESENT AREA (Ha)	AREA IN USE DURING THE QUARRYING PERIOD (Ha)	COLOR CODE
AREA UNDER QUARRYING	2.08.00	2.64.67	
INFRASTRUCTURE	NIL	0.01.00	
ROADS	0.01.00	0.01.00	
GREEN BELT	NIL	0.13.66	
UN-UTILIZED AREA	0.71.33	NIL	
GRAND TOTAL	2.80.33	2.80.33	

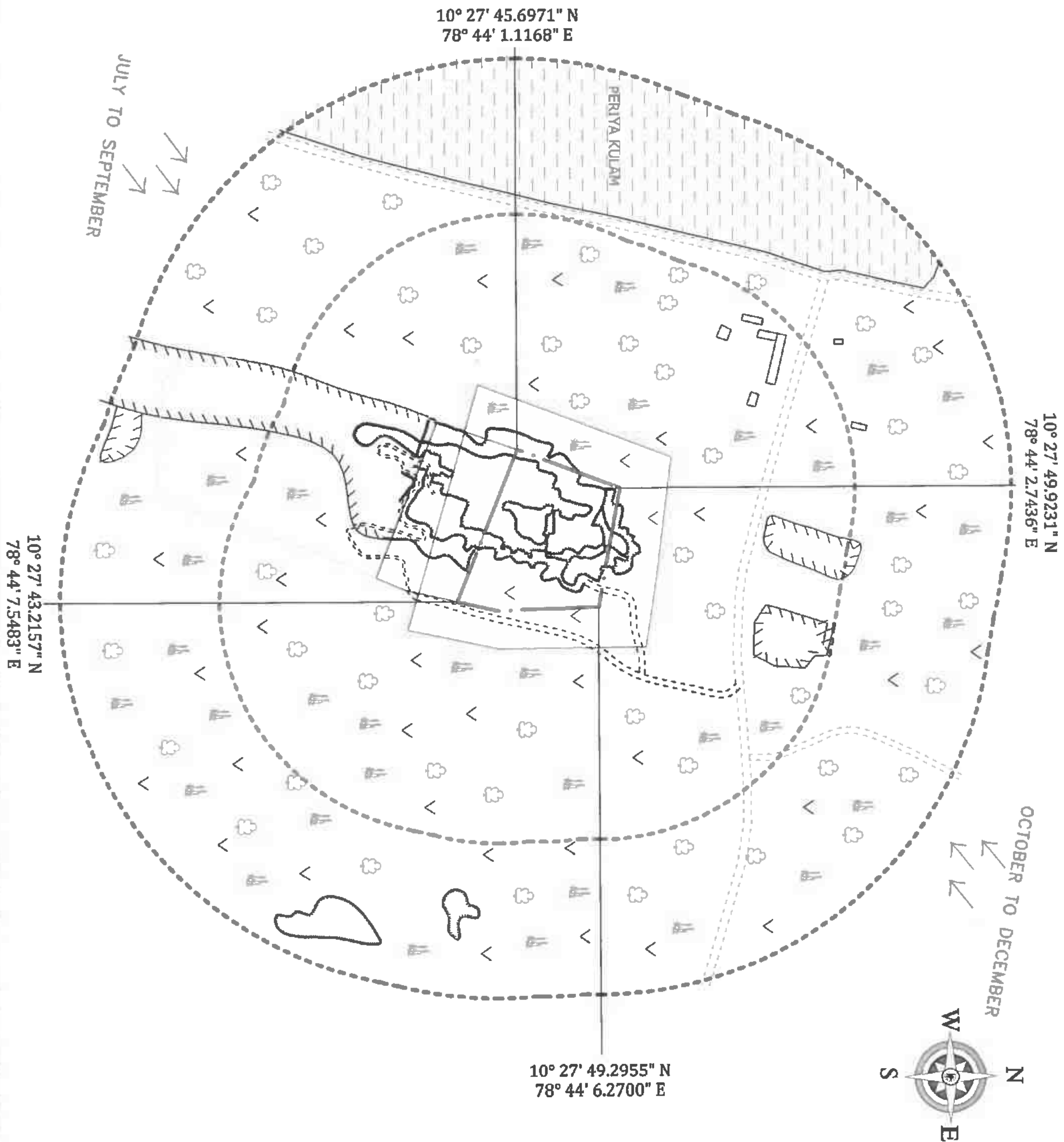


PLATE NO: VI

DATE OF SURVEY: 14-02-2024

APPLICANT ADDRESS:

THIRU.C.PALANIBAMY,
S/O. CHINNAKANNU,
No.129, EDATHERU,
SITHANNAVASAL,
ILLUPPUR TALUK,
PUDUKKOTTAI DISTRICT - 622 101.

LOCATION OF QUARRY

EXTENT : 2.80.33 Hects.
S.F.No : 94(PART-1)
VILLAGE : SITHANNAVASAL,
TALUK : ILLUPPUR,
DISTRICT : PUDUKKOTTAI.

INDEX

QUARRY LEASE BOUNDARY	
500M RADIUS	
300M RADIUS	
60m RADIUS	
TREES	
APPROACH ROAD	
QUARRY ROAD	
WIND DIRECTION	
DRY AGRICULTURAL LAND	
SHRUB	
ADJACENT QUARRY	
PERIYA KULAM	

ENVIRONMENT PLAN

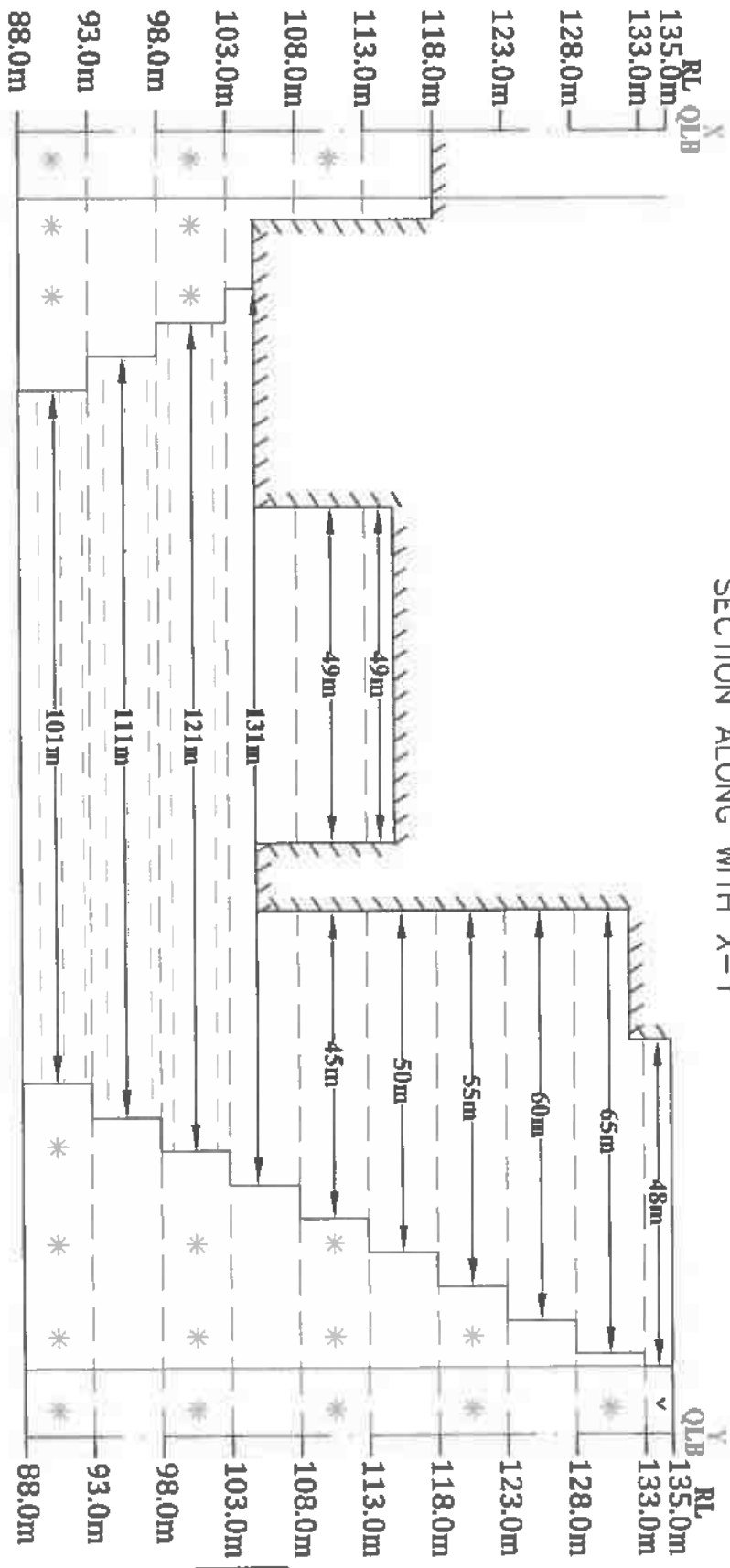
SCALE: 1:5000

PREPARED BY:

