DRAFT EIA / EMP REPORT

FOR

ROUGHSTONE QUARRIES OF THIRU B.SELVAM & THIRU K. NAGAMUTHUKUMAR

A. Project Proponent Details		
Name	**Thiru B.Selvam**	**Thiru K.Nagamuthukumar**
Address	**2/56, Main Road, Vengadasthirikottai, Kombaipatti, Batlagundu, Dindigul**	**159/2, South Street, Ayyankottai, Ayyanpalayam, Pattiveeranpatti, Dindigul**
B. Location Details		
Extent	**1.62 Ha**	**2.00 Ha**
S.F.No	**263/1(P-3)**	**263/1(P-2)**
Location	**Sivanganapuram Village, Nilakottai Taluk, Dindigul District.**	
C. Production Details		
Production	**Roughstone – 1,52,604m3 Topsoil – 7191m3**	**Roughstone – 3,30,453m3 Topsoil – 15,089m3**
Depth	**33m**	**45m**
D. EIA/EMP details		
ToR reference	**TO24B0108TN5717609N dated 29.11.2024**	**TO24B0108TN5823311N dated 29.11.2024**
Baseline Monitoring	**Post Monsoon Season (Oct – Dec 2024)**	**Post Monsoon Season (Oct – Dec 2024)**

CONSULTANT

CREATIVE ENGINEERS & CONSULTANTS

NABET ACCREDITED CONSULTANCY, NABL ACCREDITED TESTING LAB

9B/4, Bharathwajar Street, East Tambaram, Chennai-600059.

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MAY 2025

B1 Category

REVISIONS OF EIA/EMP REPORT

Revision number	Report Status	Date of submission
00/FEB/25	Draft EIA /EMP Report	07.05.2025

Environmental Impact Assessment & Environmental Management Plan Report for Rough stone Quarries of Thiru.B.Selvam. (Over an area of 1.62 Ha) and Thiru.K.Nagamuthukumar.(Over an area of 2.00Ha) in Sivanganapuram Village, Nilakottai Taluk, Dindigul District, Tamil Nadu and authorized for submission by Mr. B.Swamynathan, EIA Coordinator, of Creative Engineers & Consultants on 28.02.2025 after due review by the personnel and consultation with the project proponents. Current Revision number of the EIA/EMP report is 00/FEB/25, signifying as per the revision mentioned in the above table that this is a draft EIA/EMP report.

Signature:

Date: 07.05.2025

PROJECT PROPONENT DECLARATION

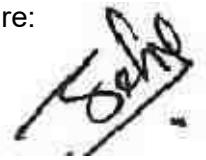
I, Thiru.B.Selvam.received Terms of Reference under EIA Notification 2006 from SEIAA, Tamil Nadu vide their letter TO24B0108TN5717609N dated 29.11.2024 for Roughstone Quarry of Thiru.B.Selvam. over an extent of 1.62.0 Ha at S.F.No – 263/1(P-3) of Sivanganapuram Village, Nilakottai Taluk, Dindigul District, Tamil Nadu.

We have entrusted the EIA study to M/s. Creative Engineers & Consultants (CEC), Chennai who have been accredited by the National Accreditation Board for Education & Training (NABET), Quality Council of India with their accreditation valid upto 23.12.2026

The Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) have been prepared as per the generic structure proposed in the EIA notification 2006, ToR issued by SEIAA, Tamil Nadu. The prescribed ToR along with compliance is also incorporated in the EIA/EMP Report.

This report is prepared based on the information and data obtained from the Mining Plan and other records and the field study carried out by the consultant. The data given in the EIA/EMP report are factually correct to the best of my knowledge.

Signature:



For B.Selvam

Date: 28.02.2025

PROJECT PROPONENT DECLARATION

I, Thiru.K.Nagamuthukumar received Terms of Reference under EIA Notification 2006 from SEIAA, Tamil Nadu vide their letter TO24B0108TN5823311N dated 29.11.2024 for Roughstone Quarry of Thiru.K.Nagamuthukumar. over an extent of 2.00 Ha at S.F.No – 263/1(P-2) of Sivanganapuram Village, Nilakottai Taluk, Dindigul District, Tamil Nadu.

We have entrusted the EIA study to M/s. Creative Engineers & Consultants (CEC), Chennai who have been accredited by the National Accreditation Board for Education & Training (NABET), Quality Council of India with their accreditation valid upto 23.12.2026

The Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) have been prepared as per the generic structure proposed in the EIA notification 2006, ToR issued by SEIAA, Tamil Nadu. The prescribed ToR along with compliance is also incorporated in the EIA/EMP Report.

This report is prepared based on the information and data obtained from the Mining Plan and other records and the field study carried out by the consultant. The data given in the EIA/EMP report are factually correct to the best of my knowledge.

For K.Nagamuthukumar

Date: 28.02.2025

CREATIVE ENGINEERS & CONSULTANTS

(NABET ACCREDITED, NABL ACCREDITED TESTING LABORATORY,

DEPARTMENT OF INDUSTRIES AND COMMERCE REGISTERED COMPANY

EIA Consultant Undertaking

[In compliance with MoEF Office Memorandum No. J-11013/41/2006-IA.II (I) dated 04.08.2009]

Creative Engineers & Consultants (CEC) is an NABL accredited testing Laboratory, and also NABET accredited Category–A environment consultancy organization for preparing EIA/EMP reports for the sectors Mining of minerals, Thermal power plants, Mineral Beneficiation & Cement plants.

CEC has been accredited by the National Accreditation Board for Education & Training (NABET), Quality Council of India for empanelment of EIA Consultants with accreditation valid upto 23.12.2026.

Thiru.B.Selvam.received Terms of Reference under EIA Notification 2006 from SEIAA, Tamil Nadu vide their letter TO24B0108TN5717609N dated 29.11.2024 for Roughstone Quarry of Thiru.B.Selvam. over an extent of 1.62.0 Ha at S.F.No – 263/1(P-3) of Sivanganapuram Village, Nilakottai Taluk, Dindigul District, Tamil Nadu.

Thiru.K.Nagamuthukumar received Terms of Reference under EIA Notification 2006 from SEIAA, Tamil Nadu vide their letter TO24B0108TN5823311N dated 29.11.2024 for Roughstone Quarry of Thiru.K.Nagamuthukumar. over an extent of 2.00 Ha at S.F.No – 263/1(P-2) of Sivanganapuram Village, Nilakottai Taluk, Dindigul District, Tamil Nadu.

The prescribed TOR is complied with and incorporated in the EIA Report and submitted. This report is based on the information and data obtained from Approved Mining Plan, other records and data from the field study by CEC. The data generated and given in the EIA/EMP Report are factually correct. The sample analyses are carried out through CEC's laboratory.

(P. Giri)
Chief Executive & EIA Coordinator
Creative Engineers & Consultants

Date: 07.05.2025

9/4b, Bharathwajar Street, East Tambaram, Chennai – 600 059.
Ph : 22395170, 9444133619, fax : 91-44-22396643.
e-mail : cecgiri@yahoo.com, web : www.creativeengineers.co.in

Annexure – VII

Declaration by Experts contributing to the EIA Report for

Combined EIA/EMP Report for Rough stone Quarries of Thiru.B.Selvam. (Over an area of 1.62 Ha) and Thiru.K.Nagamuthukumar.(Over an area of 2.00Ha) in Sivanganapuram Village, Nilakottai Taluk, Dindigul District, Tamil Nadu.

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

EIA coordinator:

Name: **B.Swamynathan**

Signature and Date:

Period of involvement: **September 2024 onwards**

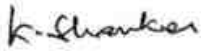
Contact information: **09444133619**

Functional area experts:

S. No.	Functional areas	Name of the expert/s	Involvement (period and task**)	Signature and date
1	AP*	**P.Giri**	• **Identification of baseline monitoring stations and study of the monitored data with respect to the applicable standards.** • **Identification of sources of air pollution comprising dust, gaseous emission due to mining & other activities** • **Identification of Impacts & suggestion of mitigation measures** **Period: September 2024 onwards**	
		B.Swamynathan	• **Data interpretation of Micro meteorological data for wind rose.** • **Identification of polluting source and suggestion of suitable mitigation measures.** **Period: September 2024 onwards**	

2	WP*	**G.Sandhya**	• **Study of the monitored data with respect to the applicable standards.** • **Identification of Water requirement & Source** • **Preparation of water balance diagram** • **Identification of Water polluting sources** • **Impact of the project on the water quality, both surface and groundwater** • **Suggestion of Mitigation measures to control water pollution** **Period: October 2024 onwards**	
3	SHW*	**P.Giri**	• **Quantification of mineral & waste from mining operation** • **Waste disposal method evaluation** • **Providing dump management plan** • **Providing Surface Runoff Management Structure Requirements.** • **Identification of Hazardous waste and its details of disposal** **Period: September 2024 onwards**	
4	SE*	**R.Baburaj**	• **Identification of villages in the study area and finalization of demographic profile of the villages within the study area.** • **Preparation of sections relevant to SE functional area in the EIA/EMP report** **Period: October 2024 onwards**	
5	EB*	**B.Swamynathan**	• **Perusal of existing data relevant to this project.** • **Studying the details of flora and fauna, separately for core, buffer zone and forest area based on primary field survey.** • **Identification of species , Indicating the Schedule of the fauna present in the study area** • **Assessment of impact on Biological environment and suggestion of mitigative measures** • **Collecting & providing details of existing and proposed Green belt development /plantation in the core zone** **Period: September 2024 onwards**	
6	HG*	**K.Shankar**	• **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**	

			• **Perusal of site specific ground water table details for the core zone and the study area.** • **Studied the hydrological aspects of surface and groundwater in study area** • **Study about impact on the hydrology due to mining operation** • **Suggesting mitigative measures like RWH for enhancement of ground water level** **Period: October 2024 onwards**	
7	GEO*	**K.Shankar**	• **Study of geology of the ML area and the surrounding areas.** • **Provide details about Mineral composition** **Period: October 2024 onwards**	
8	SC*	**B.Swamynathan**	• **Study of soil profile** • **Assessment of Impact on soil and suggesting plantation scheme.** **Period: September 2024 onwards**	
9	AQ*	**G.Sandhya**	• **Quantification of emission particulars** • **Air quality modelling for post project impact on the air quality prediction of the study area.** **Analysis of the Isopleth generated** • **Arriving at the post project concentration at the AAQ monitoring locations** • **Preparation of meteorological data in suitable form for input into the model** • **Simulation of model for generation of Isopleth and data interpretation.** • **Studying the impact on AAQ monitoring locations due to the generated emissions.** • **Preparation of sections relevant to AQ functional area in the EIA/EMP report.** **Period: October 2024 onwards**	
10	NV*	**P.Giri**	• **Identification of baseline monitoring stations and study of the monitored data with respect to the applicable standards.** • **Predict the noise level and vibration level due to proposed mining operation based on scientific evaluation.** • **Suggesting the Mitigation measures to control noise pollution, Suggesting the Mitigation measures to**	

			control ground vibration **Period: September 2024 onwards**	
11	LU	**B.Swamynathan**	• **Collection of Remote sensing satellite data to study the land use pattern.** • **Primary field survey and limited field verification** • **Preparation of Land use map using Satellite data of the project area separately for the core zone and the buffer zone and providing the land use pattern.** **Period: September 2024 onwards**	
12	RH*	**K.Shankar**	• **Identified Major risks involved in the project Mitigation measures suggested to avoid risk.** • **Preparation of onsite and offsite emergency management plan** **Period: October 2024 onwards**	

*One TM against each FAE may be shown
**Please attach additional sheet if required

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

I, **B.Swamynathan** hereby,confirm that the above mentioned experts prepared the EIA report for **Combined EIA/EMP Report for Rough stone Quarries of Thiru.B.Selvam. (Over an area of 1.62 Ha) and Thiru.K.Nagamuthukumar.(Over an area of 2.00Ha) in Sivanganapuram Village, Nilakottai Taluk, Dindigul District, Tamil Nadu.**

I also confirm that EIA Coordinator (EC) has gone through the report, and the consultant organization shall be fully accountable for any misleading information. It is certified that no unethical practices, plagiarism involved in carrying out the work and external data / text has not been used without proper acknowledgement while preparing this EIA report.

Signature:

Name: **P.Giri**

Designation: **Chief Executive**

Name of the EIA consultant organization: **Creative Engineers & Consultants, Chennai – 59**
NABET Certificate No. & Issue Date: **No- NABET/EIA/23-26/RA 0331 & date 23.12.2026**

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भारतीय गुणवत्ता परिषद्
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NABET

National Accreditation Board for Education and Training

Certificate of Accreditation

Creative Engineers and Consultants, Chennai

9B/4, Bharathwajar street, East Tambaram, Chennai, Tamil Nadu

*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- opencast mining only	1	1 (a) (i)	A
2.	Thermal power plants	4	1 (d)	A
3.	Mineral beneficiation	7	2 (b)	A
4.	Cement plants	9	3 (b)	A

Note: Names of approved EIA Coordinators and Functional Area Experts are mentioned in RAAC minutes dated May 03, 2024, 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/24/3250 dated May 24, 2024. The accreditation needs to be renewed before the expiry date by Creative Engineers and Consultants, Chennai following due process of assessment.

Issue Date
May 24, 2024

Valid up to
December 23, 2026

Mr. Ajay Kumar Jha
(Sr. Director, NABET)

Certificate No.
NABET/EIA/23-26/RA 0331

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.

TERMS OF REFERENCE & ITS COMPLIANCE

File No: 11037
Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment Authority(SEIAA), TAMIL NADU)
***

Dated **29/11/2024**

To,

Thiru.SELVAM
Thiru.B.Selvam, S/o.Bose, 2/56, Main Road, Vengadasthirikottai, Kombaipatti, Batlagundu, Dindigul, No.2/56, Main Road, Vengadasthirikottai Kombaipatti, DINDIGUL, TAMIL NADU, 624202
selvambose2011@gmail.com

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

Sir/Madam,

SEIAA, Tamil Nadu – Proposed Rough Stone quarry over an extent of 1.62.00 Ha at S.F.No. 263/1 (Part-3) of Sivanganapuram Village, Nilakottai Taluk, Dindigul District, Tamil Nadu by Thiru.B.Selvam - under project category – "B1" and Schedule S.No. 1(a) – ToR issued along with Public Hearing- preparation of EIA report – Regarding.

Ref:

1. Online proposal No. SIA/TN/MIN/480851/2024, Dated: 29.06.2024.
2. Your application submitted for Terms of Reference dated: 02.07.2024.
3. Minutes of the 487th meeting of SEAC held on 01.08.2024
4. Minutes of the 748th Authority meeting held on 13.08.2024
5. Proponent's reply dated: 26.09.2024
6. Minutes of the 759th Authority meeting held on 30.09.2024
7. Minutes of the 509th Meeting of SEAC held on 08.11.2024.
8. Minutes of the 773rd Authority meeting held on 25.11.2024.

2. The particulars of the proposal are as below :

(i) TOR Identification No.	TO24B0108TN5717609N
(ii) File No.	11037
(iii) Clearance Type	TOR
(iv) Category	B1
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vii) Name of Project	ROUGHSTONE QUARRY of THIRU. B.SELVAM

(viii) Name of Company/Organization	SELVAM
(ix) Location of Project (District, State)	DINDIGUL, TAMIL NADU
(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	no
(xiii) Applicability of Specific Conditions	no

3. 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.

4. The above-mentioned proposal has been considered by SEIAA in the meeting held on 25/11/2024. 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.

5. 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).

6. 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. B.Selvam under the provisions of EIA Notification, 2006 and as amended thereof.

7. The Ministry/SEIAA-TN reserves the right to stipulate additional conditions, if found necessary.

8. 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.

9. This issues with the approval of the Competent Authority.

10. 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.

Copy To

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. The Principal Secretary to Government, Environment and Forests Department, Tamil Nadu.
3. The Additional Chief Secretary to Government, Natural Resources Department, Tamil Nadu.
4. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
5. The Chair Person, TNPC Board,76, Mount Salai, Guindy, Chennai-32
6. The District Collector, Dindigul District
7. The Commissioner of Geology and Mines, Guindy, Chennai-32
8. The Assistant Director, Department of Geology & Mining, Dindigul District
9. EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
10. Integrated Regional office of MoEF&CC, Sasthri Bhawan, Nungambakkam, Chennai
11. File Copy

Annexure 1

Specific Terms of Reference for (Mining Of Minerals)

1. Seiaa Specific Conditions :

S. No	Terms of Reference
1.1	The proposal was placed in the 773rd Authority meeting held on 25.11.2024. The Authority noted that the subject was appraised in the 509th meeting of SEAC held on 08.11.2024. SEAC decided to reiterate its **recommendation already made in its 487th meeting of SEAC held on 01.08.2024** subject to the additional conditions stated therein. All other conditions mentioned in the minutes will remain unchanged and unaltered. After detailed discussions, the Authority accepts the recommendation of SEAC and decided to grant **Terms of Reference (ToR) along with Public Hearing** under cluster for the production should not exceed 2,58,116 cu.m of Rough stone and the annual peak production should not exceed 56,820 cu.m of Rough Stone up to depth of mining 48m BGL, for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC & normal conditions and conditions in **Annexure 'B'** of this minutes in addition to the following conditions. 1. The PP shall furnish the Modified Mining Plan indicating the section A-B of the Plan & Section where the bench width of 10 m to be provided for the existing highwall of 12 m and subsequent benches of not less than 5 m in width, along with the revised calculated volume accordingly **before conducting Public Hearing.** 2. The PP shall carry out Hydrogeological study by involving any one of the following 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, University of Madras – Dept of Geology, and Anna University Chennai-Dept of Geology, CEG Campus and submit the same along with EIA Report.

SEAC SPECIFIC CONDITIONS:

1. The PP shall furnish the Modified Mining Plan indicating the section A-B of the Plan & Section where the bench width of 10 m to be provided for the existing highwall of 12 m and subsequent benches of not less than 5 m in width, along with the revised calculated volume accordingly **before conducting Public Hearing.**
2. The PP shall carry out Hydrogeological study by involving any one of the following 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, University of Madras – Dept of Geology, and Anna University Chennai-Dept of Geology, CEG Campus and submit the same along with EIA Report.

1. **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:**
   - **(i) Copy of the agreement forming CMC.**
   - **(ii) The Organisation chart of the Committee with defining the role of the members**
   - **(iii) The 'Standard Operating Procedures' (SoP) executing the planned activities**.
2. The PP shall furnish the Modified Mining Plan indicating the section A-B of the Plan & Section where the bench width of 10 m to be provided for the existing highwall of 12 m and subsequent benches of not less than 5 m in width, along with the revised calculated volume accordingly.
3. 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.
4. 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.

5. The Proponent shall carry out Bio diversity study as a part of EIA study and the same shall be included in the Report.
6. 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.
7. The PP shall prepare a conceptual working 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.

SEAC STANDARD CONDITIONS:

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:
    (i) Original pit dimension
    (ii) Quantity achieved Vs EC Approved Quantity
    (iii) Balance Quantity as per Mineable Reserve calculated.
    (iv) Mined out Depth as on date Vs EC Permitted depth
    (v) Details of illegal/illicit mining
    (vi) Violation in the quarry during the past working.
    (vii) Quantity of material mined out outside the mine lease area
    (viii) Condition of Safety zone/benches
    (ix) Revised/Modified Mining Plan showing the benches of not exceeding 6 m height and ultimate depth of not exceeding 50m.
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.
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.
4. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the water bodies like lake, water tanks, etc are located within 1 km of the proposed quarry.

5. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
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.
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.
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.
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.
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.
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.
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,
13. What was the period of the operatio n and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
14. Quantity of minerals mined out.

- Highest production achieved in any one year
- Detail of approved depth of mining.
- Actual depth of the mining achieved earlier.
- 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.

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).
16. The PP shall carry out Drone video survey covering the cluster, green belt, fencing, etc.,
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.
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.
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.
20. The Project Proponent shall conduct t he 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.

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.
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.
23. Rain water harvesting management with recharging details along with water balance (both 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 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.
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.
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.
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.
28. Impact on local transport infrastructure due to the Project should be indicated.
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.
30. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.

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.
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.
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
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.
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.
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 detail ed.
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.
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.
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.

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.
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.
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.
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.

SEIAA STANDARD CONDITIONS:

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.
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.

Agriculture & Agro-Biodiversity

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.

Forests

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.

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 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.

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.
22. The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.
23. The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.
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.
25. The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.
26. The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.
27. The EIA shall include the impact of mining activity on the following:
    a) Hydrothermal/Geothermal effect due to destruction in the Environment.
    b) Bio-geochemical processes and its foot prints including environmental stress.
    c) Sediment geochemistry in the surface streams.

Energy

28. The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished.

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.
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.
31. Impact of mining on pollution leading to GHGs emissions and 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.

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 and the scope for achieving SDGs.
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.

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.

Others

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.
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 all the activities proposed shall be part of the Environment Management Plan.
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.

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 cle arly 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 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 is acquisition, nearby (in 2-3 km.) water body, population, with in 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 -l1013/77/2004-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 willtake 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.

- **MoEF & CC -Standard Terms of Reference for (Mining of minerals)**

S. No	Terms of Reference
1.1	A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given
1.2	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
1.3	All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the areashould 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)
1.4	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
1.5	Details about the land proposed for mining activities should be givenwith 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
1.6	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

S. No	Terms of Reference
1.7	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
1.8	The study rea 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
1.9	Land use of the study rea 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
1.10	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
1.11	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 Expert Appraisal Committees
1.12	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
1.13	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

S. No	Terms of Reference
1.14	The vegetation in the RF / PF areas in the study area, with necessary details, should be given
1.15	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
1.16	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 Wildlifeand copy furnished
1.17	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
1.18	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
1.19	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

S. No	Terms of Reference
	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)
1.20	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
1.21	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
1.22	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

S. No	Terms of Reference
1.23	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
1.24	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
1.25	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
1.26	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 State Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished
1.27	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
1.28	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
1.29	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

S. No	Terms of Reference
1.30	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
1.31	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report
1.32	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
1.33	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
1.34	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
1.35	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
1.36	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

S. No	Terms of Reference
1.37	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
1.38	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given
1.39	The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out
1.40	A Disaster management Plan shall be prepared and included in the EIA/EMP Report
1.41	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
1.42	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-

S. No	Terms of Reference
	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

File No: 11301
Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment Authority(SEIAA), TAMIL NADU)
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Dated **29/11/2024**

To,

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No.159/2, South Street, Ayyankottai, Ayyampalayam, Pattiveeranpatti, Dindigul, Ayyampalayam, Pattiveeranpatti,, DINDIGUL, TAMIL NADU, 624211
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Subject: Grant of Terms of Reference along with Public Hearing under the provision of the EIA Notification 2006-as amended regarding.

Sir/Madam,

SEIAA, Tamil Nadu – Proposed Rough stone quarry over an Extent of 2.00.0 Ha at SF.Nos. 263/1 (Part-2) of Sivaganapuram Village, Nilakottai Taluk, Dindigul District, Tamil Nadu by Thiru.K. Nagamuthukumar - under project category – "B1" and Schedule S.No. 1(a) – ToR issued along with Public Hearing- preparation of EIA report – Regarding.

Ref:

1. Online proposal No. SIA/TN/MIN/497973/2024, Dated: 30.09.2024.
2. Your application submitted for Terms of Reference dated: 01.10.2024.
3. Minutes of the 509th Meeting of SEAC held on 08.11.2024.
4. Minutes of the 773rd Authority meeting held on 25.11.2024.

2. The particulars of the proposal are as below :

(i) TOR Identification No.	TO24B0108TN5823311N
(ii) File No.	11301
(iii) Clearance Type	TOR
(iv) Category	B1
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vii) Name of Project	ROUGHSTONE QUARRY OF THIRU K.NAGAMUTHUKUMAR
(viii) Name of Company/Organization	naga muthukumar karupaiah
(ix) Location of Project (District, State)	DINDIGUL, TAMIL NADU
(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	no

(xiii) Applicability of Specific Conditions no

3. 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.

4. The above-mentioned proposal has been considered by SEIAA in the meeting held on 09/11/2024. 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.

5. 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).

6. 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.K. Nagamuthukumar under the provisions of EIA Notification, 2006 and as amended thereof.

7. The Ministry/SEIAA-TN reserves the right to stipulate additional conditions, if found necessary.

8. 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.

9. This issues with the approval of the Competent Authority.

10. 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.

Copy To

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. The Principal Secretary to Government, Environment and Forests Department, Tamil Nadu.
3. The Additional Chief Secretary to Government, Natural Resources Department, Tamil Nadu.
4. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
5. The Chair Person, TNPC Board,76, Mount Salai, Guindy, Chennai-32
6. The District Collector, Dindigul District.
7. The Commissioner of Geology and Mines, Guindy, Chennai-32.
8. The Assistant Director, Department of Geology & Mining, Dindigul District.
9. EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
10. Integrated Regional office of MoEF&CC, Sasthri Bhawan, Nungambakkam, Chennai
11. File Copy

SEAC SPECIFIC CONDITIONS:

1. The Project Proponent, Thiru.K. Nagamuthukumar has applied for Terms of Reference for the Proposed Rough stone quarry over an Extent of 2.00.0 Ha at SF.Nos. 263/1 (Part-2) of Sivaganapuram Village, Nilakottai Taluk, Dindigul District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
3. As per the precise area communication letter, the lease period is 5 years and mining plan period is for 5 years & production should not exceed 330453 cu.m of Rough stone. As per the approved mining plan, the annual peak production shall not exceed 71795 m^3 of Rough Stone for an ultimate depth of 45m.

Based on the presentation and details furnished by the project proponent, **SEAC decided to grant Terms of Reference (TOR) with Public Hearing** subject to the following TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. **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 required statutory personnel, appropriate environmental management, system of maintaining the haul roads and village/panchayat roads, authorized blasting operation, Monitoring system of the environmental & other statutory compliances & its reporting status, etc. The PP shall submit the following details in the form of an Affidavit during the EIA appraisal:**
   - **(i) Copy of the agreement forming CMC.**
   - **(ii) The Organisation chart of the Committee with defining the role of the members**
   - **(iii) The 'Standard Operating Procedures' (SoP) executing the planned activities**.
2. The proponent shall obtain NOC from the Competent Authority under the provisions of the Central Electricity Authority Notification No. CEA-PS-16/1/2021-CEI Division dt 08.07.2023.
3. **Since the Periyar Main Canal is situated at 410 m and the Vaigai river flows at 800 m from the lease boundary**, the PP shall carry out the scientific studies to assess the hydrogeological condition of the quarry to determine impacts of the mining operation on the ground water conditions in the waterbodies, by involving any one of the

following 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, University of Madras – Dept of Geology, and Anna University Chennai-Dept of Geology, CEG Campus and submit the same along with EIA Report. Based on the study report, the Committee would decide whether the depth should be restricted.

4. 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.
5. 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.
6. The Proponent shall carry out Bio diversity study as a part of EIA study and the same shall be included in the Report.
7. 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.
8. **Since the quarry has attained the depth of 30 m**, the PP shall prepare a conceptual working plan accommodating the inclusion of haul road accessibility keeping the benches intact, by analysing the slope stability of the working benches to be constructed and existing quarry wall for the safety of the persons employed in the mine. Hence, the PP shall carry out the scientific studies to assess the slope stability of the working benches 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.

SEAC STANDARD CONDITIONS:

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:
    (i) Original pit dimension
    (ii) Quantity achieved Vs EC Approved Quantity

(iii) Balance Quantity as per Mineable Reserve calculated.

(iv) Mined out Depth as on date Vs EC Permitted depth

(v) Details of illegal/illicit mining

(vi) Violation in the quarry during the past working.

(vii) Quantity of material mined out outside the mine lease area

(viii) Condition of Safety zone/benches

(ix) Revised/Modified Mining Plan showing the benches of not exceeding 6 m height and ultimate depth of not exceeding 50m.

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.
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.
4. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the water bodies like lake, water tanks, etc are located within 1 km of the proposed quarry.
5. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
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.
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.

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.
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.
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.
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.
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,
13. What was the period of the operatio n and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
14. Quantity of minerals mined out.
    - Highest production achieved in any one year
    - Detail of approved depth of mining.
    - Actual depth of the mining achieved earlier.
    - 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.
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).
16. The PP shall carry out Drone video survey covering the cluster, green belt, fencing, etc.,

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.
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.
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.
20. The Project Proponent shall conduct t he 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.
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.
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.
23. Rain water harvesting management with recharging details along with water balance (both 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 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.

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.
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.
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.
28. Impact on local transport infrastructure due to the Project should be indicated.
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.
30. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
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.
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.
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
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.

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.
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 detail ed.
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.
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.
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.
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.
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.
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.

    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.

SEIAA SPECIFC CONDITIONS:

The proposal was placed in the 773rd Authority meeting held on 25.11.2024. The Authority noted that the subject was appraised in the 509th meeting of SEAC held on 08.11.2024. SEAC has furnished its recommendations for granting Terms of Reference along with Public Hearing subject to the conditions stated therein.

After detailed discussions, the Authority accepts the recommendation of SEAC and decided to grant **Terms of Reference (ToR) along with Public Hearing** under cluster for the production should not exceed 3,30,453 cu.m of Rough stone and the annual peak production should not exceed 71,795 cu.m of Rough Stone up to depth of mining 45m BGL, for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC & normal conditions and conditions in **Annexure 'B'** of this minutes

SEIAA STANDARD CONDITIONS:

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.
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.

Agriculture & Agro-Biodiversity

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.

Forests

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.

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 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.

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.
22. The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.
23. The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.
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.
25. The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.
26. The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.
27. The EIA shall include the impact of mining activity on the following:
    a) Hydrothermal/Geothermal effect due to destruction in the Environment.
    b) Bio-geochemical processes and its foot prints including environmental stress.
    c) Sediment geochemistry in the surface streams.

Energy

28. The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished.

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.
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.
31. Impact of mining on pollution leading to GHGs emissions and 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.

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 and the scope for achieving SDGs.
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.

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.

Others

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.
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 all the activities proposed shall be part of the Environment Management Plan.
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.

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 cle arly 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 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 is acquisition, nearby (in 2-3 km.) water body, population, with in 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 -l1013/77/2004-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 willtake 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.

MoEF & CC -Standard Terms of Reference for (Mining of minerals)

S. No	Terms of Reference
1.1	A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given
1.2	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
1.3	All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the areashould 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)
1.4	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
1.5	Details about the land proposed for mining activities should be givenwith 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
1.6	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

S. No	Terms of Reference
1.7	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
1.8	The study rea 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
1.9	Land use of the study rea 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
1.10	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
1.11	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 Expert Appraisal Committees
1.12	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
1.13	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

S. No	Terms of Reference
1.14	The vegetation in the RF / PF areas in the study area, with necessary details, should be given
1.15	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
1.16	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 Wildlifeand copy furnished
1.17	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
1.18	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
1.19	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

S. No	Terms of Reference
	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)
1.20	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
1.21	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
1.22	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

S. No	Terms of Reference
1.23	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
1.24	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
1.25	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
1.26	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 State Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished
1.27	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
1.28	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
1.29	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

S. No	Terms of Reference
1.30	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
1.31	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report
1.32	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
1.33	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
1.34	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
1.35	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
1.36	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

S. No	Terms of Reference
1.37	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
1.38	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given
1.39	The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out
1.40	A Disaster management Plan shall be prepared and included in the EIA/EMP Report
1.41	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
1.42	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-

S. No	Terms of Reference
	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

TOR COMPLIANCE

1. Terms of Reference issued for Roughstone Quarry of Thiru B. Selvam vide TOR Identification No. TO24B0108TN5717609N dated 29.11.2024

S.No	ToR Points	Reply	Pg. No
1.SEIAA Specific Conditions			
1.1	**After detailed discussions, the Authority accepts the recommendation of SEAC and decided to grant Terms of Reference (ToR) along with Public Hearing under cluster for the production should not exceed 2,58,116 cu.m of Rough stone and the annual peak production should not exceed 56,820 cu.m of Rough Stone up to depth of mining 48m BGL, for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC & normal conditions and conditions in Annexure 'B' of this minutes in addition to the following conditions.**		
1.	**The PP shall furnish the Modified Mining Plan indicating the section A-B of the Plan & Section where the bench width of 10 m to be provided for the existing highwall of 12 m and subsequent benches of not less than 5 m in width, along with the revised calculated volume accordingly before conducting Public Hearing.**	• Revised Mine plan report prepared, and Approved by Deputy Director, Geology & Mining vide Rc.No.26/Mines/2024 dated 10.02.2025 **(Annexure-2A).** This report is prepared based on the modified approved mining plan production quantity of 1,52,604m3 of Roughstone & 7191m3 top soil for 5 years period.	
2.	**The PP shall carry out Hydrogeological study by involving any one of the following 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, University of Madras – Dept of Geology, and Anna University Chennai-Dept of Geology, CEG Campus and submit the same along with EIA Report.**	Hydrogeological study details are given Para 3.6, Chapter-III.,The lease area is part of a huge dyke like compact rock formation with less intergranular porosity and fractures leading to less permeability and transmissivity values and as such the ground water level in this area is deep from surface. As such no major water seepage within the mines is expected from the periphery. Besides, the leases are small mound at higher elevation when compared to the general floor level of +200m to +210m RL on the southern side. The ultimate pit depth of mining is 33m for Rough stone Quarry of B.Selvam. As such the ground water table in this area is below this level. Hence, ground water intersection in not envisaged and ground water will not be affected appreciably due to the quarrying	--

		operation	
1.	**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 required statutory personnel, appropriate environmental management, system of maintaining the haul roads and village/panchayat roads, authorized blasting operation, Monitoring system of the environmental & other statutory compliances & its reporting status, etc. The PP shall submit the following details in the form of an Affidavit during the EIA appraisal:** **i. Copy of the agreement forming CMC.** **ii. The Organisation chart of the Committee with defining the role of the members** **iii. The 'Standard Operating Procedures' (SoP) executing the planned activities.**	Environmental Management Cell of projects in the cluster will act as a Cluster Management Committee. The various activities to be undertaken by this committee are detailed in para 10.2.2, Chapter – X. • Affidavit in this regard will be submitted during EIA appraisal.	**10-3**
2.	**The PP shall furnish the Modified Mining Plan indicating the section A-B of the Plan & Section where the bench width of 10 m to be provided for the existing highwall of 12 m and subsequent benches of not less than 5 m in width, along with the revised calculated volume accordingly.**	• Revised Mine plan report prepared, and Approved by Deputy Director, Geology & Mining vide Rc.No.26/Mines/2024 dated 10.02.2025 **(Annexure-2A)**	**A-5**
3.	**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**	• Details of the features within 500m radius are provided in Figure 2.2, Chapter-II..	**2-15**
4.	**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.**	This being a Government tender project, these activities will be carried out immediately after execution of lease.	**7-7**
5.	**The Proponent shall carry out Bio diversity study as a part of EIA study and the same shall be included in the Report.**	• Part of the lease area is mined out with rock exposure and the remaining land is free from major vegetation and consists of thorny prosophis bushes and shrubs only. Study area depicts varying land use comprising scrubby hills on the North east, South west and South east side with intervening plains. Dominant agricultural activities are observed in part of plains proximate to the available irrigation source alongside Vaigai river	**3-33**

		and periyar canal. Crops like Rice, vegetables, watermelon, ground nut, banana etc. are cultivated in the lands with better water source & favaorable soil condition. Soil near the hilly areas are of loamy type which hardens on drying and as such affects germination due to which vegetation is poor. Bio diversity study details are provided in **Para 3.5, Chapter-III**.	
6.	**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.**	EMP is prepared for the entire life of the mine. Affidavit will be provided along with the final EIA/ EMP report.	**--**
7.	**The PP shall prepare a conceptual working 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**	Plan with haul road accessibility is given in Figure No 2.26, Chapter - II	2-26
2.	**SEAC Standard Conditions**		
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:** **a) Original pit dimension** **b) Quantity achieved Vs EC Approved Quantity** **c) Balance Quantity as per Mineable Reserve calculated.** **d) Mined out Depth as on date Vs EC Permitted depth** **e) Details of illegal/illicit mining** **f) Violation in the quarry during the past working.** **g) Quantity of material mined out outside the mine lease area** **h) Condition of Safety zone/benches** **i) Revised/Modified Mining Plan showing the benches of not exceeding 6 m height and ultimate depth of not exceeding 50m.**	In part of the lease area of Thiru B.Selvam, Mining operations were already carried out by the previous lessee from 03.02.2016 to 02.02.2021.The existing pit dimension s are 86m x 53mx12m.	**2-24**
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.**	Letter from VAO is obtained and given as Annexure – 3A.	**A-15**
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.**	Details of the features produced within 500m radius are provided in Figure 2.2, Chapter-II.	**2-12**
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**	Hydrogeological Study is detailed under Section 3.6, Chapter-III.	**3-42**

	1 km of the proposed quarry.		
5	**The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.**	A detailed study of flora and fauna composition in the core and buffer zone of the project has been made through primary field surveys. The details are furnished in para 3.5, Chapter III.	**3-33**
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.**	Kadavakurichi RF-250m-NE and Vettilaippatti RF ,Mettuppatti RF, VikkiramangalamRF, Uttappanayakkanur RF, Valaiyapatti RF,Rajadani RF, Mankaradu Block RF are located more than 5km from the lease area. There area no Protected Areas, Sanctuaries, Tiger reserve etc., within 10km Radius.	**3-2**
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.**	In part of the lease area of Thiru B.Selvam, Mining operations were already carried out by the previous lessee from 03.02.2016 to 02.02.2021.The existing pit dimension s are 86m x 53mx12m. Modified mining plan is prepared and approved as per the TOR condition after leaving sufficient berm width and slope parameters.	**2-24**
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.**	Pit slope stability plan has been provided under Section 7.7, Chapter-VII	**7-7**
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.**	Will be submitted along with the final report	**--**
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.**	Controlled blasting will be adopted in this project and details of the same has been provided in Section 4.4.2, Chapter-IV	**4-14**
11	**The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past,**	Agreed	**--**

	either in the same location or elsewhere in the State with video and photographic evidences.		
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,**	This is a Government tender project. In part of the lease area of Thiru B.Selvam, Mining operations were already carried out by the previous lessee from 03.02.2016 to 02.02.2021.The existing pit dimension s are 86m x 53mx12m	**2-24**
13	**What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?**	Replied above in point no.12	**--**
14	**Quantity of minerals mined out.** **•Highest production achieved in any one year** **•Detail of approved depth of mining.** **•Actual depth of the mining achieved earlier.** **•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.**	Replied above in point no.12	**--**
15	**All comer 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).**	• Satellite imagery with corner coordinates of the project area is provided in Figure 2.5, Chapter-II. • Toposheet of the lease area and buffer zone is provided in Figure 3.1, Chapter-III. • Geology, Geomorphology map of the lease area and buffer zone is provided in Figure 3.18 and 22, Chapter-III.	**2-5** **3-2** **3-44**
16	**The PP shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,**	Agreed	**--**
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.**	Site photographs have been provided in Chapter-II. This being a Government tender project fencing and plantation will be carried out immediately after execution of lease.	**2-8**
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 and mineable reserves are provided in Table 2.5, Chapter-II. • The production schedule during the plan period is provided in Table 2.8, Chapter-II. • The working methodology is detailed	**2-17** **2-19** **2-**

		under Section 2.8, Chapter-II. • Anticipated impacts of mining operations on surrounding environment is provided under Chapter-IV.	**18** **4-1**
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 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.**	• The organization chart is provided as Figure No.10.1, Chapter-X.	**10-1**
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.**	Hydrogeological Study is detailed under Section 3.6, Chapter-III.	**3-42**
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 baseline data on micro-meteorology, ambient air quality, Water quality, noise level, soil and flora & fauna are collected during Postmonsoon Season (October – December 2024) and detailed in Section 3.3 to 3.5 of Chapter-III. The details of additional Traffic is provided under Section 4.9, Chapter-IV.	**4-30**
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 air pollution, water pollution, & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.**	• The details of the quarries located within the 500m radius of the project is given vide Annexure-4A. • A cumulative impact study has been carried out and furnished in Para 7.6, Chapter-VII. • Environmental Management Plan is provided under Chapter-X.	**A-19** **7-5** **10-1**
23	**Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.**	• The rain water falling in the quarries will be harvested in the sump at the lowest level of the respective quarry. This sump will act as a settling pond to prevent solids escaping along with	**4-8**

		discharge, before outlet. etc. • Towards surface runoff management, garland drain will be constructed which will be connected to settling ponds with silt traps. • Water requirement for this project is 8 KLD. The required water will be procured initially from outside agencies. Later Rain water harvested in the mine sump can also be used.	**4-7**
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.**	• The land use of the study area was studied to demarcate various LULC categories and its details are provided under section 3.4, Chapter-III. • The land use pattern at present and at the end of the quarrying period has been provided under section 4.5.1, Chapter-IV. • The post mining land use has been provided in Table No. 4.18.	**3-31** **4-22**
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.**	There is no waste generation anticipated in this quarry. As such there are no OB dumps involved. Top soil to be generated from this lease will be used for plantation, peripheral bund creation etc.	**--**
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.**	Not applicable	**--**
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 rain water falling in the quarry will be harvested in the sump at the lowest level of the quarry. This sump will act as a settling pond to prevent solids escaping along with discharge, before outlet. etc. • Towards surface runoff management, garland drain will be constructed around the quarry and will be connected to a settling pond with silt traps. The supernatant clear water from the settling pond will be flow to	**4-13**

		the downstream users. The surface runoff management structures diagram is given in Figure No 4.8, Chapter-IV. • Details of rainwater harvesting are provided under Section 4.3.4.2, Chapter-IV.	
28	**Impact on local transport infrastructure due to the Project should be indicated.**	• From this proposed quarry the entire output will be transported to the crusher units for producing stone aggregates of different sizes or construction of roads, bridges, buildings and other buyers etc. • About 2 trips per hour of transport is envisaged. The existing road can absorb this traffic due to this project. The details of various mitigative measures towards logistical system is elaborated under Section 4.9, Chapter-IV.	**4-30**
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.**	An ecological survey of the study area was conducted with reference to listing of species and assessment of the existing baseline ecological conditions. Details are provided under section 3.5.1, Chapter-III.	**3-33**
30	**A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.**	Details of Mine Closure Plan is provided under section 7.5, Chapter-VII.	**7-4**
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.**	An ecological survey of the study area was conducted with reference to listing of species and assessment of the existing baseline ecological conditions. Details are provided under section 3.5.1, Chapter-III.	**3-33**
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.**	Agreed	**--**

33	**Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly 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**	Agreed	**--**
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.**	The disaster management plan has been provided under section 7.3.1, Chapter-VII.	**7-3**
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.**	Various risks likely to arise due to mining activities are detailed under section 7.3, Chapter-VII.	**7-2**
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.**	Details of occupational health and safety aspects are given under the subsections of Para 4.8, Chapter-IV.	**4-21**
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.**	• Details of the socio-economic survey conducted in the buffer zone has been provided in Para 3.2.4, Chapter-III. • Public health facilities will be further aimed to be developed through CER activities wherein health checkups, medical camps for the locals will be conducted.	**3-8**
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.**	Nearby villages were visited for conducting study to know about socio-economic conditions, including aspirations and requirements of the people for a better living and collected relevant data. The details are provided under section 3.2.4, Chapter-III.	**3-8**
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.**	W.P.(MD).No.28568 of 2024 & W.M.P(MD) No.24227 of 2024 filed Before the Madurai Bench of Madras High Court regarding road approach was disposed on 02.12.2024. W.P.(MD).No.28525 of 2024 & W.M.P(MD) No.24196 of 2024 filed Before the Madurai Bench of Madras High Court was also disposed on 25.03.2025. There is no litigation pending against the project now.	**--**

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.**	• The Roughstone and Gravel Quarry will benefit this region in the fields of employment opportunities, improved per capita income for local people, improved social welfare facilities in respect of education, health, infrastructural etc. • Direct employment to about 16 people and indirect employment to scores of people. • By means of carrying out the socio-economic development activities, local community development is expected. Towards the same, the proponent has planned to allocate Rs.5 Lakhs for various activities under CER for all the three projects together. From the CER activities allocated for various social welfare activities, the villages near the lease area will be benefited.	**8-1**
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.**	• This is government tender project. In part of the lease area of Thiru B.Selvam, Mining operations were already carried out by the previous lessee from 03.02.2016 to 02.02.2021.The existing pit dimension s are 86m x 53mx12m	**2-24**
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.**	EMP is prepared for the entire life of the mine. Affidavit will be provided along with the final EIA/ EMP report.	**--**
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.**	Agreed	**--**
4. SEIAA Standard Conditions			
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.**	Details of the cluster management committee is provided under Section 10.2.2, Chapter-X.	**10-4**
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.,**	Agreed	**-**
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	**-**
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	**-**

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 cluster and evacuation plan.**	Agreed	**-**
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.**	Agreed	**-**
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	**-**
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.**	Agreed	**-**
Agriculture & Agro-Biodiversity			
9	**Impact on surrounding agricultural fields around the proposed mining Area.**	Study area depicts varying land use comprising scrubby hills on the North east, South west and South east side with intervening plains. Dominant agricultural activities are observed in part of plains proximate to the available irrigation source alongside Vaigai river and periyar canal. Crops like Rice, vegetables, watermelon, ground nut, banana etc. are cultivated in the lands with better water source & favaorable soil condition. Soil near the hilly areas are of loamy type which hardens on drying and as such affects germination due to which vegetation is poor. By adoption of systematic mining adhering to all the environmental mitigation measures as explained earlier, no adverse impact on the far away agricultural or surrounding environs envisaged.	**4-24**
10	**Impact on soil flora & vegetation around the project site.**	The impact of mining on biological environment is provided under Table 4.15, Chapter-IV.	**4-24**
11	**Details of type of vegetations including no. of trees & shrubs within the proposed mining area and. If so,**	The details of flora in the core zone is provided in Table 3.24, Chapter-III.	**3-35**

	transplantation of such vegetations all along the boundary of the proposed mining area shall committed mentioned in EMP.	There is no major clearance of vegetation or transplantation involved.	
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.**	An ecological survey of the study area was conducted with reference to listing of species and assessment of the existing baseline ecological conditions. Details are provided under Section 3.5.1, Chapter-III.	**3-35**
13	**Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.**	The post mining land use has been provided in Table No. 4.17.	**4-16**
14	**The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.**	Replied in sl no 13 above.	**-**
Forests			
15	**The project proponent shall detailed study on impact of mining on Reserve forests free ranging wildlife.**	The nearest Kadavakurichi RF which is located at a distance of 250m (NE). With strict implementation of various mitigatie measures like dust suppression, etc no adverse impact on the surrounding environs is expected. Besides, it is also proposed to construct 12 to 15 ft tall green net mesh fencing all around the lease area to prevent propogation of dust if any. As such no adverse impact is envisaged on this forest due to mining operations.	**3-2**
16	**The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.**	An ecological survey of the study area was conducted with reference to listing of species and assessment of the existing baseline ecological conditions. Details are provided under Section 3.5.1, Chapter-III.	**3-35**
17	**The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection.**	Part of the lease area contains exposed rock pit and the remaining part contains thorny bushes and shrubs only. No major vegetations are observed.	**--**
18	**The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks. Corridors and Wildlife pathways. near project site.**	There are no national parks or corridors in the 10k radius. There are no reserve forest in the proximity of the lease area	**3-2**

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 clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided, covering the entire mine lease period.**	Details of hydrogeological scenario of this project is provided under section 3.6, Chapter-III.	**3-42**
20	**Erosion Control Measures**	• Since the entire material from the quarry face will be directly dispatched to the consumers, there will not be any stockpiles. There are no waste dumps in this quarry. As such there will not be any wash out due to stock pile or waste dumps. • Towards surface runoff management, garland drain will be constructed around the quarry and will be connected to a settling pond with silt traps.	**4-8**
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 proposal to discharge any effluent into either of these water bodies. No major impact is envisaged on the nearby water bodies due to project operations.	**-**
22	**The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.**	There is no major perennial waterbody in close proximity of the lease area.	**3-3**
23	**The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.**	The post mining land use has been provided in Table No. 4.19.	**4-22**
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.**	An ecological survey of the study area was conducted with reference to listing of species and assessment of the existing baseline ecological conditions. Details are provided under Section 3.5.1, Chapter-III. There are no caves, heritage site, and archaeological sites in the study area.	**3-34**
25	**The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical**	Soil samples were collected in 4 locations in the core and buffer zone to	**3-27**

	components and microbial components.	analyse the physiochemical characteristics of the soil in the area. The soil quality data is provided in Table No.3.18, Chapter-III.	
26	**The Environmental Impact Assessment should study on wetlands, water bodies, rivers steams, lakes and farmer sites.**	• The nearest major water bodies is provided in Table No.3.1, Chapter-III. • There are no perineal water courses in both the lease areas.. Periyar main canal is located 410m & Vaigai river is located 800m from the lease area • No impact on these water bodies are expected due to the following: ✓ Mining operation will be at higher elevation. ✓ There will be no intersection of water table or generation or discharge of effluent outside the lease. ✓ Adoption of various mitigative measures as explained in the report will be implemented and it will be ensured that there are no impact on the surrounding water environ.	**3-2**
27	**The EIA shall include the impact of mining activity on the following:** **a) Hydrothermal/Geothermal effect due to destruction in the Environment.** **b) Bio-geochemical processes and its foot prints including environmental stress.** **c) Sediment geochemistry in the surface streams.**	The details of the same is provided in Table 4.20, Chapter-IV.	**4-23**
Energy			
28	**The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilize the Energy shall be furnished.**	The dust control measures are listed under Table 4.1, Water pollution control measures under Section 4.3.2, and noise pollution control measures under Section 4.4.1.2, Chapter-IV. Besides, energy consumption in this project will be optimum and as per requirement.	**4-2**
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.**	Certified vehicles with low carbon emissions will only be used. These equipments will be properly and regularly maintained. Besides, regular vehicular emission tests will be done for	**4-3**

		the transport vehicles to ensure minimal impact due to carbon emissions. To further mediate the carbon emissions, a good greenbelt and plantation plan has been planned.	
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.**	Production from this lease is very less and as such the magnitude of operation and no of equipment's to be used is less. No impact on these front is envisaged.	
31	**Impact of mining on pollution leading to GHGs emissions and the impact of the same on the local livelihood.**	Replied above	**--**
Mine Closure Plan			
32	**Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued.**	Details of Mine Closure Plan is provided under section 7.5, Chapter-VII.	**7-4**
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 and the scope for achieving SDGs.**	Detailed environmental management plan is provided under Chapter-X.	**10-1**
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.**	Detailed environmental management plan is provided under Chapter-X.	**10-1**
Risk Assessment			
35	**To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.**	Various risks likely to arise due to mining activities are detailed under Section 7.3, Chapter-VII.	**7-2**
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.**	The disaster management plan has been provided under Section 7.4.1, Chapter-VII.	**7-3**
Others			
37	**The project proponent shall fumish 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.**	VAO Letter has been provided as Annexure-3A.	**A-15**

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 all the activities proposed shall be part of the Environment Management plan.**	Will be provided in the Final EIA/EMP Report after completion of public hearing.	**--**
39	**The project proponent shall study and fumish 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.**	Single use plastics/ use and throwaway plastics will be banned in the site as directed by the Tamil Nadu Government vide GO(Ms)No.84 regarding ban on use of plastic products. The employees will be encouraged to use compostable material or reusable material.	**4-32**
A.	**Standard ToR**		
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.**	This is a fresh lease area . In part of the lease area of Thiru B.Selvam, Mining operations were already carried out by the previous lessee from 03.02.2016 to 02.02.2021.The existing pit dimension s are 86m x 53mx12m	**2-24**
2	**A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given**	Precise Area Communication letter received from the Assistant Director, Dep. of Geology & Mining, Dindigul vide 26/Mines/2024 dated 09.02.2024	**A-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.**	The production capacity, quantity of waste, its management and mining technology in mine plan and EIA, etc., are compatible with one another.	**--**
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).**	• Project coordinates superimposed in satellite imagery and given as Figure No - 2.5 in Chapter – II. • The geology and geomorphology map is provided in Figure No.3.18, 3.19, Chapter-III. The Lithology map and Soil map are provided under Figure No. 3.20, Chapter-III. The 10km Radius Index plan showing buffer zone is given in Figure No.3.1 in Chapter – III.	**2-6** **3-43** **3-2**
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.**	Replied in Standard ToR point no.4	**--**

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.**	Not Applicable	**--**
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.**	• The proponent will frame a well-planned environmental policy. Its details are provided under Section 10.2.1, Chapter-X. The Mines Manager will undertake effective monitoring and implementation of various environmental control measures promptly and effectively and to oversee various environmental management schemes for air quality control, water quality status, noise level control, plantation programme, social development schemes, etc in the mine. The organizational chart for the same has been provided in Figure No.10.1, Chapter-X.	**10-2** **10-3**
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.**	Various risks likely to arise due to mining activities are detailed under section 7.3, Chapter-VII. This being an opencast mine, subsidence is not applicable. The impact due to ground vibrations due to blasting is given in para 4.3.2, Chapter-IV.	**7-1** **4-8**
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.**	The study area chosen for collecting existing environmental status covers 10 km radial distance from the project periphery (Figure No - 3.1). Data given in the report is for the life of the mine.	**3-2**
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.**	• The land use of the study area was studied to demarcate various LULC categories and its details are provided under section 3.4, Chapter-III. • The land use pattern at present and at the end of the quarrying period has been provided under section 4.5, Chapter-IV. At the end of the lease period, 1.350 Ha will be left as a water body. Plantation will be carried out over 0.230 Ha, Infrastructure 0.02.0 ha and	**3-27** **4-21**

		0.02Ha will be left as road.	
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.**	There is no waste generation anticipated in this quarry operation since the entire excavated material will be utilized. Hence, there is no external overburden dump involved. Besides, there is no proposal for overburden dump outside the lease area.	**2-12**
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.**	There is no forest land in the lease area.	**--**
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.**	There is no forest land in the lease area.	**--**
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	**--**
15	**The vegetation in the RF / PF areas in the study area, with necessary details, should be given.**	• There is no forest land in the lease area.	**--**
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.**	• The mining lease area and the 10 km buffer zone from the periphery of the core zone is devoid of declared ecologically sensitive features like national parks, biospheres, sanctuaries, etc.	**3-2**
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.**	• Replied in Standard ToR point No.16	**--**
18	**A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine**	• A detailed study of flora and fauna	**3-33**

	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.	composition in the core and buffer zone of the project has been made through primary field surveys. The details are furnished in para 3.5, Chapter III.	
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.**	• Not Applicable	**--**
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).**	• Not Applicable	**--**
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 he undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoml 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 shilling of village(s) including their R&R and socio-economic aspects should be discussed in the Report.**	• The mining activities will be carried out within the mine lease area only. The entire mine lease area is a Government land through Tender cum Auction. There is no population within the ML area. Hence, the question of R& R does not arise.	**7-4**
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**	• The baseline data on micro-meteorology, ambient air quality, Water quality, noise level, soil and flora & fauna are collected during post monsoon Season (october to December 2024 and detailed in para 3.3 to 3.5 of Chapter-III. • Monitoring stations were selected taking into account, wind direction and location of sensitive receptors.	**3-9** **3-19**

	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.	• Free silica composition in PM10 sample has been done and the values are found to be Below Detectable Limit (DL 0.05mg/m3) which is well within the prescribed limit of 5mg/m3.	
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.**	• Air quality modeling details are furnished in para 4.2.2 and its continuous sub paras in Chapter-IV of EIA report. • The impact on air quality due to the proposed project is estimated using AERMOD View Gaussian Plume Air Dispersion Model developed by Lakes Environmental Software which is based on steady state Gaussian plume dispersion. • The model simulations are done for the air pollutant arising from the mining operations, namely, PM10, PM2.5. Ground Level Concentration (GLC) have been computed using hourly meteorological data. • The Isopleths of PM10, PM2.5 concentrations for with control measures scenario have also been drawn and these are given in Figure No.4.1 and 4.2. • It can be seen that for Thiru **Selvam project** , the resultant added concentrations with baseline figures with respect to PM10 is in the range of 53.8 μg/m3 to 81.0 μg/m3 and with respect to PM2.5 are in the range of 29.9μg/m3 to 38.9 μg/m3 which are within the stipulated statutory limits. • On cumulative basis also, the post project concentration with respect to PM10 is in the range of 53.8 μg/m3 to 83.0 μg/m3 and with respect to PM2.5 are in the range of 29.9μg/m3 to 39.8 μg/m3 which are within the statutory limits in each case.	**4-3** **4-5 & 4-6**

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.**	• The total water requirement for this project will be 8.0 KLD comprising 1.0 KLD for drinking water and domestic use, 5.0 KLD for dust suppression and 2.0 KLD for greenbelt. The water will be sourced initially from outside agencies. Later the rainwater collected in the mine pit sump will be used for this purpose. The water balance diagram for the same is shown in Figure No 4.7.	**4-13**
25	**Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.**	• Not Applicable.	**--**
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.**	• The rain water falling in the quarry will be harvested in the sump at the lowest level of the quarry. This sump will act as a settling pond to prevent solids escaping along with discharge, before outlet. etc. • Towards surface runoff management, a garland drain will be constructed around the quarry and will be connected to a settling pond with silt traps. The supernatant clear water from the settling pond will be flow to the downstream users. The surface runoff management structures diagram is given in Figure No 4.4, Chapter-IV. • The methods for reducing water consumption and rainwater harvesting is provided in section 4.3.4, Chapter-IV.	**4-16**
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.**	• There are no perinnial water courses near the lease area. Periyar main canal is located 410m & Vaigai river is located 800m from the lease area. • No impact on these water bodies are expected due to the following: ✓ Mining operation will be at higher elevation. ✓ There will be no intersection of water table or generation or discharge of effluent outside the lease.	**4-15**

		Adoption of various mitigative measures as explained in the report will be implemented and it will be ensured that there are no impact on the surrounding water environ. • The ultimate pit depth of mining is 33m. The ground water table in this area is below this level. Hence, ground water intersection in not envisaged and ground water will not be affected appreciably due to the quarrying operation.	
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.**	• The ultimate pit depth of mining is 33m. The ground water table in this area is below this level. Hence, ground water intersection in not envisaged and ground water will not be affected appreciably due to the quarrying operation. Details of hydro geological study are given in Para 3.6, Chapter – III.	**4-15**
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.**	• Replied above in Standard ToR point No.27.	**--**
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.**	• The area gentle sloping towards Southwestern side of the area, the altitude of the area is above 249m above MSL.. The ultimate pit depth of mining is 33m. The ground water table in this area is below this level. Hence, ground water intersection in not envisaged and ground water will not be affected appreciably due to the quarrying operation.	**2-2** **2-13**
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. Phasc-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**	• In the lease area, safety barrier 7.5m & 10m around the periphery safety zone. Greenbelt / Plantation will be carried out to enhance the vegetative growth and aesthetic in the safety zone area. About 800 trees will be planted in and around the lease area. Details of the same is provided under Table No.4.22, Chapter-IV.	**4-26**

	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.**	• From this proposed quarry the entire output will be transported to the crusher units for producing stone aggregates of different sizes or construction of roads, bridges, buildings and other buyers etc. Details of the traffic study is provided under section 4.9, Chapter-IV.	**4-30**
33	**Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.**	• This being a Government tender project. Site services like mine office, first aid room, rest shelters, toilets etc. will be provided as semi-permanent structures.	**2-15**
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.**	• At the end of the lease period, 1.350 Ha will be left as a water body. Plantation will be carried out over 0.230 Ha, Infrastructure 0.02.0 ha and 0.02Ha will be left as road. The post mining land use plan showing afforestation and water body is shown in Figure No- 4.5.	**4-22**
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**	• Details of occupational health and safety aspects are given under the subsections of Para 4.8, Chapter-IV.	**4-29**
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**	• Details of the socio economic survey conducted in the buffer zone has been provided in Para 3.2.4, Chapter-III. • Public health facilities will be further aimed to be developed through CER activities wherein periodic health checkups, medical camps for the locals will be conducted.	**3-8**
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.**	• Towards the socio-economic development of the surrounding area, the proponent has earmarked an amount of Rs.5 Lakhs under Corporate Environmental Responsibility. The activities identified under CER will be implemented in a	**4-22**

		phased manner in the nearby Government schools. In consultation with the locals based on the need & priority it will be implemented. Its details are provided in Para 4.7, Chapter-IV	
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.**	• Detailed Environmental Management plan and its implementation, etc., are furnished in Chapter X.	**10-1**
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.**	This draft EIA/EMP report will be exposed to public consultation as per mandatory procedures through the District Collector and State Pollution Control Board officials after giving 30 days advance notice in two local newspapers about the scheduled date and time for conduct of the public hearing procedures. • The opinions, concerns and objections of stakeholders will be recorded during the public hearing. All the public queries and the replies to the query by the project proponent and officials concerned will be recorded and incorporated in the EIA/EMP report for approval by SEIAA, Tamil Nadu.	**7-1**
40	**Details of litigation pending against the project, if any, with direction /order paced by any Court of Law against the Project should be given.**	W.P.(MD).No.28568 of 2024 & W.M.P(MD) No.24227 of 2024 filed Before the Madurai Bench of Madras High Court regarding road approach was disposed on 02.12.2024. W.P.(MD).No.28525 of 2024 & W.M.P(MD) No.24196 of 2024 filed Before the Madurai Bench of Madras High Court regarding road approach was disposed on 25.03.2025. • There is no litigation pending against the project now.	--
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.**	• The cost of the project is Rs. Rs.94.50 Lakhs. • Towards EMP measures, Rs.17.71 Lakhs is allocated under capital cost and Rs.14.31 Lakhs per annum will	**4-21** **10-9**

		be spent under recurring cost. All the recurring cost of maintenance of pollution control measures, environmental monitoring etc., will be met from revenue.	
42	**A Disaster management Plan shall be prepared and included in the EIA/EMP Report.**	• The disaster management plan has been provided under section 7.3.1, Chapter-VII.	**7-3**
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.**	• The proposed Rough Stone Quarry will benefit this region in the fields of employment opportunities, improved per capita income for local people, improved social welfare facilities in respect of education, health, infrastructural etc. • Direct employment to 16 people and indirect employment to scores of people. • By means of carrying out the socio economic development activities, local community development is expected. Towards the same, the proponent has planned to allocate Rs. 5 Lakhs for various activities under CER. From the CER activities allocated for various social welfare activities, the villages near the lease area will be benefited.	**8-1**

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TOR COMPLIANCE

1. Terms of Reference issued for Roughstone Quarry of Thiru K. Nagamuthukumar vide TOR Identification No. TO24B0108TN5823311N dated 29.11.2024

S.No	ToR Points	Reply	Pg. No
1.SEIAA Specific Conditions			
1.1	**As per the precise area communication letter, the lease period is 5 years and mining plan period is for 5 years & production should not exceed 330453 cu.m of Rough stone. As per the approved mining plan, the annual peak production shall not exceed 71795 m3 of Rough Stone for an ultimate depth of 45m**		
1.	**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 required statutory personnel, appropriate environmental management, system of maintaining the haul roads and village/panchayat roads, authorized blasting operation, Monitoring system of the environmental & other statutory compliances & its reporting status, etc. The PP shall submit the following details in the form of an Affidavit during the EIA appraisal:** **i. Copy of the agreement forming CMC.** **ii. The Organisation chart of the Committee with defining the role of the members** **iii. The 'Standard Operating Procedures' (SoP) executing the planned activities.**	Environmental Management Cell of projects in the cluster will act as a Cluster Management Committee. The various activities to be undertaken by this committee are detailed in para 10.2.2, Chapter – X. • Affidavit in this regard will be submitted during EIA appraisal.	**10-3**
2.	**The proponent shall obtain NOC from the Competent Authority under the provisions of the Central Electricity Authority Notification No. CEA-PS-16/1/2021-CEI Division dt 08.07.2023.**	• Safety distance provided as per statutes & point noted	**-**
3.	**Since the Periyar Main Canal is situated at 410 m and the Vaigai river flows at 800 m from the lease boundary, the PP shall carry out the scientific studies to assess the hydrogeological condition of the quarry to determine impacts of the mining operation on the ground water conditions in the waterbodies, by involving any one of the following 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, University of Madras – Dept of Geology, and Anna University Chennai-Dept of Geology, CEG Campus and submit the same along with EIA Report. Based on the study report, the Committee**	• There are no perinnial water courses near the lease area. Periyar main canal is located 410m & Vaigai river is located 800m from the lease area. • No impact on these water bodies are expected due to the following: ✓ Mining operation will be at higher elevation. ✓ There will be no intersection of water table or generation or discharge of effluent outside the lease.	**3-43**

	would decide whether the depth should be restricted.	• Adoption of various mitigative measures as explained in the report will be implemented and it will be ensured that there are no impact on the surrounding water environ.. • The ultimate pit depth of mining is 45m. Besides, the leases are small mound at higher elevation when compared to the general floor level of +200m to +210m RL on the southern side. • The ground water table in this area is below this level. Hence, ground water intersection in not envisaged and ground water will not be affected appreciably due to the quarrying operation.	
4.	**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**	Details of the features produced within 500m radius are provided in Figure 2.2, Chapter-II.	**2.16**
5.	**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.**	This being a Government tender project, these activities will be carried out immediately after execution of lease.	**7-7**
6.	**The Proponent shall carry out Bio diversity study as a part of EIA study and the same shall be included in the Report.**	• Part of the lease area is mined out with rock exposure and the remaining land is free from major vegetation and consists of thorny prosophis bushes and shrubs only. Study area depicts varying land use comprising scrubby hills on the North east, South west and South east side with intervening plains. Dominant agricultural activities are observed in part of plains proximate to the available irrigation source alongside Vaigai river and periyar canal. Crops like Rice, vegetables, watermelon, ground nut, banana etc. are cultivated in the lands with better water source & favaorable soil condition. Soil near the hilly areas are of loamy type which hardens on drying and as such affects germination due to which vegetation is poor. Bio diversity study details	

		are provided in **Para 3.5, Chapter-III**.	
7.	**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.**	EMP is prepared for the entire life of the mine. Affidavit will be provided along with the final EIA/ EMP report.	**--**
8.	**Since the quarry has attained the depth of 30 m, the PP shall prepare a conceptual working plan accommodating the inclusion of haul road accessibility keeping the benches intact, by analysing the slope stability of the working benches to be constructed and existing quarry wall for the safety of the persons employed in the mine. Hence, the PP shall carry out the scientific studies to assess the slope stability of the working benches 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.**		
2.	**SEAC Standard Conditions**		
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:** **a) Original pit dimension** **b) Quantity achieved Vs EC Approved Quantity** **c) Balance Quantity as per Mineable Reserve calculated.** **d) Mined out Depth as on date Vs EC Permitted depth** **e) Details of illegal/illicit mining** **f) Violation in the quarry during the past working.** **g) Quantity of material mined out outside the mine lease area** **h) Condition of Safety zone/benches** **i) Revised/Modified Mining Plan showing the benches of not exceeding 6 m height and ultimate depth of not exceeding 50m.**	This is a fresh lease area. In part of the lease area of Thiru K.Nagamuthukumar Mining operations were already carried out by the previous lessee and the existing mine pit dimensions are 64m x 26m x 30m.	**2-24**
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.**	Letter from VAO is obtained and given as Annexure – 3B.	**A-10**
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**	Details of the features produced within 500m radius are provided in Figure 2.3, Chapter-II.	**2-13**

	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.		
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.**	Hydrogeological Study is detailed under Section 3.6, Chapter-III.	**3-39**
5	**The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.**	A detailed study of flora and fauna composition in the core and buffer zone of the project has been made through primary field surveys. The details are furnished in para 3.5, Chapter III.	**3-33**
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.**	Kadavakurichi RF-250m-NE and Vettilaippatti RF ,Mettuppatti RF, VikkiramangalamRF, Uttappanaya kkanur RF, Valaiyapatti RF,Rajadani RF, Mankaradu Block RF are located more than 5km from the lease area. There area no Protected Areas, Sanctuaries, Tiger reserve etc., within 10km Radius.	**3-2**
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.**	This is a Government tender project. In part of the lease area of Thiru K.Nagamuthukumar Mining operations were already carried out by the previous lessee and the existing mine pit dimensions are 64m x 26m x 30m.	**2-24**
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.**	Pit slope stability plan has been provided under Section 7.7, Chapter-VII	**7-7**
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**	Will be submitted along with the final report	**--**

	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 rock travel beyond 30 m from the blast site.**	Controlled blasting will be adopted in this project and details of the same has been provided in Section 4.4.2, Chapter-IV	**4-14**
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.**	Agreed	**--**
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,**	This is a Government tender project. In part of the lease area of Thiru K.Nagamuthukumar Mining operations were already carried out by the previous lessee and the existing mine pit dimensions are 64m x 26m x 30m.	**2-18**
13	**What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?**	Replied above in point no.12	**--**
14	**Quantity of minerals mined out.** **•Highest production achieved in any one year** **•Detail of approved depth of mining.** **•Actual depth of the mining achieved earlier.** **•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.**	Replied above in point no.12	**--**
15	**All comer 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).**	• Satellite imagery with corner coordinates of the project area is provided in Figure 2.5, Chapter-II. • Toposheet of the lease area and buffer zone is provided in Figure 3.1, Chapter-III. • Geology, Geomorphology map of the lease area and buffer zone is provided in Figure 3.18 and 22, Chapter-III.	**2-5** **3-2** **3-44**
16	**The PP shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,**	Agreed	**--**
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**	Site photographs have been provided in Chapter-II. This being a Government tender project fencing and plantation will be carried out immediately after execution of lease.	**2-8**

	plan.		
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 and mineable reserves are provided in Table 2.5, Chapter-II. • The production schedule during the plan period is provided in Table 2.8, Chapter-II. • The working methodology is detailed under Section 2.8, Chapter-II. • Anticipated impacts of mining operations on surrounding environment is provided under Chapter-IV.	**2-17** **2-19** **2-18** **4-1**
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 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.**	• The organization chart is provided as Figure No.10.1, Chapter-X.	**10-1**
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.**	Hydrogeological Study is detailed under Section 3.6, Chapter-III.	**3-42**
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 baseline data on micro- meteorology, ambient air quality, Water quality, noise level, soil and flora & fauna are collected during Postmonsoon Season (October – December 2024) and detailed in Section 3.3 to 3.5 of Chapter-III. The details of Traffic Study is provided under Section 4.9, Chapter-IV.	**3-14**
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 air pollution, water pollution, & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.**	• The details of the quarries located within the 500m radius of the project is given vide Annexure-4B. • A cumulative impact study has been carried out and furnished in Para 7.6, Chapter-VII. • Environmental Management Plan is provided under Chapter-X.	**A-19** **7-5** **10-1**

23	**Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.**	• The rain water falling in the quarries will be harvested in the sump at the lowest level of the respective quarry. This sump will act as a settling pond to prevent solids escaping along with discharge, before outlet. etc. • Towards surface runoff management, garland drain will be constructed which will be connected to settling ponds with silt traps. • Water requirement for this project is 8 KLD. The required water will be procured initially from outside agencies. Later Rain water harvested in the mine sump can also be used.	**4-8** **4-7**
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.**	• The land use of the study area was studied to demarcate various LULC categories and its details are provided under section 3.4, Chapter-III. • The land use pattern at present and at the end of the quarrying period has been provided under section 4.5.1, Chapter-IV. • The post mining land use has been provided in Table No. 4.15.	**3-31** **4-16**
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.**	There is no waste generation anticipated in this quarry. As such there are no OB dumps involved. Top soil to be generated from this lease will be used for plantation, peripheral bund creation etc.	**--**
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.**	Not applicable	**--**
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 rain water falling in the quarry will be harvested in the sump at the lowest level of the quarry. This sump will act as a settling pond to prevent solids escaping along with discharge, before outlet. etc. • Towards surface runoff management, garland drain will be constructed around the quarry and will be connected to a settling pond with silt traps. The supernatant clear	**4-8**

		water from the settling pond will be flow to the downstream users. The surface runoff management structures diagram is given in Figure No 4.4, Chapter-IV. • Details of rainwater harvesting are provided under Section 4.3.4.2, Chapter-IV.	
28	**Impact on local transport infrastructure due to the Project should be indicated.**	• From this proposed quarry the entire output will be transported to the crusher units for producing stone aggregates of different sizes or construction of roads, bridges, buildings and other buyers etc. • About 3 trips per hour of transport is envisaged. The existing road can absorb this traffic due to this project. The details of various mitigative measures towards logistical system is elaborated under Section 4.9, Chapter-IV.	**4-30**
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.**	An ecological survey of the study area was conducted with reference to listing of species and assessment of the existing baseline ecological conditions. Details are provided under section 3.5.1, Chapter-III.	**3-33**
30	**A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.**	Details of Mine Closure Plan is provided under section 7.5, Chapter-VII.	**7-4**
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.**	An ecological survey of the study area was conducted with reference to listing of species and assessment of the existing baseline ecological conditions. Details are provided under section 3.5.1, Chapter-III.	**3-33**
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.**	Agreed	**--**
33	**Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly 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**	Agreed	**--**

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.**	The disaster management plan has been provided under section 7.3.1, Chapter-VII.	**7-3**
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.**	Various risks likely to arise due to mining activities are detailed under section 7.3, Chapter-VII.	**7-2**
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.**	Details of occupational health and safety aspects are given under the subsections of Para 4.8, Chapter-IV.	**4-21**
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.**	• Details of the socio-economic survey conducted in the buffer zone has been provided in Para 3.2.4, Chapter-III. • Public health facilities will be further aimed to be developed through CER activities wherein health checkups, medical camps for the locals will be conducted.	**3-8**
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.**	Nearby villages were visited for conducting study to know about socio-economic conditions, including aspirations and requirements of the people for a better living and collected relevant data. The details are provided under section 3.2.4, Chapter-III.	**3-8**
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.**	W.P.(MD).No.28568 of 2024 & W.M.P(MD) No.24227 of 2024 filed Before the Madurai Bench of Madras High Court regarding road approach was disposed on 02.12.2024. W.P.(MD).No.28525 of 2024 & W.M.P(MD) No.24196 of 2024 filed Before the Madurai Bench of Madras High Court was also disposed on 25.03.2025. There is no litigation pending against the project now.	**--**
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.**	• The Roughstone Quarry will benefit this region in the fields of employment opportunities, improved per capita income for local people, improved social welfare facilities in respect of education, health, infrastructural etc. • Direct employment to about 19 people and	**8-1**

		indirect employment to scores of people. • By means of carrying out the socio-economic development activities, local community development is expected. Towards the same, the proponent has planned to allocate Rs.5 Lakhs for various activities under CER for all the three projects together. From the CER activities allocated for various social welfare activities, the villages near the lease area will be benefited.	
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.**	• This is government tender project. In part of the lease area of Thiru K.Nagamuthukumar Mining operations were already carried out by the previous lessee and the existing mine pit dimensions are 64m x 26m x 30m.	**2-24**
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.**	EMP is prepared for the entire life of the mine. Affidavit will be provided along with the final EIA/ EMP report.	**--**
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.**	Agreed	**--**
4. SEIAA Standard Conditions			
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.**	Details of the cluster management committee is provided under Section 10.2.2, Chapter-X.	**10-4**
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.,**	Agreed	**-**
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	**-**
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	**-**
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**	Agreed	**-**

	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.**	Agreed	**-**
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	**-**
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.**	Agreed	**-**
Agriculture & Agro-Biodiversity			
9	**Impact on surrounding agricultural fields around the proposed mining Area.**	Study area depicts varying land use comprising scrubby hills on the North east, South west and South east side with intervening plains. Dominant agricultural activities are observed in part of plains proximate to the available irrigation source alongside Vaigai river and periyar canal. Crops like Rice, vegetables, watermelon, ground nut, banana etc. are cultivated in the lands with better water source & favaorable soil condition. Soil near the hilly areas are of loamy type which hardens on drying and as such affects germination due to which vegetation is poor. By adoption of systematic mining adhering to all the environmental mitigation measures as explained earlier, no adverse impact on the far away agricultural or surrounding environs envisaged.	**4-24**
10	**Impact on soil flora & vegetation around the project site.**	The impact of mining on biological environment is provided under Table 4.15, Chapter-IV.	**4-24**
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 committed mentioned in EMP.**	The details of flora in the core zone is provided in Table 3.24, Chapter-III. There is no major clearance of vegetation or transplantation involved.	**3-35**

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.**	An ecological survey of the study area was conducted with reference to listing of species and assessment of the existing baseline ecological conditions. Details are provided under Section 3.5.1, Chapter-III.	**3-35**
13	**Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.**	The post mining land use has been provided in Table No. 4.14.	**4-16**
14	**The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.**	Replied in sl no 13 above.	**-**
Forests			
15	**The project proponent shall detailed study on impact of mining on Reserve forests free ranging wildlife.**	The nearest reserve Kadavakurichi RF which is located at a distance of 250m (NE). With strict implementation of various mitigatie measures like dust suppression, etc no adverse impact on the surrounding environs is expected. Besides, it is also proposed to construct 12 to 15 ft tall green net mesh fencing all around the lease area to prevent propogation of dust if any. As such no adverse impact is envisaged on this forest due to mining operations.	**3-3**
16	**The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.**	An ecological survey of the study area was conducted with reference to listing of species and assessment of the existing baseline ecological conditions. Details are provided under Section 3.5.1, Chapter-III.	**3-35**
17	**The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection.**	Part of the lease area contains exposed rock pit and the remaining part contains thorny bushes and shrubs only. No major vegetations are observed.	**--**
18	**The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks. Corridors and Wildlife pathways. near project site.**	There are no national parks or corridors in the 10k radius. There are no reserve forest in the proximity of the lease area	**3-2**
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.**	Details of hydrogeological scenario of this project is provided under section 3.6, Chapter-III.	**3-42**

	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**	• Since the entire material from the quarry face will be directly dispatched to the consumers, there will not be any stockpiles. There are no waste dumps in this quarry. As such there will not be any wash out due to stock pile or waste dumps. • Towards surface runoff management, garland drain will be constructed around the quarry and will be connected to a settling pond with silt traps.	**4-8**
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 proposal to discharge any effluent into either of these water bodies. No major impact is envisaged on the nearby water bodies due to project operations.	**-**
22	**The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.**	There is no major perennial waterbody in close proximity of the lease area.	**3-3**
23	**The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.**	The post mining land use has been provided in Table No. 4.14.	**4-22**
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.**	An ecological survey of the study area was conducted with reference to listing of species and assessment of the existing baseline ecological conditions. Details are provided under Section 3.5.1, Chapter-III. There are no caves, heritage site, and archaeological sites in the study area.	**3-34**
25	**The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.**	Soil samples were collected in 5 locations in the core and buffer zone to analyse the physiochemical characteristics of the soil in the area. The soil quality data is provided in Table No.3.18, Chapter-III.	**3-27**
26	**The Environmental Impact Assessment should study on wetlands, water bodies, rivers steams, lakes and farmer sites.**	• The nearest major water bodies is provided in Table No.3.1, Chapter-III. • There are no perineal water courses in both the lease areas.. Periyar main canal is located 410m & Vaigai river is located 800m	**3-2**

		from the lease area • No impact on these water bodies are expected due to the following: ✓ Mining operation will be at higher elevation. ✓ There will be no intersection of water table or generation or discharge of effluent outside the lease. • Adoption of various mitigative measures as explained in the report will be implemented and it will be ensured that there are no impact on the surrounding water environ.	
27	**The EIA shall include the impact of mining activity on the following:** **a) Hydrothermal/Geothermal effect due to destruction in the Environment.** **b) Bio-geochemical processes and its foot prints including environmental stress.** **c) Sediment geochemistry in the surface streams.**	The details of the same is provided in Table 4.20, Chapter-IV.	**4-23**
Energy			
28	**The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilize the Energy shall be furnished.**	The dust control measures are listed under Table 4.1, Water pollution control measures under Section 4.3.2, and noise pollution control measures under Section 4.4.1.2, Chapter-IV. Besides, energy consumption in this project will be optimum and as per requirement.	**4-2**
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.**	Certified vehicles with low carbon emissions will only be used. These equipments will be properly and regularly maintained. Besides, regular vehicular emission tests will be done for the transport vehicles to ensure minimal impact due to carbon emissions. To further mediate the carbon emissions, a good greenbelt and plantation plan has been planned.	**4-3**
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.**	Production from this lease is very less and as such the magnitude of operation and no of equipment's to be used is less. No impact on these front is envisaged.	

31	**Impact of mining on pollution leading to GHGs emissions and the impact of the same on the local livelihood.**	Replied above	**--**
Mine Closure Plan			
32	**Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued.**	Details of Mine Closure Plan is provided under section 7.6, Chapter-VII.	**7-4**
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 and the scope for achieving SDGs.**	Detailed environmental management plan is provided under Chapter-X.	**10-1**
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.**	Detailed environmental management plan is provided under Chapter-X.	**10-1**
Risk Assessment			
35	**To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.**	Various risks likely to arise due to mining activities are detailed under Section 7.3, Chapter-VII.	**7-2**
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.**	The disaster management plan has been provided under Section 7.4.1, Chapter-VII.	**7-3**
Others			
37	**The project proponent shall fumish 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.**	VAO Letter has been provided as Annexure-3B	**A-15**
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 all the activities proposed shall be part of the Environment Management plan.**	Will be provided in the Final EIA/EMP Report after completion of public hearing.	**--**

39	**The project proponent shall study and fumish 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.**	Single use plastics/ use and throwaway plastics will be banned in the site as directed by the Tamil Nadu Government vide GO(Ms)No.84 regarding ban on use of plastic products. The employees will be encouraged to use compostable material or reusable material.	**4-24**
A.	**Standard ToR**		
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.**	This is a fresh lease area. No mining has been carried out in this lease area so far by the proponent.	**2-11**
2	**A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given**	Precise Area Communication letter received from the Assistant Director, Dep. of Geology & Mining, Dindigul vide Rc.No.25/Mines/2024 dated 09.02.2024 **(Annexure-1B)**	**A-3**
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.**	The production capacity, quantity of waste, its management and mining technology in mine plan and EIA, etc., are compatible with one another.	**--**
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).**	• Project coordinates superimposed in satellite imagery and given as Figure No - 2.4 in Chapter – II. • The geology and geomorphology map is provided in Figure No.3.18, 3.19, Chapter-III. The Lithology map and Soil map are provided under Figure No. 3.20, Chapter-III. The 10km Radius Index plan showing buffer zone is given in Figure No.3.1 in Chapter – III.	**2-6** **3-43** **3-2**
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.**	Replied in Standard ToR point no.4	**--**
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.**	Not Applicable	**--**
7	**It should be clearly stated whether the proponent Company has a well laid down Environment Policy**	• The proponent will frame a well-planned environmental policy. Its details are	**10-2**

	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.	provided under Section 10.2.1, Chapter-X. The Mines Manager will undertake effective monitoring and implementation of various environmental control measures promptly and effectively and to oversee various environmental management schemes for air quality control, water quality status, noise level control, plantation programme, social development schemes, etc in the mine. The organizational chart for the same has been provided in Figure No.10.1, Chapter-X.	**10-3**
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.**	Various risks likely to arise due to mining activities are detailed under section 7.3, Chapter-VII. This being an opencast mine, subsidence is not applicable. The impact due to ground vibrations due to blasting is given in para 4.3.2, Chapter-IV.	**7-1** **4-8**
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.**	The study area chosen for collecting existing environmental status covers 10 km radial distance from the project periphery (Figure No - 3.1). Data given in the report is for the life of the mine.	**3-2**
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.**	• The land use of the study area was studied to demarcate various LULC categories and its details are provided under section 3.4, Chapter-III. • The land use pattern at present and at the end of the quarrying period has been provided under section 4.5, Chapter-IV. At the end of the lease period, 1.626 Ha will be left as a water body. Plantation will be carried out over 0.334 Ha, Infrastructure 0.02.0 ha and 0.02Ha will be left as road.	**3-27** **4-24**
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.**	There is no waste generation anticipated in this quarry operation since the entire excavated material will be utilized. Hence, there is no external overburden dump involved. Besides, there is no proposal for overburden dump outside the lease area.	**2-12**
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**	There is no forest land in the lease area.	**--**

	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.**	There is no forest land in the lease area.	**--**
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	**--**
15	**The vegetation in the RF / PF areas in the study area, with necessary details, should be given.**	• There is no forest land in the lease area.	**--**
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.**	• The mining lease area and the 10 km buffer zone from the periphery of the core zone is devoid of declared ecologically sensitive features like national parks, biospheres, sanctuaries, etc.	**3-2**
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.**	• Replied in Standard ToR point No.16	**--**
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**	• A detailed study of flora and fauna composition in the core and buffer zone of the project has been made through primary field surveys. The details are furnished in para 3.5, Chapter III.	**3-33**

	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.**	• Not Applicable	**--**
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).**	• Not Applicable	**--**
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 he undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoml 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 shilling of village(s) including their R&R and socio-economic aspects should be discussed in the Report.**	• The mining activities will be carried out within the mine lease area only. The entire mine lease area is a patta land in proponent's possession. There is no population within the ML area. Hence, the question of R& R does not arise.	**7-4**
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**	• The baseline data on micro- meteorology, ambient air quality, Water quality, noise level, soil and flora & fauna are collected during post monsoon Season (october to December 2024) and detailed in para 3.3 to 3.5 of Chapter-III. • Monitoring stations were selected taking into account, wind direction and location of sensitive receptors. • Free silica composition in PM10 sample has been done and the values are found to be Below Detectable Limit (DL 0.05mg/m3) which is well within the prescribed limit of 5mg/m3.	**3-9** **3-19**

	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.**	• Air quality modeling details are furnished in para 4.2.2 and its continuous sub paras in Chapter-IV of EIA report. • The impact on air quality due to the proposed project is estimated using AERMOD View Gaussian Plume Air Dispersion Model developed by Lakes Environmental Software which is based on steady state Gaussian plume dispersion. • The model simulations are done for the air pollutant arising from the mining operations, namely, PM10, PM2.5. Ground Level Concentration (GLC) have been computed using hourly meteorological data. • The Isopleths of PM10, PM2.5 concentrations for with control measures scenario have also been drawn and these are given in Figure No.4.1 and 4.2. • It can be seen that for Thiru **Nagamuthukumar project** , the resultant added concentrations with baseline figures with respect to PM10 is in the range of 53.8 μg/m3 to 82.0 μg/m3 and with respect to PM2.5 are in the range of 29.9μg/m3 to 39.4μg/m3 which are within the stipulated statutory limits. • On cumulative basis also, the post project concentration with respect to PM10 is in the range of 53.8 μg/m3 to 83.0 μg/m3 and with respect to PM2.5 are in the range of 29.9μg/m3 to 39.8 μg/m3 which are within the statutory limits in each case.	**4-3** **4-5 & 4-6**
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.**	• The total water requirement for this project will be 8.0 KLD comprising 1.0 KLD for drinking water and domestic use, 5.0 KLD for dust suppression and 2.0 KLD for greenbelt. The water will be sourced initially from outside agencies. Later the rainwater collected in the mine pit sump will be used for this purpose. The water balance diagram for the same is shown in Figure No 4.7.	**4-13**
25	**Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.**	• Not Applicable.	**--**

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.**	• The rain water falling in the quarry will be harvested in the sump at the lowest level of the quarry. This sump will act as a settling pond to prevent solids escaping along with discharge, before outlet. etc. • Towards surface runoff management, a garland drain will be constructed around the quarry and will be connected to a settling pond with silt traps. The supernatant clear water from the settling pond will be flow to the downstream users. The surface runoff management structures diagram is given in Figure No 4.4, Chapter-IV. • The methods for reducing water consumption and rainwater harvesting is provided in section 4.3.4, Chapter-IV.	**4-9**
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.**	• There are no perinnial water courses near the lease area. Periyar main canal is located 410m & Vaigai river is located 800m from the lease area. • No impact on these water bodies are expected due to the following: ✓ Mining operation will be at higher elevation. ✓ There will be no intersection of water table or generation or discharge of effluent outside the lease. Adoption of various mitigative measures as explained in the report will be implemented and it will be ensured that there are no impact on the surrounding water environ. • The ultimate pit depth of mining is 45m. The ground water table in this area is below this level. Hence, ground water intersection in not envisaged and ground water will not be affected appreciably due to the quarrying operation..	**4-15**
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**	• The ultimate pit depth of mining is 45m. The ground water table in this area is below this level. Hence, ground water intersection in not envisaged and ground water will not be affected appreciably due to the quarrying operation. Details of hydro geological study are given in Para 3.6, Chapter – III.	**4-15**

	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.**	• Replied above in Standard ToR point No.27.	**--**
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.**	• The area gentle sloping towards Southwestern side of the area, the altitude of the area is above 249m above MSL.. The ultimate pit depth of mining is 45m. The ground water table in this area is below this level. Hence, ground water intersection in not envisaged and ground water will not be affected appreciably due to the quarrying operation.	**2-2** **2-13**
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. Phasc-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.**	• In the lease area, safety barrier 7.5m & 10m around the periphery safety zone. Greenbelt / Plantation will be carried out to enhance the vegetative growth and aesthetic in the safety zone area. About 1000 trees will be planted in and around the lease area. Details of the same is provided under Table No.4.22, Chapter-IV.	**4-20**
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.**	• From this proposed quarry the entire output will be transported to the crusher units for producing stone aggregates of different sizes or construction of roads, bridges, buildings and other buyers etc. Details of the traffic study is provided under section 4.9, Chapter-IV.	**4-30**
33	**Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.**	• This being a Government tender project. Site services like mine office, first aid room, rest shelters, toilets etc. will be provided as semi-permanent structures.	**2-15**

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.**	• At the end of the lease period, 1.626 Ha will be left as a water body. Plantation will be carried out over 0.334 Ha, Infrastructure 0.02.0 ha and 0.02Ha will be left as road. The post mining land use plan showing afforestation and water body is shown in Figure No- 4.5.	**4-22**
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**	• Details of occupational health and safety aspects are given under the subsections of Para 4.8, Chapter-IV.	**4-29**
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**	• Details of the socio economic survey conducted in the buffer zone has been provided in Para 3.2.4, Chapter-III. • Public health facilities will be further aimed to be developed through CER activities wherein health checkups, medical camps for the locals will be conducted.	**3-8**
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.**	• Towards the socio-economic development of the surrounding area, the proponent has earmarked an amount of Rs.5 Lakhs under Corporate Environmental Responsibility. The activities identified under CER will be implemented in a phased manner in the nearby Government schools. In consultation with the locals based on the need & priority it will be implemented. Its details are provided in Para 4.7, Chapter-IV	**4-22**
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.**	• Detailed Environmental Management plan and its implementation, etc., are furnished in Chapter X.	**10-1**
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.**	This draft EIA/EMP report will be exposed to public consultation as per mandatory procedures through the District Collector and State Pollution Control Board officials after giving 30 days advance notice in two local newspapers about the scheduled date and time for conduct of the public hearing procedures.	**7-1**

		• The opinions, concerns and objections of stakeholders will be recorded during the public hearing. All the public queries and the replies to the query by the project proponent and officials concerned will be recorded and incorporated in the EIA/EMP report for approval by SEIAA, Tamil Nadu.	
40	**Details of litigation pending against the project, if any, with direction /order paced by any Court of Law against the Project should be given.**	W.P.(MD).No.28568 of 2024 & W.M.P(MD) No.24227 of 2024 filed Before the Madurai Bench of Madras High Court regarding road approach was disposed on 02.12.2024. W.P.(MD).No.28525 of 2024 & W.M.P(MD) No.24196 of 2024 filed Before the Madurai Bench of Madras High Court regarding road approach was disposed on 25.03.2025. • There is no litigation pending against the project now.	--
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.**	• The cost of the project is Rs. Rs.149.95 Lakhs • Towards EMP measures, Rs.19.34 Lakhs is allocated under capital cost. Besides, Rs.18.95 Lakhs per annum will be spent under recurring cost. All the recurring cost of maintenance of pollution control measures, environmental monitoring etc., will be met from revenue.	**4-21** **10-14**
42	**A Disaster management Plan shall be prepared and included in the EIA/EMP Report.**	• The disaster management plan has been provided under section 7.3.1, Chapter-VII.	**7-3**
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.**	• The proposed Rough Stone Quarry will benefit this region in the fields of employment opportunities, improved per capita income for local people, improved social welfare facilities in respect of education, health, infrastructural etc. • Direct employment to 19 people and indirect employment to scores of people. • By means of carrying out the socio economic development activities, local community development is expected. Towards the same, the proponent has planned to allocate Rs. 5 Lakhs for various activities under CER. From the CER activities allocated for various social welfare activities, the villages near the lease area will be benefited.	**8-1**

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CHAPTER - I

INTRODUCTION

CHAPTER 1

INTRODUCTION

1.1 PURPOSE OF THE REPORT:

Thiru B.Selvam and Thiru K.Nagamuthukumar propose to operate their respective Rough Stone Quarry in the same Sivanganapuram Village, Nilakottai Taluk, Dindigul District and have initiated action towards obtaining environmental clearance. Its details are as follows:

1) **Roughstone Quarry of Thiru B.Selvam** over an area of 1.62Ha in S.F.No.263/1(Part-3) of Sivanganapuram Village, Nilakottai Taluk, Dindigul District.
2) **Roughstone Quarry of Thiru K.Nagamuthukumar** over an extent of 2.00 Ha at SF.No. 263/1 (Part-2) of Sivanganapuram Village, Nilakottai Taluk, Dindigul District.

The lease area is a Government land leased through Tender cum Auction for a period of 5 years. Although the individual lease area of each project is less than 5 Ha, the other existing and proposed quarries within the 500m radius cluster along with this subject project works out to >5 Ha. Hence, this proposal is considered under Category – B1 and as per MoEF & CC notification necessitates preparation of EIA/EMP report and public hearing.

As such this combined draft EIA report with separate EMP measures is prepared for the above two mentioned projects based on standard and additional Terms of Reference issued by SEIAA, Tamil Nadu and is in conformance of the generic structure prescribed by MOEF&CC in their notification of September 2006 and the approved mining plan.

1.2 IDENTIFICATION OF PROJECT & PROJECT PROPONENT:

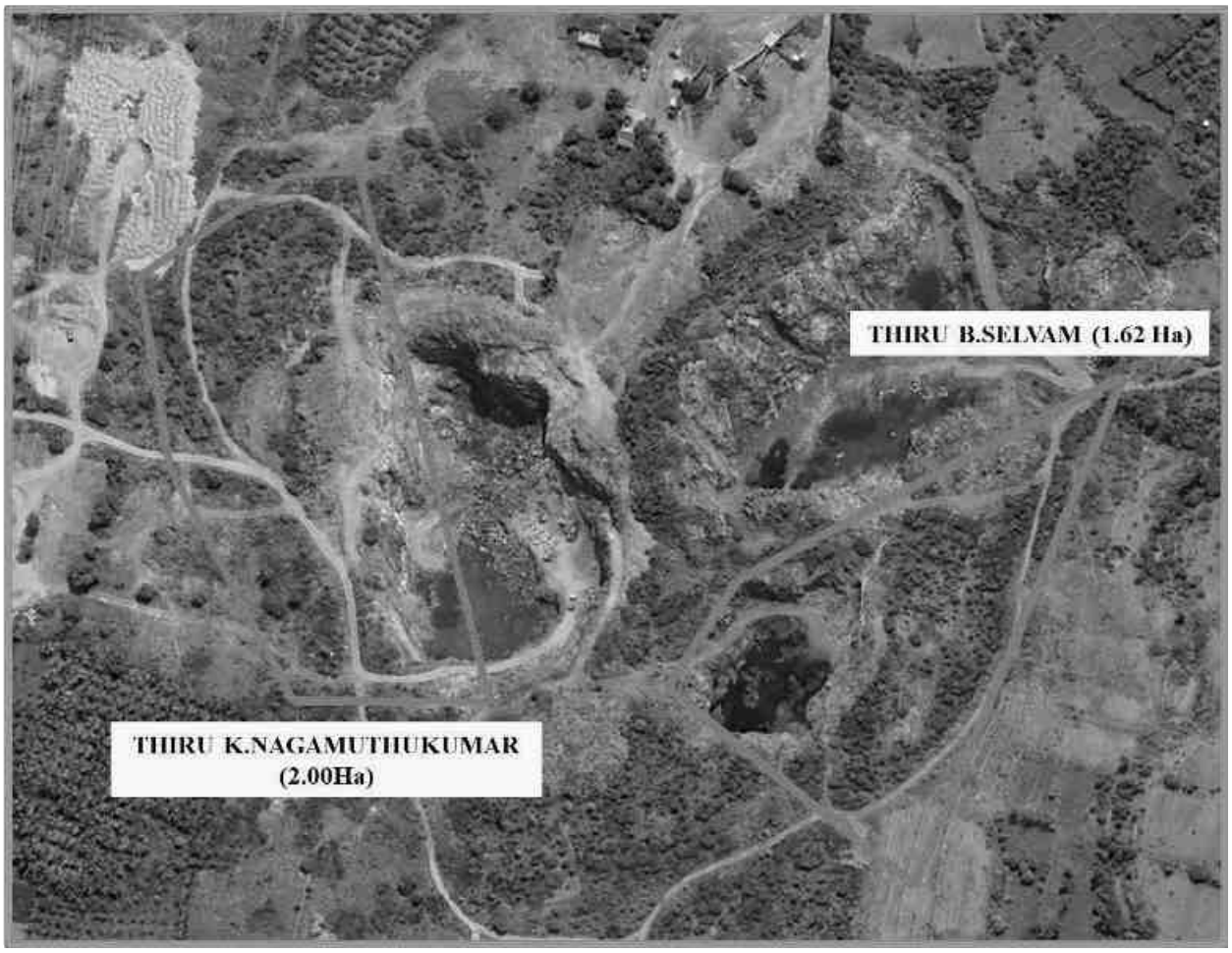
1.2.1 IDENTIFICATION OF THE PROJECT:

Table 1.1: Details of the project

Project Name	Survey No.	Area	Land Type
Roughstone Quarry of Thiru B.Selvam	S.F.No.263/1(Part-3)	1.62 Ha	Government Land
Roughstone Quarry of Thiru K.Nagamuthukumar	S.F.No.263/1(Part-2)	2.00 Ha	Government Land

Site vicinity map has been described in Figure 1.1. The rough stone will be excavated and loaded into tipper to the required buyers for producing crusher aggregates, M Sand.

Figure 1.1: Site Vicinity Map



Source: Google Earth

Table 1.2 Identification of project

Project Name	Roughstone Quarry of Thiru B.Selvam	Roughstone Quarry of Thiru K.Nagamuthukumar
Extent	1.62 Ha	2.00 Ha
Total Production	Roughstone – 1,52,604m3 Topsoil – 7191m3 for 5 years	Roughstone – 3,30,453m3 Topsoil – 15,089m3 for 5 years
Peak Production	Annual peak production capacity of 42,550m3 of Roughstone	Annual peak production capacity of 71795m3 of Rroughstone
Ultimate Depth	33m	45m

Source: Approved Mining Plan

Table 1.3:Statutory Clearances – Thiru B.Selvam

Name	Issuing Authority	Status	Letter number	Date	Reference
Precise Area Communication	Department of Geology & Mining	Received	Rc.No.26/Mines/2024	09.02.2024	**Annexure-1A**
Revised Mining Plan Approval	Deputy Director, Geology & Mining	Approved	Rc.No.26/Mines/2024	10.02.2025	**Annexure-2A**
VAO Letter	VAO	Obtained	--	--	**Annexure-3A**
Details of quarry within 500m radius	Deputy Director, Geology & Mining	Approved	Rc.No.25/ 2024(Mines)	24.04.2024	**Annexure-4A**

Table 1.4: Statutory Clearances – Thiru B.Nagamuthukumar

Name	Issuing Authority	Status	Letter number	Date	Reference
Precise Area Communication	Department of Geology & Mining	Received	Rc.No.25/Mines/2024	09.02.2024	**Annexure-1B**
Mining Plan Approval	Deputy Director, Geology & Mining	Approved	Rc.No.25/Mines/2024	24.04.2024	**Annexure-2B**
VAO Letter	VAO	Obtained	--	--	**Annexure-3B**
Details of quarry within 500m radius	Deputy Director, Geology & Mining	Approved	Rc.No.25/Mines/2024	24.04.2024	**Annexure-4B**

1.2.2 IDENTIFICATION OF THE PROJECT PROPONENT:

Table 1.5: Identification of Project Proponent

Applicant Name	Thiru.B.Selvam	Thiru K.Nagamuthukumar
Address	No.2/56, Main Road, Vengadasthirikottai Kombaipatti, Batlagundu, Dindigul District.	No.159/2, South Street, Ayyankottai, Ayyampalayam, Pattiveeranpatti, Dindigul
Contact Number	9944279739	7598194232
Email-ID	selvambose2011@gmail.com	nagamuthu2692@gmail.com

1.3 BRIEF DESCRIPTION OF NATURE, SIZE, LOCATION & PROJECT IMPORTANCE

Table 1.6: Brief Description of Nature of project

Sector	1(a), Non-Coal Mining
Type	Brown field Project
Category	B1
Mineral to be mined	Roughstone
Major/Minor Mineral	Minor
Mining Method	Opencast semi mechanized method of mining with jackhammer drilling, blasting, excavator, transportation by tippers.

Table 1.7: Location of the project

S.No	Particulars	Thiru.B.Selvam	Thiru K.Nagamuthukumar
1	Corner Coordinates	Latitude : 10°07'16.06" N to 10°07'23.83" N Longitude: 77°47'45.69" E to 77°47'52.88" E	Latitude : 10°07'18.81" N to 10°07'27.15" N Longitude : 77°47'37.37" E to 77°47'43.92" E
2	Toposheet Number	58 -F/16	58 -F/16
3.	Survey No.	263/1 (Part-3)	263/1 (Part-2)

Location details are elaborated in Para **2.3, Chapter-II.**

1.3.1 IMPORTANCE TO THE COUNTRY AND REGION:

Rough stone from these quarries will meet the domestic demand. The production and method of mining is planned considering the geological factors, availability of proven technology, demand for the material etc. Safety barriers as per State Government order is left in the planning stage itself. Systematic and scientific mining will be carried out. This project will provide employment opportunities to many people. The proponent will carry out CER activities which will help the surrounding villages to derive socio economic benefits. The activities will be customized based on local needs and prioritized. Hence, livelihood development and employment will arise due to this project.

1.4 SCOPE OF THE STUDY:

Particulars	Thiru.B.Selvam	Thiru K.Nagamuthukumar
Proposal no	SIA/TN/MIN/480851/2024 dated 29.06.2024	SIA/TN/MIN/497973/2024 dated 30.09.2024
File no	11037	11301
Terms of Reference	TO24B0108TN5717609N dated 29.11.2024	TO24B0108TN5823311N dated 29.11.2024
Baseline Data Collection	Carried out by Creative Engineers & Consultants , Chennai for Post Mnsoon Season (Oct - Dec 2024)	Carried out by Creative Engineers & Consultants , Chennai for Post Mnsoon Season (Oct - Dec 2024)

Based on the terms of reference, data collection, the Environmental Impact Assessment was carried out for the project area (core zone and the buffer zone (10km radius from the core zone) and the following studies were covered:

- Collection of primary and secondary data relevant to the project.

- One-Season baseline monitoring for environmental parameters such as air, water, noise, soil, flora & fauna, etc. Analysis of parameters in in-house laboratory.
- Documentation of EIA/EMP report with inclusion of relevant studies conducted by other bodies into the EIA/EMP report.
- Identification of significant environmental parameters that are prone to get affected due to pollution. Namely, Air, Water, Noise, Soil, Biological and Land Environment.
- Evaluation and determination of suitable mitigation measures to reduce and control the said pollution.
- Prediction of post project concentration (baseline + incremental) with respect to air environment for core zone and buffer zone.
- Formulation of an Environmental Management plan including administrative aspects for proposed implementation of mitigative measures in time.

This draft EIA/EMP report will be submitted for public consultation, as per rules and procedures in this respect, as per the EIA notification 2006. The opinions, concerns and objections, if any, of the surrounding public and other stake holders connected, will be taken into consideration and compliance report thereon will be submitted to SEIAA, Tamil Nadu in the final EIA/EMP report.

* * * * * * * *

CHAPTER - II

PROJECT DESCRIPTION

CHAPTER 2

PROJECT DESCRIPTION

2.1 TYPE OF PROJECT:

This proposal involves 2 separate leases for quarrying of Roughstone by Thiru B.Selvam and Thiru.K.Nagamuthu kumar using mechanized opencast method for the lease period of 5 years in Government land leased through auction route. This report is prepared based on the modified approved mining plan as per TOR requirement of Thiru B.Selvam & approved mining plan and Thiru.K.Nagamuthu kumar respectively.

2.2 NEED & JUSTIFICATION FOR THE PROJECT:

There is a huge demand for construction material and the entire material produced from this quarry will be used in the local construction/ infrastructure sector. Considering the following favorable factors it is practically possible to achieve the proposal within the planned period and this proposal is fully justified.

- Availability of good quality proved reserves
- Techno economic viability of the scheme
- Better approachability to the project, availability of logistic facility in proximity to the site
- Economic and Socio Economic Benefits to the region

2.3 LOCATION:

A brief description of the mining area, along with the location, coordinates, accessibility, etc. has been details below in Table No.2.1.