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TO THE BEST OF MY KNOWLEDGE

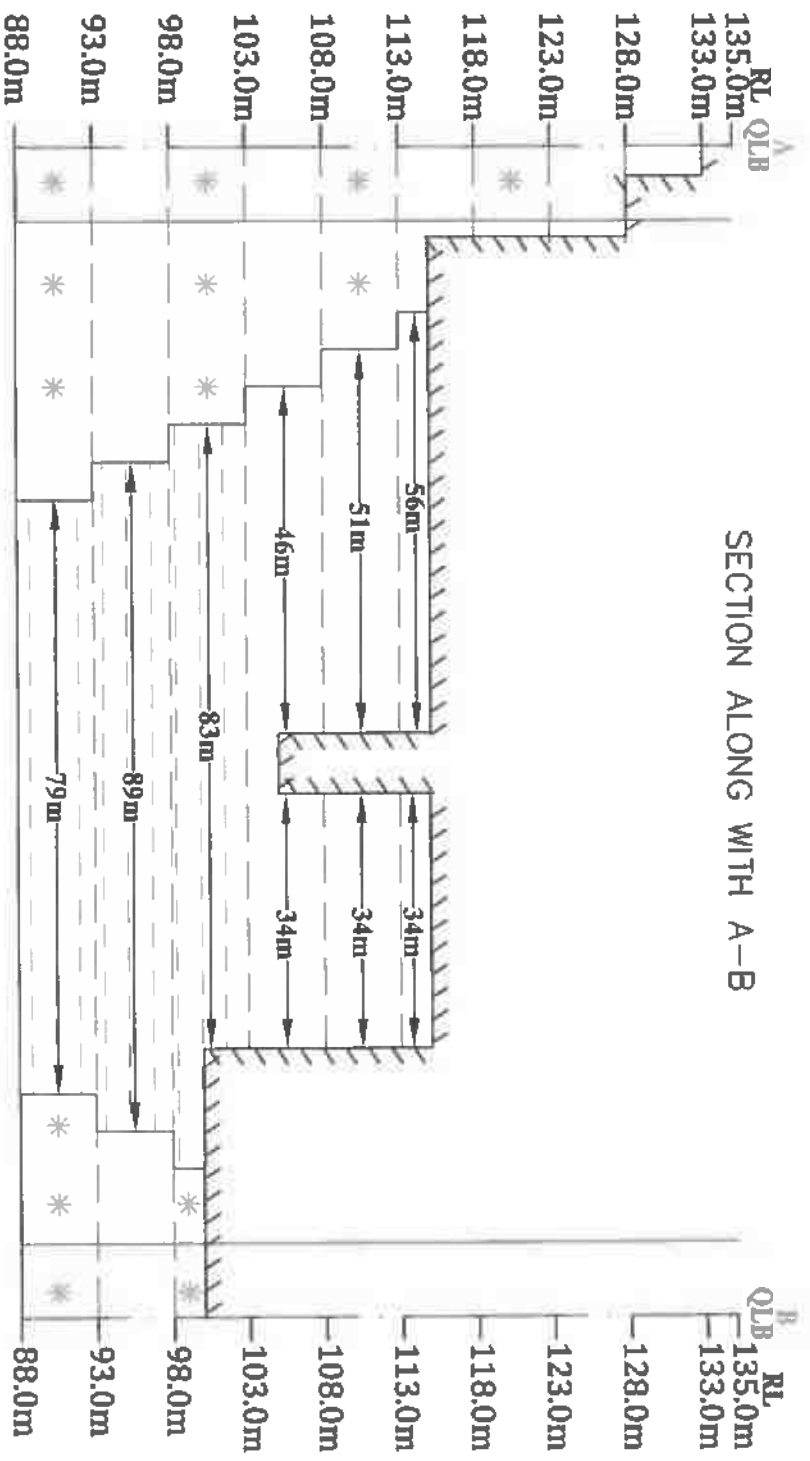
S.DHANASEKAR,M.Sc.,
QUALIFIED PERSON

SECTION ALONG WITH X-Y



ULTIMATE PIT DIMENSION
= 171.0m(L) X 136.0m(W) X 47.0m(D)

SECTION ALONG WITH A-B



MINEABLE RESERVES					
Section	Bench	Length In (m)	Width In (m)	Depth In (m)	Volume In (Cu.m.)
XY-AB	I	48	1	2	325
	II	65	1	5	300
	III	60	1	5	275
	IV	55	1	5	44550
	V	99	90	5	39950
	VI	94	85	5	52400
	VII	131	80	5	50215
	VIII	121	83	5	49395
	IX	111	89	5	39895
	X	101	79	5	277305
Total=					277305

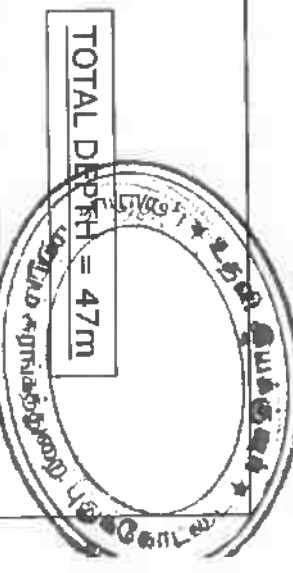


PLATE NO: VII-A

DATE OF SURVEY: 14-02-2024

APPLICANT ADDRESS:

THIRU.C.PALANISAMY,
S/o. CHINNAKANNU,
No.129, EDATHERU,
SITHANNAVASAL,
ILLUPPUR TALUK,
PUDUKKOTTAI DISTRICT -622 101.

LOCATION OF QUARRY

EXTENT : 2.80.33 Hects.
S.F.No : 94(PART-1)
VILLAGE : SITHANNAVASAL,
TALUK : ILLUPPUR,
DISTRICT : PUDUKKOTTAI.

INDEX

- QUARRY LEASE BOUNDARY
- 10.0m SAFETY DISTANCE
- TOP SOIL
- ROUGH STONE
- PROPOSED WATER STORAGE
- ULTIMATE PIT SLOPE

CONCEPTUAL / FINAL MINE CLOSURE SECTIONS

SCALE: HOR-1:1000
VER-1:500

PREPARED BY:

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S.DHANASEKAR,M.Sc,
QUALIFIED PERSON

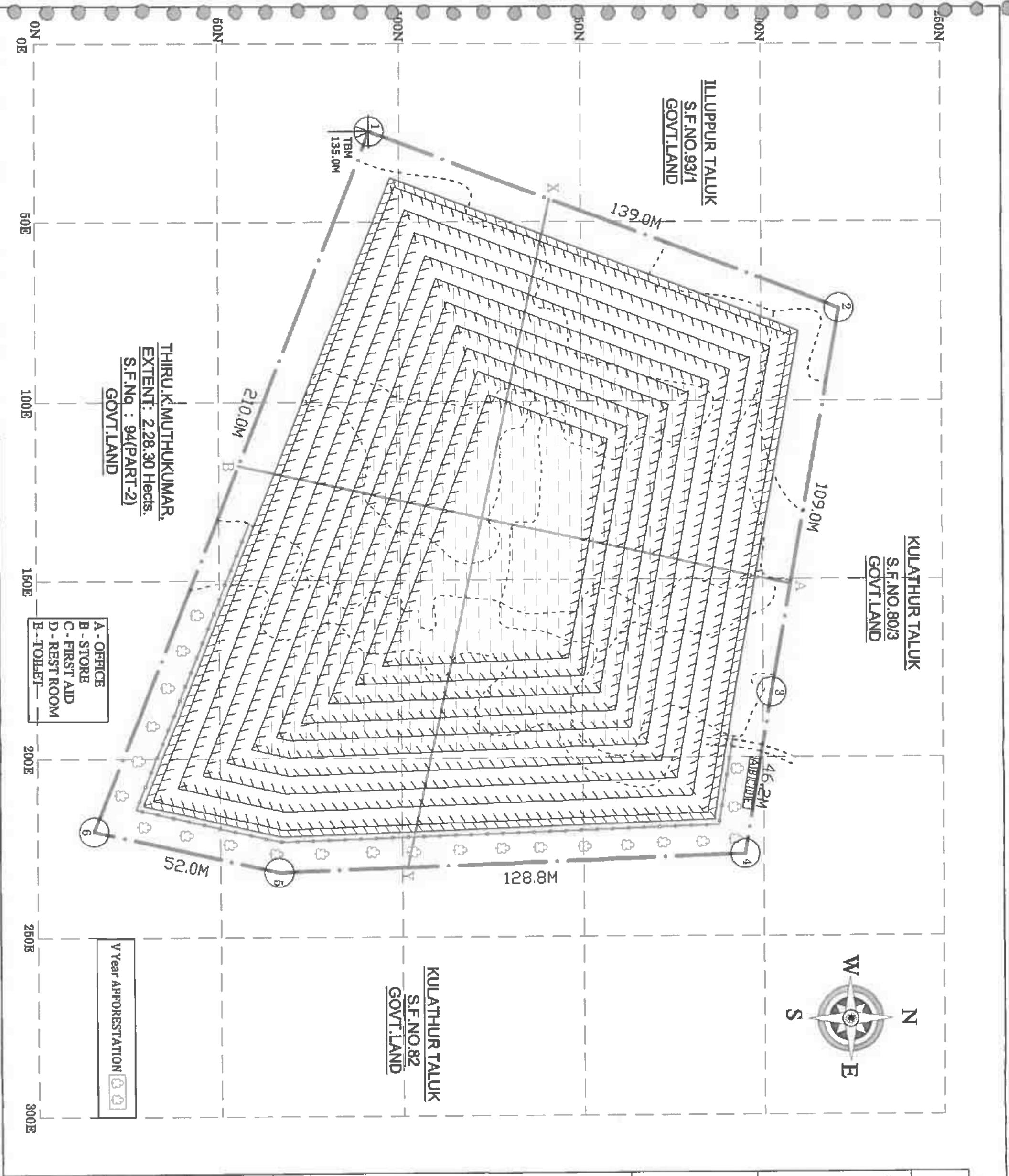


PLATE NO: VII

DATE OF SURVEY: 14-02-2024

APPLICANT ADDRESS:

THIRU. C. PALANISAMY,
S/o. CHINNAKANNU,
No.129, EDATHERU,
SITHANNAVASAL,
ILLUPPUR TALUK,
PUDUKKOTTAI DISTRICT - 622 101.