Table 2.1: Mine site description

Project Name	Roughstone Quarry of Thiru.B.Selvam	Roughstone Quarry of Thiru.K.Nagamuthukumar
Location	Sivanganapuram Village, Nilakottai Taluk, Dindigul District.	Sivanganapuram Village, Nilakottai Taluk, Dindigul District.
Survey No.	S.F.No.263/1(Part-3)	S.F.No.263/1(Part-2)
Coordinates	Latitude : 10°07'16.06" N to 10°07'23.83" N	Latitude : 10°07’18.81” N to 10°07’27.15” N

	Longitude: 77°47'45.69" E to 77°47'52.88" E	Longitude : 77°47’37.37” E to 77°47’43.92” E
Nearest Village	C.Pudur 400 M –(SE) Kulipatti - 600m (W)	C.Pudur540 M –(SE) Kulipatti - 900m (W)
Nearest Town	Batlagundu - 5.5 kms–(NW)	Batlagundu - 6.5 kms–(NW)
Nearest Highway	SH-154 Vattalagundu - Usilampatti - 2.50 km (W).	SH-154 - Vattalagundu - Usilampatti - 2.2Km – (W)
Nearest Railway Station	Kodai Road – 13.7kms- (NE)	Kodai Road - 14kms- (NE)
Nearest Airport	Madurai - 45 kms - (SE)	Madurai – 45 kms - (SE)
Accessibility	The lease area can be approached through Anaipatti road on the southern side of the lease area which joins SH-154 at a distance of 2.5Km on the eastern side of the lease area.	The lease area can be approached through Anaipatti road on the southern side of the lease area which joins SH-154 at a distance of 2.2 Km on the eastern side of the lease area.
Topography	Massive Charnockite formation is clearly visible from the outcrops exposed in to the surface. The area gentle sloping towards Southwestern side of the area, the altitude of the area is above 249m above MSL.	Massive Charnockite formation is clearly visible from the outcrops exposed in to the surface. The area gentle sloping towards Southwestern side of the area, the altitude of the area is above 250m above MSL

Location map is provided in **Figure No.2.1.**The approachability map is provided in **Figure No.2.2.** Corner co-ordinates of the lease area and satellite imagery are shown in **Figure No. 2.3 & 2.4** respectively. Village map for 500m radius from the lease is shown in **Figure No. 2.5.**

Figure 2.1: Location Map

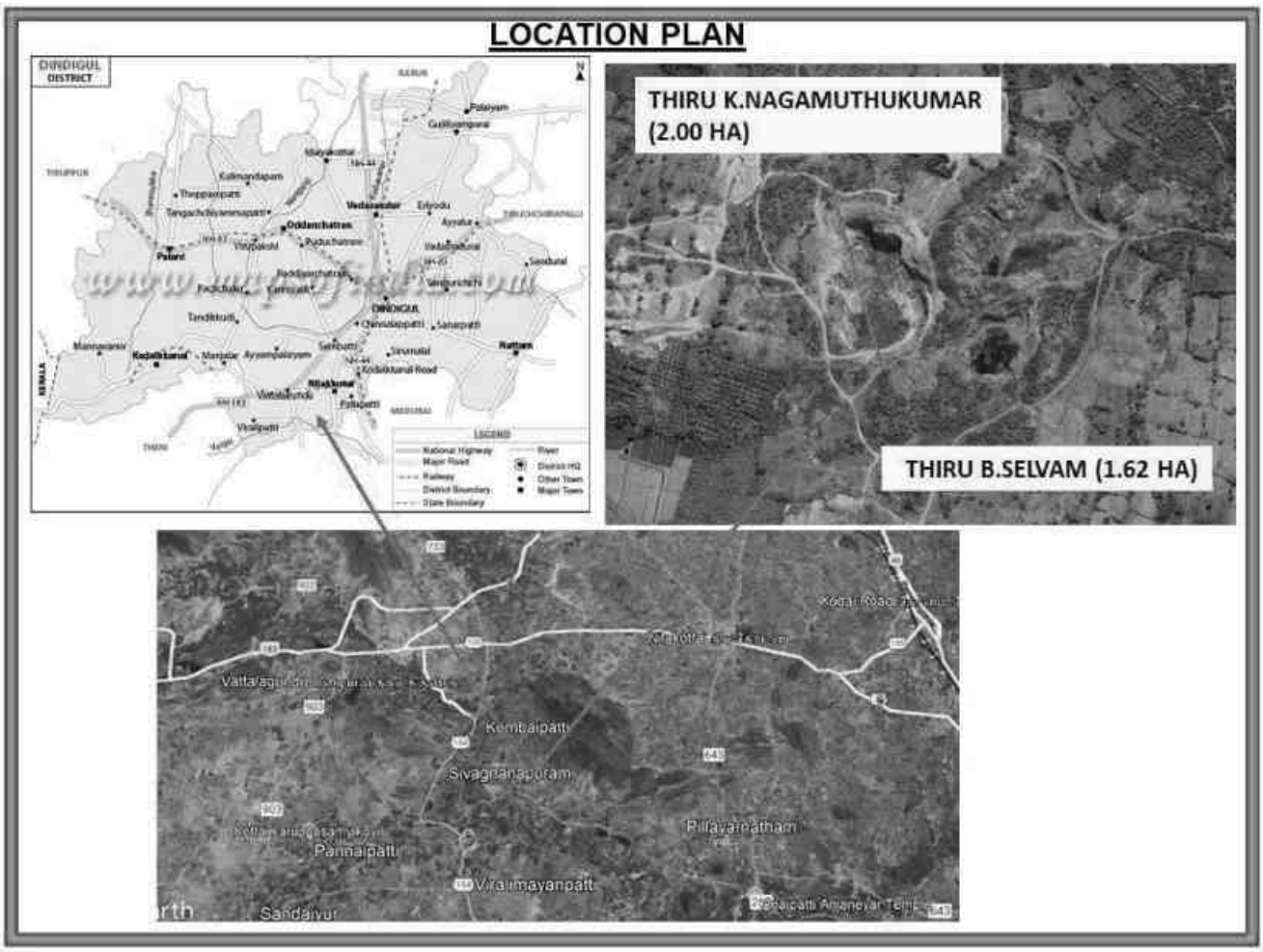


Figure 2.2: Approachability Map

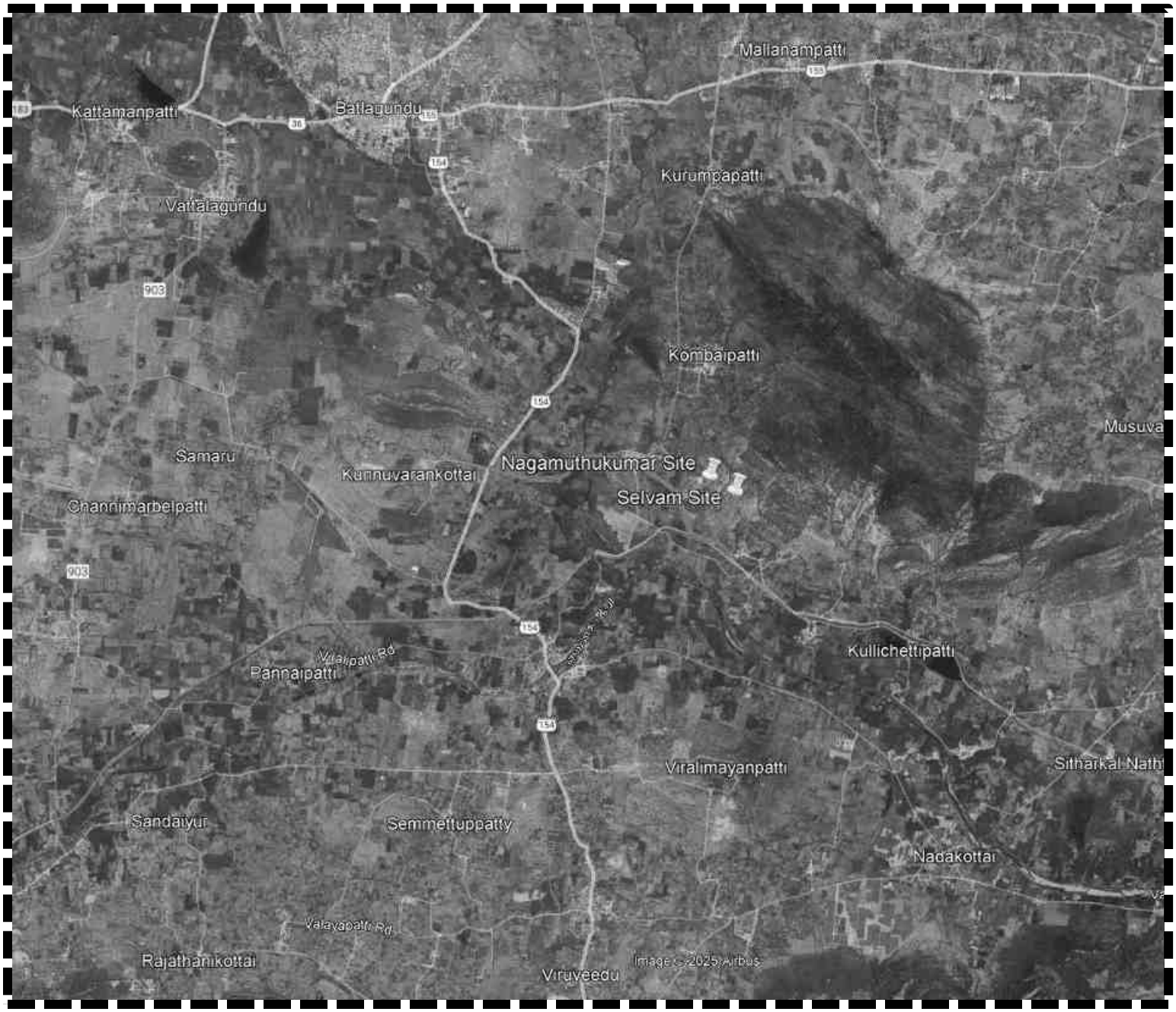


Figure 2.3: Lease Plan – Thiru.B.Selvam

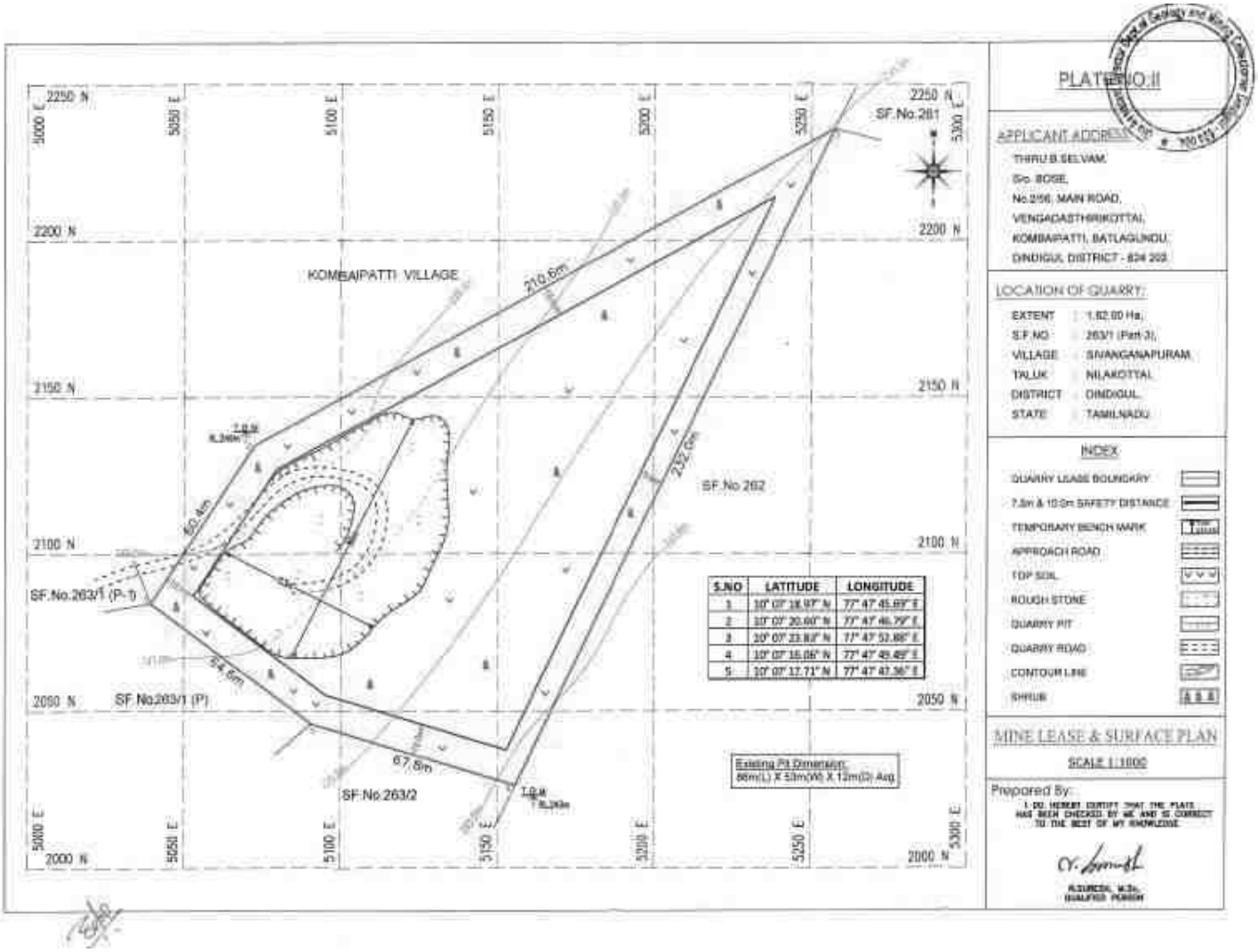


Figure 2.4: Lease Plan – Thiru.K.Nagamuthukumar

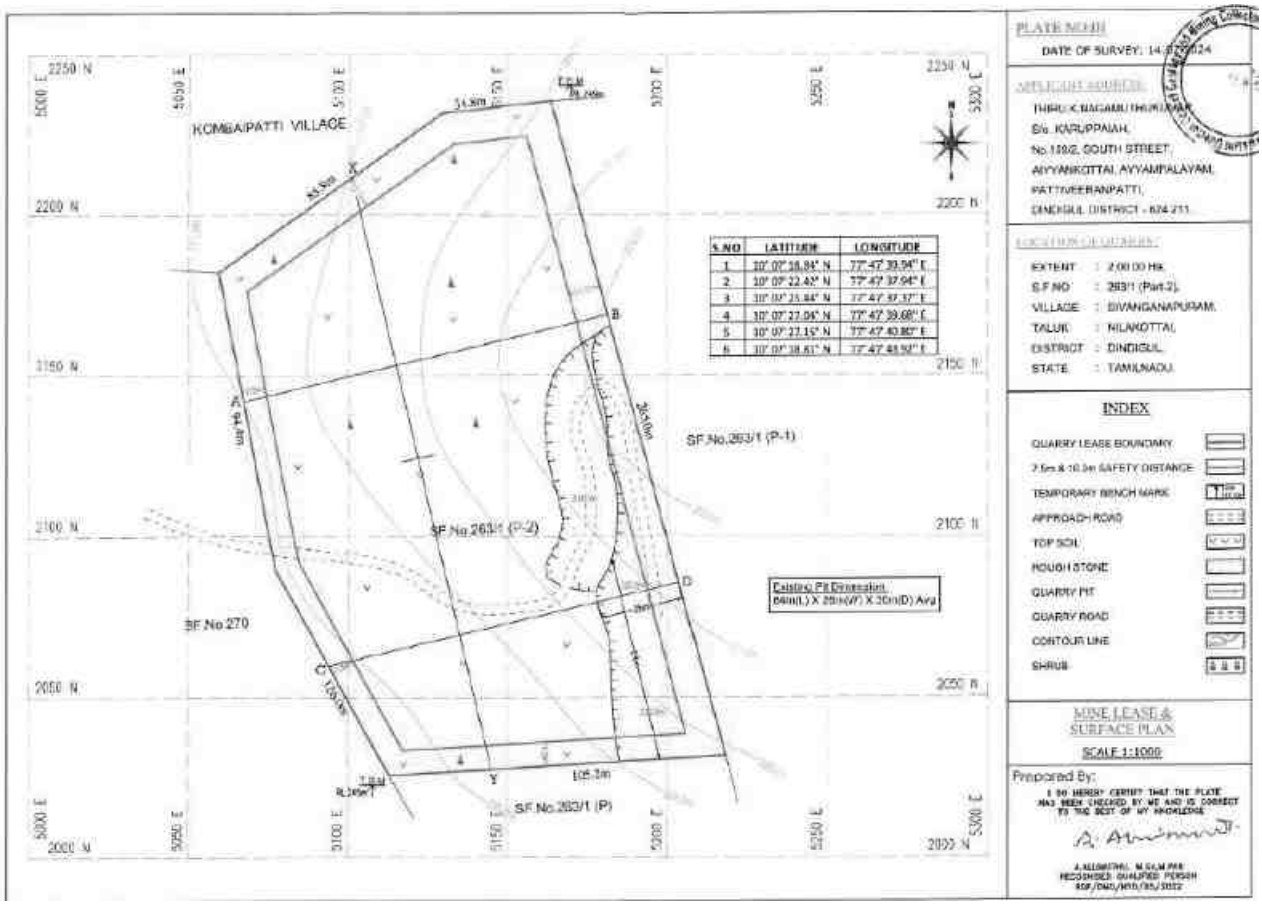


Figure 2.5: Satellite Imagery Showing Corner Co-ordinates – Thiru.B.Selvam

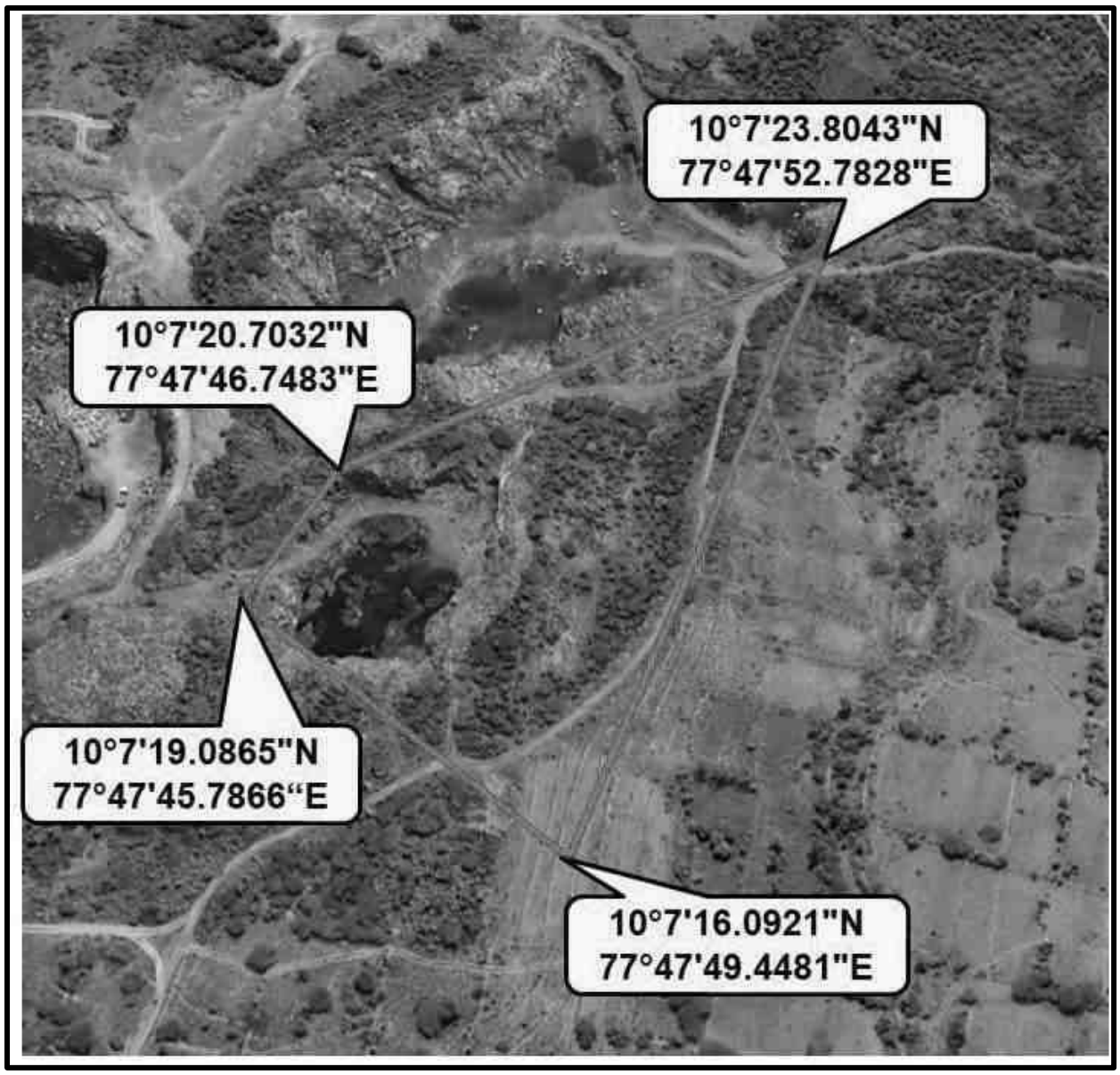
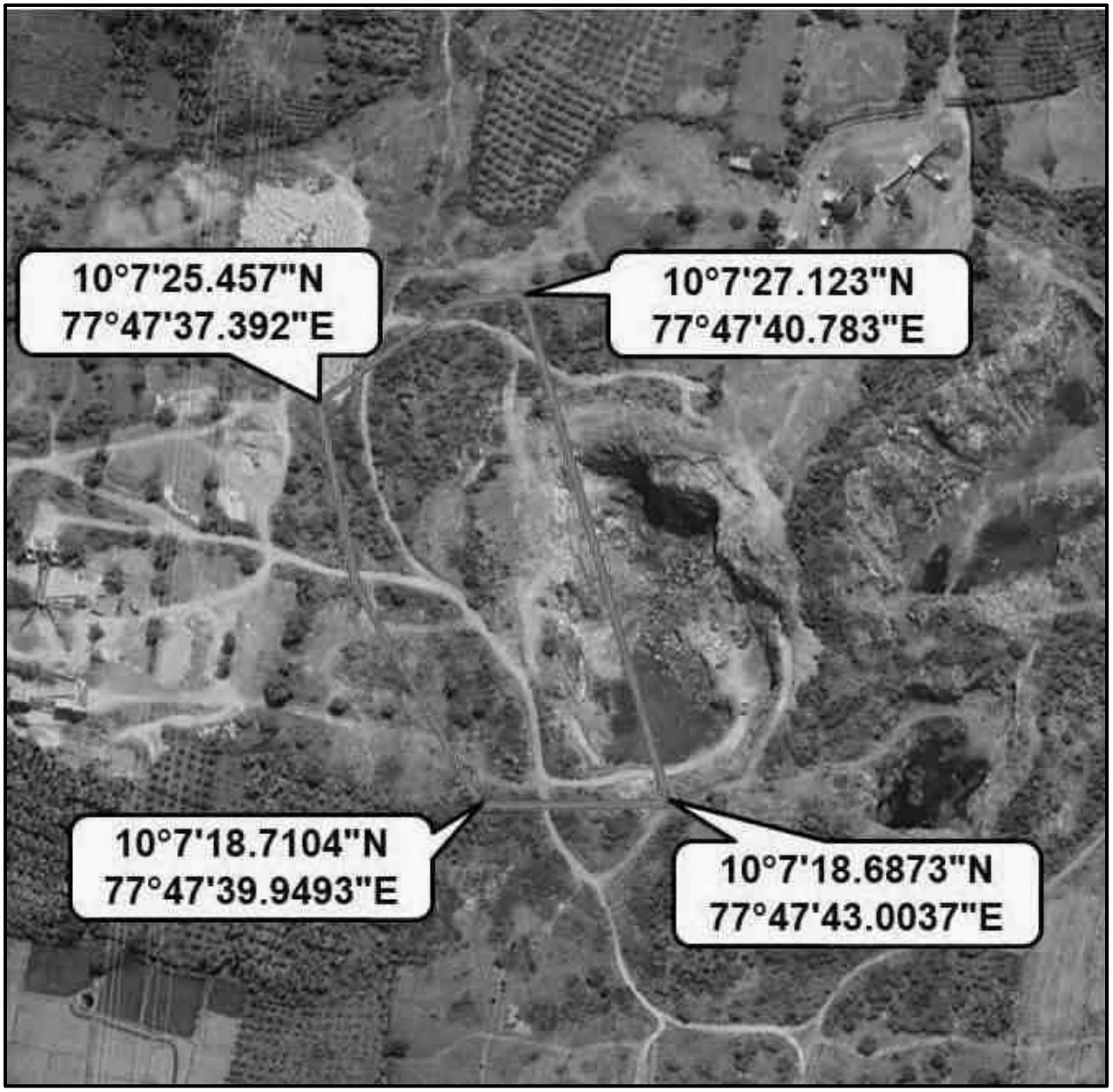


Figure 2.6: Satellite Imagery Showing Corner Co-ordinates – Thiru.K.Nagamuthukumar



SITE PHOTOGRAPHS- THIRU.B.SELVAM

SITE PHOTOGRAPHS- THIRU.K.NAGAMUTHUKUMAR

Figure 2.7: Village Map- ThiruB.Selvam

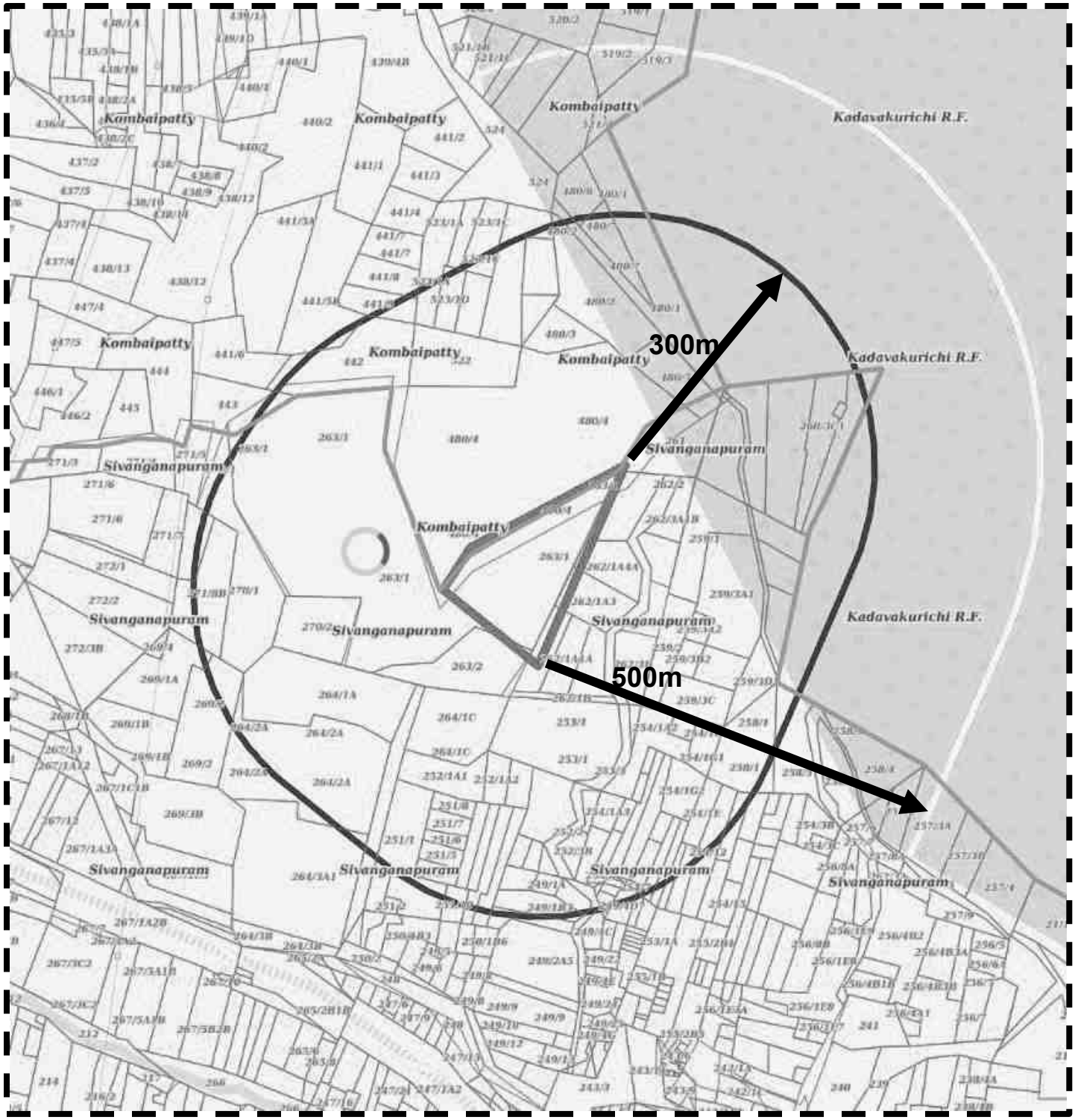


Figure 2.8: Village Map – ThiruK.Nagamuthukumar

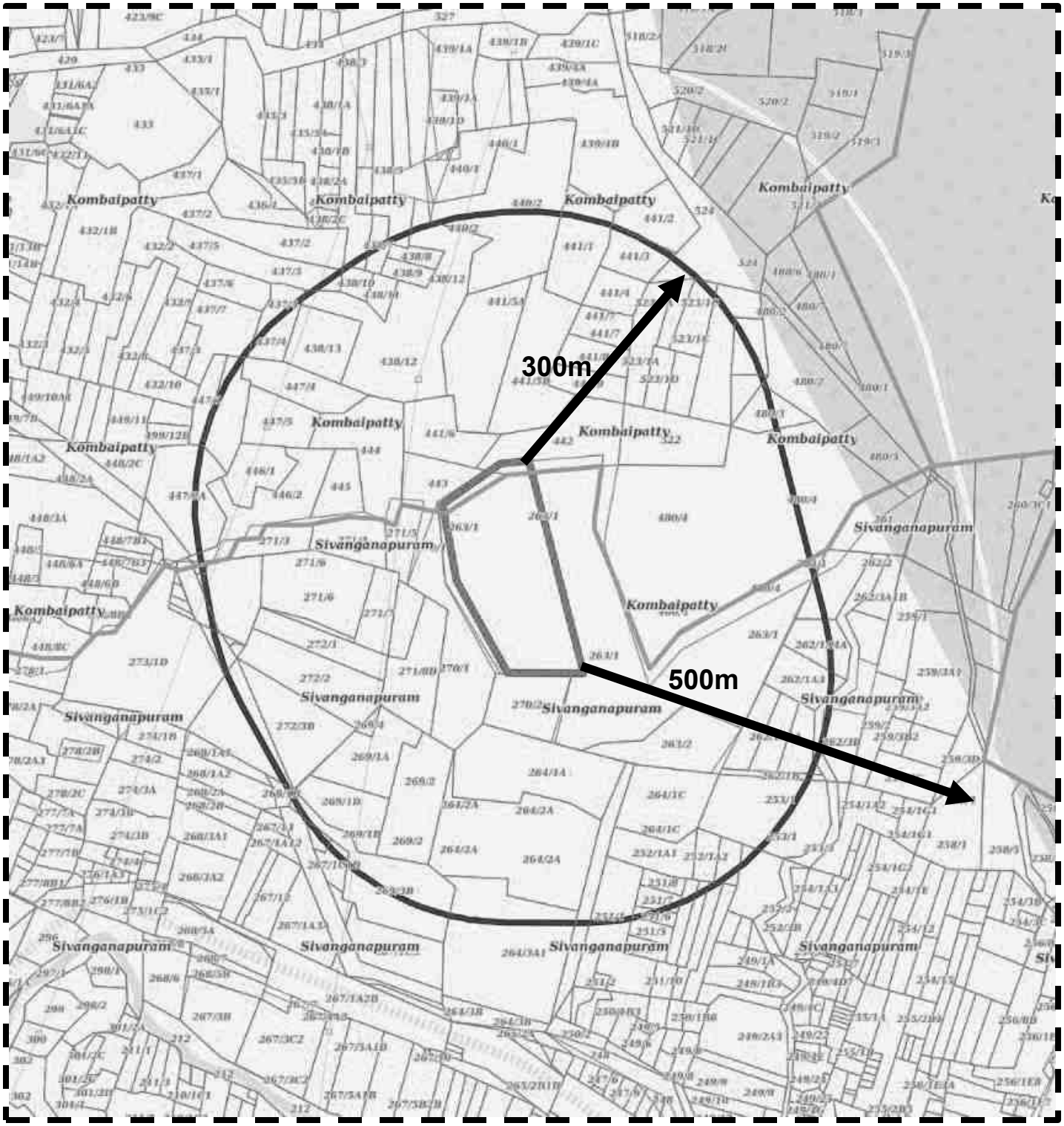
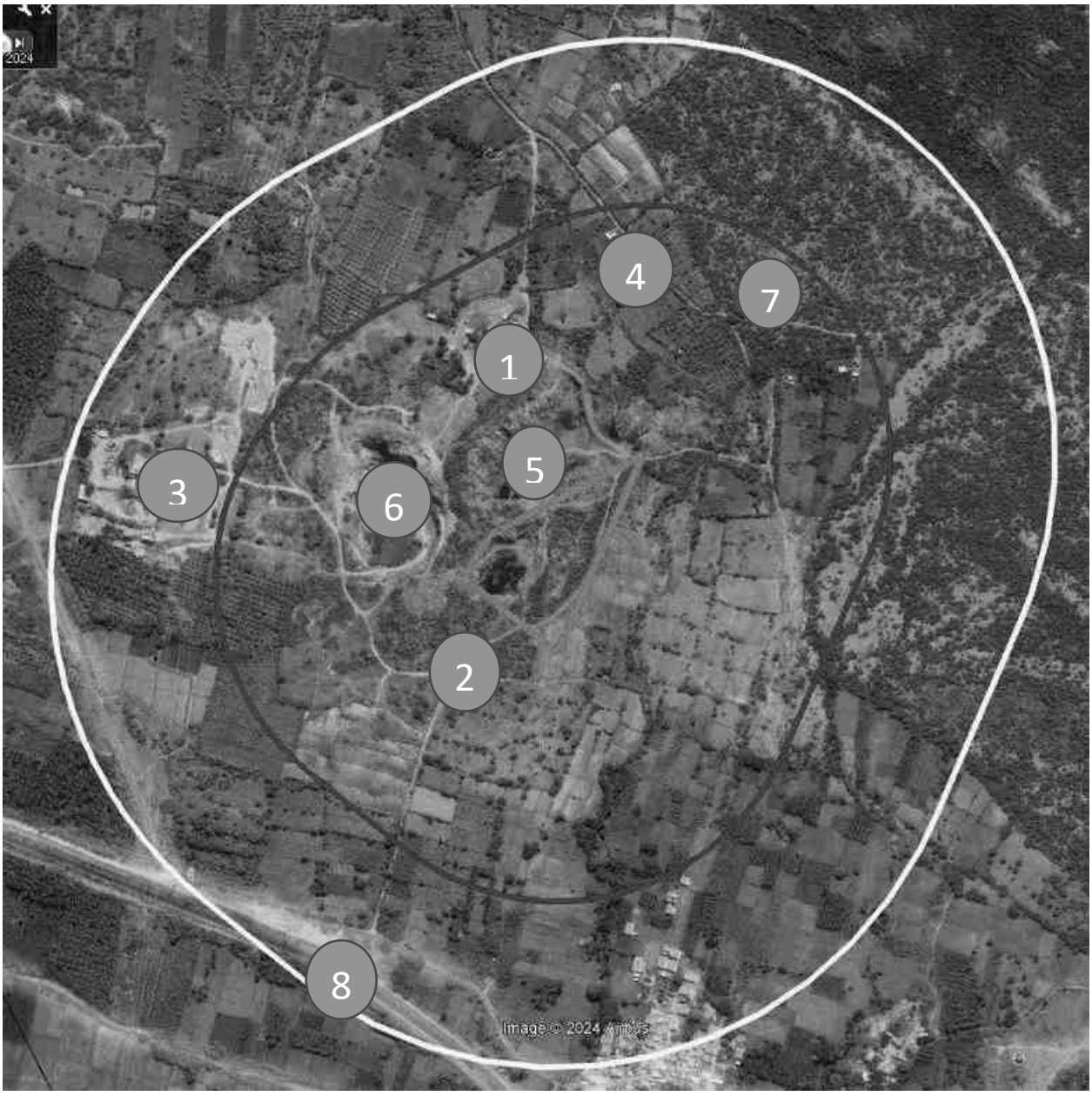


Figure 2.9: Details of features within 500m radius- Thiru B.Selvam



As per the conditions of the Terms of Reference, the details of structures located within the 100m, 200m, 300m and 500m radius are provided below.

Table 2.2: Features within 500m radius – Thiru B.Selvam

S.No	Features	Distance	Photographs
1	Crusher	210.0 -North	
2	Cart Track	100m - South	
3	Crusher	380.0 m – West	
4	Farm House	280.0m - North	

5	Nearest Quarry	50.0 m North	
6	Nearest Quarry	70.0 m West	
7	Reserve Forest	250.0 m North East	
8	Vaaikal / Periyar main canal	460.0 m South	

Figure 2.10: Details of features within 500m radius- Thiru K.Nagamuthukumar

Table 2.3: Features within 500m radius - Thiru K.Nagamuthukumar

S.No	Features	Distance	Photographs
1	Crusher	190.0 -North	
2	Cart Track	80.0 m - South	
3	Crusher	150.0 m – West	
4	Farm House	380.0m - North	

7	Reserve Forest	460.0 m East	
8	Vaaikal / Periyar main canal	410.0 m South	

2.4 LAND CLASSIFICATION:

The lease area of both the Rough stone Quarries falls in Government Land and the details of the same have been provided below:

Table 2.4: Survey Number wise Area Breakup – ThiruB.Selvam

Survey No	Area (Ha)
263/1 (Part-3)	1.62.0
Total	**1.62.0**

Table 2.5: Survey Number wise Area Breakup – ThiruK.Nagamuthukumar

Survey No	Area (Ha)
263/1 (Part-2)	2.00
Total	**2.00**

2.5 GEOLOGY:

The area is underlain by the wide range of metamorphic rocks ofpeninsular gneissic complex. These rocks are extensively weatheredand 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 rock type noticed in the area for lease is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian minerals. The Charnockite is part of peninsular Gneisses, a high-grade metamorphic rock. The strike of the Charnockite formation is N30°W-S30°W with dippingtowards NW 70°.

The geological sequence:

Age	Formation
Recent	- Quaternary to recent formation
	---------- Unconformity ----------
Archaean	- CharnockitePeninsular Gneiss complex

Figure 2.11: Surface Geological Plan– ThiruB.Selvam

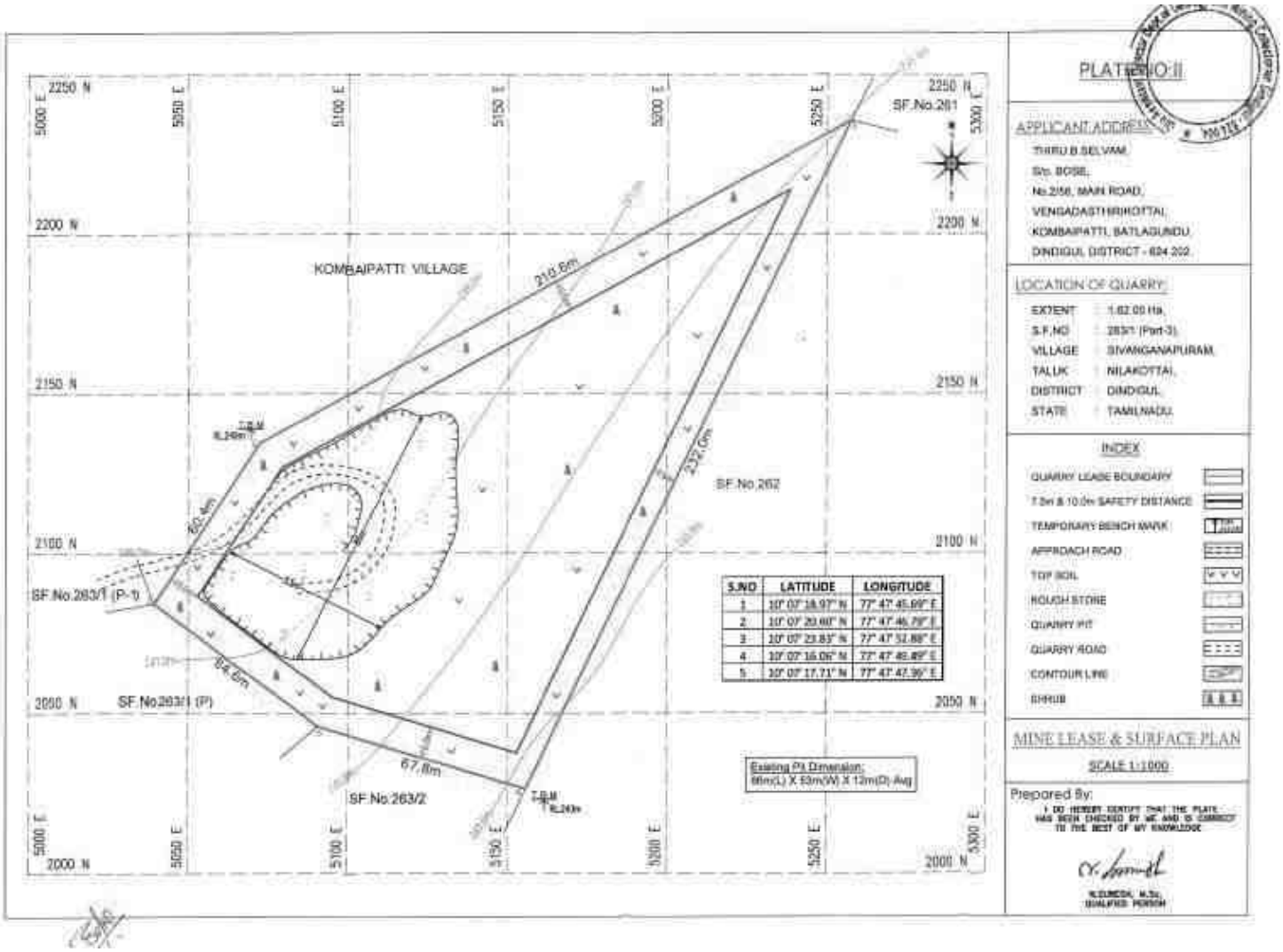
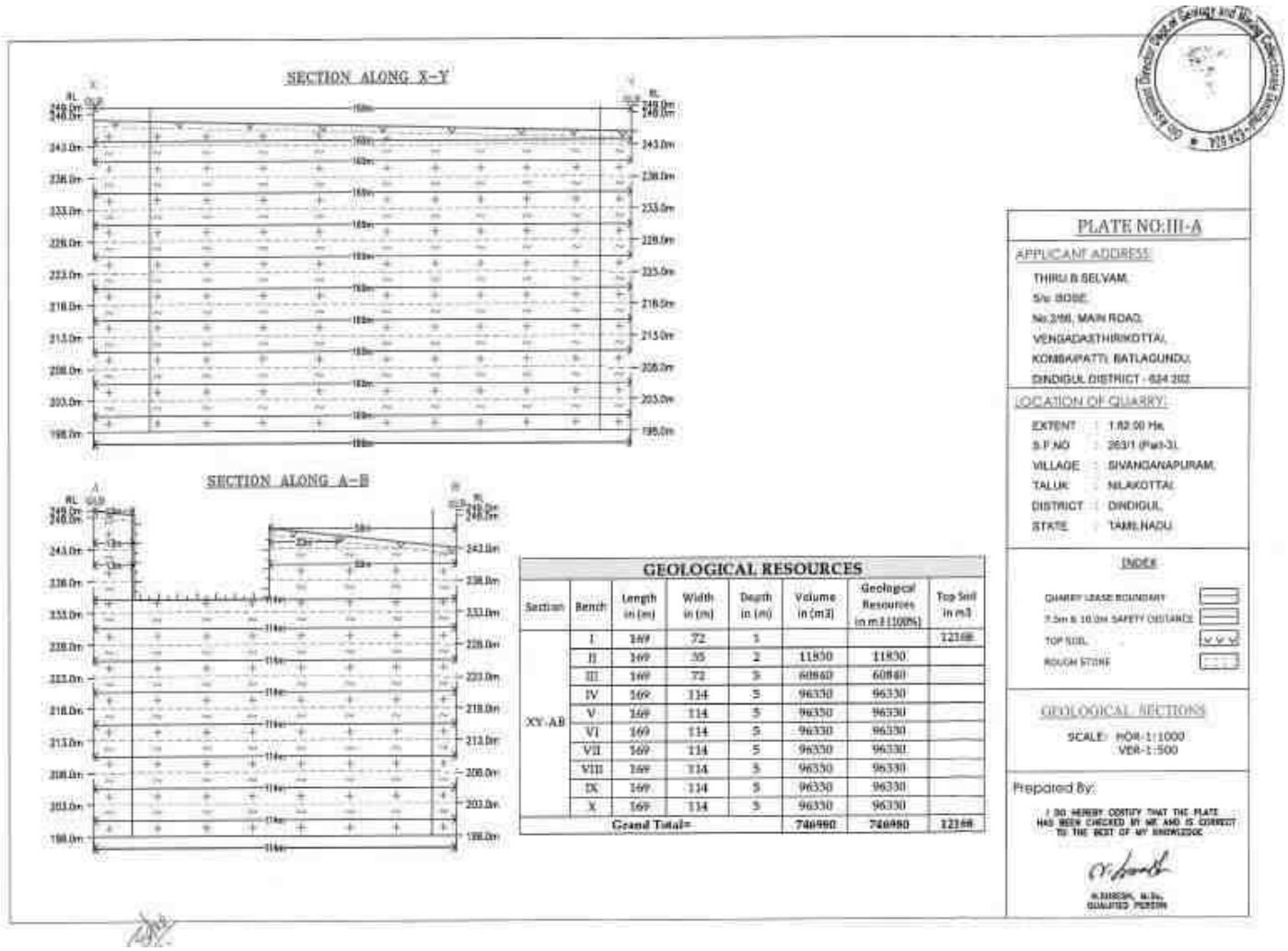


Figure 2.12: Geological Cross Section – ThiruB.Selvam



GEOLOGICAL RESOURCES

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (m3)	Geological Resources in m3 (100%)	Top Soil in m3
XY-AB	I	169	72	1			12168
	II	169	35	2	11830	11830	
	III	169	72	5	60840	60840	
	IV	169	114	5	96330	96330	
	V	169	114	5	96330	96330	
	VI	169	114	5	96330	96330	
	VII	169	114	5	96330	96330	
	VIII	169	114	5	96330	96330	
	IX	169	114	5	96330	96330	
	X	169	114	5	96330	96330	
Grand Total=					740990	740990	12168

Figure 2.13: Surface Geological Plan– ThiruK.Nagamuthukumar

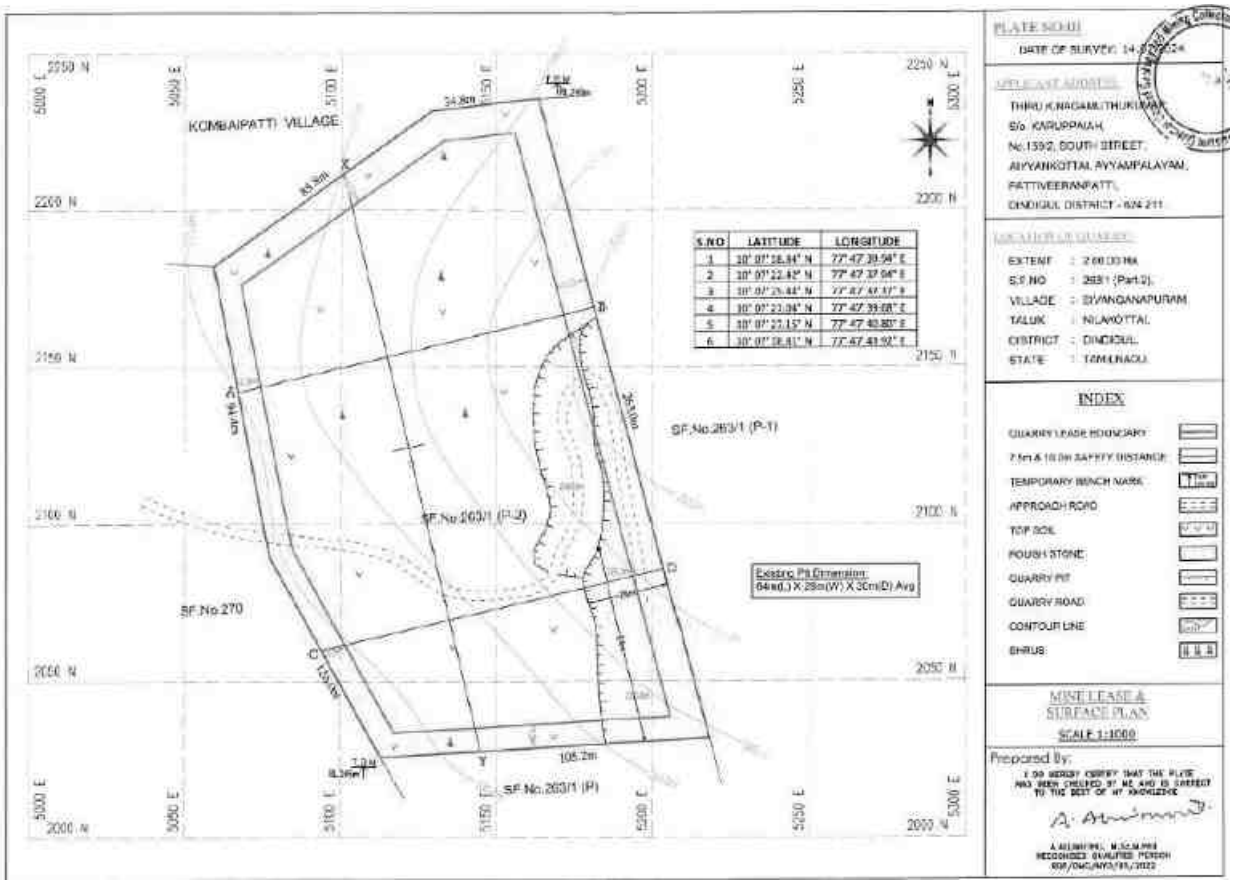
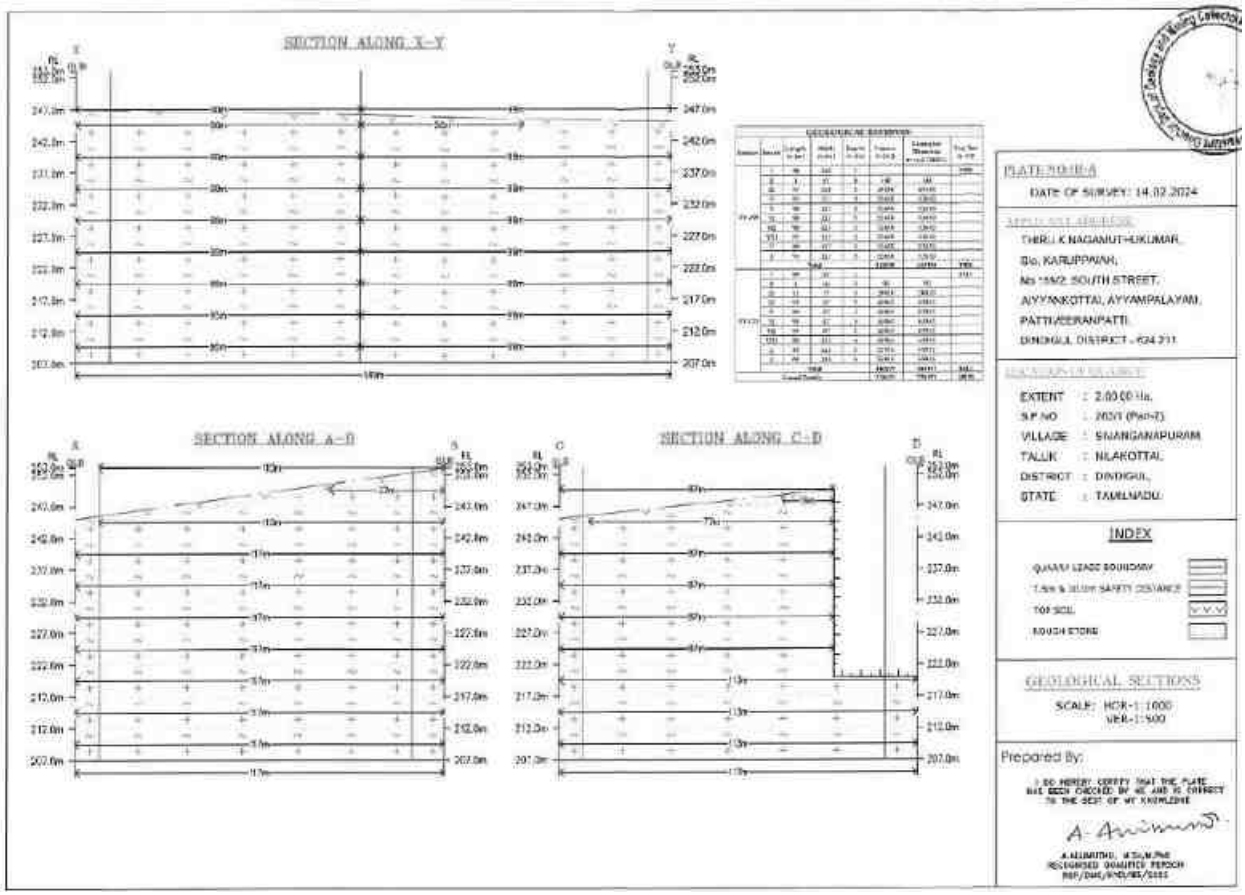


Figure 2.14: Geological Cross Section - ThiruK.Nagamuthukumar



2.6 SIZE AND MAGNITUDE OF THE OPERATION:

- The proposed mining will be done by open cast semi mechanized mining method.
- Life of mine will be 5 years.
- For Roughstone Quarry of ThiruB.Selvam, during the plan period of 5 years it is proposed to mine out 1,52,604m^3 of Roughstone and 7,191m^3 of Topsoil upto a depth of 33m which includes 1m topsoil and 32m of roughstone. During the 5 years period with the peak production capacity of 42,550m^3 of roughstone.
- For Roughstone Quarry of ThiruK.Nagamuthukumar during the plan period of 5 years it is proposed to mine out 3,30,453m^3 of Roughstone and 15,089m^{3}of Topsoil upto a depth

of 45m which includes 1m topsoil and 44m of roughstone. During the 5 years periodwith the peak production capacity of 71,795m^3 of roughstone.

- The top soil to be generated will be used for plantation, peripheral bund formation.

2.6.1 RESERVES:

Table 2.6: Geological and Mineable Reserves

Type of reserves	Roughstone Quarry of ThiruB.Selvam		Roughstone Quarry of ThiruK.Nagamuthukumar	
	Rough stone (m^3)	Topsoil(m^3)	Rough stone (m^3)	Topsoil(m^3)
Geological Resources	7,46,980	12,168	7,78,373	18,513
Mineable reserves	1,52,604	7,191	3,30,453	15,809

The mineable reserves is arrived after considering the safety distance as per the Precise area letter.

2.6.2 MINING METHOD:

Opencast semi-Mechanized method of mining using jackhammer drilling, blasting, and excavation through excavator & mineral transport through tippers will be carried out. The top soil is soft and can be directly excavated. The rough stone below will be blasted and then excavated. Bench height of 5.0m & 5.0 m width is considered.

Table 2.7: Details ofEquipments

EQUIPMENT	CAPACITY	Roughstone Quarry of ThiruB.Selvam	Roughstone Quarry of ThiruK.Nagamuthukumar
		REQUIREMENT	REQUIREMENT
Jack Hammer	32mm Dia	3	3
Compressor	400psi	3	3
Excavator	0.9m3	2	2
Tippers	10/20Tons	4	4

2.7 PROPOSED SCHEDULE FOR APPROVAL AND IMPLEMENTATION:

The proponents proposes to implement the production immediately after obtaining all the statutory approvals such as CTE, CTO, etc. The proponent will comply with the environmental clearance conditions during mining operations. The schedule of project implementation envisaged for this project is provided below. This is a tentative schedule subject to various factor, hence unforeseen variations may occur.

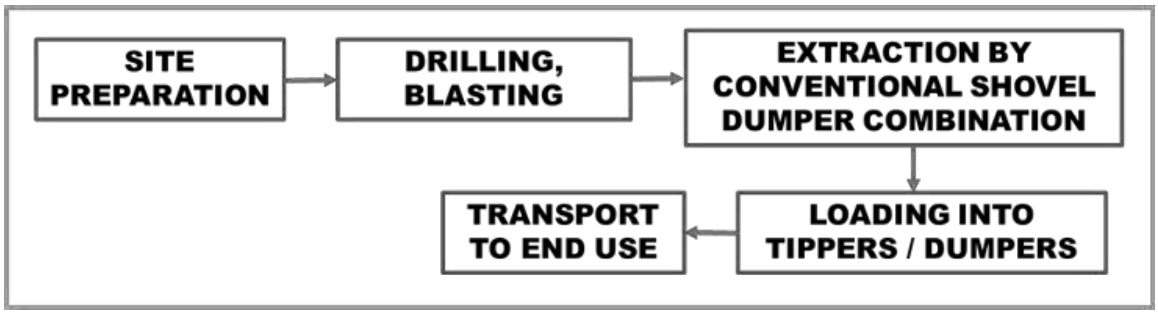
Table 2.8: Proposed Schedule of Implementation

Activities	Months					
	Zero Date	1	2	3	4	5
Obtaining Environmental Clearance						
Obtaining Consent from State Pollution Control Board						
Lease Execution						
Equipment mobilization and Commencement of Mining activity after following all the Statutory Requirements						

2.8 TECHNOLOGY AND PROCESS DESCRIPTION:

The quarry operations involve drilling, blasting, excavation, loading and transportation of Roughstone to buyers. The production of Roughstone in this quarry involves jackhammer drilling and blasting. The primary boulders are removed from the pits by excavators and further made to smaller sizes by rock breakers attached in excavators. It is a conventional opencast semi mechanized method of mining.The process flow diagram of this project is provided below.

Figure 2.15: Process Flow Diagram



2.9 PROJECT DESCRIPTION:

2.9.1 PAST PRODUCTION:

In part of the lease area of Thiru B.Selvam, Mining operations were already carried out by the previous lessee from 03.02.2016 to 02.02.2021.The existing pit dimension s are 86m x 53mx12m . In part of the lease area of Thiru K.Nagamuthukumar Mining operations were already carried out by the previous lessee and the existing mine pit dimensions are 64m x 26m x 30m.

2.9.2 PLAN PERIOD:

In the Roughstone Quarry of Thiru B.Selvam, during the plan period of 5 years it is proposed to mine out 1,52,604m^3 of Roughstone and 7,191m^3 of Topsoil upto a depth of 33m which includes 1m topsoil and 32m of roughstone. The yearwise production for both projects has been provided below:

Table 2.9: Production Schedule During Plan Period– ThiruB.Selvam

Year	Roughstone (m^3)	Topsoil (m^3)
1	36,704	7,191
2	42,550	--
3	32,130	--
4	21,560	--
5	19,660	--
Total	**1,52,604**	**7,191**

In the Roughstone Quarry of ThiruK.Nagamuthukumarduring the plan period of 5 years it is proposed to mine out 3,30,453m^3 of Roughstoneand 15,089m^3 of Topsoil upto a depth of 45m which includes 1m topsoil and 44m of roughstone.

Table 2.10: Production Schedule During Plan Period– ThiruK.Nagamuthukumar

Year	Roughstone (m^3)	Topsoil (m^3)
1	55,588	15,089
2	61,200	--
3	71,145	--
4	70,725	--
5	71,795	--
Total	**3,30,453**	**15,089**

Waste Disposal during Plan Period:

The top soil to be generated will be used for plantation, road & peripheral bund formation.. The rough stone will be excavated and loaded into tipper to the needy buyers for producing crusher aggregates, M Sand.

Figure 2.16: Year wise Plan - ThiruB.Selvam

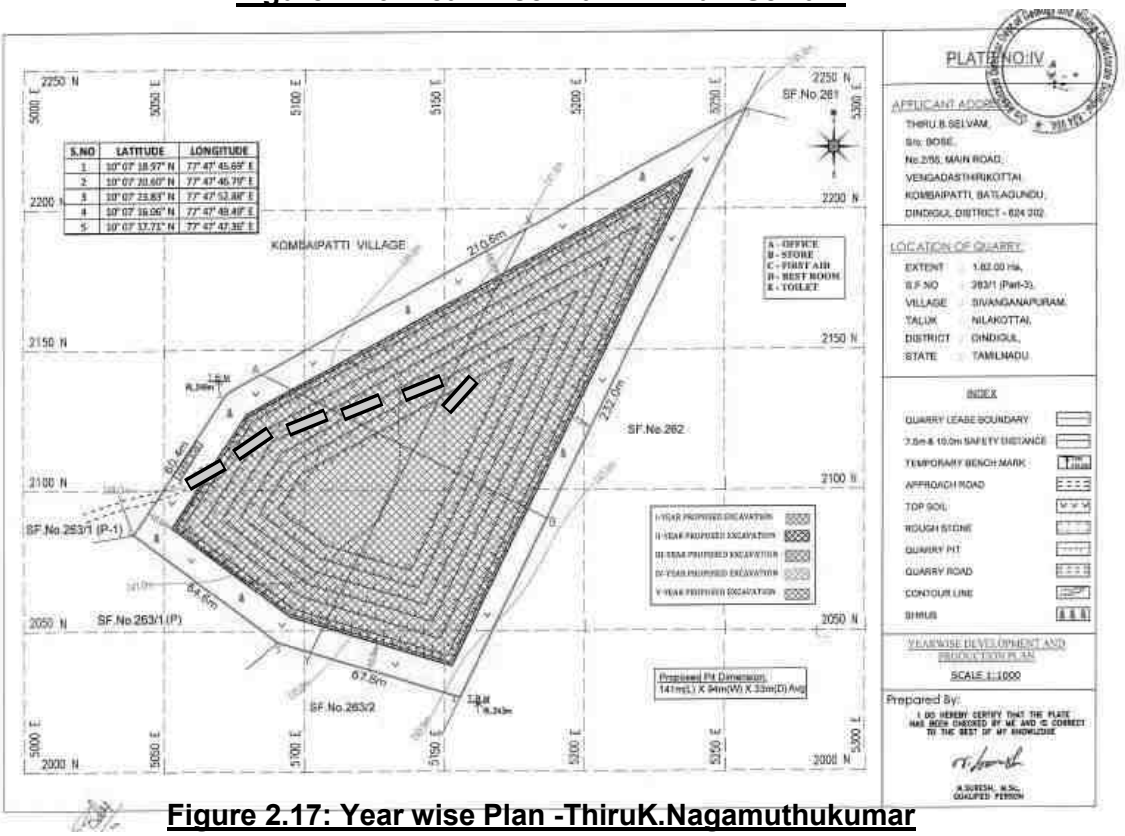


Figure 2.17: Year wise Plan -ThiruK.Nagamuthukumar

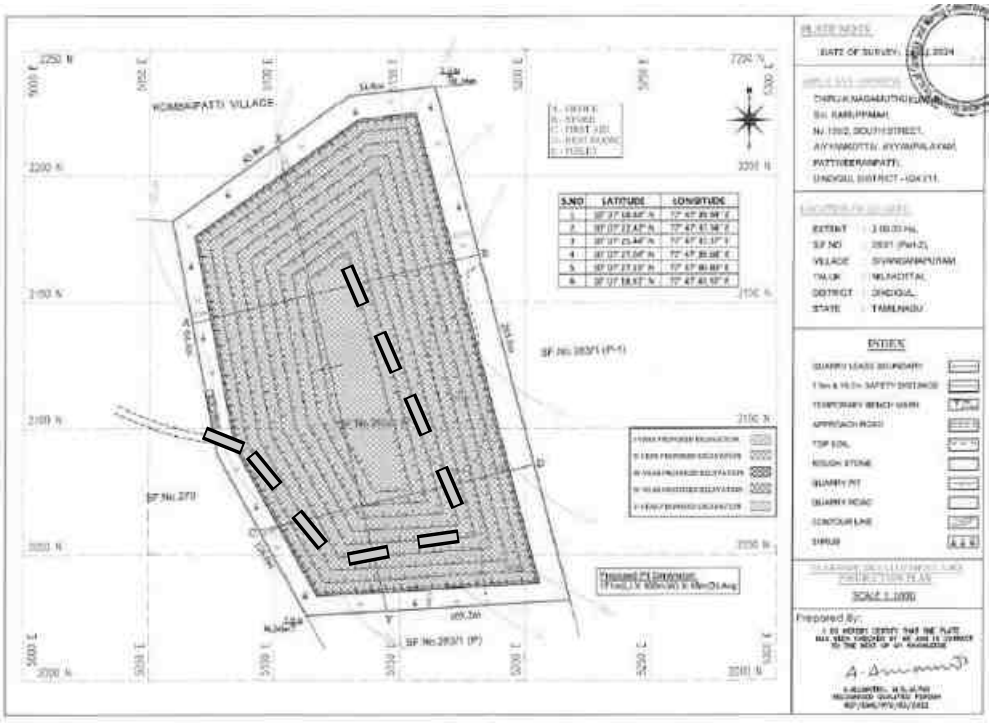


Figure 2.18: Yearwise Cross Section -ThiruB.Selvam

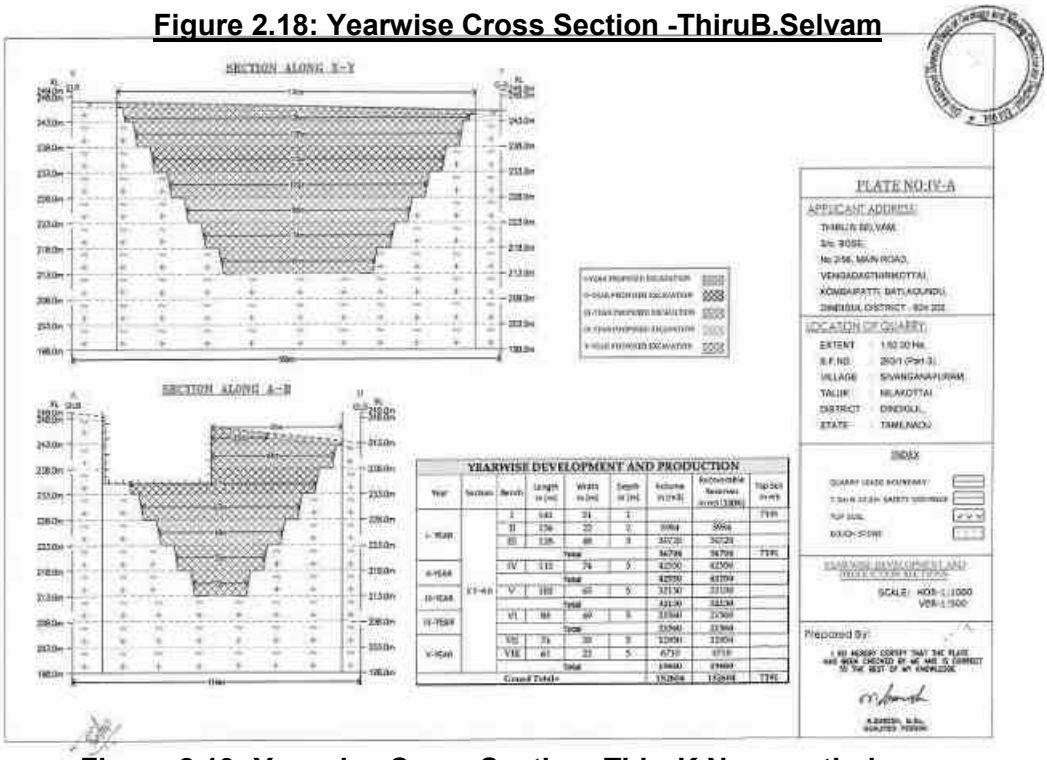
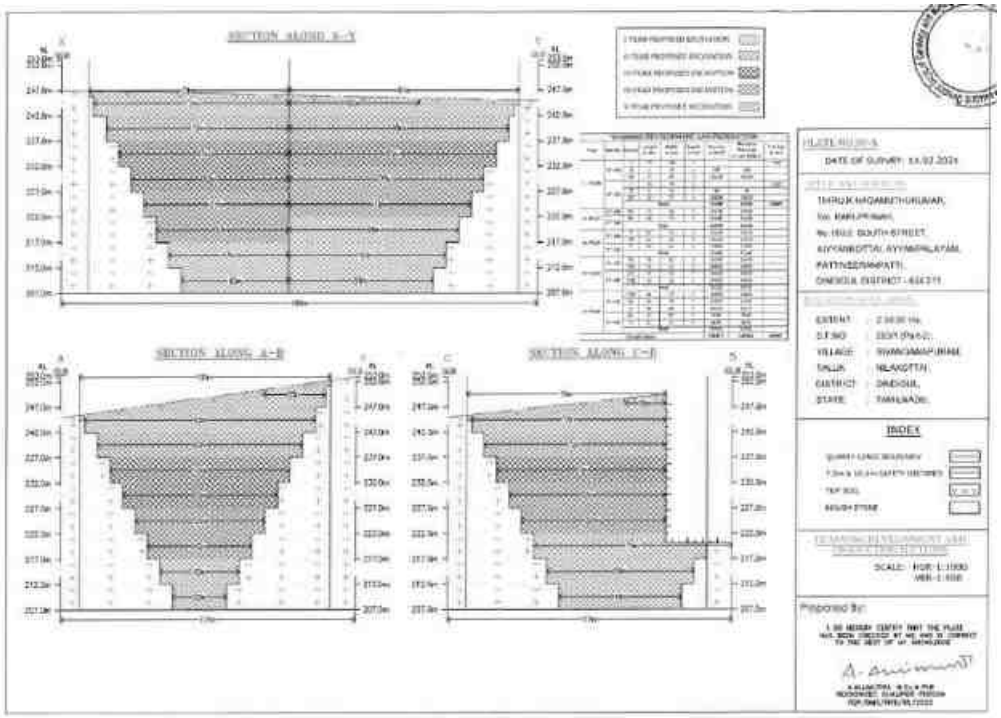


Figure 2.19: Yearwise Cross Section -ThiruK.Nagamuthukumar



2.9.3 CONCEPTUAL PERIOD:

In the Roughstone Quarry of ThiruB.Selvam, overall 1,52,604$m^3$of Rough stoneand 7,191m^3 of Topsoil will be mined out during the 5 years lease period. Thus the life of the mine is five years as the entire mineable reserves will be mined within the plan period

Table 2.11: Ultimate Pit Dimensions- ThiruB.Selvam

Length (m)	Width (m)	Depth (m)
141	94	33

In the Roughstone Quarry of ThiruK.Nagamuthukumar overall 3,30,453m^3 of Roughstone and 15,089m^3 of Topsoil will be mined out during the 5 years lease period. Thus the life of the mine is five years as the entire mineable reserves will be mined within the plan period.

Table 2.12: Ultimate Pit Dimensions- ThiruK.Nagamuthukumar

Length (m)	Width (m)	Depth (m)
171	100 (Ave)	45

The Conceptual Plan & Cross section are shown below:

Figure 2.19: Conceptual Plan- ThiruB.Selvam

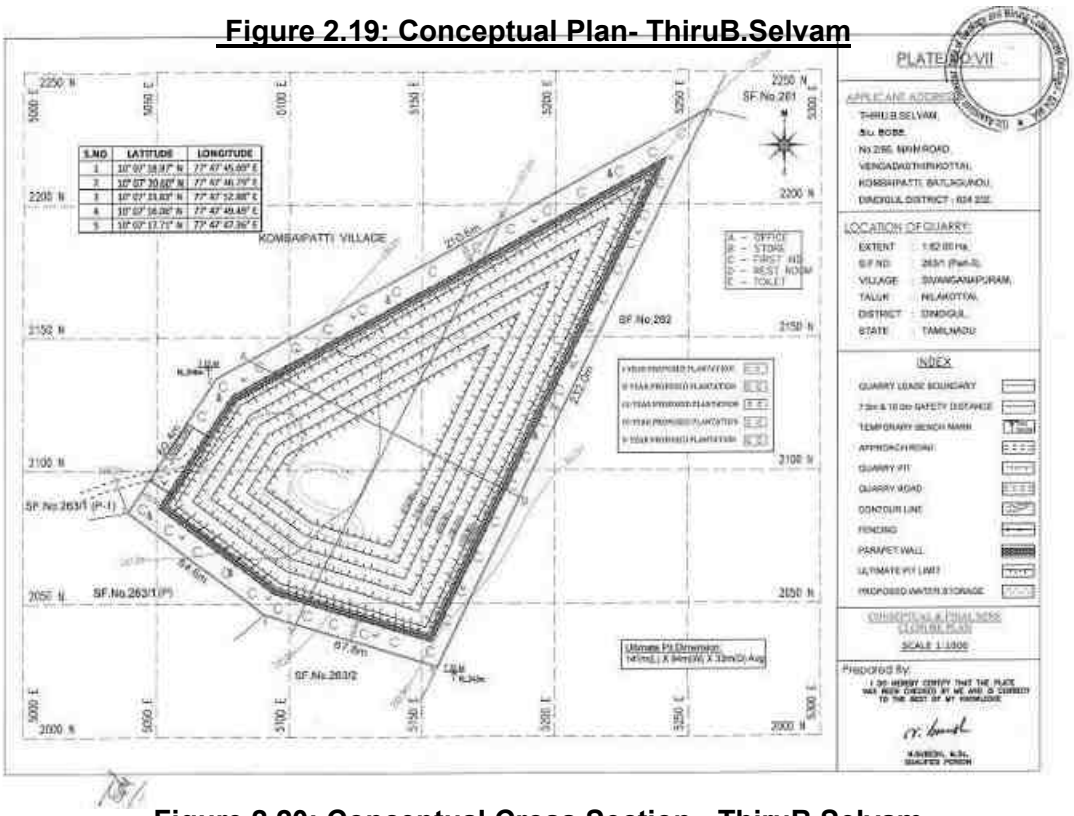


Figure 2.20: Conceptual Cross Section - ThiruB.Selvam

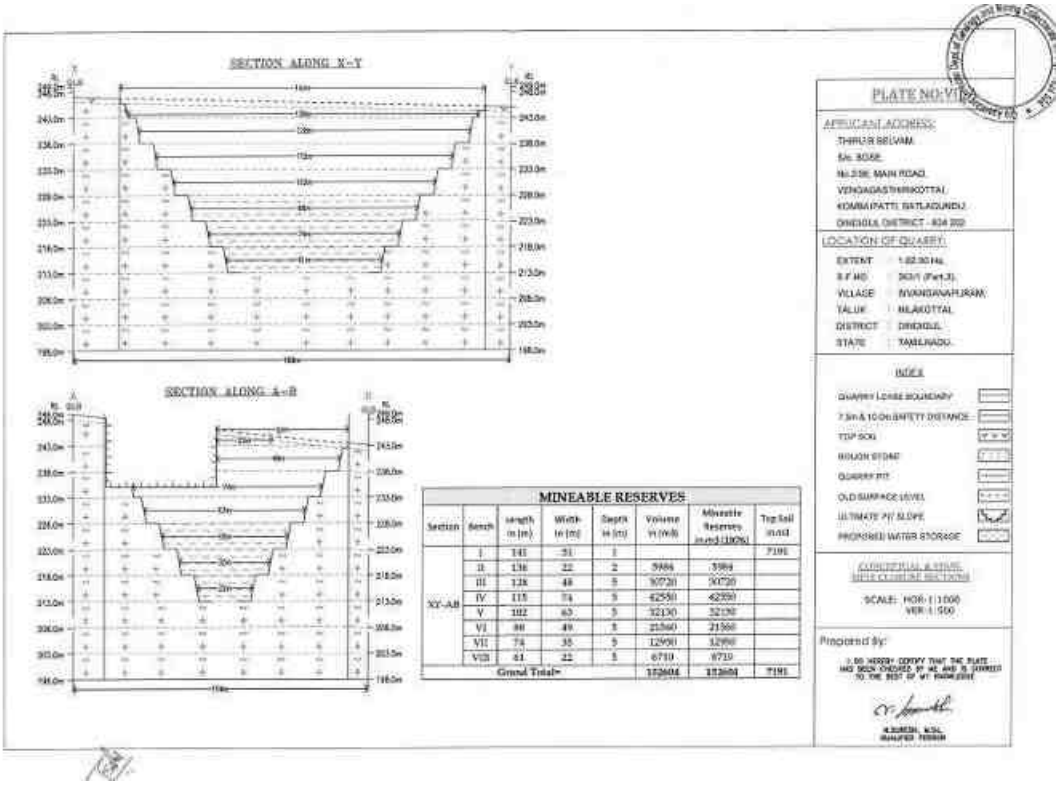


Figure 2.21: Conceptual Plan - ThiruK.Nagamuthukumar

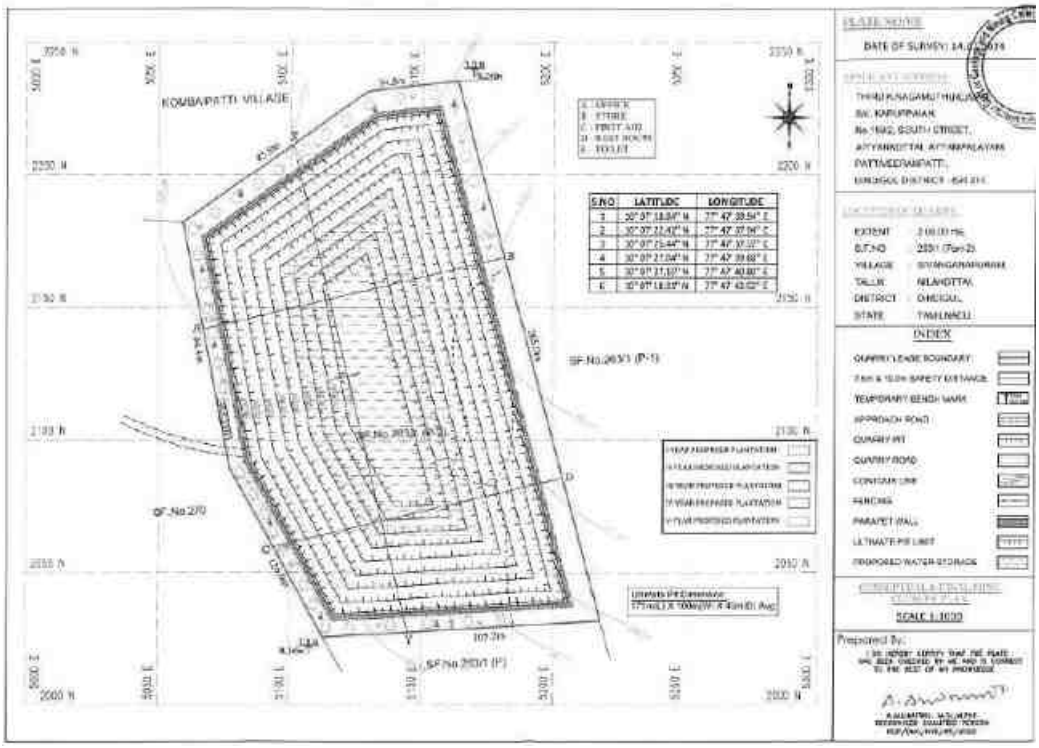
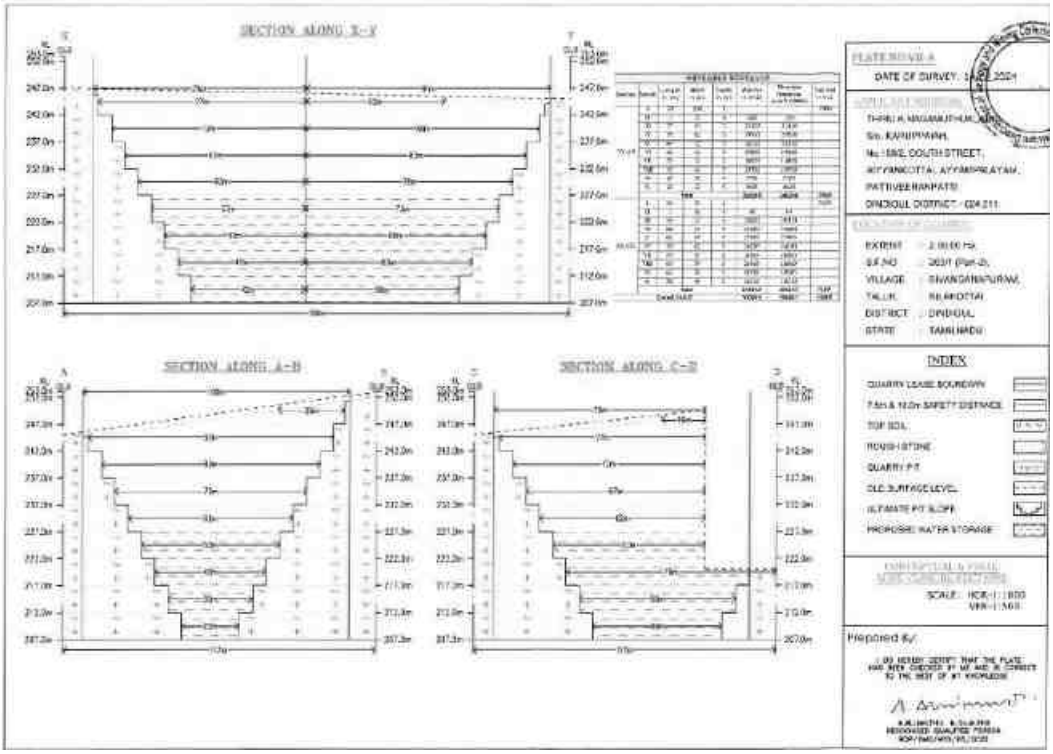


Figure 2.22: Conceptual Cross Section- ThiruK.Nagamuthukumar



2.9.4 LAND DEGRADATION/UTILIZATION:

The land use pattern at present and at the end of the quarrying period has been provided below.

Table 2.13: Land Use - ThiruB.Selvam

S.No	Land Use	Present Land Use (Ha)	At in use during the quarrying period (Ha)
1	Quarrying Pit	0.41.4	1.35.0
2	Infrastructure	-	0.02.0
3	Roads	0.01.0	0.02.0
4	Green Belt	0.01.0	0.23.0
5	Unutilized	1.18.6	-
	Total	**1.62.0**	**1.62.0**

At the end of the lease period, 1.350 Ha will be left as a water body. Plantation will be carried out over 0.230 Ha, Infrastructure 0.02.0 ha and 0.02Ha will be left as road.

Table 2.14: Land Use - ThiruK.Nagamuthukumar

S.No	Land Use	Present Land Use (Ha)	At the end of 5th year (Ha)
1	Quarrying Pit	0.38.2	1.62.6
2	Infrastructure	--	0.02.0
3	Roads	0.01.0	0.02.0
4	Green Belt	0.01.0	0.33.4
5	Unutilized	1.59.80	--
	Total	**2.00.0**	**2.00.0**

At the end of the lease period, 1.626 Ha will be left as a water body. Plantation will be carried out over 0.334 Ha, Infrastructure 0.02.0 ha and 0.02Ha will be left as road.

PROJECT REQUIREMENTS:

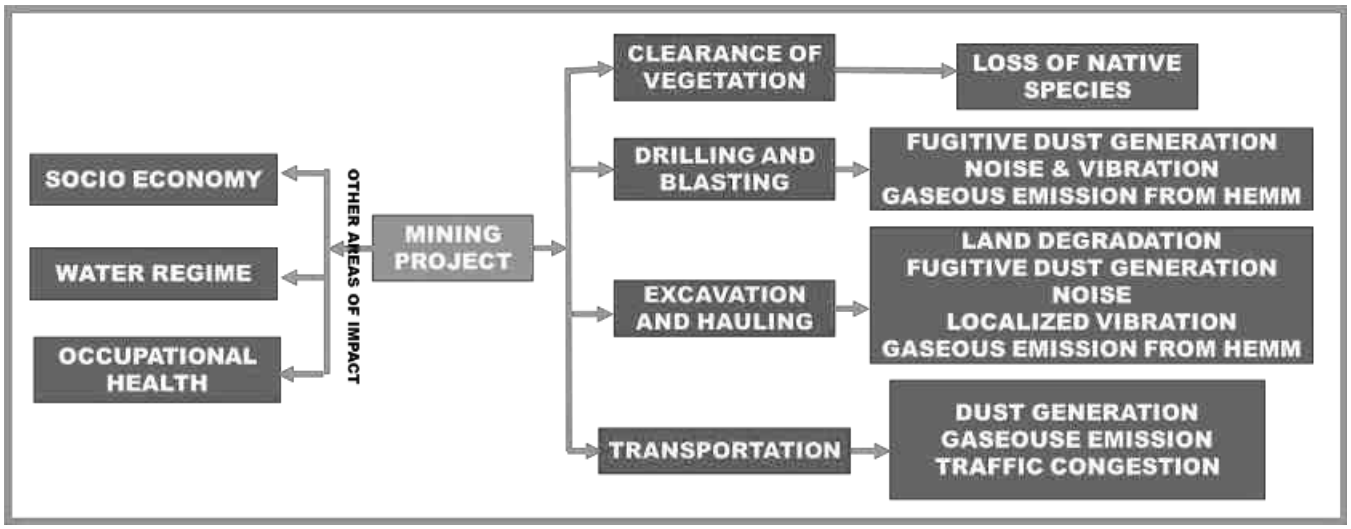
Table 2.15: Project Requirements

<table>
<tr><th>Project Name</th><th>Roughstone Quarry of ThiruB.Selvam</th><th>Roughstone Quarry of ThiruK.Nagamuthukumar</th></tr>
<tr><td>Manpower</td><td>16 people persons directly and indirectly.</td><td>19 people persons directly and indirectly.</td></tr>
<tr><td>Water Requirement and Source</td><td>Water Requirement: 8 KLD
<table><tr><th>Details</th><th>Quantity (KLD)</th></tr><tr><td>Drinking water and Domestic Use</td><td>1.0 KLD</td></tr><tr><td>Dust Suppression</td><td>6.0 KLD</td></tr><tr><td>Green belt</td><td>1.0 KLD</td></tr><tr><td>Total</td><td>8.0KLD</td></tr></table>Source: The required water will be procured initially from outside agencies. Rain water harvested in the mine sump will also be used in future.</td><td>Water Requirement: 8 KLD
<table><tr><th>Details</th><th>Quantity (KLD)</th></tr><tr><td>Drinking water and Domestic Use</td><td>1.0 KLD</td></tr><tr><td>Dust Suppression</td><td>5.0 KLD</td></tr><tr><td>Green belt</td><td>2.0 KLD</td></tr><tr><td>Total</td><td>8.0KLD</td></tr></table>Source: Water requirement will be met from the rainwater collected in the mine pit</td></tr>
<tr><td>Power Requirement</td><td>No electricity needed for mining operation. The minimum power requirement for office, etc will be met from state grid and DG Set.</td><td>All the equipment will be diesel operated. No electricity is needed for mining operation. The minimum power requirement for office, etc are and will be met from state grid.</td></tr>
<tr><td>Site Services</td><td>This is a proposed project. Site services like mine office, first aid room, rest shelters, toilets etc. will be provided as semi-permanent structures in adjacent land belonging to the applicant.</td><td>This is a proposed project. Site services like mine office, first aid room, rest shelters, toilets etc. will be provided as semi-permanent structures.</td></tr>
<tr><td>Project Cost</td><td>Rs.94.50 Lakhs</td><td>Rs.149.95 Lakhs</td></tr>
<tr><td>Funds allocated for socio-economic development</td><td>Rs.5.0 Lakhs is allocated under CER budget.</td><td>Rs.5.0 Lakhs is allocated under CER budget.</td></tr>
</table>

2.10 DESCRIPTION OF MITIGATION MEASURES:

Scientific and systematic development of mines will be carried out by the project authorities for preserving as well as improving the environmental conditions in and around the mining lease area.Elaborate analysis on impacts and mitigation measures to be adopted on implementation of this project and the same has been dealt in Chapter- IV.

Figure 2.23: Schematic Diagram of mining activities and associated impacts



2.11 ASSESSMENT OF NEW & UNTESTED TECHNOLOGY:

There is no new technology that is being implemented. Opencast method of mining which is the proposed method of mining is a proven technology which is technologically and economically viable. . No major technological failures are anticipated. A disaster management plan shall be put into place to take care of any unforeseen situation.

2.12 CONCLUSION:

It is expected that the project activity will not have any major impact on environmental equilibrium in the study area since systematic mining with all necessary mitigative measures to maintain environmental quality of the study area will be strictly implemented.

* * * * * * * *

CHAPTER - III

DESCRIPTION OF ENVIRONMENT

CHAPTER 3

DESCRIPTION OF ENVIRONMENT

3.1 GENERAL:

The existing environmental baseline data for the various environmental components were collected in the study area for the purpose of assessing the impact on present environment due to the project activities.

Monitoring was carried out systematically and meticulously as per relevant IS codes, CPCB, MoEF&CC guidelines during **Postmonsoon Season (October to december 2024)** The details of the study are given in this chapter.

For the purposes of this study, the area has been divided into two zones, namely, core and buffer zones. The combined lease area is considered to be the core zone while the buffer zone encompasses a 10km radius from the periphery of the core zone. The details of villages falling in the study area and other features are given in Index Plan in **Figure No - 3.1**

The primary data collection was done by means of field monitoring and the secondary data collection was obtained from published sources and Government documents. The details of the baseline data collection which has been elaborated through the course of this chapter has been concised below:

Table 3.1: Type of Baseline Data

S.No	Studies	Parameters / Study	Location
1	Socio Economy	Demographic Data from Census 2011	Core and Buffer Zone
		Sample Survey	Buffer Zone
2	Micro Meteorology	Rainfall Data from IMD, Dindigul	Dindigul
		Temperature, Humidity, Wind Speed, Wind Direction	1 Representative Location
3	Ambient Air Quality	PM10, PM2.5, SO2, NOx, CO	1 Core Zone, 5 Buffer Zone
4	Water Quality	Physical and Chemical Parameters	1 Core Zone,5 Buffer Zone
5	Noise Levels	Ambient Noise	1 Core Zone,5 Buffer Zone
6	Soil Quality	Physical and Chemical Parameters	1 Core Zone, 4 Buffer Zone
7	Land Use and Land Cover	Land use pattern within 10km study area using RS Satellite	Buffer Zone
		Land use based on Census 2011	Core and Buffer Zone
8	Biological Environment	Flora and Fauna	Core Zone and Buffer Zone
9	Hydrology & Hydro Geology	Hydrogeological profile of the area	Core Zone and Buffer Zone

Figure 3.1: Study Area Map

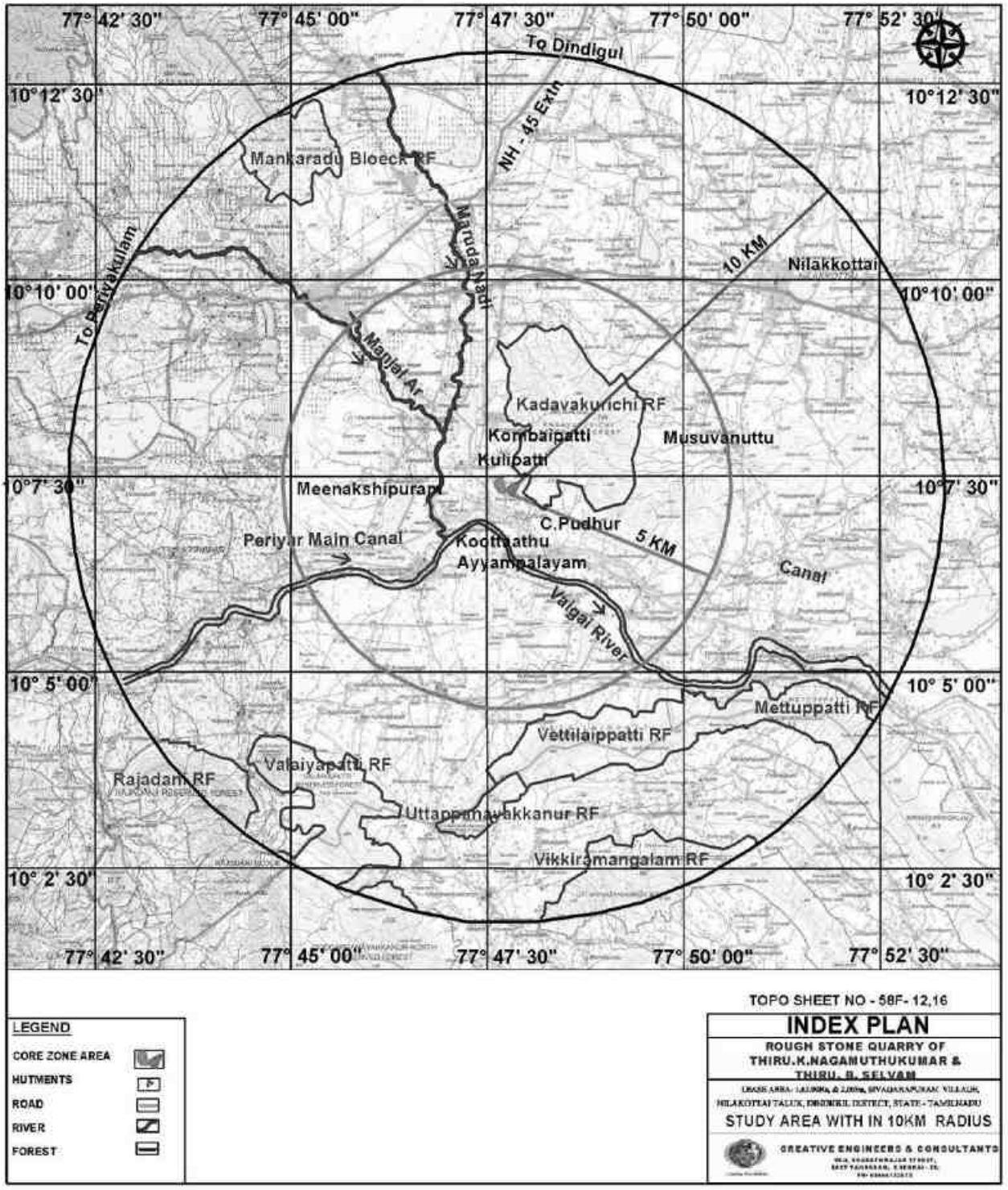


Table 3.2: Environmental Setting of the Study Area

S.No	Particulars	Details	Selvam		Nagamuthukumar	
			Distance	Direction	Distance	Direction
I		**Connectivity**				
1.	Highway	SH-154	2.5Km	W	2.2Km	W
		NH-183	6.6Km	NW	6.4Km	NW
2.	Railway Station	Kodai Road	13.7Km	NE	14Km	NE
3.	Airport	Madurai	45Km	SE	45Km	SE
4.	Village	Kulippatti	600m	SE	900m	NW
		C Pudhur	400m	SE	540m	SE
		Kombaipatti	1.5Km	NW	1.3Km	N
		Sivagnanapuram	1.6Km	SE	1.8Km	SE
5.	Town/City	Meenakshipuram	1.9Km	W	1.6Km	W
II		**Environmental Features**				
6.	Water Bodies	Periyar Main Channel	460m	SE	410m	SW
		Vaigai River	850m	SE	800m	SW
		Canal	600m	SE	600m	SE
		Manjal Ar	1.5Km	NE	1.3Km	NW
		Maruda Nadi	2.1Km	N	1.8Km	N
7.	Reserve Forests	Vettilaippatti RF	5.4Km	S	5.6Km	S
		Mettuppatti RF	7.1Km	SE	7.4Km	SE
		Vikkiramangalam RF	8.3Km	S	8.5Km	S
		Uttappanayakkanur RF	7.1Km	S	7.6Km	S
		Valaiyapatti RF	7.6Km	SW	7.1Km	S
		Rajadani RF	9.0Km	SW	8.9Km	SW
		Mankaradu Block RF	8.2Km	NW	7.9Km	NW
		Kadavakurichi RF	250m	NE	500m	NE
III		**Sensitive Areas**				
8.	Notified Archaeologically important places, Monuments	Nil within 10km radius	--	--		
9.	Local Places of Historical and Tourism Interest	Nil within 10km radius	--	--		
10.	Environmental sensitive areas, Protected areas as per Wildlife Protection Act, 1972*	Nil within 10km radius	--	--		
11.	Defense Installations	Nil within 10km radius	--	--		
12.	Other industries	Other than crushers, Roughstone quarries, no other major industries are located in the study area.	--	--		

**Tiger reserve, Elephant reserve, Biospheres, National parks, Wildlife sanctuaries, community reserves and conservation reserves*

3.2 SOCIO-ECONOMIC CONFIGURATIONS OF THE AREA:

3.2.1 GENERAL:

The Socio-Economic details of the study area are collected through:

- Identification of villages falling from the study area map with combined Taluk map.
- Collection of primary data through sample survey, village meetings and discussion.
- Collection of the demographic pattern of villages falling in the area through NIC 2011 census data.
- Occupational structure of villages falling in the study area through NIC 2011 census data.
- Details of the amenities available in villages falling in the study area through NIC 2011 census data. The findings of the study are illustrated below:

3.2.2 SECONDARY DATA DESCRIPTION:

The proposed quarries are located in in Sivaganapuram Village, Nilakottai Taluk, Dindigul District. Based on 2011 census data, in the 10km radius there are 31 Rural villages from Three Taluks namely Nilakottai, Usilampatti & Periyakulam Taluk, of Dindigul, Madurai & Theni District. The demographic profile of the study area is given below:

Table 3.3: Social, Economic and Demographic Profile of the Study Area

Details	Population	Percentage
A. Gender-wise distribution		
Male Population	112062	50.57
Female Population	109533	49.43
Total	**221595**	**100**
B. Caste-wise population distribution		
Scheduled Caste	56083	25.31
Scheduled Tribes	2158	0.97
Other	163354	73.72
Total	**221595**	**100**
C. Literate and Illiterate population		
Literate Males	83259	**37.57**
Literate Females	67747	**30.57**
Total Literate Population	**151006**	**68.14**

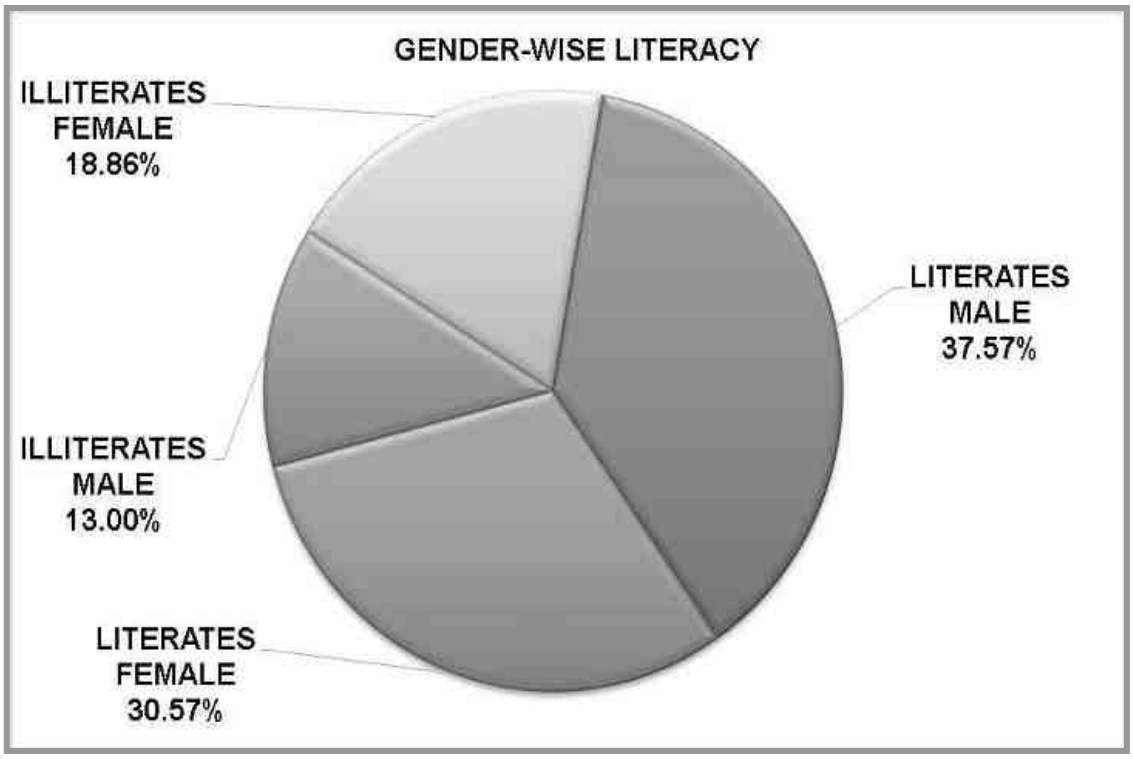
Details	Population	Percentage
Others Males	28803	**13.00**
Others Females	41786	**18.86**
Others Population	**70589**	**31.86**
Total	**221595**	**100**
D. Occupational structure		
Main workers	91982	41.50
Marginal workers	17173	7.70
Total Workers	**109155**	**49.20**
Total Non-workers	**112440**	**50.80**
Total	**221595**	**100**

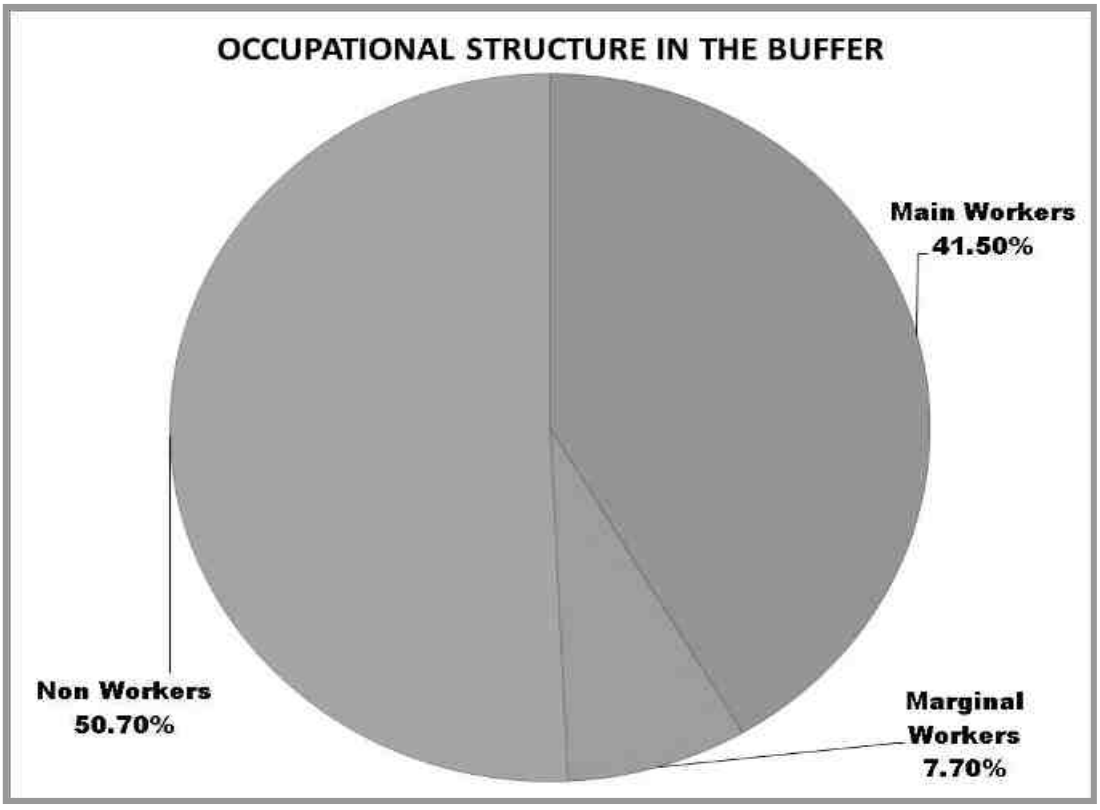
The total population of these 31 rural villages is 221595 in which the male population is 112062 (50.57%) and the female population is 109533 (49.43%). This shows that the male and female population ratio is almost equal. Among the total population 0.97% belong to Scheduled Tribes, 25.31% are Scheduled Caste and the balance 73.72% people belong to other castes. Among the total population, 68.15% of the people are literate.

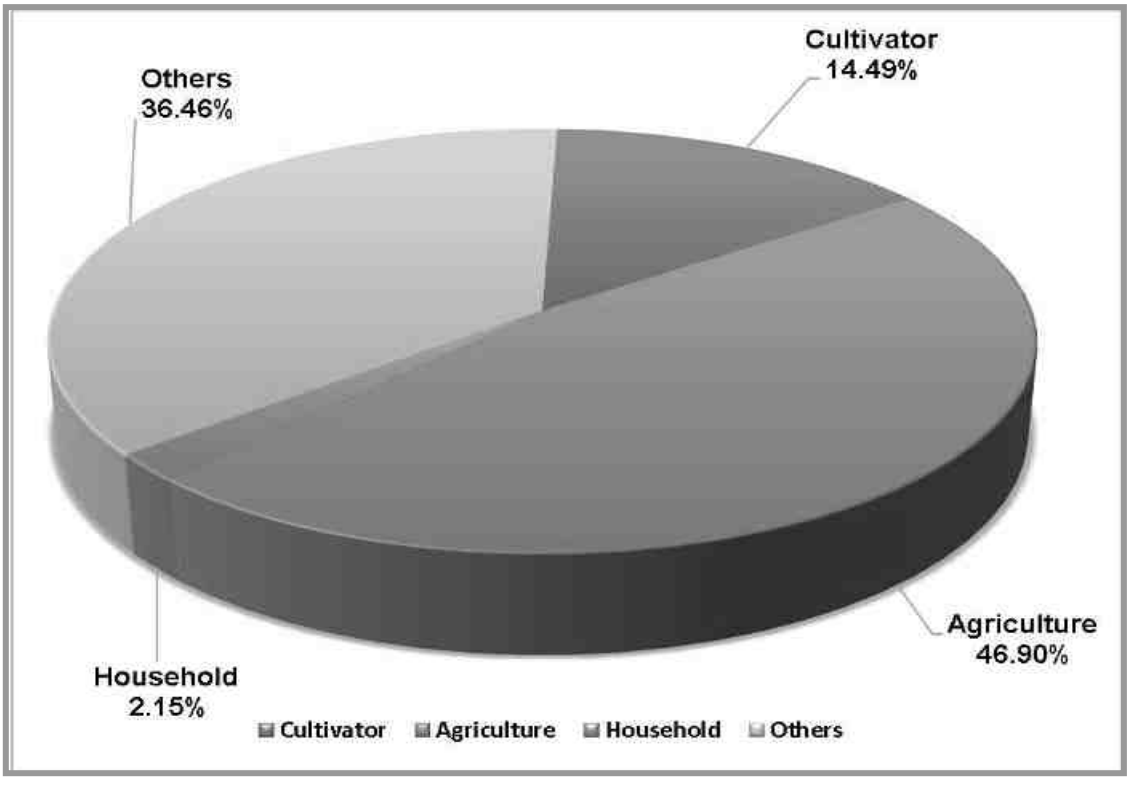
Among the total population, 37.57% are literate males and 30.57% are literate females. This shows that the male literates are slightly more than the female literates.

The village wise population, literacy levels and occupational structure details area given in **Annexures 5 and 6.** The demographic structure within the buffer zone is shown diagrammatically in **Figure No – 3.2.**

Figure 3.2: Demographic Structure in Buffer Zone




OCCUPATIONAL STRUCTURE IN THE BUFFER
Main Workers
41.50%
Non Workers
50.70%
Marginal
Workers
7.70%


Cultivator
14.49%
Others
36.46%
Agriculture
46.90%
Household
2.15%
Cultivator
Agriculture
Household
Others

3.2.3 DETAILS OF AMENITIES:

Based on 2011 census data, regarding the educational facilities, 31 rural villages out of 31 rural villages have educational facilities. There are totally 121 Primary Schools functioning in these 31 rural villages. Among them 4 villages have one primary school, 5 villages have 2 primary schools, 7 villages have 3 primary schools, 2 villages have 4 primary schools, 4 villages has 5 primary schools, 4 villages have 6 primary schools, 1 villages have 7 primary schools, 1 villages have 8 primary schools, 1 villages have 9 primary schools, 1 villages have 10 primary schools.

Table 3.4: Primary Schools in the Buffer Zone Rural Villages

S.No	No of Rural Villages	Number of primary schools	Total
1	1	0	0
2	4	1	4
3	5	2	10
4	7	3	21
5	2	4	8
6	4	5	20
7	4	6	24
8	1	7	7
9	1	8	8
10	1	9	9
11	1	10	10
Total	**31**		**121**

Table 3.5: Education Facility Availability

Particulars	Available in village
Govt Primary School	30
Govt Middle School	21
Govt Secondary School	11
Govt Senior Secondary School	5

With regards to educational facilities, from Primary School level to Senior Secondary School level, there is availability of some schools in the area.

Table 3.6: Healthcare Amenities Availability

Particulars	Available in village
Community Health Centre	1
Primary Health Centre	8
Primary Heallth Sub Centre	22
Maternity And Child Welfare Centre	11
TB Clinic	9
Hospital Allopathic	0
Hospiltal Alternative Medicine	0
Dispensary	8

Veterinary Hospital	8
Mobile Health Clinic	0
Family Welfare Centre	8

Out of 31 villages, 22 villages have primary health sub centers. Better medical facilities are available in the nearby larger towns.

Table 3.7: Infrastructure Facilities

Particulars	Available in village
Tap Water-Treated	29
Covered Well	16
Hand Pump	12
Tube Wells/Borehole	24
Post office	10
Bus services	27
Railway station	0
Commercial Bank	5
Cooperative bank	10

The details of the educational, medical and infrastructural facilities available in the buffer zone is provided in **Annexures- 7-9.** Further developments in this area with respect to these various facilities has occoured over the years.

3.2.4 SAMPLE SURVEY:

Study of the nearby villages to know about socio-economic conditions, including aspirations and requirements of the people show the following:

- Entire study area is well developed with reasonably good amenities like approach road bus facility, electricity, mobile phone connectivity, public distribution system, banks etc.
- Area reflects a mixed bag of land use comprising both small hills with scrubby lands, plains , Vaigai river and periyar Main canal wherein agricultural activities are dominant proximate to the available irrigation source.
- Majority of the people are small farmers; land labourers and others are working in companies. Other occupations include construction workers, vendors, etc.
- Agriculture is predominantly rainfed, tank fed and largely dependent on the rain , canal water.
- Due to inconsistent poor rainfall, non availability of adequate labours, poor economics and other issues agriucultural activites have declined.
- Other allied activities livestock rearing and poultry farming are also found.
- Well, Bore well are the main source for drinking water. There are OHT's, Ground level tanks, public taps are available .

3.2.4.3 IDENTIFIED CER ACTIVITIES:

The following activities are identified based on the survey, which will be modified and implemented based on the needs and requirements of the local people:

- Improvement in water harvesting measures
- Improvements in facilties in nearby schools

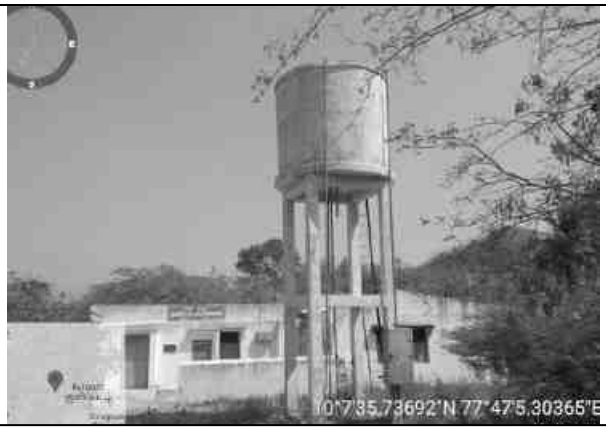
KULIPATTI VILLAGE – MIDDLE SCHOOL

MEENAKSHIPURAM VILLAGE – PRIMARY SCHOOL

MEENAKSHIPURAM VILLAGE, WATER TANK

C.PUTHUR VILLAGE, WATER TANK

C.PUTHUR VILLAGE, PRIMARY SCHOOL



KULIPATTI VILLAGE – WATER TANK

3.3 EXISTING ENVIRONMENTAL QUALITY

3.3.1 MICRO-METEOROLOGY

3.3.1.1 General:

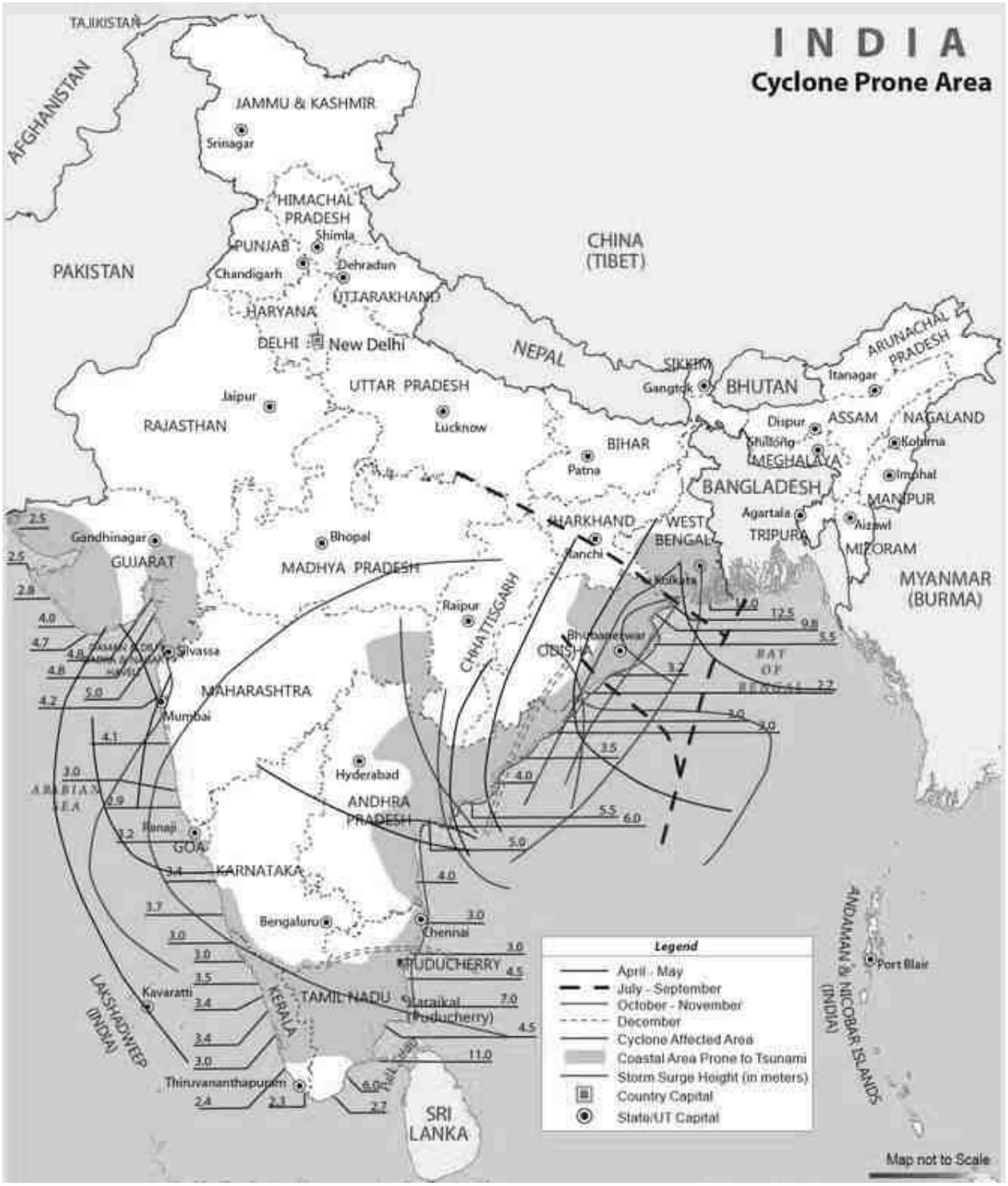
The meteorological conditions in an area regulate the dispersion of air pollutants being released into the atmosphere. The principal variables are horizontal convective transport i.e. wind speed and direction and vertical convective transport, i.e. mixing height, stability class and topography of the area.

3.3.1.2 Historical Meteorological Data:

A. Cyclones And Depressions

Cyclonic storms and depressions in Bay of Bengal affect the East Coast of India. Isolated ones, forming in January to March in the South Bay of Bengal move West-North-westwards and hit Tamil Nadu coast. In April and May, cyclonic storms and depressions form in the South and adjoining Central Bay and move initially to the Northwest, then North and then recurve to the Northeast striking the Arakan coasts in April and Andhra Pradesh (AP)-Orissa-West Bengal (WB) – Bangladesh coasts in May. Most of the monsoon (June – September) storms develop in the central and in the north bay and move west – north - westwards affecting AP – Orissa – WB coasts. Post monsoon (October – December) storms form mostly in the south and central Bay, recurve between 15º and 18 º N affecting Tamil Nadu – AP – Orissa – WB – Bangladesh coasts. **Figure No - 3.3** depicts the history of cyclonic storms, which have struck the Indian coast during the months of October, November and December during the last 75 years. (**Source: Vulnerability Atlas of India series, above figure accessed from www.maps of india.com)**. East coast is prone to cyclonic storms round the year but mostly these occur prior to SW i.e., in May and after SW monsoon i.e., in October and November.

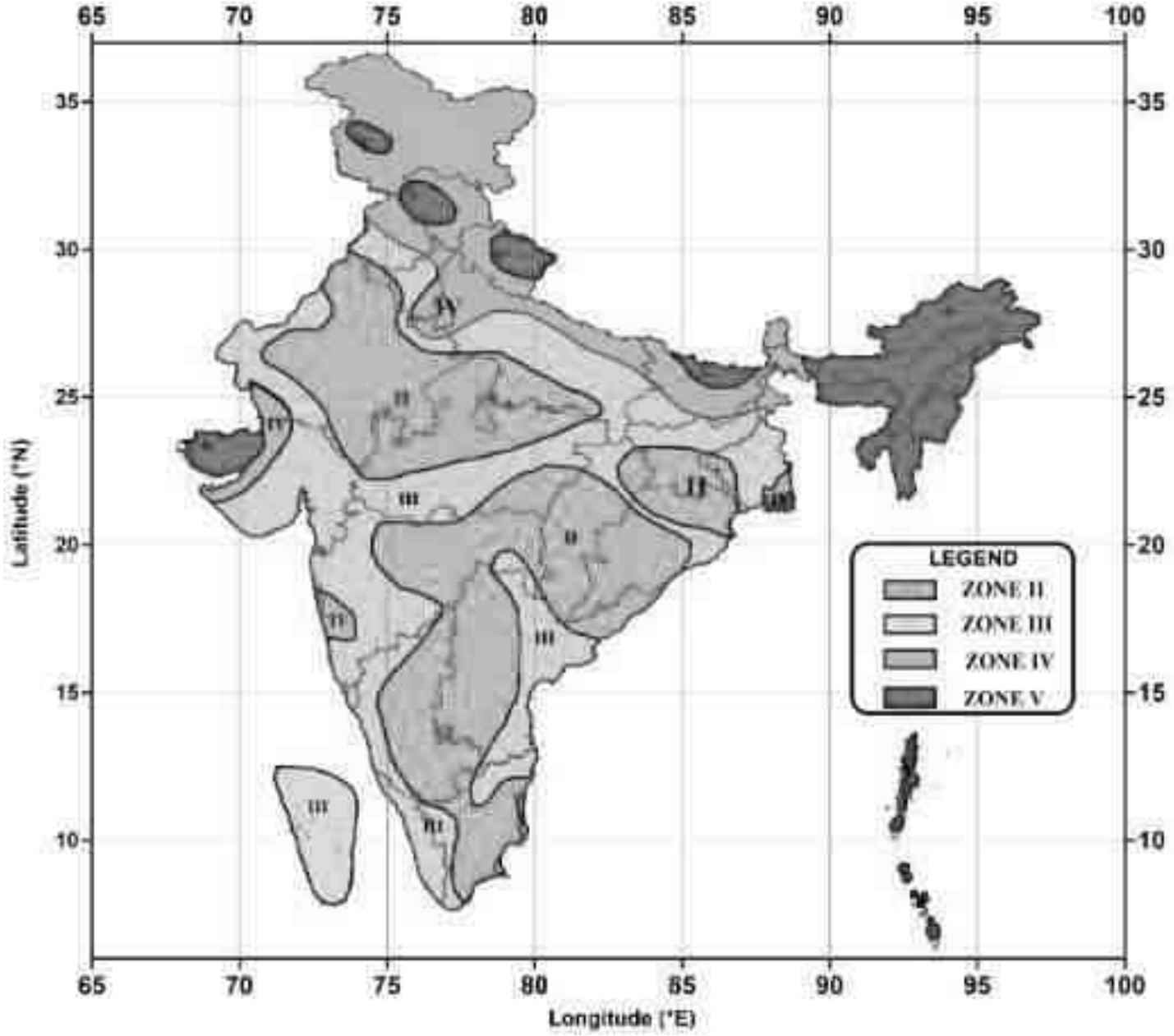
Figure 3.3: Cyclone Prone Areas



B. SEISMIC DATA

From the seismic zone map of India as depicted in the **Figure No - 3.4,** it can be seen that the project site and study area falls in the Zone – II and is described as least active zone.