LOCATION OF QUARRY

EXTENT : 2.80.33 Hects.
S.F.No : 94(PART-1)
VILLAGE : SITHANNAVASAL,
TALUK : ILLUPPUR,
DISTRICT : PUDUKKOTTAI.

INDEX

- QUARRY LEASE BOUNDARY
- 10.0m SAFETY DISTANCE
- BOUNDARY PILLARS
- TEMPORARY BENCH MARK
- TOP SOIL
- ROUGH STONE
- QUARRY PIT
- QUARRY ROAD
- FENCING
- PARAPET WALL
- PROPOSED WATER STORAGE
- ULTIMATE PIT LIMIT

CONCEPTUAL / FINAL MINE
CLOSURE PLAN

SCALE: 1:1000

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE
HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE

S. DIHANASEKAR, M.Sc.,
QUALIFIED PERSON

KULATHUR TALUK
S.F.NO.80/3
GOVT.LAND

ILLUPPUR TALUK
S.F.NO.93/1
GOVT.LAND

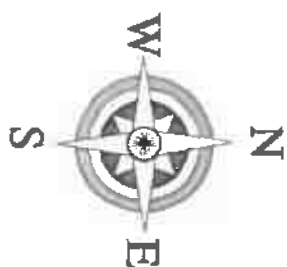


PLATE NO:VIII

DATE OF SURVEY : 14-02-2024

APPLICANT ADDRESS:

THIRU.C.PALANISAMY,
S/o. CHINNAKANNU,
No.129, EDATHERU,
SITHANNAVASAL,
ILLUPPUR TALUK,
PUDUKKOTTAI DISTRICT - 622 101.

LOCATION OF QUARRY

EXTENT : 2.80.33 Hects.
S.F.No : 94(PART-1)
VILLAGE : SITHANNAVASAL,
TALUK : ILLUPPUR,
DISTRICT : PUDUKKOTTAI.

INDEX

QUARRY LEASE BOUNDARY	
10.0m SAFETY DISTANCE	
BOUNDARY PILLARS	
TEMPORARY BENCH MARK	
TOP SOIL	
ROUGH STONE	
QUARRY PIT	
QUARRY ROAD	
MINE LAYOUT	

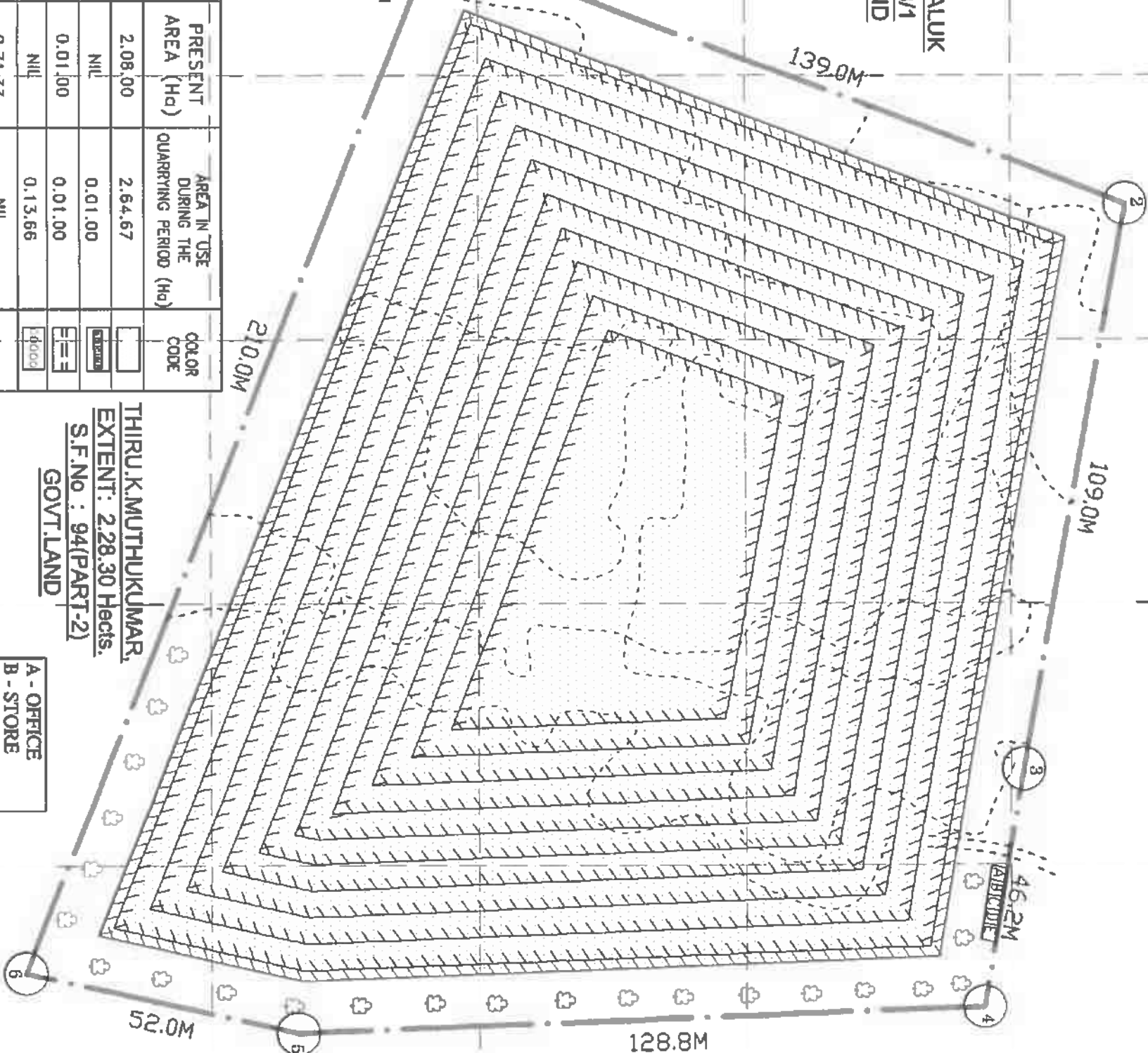
PROGRESSIVE MINE CLOSURE PLAN

SCALE: 1:1000

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE
HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE

S.DHANASEKAR,M.Sc.,
QUALIFIED PERSON



THIRU.K.MUTHUKUMAR,
EXTENT: 2.28.30 Hects.
S.F.No : 94(PART-2)
GOVT.LAND

- A - OFFICE
- B - STORE
- C - FIRST AID
- D - REST ROOM
- E - TOILET

- I - Year PROPOSED PLANTATION
- II - Year PROPOSED PLANTATION
- III - Year PROPOSED PLANTATION
- IV - Year PROPOSED PLANTATION
- V - Year PROPOSED PLANTATION

DESCRIPTION	PRESENT AREA (Ha)	AREA IN USE DURING THE QUARRYING PERIOD (Ha)	COLOR CODE
AREA UNDER QUARRYING	2.08.00	2.64.67	
INFRASTRUCTURE	NIL	0.01.00	
ROADS	0.01.00	0.01.00	
GREEN BELT	NIL	0.13.66	
UN-UTILIZED AREA	0.71.33	NIL	
GRAND TOTAL	2.80.33	2.80.33	

ANNEXURE-VII
VAO CERTIFICATE

Thiru. C. Palanisamy, Rough Stone Quarry in the S.F.No.94 (Part-1), over an extent of 2.80.33ha. in Sithannavasal Village, Illupur Taluk, Pudukkottai District.

GENERAL VIEW OF THE APPLIED LEASE AREA



C. Palanisamy
C. Palanisamy
(Deponent)

(Signature)
(NAO)
11/11/24
கிராம நிர்வாக அலுவலர்
அன்னவாசல் வட்டம்
இலுப்பூர் தாலுகா
புதுக்கோட்டை மாவட்டம்

சான்றி

4தேக்கோட்டை மாவட்டம், கிராமப்புற தாதுகா, சித்திரன்னைவாசன் குகை,
சின்னவாசன் உடல், சித்திரன்னைவாசன் உருவாய் கிராமம் டிராஸன் : 94 - ,
அரசு தீர்மானம் ஒப்புதல் தகவல் பரம்ப : 11.75.0 ரெக்டேபர் பரம்ப ரெக்டே
கிராம கணக்கில் பரிசீலி உள்ளது. தேசிய டிராஸன்ஸில் ரெக்டே பரம்ப :
11.75.0 ரெக்டேபர் 2.80.33 ரெக்டேபர் கிராம சித்திரன்னைவாசன் கிராமத்தின்
தேசிய சித்திரன்னைவாசன் ரெக்டே பரம்ப கிராம கணக்கில் கல் ரெக்டே சித்திரன்னைவாசன்
உருவாய் உள்ளது. தேசிய டிராஸன் : 94 - ல் கிராம 500 மீட்டர்
கிராமத்திற்குள் கிராம ரெக்டே, உருவாய் தகவல், அரசு சித்திரன்னைவாசன்,
பரம்ப கணக்கில், அரசு கிராமத்தின், உருவாய் மாவட்டம் மாவட்டம் மாவட்டம் கிராம
ரெக்டே டிராஸன்ஸின் கிராம ரெக்டே உருவாய் கிராம ரெக்டே கிராம ரெக்டே
உருவாய் கிராம ரெக்டே.

N. Ganesan
26/03/24
Tillage Administrative Officer
Annavaasal Vattam
Meyyur Tk, Pudukkottai Dist

ANNEXURE-VIII
BLASTING AGREEMENT



தமிழ்நாடு தமி்லநாடு TAMIL NADU

வாங்குபவர் பெயர்:

இடம்

தொகை

06.07.2024

R. 4277 சிங்கப்பூர்

இலுப்பூர்

20/-

30AC 788398

N.வசுதேவசாமி

முத்திரைச்சான்று கிராமத்தாண்டவர்

உ.ப.ப.ப.ப. : 7/2021

இலுப்பூர், புதுக்கோட்டை மாவட்டம்.