Figure 3.4: Seismic Zone Map of India



C. Climate and Rainfall Data:

Rainfall:

Main rainy season is from October to the middle of January.November is generally the rainiest month.

Temparture:

The district enjoys a tropical climate. The period from April to June is generally hot and dry. The weather is pleasant during the period from November to January. The temperature ranging from 22.5ºC to 34.3ºC in plains and in hilly terrain of the district experiencing a maximum of 22ºC in summer and a minimum of 8 ºC during winter.

Table 3.8: Average Annual Rainfall Data (2011-2020)

YEAR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Cumulative
2011	20.28	91.32	33.06	93.41	45.59	500.4	290.16	367.98	236.04	170.96	213.25	59.3	2121.75
2012	3.87	4.51	19.12	159.96	53.25	313.97	268.69	358.01	161.13	185.66	66.96	3.05	1598.18
2013	0.4	31.62	38.31	23.75	33.92	19.13	5.45	71.66	85.18	123.63	43.74	43.63	520.42
2014	2.68	2.93	9.3	13.46	192.57	27.04	11.85	110.59	96.72	285.67	44.57	48.8	846.18
2015	23.41	0.06	24.55	128.84	153.09	61.1	18.63	37.89	114.46	104.25	260.48	84.72	1011.48
2016	0.61	0.3	2.28	5.47	102.77	33.31	73.4	28.8	27.68	122.53	22.91	46.72	466.78
2017	26.99	0.23	35.25	8.5	38.35	29.23	7.28	98.57	94.64	118.44	54.18	11.57	523.23
2018	3.03	3.86	13.45	7.05	114.42	20.82	30.04	20.95	104.2	122.58	116.79	8.82	566.01
2019	0.66	3.62	2.52	24.99	23.02	34.13	26.1	35.55	184.27	194.7	101.21	82.83	713.6
2020	1.59	0	5.58	25.95	53.09	85.27	52.38	111.97	168.35	82.01	183.99	118.69	888.87
Normal	20.7	12.3	18.2	57.7	72.1	30	45.7	64.7	110.4	184.9	136.3	78	831.6

Source – IMD GRID – Dindigul District

Figure 3.5: Total Rainfall

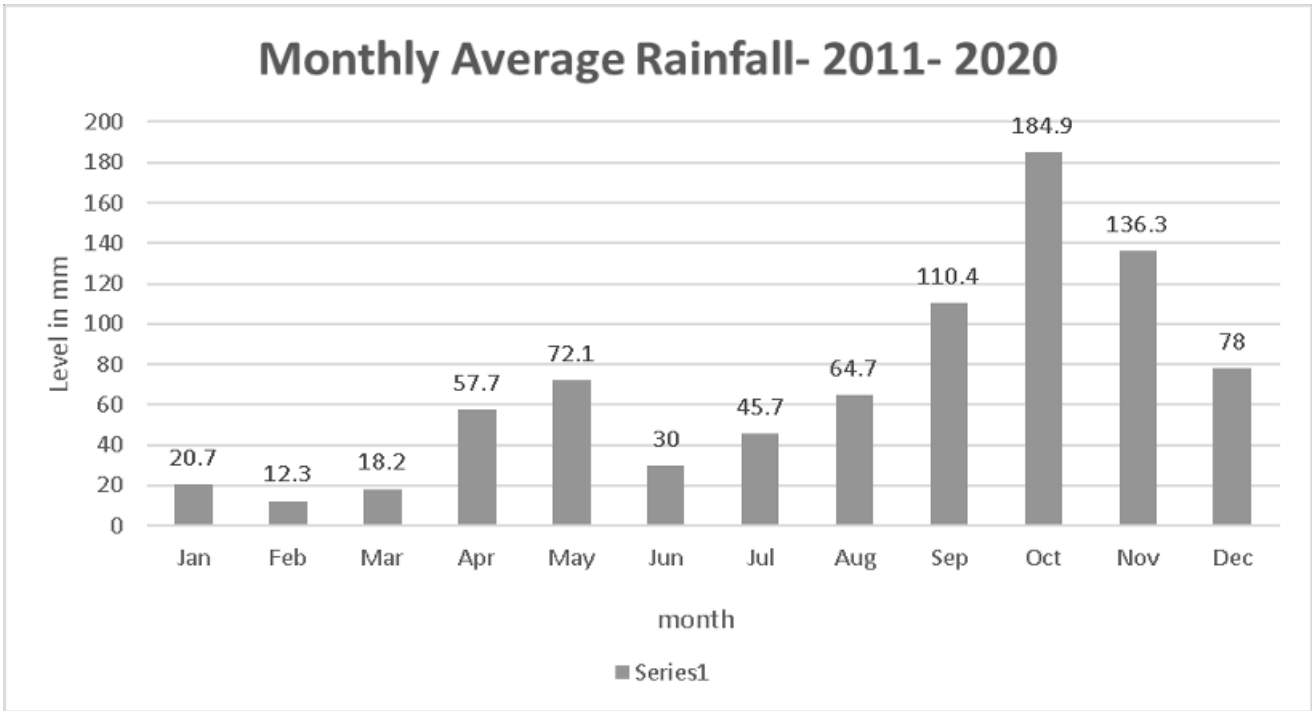
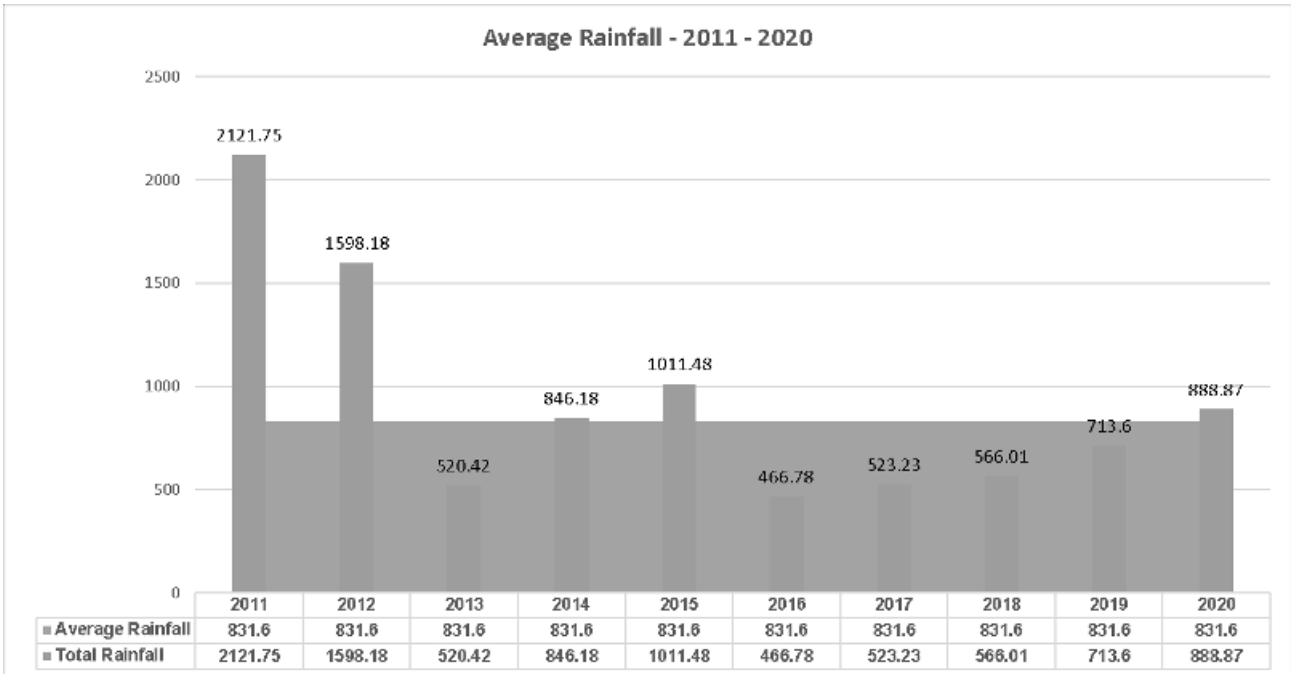


Figure 3.6: Average Monthly Rainfall



3.3.1.3 SITE SPECIFIC METEOROLOGICAL DATA:

Micrometeorology and microclimatic parameters were recorded by installing a weather monitoring station near mine lease area. Data of wind velocity, wind direction, ambient temperature, relative humidity, were recorded throughout the monitoring period.

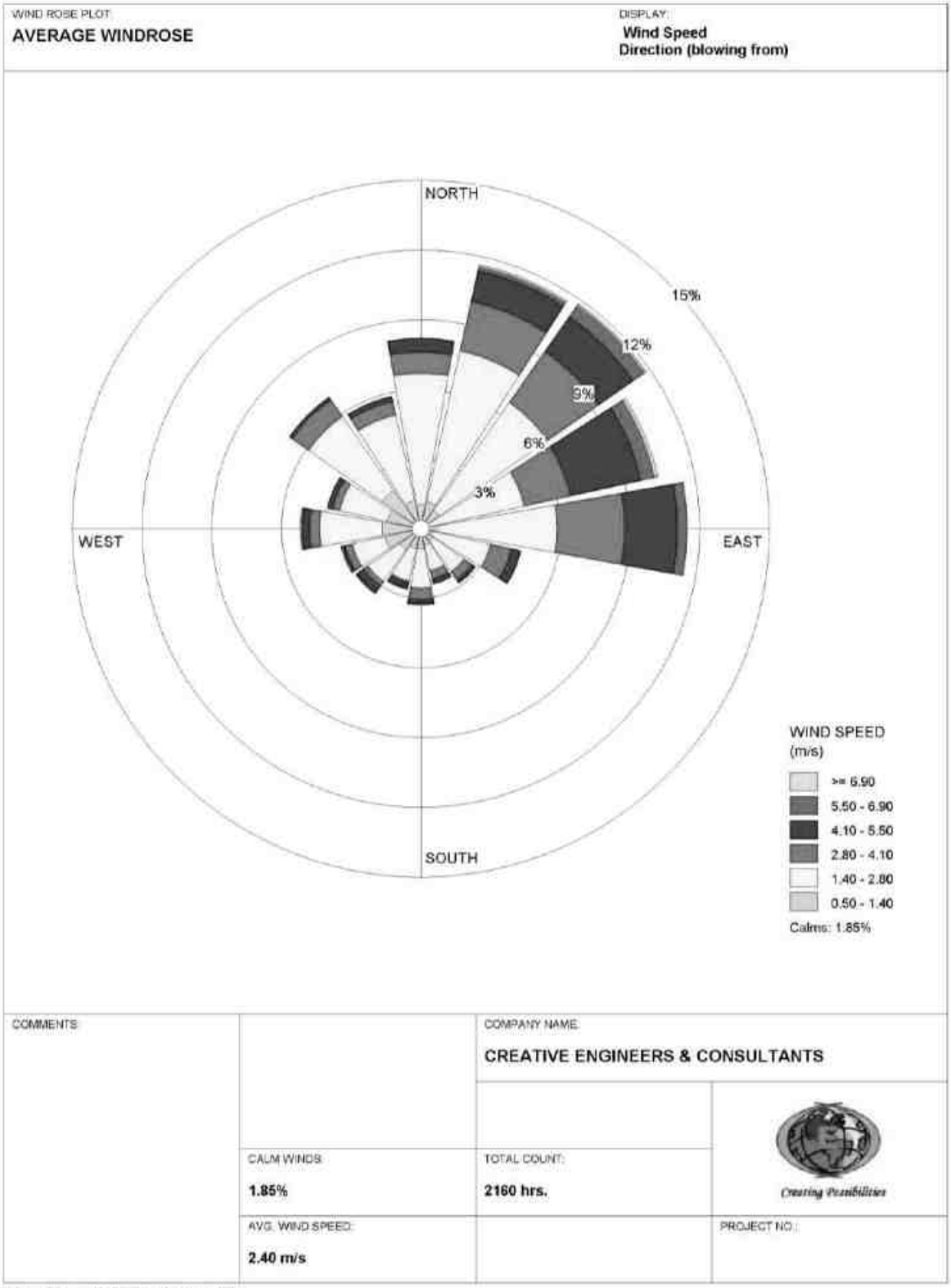
DATA ANALYSIS:

The temperature in the area during the study period ranged from 17.0°C to 37.0°C while the relative humidity varied between 37.0 – 96.0%. The wind speed during the study period ranged from <1.8 to 30.7 Km/hr. The predominant wind direction is from north east. The meteorological data are presented in **Table no – 3.9.** The average wind rose is depicted in **Figure No - 3.7.**

Table 3.9: Meteorological Data

Season: Postmonsoon Season, October 2024 to December 2024)			
S.NO	**PARAMETERS**	**MIN**	**MAX**
1	Temperature In ^{0}c	17.0	37.0
2	Humidity in %	37.0	96.0
3	Wind speed in km/hr	<1.8	30.7
4	Predominant wind direction from	NE	

Figure 3.7: Average Wind Rose



3.3.2 AMBIENT AIR QUALITY (AAQ):

Ambient Air quality has been assessed through a network of 6 ambient air quality stations. The following methodology has been considered for design of ambient air quality monitoring network in the area. Based on these criteria, 6 numbers of air sampling stations were selected in the area as shown below in Table No.3.10.

- Topography / terrain of study area.
- Populated areas within study area.
- Residential /sensitive areas within study area.
- Magnitude of surrounding industries.
- Representation of regional background levels.
- Representation of cross sectional distribution in down wind direction.
- Predominant wind direction and wind pattern.

Table 3.10: Air Quality Monitoring

1.	**Monitoring Period**	Postmonsoon Season (October to december 2024)
2.	**Monitoring Location**	The location map showing Ambient Air Quality study stations are shown in **Figure No- 3.8.**
3.	**Methodology**	
	Parameter	**Protocol**
	a. Particulate Matter (PM10)	Gravimetric (IS 5182: Part 23:2017)
	b. Particulate Matter PM2.5	Gravimetric (IS 5182: Part 24:2019)
	c. Sulphur Dioxide	Colorimetric (West & Gaeke Method) (IS 5182: Part 02: 2017)
	d. Nitrogen Dioxide	Colorimetric(Modified Jacob & Hocheiser Method) (IS 5182: Part 06:2017)
	e. Carbon Monoxide	CO Monitor
	f. Silica	Colorimetric (Molybdate Method) NIOSH 7601 -2003
4.	**Monitoring Frequency**	2 days in a week, 4 weeks in a month for 3 months in a season.

Table 3.11: Air Quality Monitoring Locations

S.NO	LOCATION CODE	LOCATION	DISTANCE FROM CORE ZONE (KM)	DIRECTION
1	A1	Near Mine Lease Area	-	-
2	A2	Kulipatti Village	820m	NW
3	A3	C.Pudur Village	530m	SE
4	A4	Kombaipatti Village	1.3Km	N
5	A5	Koottathuayyampalayam Village	1.6Km	SW
6	A6	Meenakshipuram Village	1.7Km	NW

Figure 3.8: Ambient Air Quality Study Stations

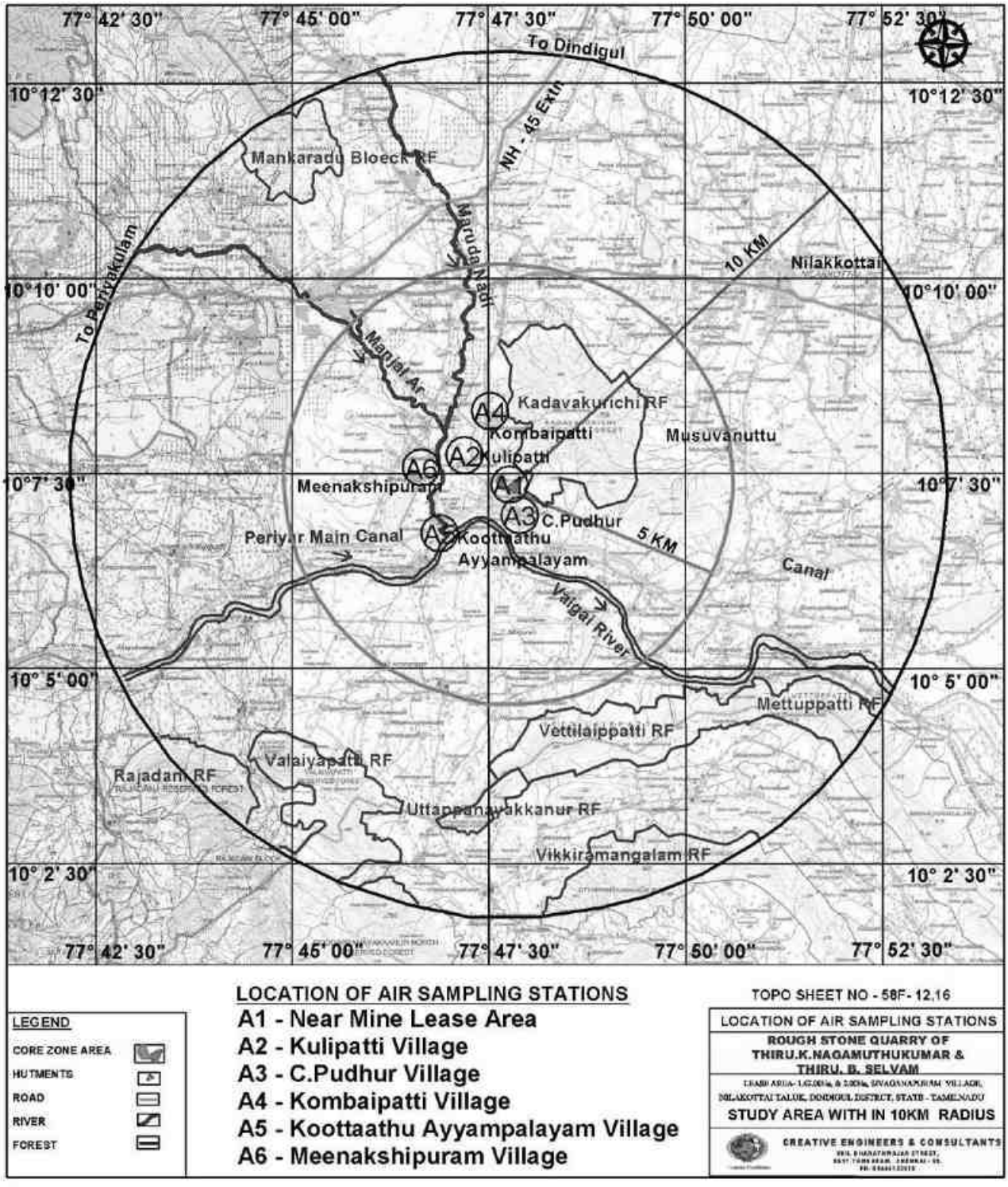


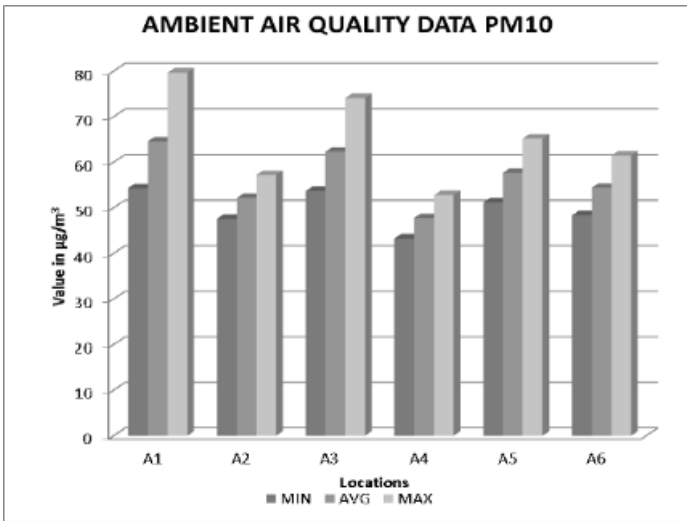
Table 3.12: Ambient Air Quality Data

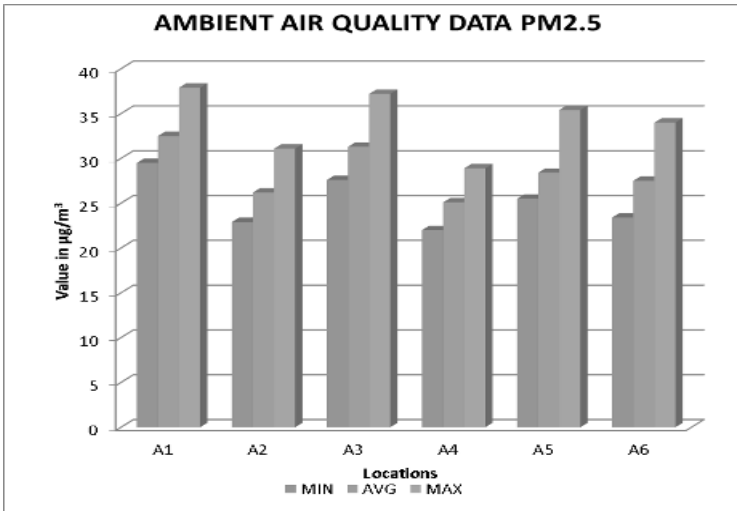
All Value in µg/m³

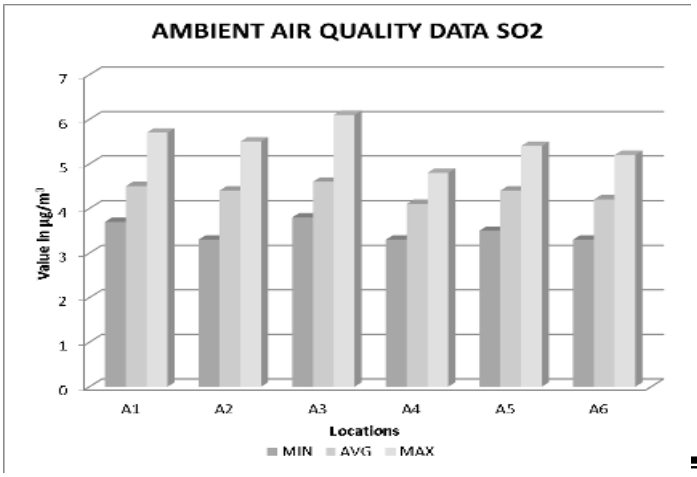
PARAMETERS	Cat.*	PM_{10}			$PM_{2.5}$			SO_2			NO_2		
LOCATIONS		**MIN**	**AVG**	**MAX**	**MIN**	**AVG**	**MAX**	**MIN**	**AVG**	**MAX**	**MIN**	**AVG**	**MAX**
A1-Near Mine Lease Area	I	54.3	64.6	79.7	29.5	32.5	37.9	3.7	4.5	5.7	8.9	11.5	14.1
A2-Kulipatti Village	R	47.6	52.2	57.2	22.9	26.2	31.1	3.3	4.4	5.5	8.3	10.1	12.6
A3-C.Pudur Village	R	53.7	62.3	74.1	27.6	31.3	37.2	3.8	4.6	6.1	9.3	11.7	15.7
A4-Kombaipatti Village	R	43.3	47.8	52.8	22	25.1	28.9	3.3	4.1	4.8	7.5	9.7	12.2
A5-Koottathuayyampalayam	R	51.2	57.7	65.2	25.5	28.4	35.4	3.5	4.4	5.4	8.5	10.7	13.9
A6-Meenakshipuram Village	R	48.4	54.4	61.5	23.4	27.5	34	3.3	4.2	5.2	8.3	10.7	13.5
NAAQ Limits		**PM_{10}**			**$PM_{2.5}$**			**SO_2**			**NO_2**		
	*	**100**			**60**			**80**			**80**		
	**	**100**			**60**			**80**			**80**		

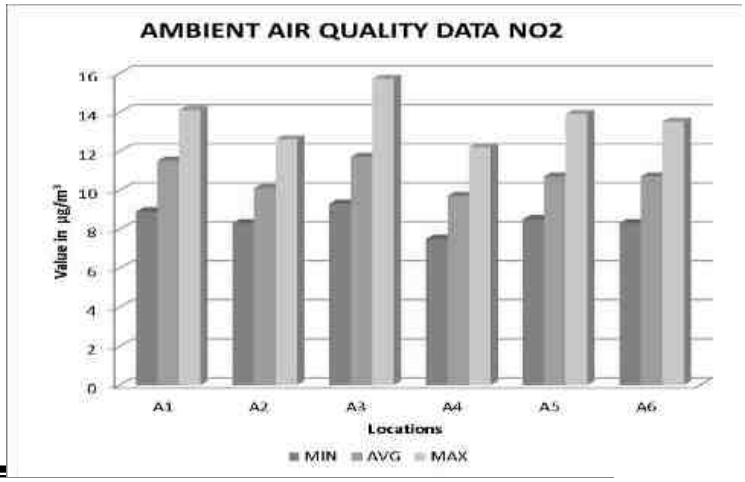
***Note:** Category: * - Industrial, Residential, Rural and other area, ** – Ecologically Sensitive Area (notified by Central Government)*

Figure 3.9: Ambient Air Quality Data









3.3.2.1 Results and Discussion:

The AAQ monitored data for all locations for above parameters are shown in **Table No - 3.12 and** in **Figure No - 3.9.** Ambient Air Quality data during the study period is given in **Annexure-10.** From the table it is seen that, in the ambient air, the PM_{10} values were in the range of 43.3-79.7 µg/m3. PM2.5 values were in the range of 22-37.9 µg/m3. SO2 levels were ranging from 3.3–6.1 µg/m3. NO2 levels were ranging from 7.5-15.7 µg/m3.

The existing Ambient Air Quality levels for PM_{10}, $PM_{2.5}$, SO_2 and NO_2, are within the NAAQ standards prescribed CPCB limits of 100 µg/m^3, 60 µg/m^3, 80 µg/m^3 & 80 µg/m^3. The CO values in all the locations were found to be below detectable limit. Silica values in the study area are found to be below detectable limit. (Detection limit – 0.05 mg/m^3)

3.3.3 WATER ENVIRONMENT:

Assessment of baseline data on water environment includes Identification of water resources, Collection of water samples and Analyzing water samples collected for physico-chemical parameters as per standards. The water sampling was carried out for 6 locations. Details of the same has been provided below:

Table 3.13: Water Quality Monitoring

1.	**Monitoring Period**		Postmonsoon Season (October to december 2024)		
2.	**Monitoring Location**		The location map showing water sampling locations are given in **Figure No.3.10.**		
	Code	**Location**	**Sample Type**	**Distance**	**Direction**
	W1	Near Mine lease area	Bore well	-	-
	W2	Kulipatti village	Bore well	820m	NW
	W3	C.Pudur Village	Bore well	530m	SE
	W4	Kombaipatti Village	Bore well	1.3Km	N
	W5	Koottathuayyampalayam Village	Bore well	1.6Km	SW
	W6	Meenakshipuram Village	Bore well	1.7Km	NW
3.	**Methodology**		Sampling - IS 3025 Part - I		
			Analysis – IS 3025 relevant parts / APHA 23rd Edition		

Figure 3.10: Location of Water Sampling Stations

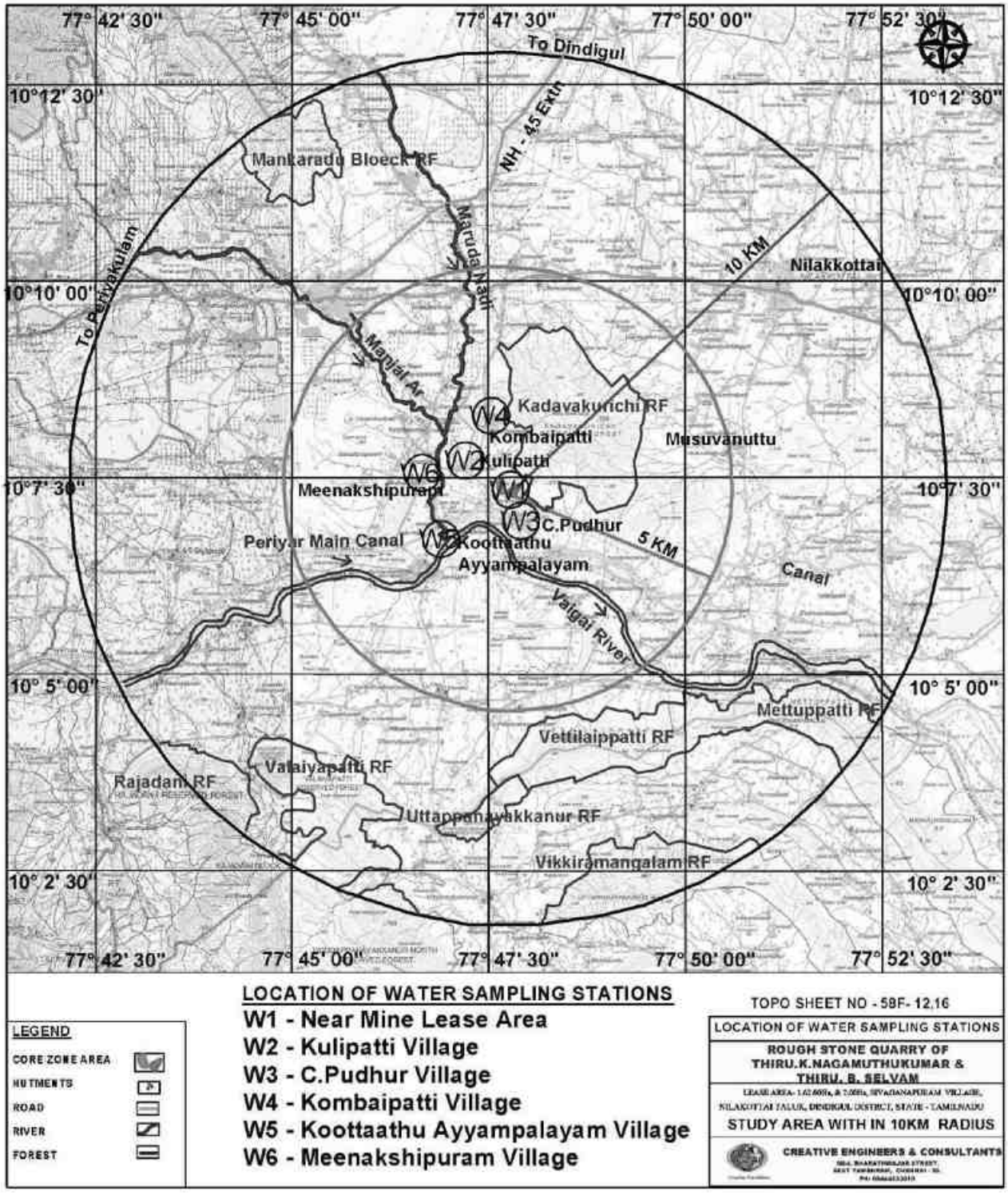


Table 3.14: Summary of Water Quality Data

Season	Postmonsoon Season (October to december 2024)	
Monitoring Locations	6 locations	
Parameters	**Range of values**	**Limits***
pH at 25 ˚C	7.23 – 7.95	**6.5-8.5**
Total Dissolved Solids, mg/L	175 – 560	**2000**
Chloride as Cl-, mg/L	18.90 – 158.80	**1000**
Total Hardness (as CaCO3), mg/L	92.90 – 391.90	**600**
Total Alkalinity (as CaCO3), mg/L	155.80– 307.50	**600**
Sulphates as SO42-, mg/L	14.10 – 32.20	**400**
Iron as Fe, mg/L	0.02 – 0.05	**0.3**
Nitrate as NO3, mg/L	1.09 – 1.61	**45**
Fluoride as F, mg/L	0.12 – 0.45	**1.5**

3.3.3.1 Results and Discussion:

The results of the water sample analysis are shown in **Table No - 3.14.** The pH values of bore well water were ranging in between 7.23 – 7.95, TDS values were in the range of 175 – 560mg/L. Chloride values were ranging from 18.90 – 158.80mg/L. Iron content was found to be in the range 0.02 – 0.05mg/L. The water quality of ground water is found to be good & within the prescribed Permissible limits of IS: 10500 Norms in the absence of an alternative source as per Drinking Water Specifications. The water quality data is provided in **Annexure-11.**

3.3.4 NOISE ENVIRONMENT:

Opearional phase of this project may lead to increase noise levels from the existing levels at least in and around the project area. As noise level beyond permissible limits will cause adverse impacts on the environment, it has become imperative to assess the noise levels in and around the mine area. Noise level measurements were taken at the 6 locations during the monitoring period. Details of the same are provided below:

Table 3.15: Noise Level Monitoring

1.	**Monitoring Period**	Postmonsoon Season (October to december 2024)		
2.	**Monitoring Location**	The location map showing noise monitoring locations are given in **Figure No.3.11.**		
	Code	**Location**	**Distance**	**Direction**
	N1	Near Mine Lease Area	-	-
	N2	Kulipatti Village	820m	NW
	N3	C.Pudur Village	530m	SE
	N4	Kombaipatti Village	1.3Km	N
	N5	Koottathuayyampalayam Village	1.6Km	SW
	N6	Meenakshipuram Village	1.7Km	NW
3.	**Methodology**	Noise levels were measured using sound level meter manufactured by (Model No - SL- 4001, Make - Lutron). Sound Pressure Level (SPL) measurements were measured at all locations where ambient air quality monitored; one reading for every hour was taken for 24 hours.		
4.	**Monitoring Frequency**	Once during monitoring period		

Figure 3.11: Location of Noise Sampling Stations

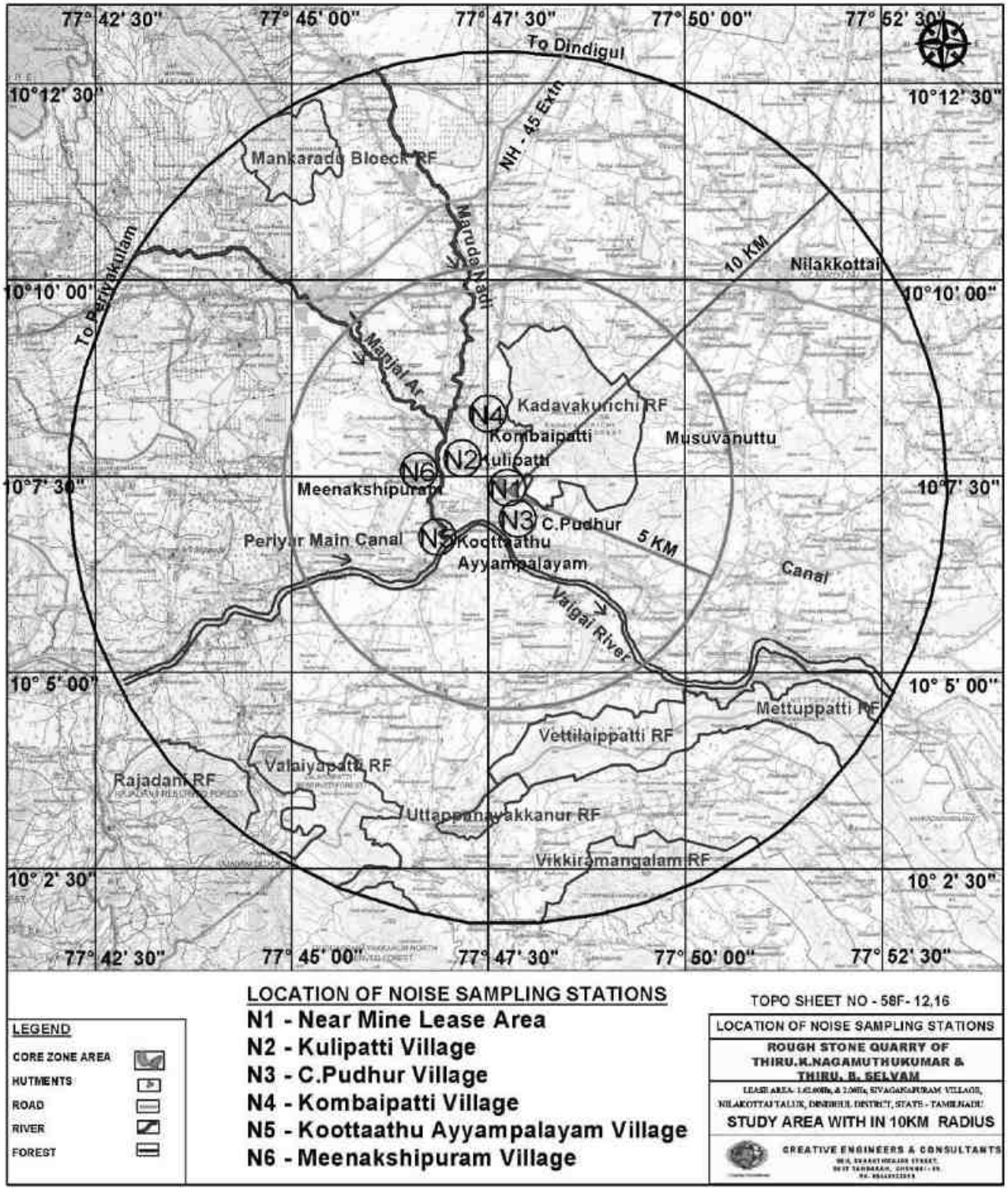
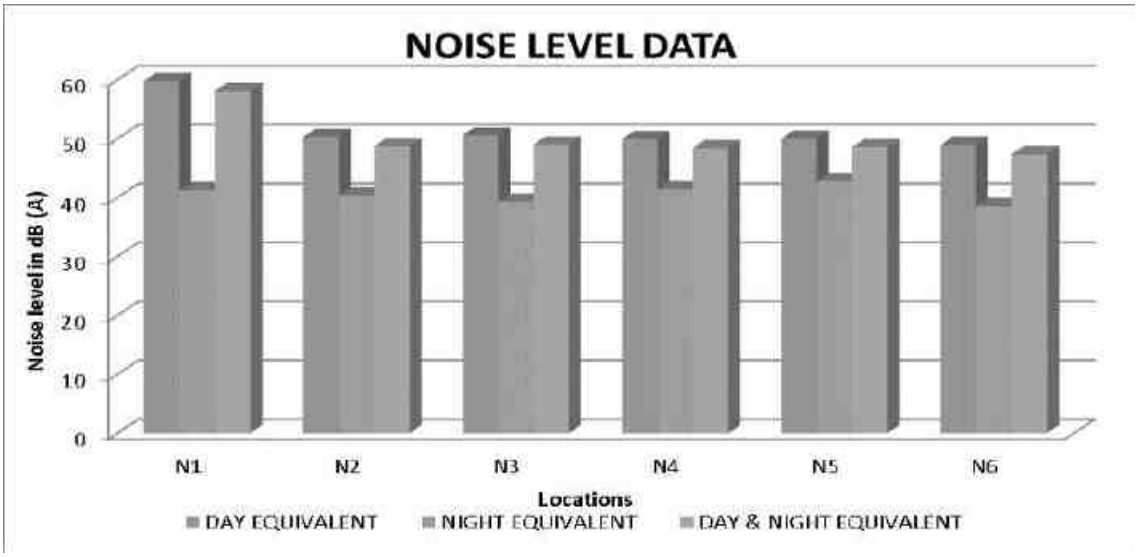


Table 3.16: Ambient Noise Level in dB (A)

Date and time of monitoring	N1	N2	N3	N4	N5	N6
Day Equivalent	49.5	50.3	50.6	49.9	50.0	49.0
Night Equivalent	39.4	40.4	39.3	41.5	42.8	38.6
Day & Night Equivalent	47.9	48.7	49	48.4	48.6	47.4
Limits: As per CPCB: Work zone Exposure in 8 hr - 90 dB(A) As per MoEF&CC: Residential: Day equivalent - 55 dB(A); Night equivalent - 45 dB(A)						

Figure 3.12: Noise Level Data



3.3.4.1 Results and Discussion:

The results of noise levels for all locations are given in **Table No-3.16**.The noise values for all above locations are shown in a comparative chart given in **Figure No - 3.12.** Day Equivalent Noise (Leq-d) noise levels were ranging from 49.0 dB(A) to 50.6 dB(A) and night Equivalent Noise (Leq-d) levels ranged between 38.6 dB(A) to 42.8 dB(A). While comparing with the MOEF&CC Norm of 55 dB(A) for day time and 45 dB(A) for night time, the monitored ambient noise levels were within the limit values for Residential areas.

3.3.5 SOIL CHARACTERISTICS:

Soil samples were collected in 5 locations in the core and buffer zone to analyse the physiochemical characteristics of the soil in the area. Elaborate details of the same has been provided below.

Table 3.17: Soil Quality Monitoring

1.	**Monitoring Period**	Postmonsoon Season (October to december 2024)		
2.	**Monitoring Location**	The location map showing soil sampling locations are given in **Figure No.3.13.**		
	Code	**Location**	**Distance**	**Direction**
	S1	Near Mine lease area	-	-
	S2	Kulipatti village	820m	NW
	S3	C.Pudur Village	530m	SE
	S4	Kombaipatti Village	1.3Km	N
	S5	Koottathuayyampalayam Village	1.6Km	SW
3.	**Methodology**	Composite soil samples using sampling augers and field capacity apparatus.		
4.	**Monitoring Frequency**	Once during monitoring period		

Figure 3.13: Location of Soil Sampling Stations

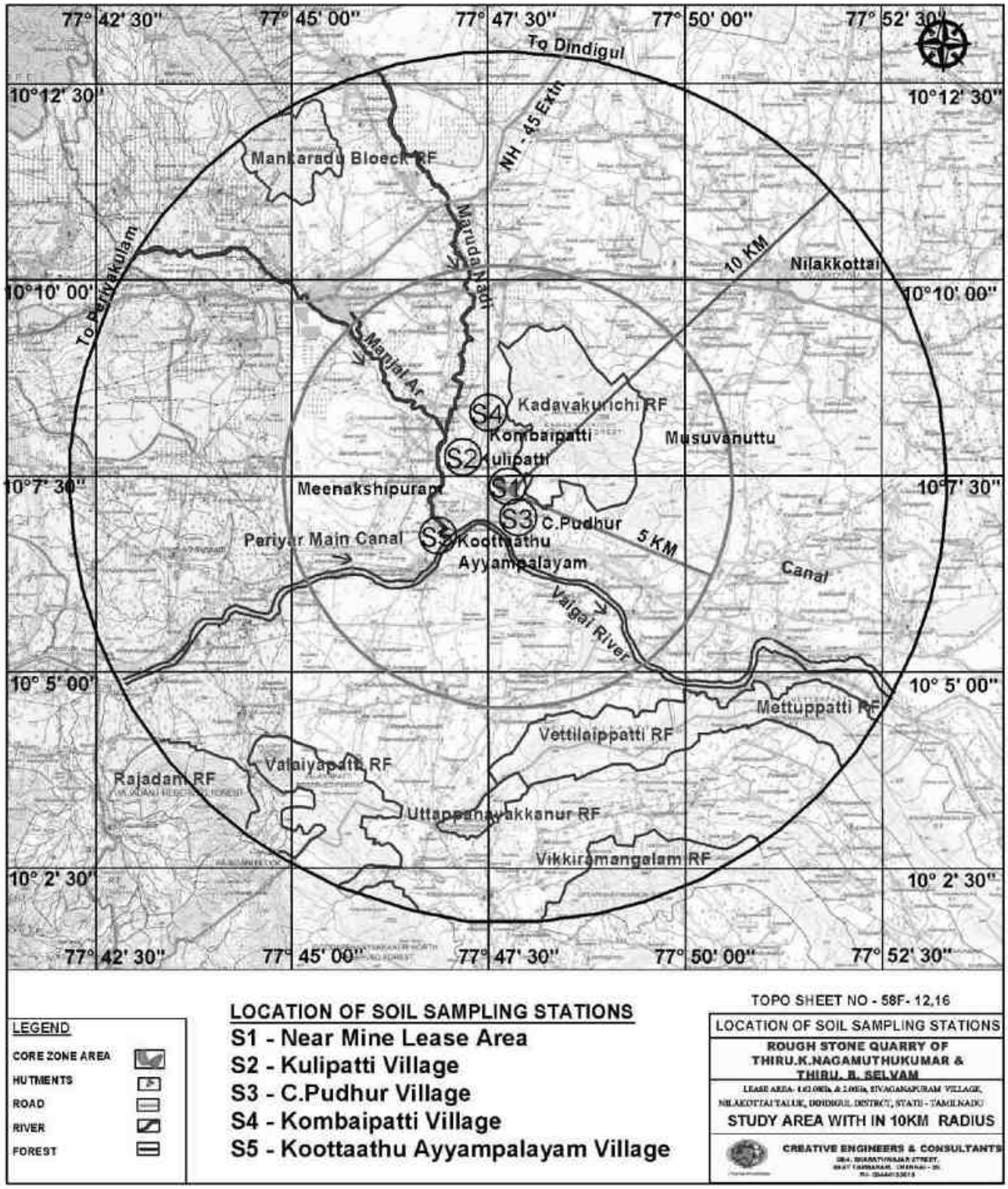


Table 3.18: Soil Quality Data

S.No	Parameters	Unit	S1	S2	S3	S4	S5
1	pH at 25°C	-	7.89	6.46	6.33	7.22	6.39
2	Electrical Conductivity	(µmhos/cm)	31.5	23.3	11	30.5	51.5
3	Dry matter content	%	94.98	94.49	97.65	92.33	97.62
4	Water Content	%	5.02	5.51	2.35	7.67	2.37
5	Organic Matter	%	1.3	1.8	1.4	1.1	1.3
6	Soil texture	-	CLAY	CLAY	CLAY	CLAY	CLAY
7	Grain Size Distribution i. Sand	%	14.65	27.84	32.87	32.62	32.82
8	ii. Silt	%	25.31	16.5	15.95	12.91	15.15
9	iii. Clay	%	60.04	55.66	51.18	49.47	52.03
10	Phosphorous	µg/g	3.2	3.4	2.4	2.7	2.5
11	Sodium	mg/kg	623	435.4	634.2	430.2	636
12	Potassium	mg/kg	929.5	816.4	1018.7	1008.8	1020
13	Total Nitrogen	mg/kg	186.2	143.2	128.9	156.4	130
14	Total Sulphur	%	BDL(D.L.0.02)	BDL(D.L.0.02)	BDL(D.L.0.02)	BDL(D.L.0.02)	BDL(D.L.0.02)
15	Sodium Absorbtion Ratio	%	4.3	5.6	4.8	5.2	5.9
16	Cation exchange Cabacity	meq/100g	19.6	20.2	21.4	18.9	21.2

3.3.5.1 Results and Discussion:

Results of the soil samples show that the pH values were ranging between 6.33 to 7.89 and Electrical Conductivity values were ranging between 11.00 – 51.50 µmhos/cm. Soils are generally Clay type. Organic matter values were ranging between 1.10 – 1.80 %.Total Nitrogen values were ranging between 128.90 – 186.20mg/kg. Phosphorus values were ranging between 2.40– 3.40 µg/g. Potassium values were ranging between 816.40 -1020 mg/kg. Sodium values were ranging between 430.20- 636 mg/kg. Total Sulphur values were observed to be BDL. The soil quality data for the 5 samples collected and analyzed are provided in **Table No – 3.18.**

3.4 LAND ENVIRONMENT - LANDUSE & LAND COVER

For preparing an impact statement, aspects of the land conditions are covered under land use. An industrial project / mine can cause changes in land use, soil process in different intensities depending upon the size of the project and distance involved between the industries and the area. Here, land use status for a radius of 10 km has been studied.

3.4.1 DATA USED AND METHODOLOGY

For the present study on land use pattern of buffer area around the proposed stone and gravel quarry, an archived historical data of Landsat 8 data shas been used as base data (Figure No.3.14) has been used to generate the require landuse map showing their spatial pattern within the buffer area. The table showing data used for generation of information on landuse and subsequent GIS analysis is given below.

Table 3.19: RS satellite image used for the present study

S.No	Type of Data	Date	Generated Map
1.	Landsat 8	DEC-2024	Landuse (LU) Map showing 10 Km buffer zone

Interpretation of satellite image requires understanding of relationship between image elements and their respective terrain elements. Since, in the present study, the landuse information is obtained using visual interpretation, an interpretation key is generated. The image elements such as color, tone, texture, size, shape and associated elements have been used to delineate various landuse categories. The landuse categorization and nomenclature used in the present study is based on the national level landuse classification system, which is adopted for the entire country as recommended by NationaL Remote Sensing Centre (NRSC), Department of Space, Government of India.

Figure 3.14 : Landsat 8 Satellite Data of the Study Area

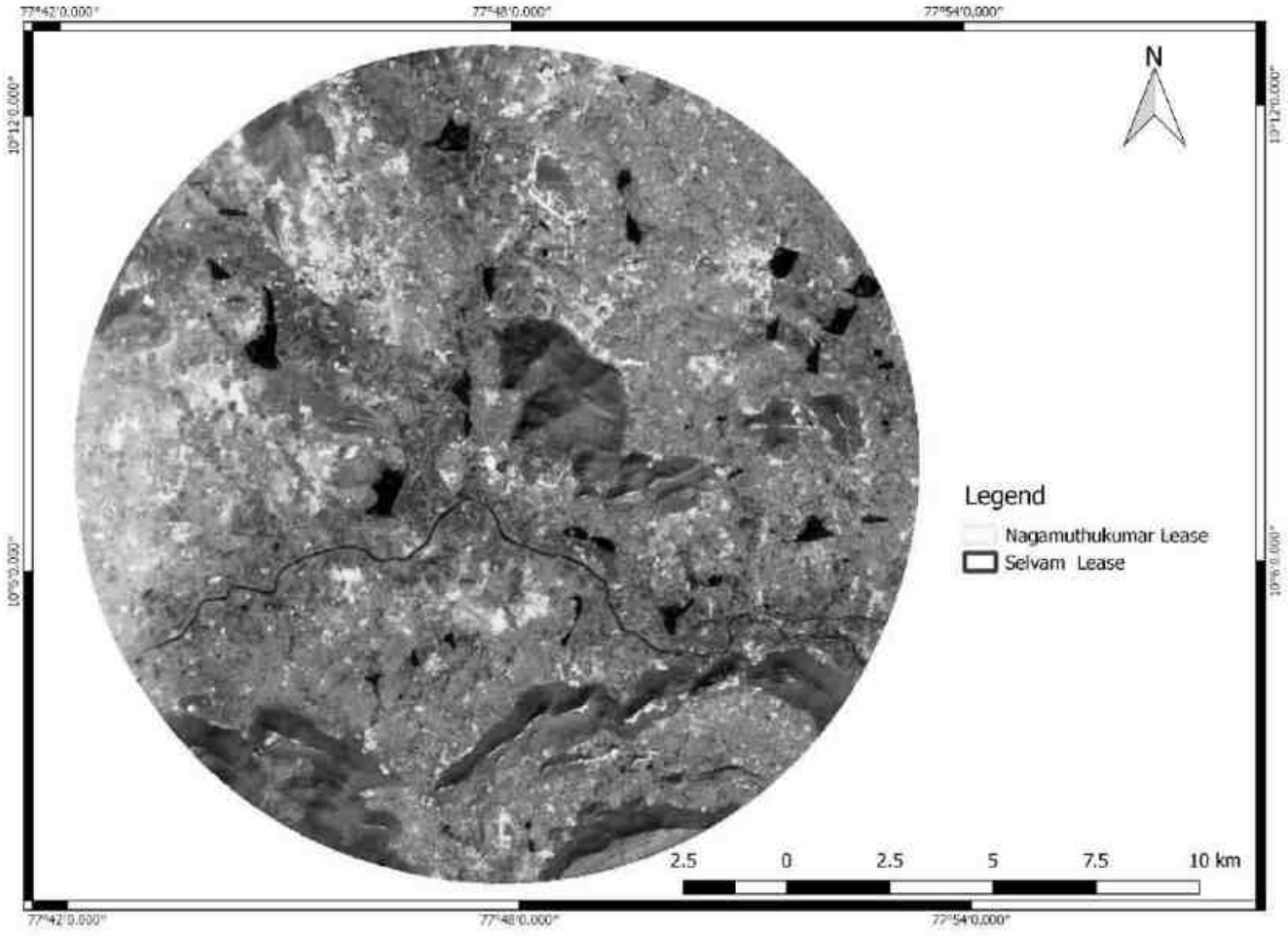


Table 3.20: Major Landuse Units of the Study Area

S.No	Major Category	Landuse unit
1	Built-Up Land	Village, Town, Industrial / Vacant Area
2	Agricultural Land	Crop Land Fallow Land Plantation Farm Land
3	Forest Land	Open Scrub Forest
4	Waste Land Mining Area	Land With Scrub/ Land Without Scrub Barren Rocky/ Stony Waste Quarries / Abandoned Quarries
5	Waterbodies	Tanks/ Rivers / Streams

Such LandUse and Land cover (LULC) categories have been verified using field check and identified sample sites within the buffer area, verified on field and transferred into gis geo-coordinates using observation coordinates received from hand held GPS (global positioning system) instrument. Thus, an interpreted final landuse map has been generated (Figure No. 3.15) using above such elaborate procedure and transformed into GIS environment for its spatial distribution and area estimation. Spatial nature and extent of various landuse categories within the buffer area is discussed is given below:

Figure 3.15: Map Showing Land Use Categories around 10km Buffer

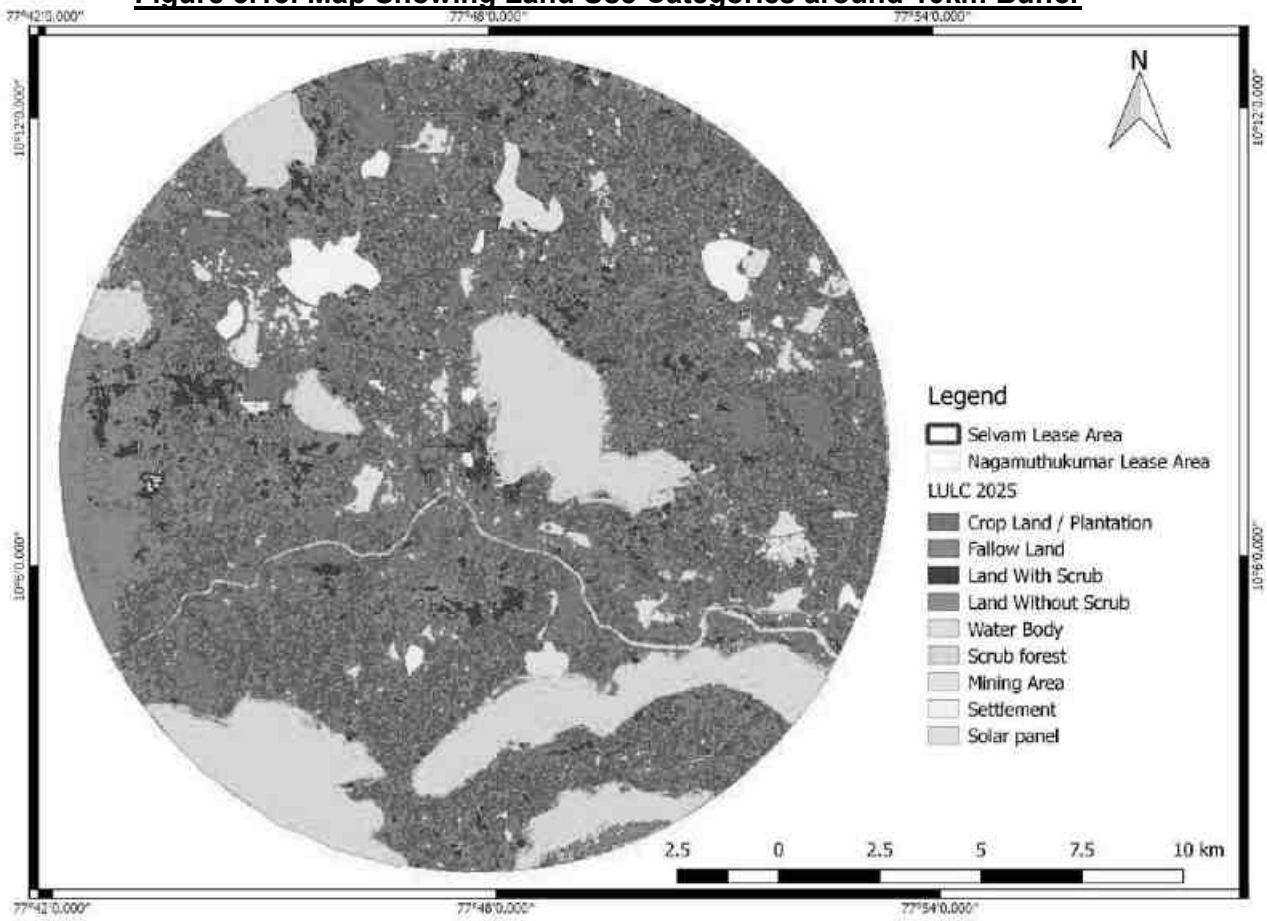
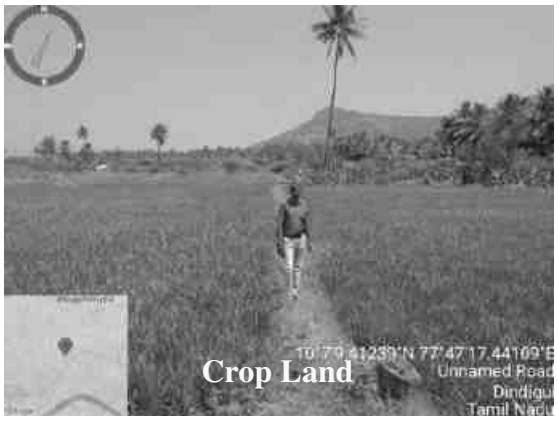


Table 3.21: Area Estimation of Landuse Categories in Buffer Zone

S.No	Landuse Feature	Area (Sq.Km)	Percentage
1	Agriculture/ Plantation	133.25	40.60
2	Fallow Land	67.14	20.46
3	Land With Scrub	13.87	4.23
4	Land Without Scrub	38.97	11.87
5	Water bodies	10.57	3.22
6	Scrub Forest	53.54	16.31
7	Mining / infrastructure	0.10	0.03
8	Settlement / Infracture	8.28	2.52
9	Solar Panel	2.44	0.74
10	**Total**	328.16	100

From the above table it is seen that 40.60 % of the buffer area is classified under the Agriculture/ Plantation followed by 20.46 % of fallow land, 16.31 % constitutes scrub forest, 11.87 % constitutes land with out scrub and the balance 10.76 % falls under other land use categories. Land alongside the Vaigai river & Periyar canal are primarily under Agriculture category. In some patches, even with less irrigation facilities coconut plantation is observed.