BLASTING WORK CONTRACT AGREEMENT

THE Day Of 14th November 2024

R.Bhuvanasundari M/S BHUVANA Explosives, Illuppur having explosive License No:E10423 and Explosives Magazine situated at Edayapatty Village Illuppur Taluk hereinafter referred as Part-1 entered into an Blasting Contract agreement with. C.Palanisamy, S/O.Chinnakannu, residing at 129,North Street Sithanavasal, Illuppur Taluk, Pudukkottai district Having their Mines/Quarry in S.F. No 94/1 over on extent of 2.80.33 hecets. Sithanavasal Village, Illuppur Taluk, Pudukkottai district Hereinafter referred as Party 2 on and both the parties agreed for the following.

For BUvana EXPLOSIVES

R.Buvana Sundari

சி.வசுதேவசாமி

- a. Party 2 has to place his order for requirement of explosive to Party -1 and Party -1 has to transport the Explosives as per the Order, from his Explosive Magazine to Mines / Quarry Worksite of the Party-2
- b. Party 2 has to use his explosives and he has to do the Blasting work, in the Mines Quarry with an authorized short firer permit holder which is issued by the Explosive Department, Madras.
- c. Party -2 has to pay for the cost of the Explosives, transport charges and other expenses incidental to blasting to party - 1 as agreed by both the parties 1 and 2.
- d. Party -2 has make his own arrangement to remove all the broken materials at his own cost.
- e. This agreement is valid from the date signing by both Parties till the completion of Blasting Contract work from Party - 2 by giving in writing for clearing the agreement.

Signature

For BUVANA EXPLOSIVES

R. Buvana Sundari

R. Bhuvanasundari,

M/S Buvana Explosives,

Explosives Dealers & Blasting Contractors,

Illuppur Post, Illuppur Taluk,

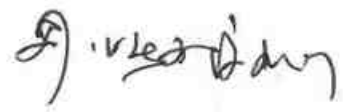
Pudukkottai District

Witness



G. RAJAMOHAN
S/O Gurusamy Vadugai SF,
Illuppur (P.O.) Pudukkottai
Pin. 622102

2. A. Rajkumar S/O Arumugam, Theppakulam Street, Illuppur.





भारत सरकार | Government of India

वाणिज्य और उद्योग मंत्रालय | Ministry of Commerce & Industry

पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पेसो) | Petroleum & Explosives Safety Organisation (PESO)

पूर्व नाम- विस्फोटक विभाग | Formerly- Department of Explosives

A और D - विंग, ब्लॉक 1-8, दूसरा तल, शास्त्री भवन | A & D - Wing, Block 1-8, IInd Floor, Shastri Bhavan

26 हड्डोउस रोड, नुंगम्बक्कम चेन्नै | 26 Haddous Road, Nungambakkam Chennai 600006

फोन (Phone):- 28281023 | फैक्स (Fax):- 28284848

ई-मेल Email: jtocechennai@explosives.gov.in

संख्या (No.): E/SC/TN/22/145(E10423)

दिनांक (Date): 01/03/2024

सेवा में | To,

R.BHUVANASUNDARI M/S BUVANA EXPLOSIVES,
112-2, GURUSAMY NAIDU ST. ILUPPUR POST, PUDUKKOTTAI, Town/Village - PUDUKKOTTAI
District-PUDUKKOTTAI, State-Tamil Nadu, Pincode - 622102

विषय: Survey No(s).79/2B, ग्राम PUDUKKOTTAI EDYAPATTI VILLAGE, जिला PUDUKKOTTAI, राज्य Tamil Nadu में विस्फोटक के मैगजीन में उपयोग के लिए कब्जा हेतु विस्फोटक नियम, 2008 के अंतर्गत LE-3 में जारी अनुज्ञप्ति से E/SC/TN/22/145(E10423) के नवीनीकरण संदर्भ में।

Subject: Possession for Use of Explosives from magazine situated at Survey No(s).79/2B, PUDUKKOTTAI EDYAPATTI VILLAGE, Dist. PUDUKKOTTAI, Tamil Nadu -Licence No.: E/SC/TN/22/145(E10423) granted in Form LE-3 of Explosives Rules, 2008 - Renewal regarding

महोदय | Sir,

आपका उपर्युक्त विषय पर पत्र संख्या 111350 दिनांक 01/03/2024 का संदर्भ ग्रहण करें। विस्फोटक नियम, 2008 के अंतर्गत प्ररूप LE-3 में जारी अनुज्ञप्ति दिनांक 31/3/2029 तक नवीनीकृत कर इस पत्र के साथ भेजी जा रही है।

Reference to your letter No.: 111350 dated: 01/03/2024, the subject licence duly renewed upto 31/3/2029 and issued in Form LE-3 of Explosives Rules, 2008 is forwarded herewith.

अनुज्ञप्ति के आगामी नवीकरण हेतु कृपया निम्नलिखित दस्तावेज दिनांक 31/03/ 2029 से पहले इस कार्यालय को भेजे जाएं।

For further renewal of licence, please submit the following documents so as to reach this office on or before 31/3/2029.

- प्ररूप आरई-1 में विधिवत पूर्ण एवं हस्ताक्षरित आवेदन।
Application in Form RE-1 duly filled in and signed.
- एक से पांच वर्ष के अनुज्ञप्ति शुल्क का, विस्फोटक नियम, 2008 के तहत ऑनलाइन आवेदन पोर्टल पर उपलब्ध ई-भुगतान सुविधा के माध्यम से लाइसेंस शुल्क ऑनलाइन जमा किया जाना है।
Licence fees renewable for one to five years, to be submitted online through e-payment facility available on online application portal under the Explosives Rules, 2008.
- अनुमोदित प्लान के साथ मूल अनुज्ञप्ति।
Original licence with approved plan.
- कृपया इस संबंध में विस्फोटक नियम, 2008 के नियम 112 का भी संदर्भ ग्रहण करें।
In this connection, please also refer to Rule 112 of Explosives Rules, 2008.
- विस्फोटकों के क्रय हेतु आरई-11 में मांगपत्र (इंडेंट) आपूर्तिकर्ता को दिया जाए और उसी की एक प्रति इस कार्यालय को भेजी जाए (अतिशबाजी गोदाम के लिए लागू नहीं)।
Indent for purchase of explosives shall be placed in RE-11 with the supplier and copy of the same shall be sent to this office.(Not applicable for fireworks store house)
- कृपया विस्फोटकों की त्रैमासिक विवरणी हर तिमाही के अंत में आरई-7 में प्रस्तुत की जाए। विवरणी इस कार्यालय के कार्यालय में आगामी तिमाही के 10 तारीख से पहले पहुंच जानी चाहिए (अतिशबाजी गोदाम के लिए लागू नहीं)। Please submit quarterly returns of explosives in RE-7 at the end of every quarter so as to reach this office by 10th of the succeeding quarter.(Not applicable for fireworks store house)
- सभी ब्लास्टिंग ऑपरेशन एक सक्षम द्वारा की जाएगी जो उपरोक्त नियमों के तहत एक वैध शॉट फायर प्रमाणपत्र धारक हो। हालांकि, खान अधिनियम 1952 के अधीन आने वाले खानों में ब्लास्टिंग ऑपरेशन करने वाले ब्लास्टर की योग्यता उसी अधिनियम से निर्धारित हो।
All blasting operations shall be carried out by a competent person holding a valid shot firer's permit granted under above rules. However, blasting operations in mines coming under the purview of the Mines Act 1952, the blaster shall have qualifications prescribed in the regulations framed under the said Act.

भवदीय | Your's faithfully

(डा.टी.एल.थनुलिंगम | Dr. T. L. THANULINGAM)

संयुक्त मुख्य विस्फोटक नियंत्रक | Joint Chief Controller of Explosives

दक्षिणांचल, चेन्नै | South Circle, Chennai

प्रतिलिपि प्रेषित | Copy Forwarded to:

- जिला मजिस्ट्रेट (District Magistrate), PUDUKKOTTAI (Tamil Nadu)- सूचना के लिए (for information.)

संयुक्त मुख्य विस्फोटक नियंत्रक | Joint Chief Controller of Explosives

दक्षिणांचल, चेन्नै | South Circle, Chennai

(अधिक जानकारी जैसे आवेदन की स्थिति, शुल्क आदि के लिए हमारी वेबसाइट <http://peso.gov.in> देखें।)
(For more information regarding status, fees and other details please visit our website <http://peso.gov.in>)

Note :- This is system generated document does not require physical signature. Applicant may take printout for their records.

Digitally signed by Dr T L THANULINGAM
Reason: Licence No. : E/SC/TN/22/145
Location:Chennai [E10423]
Date:01-03-2024 12:19:16 PM

अनुज्ञप्ति प्रारूप एल.ई.-3 | LICENCE FORM LE-3

(विस्फोटक नियम, 2008 की अनुसूची 4 के भाग 1 के अनुच्छेद 3(क) से (घ) देखिए।)
(See article 3(a) to (d) of Part 1 of Schedule IV of Explosives Rules, 2008)

(ग) उपयोग के लिए एक समय पर वर्ग 1,2,3,4,5 या वर्ग 7 के विस्फोटक या किसी मैगजीन में वर्ग 6 के विस्फोटक रखने के लिए अनुज्ञप्ति
Licence to possess : (c) for use, explosives of class 1, 2,3,4,5,6 or 7 in a magazine

अनुज्ञप्ति सं. (Licence No.) : E/SC/TN/22/145(E10423)

वार्षिक फीस रूपए (Annual Fee Rs): 9200/-

1. Licence is hereby granted to



R. BHUVANASUNDARI M/S BUVANA EXPLOSIVES (अधिभोगी / Occupier : R BUVANA), 112/2, GURUSAMY NAIDU ST. ILUPPUR POST. PUDUKKOTTAI, Town/Village - PUDUKKOTTAI, District-PUDUKKOTTAI, State-Tamil Nadu, Pincode - 622102

को अनुज्ञप्ति अनुदत्त की जाती है।

2. अनुज्ञप्तिधारी की प्राप्ति | Status of licensee : **Individual**

3. अनुज्ञप्ति निम्नलिखित प्रयोजनों के लिए विधिमानी है।

Licence is valid only for the following purpose.

possess for use of **Nitrate Mixture, Safety Fuse, Detonating Fuse, Detonators**, - के उपयोग के लिए

4. अनुज्ञप्ति विस्फोटकों के निम्नलिखित किस्मों, प्रकार और मात्रा के लिए विधिमानी है।

Licence is valid for the following kinds and quantity of explosives: - (क) (a)

क्र. सं.	नाम और विवरण	वर्ग और प्रभाग	उप-प्रभाग	मात्रा किसी एक समय में
Sr. No.	Name and Description	Class & Division	Sub-division	Quantity at any one time
1.	Nitrate Mixture	2, 0	0	3500 Kg.
2.	Safety Fuse	6, 1	0	20000 Mtrs
3.	Detonating Fuse	6, 2	0	20000 Mtrs
4.	Detonators	6, 3	0	44000 Nos.

(ख) किसी एक कलेंडर मास में खरीदे जाने वाले विस्फोटक की मात्रा [अनुच्छेद 3(ख) और (ग) के अधीन अनुज्ञप्ति के लिए]

(b) Quantity of explosives to be purchased in a calendar month [applicable for licence under article 3(b) and (c)] :

**20 times
as above.**

5. निम्नलिखित रेखाचित्र (रेखाचित्रों) से अनुज्ञप्ति परिसर की पुष्टि होती है।

The licensed premises shall conform to the following drawing(s):

रेखाचित्र क्र. (Drawing No.) E/SC/TN/22/145(E10423)

दिनांक (Dated) 27/01/1998

6. अनुज्ञप्ति परिसर निम्नलिखित पते पर स्थित हैं। The licensed premises are situated at following address:

Survey No(s). 79/2B, ग्राम (Town/Village) : **PUDUKKOTTAI EDKAPATTI VILLAGE**

पुलिस थाना (Police Station) : **ILUPPUR**

जिला (District)

PUDUKKOTTAI

राज्य (State)

Tamil Nadu

पिनकोड (Pincode)

दूरभाष (Phone)

ई. मेल (E-Mail)

फैक्स (Fax)

7. अनुज्ञप्ति परिसर में निम्नलिखित सुविधाएं अंतर्भूत हैं।

The licensed premises consist of following facilities.

: MAIN MAGAZINE, LOBBY AND DETONATOR ROOM

8. अनुज्ञप्ति समय - समय पर यथासंशोधित विस्फोटक अधिनियम, 1884 और उनके अधीन विरचित विस्फोटक नियम, 2004 के उपबंधों, शर्तों और अतिरिक्त शर्तों और निम्नलिखित उपाबंधों के अधीन रहते हुए अनुदत्त की जाती है।

The licence is granted subject to the provision of Explosives Act 1884 as amended from time to time and the Explosives Rules, 2004 framed there under and the conditions, additional conditions and the following Annexures.

1. उपर्युक्त क्रम सं. 5 में यथा कथित रेखाचित्र (स्थान, सन्निर्माण संबंधी और अन्य विवरण दर्शित करते हुए)।

Drawings (showing site, constructional and other details) as stated in serial No. 5 above.

2. अनुज्ञप्ति प्राधिकारी द्वारा हस्ताक्षरित इस अनुज्ञप्ति की शर्तों और अतिरिक्त शर्तों।

Conditions and Additional Conditions of this licence signed by the licensing authority.

3. दूरी प्रारूप DE-2 | Distance Form DE-2.

9. यह अनुज्ञप्ति तारीख **31 मार्च 1999** तक विधिमानी रहेगी। This licence shall remain valid till **31st day of March 1999**.

यह अनुज्ञप्ति, अधिनियम या उसके अधीन विरचित नियमों या अनुसूची V के भाग 4 के प्रति निर्दिष्ट सेट-VII के अधीन तथा उपवर्णित इस अनुज्ञप्ति की शर्तों का अधिक्रमण करने या यदि अनुज्ञप्ति परिसर योजना या उससे संलग्न उपबंध में दर्शित विवरण के अनुरूप नहीं पाए जाने पर निलंबित या प्रतिबंधित की जा सकती है, जहां वह लागू हो।

This licence is liable to be suspended or revoked for any violation of the Act or Rules framed there under or the conditions of this licence as set forth under Set VIII, wherever applicable, referred to in Part 4 of Schedule V or if the licensed premises are not found conforming to the description shown in the plans and Annexure attached hereto.

तारीख | The Date - 27/01/1998

Sd/-
संयुक्त मुख्य विस्फोटक नियंत्रक | Joint Chief Controller of Explosives
South Circle, Chennai

Amendments :

- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 19/10/2011
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 05/11/2015

नवीनीकरण के पृष्ठांकन के लिए स्थान
Space for Endorsement of Renewal

नवीकरण की तारीख Date of Renewal	समाप्ति की तारीख Date of Expiry	अनुज्ञापन प्राधिकारी के हस्ताक्षर और स्टाम्प Signature of licensing authority and stamp
01/03/2024	31/03/2029	Jt. Chief Controller of Explosives, South Circle, Chennai

कानूनी चेतावनी : विस्फोटकों को गलत ढंग से चलाने या उनका दुरुपयोग विधि के अधीन गंभीर दंडित अपराध होगा।
Statutory Warning : Mishandling and misuse of explosives shall constitute serious criminal offence under the law.

Note :- This is system generated document does not require physical signature. Applicant may take printout for their records.

मैगजीन में वर्ग 1, 2, 3, 4, 5, 6, और 7 के विस्फोटकों को बिक्री या प्रयोग हेतु रखने के लिए प्ररूप एल.ई. 3 | अनुच्छेद 3 (ख) से (ग) में मुख्य विस्फोटक नियंत्रक या विस्फोटक नियंत्रक द्वारा प्रदान किए जाने वाले अनुज्ञप्ति सं. E/SC/TN/22/145(E10423) की शर्त निम्नलिखित हैं।

The following are the conditions of licence number E/SC/TN/22/145(E10423) to possess for sale or use, explosives of Class 1, 2, 3, 4, 5, 6 and 7 in a magazine in Form LE-3 (articles 3(b) to (c)) granted by Chief controller of Explosives or Controller of Explosives.