Photograph showing Land use In Buffer Zone



Plantation

Reserve Forest

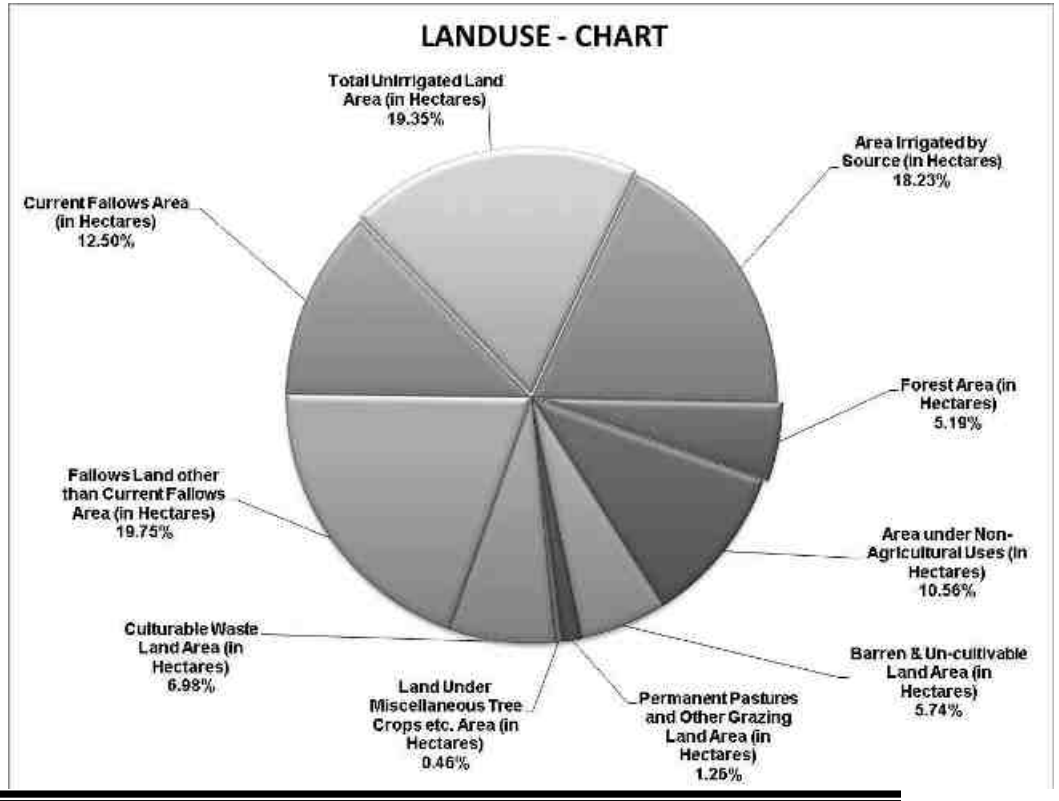
3.4.2 LAND USED BASED ON REVENUE RECORDS:

The lease area falls in Sivanganapuram Village, Nilakottai Taluk, Dindigul District, Tamil Nadu state and the study area for the land use pattern (10 km radius) has been divided into four zones viz. Zone-I (0-2 km), Zone-II (2-5 km), Zone-III (5-10 km) and Zone-IV (0-10 km) respectively. The land use pattern of the study area falling within 10 km radius around the proposed project area is presented in Table no - 3.22. Village wise land use pattern is provided in **Annexure-12.**

Table 3.22: Land Use Pattern of the Study Area Falling Within 10 Km Area in (Ha)

Distance	Total Geographical Area	Forest Area	Area under Non-Agricultural Uses	Barren & Un-cultivable Land Area	Permanent Pastures and Other Grazing Land Area	Land Under Miscellaneous Tree Crops etc. Area	Culturable Waste Land Area	Fallows Land other than Current Fallows Area	Current Fallows Area	Total Un irrigated Land Area	Area Irrigated by Source
0- 2 KM	1592.31	0	94.78	52.88	0	2.28	1.71	582.8	135.88	45.52	676.46
2 - 5 KM	10078.62	0	912.57	511.48	0	21.74	1675.65	1751.85	1178.81	2755.91	1270.61
5-10 KM	20140.84	1650.41	2350.66	1260.56	400	121.21	542.7	3949.06	2661.59	3353.65	3851
0-10 KM	31811.77	1650.41	3358.01	1824.92	400	145.23	2220.06	6283.71	3976.28	6155.08	5798.07

Figure 3.16: Landuse within the Buffer Zone Area



3.5 BIOLOGICAL ENVIRONMENT:

Study of the biological environment of any area comprises of well-planned ecological survey for the floristic and faunal composition of the areas through various scientifically planned techniques.

3.5.1 FLORA:

An ecological survey of the study area was conducted with reference to listing of species and assessment of the existing baseline ecological conditions. The objective of the survey is as follows:

- ❖ Generate existing data from field observations of various terrestrial floristic occurrences.
- ❖ Collect secondary data from Government records as well as through discussion with Forest officials, knowledgeable public etc.,
- ❖ Compare the data with authentic past records to identify changes, if any.
- ❖ Identify the impact of project operations on the biological aspects.

To accomplish the above objectives, a general ecological survey covering an area of 10 km radius was conducted. The locations were identified for phyto-sociological aspects to assess the current status.

A.CORE ZONE:

The lease area is a non-forest, government land partly minedout area. Other areas contains grsses shrubs, few trees like Prosopis juliflora, neem etc. The detailed list of plants found in the core zone are given in Table no – 3.23.

Table 3.23: List of Flora in the Core Zone – Thiru.B.Selvam.

Sl.No	Species Name	Common Name	Family
Trees			
1	Acacia nilotica	Karu- velamaram	Fabaceae
2	Pongamia pinnata	Pungai	Fabaceae
3	Prosopis juliflora	Karuvelam	Fabaceae
4	Azadirachta indica	Neem	Meliaceae
5	Acacia auriculiformis	Pencile tree	Fabaceae
6	Albizia lebebck	Siris	Fabaceae
7	Acacia leucophloea	Velamaram	Fabaceae
Shrubs			
1	Ricinus communis	Aamanakku	Euphorbiaceae
2	Vitex negundo	Nochi	Verbenaceae
3	Boerhaavia diffusa	Nyctaginaceae	Kagithapoo
4	Abutilon indicum	Thutti	Malvaceae
5	Calotropis gigantea	Yerukku	Asclepiadaceae
6	Carissa spinarum	Chirukila	Apocynaceae
7	Lantana camara	Unichedi	Verbenaceae
8	Opuntia stricta	Sappathikalli	Cactaceae
9	Dodonaea viscosa	Velari	Sapindaceae
Herbs			
1	Leucas aspera	Lamiaceae	Thumbai
2	Amaranthus viridis	Kuppaikeerai	Amaranthaceae
3	Boerhavia erecta	Erect Spiderling	Nyctaginaceae
4	Sida acuta	Common Wire weed	Malvaceae
5	Tridax procumbents	Vettukkaayathalai	Asteraceae
6	Sida rhombifolia	Chitramutti	Malvaceae
7	Phyllanthus niruri	Phyllanthaceae	Keelzhaneeli
8	Catharanthus roseus	Nithyakalyani	Apocynaceae
9	Acalypha indica	Kuppaimeni	Euphorbiaceae
10	Achyranthes aspera	Nai-uruvi	Amaranthaceae
Grasses			
1	Cyperus rotundus	Korai	Cyperaceae
2	Cynodon dactylon	Arugam pullu	Poaceae
3.	Chloris barbata	Chevvarakupul	Poaceae

Table 3.24: List of Flora in the Core Zone – Thiru.K.Nagamuthukumar.

Sl.No	Species Name	Common Name	Family
Trees			
1	Acacia leucophloea	Velamaram	Fabaceae
2	Saraca asoca	Asogam	Caesalpiniaceae
3	Albizia lebebck	Siris	Fabaceae
4	Borassus flabelliformis	Panna-maram	Arecaceae
5	Azadirachta indica	Neem	Meliaceae
6	Prosopis juliflora	Mesquite / Mul	Fabaceae
7	Albizia amara	Krishna Siris	Fabaceae
8	Samanea saman	Amaivagai	Fabaceae
Shrubs			
1	Tecoma stans	Thangarali	Bignoniaceae
2	Lantana camara	Unichedi	Verbenaceae
3	Opuntia stricta	Sappathikalli	Cactaceae
4	Carissa spinarum	Chirukila	Apocynaceae
5	Dodonaea viscosa	Velari	Sapindaceae
6	Calotropis gigantea	Yerukku	Asclepiadaceae
7	Datura metel	Solanaceae	Umatai
8	Cassia auriculata	Aavaram	Caesalpinaceae
9	Ricinus communis	Aamanakku	Euphorbiaceae
Herbs			
1	Tridax procumbents	Vettukkaayathalai	Asteraceae
2	Phyllanthus niruri	Phyllanthaceae	Keelzhaneeli
3	Sida acuta	Common Wire weed	Malvaceae
4	Boerhavia diffusa	Mookkaratti	Nyctaginaceae
5	Commelina benghalensis	Kanavaazhai	Commelinaceae
6	Leucas aspera	Lamiaceae	Thumbai
7	Achyranthes aspera	Nai-uruvi	Amaranthaceae
8	Cassia occidentalis	Pei- avarai	Caesalpinaceae
Grasses			
1	Cynodon dactylon	Arugam pullu	Poaceae
2	Chloris inflata	Kodai pullu	Poaceae
3	Cyperus rotundus	Korai	Cyperaceae

PHOTOS OF CORE ZONE IN Selvam Lease

PHOTOS OF CORE ZONE IN NAGAMUTHUKUMAR

C.BUFFER ZONE:

Study area depicts varying land use comprising scrubby hills on the North east, South west and South east side with intervening plains. Dominant agricultural activities are observed in part of plains proximate to the available irrigation source alongside Vaigai river and periyar canal. Crops like Rice, vegetables, watermelon, ground nut, banana etc. are cultivated in the lands with better water source & favaorable soil condition. Soil near the hilly areas are of loamy type which hardens on drying and as such affects germination due to which vegetation is poor. The The Dominated species in the study area are Morinda tinctoria, Delonix elata, Azadirachta indica, Pongamia pinnata, Prosopis juliflora, Acacia auriculiformis etc. The detailed list of plants found in the buffer zone is given below:

Table 3.25: List of Floristic Species in the Buffer Zone

Sl. No.	Botanical name	Family	Local Name
Trees			
1	Acacia auriculiformis	Fabaceae	Pencile tree
2	Acacia catechu	Fabaceae	Karanagalli
3	Acacia horrida	Fabaceae	Karuvelai
4	Acacia leucophloea	Fabaceae	Valvelam
5	Acacia nilotica	Fabaceae	Karuveali
6	Aegle marmelos	Rutaceae	Vilvam
7	Albizia odoratissima	Fabaceae	karu-vakai
8	Albizza amara	Fabaceae	Vagai
9	Atalantia monophylla	Rutaceae	Kattu Elumeachi
10	Anacardium occidentale	Anacardiaceae	Munthiri
11	Annona squamosal	Annonaceae	Sitapalam
12	Artocarpus heterophyllus	Moraceae	Palamaram
13	Azadirachta indica	Meliaceae	Veppai
14	Bambusa vulgaris	Poaceae	Bamboo
15	Bobax ceiba	Malvaceae	Ilavu
16	Bauhinia racemosa	Fabaceae	Tataki
17	Bauhinia purpurea	Caesalpiniaceae	Mantharai
18	Borassus flabelliformis	Arecaceae	Panna-maram
19	Carica papaya	Caricaceae	Pappali
20	Cassia fistula	Fabaceae	Konrai
21	Cassia siamea	Caesalpinaceae	Manjal konrai
22	Casuarina equisetifolia	Casuarinaceae	Savukku

Sl. No.	Botanical name	Family	Local Name
23	Citrus limon	Rutaceae	Lemon
24	Cocos nucifera	Arecaceae	Tennai
25	Delonix elata	Fabaceae	
26	Delonix regia	Fabaceae	Mayil konrai
27	Eucalyptus grandis	Myrtaceae	Gum tree
28	Ficus benghalensis	Moraceae	Alai Maram
29	Ficus religiosa	Moraceae	Arasa Maram
30	Gmelina arborea	Lamiaceae	Kumalaamaram
31	Lannea coromandelica	Anacardiaceae	Othiya maram
32	Leucaena leucocephala	Fabaceae	Subabul
33	Mangifera indica	Anacardiaceae	Ma Maram
34	Morinda tinctoria	Rubiaceae	Manchanari
35	Moringa oleifera	Moringaceae	Murungai
36	Manilkara zapota	Sapotaceae	Sappota
37	Melia azedarach L	Meliaceae	Malai vembu
38	Millettia pinnata	Fabaceae	Pongam
39	Mimusops elengi	Sapotaceae	Magizhamboo
40	Morinda pubescens	Rubiaceae	Manjanathi
41	Murraya koenigii	Rutaceae	Curry leaf
42	Musa paradisiaca	Musaceae	Valzhlai
43	Peltophorum pterocarpum	Fabaceae	Perunkonrai
44	Polyalthia longifolia	Annonaceae	Nietilingam
45	Pongamia pinnata	Fabaceae	Pungai
46	Prosopis juliflora	Fabaceae	Velikathan
47	Psidium guava	Myrtaceae	Koyya
48	Samanea saman	Fabaceae	Amaivagai
49	Syzygium cumini	Myrtaceae	Naval
50	Tamarindus indica	Fabaceae	Puli
51	Tectona grandis	Lamiaceae	Tekku
52	Terminalia chebula	Combretaceae	Kadukkai
53	Thespesia lampas	Malvaceae	Puvarasu
54	Vachellia nilotica	Fabaceae	Karuvelam
55	Ziziphus mauritiana	Rhamanaceae	Elandhai
Shrubs			
1	Abutilon indicum	Meliaceae	Thuthi
2	Adhatoda vasica	Acanthaceae	Adhatoda
3	Agave americana	Asparagaceae	kittanara

Sl. No.	Botanical name	Family	Local Name
4	Aloe vera	Asphodelaceae	Chotthu kathalai
5	Boerhaavia diffusa	Nyctaginaceae	Kagithapoo
6	Calotropis gigantea	Asclepiadaceae	Erukku
7	Canthium didymum	Rutaceae	Nanjul
8	Carissa carandas	Apocynaceae	Kalakkai
9	Cassia auriculata	Fabaceae	Avarai
10	Dodonaea viscosa	Sapindaceae	viraali
11	Ipomoea carnea	Convolvulaceae	Pink morning glory
12	Ixora casei	Rubiaceae	Idlipoo
13	Ixora coccinea	Rubiaceae	Manmadhabanam
14	Ixora parviflora	Rubiaceae	Korimipala
15	Euphorbia tirucalli	Euphorbiaceae	kalli
16	Grewia abutilifolia	Tiliaceae	Pampukonta
17	Hibiscus rosa-sinensis	Malvaceae	Chemparutti
18	Jatropha gossypifolia	Euphorbiaceae	Seemayavanakku
19	Lantana camara	Verbenaceae	Unnichedi
20	Mimosa pudica	Mimosaceae	Thottalchinungi
21	Nerium oleander	Apocynaceae	Arali
22	Opuntia dillenii	Cactaceae	Cappattukkalli
23	Opuntia elatior	Cactaceae	Cappattukkalli
24	Ricinus communis	Euphorbiaceae	Amanakku
25	Solanum xanthocarpum	Solanaceae	Kantankattiri
26	Streblus asper	Moraceae	Parai maram
27	Strychnos nuxvomica	Loganiaceae	kagodi
28	Vitex negundo	Verbenaceae	Nochchi
29	Ziziphus oenoplia	Rhamnaceae	Elanthai
Climber			
1	Asparagus racemosus	Asparagaceae	Tannir-vittan
2	Coccinia indica	Cucurbitaceae	Kovaikkai
3	Cissus quadrangularis	Vitaceae	Pirandai
4	Clitoria ternatea	Fabaceae	Sengu
5	Clitoria ternatea	Fabaceae	Sangu poo
6	Abrus precatorius	Fabaceae	Kundumani
7	Citrullus colocynthis	Cucurbitaceae	Peikkumatti
Herbs			
1	Acalypha indica	Euphorbiaceae	Kuppaimeni
2	Acanthospermum hispidum	Asteraceae	Gokul kanta

Sl. No.	Botanical name	Family	Local Name
3	Achyranthes aspera	Amaranthaceae	Nayuruvi
4	Anisomeles indica	Lamiaceae	marutti
5	Anisomeles malabarica	Lamiaceae	Peyimarutti
6	Argemone mexicana	Papaveraceae	Mexican poppy
7	Clerodendrum viscosum	Lamiaceae	Kavali
8	Catharanthus roseus	Apocynaceae	Nithiyakalyani
9	Cassia tora	Caesalpinaceae	Senavu
10	Cleome viscosa	Cleomaceae	Kaattu kadugu
11	Euphorbia hirta	Euphorbiaceae	Amman pacharisi
12	Hemidesmus indicus	Apocynaceae	Kurundotti
13	Lepidagathis cristata	Acanthaceae	Karappanpoondu
14	Leucas aspera	Lamiaceae	Thumbai
15	Mimosa pudica	Mimosaceae	Thottaccurungi
16	Ocimum sanctum	Lamiaceae	Thulasi
17	Parthenium hysterophorus	Asteraceae	Parthenium
18	Phyllanthus niruri	Phyllanthaceae	Keelanelli
19	Sida acuta	Malvaceae	Palambasi
20	Sida cordifolia	Malvaceae	Kurunthotti
21	Tridax procumbens	Asteraceae	Kenathuppoondu
Grasses			
1	Cyperus rotundus	Cyperaceae	korai pullu
2	Chloris barbata	Poaceae	Kodai pullu
3	Cynodon dactylon	Poaceae	Arugampillu
4	Dendrocalamus strictus	Poaceae	Saliabaunsa
5	Cymbopogon caesius	Poaceae	Kachi grass
Agriculture Crop			
1	Cocus nucifera	Arecaceae	Tennai
2	Oryza sativa	Poaceae	Rice
3	Arachis hypogaea	Fabaceae	Groundnut
4	Gossypium hirsutum	Malvaceae	Paruththi
5	Sesbania grandiflora	Fabaceae	Agati
6	Solanum melongena	Solanaceae	Kaththarii
7	Musa paradisiaca	Musaceae	Valzhai

The study area is observed to be not ecologically sensitive and no endangered or endemic species as per IUCN red list is observed.

3.5.2 FAUNA:

There is no Wild Life Sanctuary or National Park within the study area of 10 km. Domesticated animals like Cows, Buffalos, Dogs, Cats etc., are commonly found. The lease and 10 Km buffer zone does not fall in the Western Ghats ESA boundary. No wild mammalian species was directly sighted during the field survey. The list of fauna within the study area is given below:

Table 3.26: List of Fauna in the Buffer Zone

Sl.No	Common name	Scientific Name	Family	IUCN
	A. Mammals			
1	Boar	*Sus scrofa*	Suidae	LC
2	Squirrel	*Funambulus palmarum*	Sciuridae	LC
3	Cat	*Felis catus*	Felidae	LC
4	Rat	*Rattus rattus*	Muridae	LC
	B. Reptiles			
1	Lizard	*Calotes versicolor*	Agamidae	LC
2	Krait	*Bungarus caeruleus*	Elapidae	LC
	C. Birds			
1	Cattle egret	*Bubulcus ibis*	Ardeidae	LC
2	Indian tree pie	*Dendrocitta vagabunda*	Corvidae	LC
3	Small blue kingfisher	*Alcedo atthis*	Alcedinidae	LC
4	Spotted owlet	*Athene brama*	Strigidae	LC
5	Crow	*Corvus splendens*	Corvidae	LC
6	Black drongo	*Dicrurus macrocercus*	Dicruridae	LC
7	Little egret	*Egretta garzetta*	Ardeidae	LC
8	Rose ringed parakeet	*Psittacula krameri*	Psittacidae	LC
9	House sparrow	*Passer domesticus*	Passeridae	LC
	Spotted dove	*Streptopelia chinensis*	Columbidae	LC

LC - Least Concern

From the study it observed that the area in general consists of species of least concern only. No threatened or endemic or endangered species are observed. The area does not form the migratory path of the birds also.

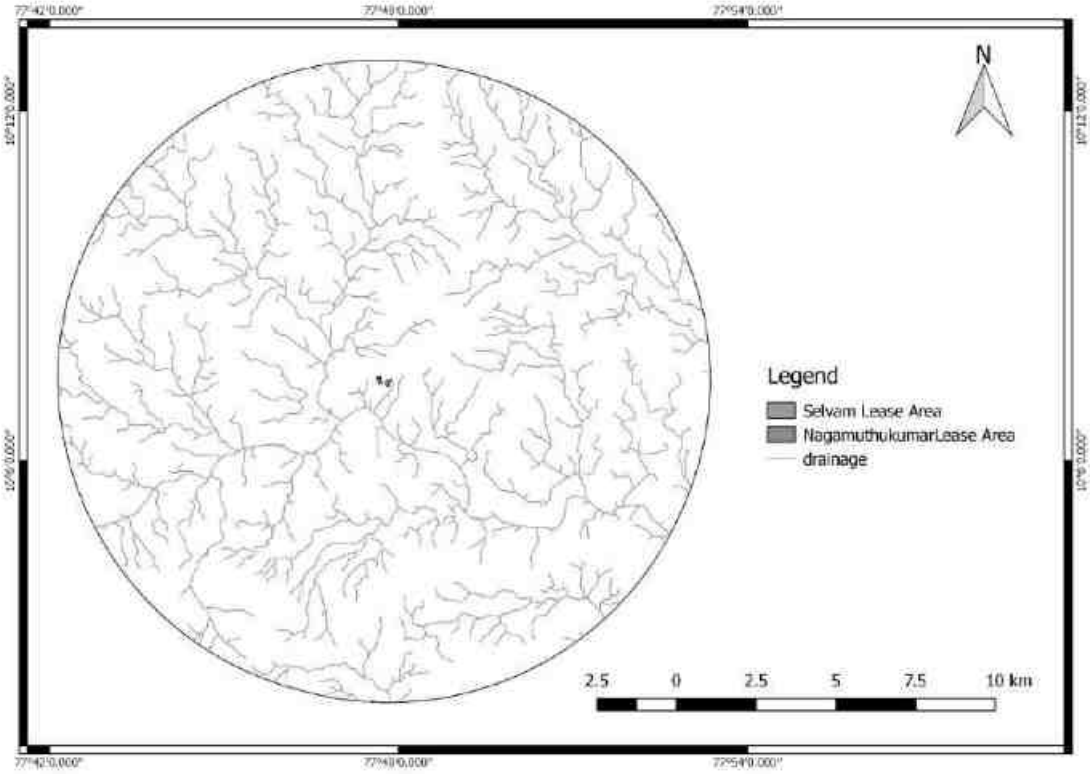
3.6 HYDROGEOLOGICAL STUDY:

This section delves into the study of the hydrogeological scenario of the study area to evaluate the impact of mining activities on the nearby areas. The study area is considered to understand the nature of the general hydrogeological conditions of the area.

3.6.1 PHYSIOGRAPHY AND DRAINAGE:

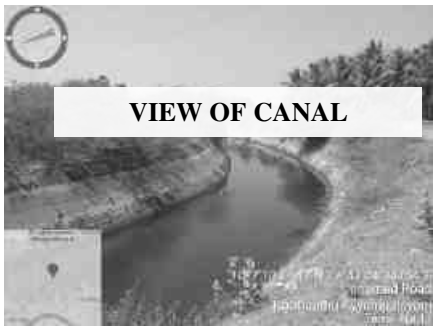
The applied lease area is exhibits an undulating topography with few outcrops of charnockite. Besides, the leases are small mound at higher elevation when compared to the general floor level of +200m to +210m RL on the southern side. The drainage map of the buffer zone is given below in Figure No. 3.17.

Figure 3.17: Drainage Map



The drainage of the study area is controlled by first & second order streams which finally drains to Vaigai river located 800m from the lease area draining towards SE side.

Periyar canal branching from Vaigai river near Melmangalam (Andipatti) runs almost parallel to Vaigai river on its left side linked as system tanks and finally draining into the Vaigai river. Based on the water availability in the dam, the irrigational needs are met.

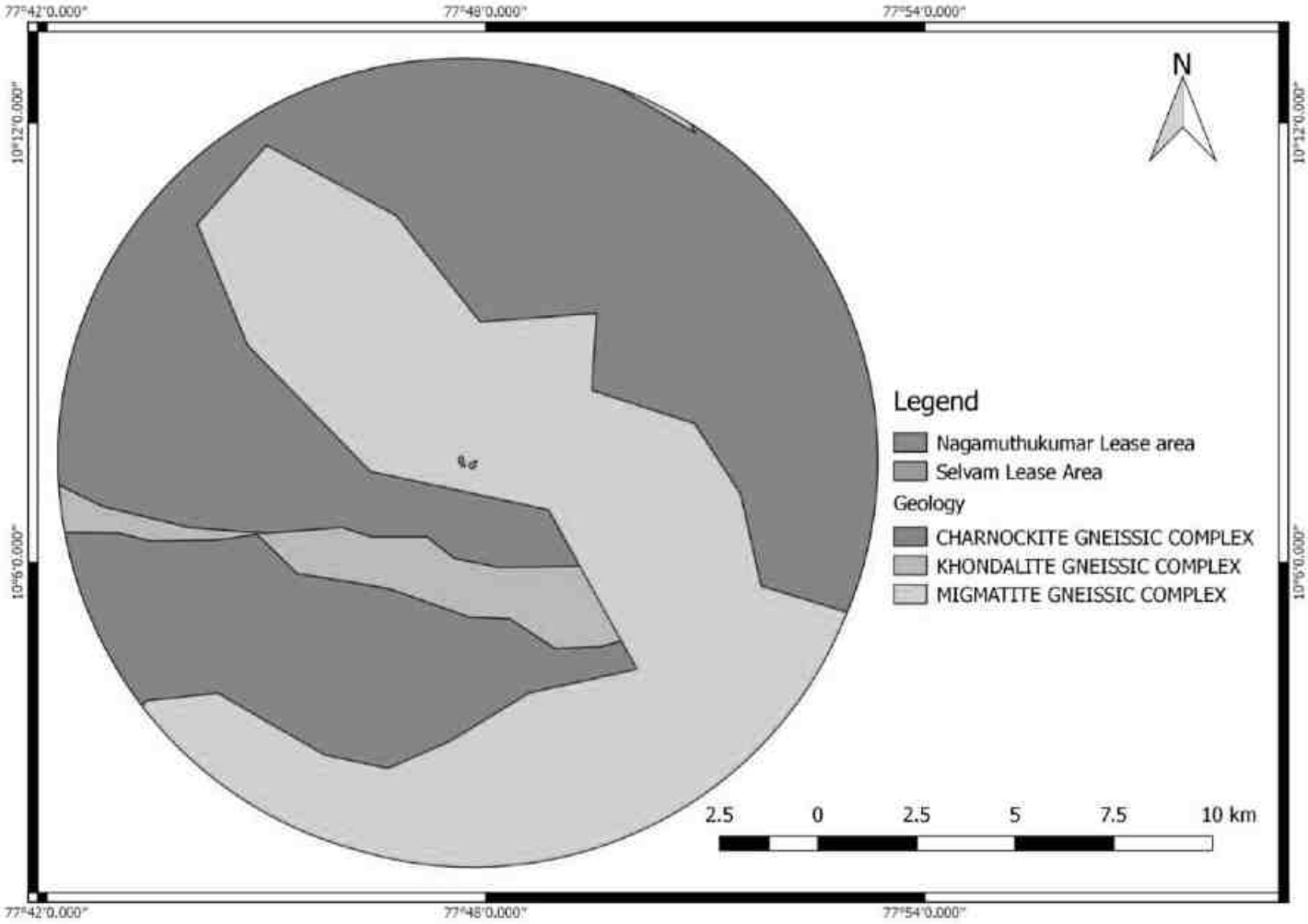


The lease area of both the projects are at higher elevation when compared to the river and canal course which are at plains sloping towards, East, South East.

3.6.2 GEOLOGY AND GEOMORPHOLOGY

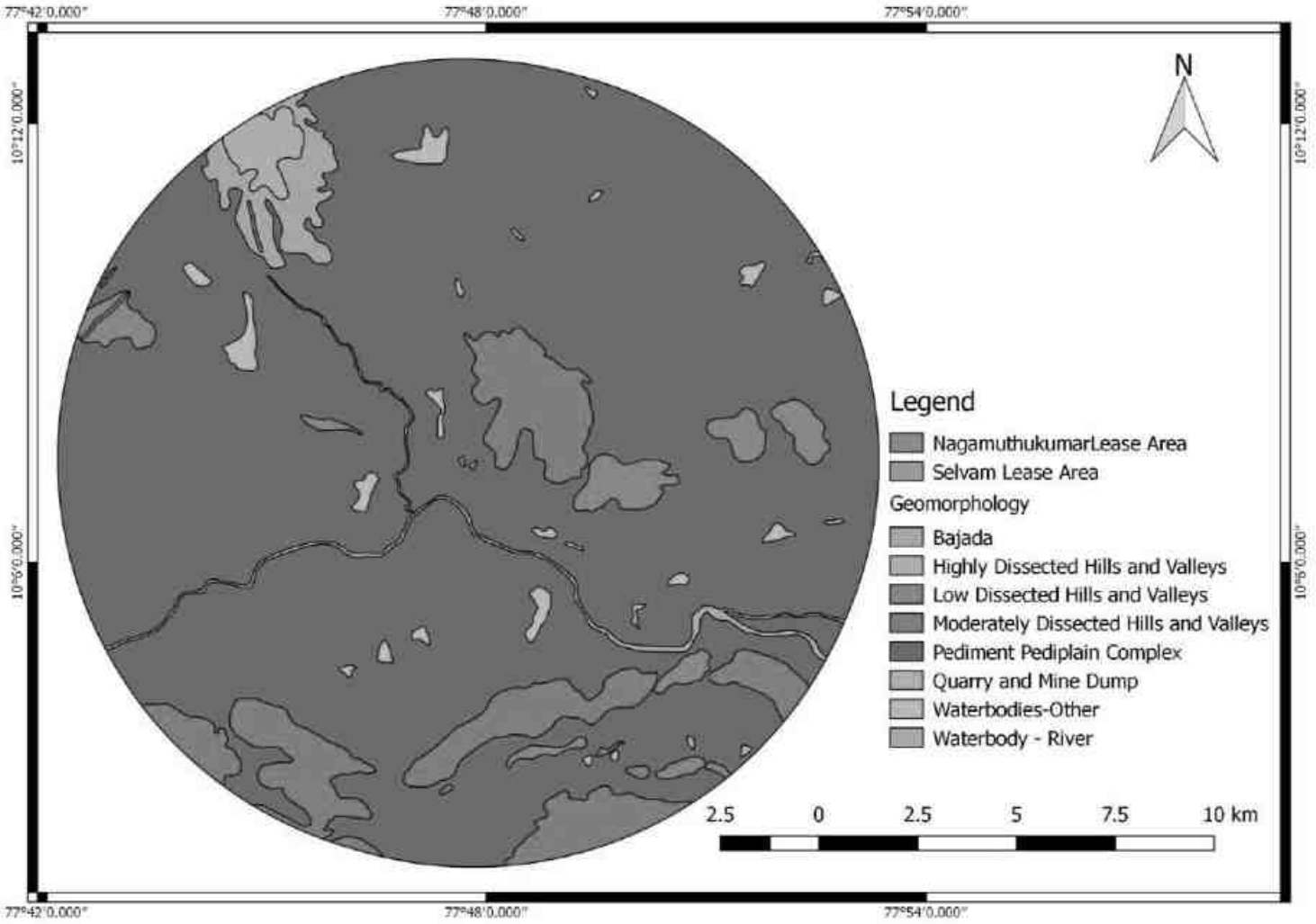
Geology: The type of rock formation in the core is composed of Migmatite Gneissic complex and buffer zone composed Charnockite Gneissic complex and Undiffluvial category. The geological map is provided below in Figure No.3.18.

Figure 3.18: Geology Map



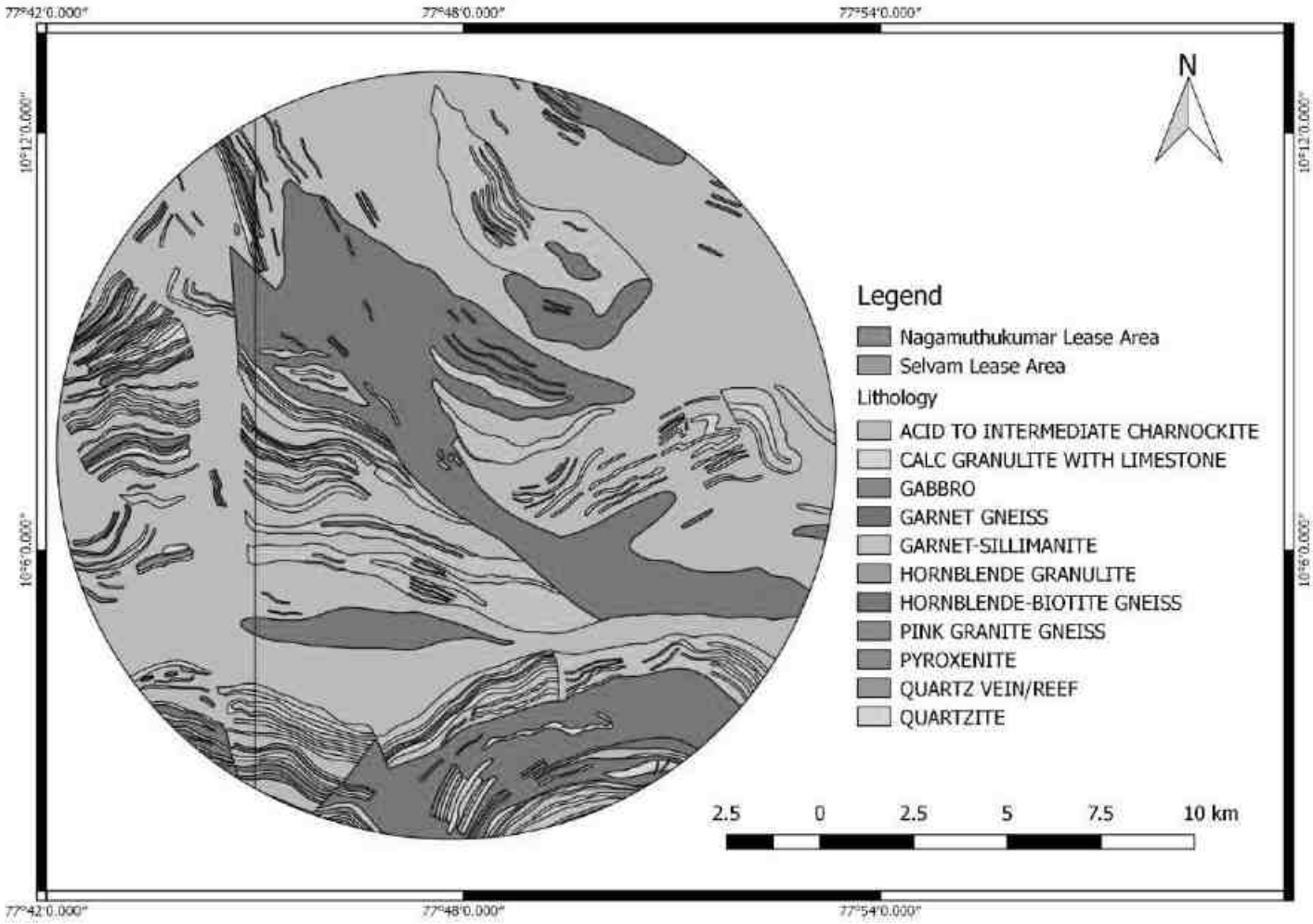
Geomorphology: Pediment Pediplain complex is dominate the study area, while the lease area also falls in the Pediment Pediplain complex.

Figure 3.19: **Geomorphology Map**



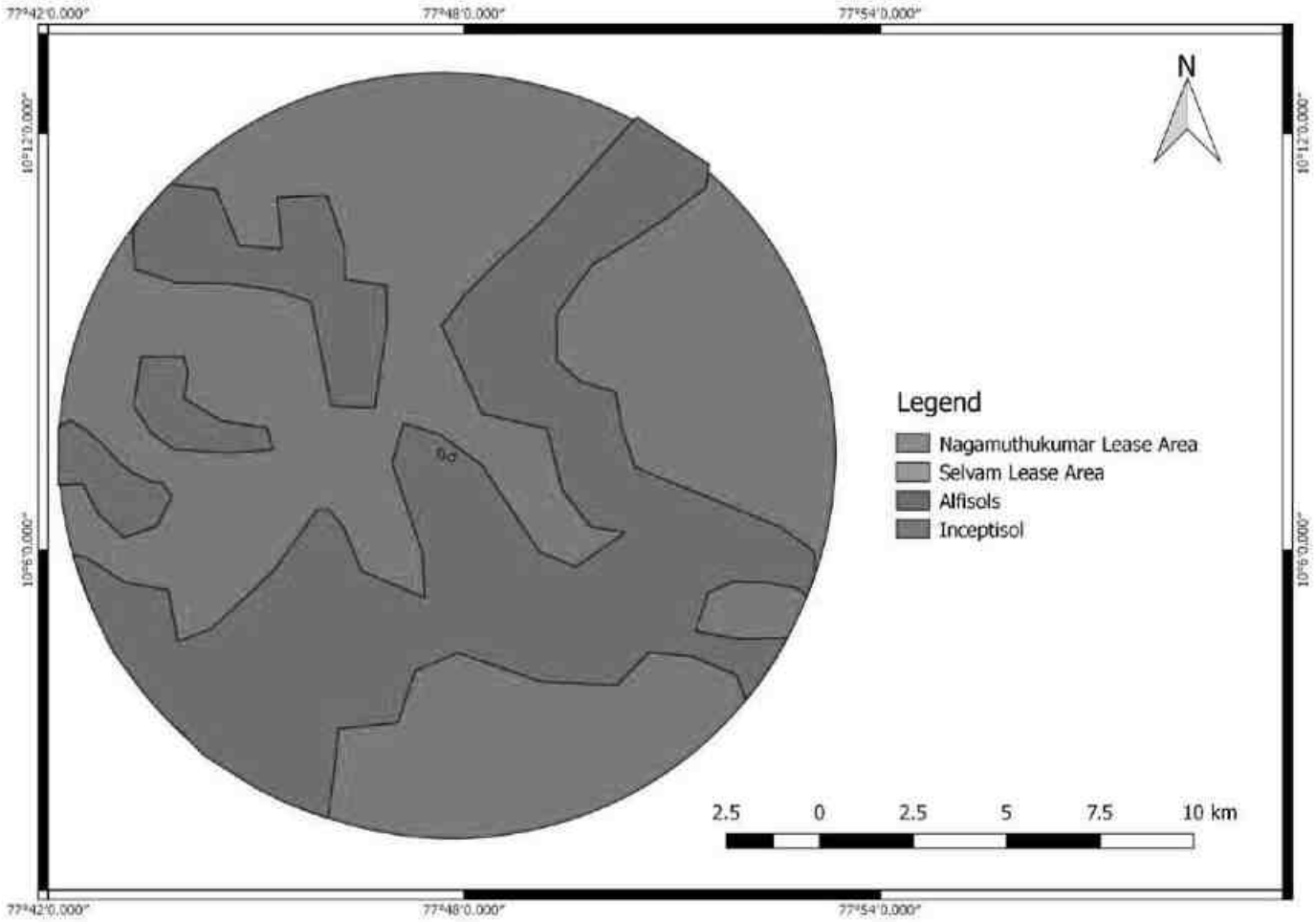
Lithology: The study area is mainly dominated by Acid to Intermediate Charnockite.

Figure 3.20: Lithology Map



Soil: The study area is characterized by Inceptisol and Alfisols (Figure No. 3.21), the project area is dominated with Alfisols.

Figure 3.21: **Soil Map**



Well inventory:

In the study area, the shallow aquifer is developed through dug wells and deeper aquifer through tube wells. The groundwater has revealed that potential fractures are encountered at deeper levels. The occurrence of groundwater mainly in the porous soil are weathered layers, negligible amount of groundwater percolated through the poorly fractured layer, after that there is no existence of groundwater. Besides, the mining area consists of hard compact rock agt higher elevation, no major water seepage within the mine is expected. The working nearby mines validates the same.

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CHAPTER - IV

ANTICIPATED ENVIRONMENTAL IMPACTS & MITIGATION MEASURES

CHAPTER 4
ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

4.1 GENERAL

In these projects Mechanized Open Cast mining will be carried out to quarry out Rough Stone & Gravel. The identified impacts due to the mining operation of both the leases individually as well as cumulatively during mining and associated activities have been studied in relation to various environmental components like Air, water, noise, vibration, land, transport etc., and the details of the same are elaborated in this chapter.

4.2 AIR ENVIRONMENT:

4.2.1 IMPACTS DUE TO PROJECT OPERATION:

The existing ambient air quality in the area has been described in Chapter-III. The proposed mining and allied operations may cause deterioration of air quality due to pollution arising from the project operation if prompt care is not taken. The principal sources of air pollution in general due to mining and allied activities will be:

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

Besides, Gas emission will occur as a result of operation of diesel driven mining equipment, compressors, transporting vehicles, etc.

Particulate matter smaller than 10 microns, referred to as PM_{10}, can settle in the bronchi and lungs and cause health problems like Bronchitis, Emphysema, Bronchial Asthma, Irritation of mucus membranes of eyes, etc. Particles smaller than 2.5 micrometers ($PM_{2.5}$), tend to penetrate into the lungs and very small particles (<100 nanometers) may pass through the lungs to affect other organs.

Besides the above mentioned fugitive dust emissions, atmospheric pollution can occur as a result of emission of SO_2, NO_x, CO etc., from diesel driven mining equipment, generator sets, etc. Larger suspended particles are generally filtered in the nose and throat and do not cause problems. Higher concentration of SO2, NOx, CO may cause some health effect on the human

beings exposed to it. In case of these mines, the following measures will be adopted in both these quarries to control impact on the air quality due to mining operations in the lease area:

Table 4.1: Impact and Mitigation Measures – Air Environment

S.No	Activity	Consequence	Mitigation Measures
1	Drilling	Dust Emanation	Usage of Drill bits in good condition
			Covering of drill holes with wet cloth
			Usage of sharp drill bits for drilling of holes.
			Provision of dust filters / mask to workers working at highly dust prone and affected areas.
2	Blasting	Instantaneous dust emanation	Well-designed blasting parameter, effective stemming to achieve optimum breakage occurs without generating fines.
			Use of appropriate explosives for blasting and avoiding overcharging of blast holes.
			Avoiding blasting during high wind periods where the fine dust is carried out away easily affecting the ambient air quality.
			Use of controlled blasting techniques with Nonel to keep the dust generation, noise as well as vibration level within the prescribed limits.
3	Excavation and Loading	Dust emanation, Gaseous Emission	HEMM will be operated as per the manufacturer's guidelines
			Enclosures for operator cabin.
			Imparting sufficient training to operators on safety and environmental parameters.
			Proper maintenance of hauling equipments.
			Avoiding overloading of dumpers.
4	Transportation	Dust emanation, Gaseous Emission	Regular wetting of transport road using mobile water tanker.
			Proper maintenance of haul road and other roads
			Setting up of tyre wash facility in the transport road.
			Avoiding overloading of tippers
			Covering of loaded tippers with tarpaulins during transportation
			Vehicular emissions will be controlled through regular and proper preventive maintenance schedules and emissions tests are done with diesel smoke meter equipment to ensure emission values.
5	Others	Dust emanation, Gaseous Emission	Development of greenbelt / barriers around mine in the safety zone and carrying out plantation within the lease area.
			Fencing with green net as necessary will be carried out around the lease periphery on all sides.

Due to adoption of all these measures, no major impact on air quality is envisaged due to the proposed opencast mining operations in both the leases.

The impact on air quality due to the 2 proposed projects are estimated using AERMOD View Gaussian Plume Air Dispersion Model developed by Lakes Environmental Software which is based on steady state Gaussian plume dispersion. Details of the modeling study / estimation including the modeling technique and post project air quality values are elaborated in the following paras.

4.2.2 AIR QUALITY IMPACT PREDICTION:

The model simulations are done for the air pollutant arising from the mining operations, namely, PM_{10}, $PM_{2.5}$. **Ground Level Concentration** (GLC) have been computed using hourly meteorological data.

Table 4.2: Emission Sources

ACTIVITY	SOURCE TYPE
A. Mining operations	Open pit
B. Transportation	Line

4.2.2.1 Emission Factors

Quantification of particulate emissions has been carried out by the emission factor technique. Emission factor is a statistical average of the rate at which a pollutant is released during an activity. This factor when multiplied by the level of that activity in a given situation will give the overall effect. Fugitive emissions have been predicted by using standard equations given and suggested by AP-42, USEPA(1998), Coal S&T Project and for mining & allied activities and other factors. The modeling is done for the peak production to know the worst case scenario. The details of the emission factors used for the same is provided below:

Table 4.3: Emission Factors

S.No	Activity	PM10	PM2.5	Unit
1	Ore Loading	1.5×10^{-3}	2.1×10^{-4}	Kg/T
2	OB Loading	1.4×10^{-4}	1.5×10^{-5}	Kg/T
3	Hauling inside lease area	0.19	0.019	g/VKT
4	Drilling	0.1	0.04	Kg/hole

4.2.2.2 Emission Rates:

Based on the emission factors for the peak production capacity, after adopting necessary control measures like dust suppression, Proper maintenance of HEMM, using better quality diesel, using latest equipment, proper maintenance of roads, etc. the expected emission rate due to various operations in this project on individual basis as well as cumulative basis is calculated and is given below:

Table 4.4: Emission Rate – Individual basis

ACTIVITIES	Selvam		Nagamuthukumar	
	PM_{10} (g/sec)	$PM_{2.5}$(g/sec)	PM_{10} (g/sec)	$PM_{2.5}$(g/sec)
Excavation	0.03	0.00	0.04	0.01
Drilling	0.09	0.04	0.16	0.06
Hauling	0.09	0.01	0.16	0.02
Total	**0.21**	**0.05**	**0.36**	**0.09**

A. ***Emission Source Coordinates:*** The center of mine was assumed (0, 0) in the mathematical modeling.

B. ***Meteorological Conditions Used In Predictions:*** The hourly meteorological data has been generated for the monitoring period and the same has been used in the predictions.

4.2.2.3 Results and Discussions

Table 4.5: Peak Incremental Concentration

S.No	Parameters	Peak incremental concentration µg/m^3– Individual basis	
		Selvam	Nagamuthukumar
1	PM_{10}	1.35	2.37
2	$PM_{2.5}$	0.73	1.57

It is observed that the peak incremental concentration for PM_{10}, $PM_{2.5}$ occurring very near the source. At away from the source the values are getting reduced due to dispersion effects. The Isopleths of PM_{10}, $PM_{2.5}$ concentrations with control measures scenario have also been drawn and these are given in **Figure No.4.1 and 4.2.** The incremental and predicted concentrations at the locations of ambient air quality have been discussed in the following section.

Figure 4.1: Isopleth of GLC prediction – PM_{10} – B.Selvam

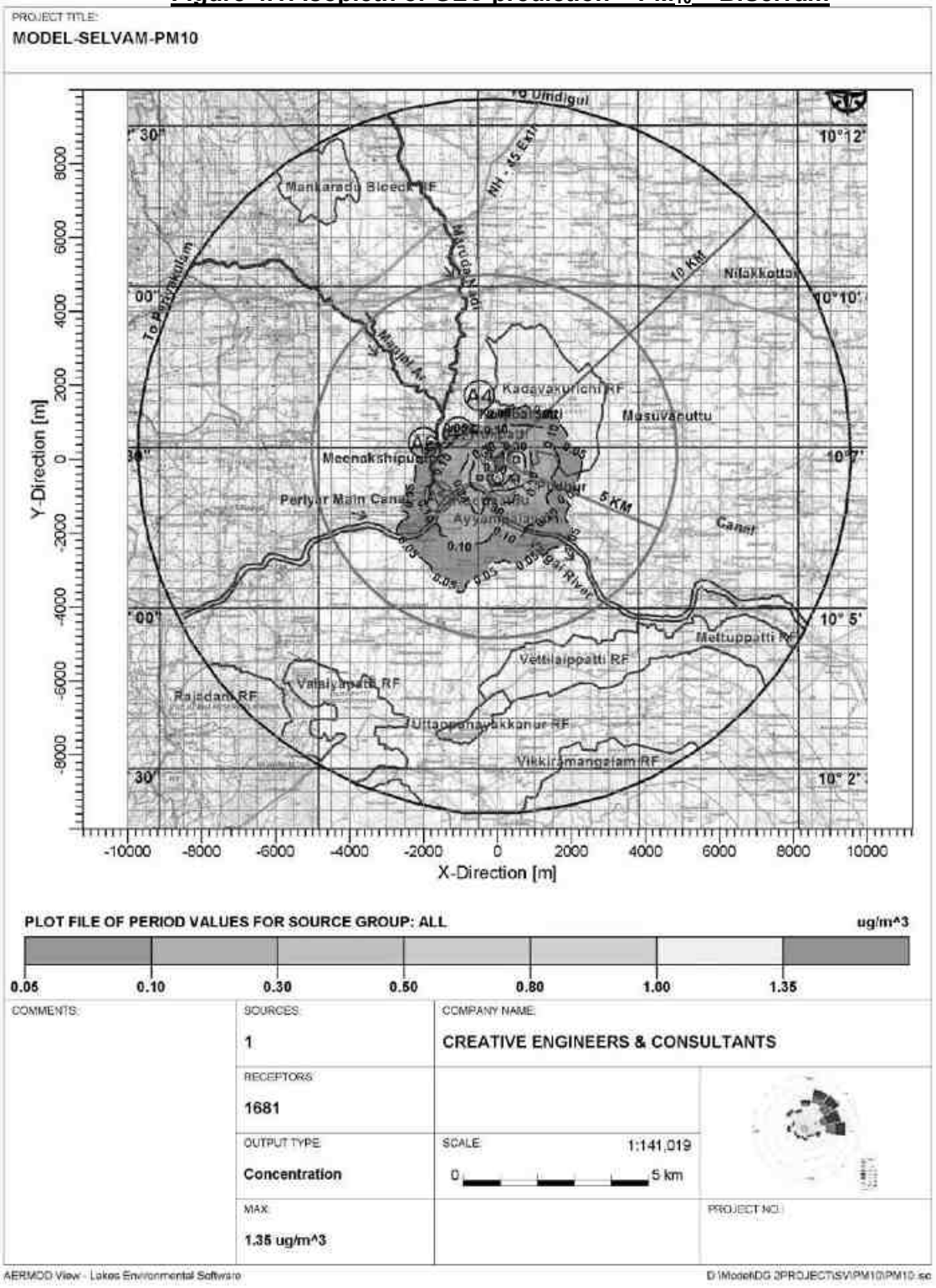


Figure 4.2: Isopleth of GLC prediction – $PM_{2.5}$ – B.Selvam

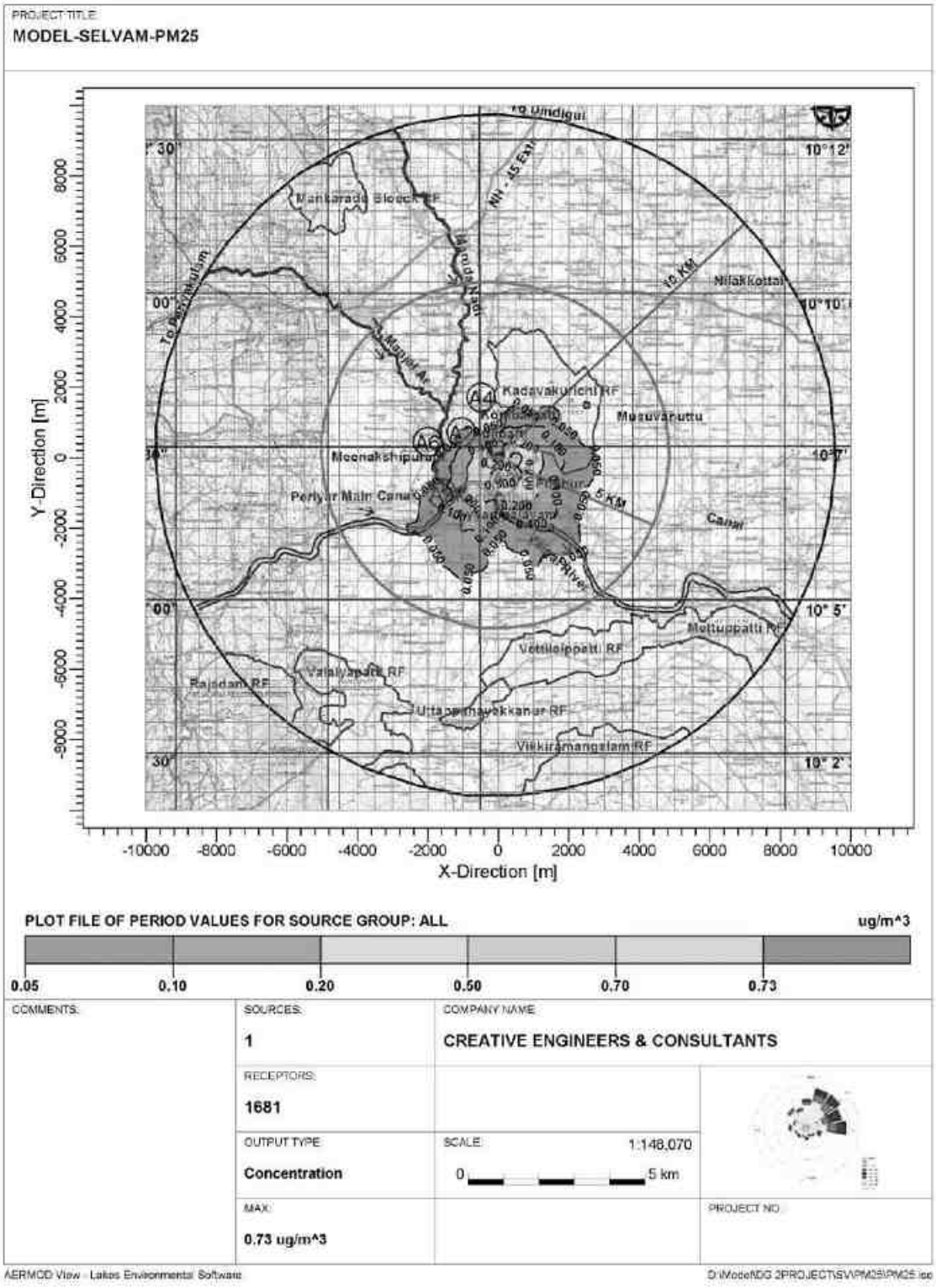


Figure 4.3: Isopleth of GLC prediction – PM_{10}– K.Nagamuthukumar

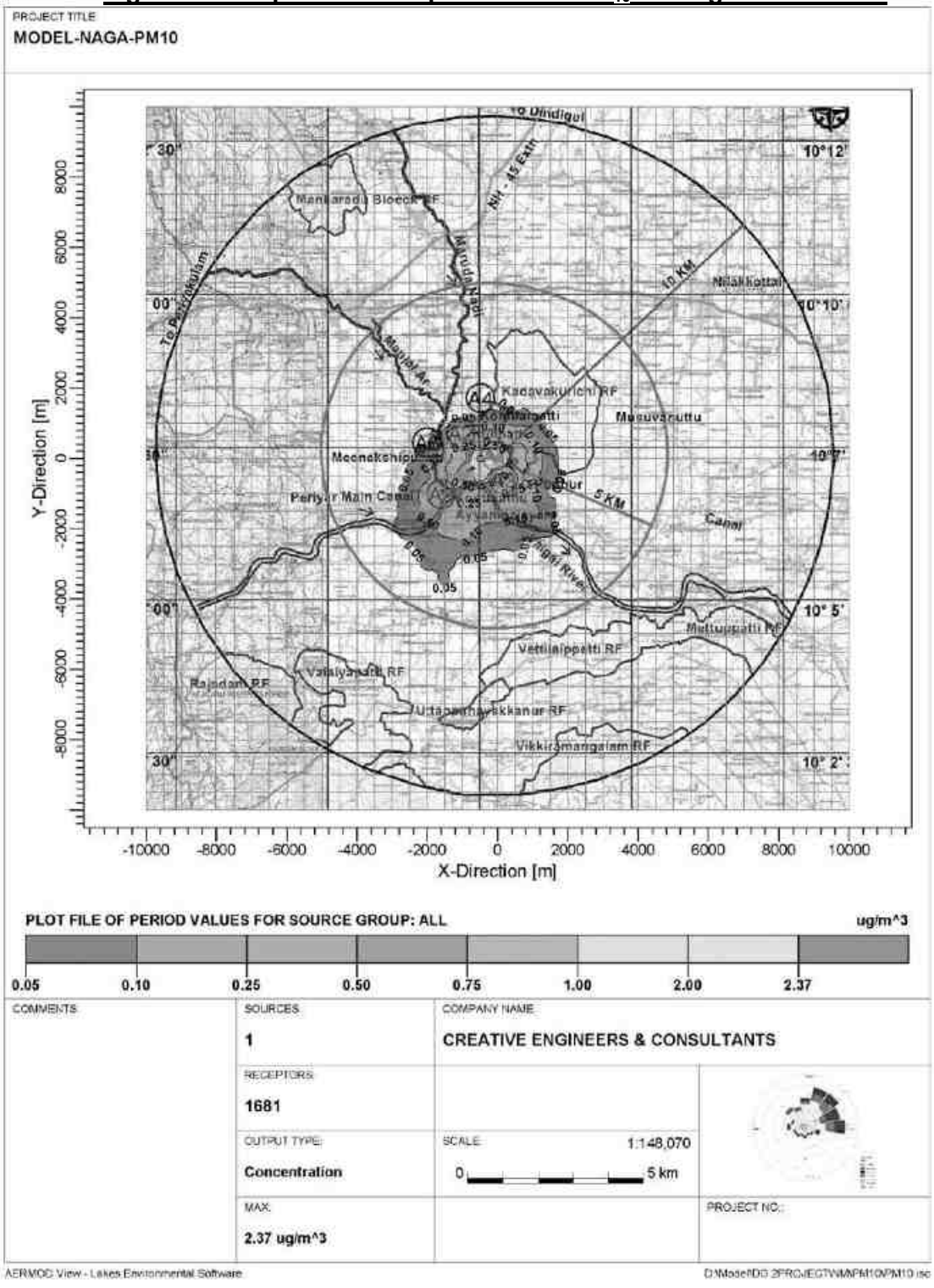
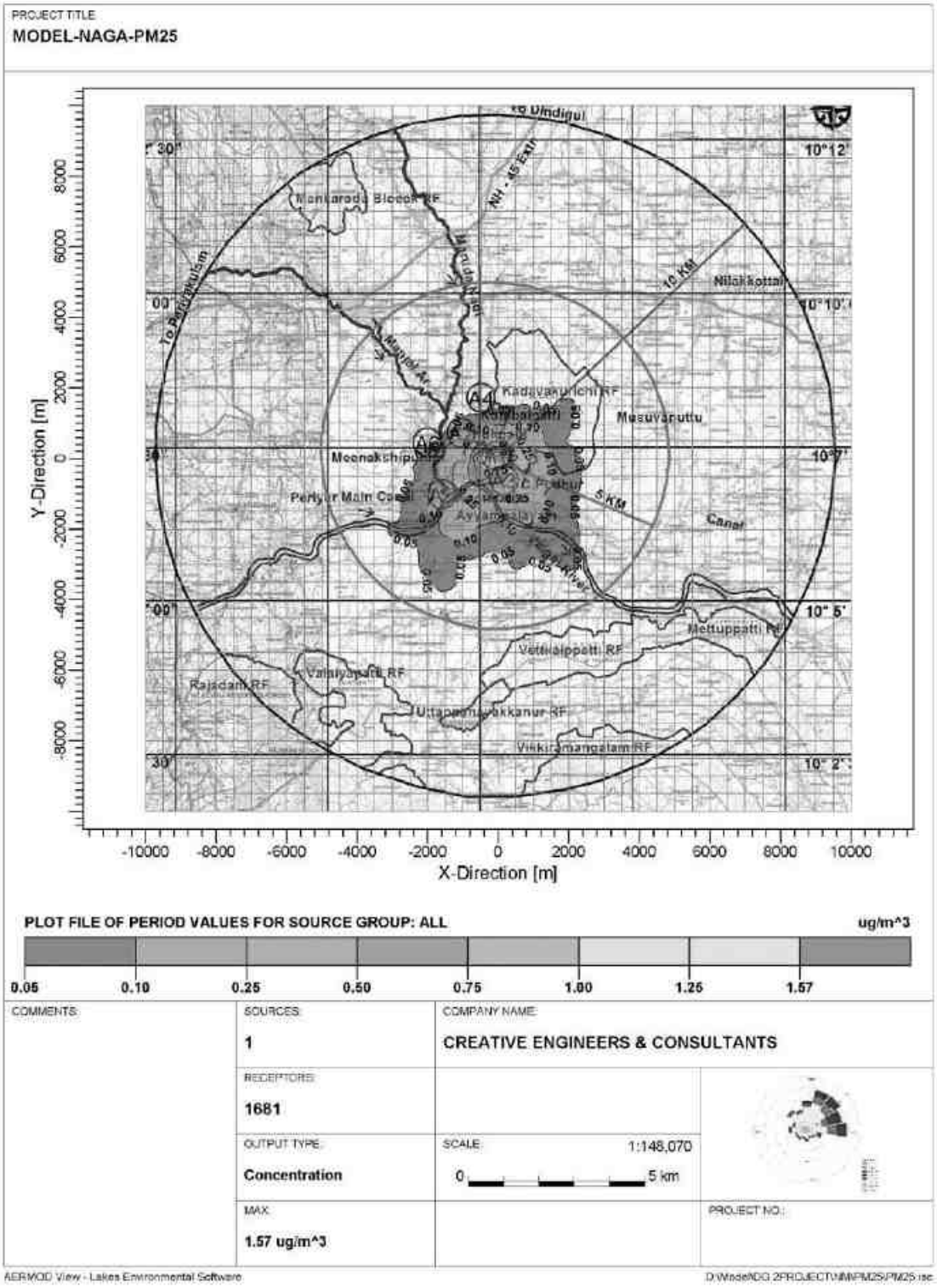


Figure 4.4: Isopleth of GLC prediction – $PM_{2.5}$– K.Nagamuthukumar



Predicted Ambient Air Quality:

Table 4.6: Concentrations Of PM_{10} after Project Implementation - – Individual basis

Values in μg/m³

S. No	Location	Background Concentration	Selvam		Nagamuthukumar		Statutory Limits
			Incremental Conc	Post Project Conc	Incremental Conc	Post Project Conc	
1	Near Mine Lease Area	79.7	1.3	81.0	2.3	82.0	-
2	Kulipatti Village	57.2	<1.0	58.2	<1.0	58.2	100
3	C.Pudur Village	74.1	<1.0	75.1	<1.0	75.1	
4	Kombaipatti Village	52.8	<1.0	53.8	<1.0	53.8	
5	Koottathuayyampalayam Village	65.2	<1.0	66.2	<1.0	66.2	
6	Meenakshipuram Village	61.5	<1.0	62.5	<1.0	62.5	

Table 4.7: Concentrations Of $PM_{2.5}$ after Project Implementation - – Individual basis

Values in μg/m³

S. No	Location	Background Concentration	Selvam		Nagamuthukumar		Statutory Limits
			Incremental Conc	Post Project Conc	Incremental Conc	Post Project Conc	
1	Near Mine Lease Area	37.9	<1.0	38.9	1.5	39.4	-
2	Kulipatti Village	31.1	<1.0	32.1	<1.0	32.1	60
3	C.Pudur Village	37.2	<1.0	38.2	<1.0	38.2	
4	Kombaipatti Village	28.9	<1.0	29.9	<1.0	29.9	
5	Koottathuayyampalayam Village	35.4	<1.0	36.4	<1.0	36.4	
6	Meenakshipuram Village	34.0	<1.0	35.0	<1.0	35.0	

It can be seen that for Thiru **Selvam project** , the resultant added concentrations with baseline figures with respect to PM10 is in the range of 53.8 μg/m3 to 81.0 μg/m3 and with respect to PM2.5 are in the range of 29.9μg/m3 to 38.9 μg/m3 and for Thiru **Nagamuthukumar project** , the resultant added concentrations with baseline figures with respect to PM10 is in the range of 53.8 μg/m3 to 82.0 μg/m3 and with respect to PM2.5 are in the range of 29.9μg/m3 to 39.4μg/m3 which are within the stipulated statutory limits for both the projects.

Additionally, cumulative impact due working of both the projects on ambinetair quality is assessed, and the details regarding the same has been provided below:

Table 4.8: Emission Rate - Cumulative

Activities	PM_{10} (g/sec)	$PM_{2.5}$(g/sec)
Excavation	0.07	0.01
Drilling	0.26	0.10
Hauling	0.25	0.04
Total	**0.57**	**0.15**

Table 4.9: Peak Incremental Concentration- Cumulative

Parameters	Peak incremental concentration μg/m³
PM_{10}	3.37
$PM_{2.5}$	1.96

Figure 4.5: Isopleth of GLC prediction – PM_{10}– Combined

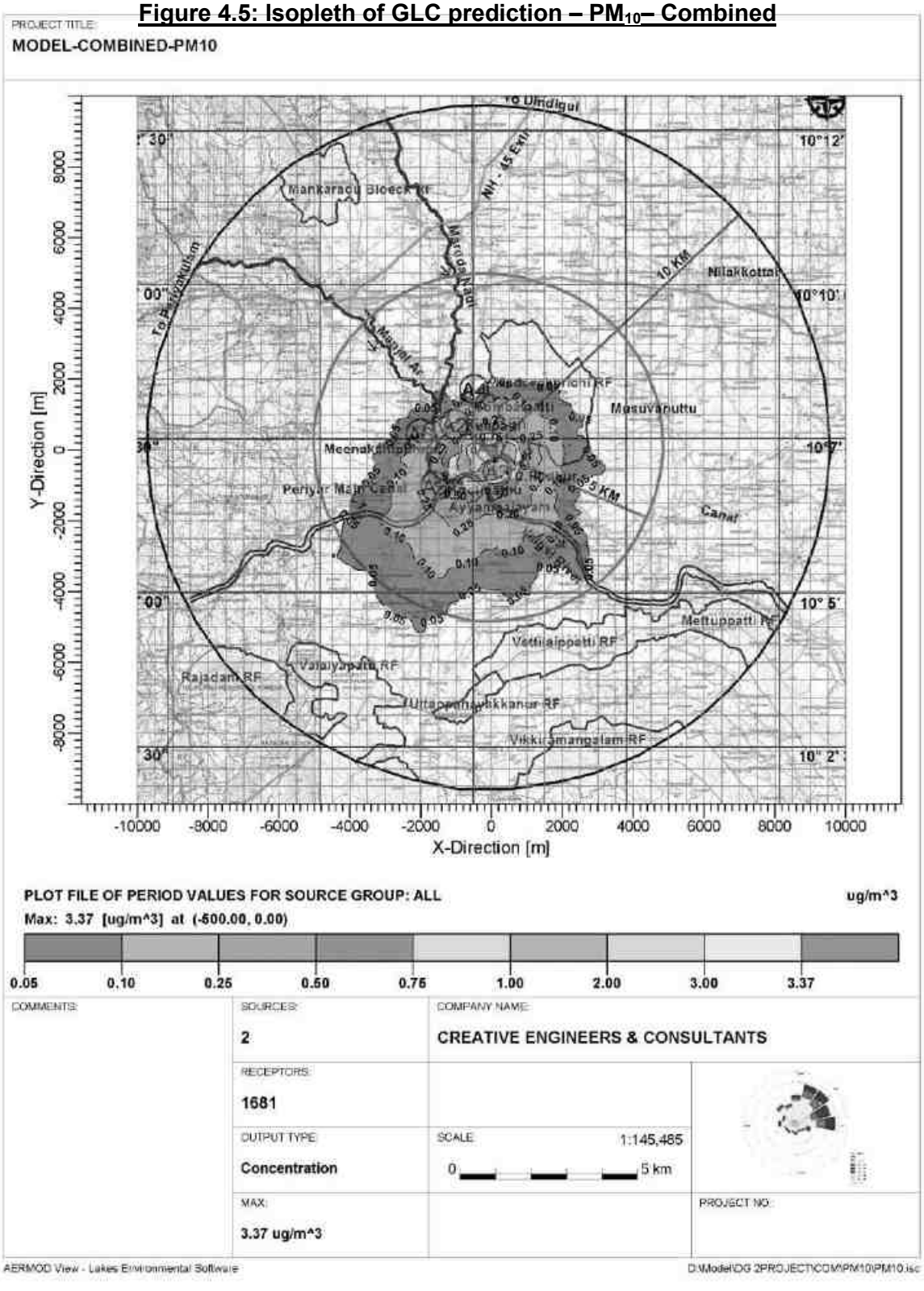
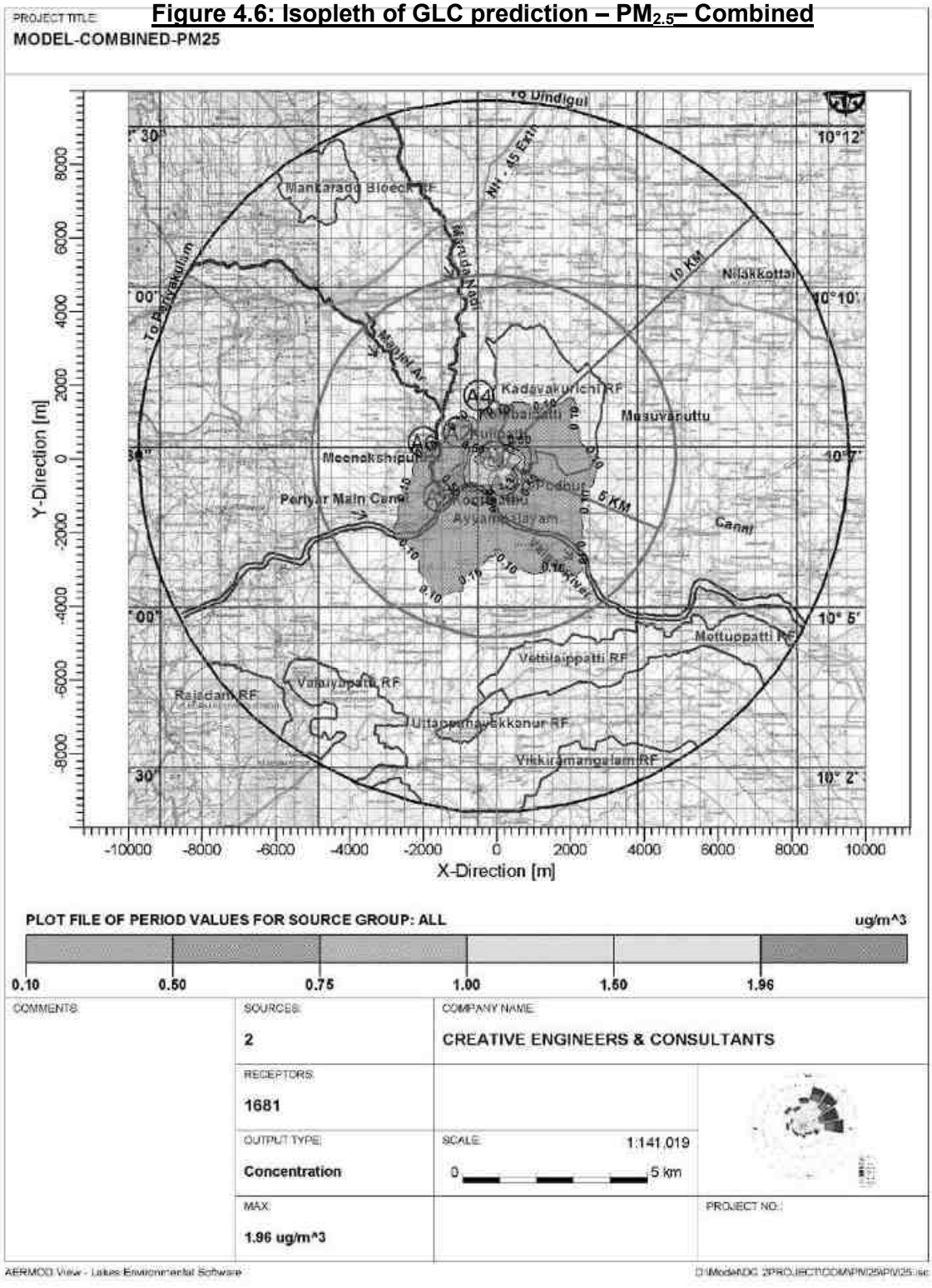


Figure 4.6: Isopleth of GLC prediction – $PM_{2.5}$– Combined



The post project concentrations of PM10, PM2.5, (GLC) (base line + incremental) after adopting necessary control measures is provided below:

Table 4.10: Post Project Concentrations Of PM_{10} -Cumulative

Values in μg/m³

S. No	Location	Background Concentration	Incremental Conc	Post Project Conc	Statutory Limits
1	Near Mine Lease Area	79.7	3.3	83.0	-
2	Kulipatti Village	57.2	<1.0	58.2	100
3	C.Pudur Village	74.1	<1.0	75.1	
4	Kombaipatti Village	52.8	<1.0	53.8	
5	Koottathuayyampalayam Village	65.2	<1.0	66.2	
6	Meenakshipuram Village	61.5	<1.0	62.5	

Table 4.11: Post Project Concentrations Of $PM_{2.5}$ -Cumulative

Values in μg/m³

S. No	Location	Background Concentration	Incremental Conc	Post Project Conc	Statutory Limits
1	Near Mine Lease Area	37.9	1.9	39.8	-
2	Kulipatti Village	31.1	<1.0	32.1	60
3	C.Pudur Village	37.2	<1.0	38.2	
4	Kombaipatti Village	28.9	<1.0	29.9	
5	Koottathuayyampalayam Village	35.4	<1.0	36.4	
6	Meenakshipuram Village	34.0	<1.0	35.0	

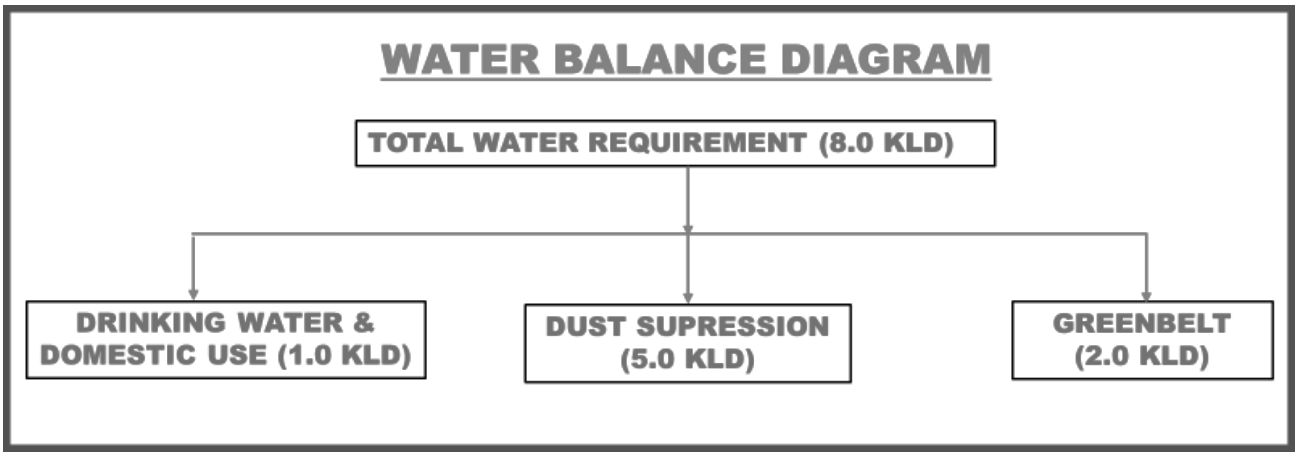
The cumulative post project concentration with respect to PM10 is in the range of 53.8 μg/m3 to 83.0 μg/m3 and with respect to PM2.5 are in the range of 29.9μg/m3 to 39.8 μg/m3 which are within the statutory limits in each case. For preservation of environment in this mine strict enforcement of management schemes and regular air quality monitoring will be undertaken for taking corrective actions, as needed. By adopting the effective implementation of all the mitigative measures, no adverse impact on Air quality due to the mining operation in both the leases are expected.

4.3 WATER ENVIRONMENT:

4.3.1 WATER REQUIREMENT:

The water requirement for each of these two projects are 8 KLD each comprising 1.0 KLD for drinking water and domestic use, 5.0 KLD for dust suppression and 2.0 KLD for greenbelt. The water will be sourced initially from outside agencies. Later the rainwater collected in the respective mine pit sump will be used for this purpose. The water balance diagram for the same is shown in **Figure No 4.7.**

Figure 4.7: Water Balance Diagram



4.3.2 SOURCES OF WATER POLLUTION:

The existing water environment showing water quality at different sampling stations in the area has been described in Chapter-III.

Direct impact on human beings due to poor water quality consequent to mining operation can lead to various water borne diseases like diarrhea, jaundice, dysentery, typhoid, etc. Besides, the polluted water may not be useful for animal or human consumption, vegetation and may affect aquatic life, if effluents are not properly treated to remove the harmful pollutants.The major sources of water pollution normally associated due to mining and allied operations are:

a. Domestic effluent.
b. Washouts from stockpile if any.
c. Disturbance to drainage course in the project area
d. Generation of mine pit water pumped out from deeper workings if any.

4.3.3 TREATMENT SCHEME:

A. Generation of domestic effluent:

The domestic sewage to be generated from the projects will be collected in respective septic tank with soak pits.

B. Washouts from overburden, ore stockpile, etc.

Since the entire material from the quarry faces will be directly dispatched to the consumers, there will not be any stockpiles. There are no waste dumps in both quarries. As such there will not be any wash out due to stock pile or waste dumps.

The rain water falling in the quarries will be harvested in the sump at the lowest level of the respective quarry. This sump will act as a settling pond to prevent solids escaping along with discharge, before outlet. etc. Towards surface runoff management, a garland drain of length 600m for Roughstone Quarry of B.Selvam and 700m for Roughstone Quarry of K.Nagamuthukumar will be constructed and will be connected to settling ponds with silt traps. The supernatant clear water from the settling pond will be flow to the downstream users. The surface runoff management structures diagram is given in **Figure No 4.8.**

Figure 4.8: Surface Runoff Management Structures – Thiru.B.Selvam

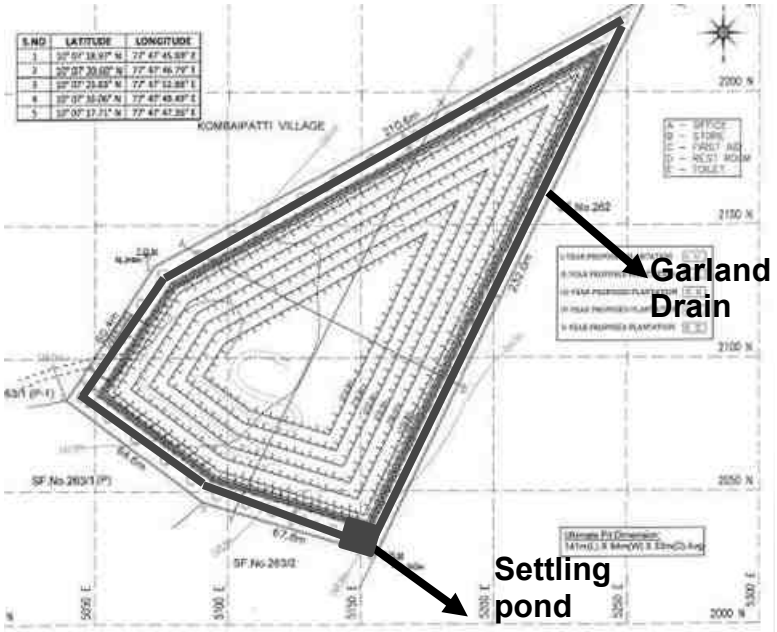
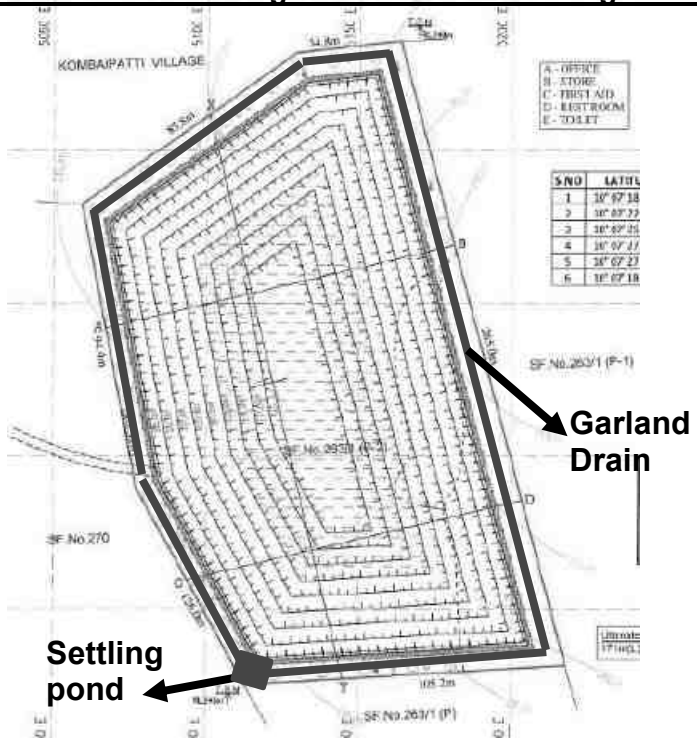


Figure 4.9: Surface Runoff Management Structures – Nagamuthukumar



C. Disturbance to drainage courses

There are no perineal water courses in both the lease areas.There is no proposal to discharge any effluent into either of these water bodies. No major impact is envisaged on the nearby water bodies due to project operations.

D. Generation of mine pit water pumped out from deeper workings if any.

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 lease area is part of a huge dyke like compact rock formation with less intergranular porosity and fractures leading to less permeability and transmissivity values and as such the ground water level in this area is deep from surface. As such no major water seepage within the mines is expected from the periphery. Besides, the leases are small mound at higher elevation when compared to the general floor level of +200m to +210m RL on the southern side. The ultimate pit depth of mining is 33m for Rough stone

Quarry of B.Selvam. and 45m for Nagamuthukumar. As such the ground water table in this area is below this level. Hence, ground water intersection in not envisaged and ground water will not be affected appreciably due to the quarrying operation. As mentioned earlier, the rainfall will be collected in the mine floor sump and advantageously used. Excess water if any in the sump will be pumped to settling pond for downstream users.

4.3.4 REDUCING WATER CONSUMPTION OVER THE YEARS:

4.3.4.1 GENERAL METHODS:

Use of water will be monitored and used to the minimum required. Awareness will be spread to the employees about the importance of water conservation. Tap and showers will be turned off immediately after use and any leaks will be monitored and immediately controlled. Water requirement for greenbelt and dust suppression can be reduced by choosing the native plants/trees species with low water requirement and which can sustain in such conditions for greenbelt/ plantation and also optimum usage to the required minimum. While the dust suppression itself is an important method of pollution control for air pollution due to dust, the water consumption will be monitored strictly. The water tanker will be examined for any sources of leaks and if found will be immediately sealed so that water can be utilized for dust suppression effectively without loss.

4.3.4.2 RAINWATER HARVESTING PLAN

Since the lease proximate areas are hard rocky formations with less water potential and the rainwater is the major source for replenishment of ground water, effective rainwater harvesting and other water augmentation measures are proposed in this project.

a) Development of garland drain around the quarry connected to settling tank.

b) Cleaning of drain periodically to prevent siltation

c) The supernatant clear water from the settling pond will drain into the nearby drainage on the western side of the lease.

d) Utilizing the rainwater harvested in the mine pit to meet the water requirement of the project.

e) Excess water, if any in consultation with local villagers and in line with government practices shall be provided to the downstream users.

4.4 NOISE AND VIBRATION:

4.4.1 NOISE ENVIRONMENT:

The ambient noise levels in the study area have been discussed in Chapter - III. The data shows that the existing noise levels are within statutory tolerable limits. The impact prediction and control measure for noise environment due to mining and allied activities is described below:

4.4.1.1 IMPACT PREDICTION DUE TO NOISE:

Noise is one of the inevitable causes of pollution in mining operations, largely due to the extensive mechanization adopted. Besides, other operations such as drilling, blasting, movement of vehicles, etc., also produce noise of considerable magnitude in mining operations. The main sources of noise and expected levels are given below in **Table no – 4.12.**

Table 4.12: Main Sources of Noise

Sl. No.	Source	Inside Cabin	Noise level at 10 m. from source dB(A)
1	Shovel	84-91	59-68
2.	Dumpers/Tippers	87-96	75-85
3.	Drill	88- 95	75-83

Prolonged exposure to a high noise level is harmful to the human auditory system and can create mental fatigue, rebellious attitude, annoyance and carelessness, which may lead to neglect of work and also result in accidents. The impact of noise level as per World Health Organization's 1986 notification is given below in **Table No - 4.13**.

Table 4.13: Impact of Noise Levels

NOISE LEVELS	ADVERSE EFFECTS
90-115 dB	Partial deafness and nervous irritability
> 115 dB	Permanent deafness
Impulsive noise (>90dB)	Frightens livestock grazing in the nearby areas

OSHA (Occupational Safety and Health Administration), USA and other similar organisations stipulate that noise level up to 90 dB(A) is acceptable for eight hours exposure Leq (Equivalent sound level) (8hrs) per day. The Directorate General of Mines Safety, in circular No. DG (Tech)/18 of 1975, has prescribed the noise level in mining occupations (TLV) for workers, in an 8 hour shift period with unprotected ear as 90 dB(A) or less.

The noise will be felt only near the active sources. There will be considerable reduction in the noise level due to the absorption factor, environmental surroundings and other attenuation factors. As far as absorption factor is concerned, If the ground cover is vegetated or has a soft texture, sound will decrease at the rate of 4.5 dB(A) every time the distance between the source and the observer is doubled. Besides, there will be shielding factor, which takes into account the environmental surroundings. With every 30m of dense land scape vegetation, 5 dB(A) of additional attenuation can be obtained up to a maximum of 10 dB(A). As such at away places the effect of noise will not be felt.

Anticipated noise levels resulting from operation of the various machineries like excavator, tippers, drill have been computed using point source model. Computation of cumulative noise levels at the nearby villages is made based on the assumption that there are no attenuation paths between the source and the boundary. Noise modeling is carried out using the following formula:

Lp2 = Lp1 – 20 log R2/R1, Where, Lp1 and Lp2 are sound pressure levels at points located at distances R1 and R2 respectively from the source. The study results are as follows:

Table 4.14: Post Project Noise Levels- Cumulative Bases

Sl.No	Location	Baseline Day Eq.in dB(A)	Post project noise Eq in dB(A)	Limit dB(A) as per MoEF&CC
1.	A1-Near Mine Lease Area	49.5	52.6	90
2.	A2-Kulipatti Village	50.3	50.5	55
3	A3-C.Pudur Village	50.6	50.8	55
4	A4-Kombaipatti Village	49.9	50.1	55
5	A5-Koottathuayyampalayam	50.0	50.3	55
6	A6-Meenakshipuram Village	49.0	49.3	55

From the studies, it is found that the predicted Noise Levels due to mining operations at the periphery of the mine lease itself will be less even without considering any attenuation factor. However, practically there will be attenuation due to vegetation etc., and as such there will not be any adverse noise propagation outside the lease boundary. Since the habitations are also away the effect of noise due to mining operations will not be felt at all in the surrounding villages.

4.4.1.2 CONTROL MEASURES FOR NOISE ENVIRONMENT:

Hence, by following mitigative measures for noise control, the impact on noise levels will be insignificant:

- Planting rows of native trees along roads, around mine area and other noise generating centers to act as acoustic barriers.
- Sound proof operator's cabin for equipments like shovel, tippers, etc.
- Proper and regular maintenance of equipments may lead to less noise generation.
- Providing in-built mechanism for reducing sound emissions.
- Providing earplugs to workers exposed to higher noise level.
- Conducting regular health check-up of workers including Audiometry test for the workers engaged in noise prone area.
- Displaying the noise level status of operational machinery on the machines to know the extent of noise level and to control the time to which the worker is exposed to higher noise levels.

Further green belt and afforestation will be planned and executed to abate noise and dust propagation in the area.

4.4.2 GROUND VIBRATION DUE TO BLASTING EFFECTS:

Vibrations due to blasting may cause damage to nearby structures, if appropriate control measures are not adopted. Fly rock is another possible damage causing outcome of blasting. There are many factors, which influence these, like long explosive column with little stemming column, improper burden, loose material or pebbles near holes and long water columns in the holes.

The following control measures will be planned in both the projects to reduce ground vibratory conditions to sustainable statutory limits:

1) Carrying out controlled blasting using Nonel delay detonator.
2) Optimum design for burden and spacing.
3) Reducing explosive charge per delay to minimum.
4) The peak particle velocity (PPV) of ground vibration will be kept very low through optimally controlled blasting techniques, after necessary field trials.
5) To contain fly rocks, stemming column to be less than burden of the hole. Blasting area will also be muffled, if necessary, to stop fly rocks propagation.
6) Blasting will not be carried out when strong winds are. Blasting will be done during midday time.
7) Controlled blasting to avoid tension cracks which may endanger the stability of bench slopes in the mine.
8) Proper care and supervision during blasting by a competent and experienced person to be carried out.

By adoption of above measures, it will be ensured that the ground level vibration due to blasting are maintained within the limits prescribed by DGMS, Dhanbad at the mining areas vide Circular No. 7 dated 29 -08-1997 as given below:

Table 4.15: Permissible Peak Particle Velocity (PPV) In Mining Areas

In mm/sec

Type of structure	Dominant excitation frequency Hz		
	<8 Hz	8-25 Hz	>25 Hz
A. Buildings/structures not belonging to owner			
Domestic houses /structures (Kuchha brick and cement)	5	10	15
Industrial buildings (RCC and framed structures)	10	20	25
Objects of historical importance and sensitive structures.	2	5	10
B. Building belonging to owner with limited span of life			
Domestic houses/structures (Kuchha brick and cement)	10	15	25
Industrial buildings (RCC and framed structures)	15	25	50

Besides, different blasting time for the projects in the vicinity is suggested and the timing is to be mentioned in the display board in the respective mines entrance.

4.5 LAND ENVIRONMENT:

Both the projects are patta lands in the name of the respective applicant companies. The present land use pattern and the post mining land use pattern is shown below:

Table 4.16: Land Use – Thiru. B.Selvam.

S.No	Land Use	Present (Ha)	At the end of plan period (Ha)	Conceptual Period (Ha)
1	Quarrying Pit	--	1.35	1.35
2	Green Belt	--	0.23	0.23
3	Infrastructure & road		0.04	0.04
4	Unutilized	1.62	--	--
	Total	**1.62**	**1.62**	**1.62**

Table 4.17: Land Use – K.Nagamuthukumar

S.No	Land Use	Present (Ha)	At the end of plan period (Ha)	Conceptual Period (Ha)
1	Quarrying Pit	--	1.62.6	1.62.6
2	Green Belt	--	0.33.4	0.33.4
3	Infrastructure & road		0.04.0	0.04.0
4	Unutilized	2.00.0	--	--
	Total	**2.00.0**	**2.00.0**	**2.00.0**

4.5.1 LAND RECLAMATION:

There is no waste generation anticipated in this quarry operation since the entire excavated material will be utilized. Hence, there is no external overburden dump involved. In the post mining stage, mined out area will be left as water body and the rest will be covered with vegetation.

Table 4.18: Land Use During Post Operational Period- Thiru. B.Selvam.

S.No	Description	Land use (Ha.)			
		Plantation	Water body	Others	Total
1	Quarrying Pit	-	1.35.0	-	1.35.0
3	Green Belt	0.23.0	-	-	0.23.0
5	Infrastructure & road	--	-	0.04	0.04.0
	TOTAL	**0.23.0**	**1.35.0**	**0.04**	**1.62.0**

Table 4.19: Land Use During Post Operational Period- K.Nagamuthukumar

S.No	Description	Land use (Ha.)			
		Plantation	Water body	Others	Total
1	Quarrying Pit	-	1.62.6	-	1.62.6
3	Green Belt	0.33.4	-	-	0.33.4
5	Infrastructure & road	--	-	0.04.0	0.04.0
	TOTAL	**0.33.4**	**1.62.6**	**0.04.0**	**2.00.0**

Entire mined out area will be properly fenced to prevent inadvertent entry of men and animals. In the post mining stage the entire mined out area shall be used as a rainwater harvesting pond.

Mine closure :

At the end of the life of the mine, the following points will be ensured:

- The mine benches will be properly dressed, loose material in the face if any and the mine site will also be cleared.
- Mine Closure activities will be carried out progressively by way of fencing, laying of garland drain around the lease periphery & plantation.
- The peripheral barbed wire fencing, will be strengthened to prevent inadvertent entry of public and animal. surface runoff management arrangements will be improved so as not to disturb the hydrological cycle of the area post mining.
- Besides, to prevent any access to the mined out void, entrance will be secured with tall gate and a blockage bund across the access road.

- No entry / safety board will be erected all around the lease area.
- Benches will be kept intact and haul road accessibility will be maintainted.
- Regular checking to prevent inherent entry in to the lease area post mining will be done.
- PP will ensure effective post closure monitoring.

4.6 BIOLOGICAL ENVIRONMENT:

4.6.1 EXISTING FLORA AND FAUNA:

The core zone area is barren with grasses and bushes. Details of flora/fauna pattern in core and buffer zones have been described in chapter - III.

4.6.2 IMPACT OF MINING ON BIOLOGICAL ENVIRONMENT:

The significance of impact on biological environment due to mining and allied activities on various fronts is described below:

Table 4.20: Impact on Biological Environment

S.No	ISSUES	OBSERVATIONS
1	Clearance of vegetation due to mining and allied activities	Part of both the lease areas are partly mined and the remaining lease area contains shrubs and bushes only. As such no clearance of major vegetation is involved in both the leases.
2	Retardation of tree growth, tip burning, etc, due to deposition of dust and the Particulate matter generated from the mining operation.	Necessary mitigative measures like dust suppression, proper maintenance of equipment's, roads will be carried out to prevent dust generation.
3	Proximity to national park/ wildlife sanctuary/reserve forest/mangroves/Coastline/estuary/ sea	The mining lease areas and the 10 km buffer zone from the periphery of the core zone is devoid of declared ecologically sensitive features like national parks, biospheres, sanctuaries, etc.
4	Release of effluents into water body that also supplies water to wildlife	There is no proposal to discharge any effluent into nearby water bodies.
5	Proposed project could increase siltation that would affect nearby biodiversity area	Surface runoff management structures like garland drain, settling pond etc. as explained above will be constructed and as such there will not be any appreciable impact on surface water quality which in turn can affect the bio diversity of the area.
6	Activities of the project affects the breeding/nesting sites of birds and animals	In the present lease area, there is no wetland. Migratory bird needs sufficient wetlands with sufficient food, shelter, roosting places and nesting places which is not possible here.

7	Located near an area populated by rare or endangered species	The study area is observed to be not ecologically sensitive and no endangered or endemic species as per IUCN red list is observed.
8	Risk of fall/slip or cause death to wild animals due to project activities	In the post mining stage, barbed wire fencing is proposed all around the mined-out void to prevent falling of animals in the mine pits.
9	Project affects the forest-based livelihood/any specific forest product on which local livelihood depends	Not applicable
10	Project likely to affect migration routes	No migration routes are in the area.
11	Project likely to affect flora of an area, which have medicinal value	No such significantly important medicinal value species within the ML area and its nearby region.
12	The project likely to affect wetlands, fish breeding grounds, marine ecology	There are no any wetlands, fish breeding grounds, marine ecology nearby the ML area which will be affected due to this project.
13	Project affects the Agriculture, Forestry and Traditional Practices	Study area depicts varying land use comprising scrubby hills on the North east, South west and South east side with intervening plains. Dominant agricultural activities are observed in part of plains proximate to the available irrigation source alongside Vaigai river and periyar canal. Crops like Rice, vegetables, watermelon, ground nut, banana etc. are cultivated in the lands with better water source & favaorable soil condition. Soil near the hilly areas are of loamy type which hardens on drying and as such affects germination due to which vegetation is poor. By adoption of systematic mining adhering to all the environmental mitigation measures as explained earlier, no adverse impact on the away agricultural or surrounding environs envisaged.
14	Impact on soil health and biodiversity	The lease area is rocky type with very little and poor soil cover. Soil near the hilly areas are of loamy type which hardens on drying and as such affects germination due to which vegetation is poor. (Photograph of the site attached in Chapter-II). Besides, there is no waste generation, disposal or stacking involved in this project. As such no loss of soil health and Bio-diversity is expected.
15	Climate change leading to droughts, floods,etc.	• No adverse impact on the surrounding environment is envisaged since the number of equipments to be used to achieve this production is less and the magnitude of operation is of very small level. • Besides, as is it a mining project, no adverse generation of heat is envisaged. • Certified vehicles with low carbon emissions will only be used. These equipments will be properly and regularly maintained. Besides, regular vehicular emission tests will be done for the transport vehicles to ensure minimal impact due to carbon
16	Pollution leading to release of greenhouse gases (GHG) rise in temperature (Hydrothermal/Geothermal effect due to destruction in environment, Bio-geochemical processes and its foot prints including environmental stress) and livelihood of local	

	people.	emissions. To further mediate the carbon emissions, a good greenbelt and plantation plan has been planned. • Geologically the area in and around the lease area contains charnokite type rock formation containing mostly fallow land. • There are no Protected or Eco-Sensitive Zone or forest land nearby wherein it can have an impact. • It will be ensured that mining will be carried out adhering to all the statutory rules and regulations and maintaining the environmental quality within the prescribed standards by effective implementation of varioius mitigative measures. • These mitigative measures will be continued for the entire lease period ensuring no impact on the environment. • As such release of Greenhouse gases (GHG), rise in temperature, affecting livelihood of the local people ,loss of Agriculture, Forestry and Traditional Practices is not envisaged. Such a limited scope will not induce any climatic change leading to droughts, floods etc. • Plantation @ 500 sapling per ha of the lease area will be developed in and around the lease area for carbon absorbtion.
17	Possibilities of water contamination and impact on aquatic ecosystem health and impact on Sediment geochemistry in the surface streams	• This being a mining project no process effluent will be generated. • Water generation is expected to be due to ✓ Direct rainfall falling within the pit ✓ Rain water draining near the lease area. • Direct rain fall will be collected in the mine floor sump. Water from sump will be pumped to settling pond for downstream users. • Rainwater from the mine periphery will be collected through peripheral garland drain. Garland drain will be connected to a settling pond. Supernatant clear water from settling pond confirming to applicable limits will be let out to downstream users for agricultural or other purposes. • Due to above mentioned reasons and absence of perennial water bodies nearby where in any marine ecosystem is observed, no effect on this front is expected.

There are no migratory corridors, migratory avian-fauna, rare endemic and endangered species. Therefore there shall be no impacts due to mining activity on them. Even though there are no adverse impact on bio diversity and flora/fauna status due to project operations, positive impacts will arise due to well-planned reclamation measures for restoration of land status in the area ultimately to productive land category with elaborately planned green belt development activities.

4.6.3 CONTROL MEASURES FOR BIOLOGICAL ASPECTS:

To reduce the adverse effects on flora/fauna status of the area due to deposition of dust generated from mining operations, mobile water tanker systems will be ensured in all dust prone areas to arrest dust generation. Methodical and well-planned plantation scheme will be carried out depending upon the immediate need, priority and availability of land. The plantation will be done along the lease boundary in a phased manner.

4.6.4 GREEN BELT & PLANTATION:

In the lease area, 10m around the periphery and 10m safety zone. In the Roughstone Quarry of B.Selvam., about 800 trees will be planted in and around the lease area. In the Roughstone Quarry of K.Nagamuthukumar about 1000 trees will be planted in and around the lease area.

Table 4.21: Proposed Plantation

Year	Proposed Plantation – B.Selvam	Proposed Plantation – K.Nagamuthukumar	Name of the species
I	160	200	Pungai, Vagai, Vembu, Manjal konrai, Naval, Puvarasu, etc.,
II	160	200	
III	160	200	
IV	160	200	
V	160	200	
Total	**800**	**1000**	

In the post mining stage, in the Roughstone Quarry of B.Selvam, 1.35Ha of mined out area will be left as water body and 0.23 Ha will be greenbelt area and in the Roughstone Quarry of K.Nagamuthukumar, 1.626Ha of mined out area will be left as water body and 0.33.4 Ha will be greenbelt area.

Figure 4.10: Mine Closure Plan (Thiru B.Selvam)

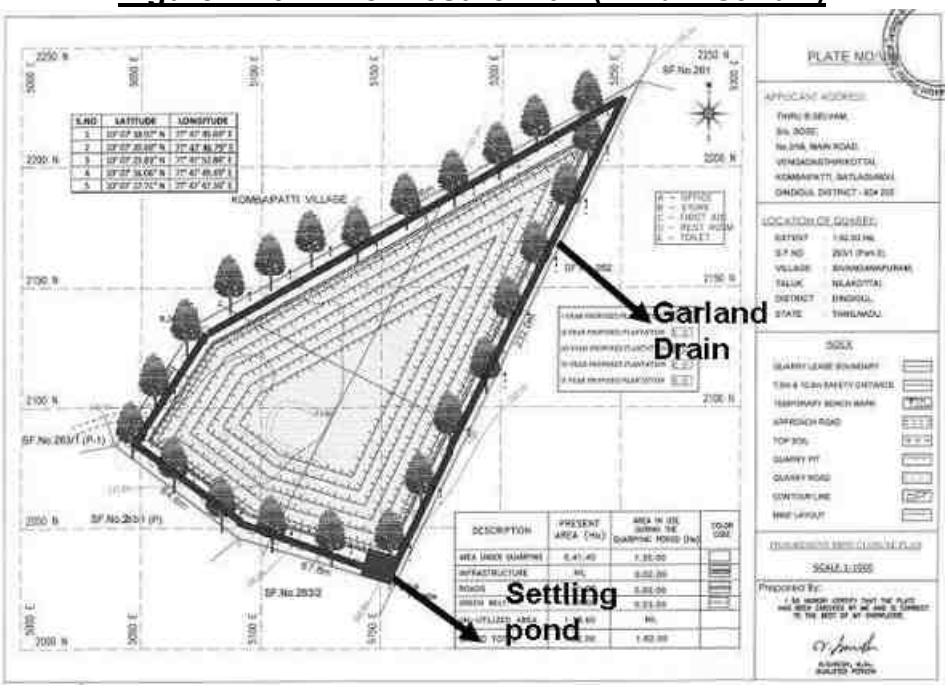
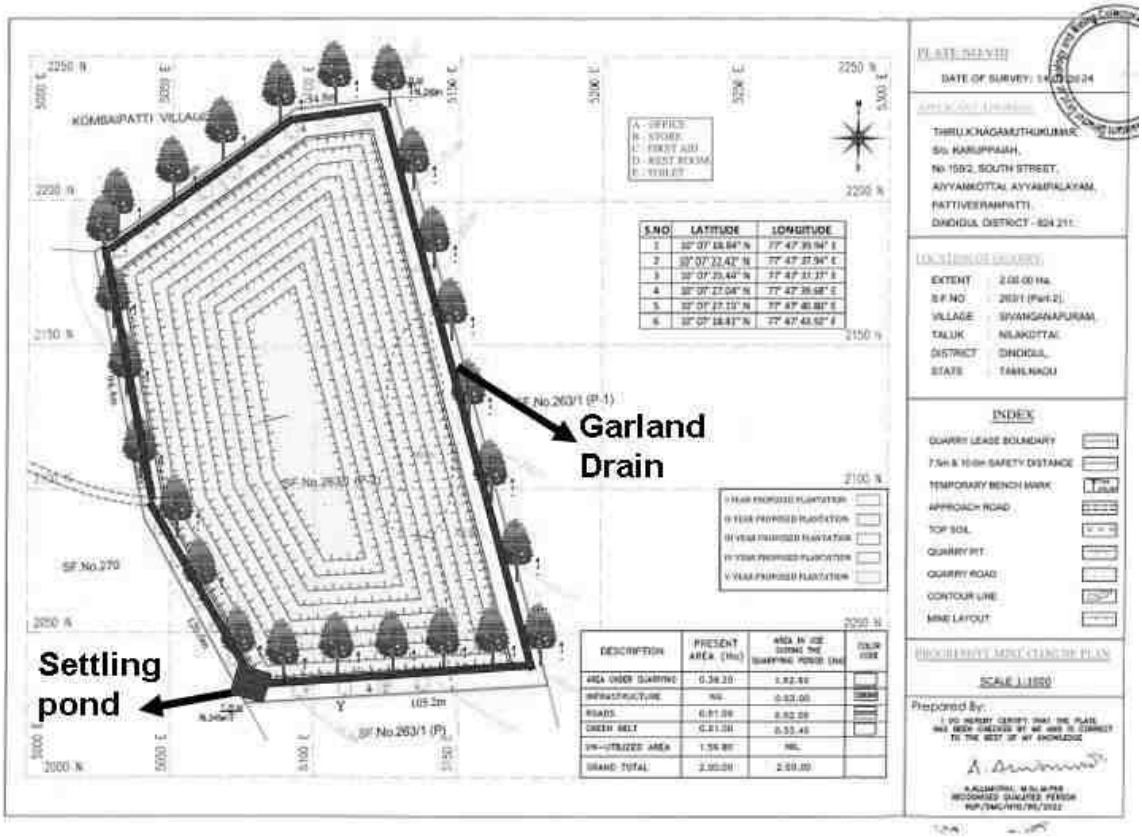


Figure 4.11: Mine Closure Plan (Thiru K.Nagamuthukumar)



4.7 SOCIO ECONOMIC ENVIRONMENT:

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

The mining operations in the proposed mines will each employ about 16 persons & 19 persons directly and about 50 persons on indirect basis through allied opportunities in logistics, trading, repairing works etc. good employment potential will arise in this area, which will provide raising income levels and standards of living in the area through various service related activities connected with the project operations as shown under.

- Project related logistical operations for transport of Rough Stone, etc,
- Various trading services for consumer goods, spare parts, sundry items, etc.
- Contractual services connected with the project.
- Green belt and horticultural works in the project.
- Casual labor needs for various activities.

Besides, there will be improvement in the following aspects due to project operation:

- ❖ Improvement in infrastructural facilities, providing education aids etc. in nearby schools
- ❖ Betterment of drinking water facilities.
- ❖ Benefit to the State and the Central governments through financial revenues by way of royalty, tax, duties, etc from this project directly and also indirectly.

From above details, it is clear that the project operations will have highly beneficial positive impact in the area.

Table 4.22: CER Cost

Project Name	Roughstone Quarry of ThiruB.Selvam	Roughstone Quarry of ThiruK.Nagamuthukumar
Project Cost (Rs.)	Rs.94.50 Lakhs	Rs.149.95 Lakhs
CER Cost Requirement (2% of the Project Cost) (Rs.)	Rs. 1.89 Lakhs	Rs.3.00 Lakhs
Revised CER cost allocated (Rs.)	Rs. 5.0 Lakhs	Rs. 5.0 Lakhs

However, towards the socio-economic development of the surrounding area, Thiru Selvam have allocated Rs.5.0 Lakhs and Thiru Nagamuthukumar have allocated Rs.5 Lakhs. The activities identified under CER will be implemented in a phased manner in provision of facilities in nearby Government School.

4.8 OCCUPATIONAL HEALTH AND SAFETY:

4.8.1 BASELINE STATUS:

Primary data collection through field survey conducted in the study area reveals that there is no reported incident of any occupational diseases in the area. Hazardous jobs like blasting, loading, etc. are planned to be executed safely and with all precautionary measures as prescribed in Metalliferrous Mines Regulations of 1961, so as to minimize hazards and incidences of health problems.

4.8.2 IMPACTS ON OCCUPATIONAL HEALTH DUE TO PROJECT OPERATIONS:

Anticipated occupational illness sequel to mining activities can be as follows:

- Dust related pneumonia
- Tuberculosis
- Rheumatic arthritis
- Segmental vibration
- Miner's Nystagamus

4.8.3 MITIGATIVE MEASURES FOR OCCUPATIONAL HEALTH:

To reduce pollution emanation from the project, following measures are being and will be taken:

- Water sprinkling on haul roads etc.
- Green belt creation to arrest dust and reduce noise propagation.
- Acceptance of good control measures for reducing air pollution, as mentioned earlier in the chapter.
- Control of noise levels through good preventive maintenance of machineries, green belt creation, provision of ear plug to workers, etc.

- In addition to above measures, the following remedial steps are being and will be enforced to ensure minimization of occupational health and safety problems.
- Medical examination of workers by qualified doctors, as per DGMS circulars.
- Regular awareness campaigns amongst staff and workers
- Staff will be provided with PPE to guard against excess noise levels, Dust generation and inhalation, etc., as per standards prescribed by DGMS.

4.8.4 MITIGATIVE MEASURES FOR SAFETY ASPECTS:

The following safety gadgets will be provided to the staff and workers based on their area of operation and work & requirement:

Sl No	Safety Equipments
1.	Helmets
2.	Shoes
3.	Goggles
4.	Dust Mask
5.	Hand Gloves
6.	Reflective Jackets
7.	Ear Muffs
8.	Signal Lights/Flags

4.9 LOGISTICAL SYSTEM:

From these proposed quarries the entire output will be transported to the crusher units for producing stone aggregates of different sizes or construction of roads, bridges, buildings and other buyers etc.

The lease area can be approached through a separate localized road which is connected to Anaipatti road on the southern side of the lease area which joins SH-154 on the eastern side of the lease area.The expected peak transport will be as follows:

Table 4.23: Details of Transportation

Sl.no	Particulars of activity	Roughstone Quarry of B.Selvam	Roughstone Quarry of K.Nagamuthukumar
A	Maximum Roughstone Transported (m3/year)	42,550	71,795
B	No of days in a year	300	300
C	Transport hours per day	8	8
D	Truck capacity in T	25	25
	Trips per hour	2 Trips/Hr	3 Trips/Hr

Since the production is less, there will be hardly about 5 trips per hour cumulatively. The existing road can absorb this traffic due to this project. However, the following mitigative measures are suggested:

- ❖ Water sprinkling on material in the transport vehicles before transporting, so that no dust nuisance during transport will arise.
- ❖ Plantation on either side of the transport road in consultation with the concerned department.
- ❖ Proper maintenance of transport roads
- ❖ Proper maintenance of transport vehicles.
- ❖ Avoiding overloading of material
- ❖ Covering of loaded vehicles with tarpaulins sheet if warranted.
- ❖ Keeping traffic regulators at vulnerable locations.
- ❖ Distribution of transport vehicles for avoiding choking of roads
- ❖ Limiting of speed
- ❖ Installation of barriers at vulunerable locations
- ❖ Provision of tyre washing facility at the mine outlet

4.10 WASTE MANAGEMENT:

Solid Waste: Since the entire mined out material will be used there will not be any solid waste generation from these projects.