- परिसर में किसी भी समय विस्फोटकों की मात्रा अनुज्ञापन योग्य सामर्थ्य से अधिक नहीं होगी।
The quantity of explosives on the premises at any one time shall not exceed the licensable capacity.
- विस्फोटकों के भंडारण के लिए प्रयुक्त होने वाली मैगजीन अनुसूची III और अनुज्ञप्ति के उपाबंध में विनिर्दिष्ट सुरक्षा दूरी बनाए रखना होगा।
The magazine used for storage of explosives shall maintain safety distance specified in Schedule III and annexure to the licence.
- मैगजीन का प्रयोग उन सभी विस्फोटकों के, जो इस अनुज्ञप्ति में विनिर्दिष्ट हैं, रखे जाने के लिए और ऐसे रखे जाने से संबद्ध अधान या औजार या उपकरणों के रखे जाने के लिए ही किया जाएगा; अन्यथा नहीं।
The magazine shall be used only for keeping all explosives specified in this licence and of receptacles for, or tools or implements for work connected with the keeping of such explosives.
- पैकजों को खोलने का कार्य और विस्फोटकों को तोलने तथा पैक करने का कार्य मैगजीन में नहीं किया जाएगा।
The opening of packages and the weighing and packing of explosives shall not be carried on in the magazine.
- दो या दो से अधिक वर्णन के विस्फोटकों को, जिन्हें मैगजीन में रखे जाने की अनुज्ञा दी जा सकती है, मैगजीन में तभी रखे जाएंगे जब उनमें से प्रत्येक को, ऐसे पदार्थ या स्वरूप का कोई मध्यवर्ती विभाजक लगाकर या उनके बीच ऐसा मध्यवर्ती स्थान छोड़कर, परस्पर पृथक् कर दिया जाए कि किसी वजह से विस्फोटक में लगने वाली आग या होने वाला विस्फोट किसी अन्य वर्णन के विस्फोटक तक न पहुंच सके: परंतु—
(घ) 2 (नाइट्रेट मिश्रण), वर्ग 3 (नाइट्रो यौगिक) के विभिन्न विस्फोटक, वर्ग 6 प्रथम प्रभाग के अंतर्गत आने वाले सुरक्षा पत्ती और वर्ग 6 प्रभाग 2 के अंतर्गत आनेवाले विस्फोटक प्रेरक पत्ती, जिनमें कोई खुला लोहा या इस्पात नहीं है, एक दूसरे के साथ बिना किसी मध्यवर्ती विभाजक या स्थापन के रखे जा सकते हैं।
(ङ) वर्ग 6 प्रभाग 3 के अंतर्गत आनेवाले विस्फोटक प्रेरक अलग रखे जाएंगे।
(च) वर्ग 1 के अंतर्गत आने वाले बारूद को अलग रखा जाएगा।
Two or more description or explosives which may be permitted to be kept in the magazine shall be kept only if they are separated from each other by an intervening partition of such substance or character, or by such intervening space, as will effectually prevent explosion or fire in the one communicating with the other; Provided that—
(d) the various explosives of Class 2 (nitrate-mixture), Class 3 (nitro-compound), safety fuses belonging to Class 6 Division 1 and detonating fuses belonging to Class 6 Division 2 as do not contain any exposed iron or steel, may be kept with each other without any intervening partition or space;
(e) Detonators belonging to Class 6 Division 3 shall be kept separately.
(f) Gun powder belonging to Class 1 shall be kept separately.
- वर्ग 3 (नाइट्रो यौगिक) के विस्फोटकों को, उनके विनिर्माण की तारीख से एक वर्ष बीत जाने के पश्चात सिवाय अनुज्ञापन प्राधिकारी की विशेष मंजूरी के मैगजीन में नहीं रखा जाएगा।
Explosives of Class 3 (nitro compound) shall not be kept in the magazine after the expiration of one year from the date of their manufacture except with the special sanction of licensing authority.
- वर्ग 3 (नाइट्रो यौगिक) के विस्फोटकों को, उनके विनिर्माण की तारीख से एक वर्ष बीत जाने के पश्चात मैगजीन में तभी रखा जाएगा जब कि किसी विस्फोटक नियंत्रक ने इसके लिए विशेष मंजूरी दे दी हो।
(i) जब ऐसी मंजूरी दे दी गई हो तो प्रत्येक निरीक्षण पर किसी विस्फोटक नियंत्रक से ऐसा लिखित प्रमाणपत्र अभिप्राप्त कर लिया जाए जिसमें दी गई मंजूरी के अंतर्गत आनेवाली अवधि दर्शित की गई हो और ऐसे प्रमाणपत्र के अनुज्ञप्तिधारी अपने पास रखेगा और मांग की जाने पर प्रस्तुत करेगा।
(ii) जब कोई विस्फोटक मानक शुद्धता का न रह जाने के कारण या द्रवणीकरण या नाइट्रो ग्लाइसीन या द्रव नाइट्रो यौगिक के निकल जाने के चिन्ह प्रकट होने के कारण मैगजीन में भण्डारित किए जाने के उपयुक्त नहीं रह जाता है तो अनुज्ञप्तिधारी अपने ही व्यय पर ऐसे विस्फोटक के निपटारे के लिए ऐसे निदेशों का अनुपालन करेगा जो मुख्य नियंत्रक या विस्फोटक नियंत्रक जारी करें।
Explosives of Class 3 (nitro compound) shall not be kept in the magazine after the expiration of one year from the date of their manufacture except with the special sanction of the Controller of Explosives.
(i) When such sanction has been given, a written certificate showing the period covered by the sanction shall be obtained from the Controller of Explosives at each inspection, and shall be kept by the licensee and produced on demand.
(ii) When an explosive owing to its being no longer of standard purity or owing to signs of liquefaction or of exuded nitro-glycerin or liquid nitro-compound is no longer fit for storage in the magazine or store house the licensee shall comply, at his own expense, with such directions as to its disposal as the Chief Controller or Controller of Explosives may issue.
- मैगजीन के भीतरी भाग या उसमें लगी बेंचो, शेल्फों और उसकी फिटिंग का इस प्रकार सन्निर्माण किया जाएगा या उन्हें इस प्रकार अंतरित या अवतरित किया जाएगा कि विस्फोटक का किसी लोहे या इस्पात के साथ संपर्क रोका जा सके। भीतरी भाग में लगी बेंचो, शेल्फों और फिटिंग यथासाध्य ग्रीट से मुक्त एवं साफ रखे जाएंगे तथा ऐसे विस्फोटक, जो जल से खतरनाक रूप में प्रभावित हो सकते हैं, इस बाबत सम्यक सावधानी बरती जाएगी कि वहां कोई जल मौजूद न रहे: परंतु किसी लोहे या इस्पात के खुले होने के विरुद्ध सावधानी से संबंधित इस शर्त का वह भाग ऐसे किसी भवन में बाध्यकर नहीं होगा जिसमें वर्ग 6 (गोला बारूद) के प्रथम के विस्फोटक से भिन्न कोई विस्फोटक रखा गया है।
The interior of the magazine and the benches, shelves and fittings therein shall be so constructed or so lined or covered as to prevent the exposure of any iron or steel contact with the explosives. Such interior, benches, shelves and fittings shall so far as is reasonably practicable, be kept free from grit and shall otherwise be clean; and in the case of any explosives liable to be dangerously affected by water, due precautions shall be taken to exclude water there from.
Provided that so much of this condition as relates to precautions against the exposure of any iron or steel shall not be obligatory in a building in which no explosive other than explosive of the 1st Division 6th (Ammunition) Class is kept.
- यदि तडित चालक का परीक्षण विस्फोटक नियंत्रक करता है तो अनुज्ञप्तिधारी ऐसे परीक्षण के लिए विहित फीस का संदाय करेगा यदि परीक्षण असमाधानकारी साबित होता है तो उसी ही फीस अनुज्ञप्तिधारी द्वारा पश्चात्तर्ती प्रत्येक परीक्षण के लिए तब तक दी जाती रहेगी जब तक कि परीक्षण अधिकारी तडित चालक को समाधानप्रद घोषित नहीं कर देता परंतु किसी एक परीक्षण के लिए देय फीस किसी एक दिन के दौरान किसी चालक के किए गए सभी परीक्षणों के लिए प्रभार्य होगा।
परंतु यह और कि यदि दो या अधिक तडित चालक एक ही मैगजीन से संबद्ध हैं तो ऐसे सभी चालकों के परीक्षण के लिए फीस ऐसी किसी फीस से अधिक नहीं होगी जो किसी एक तडित चालक के परीक्षण के लिए हर स्थिति में विहित की गई है।
If the lighting conductor is tested by the Controller of Explosives, the licensee shall pay the fees prescribed for test. In the even of the test proving unsatisfactory, the same fees shall be payable by the licensee for each subsequent test until the lighting conductor is passed by the testing officer as satisfactory.
Provided that the fees payable for a single test shall be charged for all tests made on a conductor during any one day.
Provided further that where two or more lighting conductors are attached to one and the same magazine, the fee for the testing of all such conductors shall not exceed the fee prescribed in this condition for testing a single lighting conductor.
- उपयुक्त तथा जब रहित कार्यकरण वस्तु, उपयुक्त जूती के प्रयोग द्वारा तथा तलाशी लेकर या अन्यथा अथवा ऐसे किन्हीं साधनों द्वारा इस बाबत सम्यक उपबंध किया जाएगा कि फैक्ट्री परिसर में अग्नि, दियासलाई अथवा ऐसी कोई वस्तुएं या पदार्थ, जिससे विस्फोट हो सकता है या आग लग सकती हो, किन्तु इस शर्त के कारण ऐसी संरचना, स्थिति या स्वरूप में किसी कृत्रिम बत्ती का प्रवेश वर्जित नहीं है जिससे आग लगने या विस्फोट होने का खतरा न हो।
परंतु इस शर्त का वह भाग, जो लोहे या इस्पात के अपवर्जन को लागू होता है, ऐसे किसी भवन के संबंध में बाध्य कर नहीं होगा जिससे भिन्न कोई विस्फोटक नहीं रखा गया है।
Due provisions shall be made, by the use of suitable working clothes without pockets, suitable shoes and by searching or otherwise or by such means, for preventing the introduction into danger area of the factory premises of fire, Lucifer matches or any substance or article likely to cause explosion or fire, but this condition shall not prevent the introduction of an artificial light of such construction, position or character as not to cause any danger of fire or explosion.
Provided that so much of this condition as applies to the exclusion of iron or steel, shall not be obligatory in a building in which no explosive other than an explosive of the 1st Division of the 6th (Ammunition) Class is kept.

11. अनुज्ञापिधारी प्ररूप आर ई-3 और आर ई-4 या आर ई-5, जैसी स्थिति हो, में सभी विस्फोटकों का अभिलेख और लेखा रखगा और विस्फोटक नियम, 2008 के अधीन प्राधिकृत किसी भी अधिकारी के समक्ष उसके द्वारा ऐसा करने की मांग की जाने पर स्टॉक पुस्तक और अभिलेख प्रस्तुत करेगा। स्टॉक पुस्तक विहित प्रोफार्मा में पृष्ठ संख्यांकित होगी।
The licensee shall keep records and accounts of all explosives in Forms RE-3 and RE-4 or RE-5, as the case may be, and exhibit the stock books and records to any of the officers authorised under the Explosives Rules, 2008 whenever such officer may call upon him to do so. The stock books in the prescribed proforma shall be page numbered.
12. परिसरों में कोई परिवर्तन या तबदीली अनुज्ञापन प्राधिकारी के पूर्वानुमोदन बिना नहीं की जाएगी और अनुज्ञापिधारी ऐसी किसी शर्त का अनुपालन करेगा जो इस निमित्त अनुज्ञापन प्राधिकारी विनिर्दिष्ट करे।
No changes or alterations shall be carried out to the premises without prior approval of the licensing authority and the licensee shall comply with any condition that may be specified by the licensing authority in this behalf.
13. मैगजीन सभी समयों पर अच्छी मरम्मत की स्थिति में बनाई रखी जाएगी (या अच्छी हालत में बनाई रखी जाएगी)। यदि किसी कारणवश किसी विस्फोटक के भण्डारण के लिए मैगजीन अनुपयुक्त हो जाती है तो अनुज्ञापिधारी इस बात की सूचना अनुज्ञापन प्राधिकारी को तुरंत देगा।
Magazine shall at all times be kept in state of good repair (or maintained in good condition). The licensee shall report to licensing authority forthwith, if the magazine becomes unfit for storage of any explosives for any reason whatsoever.
मैगजीन का अनुज्ञापिधारी इन नियमों के नियम 24 के उप-नियम 3 के अनुसार त्रैमासिक विवरणी प्रस्तुत करेगा।
The licensee of the magazine shall submit quarterly return as per sub-rules (3) and (4) of rule 24 of these rules.
14. यदि सुरक्षा दूरी का कोई अधिकमण होता है तो उसकी सूचना अनुज्ञापन प्राधिकारी को आवश्यक सलाह और कार्यवाही के लिए तुरंत दी जाएगी।
Any encroachment of the safety distance shall be immediately communicated to the licensing authority for necessary advice and action.
15. यदि कोई विस्फोटक विनष्ट हुआ अथवा अनुपयोगी जाया जाता है तो उसकी सूचना अनुज्ञापन प्राधिकारी को, सलाह प्राप्त करने के लिए, तुरंत दी जाएगी।
The licensing authority shall be immediately informed for advice if any explosive is found deteriorated or unserviceable.
16. विस्फोटकों के पैकेटों के चढ़े इस प्रकार लगाए जाएंगे कि कम से कम एक व्यक्ति भण्डार किए गए सभी पैकेजों की हालत की जांच करने और प्रत्येक पैकेज की विनिर्माण विशिष्टियों को पढ़ने के लिए उनके बीच से होकर आ जा सके।
The explosive packages shall be stocked in such a way so as to allow movement of at least one person to check the condition of all packages stored and to read the manufacture particulars of each package.
तडित चालकों की भूमि के लिए प्रतिरोध यथासंभव न्यूनतम होगा और किसी भी दशा में 10 ओह्म से अधिक नहीं होगा।
The resistance of the lightning conductor to earth shall be as low as possible and in no case be more than 10 ohms.
17. मैगजीन के चारों ओर 15 मीटर की दूरी के अंतर्गत कोई शुष्क घास या झाड़ी या ज्वलनशील सामग्री नहीं रहने दी जाएगी।
A distance of 15 meters surrounding the magazine or store house shall be kept clear of dried grass or bush or flammable materials.
18. विस्फोटकों के प्रत्येक पैकेट की, जब उसे मैगजीन के भीतर लिया जा रहा हो, ठीक दशा जानने के लिए परीक्षा की जाएगी।
Every package of explosive at the time of bringing inside the magazine shall be examined for its sound condition.
19. किसी मैगजीन / भंडारगृह में किसी एक समय में चार व्यक्तियों से अधिक को नहीं रहने दिया जाएगा।
Not more than 4 persons shall be allowed inside the magazine or store house at any one time.
20. विस्फोटकों के खाली पैकेजों को शीघ्रतः वहां से हटा दिया जाएगा और नष्ट कर दिया जाएगा।
Empty packages of the explosives shall be removed at the earliest and destroyed.
21. अनुज्ञापिधारी और कर्मचारियों को परिसर के भीतर अपातकाल के दौरान की जाने वाली प्रक्रियाओं से अवगत होना चाहिए।
The licensee and the employee shall be conversant with procedure to be taken during the emergency within the premises.
22. निरीक्षण या नमूना अधिकारी को सभी युक्तियुक्त समयों पर अनुज्ञात परिसर में अबाध रूप से पहुंचने दिया जाएगा और यह सुनिश्चित करने के लिए कि अधिनियम और इन नियमों के उपबंधों और सुरक्षा स्थितियों को सम्पन्न: अनुपालन किया जा रहा है, अधिकारी को प्रत्येक सुविधा प्रदान की जाएगी।
Free access to the licensed premises shall be given at all reasonable times to any inspecting or sampling officer and every facility shall be afforded to the officer for ascertaining that the provisions of the Act and these rules and the safety conditions are duly observed.
23. यदि अनुज्ञापन प्राधिकारी या विस्फोटक नियंत्रक अनुज्ञापिधारक को अनुज्ञात परिसरों या मशीनरी, टूल या उपकरण में ऐसी कोई मरम्मत या परिवर्धन या परिवर्तन करने या सिफारिशों को लागू करने को लिखित रूप में सूचित करता है जो परिसर के अंदर या बाहर या व्यक्तियों की सुरक्षा के लिए आवश्यक है, अनुज्ञापिधारक सिफारिशों को निष्पादित करेगा और विनिर्दिष्ट अवधि के भीतर अनुपालन रिपोर्ट ऐसे प्राधिकारी को देगा।
If the licensing authority or a Controller of Explosives informs in writing, the holder of the licence to execute any repairs or to make any additions or alterations to the licensed premises or machinery, tools or apparatus or carry out recommendations, which are in the opinion of such authority may pose unacceptable risk and so necessary for the safety of either on-site or off-site of the premises or persons, the holder of the licence shall execute the recommendations and report compliance within the period specified by such authority.
24. अनुज्ञापिधारी मैगजीन में रखने और बिक्री के लिए प्राधिकृत विस्फोटक सूची में उल्लिखित अनुज्ञात कैटरी या कंपनी से प्राधिकृत विस्फोटक / आतिशबाजी या सुरक्षा पत्ती खरीदेगा।
The licensee shall purchase authorised explosives/ fireworks or safety fuse as mentioned in the list authorised explosives from a licensed factory or company for possession and sale from the magazine.
25. निम्न से अधिक ध्वनि स्तर उत्पादित करने वाले आतिशबाजियों पटाखों की बिक्री और रखने के लिए –
(क) जो फटने की जगह से चार मीटर की दूरी पर है, 125 डी.बी.(ए1) या 145 डी.बी.(सी)पी.के. प्रतिबंधित होंगे;
(ख) श्रृंखला (जुड़े हुए पटाखे) को गठन करने वाले व्यक्तिगत पटाखों के लिए उपर्युक्त उल्लिखित सीमा 5 लॉग 10(एन) डी.बी. (सी) पी.के. प्रतिबंधित होंगे;
The possession and sale of fire-crackers generating noise level exceeding:
a) 125 dB(A) or 145 dB(C)pk at 4 meters distance from the point of bursting shall be prohibited;
b) For individual fire-cracker constituting the series (joined fire-crackers), the above mentioned limit be reduced by 5 log10 (N) dB, where N = number of crackers joined together.
26. आग या विस्फोट द्वारा दुर्घटना या नुकसान पटाखों की कमी या चोरी, तुरंत पास के पुलिस थाने और अनुज्ञापन प्राधिकारी और अनुज्ञापन प्राधिकारी के स्थानीय कार्यालय को रिपोर्ट की जाएगी।
Accidents by fire or explosion and losses, shortage or theft of explosives shall be immediately reported to the nearest police station and the licensing authority and local office of the licensing authority.

अतिरिक्त शर्तें / Additional Conditions :

1. अनुज्ञापिधारी विदेशी मूल के आतिशबाजी को ना प्रदर्शित करेगा, ना रखेगा और ना ही उसकी बिक्री करेगा। The licensee shall not exhibit, possess and sell fireworks of foreign origin.

कृते संयुक्त मुख्य विस्फोटक नियंत्रक
For Joint Chief Controller of Explosives
दक्षिणचल, चेन्नै | South Circle, Chennai

Note :- This is system generated document does not require physical signature. Applicant may take printout for their records.

Form DE-2
(See rule 113 of the Explosives Rules, 2008)
(Distance Form to be attached to the licence)

Safety distances required to be kept clear around magazine for high explosives or fire works or factory licence number E/SC/TN/22/145(E10423) in form LE-3 granted to R.BHUVANASUNDARI M/S BUVANA EXPLOSIVES, 112/2,GURUSAMY NAIDU ST. ILUPPUR POST. PUDUKKOTTAI, Tamil Nadu-.

Type of Structure(s)		Safety distances meters	
Inside Safety Distances(ISD)		M	UM
1	Room or Workshop used in Connection with the Magazine	38	57
2	Any other Explosives Magazine or store House or Factory of the Applicant		
3	Magazine Office		
Middle Safety Distances(MSD)			
4	Magazine Keeper's or Chowkidar's Dwelling house		
5	Railway including Minerals and Private Railways		
6	Canal (in active use) or other navigable water		
7	Dock or Pier or Jetty		
8	Public Highway or Public Road	163	
9	Private Road which is PRINCIPAL means of access to a Temple, Mosque, Church, Gurudwara or other places of worships, Hospital, College, School or Factory		
10	River Embankment or Sea Embankment or Public Well		
11	Reservoir or Bounded tank/rope way		
12	Windmillor or Solar panel for Power Generation		
Outside Safety Distances(OSD)			
13	Dwelling House		
14	Govt. and Public Building		
15	Temple, Mosque, Church or Gurudwara or other Places of Worships		
16	Shops, Market place, Public recreation and Sports Ground, College, School, Hospital, Theater, Cinema or other Building where the public are accustomed to assemble		
17	Factory		
18	Buildings or Works used for the Storage in Bulk of Petroleum, Sprit, gas, or other inflammable or hazardous substances	325	
19	Building or Works used for Storage and Manufacture of Explosives or of articles which contain Explosives		
20	Aerodrome		
21	Furnace, Kiln or Chimney		
22	Quarry or mine pit head		
23	Power House or Electric Substation		
24	Wireless Station		
25	Warehouse or other Storage Building		
26	Any other Protected works		
Overhead Electric lines			
27	Electric Power over head Transmission Lines above 440V	90	
28	Electric Power over head Transmission Lines upto 440V	15	

The Date : 27/01/1998

For Joint Chief Controller of Explosives
South Circle, Chennai

Amendments :

- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 19/10/2011
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 05/11/2015

Note :- This is system generated document does not require physical signature. Applicant may take printout for their records.

ANNEXURE-IX

AFFIDAVIT AND CER DETAILS



தமிழ்நாடு தமிழ்நாடு TAMILNADU
நாள் : 11. 11. 2024
வாங்குபவர் பெயர் : C. பழனிசங்கரன்
இடம் : சித்தன்வாசல்
தொகை : 100/-

ம. குருகன் EL 942478
மத்திரத்தாள் கிறிபனையாளர்,
உரிமம் எண்: 9/97,
பொது சிவசுவலக களாகம்,
புதுக்கோட்டை.

AFFIDAVIT TO SEIAA, TAMIL NADU

I, **C. Palanisamy**, S/o. Chinnakannu residing at No.129, Edatheru, Sithannavasal, Illuppur Taluk, Pudukkottai District-622 101, do hereby solemnly declare and sincerely affirm that, I have applied for getting environment clearance to SEIAA, Tamil Nadu for quarry lease for Rough Stone quarry over an extent of 2.80.33 Ha with Survey No. 94 (Part-1), in Sithannavasal Village, Illuppur Taluk, Pudukkottai District, Tamil Nadu.

1. I swear to state and confirm that none of the following is situated within 10km radius of the quarry site for which, i have applied for environmental clearance,
 - a. Notified Protected areas under the wild life (Protection) Act, 1972 (NBWL).
 - b. Critically polluted areas as notified by the central pollution control board constituted under water (Prevention and control of Pollution) Act 1974.
 - c. Eco sensitive area as notified.
 - d. Interstate boundaries and international boundaries within 10km radius from the boundary of the proposed quarry site.



S. ILANGO VAN, M.A., B.L.
ADVOCATE & NOTARY PUBLIC
7, S.N.T. Complex, Alangudi Road
PUDUKKOTTAI - 622 001.
G.O (M.s) No: 741, Law Dt: 07-12-2023
Cell: 9942520786

ச. பழனிசங்கரன்

2. The following Corporate Environment Responsibility (CER) activities will be completed before commencement of the quarrying activities.

CER Activity	Project cost (Rs)	CER cost (Rs)
Carrying out various developmental works in the nearby region based on the need of the locals.	Rs.1,27,30,000/-	Rs.8,00,000/-
Total cost Allocation	Rs.1,27,30,000/-	Rs.8,00,000/-

3. Details of quarry within 500m radius from the applied area:

a. Existing Quarries					
S.No	Name of the lessee/ Permit Holder	Village & Taluk	S.F.No	Extent	Lease Period
1.	Tmt.D.Adaikalamary, W/o.Durai Diviyathan, 205, Housing Unit, Rajagopalapuram, Pudukkottai District- 622 003.	Irumbali Village & Kulathur Taluk	80/1, 76/2	1.38.0	01.06.2015 To 31.05.2035
2.	Thiru. R. Sathiyamoorthy, S/o. Ramasamy, Ellaiyapatti, Mathiyallur Village, Illuppur Taluk, Pudukkottai District.	Sithannavasal Village & Illuppur Taluk	95/22 &etc.,	0.94.5	31.07.2023 To 30.07.2028
Total =				2.32.5	



A. V. Karthikeyan
J. Ilango Van 11-11-2024
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b. Proposed Area

S.No	Name of the Applicant	Village & Taluk	SF.No.	Extent in Hectare
1	Thiru. C. Palanisamy, S/o. Chinnakkannu, No.129, Edatheru, Sithannavasal, Illuppur Taluk, Pudukkottai District.	Sithannavasal Village & Illuppur Taluk	94 (Part-1)	2.80.33 Ha.
2.	Thiru.K. Muthukumar, S/o. Karuppaiah, No.94, North Street, Sithannavasal, Illuppur Taluk, Pudukkottai District.	Sithannavasal Village & Illuppur Taluk	94 (Part-2)	2.50.0 Ha.
3.	Thiru.D.Benet Antony Raj, S/o. Dural Diviyanathan, No.205, Housing Unit, Periyar Nagar, Rajagopalapuram, Pudukkottai.	Irumbali Village & Kulathur Taluk	75/2 (P)(1.02.5) & 75/4(P) (1.05.5)	2.08.0
4.	Tmt.K.Indirani, W/o.Karuppaiah, D.No.45, Thayinipatti, Vilathupatti Post, Illuppur Taluk, Pudukkottai District.	Sithannavasal Village & Illuppur Taluk	95/12, 95/16, 95/18, 95/20(Part) and 95/21 (Part)	1.44.0
Total				8.82.33

c. Lease Expired Quarries

S.No	Name of the lessee/ Permit Holder	Village & Taluk	SF.No.	Extent	Lease Period
1	Thiru. C.Ponnusamy, S/o.Chinnaiya, Sithannavasal Post, Illuppur Taluk, Pudukkottai District.	Sithannavasal Village & Illuppur Taluk	94 Part (Q.No.1)(N)	2.50.0	28.06.2017 To 27.06.2022
2.	Thiru.Poosairaj, S/o. Mariyappan, Sithannavasal Post, Illuppur Taluk, Pudukkottai District.	Sithannavasal Village & Illuppur Taluk	94 Part (Q.No.2)(N)	2.50.0	28.06.2017 To 27.06.2022
3.	Thiru.R.Radha, S/o.Ramesh, Thayinipatti Village, Illuppur Taluk, Pudukkottai District.	Sithannavasal Village & Illuppur Taluk	94 Part (Q.No.3) (South)	2.00.0	28.06.2017 To 27.06.2022

(Signature)



S. Ilangothar
S.ILANGOVAR, M.A., B.L.
ADVOCATE

c. Lease Expired Quarries					
S.No	Name of the lessee/ Permit Holder	Village & Taluk	SF.No.	Extent	Lease Period
4.	Thiru.K.R.N Ramesh, S/o. Rasu Nattar, Thayinipatti Post, Illuppur Taluk, Pudukkottai District.	Sithannavasal Village & Illuppur Taluk	95/1 & etc.,	0.96.0	11.08.2017 To 10.08.2022
5.	Thiru.G.Murugesan, S/o.Ganesan, Puduppatti, Mathiyanallur Taluk, Pudukkottai District.	Irumbali Village & Kulathur Taluk	98/1,2	0.70.0	24.01.2017 To 23.01.2022
6.	L.Soosainathan, S/o.Loordhusamy,, 448, Housing Unit, Rajagopalapuram, Pudukkottai.	Sithannavasal Village & Illuppur Taluk	95/8 & 97/32	0.93.5	14.03.2010 To 13.03.2015
7.	Thiru.A.S. Pitchai, S/o. A.Subbiah, 21/22, Old Perumal koil Street, Annavaasal, Illuppur Taluk, Pudukkottai District.	Mathiyanullur Village & Illuppur Taluk	241/3(P)	1.21.5	29.05.2015 To 28.05.2020
8.	Tmt. S.Sooriya, W/o.Sathiyamoorthy, Ellaiyapatti, Mathiyanallur (Post), Illuppur Taluk, Pudukkottai District.	Mathiyanullur Village & Illuppur Taluk	280 (Part)	1.00.0	14.10.2016 To 13.10.2021
Total =				11.81.0	

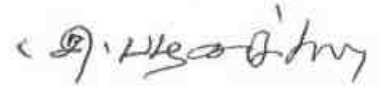
4. There will not be hindrance or disturbance to the people living on enrooted/ nearby my quarry site while transporting the mineral and due to quarrying activities.
5. There is no approved habitation within 300m radius from the periphery of my applied quarry.
6. I swear that afforestation will be carried out during the course of quarrying operation and maintained.



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7. Insurance coverage will be arranged for the laborers working in my quarry site.
8. The existing road from the main road to quarry is in good condition and the same will be maintained and utilized for Transportation of Rough Stone.
9. I will not engage any child labor in my quarry site and I am aware that engaging child labor is punishable under the law.
10. All types of safety / protective equipment will be provided and used by all the laborers working in my quarry.
11. No permanent structures, temple etc., are located within 500m radius from the periphery of my quarry.

I ensure to do the social and Environment commitment as mentioned in the Mining plan to the best of my knowledge.



C. Palanisamy

(Deponent)



J. Ilango Van 11-11-2024
S. ILANGO VAN, M.A., B.L.
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ANNEXURE-X
NABET CERTIFICATE

National Accreditation Board for Education and Training

Certificate of Accreditation

Eco Tech Labs Pvt. Ltd., Chennai

No.48, 2nd Main Road, Ram Nagar, South Extension, Pallikaranai, Chennai – 600100

The organization is accredited as **Category-A** under the QCI-NABET Scheme for Accreditation of EIA Consultant Organization, Version 3: for preparing EIA/EMP reports in the following Sectors-

S. No	Sector Description	Sector (as per)		Cat.
		NABET	MoEFCC	
1.	Mining of minerals including opencast mining only	1	1 (a) (i)	A
2.	Thermal power plants	4	1 (d)	A
3.	Metallurgical industries	8	3 (a)	B
4.	Synthetic organic chemicals industry	21	5 (f)	A
5.	Airports	29	7 (a)	A
6.	Industrial estates/ parks/ complexes/ Areas, export processing zones (EPZs), Special economic zones (SEZs), Biotech parks, Leather complexes	31	7 (c)	A
7.	Building and construction projects	38	8 (a)	B
8.	Townships and Area development projects	39	8 (b)	B

Note: Names of approved EIA Coordinators and Functional Area Experts are mentioned in RAAC minutes dated May 09, 2025 posted on QCI-NABET website.

The Accreditation shall remain in force subject to continued compliance to the terms and conditions mentioned in QCI-NABET's letter of accreditation bearing no QCI/NABET/ENV/ACO/25/3622 dated May 19, 2025. The accreditation needs to be renewed before the expiry date by Eco Tech Labs Pvt. Ltd., Chennai following due process of assessment.

Valid up to
April 10, 2028

Issue Date
May 19, 2025



Certificate No.
NABET/EIA/25-28/RA 0400

Prof (Dr) Varinder S Kanwar
(CEO – NABET)

For the updated List of Accredited EIA Consultant Organizations with approved Sectors please refer to QCI-NABET website.