Liquid waste: There is no process effluent generation from these mines. Hence no liquid waste is generated.

Hazardous waste management: In these projects the following management practices will be followed:

- ➢ Ensuring availability of different colour bins for collection of different types of waste.

- Storing of Hazardous waste material in a separate storage area with impervious containers for waste oil, oil contaminated clothes, used lead acid batteries, scraps, tyre storage etc.
- Ensure that there are no leakages/spillages of hazardous wastes.
- Ensuring that the fire extinguisher system is available at hazardous material storage area.

The hazardous waste if any will be disposed through authorized recyclers or re-processors periodically. The hazardous wastes will be transported in accordance with the provisions of rules. By effective implementation of above said mitigation measures no major impact due to Hazardous waste is expected.

Plastic waste: Single use plastics/ use and throwaway plastics will be banned in the site as directed by the Tamil Nadu Government vide GO(Ms)No.84 regarding ban on use of plastic products. The employees will be encouraged to use compostable material or reusable material.

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CHAPTER - V

ANALYSIS OF ALTERNATIVES (TECHNOLOGY & SITE)

CHAPTER 5

ANALYSIS OF ALTERNATIVES

5.1 ALTERNATE TECHNOLOGY:

These are proposed Rough Stone Quarries in which Mechanized Open Cast mining will be carried out. It involves jack hammer drilling, blasting, excavation, loading and transportation of Rough stone to the crushing units. As this method is techno economically proven, consideration of an alternate technology is not warranted.

5.2 ALTERNATE SITE:

The mineral deposits are site specific in nature; hence question of seeking alternate site does not arise.

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CHAPTER - VI

ENVIRONMENTAL MONITORING PROGRAMME

CHAPTER 6

ENVIRONMENTAL MONITORING PROGRAMME

6.1 GENERAL

In these projects, appropriate environmental monitoring programme are framed. Regular, systematic and sustained programme schedules for implementation and monitoring of various control measures are devised with clear cut guidelines of various concerned plans for keeping a continuous surveillance on the various environmental quality parameters in the area.

The monitoring schedules are planned to aim at regular and systematic study of various pollution levels with respect to air and water quality, noise levels etc., to ensure that they conform to the standards laid down by the Environment Protection Act, 1986 and various Central and State Pollution Control Board Limits.

The various methodologies and frequency of studies of all environmental quality parameters will be as per prescribed norms laid down by MOEF&CC and State Pollution Control Board. This being a small quarry operation, the Mines in-charge will take care of all the environmental related works also.

Environmental control measures include components like air, water and soil quality, noise levels, afforestation measures, etc. For monitoring of environment over the life of the mine, a set of stations for study of quality parameters are fixed as per the actual requirements and prevailing conditions of environmental factors, as dictated from time to time, depending on the prevailing pollution levels.

6.2 MONITORING SCHEDULES FOR VARIOUS PARAMETERS

The monitoring schedules are planned for systematic study of various pollution levels with respect to air and water qualities, noise levels, etc. to ensure that they conform to the standards laid down by Environmental Protection Act and various statutory Limits. The monitoring schedules to be adopted individually in both these quarries given below. However, based on the need and priority it may be suitably modified / improved in consultation with local authorities. Since there are 2 separate leases within the cluster, it is proposed to form a cluster management committee (CMC) and its details are provided under Section 10.2.2, Chapter-X.

Table 6.1: Environmental Monitoring Schedule

S.No	Environmental Parameters	Parameters to be monitored	Monitoring area coverage /locations	Frequency of monitoring
1	Air Quality	Sulphur dioxide (SO_2), Oxides of Nitrogen (NO_2), Respirable Particulate Matter ($PM_{2.5}$ and PM_{10}).	2 locations in the buffer zone and 1 work zone locations.	Once in a year in each location.
2	Water Quality	General, Physical, and chemical parameters	Ground Water samples (around the project area) and Mine Pit water samples	Once in a year
3	Water Table Fluctuations	Water Levels	Nearby wells and Borewells	On yearly basis pre and post monsoon level
4	Noise	Leq. Lmax Lmin, Leq Day & Leq Night dB(A)	Work zone locations and buffer zone villages	Once in a year
5	Vibration	Peak Particle Velocity	Mine periphery	Once to arrive at optimum blasting parameters
6	Socio Economic Environment	Socio Economic Survey, Review of implementation of CER activities proposed	Buffer Zone	Yearly basis
7	Occupational Health	Occupational health survey to detect early incidence of diseases, Audiometry Test for workers in noise prone area and review of safety matters.	Staff and Workers involved in the project	Once in a year
8	Greenbelt	Maintenance	Within the lease area	Regularly

6.3 LEGISLATIVE AND REGULATORY FRAME WORK:

The project will have environmental policy declaring its responsibility and commitment to protect the environment and to ensure public safety. The existing policy will be available with all concerned officials of the plant. The following environmental standards as per methodologies prescribed, by MOEF/CPCB/TNPCB will be enforced in this project:

Table 6.2: Environmental Standards

Standards	Issued By	Reference
National Ambient Air Quality Standards	Central Pollution Control Board	Table No. 6.3
Water quality standards per IS 10500:2012	Bureau of Indian Standards	Table No.6.4
Noise Standards	CPCB / MoEF&CC	Table No.6.5
Permissible Peak Particle Velocity	DGMS, Dhanbad	Table No.6.6

Table 6.3: National Ambient Air Quality Standards

NATIONAL AMBIENT AIR QUALITY STANDARDS
CENTRAL POLLUTION CONTROL BOARD
NOTIFICATION
New Delhi, the 18th November, 2009

No. B-29016/20/90/PCI-I.—In exercise of the powers conferred by Sub-section (2) (h) of section 16 of the Air (Prevention and Control of Pollution) Act, 1981 (Act No.14 of 1981), and in supersession of the Notification No(s). S.O. 384(E), dated 11th April, 1994 and S.O. 935(E), dated 14th October, 1998, the Central Pollution Control Board hereby notify the National Ambient Air Quality Standards with immediate effect, namely:-

NATIONAL AMBIENT AIR QUALITY STANDARDS

S. No.	Pollutant	Time Weighted Average	Concentration in Ambient Air		
			Industrial, Residential, Rural and Other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1	Sulphur Dioxide (SO_2), µg/m³	Annual*	50	20	- Improved West and Gaeke
		24 hours**	80	80	-Ultraviolet fluorescence
2	Nitrogen Dioxide (NO_2), µg/m³	Annual*	40	30	- Modified Jacob & Hochheiser (Na-Arsenite)
		24 hours**	80	80	- Chemiluminescence
3	Particulate Matter (size less than 10µm) or PM_{10} µg/m³	Annual*	60	60	- Gravimetric - TOEM
		24 hours**	100	100	- Beta attenuation
4	Particulate Matter (size less than 2.5µm) or $PM_{2.5}$ µg/m³	Annual*	40	40	- Gravimetric - TOEM
		24 hours**	60	60	- Beta attenuation
5	Ozone (O_3) µg/m³	8 hours**	100	100	- UV photometric - Chemiluminescence
		1 hour**	180	180	- Chemical Method
6	Lead (Pb) µg/m³	Annual*	0.50	0.50	- AAS /ICP method after sampling on EPM 2000 or equivalent filter paper
		24 hours**	1.0	1.0	- ED-XRF using Teflon filter
7	Carbon Monoxide (CO) mg/m³	8 hours**	02	02	- Non Dispersive Infra Red (NDIR) spectroscopy
		1 hour**	04	04	
8	Ammonia (NH_3) µg/m³	Annual*	100	100	-Chemiluminescence
		24 hours**	400	400	-Indophenol blue method

(1)	(2)	(3)	(4)	(5)	(6)
9	Benzene (C_6H_6) $\mu g/m^3$	Annual*	05	05	- Gas chromatography based continuous analyzer - Adsorption and Desorption followed by GC analysis
10	Benzo(a)Pyrene (BaP) - particulate phase only, ng/m^3	Annual*	01	01	- Solvent extraction followed by HPLC/GC analysis
11	Arsenic (As), ng/m^3	Annual*	06	06	- AAS /ICP method after sampling on EPM 2000 or equivalent filter paper
12	Nickel (Ni), ng/m^3	Annual*	20	20	- AAS /ICP method after sampling on EPM 2000 or equivalent filter paper

* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

Note. — Whenever and wherever monitoring results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered adequate reason to institute regular or continuous monitoring and further investigation.

SANT PRASAD GAUTAM, Chairman
[ADVT-III/4/184/09/Exty.]

Note: The notifications on National Ambient Air Quality Standards were published by the Central Pollution Control Board in the Gazette of India, Extraordinary vide notification No(s). S.O. 384(E), dated 11th April, 1994 and S.O. 935(E), dated 14th October, 1998.

Table 6.4: IS – 10500 :2012 Standards

Table 1 Organoleptic and Physical Parameters
(*Foreword* and *Clause* 4)

Sl No.	Characteristic	Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source	Method of Test, Ref to Part of IS 3025	Remarks
(1)	(2)	(3)	(4)	(5)	(6)
i)	Colour, Hazen units, *Max*	5	15	Part 4	Extended to 15 only, if toxic substances are not suspected in absence of alternate sources
ii)	Odour	Agreeable	Agreeable	Part 5	a) Test cold and when heated b) Test at several dilutions
iii)	*p*H value	6.5-8.5	No relaxation	Part 11	—
iv)	Taste	Agreeable	Agreeable	Parts 7 and 8	Test to be conducted only after safety has been established
v)	Turbidity, NTU, *Max*	1	5	Part 10	—
vi)	Total dissolved solids, mg/l, *Max*	500	2 000	Part 16	—

NOTE — It is recommended that the acceptable limit is to be implemented. Values in excess of those mentioned under 'acceptable' render the water not suitable, but still may be tolerated in the absence of an alternative source but up to the limits indicated under 'permissible limit in the absence of alternate source' in col 4, above which the sources will have to be rejected.

Table 2 General Parameters Concerning Substances Undesirable in Excessive Amounts
(*Foreword* and *Clause* 4)

Sl No.	Characteristic	Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source	Method of Test, Ref to	Remarks
(1)	(2)	(3)	(4)	(5)	(6)
i)	Aluminium (as Al), mg/l, *Max*	0.03	0.2	IS 3025 (Part 55)	—
ii)	Ammonia (as total ammonia-N), mg/l, *Max*	0.5	No relaxation	IS 3025 (Part 34)	—
iii)	Anionic detergents (as MBAS) mg/l, *Max*	0.2	1.0	Annex K of IS 13428	—
iv)	Barium (as Ba), mg/l, *Max*	0.7	No relaxation	Annex F of IS 13428* or IS 15302	—
v)	Boron (as B), mg/l, *Max*	0.5	1.0	IS 3025 (Part 57)	—
vi)	Calcium (as Ca), mg/l, *Max*	75	200	IS 3025 (Part 40)	—
vii)	Chloramines (as Cl_2), mg/l, *Max*	4.0	No relaxation	IS 3025 (Part 26)* or APHA 4500-Cl G	—
viii)	Chloride (as Cl), mg/l, *Max*	250	1 000	IS 3025 (Part 32)	—
ix)	Copper (as Cu), mg/l, *Max*	0.05	1.5	IS 3025 (Part 42)	—
x)	Fluoride (as F) mg/l, *Max*	1.0	1.5	IS 3025 (Part 60)	—
xi)	Free residual chlorine, mg/l, *Min*	0.2	1	IS 3025 (Part 26)	To be applicable only when water is chlorinated. Tested at consumer end. When protection against viral infection is required, it should be minimum 0.5 mg/l
xii)	Iron (as Fe), mg/l, *Max*	0.3	No relaxation	IS 3025 (Part 53)	Total concentration of manganese (as Mn) and iron (as Fe) shall not exceed 0.3 mg/l
xiii)	Magnesium (as Mg), mg/l, *Max*	30	100	IS 3025 (Part 46)	—
xiv)	Manganese (as Mn), mg/l, *Max*	0.1	0.3	IS 3025 (Part 59)	Total concentration of manganese (as Mn) and iron (as Fe) shall not exceed 0.3 mg/l
xv)	Mineral oil, mg/l, *Max*	0.5	No relaxation	Clause **6** of IS 3025 (Part 39) Infrared partition method	—
xvi)	Nitrate (as NO_3), mg/l, *Max*	45	No relaxation	IS 3025 (Part 34)	—
xvii)	Phenolic compounds (as C_6H_5OH), mg/l, *Max*	0.001	0.002	IS 3025 (Part 43)	—
xviii)	Selenium (as Se), mg/l, *Max*	0.01	No relaxation	IS 3025 (Part 56) or IS 15303*	—
xix)	Silver (as Ag), mg/l, *Max*	0.1	No relaxation	Annex J of IS 13428	—
xx)	Sulphate (as SO_4) mg/l, *Max*	200	400	IS 3025 (Part 24)	May be extended to 400 provided that Magnesium does not exceed 30
xxi)	Sulphide (as H_2S), mg/l, *Max*	0.05	No relaxation	IS 3025 (Part 29)	—
xxii)	Total alkalinity as calcium carbonate, mg/l, *Max*	200	600	IS 3025 (Part 23)	—
xxiii)	Total hardness (as $CaCO_3$), mg/l, *Max*	200	600	IS 3025 (Part 21)	—
xxiv)	Zinc (as Zn), mg/l, *Max*	5	15	IS 3025 (Part 49)	—

NOTES

1 In case of dispute, the method indicated by '*' shall be the referee method.

2 It is recommended that the acceptable limit is to be implemented. Values in excess of those mentioned under 'acceptable' render the water not suitable, but still may be tolerated in the absence of an alternative source but up to the limits indicated under 'permissible limit in the absence of alternate source' in col 4, above which the sources will have to be rejected.

Table 6.5: Noise Level Standards

Area Code	Category of Area	Limits in dB(A) Leq	
		Day Time	Night Time
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Note :

1. Day time shall mean from 6 a.m. and 10.0 p.m.
2. Night time shall mean from 10.0 p.m. and 6 a.m.
3. Silence zone is an area comprising not less than 100 meters around hospitals, educational institutions, courts, religious places or any other area which is declared as such by the competent authority.
4. Mixed categories of areas may be average as one of the four above mentioned categories by the competent authority.

* dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

A “decibel” is a unit in which noise is measured.

“A”, in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.

Leq: It is energy mean of the noise level over a specified period.

Table 6.6: Permissible Noise For Industrial Workers As Laid Down By CPCB

Exposure time (in hr. per day)	Limit in dB(A)
8	**90**
4	**93**
2	**96**
1	**99**
½	**102**
¼	**105**
1/8	**108**
1/16	**111**
1/32	**114**

Table 6.7: Permissible Peak Particle Velocity (PPV) In Mining Areas

In mm/sec.

Type of structure	Dominant excitation frequency Hz		
	<8 Hz	I 8-25 Hz	I >25 Hz
A. Buildings/structures not belonging to owner			
Domestic houses /structures (Kuchha brick and cement)	5	10	15
Industrial buildings (RCC and framed structures)	10	20	25
Objects of historical importance and sensitive structures.	2	5	10
B. Building belonging to owner with limited span of life			
Domestic houses/structures (Kuchha brick and cement)	10	15	25
Industrial buildings (RCC and framed structures)	15	25	50

The above said monitoring location and the frequency of monitoring shall be suitably modified in consultation with the nodal agency as per the actual requirements and prevailing conditions of the mine and environmental factors, as dictated from time to time, depending on the prevailing pollution levels, if required.

6.4 ENVIRONMENTAL MONITORING COST:

Towards environmental monitoring it is proposed to allocate a budget of Rs. 50,000 per annum for each project. Further details of the capital and recurring cost of environmental management has been provided in in Table No. 10.2, Chapter-X.

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CHAPTER - VII

ADDITIONAL STUDIES

CHAPTER 7
ADDITIONAL STUDIES

7.1 GENERAL:

The additional studies covered for this EIA / EMP report are:

1. Public consultation of the project as per MoEF&CC mandates.
2. Risk Assessment
3. Cumulative Impact Study
4. R&R Plan
5. Mine closure planning

7.2 PUBLIC CONSULTATION:

This draft EIA/EMP report will be submitted for Public Hearing as per mandatory procedures through the District Collector and State Pollution Control Board officials after giving 30 days advance notice in two local newspapers about the scheduled date and time for conduct of the public hearing procedures. The opinions, concerns and objections of stakeholders will be recorded during the public hearing. All the public queries and the replies to the query by the project proponent and officials concerned will be recorded and incorporated in the EIA/EMP report for approval by SEIAA, Tamil Nadu.

7.3 RISK ASSESSMENT:

For the various risks, likely to arise, detailed analysis of causes and control measures is given in below:

S.No	Factors	Causes of risks	Control measures
1.	Removal of material	a) Bench may slide due to its unconsolidated nature. b) Vibration due to movement of vehicles in the benches.	Overall bench slope angle will be maintained optimally as per DGMS requirement. Working bench width will be more than bench height.
2.	Drilling	a) Due to high pressure of compressed air hoses may burst.	• Periodical preventative maintenance and replacement of worn out accessories in the compressor and drill equipment.

S.No	Factors	Causes of risks	Control measures
		b) Down the hole drill rod may break due to improper maintenance of rod.	• As per manufacturers recommendation rod to be replaced and bits will be changed.
3.	Blasting	a)Fly rock, ground vibration, noise etc. b) Improper charging of explosives	• Burden and spacing will be kept optimum on trial basis. • Explosive charge per delay will be minimized. • Controlled blasting with Nonel will be used.
4.	Excavation	a)Hauling and loading equipment are in such proximity while excavation b)Swinging of bucket over the body of tipper c) Driving of unauthorized person	• Operator shall not operate the machine when person & vehicles are in such proximity. • Shall not swing the bucket over the cab and operator leaves the machine after ensuring the bucket is on ground. • Shall not allow any unauthorized person to operate the machine by effective supervision.
5.	Transportation	a)Operating the vehicle “nose to tail” b) Overloading of material c) While reversal & overtaking of vehicle d) Operator of truck leaving his cabin when it is loaded	• It will be ensured that all these causes will be nullified by giving training to the operators. • No over loading will be done. • Audio visual reverse horn will be provided. • Proper training will be given.
6.	Fire due to electricity and Oil	a)Due to the short circuit of cables & other electrical parts b) Due to the leakage of inflammable liquid like diesel, oil etc.	• Electrical parts shall be cleaned frequently with the help of dry air blower • All fastening parts and places will be tightening. Suitable fire suppression equipment shall be provided.
7.	Natural calamities	Unexpected happenings	The mine management is capable to deal with the situation.

These being small rough stone projects that too working in a safe area, no major disaster is expected.

7.3.1. DISASTER MANAGEMENT PLAN:

In General, following natural/industrial hazards may occur during normal operation.

- Inundation of mine pit due to flood/excessive rains :
- Slope failure of the pit and waste dumps

- Accident due to heavy mining equipment and
- Blasting and use of Explosives

Mining operation in these 2 leases will be carried out under the management control and direction of a qualified mine manager. The DGMS have been issuing a number of standing orders, model standing orders and circulars to be followed by the mine management in case of disaster. All these orders statutory rules and regulations will be followed. Seismically project site and study area falls in the Zone – II and is described as least active zone. There are no perennial water body near the lease area to cause any flooding. As such no disaster due to this project is envisaged.

In order to take care of above hazard / disasters the following control measures have been adopted.

- Checking and regular maintenance of garland drains and earthen bunds to avoid any inflow of surface water in the mine pit.
- Avoiding mining during heavy monsoon period and marching of all the HEMM to the top benches during rainy period.
- Provision of high capacity standby pumps with generator sets with sufficient quantity of diesel for emergency pumping especially during monsoon.
- All safety precautions and provisions of regulations will be strictly followed during all mining operations
- Prohibiting entry of unauthorized persons.
- Provision of Firefighting and first-aid provisions in the mines.
- Provisions of all the safety appliances such as safety boot, helmets, goggles, dust masks, ear plugs and ear muffs etc. are made available to the employees for their use.
- Training and refresher courses for all the employees working in hazardous premises
- Observance of all safety precautions for blasting and storage of explosives as per MMR 1961.
- Working of mine, as per approved plans and regularly updating the mine plans

- Cleaning of mine faces regularly
- Proper storage, usage of explosives through competent persons.
- Regular maintenance and testing of all mining equipment as per manufacturers guidelines
- Suppression of dust on the haulage roads with frequent water sprinkling, etc.
- Increasing the awareness of safety and disaster through competitions, posters and annual safety weeks and environmental weeks, encouraged through suitable rewards and other similar drives.

The management and the EMC will be able to deal with the situations efficiently keeping in view of the likely sources of dangers in the mine.

7.4 REHABILITATION AND RESETTLEMENT (R & R) PLAN:

The mining activities will be carried out within the mine lease areas only. Both mine lease areas are Government lands. There is no population within the ML area. Hence, the question of R& R does not arise.

7.5 MINE CLOSURE PLAN:

In the mine closure stage all necessary measures will be taken as per Act & Rules, There is no proposal for back filling, reclamation and rehabilitation. The quarried pits after the end of life of mine will be properly fenced all around to prevent inherent entry of public and cattle and all the statutory requirements will be fulfilled. As already explained, in the post mining stage the rainwater harvested in the mined out void shall be utilized for irrigation and domestic needs locally. The mine closure plan is provided in **Figure 4.10 & 4.11.**

7.6 CUMULATIVE IMPACT STUDY:

The lease area is located in Sivanganapuram Village, Nilakottai Taluk, Dindigul District, Tamil Nadu.. The details of the other quarries located within the 500m radius of the project considered for cumulative impact study now **(Annexure-3A and 3B)** has been provided below:

Table 7.1: Details of quarries within 500m radius

S.No	Name of the lessee/permit holder	Village & Taluk	S.F.No	Extent (in Ha)	Lease period
1) Existing Other Quarries					
1	C.Vengidasamy No. 125/1A, Middle Street, Kulipatti, Nilakottai	Sivagnanapuram/ Nilakottai	263/1 (P-1)	2.00.0	20.09.2018 to 19.09.2023 Extended up to 18.12.2024 CGM Rc.No.3049/mm6/23 Date 23.05.2023
2	K.C.Jeyabalan, S/o. Childambaram Gandhi Nagar Batlagundu	Kombaipatti / Nilakottai	480/4(P) (Block-1)	1.45.5	22.02.2021 To 21.02.2026
2) Lease Expired					
1	V. Suresh, S/o. Venkidusamy, 5/125 Middle Street, Kulipatti Post, Nilakottai Taluk	Sivagnanapuram/ Nilakottai	261	0.61.0	20.03.2012 To 19.03.2017
2	J. Ammaiyapan, S/o.K.C.Jeyabalan, Gandhi Nagar Batlagundu	Kombaipatti/ Nilakottai	480/4 (Part)	2.00.0	05.01.2016 To 04.01.2021
3) Proposed Area					
1	K.Nagamuthukumar, S/o.Karuppaiah, 159/2, South Street, Ayyankottai, Ayyanpalayam, Pattiveeranpatti, Dindigul	Sivagnanapuram/ Nilakottai	263/1 (P-2)	2.00.0	Proposed Qry
2	Thiru.B.Selvam, S/o.Bose, 2/56, Main Road, Vengadasthirikottai, Kombaipatti, Batlagundu, Dindigul	Sivagnanapuram/ Nilakottai	263/1 (P-3)	1.62.0	Proposed Qry

From that above it is seen that, the other existing and proposed quarries within the 500m radius along with this subject project works out to >5 Ha. As such cluster situation applicable and this EMP is prepared. A map showing the existing and proposed quarries located near the lease area is provided Figure No.7.1 given below:

Figure 7.1: Vicinity Map

The baseline monitoring carried out for this project reflects the cumulative impact of these existing quarries. The cumulative impacts of the Roughstone Quarries of Thiru.B.Selvam and Thiru.K.Nagamuthukumar are provided in detail in Chapter-IV of the EIA/EMP Report.

7.7 PIT SLOPE STABILITY PLAN

- Factors affecting slope stability of the mines are
    - Geological structure comprising dip, intervening shear zone formation, clay intrusion, joints / discontinuities, faults etc.,

- Lithology of formation
- slope geometry
- Ground water availability which may cause increased thrust on the faces

➢ Site specific analysis

- Since the formation is of homogeneous rock type probability of slope failure is low and can be avoided if proper measures are adopted.
- There will be a 7.5m & 10m wide barrier zone which will form a ridge which can also take care of the top section and as such no risk is envisaged on this front.
- During future workings the following measures will be ensured:
  - Regular inspection of the mine faces to be carried out by mines manager for ensuring absence of any structural features like faults, joints, dyke, intrusive material in the rock strata which may affect the slope stability and cleared.
  - No loose material or boulders is to be stacked on the mine top or pit benches.
  - Height of the benches should be 5m. Working bench width should be at least 2.5 times the bench height. Ultimate pit bench width will be 5m & slope is kept at 45^{o} to ensure slope stability.
  - Haul road formation will be at 1 in 16 slope with adequate road width.
  - There will be no ground water table intersection.
  - No seepage is expected due to hard rock formation & mining lease in higher elevation. Adequate drainage management system comprising peripheral garland drain, settling pond to regulate monsoon water will be created to prevent saturation of compact layers, apparent drainage over the bench slope to avert damages to quarry face and manage the water flow.

The above will ensure safe and stable mine prospects. Slope stability study is site specific and largely dependent on the geological formation of the local strata. As such , carrying out such special studies after commencement of mining operation with exposed rock of sufficient quantity , depth only is expected to deliver the desired results. Besides, during mining , such

study will provide to arrive at the optimum bench slope parameters design. As such , scientific study through involving reputed institution will be carried out during the course of mining.

CONCLUSION:

No adverse impact on the surrounding environment is envisaged from these projects due to enforcing all the mitigative measures during mining.

Certified vehicles with low carbon emissions will only be used. These equipment's will be properly and regularly maintained. Besides, regular vehicular emission tests will be done for the transport vehicles to ensure minimal impact due to carbon emissions. To further mediate the carbon emissions, a good greenbelt and plantation plan has been planned.

Geologically the area in and around the lease area contains charnokite type rock formation containing mostly fallow land. Major vegetation or agricultural activities are observed at away places along the source of irrigational facilities. There are no Protected or Eco-Sensitive Zone or forest land nearby wherein it can have an impact.

It will be ensured that mining will be carried out adhering to all the statutory rules and regulations, appointing statutory personnel's like qualified mines manager, blaster, informing DGMS before commencement of mining operations and maintaining the environmental quality within the prescribed standards by effective implementation of various mitigative measures.

As such release of Greenhouse gases (GHG), rise in temperature, affecting livelihood of the local people, loss of Agriculture, Forestry and Traditional Practices is not envisaged. Such a limited scope will not induce any climatic change leading to droughts, floods etc.

Mine closure plan is prepared for the lease period and already included in the approved mine plan.

Due to absence of perennial water bodies nearby where in any marine ecosystem is observed, no effect on this front is also expected. Hydrological investigation carried out and as given in Para 3.6 of Chapter III & para 4.3 Chapter – IV shows that the all-time ground water table in this area is much below the mining level. Hence, ground water intersection in not envisaged for the entire life of the mine and ground water will not be affected due to the quarrying operation. As such there will not be any adverse impact on the ground water regime. Besides, this being a mining project, there will be not be any process effluent. As mentioned earlier, the rainfall will be

collected in the mine floor sump and gainfully used as per CGWA requirement. Excess water if any in the sump will be pumped to settling pond and supernatant clear water let out for downstream users.

It will be ensured that mining will be carried out adhering to all the statutory rules and regulations, appointing statutory personnel's like qualified mines manager, blaster, informing DGMS before commencement of mining operations and maintaining the environmental quality within the prescribed standards by effective implementation of various mitigative measures for the entire lease period.

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CHAPTER - VIII

PROJECT BENEFITS

CHAPTER 8
PROJECT BENEFITS

The proposed Roughstone and Gravel Quarries of Thiru.B.Selvam and Thiru.K.Nagamuthukumar will improve physical and social infrastructures in the area like:

- Direct employment.
- Indirect employment to scores of people.
- Financial gains for the governments, through collection of various taxes like royalty, GST, etc.,
- Increase in General Awareness of the People.
- Continual improvements of the local amenities for the local society
- Improvement of the General Living Standard of the People in the Vicinity
- Overall Improvement in HDI (Human Development Index)
- Growth of Allied Industries in the Area.
- Improvement in Per Capita Income.
- Providing certain facilties for the local schools and panchyats

In short, the proposed Rough Stone Quarries will benefit this region in the fields of employment opportunities, improved per capita income for local people, improved social welfare facilities in respect of education, medical systems, infrastructural build-up, etc in its own way.

By means of carrying out the socio-economic development activities, local community development is expected. Towards the same, the proponents have planned to allocate Rs.5.0 Lakhs for each project for various activities under CER. From the CER activities allocated for various social welfare activities, the villages near the lease area will be benefited.

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CHAPTER - IX

ENVIRONMENTAL COST BENEFIT ANALYSIS

CHAPTER 9

ENVIRONMENTAL COST BENEFIT ANALYSIS

Appendix-III of the MoEF notification S.O. 1533 dated 14.09.2006, which describes the generic structure of Environmental Impact Assessment document, states that the chapter ' Environmental cost benefit analysis' is applicable if it is recommended during scoping stage.

ToR for Roughstone Quarry of Thiru.B.Selvam was granted by SEIAA vide TO24B0108TN5717609N dated 29.11.2024. ToR for Roughstone Quarry of Thiru.K.Nagamuthukumar was granted by SEIAA vide TO24B0108TN5823311N dated 29.11.2024. Environmental cost benefit analysis is not prescribed in the terms of reference. Hence, it is not applicable.

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CHAPTER - X

ENVIRONMENTAL MANAGEMENT PLAN

CHAPTER 10

ENVIRONMENTAL MANAGEMENT PLAN

10.1 INTRODUCTION:

This chapter describes the implementation strategies of the environmental management measures described through the course of this EIA/EMP report for the purpose of mitigating significant impacts due to the proposed mining operations.

10.2 COMPONENTS OF THE ENVIRONMENTAL MANAGEMENT PLAN:

The environmental management plan comprises identification of the major impacts due to project operations and their suitable mitigative measures. (Provided in an elaborate manner in Chapter-IV) Based on the environmental policy of the company, the environmental management cell will oversee the implementation of these mitigative measures. The details of the proponent's environmental policy, environmental management cell and also the budgetary allocation towards various environmental management measures has been elaborated in this chapter.

10.2.1 ENVIRONMENTAL POLICY:

The proponents will frame a well-planned environmental policy. The salient features of this policy will be.

- ❖ Ensuring risk-free and safe mining operations by following all rules and conditions prescribed in the Indian mines Act, metalliferrous mining regulation, mineral conservation and development rules, etc,
- ❖ Ensuring environmental preservation by adoption of remedial measures for control of air, water quality, noise status, biological improvements, green belt creation, etc,.
- ❖ Extending CER activities to cater to the needs of local community for various benefits like improvement of physical and social infrastructures for the welfare of local community.

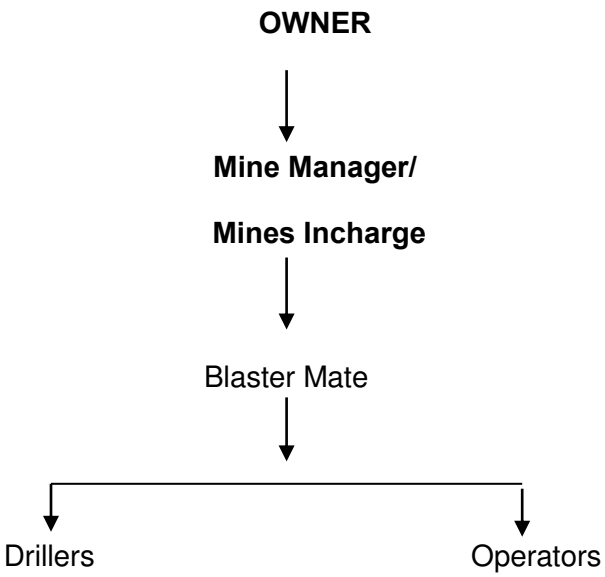
- ❖ Ensuring that all mining operations such as deployment of HEMM, conduct of drilling and blasting operations, etc are strictly conducted keeping with regulatory standards & maintaining safe working environment in the area.
- ❖ Providing periodical training on safety, Health, & Environment to all employers.
- ❖ Any infringement / violation of any rule or unsafe mining operations should be reported mines manager, should be reported by the foremen/ blaster mate etc, who will take immediate corrective measures for avoiding major disasters. The report will ultimately reach the owner through upwardly hierarchical communicative channels from the lowest level to superior levels in a quick time bound duration.
- ❖ The mines manager will exercise overall control over entire mining and connected operations and all infringements / violations on any count pertaining to unsafe operations, environmental degradation, etc, should be brought to the notice of the owner of the quarry. Remedial measures for such violations and deviations should be taken care by the mines manager to avoid any hazards or disasters in the mine and nearby areas. The persons responsible for such violations will be punished through appropriate disciplinarily penal actions.
- ❖ The EC conditions and stipulations will be strictly observed by Mines manager of the mine in various issues like prescribed environmental monitoring schedules conducting of vibratory studies due to blasting, creation of green belt, management of mined area, occupational health review, etc.
- ❖ Penalty actions will be taken by the proponent in cases of continuous negligence resulting in violations deviations in this respect.
- ❖ A time schedule of once in 90 days for review of all operational factors as mentioned above is to be enforced, for proper and quick corrective actions needed in the matter.

10.2.2 ENVIRONMENTAL MANAGEMENT CELL:

The Mines Manager/Mine Incharge of the respective mines will undertake effective monitoring and implementation of various environmental control measures promptly and effectively and to oversee various environmental management schemes for air quality control, water quality

status, noise level control, plantation programme, social development schemes, etc in the mine. The organizational chart for the same has been provided below:

Figure 10.1: Organization Chart



The Mines Manager/Mines Incharge in the mine project site will be directly responsible for various environmental activities in the mine. The owner will correlate and oversee the environmental activities and their effective implementation in consonance with the guidelines in the EMP. The Mines Manager/Mines Incharge will oversee the environmental administration at the mine and he will directly supervise all activities of environmental administration on environmental issues. Necessary assistance from sub ordinates, external consultants and laboratories shall be taken.

Environmental control measures will span various factors like land degradation, air, water and soil quality, noise levels, effective land reclamation for excavated areas, afforestation measures, etc. The administrative functions are given below.

- To observe the implementation of environmental control measures.
- To study the effects of project activities on the environment.
- To ensure implementation of Plantation Programme. Regular monitoring of survival rate of plants is carried out to achieve the desired result.

- ❖ To keep records of monitoring etc., in a systematic way, so as to facilitate easy access, when needed by statutory agencies, etc. Also send prescribed returns to statutory authorities.
- ❖ To ensure that adequate fencing and plantation is carried out in the safety zones.
- ❖ Conducting environmental studies and reporting to SPCB.
- ❖ To interact and liaise with Government Departments.
- ❖ To evaluate the performance of existing pollution control equipment and systems periodically and take timely action to keep the equipment at its optimum performance condition.
- ❖ To take immediate preventive action in case of some unforeseen environmental pollution attributable to the project.
- ❖ Conducting safety audits and programmes to create safety awareness in workers/ staff.
- ❖ Conducting annual health audits to detect any health problems promptly in the workers/staff. This will reduce occupational health problems.
- ❖ Imparting training on safety and conduct safety drills to educate employees. Firefighting equipment and system has to be kept in 'ready-to-fight' condition.
- ❖ Carrying out socio economic study in the surrounding areas to find out the benefits derived by the society due to the project and also to fulfill the deficiency, if any, immediately.
- ❖ Ensuring proper mine closure arrangements

Considering the other mines in the cluster, the Environmental Management Cell of these projects will also act as a Cluster Management Committee. The various activities undertaken to be undertaken by this committee are detailed below:

- Effective implementation of the environmental management measures in a holistic manner
- Devising an operation plan for mining and transportation activities.

- Various natural calamities like rain, flooding, evacuation plans etc. will also be deliberated by this committee to form risk management and emergency management plan pertaining to the cluster.
- The environmental policy of the company will be implemented and proper sustainable mining in accordance with statutory regulations will be enforced for the quarries in the cluster.
- Furnishing action plan regarding restoration strategy
- Deliberate on the health of the workers involved in the mining and also the health of the public
- Carrying out detailed study on the impact of mining on:
    - Soil health & biodiversity
    - Climate change leading to droughts, floods, etc.
    - Pollution leading to release of greenhouse gases (GHG) rise in temperature and livelihood of local people
    - Possibilities of water contamination and impact on acquatic ecosystem health.
    - Agriculture, Forestry & Traditional practices.
    - Hydro geothermal /Geothermal effect due to destruction in the Environment.
    - Bio-geochemical process and its footprints including environmental stress.
    - Sediment geochemistry
- Furnishing action plan to achieve sustainable development gals with regards to water, sanitation and safety.
- Furnishing fire safety and evacuation plans in case of fire accidents.
- Implementation of steps to effectively utilize energy.

10.2.3 ENVIRONMENTAL MANAGEMENT PLAN:

10.2.3.1 General:

Systematic monitoring systems and well-conceived and efficient Environment Management Plan will ensure that during both the project operations, the various environmental parameters, are well within the statutorily sustainable limits. The environmental control measures proposed to keep various environmental parameters of the project in terms of air, water, noise, land, biological environment, etc. has been described below.

10.2.3.2 Air Quality:

With regards to air quality, to mitigate the fugitive and gaseous emission resulting from mining and allied activities, the following control measures are proposed to be undertaken in both quarries:

- Regular water sprinkling in the transport roads using mobile tankers for dust suppression.
- Controlled blasting techniques with NONEL.
- Provision of dust filters / mask to workers working at highly dust prone and affected areas.
- Covering of drill holes with wet cloth, using sharp drill bits
- Avoiding blasting during high wind periods where the fine dust is carried out away easily affecting the ambient air quality.
- Proper maintenance of haul roads, HEMM and dumpers.
- Covering of loaded tippers with tarpaulins during transportation
- Vehicular emissions will be controlled through regular and proper preventive maintenance schedules and emissions tests are done with diesel smoke meter equipment to ensure emission values.
- Besides, there will be good green belt cover will be developed around mine periphery and in safety zone.
- Green netting will be carried out around the lease periphery on all sides.

10.2.3.3 Water Environment:

There will be no process effluent generated from either project. The domestic sewage to be generated will be collected in septic tank with soak pit arrangements. Besides, there will be no waste dumps or stockpiles within the lease areas as the entire material will be directly despatched to the consumers.

Surface runoff management structures such as garland drain connected to a settling pond will be constructed around the quarries to collect the rain water. The supernatant clear water from the settling pond will be provided to nearby downstream users. Towards rainwater harvesting, the rainwater harvested in the mine will be used to meet the water requirements during mining and excess water in consultation with villagers and in line with government practices will be out in to the nearby stream or shall be distributed to the nearby villages as per their need in consultation with statutory authorities.

10.2.3.4 Noise Environment:

During both the project operations, various control measures as listed below will be carried out to mitigate adverse impact due to the noise generated due to mining and allied activities:

- Good plantation will be carried out in the safety zone areas
- Noise protectors, insulation of operator cabins, installation of silencers in machineries, etc.
- Proper and regular maintenance of equipments
- Providing earplugs to workers exposed to higher noise level.
- Providing in-built mechanism for reducing sound emissions.
- Conducting regular health check-up of workers including Audiometry test for the workers engaged in noise prone area.
- Displaying the noise level status of operational machinery on the machines to know the extent of noise level and to control the time to which the worker is exposed to higher noise levels.

10.2.3.5 Ground Vibration

During the project operations, various control measures as listed below will be carried out to mitigate adverse impact due to the ground vibration caused due to blasting activities:

- Controlled blasting techniques to maintain the peak particle velocity (PPV) below DGMS prescribed levels.
- Ideally formulating drilling and charging pattern and ensuring using less charge per delay.
- To contain fly rocks, stemming column will not be less than burden of the hole. Blasting area will also be muffled, if necessary, to stop fly rocks propagation.
- Blasting will not be carried out when strong winds are blowing towards the inhabited areas. Blasting will be done during midday time and never at night.
- Proper care and supervision during blasting by a competent and experienced person.
- Besides, different blasting time for the projects in the vicinity is suggested and the timing is to be mentioned in the display board in the respective mines entrance.

Further details regarding the same has been provided under section 4.4.2, Chapter-IV.

10.2.2.6 Biological Environment:

The mining lease area and 10km buffer zone are devoid of declared ecologically sensitive features such as national parks, sanctuaries etc. Besides, no Schedule-I animals are observed in the core and buffer zone. There will be no major clearance of vegetation involved in this project since part of the lease area is mined and the balance areas are free from major vegetation and contains bushes and shrubs only. However, good greenbelt and plantation programmes are planned within the lease area.

In the lease area, 10m safety zone. In the Roughstone Quarry of Thiru.B.Selvam, about 800 trees will be planted in and around the lease area. In the Roughstone Quarry of K.Nagamuthukumar, about 1000 trees will be planted in and around the lease area.

10.2.2.7 Socio-Economic Environment:

The proposed project operations will provide positive impacts in the region on the employment area as well as on physical and social infrastructural status. Many other tangible benefits will be gained by the local people in the surrounding areas due to ancillary units, trading operations, contractual needs, casual labor, green belt development, etc. Towards the socio-economic development of the surrounding area, the proponents have earmarked an amount of Rs.5.0 Lakhs each under Corporate Environmental Responsibility. The activities identified under CER will be implemented in a phased manner.

10.3 ENVIRONMENTAL POLLUTION CONTROL COST:

In this proposed quarry Implementation of environmental control measures as stated above involves capital as well as recurring expenses. The probable capital and recurring environmental control cost are calculated and given below

Table 10.1: Environmental Control Cost – Thiru.B.Selvam

Activities	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	0.16	0.16
	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	8.00	0.50
	Muffle blasting – To control fly rocks during blasting	Blasting face will be covered with sand bags / steel mesh / old tyres / used conveyor belts	0.00	0.05
	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	0.75	0.08
	No overloading of trucks/tippers/tractors	Manual Monitoring through Security guard	0.00	0.05
	Stone carrying trucks will be covered by tarpaulin	Monitoring if trucks will be covered by tarpaulin	0.00	0.10
	Enforcing speed limits of 20 km/hr within ML area	Installation of Speed Governers @ Rs. 5000/- per Tipper/Dumper deployed - 2 Units	0.10	0.00
	Regular monitoring of exhaust fumes as per RTO norms	Monitoring of Exhaust Fumes by Manual Labour	0.00	0.05
	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	-	0.32
	Installing wheel wash system near gate of quarry	Installation + Maintenance + Supervision	0.50	0.20
Sub-Total			**9.51**	**1.51**

Activities	Mitigation Measure	Provision for Implementation	Capital	Recurring
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	-	-
	Oiling & greasing of Transport vehicles and HEMM at regular interval will be done	Provision made in Operating Cost	-	-
	Adequate silencers will be provided in all the diesel engines of vehicles.	Provision made in Operating Cost	-	-
	It will be ensured that all transportation vehicles carry a fitness certificate.	Provision made in Operating Cost	-	-
	Safety tools and implements that are required will be kept adequately near blasting site at the time of charging.	Provision made in OHS part	-	-
	Line Drilling all along the boundary to reduce the PPV from blasting activity and implementing controlled blasting.	Provision made in Operating Cost	-	-
	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	-	-
	Provision for Portable blaster shed	Installation of Portable blasting shelter	0.50	0.02
	NONEL Blasting will be practiced to control Ground vibration and fly rocks	Rs. 30/- per 6 Tonnes of Blasted Material	-	3.82
Sub-Total			**0.50**	**3.84**
Waste Management	Waste management (Spent Oil, Grease etc.,)	Provision for domestic waste collection and disposal through authorized agency	0.25	0.20
		Installation of dust bins	0.05	0.02
	Bio toilets will be made available outside mine lease on the land of owner itself	Provision made in Operating Cost		
Sub-Total			**0.30**	**0.22**
Mine Closure	1. Progressive Closure Activity - Surface Runoff managent	Provision for garland drain @ Rs. 10,000/- per Hectare with maintenance of Rs. 5,000/- per annum	0.16	0.05
	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	3.24	0.10
	3. Progressive Closure Activity Green belt development - 500 trees per one hectare - Proposal for 650 Trees - (150 Inside Lease Area & 400 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)	0.50	0.08
		Avenue Plantation @ 300 per plant (capital) for plantation outside the lease area and @ 30 per plant maintenance (recurring)	1.65	0.17
	4. Implementation of Final Mine Closure Actity as per Approved Mining Plan on Last Year	Few activities already covered as progressive closure activities as greenbelt development, wire fencing, garland drain. *For Final Closure Activities 15% of the proposed closure cost will be spent during the final mine	0.83	-

Activities	Mitigation Measure	Provision for Implementation	Capital	Recurring
		closure stage - Last Year		
	5. Contribution towards Green Fund. As per TNMMCR 1959, Rule 35 A	The Contribution towards Green Funds @ 10% of peak production Seigniorage fee are indicated as part of EMP Budge and not necessarily implemented in the Project Site	2.75	-
Sub-Total			**5.55**	**0.39**
Implementation of EC, Mining Plan & DGMS Condition	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	0.10	0.01
	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	0.00	0.50
	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)	0.64	0.16
	Slope stability action plan	Slope stability action plan in the end of fourth year plan period	0.00	0.00
	Health check up for workers will be provisioned	IME & PME Health check up @ Rs. 1000/- per employee	0.00	0.16
	First aid facility will be provided	Provision of 2 Kits per Hectare @ Rs. 2000/-	0.00	0.06
	Mine will have safety precaution signages, boards.	Provision for signages and boards made	0.10	0.02
	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	0.81	0.10
	Installation of CCTV cameras in the mines and mine entrance	Camera 4 Nos, DVR, Monitor with internet facility	0.30	0.05
	Implementation as per Mining Plan and ensure safe quarry working	Mines Manager (1st Class / 2nd 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	0.00	7.80
Conservation Measures			NA	NA
Sub-Total			**1.85**	**8.35**
TOTAL			**17.71**	**14.31**

Table 10.2: Environmental Control Cost – K.Nagamuthukumar.

Activities	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	0.20	0.20
	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	8.00	0.50
	Muffle blasting – To control fly rocks during blasting	Blasting face will be covered with sand bags / steel mesh / old tyres / used conveyor belts	0.00	0.05
	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	0.75	0.08
	No overloading of trucks/tippers/tractors	Manual Monitoring through Security guard	0.00	0.05
	Stone carrying trucks will be covered by tarpaulin	Monitoring if trucks will be covered by tarpaulin	0.00	0.10
	Enforcing speed limits of 20 km/hr within ML area	Installation of Speed Governers @ Rs. 5000/- per Tipper/Dumper deployed - 2 Units	0.10	0.00
	Regular monitoring of exhaust fumes as per RTO norms	Monitoring of Exhaust Fumes by Manual Labour	0.00	0.05
	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	-	0.40
	Installing wheel wash system near gate of quarry	Installation + Maintenance + Supervision	0.50	0.20
Sub-Total			**9.55**	**1.63**
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	-	-
	Oiling & greasing of Transport vehicles and HEMM at regular interval will be done	Provision made in Operating Cost	-	-
	Adequate silencers will be provided in all the diesel engines of vehicles.	Provision made in Operating Cost	-	-
	It will be ensured that all transportation vehicles carry a fitness certificate.	Provision made in Operating Cost	-	-
	Safety tools and	Provision made in OHS part	-	-

Activities	Mitigation Measure	Provision for Implementation	Capital	Recurring
	implements that are required will be kept adequately near blasting site at the time of charging.			
	Line Drilling all along the boundary to reduce the PPV from blasting activity and implementing controlled blasting.	Provision made in Operating Cost	-	-
	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	-	-
	Provision for Portable blaster shed	Installation of Portable blasting shelter	0.50	0.02
	NONEL Blasting will be practiced to control Ground vibration and fly rocks	Rs. 30/- per 6 Tonnes of Blasted Material	-	8.26
Sub-Total			**0.50**	**8.28**
Waste Management	Waste management (Spent Oil, Grease etc.,)	Provision for domestic waste collection and disposal through authorized agency	0.25	0.20
		Installation of dust bins	0.05	0.02
	Bio toilets will be made available outside mine lease on the land of owner itself	Provision made in Operating Cost		
Sub-Total			**0.30**	**0.22**
Mine Closure	1. Progressive Closure Activity - Surface Runoff managent	Provision for garland drain @ Rs. 10,000/- per Hectare with maintenance of Rs. 5,000/- per annum	0.20	0.05
	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	4.00	0.10
	3. Progressive Closure Activity Green belt development - 500 trees per one hectare - Proposal for 1000 Trees - (250 Inside Lease Area & 750 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)	0.50	0.08
		Avenue Plantation @ 300 per plant (capital) for plantation outside the lease area and @ 30 per plant maintenance (recurring)	2.25	0.23
	4. Implementation of Final Mine Closure Actity as per Approved Mining Plan on Last Year	Few activities already covered as progressive closure activities as greenbelt development, wire fencing, garland drain. *For Final Closure Activities 15% of the proposed closure cost will be spent during the final mine closure stage - Last Year	1.04	-
	5. Contribution towards	The Contribution towards Green Funds @ 10% of peak	5.95	-

Activities	Mitigation Measure	Provision for Implementation	Capital	Recurring
	Green Fund. As per TNMMCR 1959, Rule 35 A	production Seigniorage fee are indicated as part of EMP Budge and not necessarily implemented in the Project Site		
Sub-Total			**6.95**	**0.45**
Implementation of EC, Mining Plan & DGMS Condition	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	0.10	0.01
	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	0.00	0.50
	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)	0.64	0.16
	Slope stability action plan	Slope stability action plan in the end of fourth year plan period	0.00	0.00
	Health check up for workers will be provisioned	IME & PME Health check up @ Rs. 1000/- per employee	0.00	0.16
	First aid facility will be provided	Provision of 2 Kits per Hectare @ Rs. 2000/-	0.00	0.08
	Mine will have safety precaution signages, boards.	Provision for signages and boards made	0.10	0.02
	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	1.00	0.10
	Installation of CCTV cameras in the mines and mine entrance	Camera 4 Nos, DVR, Monitor with internet facility	0.30	0.05
	Implementation as per Mining Plan and ensure safe quarry working	Mines Manager (1st Class / 2nd 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	0.00	7.80
Conservation Measures			NA	NA
Sub-Total			**2.04**	**8.37**
TOTAL			**19.34**	**18.95**

Towards EMP measures, Rs.17.71 Lakhs is allocated under capital cost and Rs.14.31 Lakhs per annum will be spent under recurring cost for Roughstone Quarry of Thiru.B.Selvam. Rs.19.34 Lakhs is allocated under capital cost and Rs.18.95 Lakhs per annum will be spent

under recurring cost for Roughstone Quarry of Thiru. K.Nagamuthukumar. All the recurring cost of maintenance of pollution control measures, environmental monitoring etc., will be met from revenue and will be spent for the entire lease period.

10.4 CONCLUSION:

A meticulously well planned Environmental Management Plan, with various programme schedules and timely execution objectives, as above, will ensure that the future environmental quality in the area will be maintained within statutory limits. The environmental management strategy as explained above will prove that industrial growth, if properly planned with all environmental concerns and appropriate remedial measures can go a long way to improve life pattern and living conditions of the local community around the project.

* * * * * * *

CHAPTER-XI

SUMMARY AND CONCLUSION

CHAPTER 11

SUMMARY & CONCLUSION

11.1 INTRODUCTION:

Thiru B.Selvam and Thiru K.Nagamuthukumar propose to operate their respective Rough Stone Quarry in the same Sivanganapuram Village, Nilakottai Taluk, Dindigul District and have initiated action towards obtaining environmental clearance. Its details are as follows:

1) **Roughstone Quarry of Thiru B.Selvam** over an area of 1.62Ha in S.F.No.263/1(Part-3) of Sivanganapuram Village, Nilakottai Taluk, Dindigul District.
2) **Roughstone Quarry of Thiru K.Nagamuthukumar** over an extent of 2.00 Ha at SF.No. 263/1 (Part-2) of Sivanganapuram Village, Nilakottai Taluk, Dindigul District.

The lease area is a Government land leased through Tender cum Auction for a period of 5 years Although the individual lease area of each project is less than 5 Ha, the other existing and proposed quarries within the 500m radius cluster along with this subject project works out to >5 Ha. Hence, this proposal is considered under Category – B1 and as per MoEF & CC notification necessitates preparation of EIA/EMP report and public hearing.

As such this combined draft EIA report with separate EMP measures is prepared for the above two mentioned projects based on standard and additional Terms of Reference issued by SEIAA, Tamil Nadu and is in conformance of the generic structure prescribed by MOEF&CC in their notification of September 2006 and the approved mining plan.

Table 11.1: Salient details of the project

Details	Thiru B.Selvam	Thiru K.Nagamuthukumar
A. Statutory Clearances		
Precise Area Communication	Issued by Department of Geology & Mining vide Rc.No.26/Mines/2024 dated 09.02.2024 **(Annexure-1A)**	Issued by Department of Geology & Mining vide Rc.No.25/Mines/2024 dated 09.02.2024 **(Annexure-1B)**
Mining Plan Approval	Modified approved by Deputy Director, Geology & Mining vide Rc.No.26/Mines/2024 dated 10.02.2025 **(Annexure-2A)**	Approved by Deputy Director, Geology & Mining vide Lr.No. Rc.No.25/Mines/2024 dated 24.04.2024 **(Annexure-2B)**
Details of Quarries within 500m radius	Obtained from Deputy Director, Geology & Mining vide Rc.No.26/Mines/2024 dated 24.04.2024. **(Annexure-3A)**	Obtained from Deputy Director, Geology & Mining vide Rc.No.25/Mines/2024 dated 24.04.2024. **(Annexure-3B)**

B. Application for Environmental Clearance		
Terms of Reference	TO24B0108TN5717609N dated 29.11.2024	TO24B0108TN5823311N dated 29.11.2024
Baseline Data Collection	Carried out by Creative Engineers & Consultants , Chennai for postmonsoon Season (October – December 2024)	Carried out by Creative Engineers & Consultants , Chennai for postmonsoon Season (October – December 2024)
C. Site Details		
Location	S.F.No.263/1(Part-3), Sivanganapuram Village, Nilakottai Taluk, Dindigul District, Tamil Nadu	S.F.No.263/1(Part-2), Sivanganapuram Village, Nilakottai Taluk, Dindigul District, Tamil Nadu
Coordinates	Latitude : 10°07'16.06" N to 10°07'23.83" N Longitude: 77°47'45.69" E to 77°47'52.88" E	Latitude : 10°07’18.81” N to 10°07’27.15” N Longitude : 77°47’37.37” E to 77°47’43.92” E
Nearest Village	C.Pudur 400 M –(SE) Kulipatti - 600m (W)	C.Pudur540 M –(SE) Kulipatti - 900m (W)
Nearest Town	Batlagundu - 5.5 kms–(NW)	Batlagundu - 5.2 kms–(NW)
Nearest Highway	SH-154 Vattalagundu - Usilampatti - 2.50 km (W).	SH-154 - Vattalagundu - Usilampatti - 2.2Km – (W)
Nearest Railway Station	Kodai Road – 13.7kms- (NE)	Kodai Road - 14kms- (NE)
Nearest Airport	Madurai - 45 kms - (SE)	Madurai – 45 kms - (SE)
Accessibility	The lease area can be approached through Anaipatti road on the southern side of the lease area which joins SH-154 at a distance of 2.5Km on the eastern side of the lease area.	The lease area can be approached through Anaipatti road on the southern side of the lease area which joins SH-154 at a distance of 2.2 Km on the eastern side of the lease area.
Topography	Massive Charnockite formation is clearly visible from the outcrops exposed in to the surface. The area gentle sloping towards Southwestern side of the area, the altitude of the area is above 249m above MSL.	Massive Charnockite formation is clearly visible from the outcrops exposed in to the surface. The area gentle sloping towards Southwestern side of the area, the altitude of the area is above 250m above MSL
D. Environmental Setting of the Study Area		
Nearest Water Bodies	Periyar Main Channel – 460m , SW Vaigai River – 850m, SW Canal – 600m , SE, Manjal Ar – 1.5km, NE, Maruda Nadi – 2.1km, N	Periyar Main Channel – 410m , SW Vaigai River – 800m, SE Canal – 600m , SE, Manjal Ar – 1.3km, NW, Maruda Nadi – 1.8km, N
Nearest Reserve Forests	Vettilaippatti RF -5.4Km-S Mettuppatti RF -7.1Km-SE, Vikkiramangalam RF -8.3Km -S Uttappanayakkanur RF -7.1Km-S Valaiyapatti RF -7.6Km-S, Rajadani RF-9.0Km-SW, Mankaradu Block RF -8.2Km-NW, Kadavakurichi RF-250m-NE	Vettilaippatti RF -5.6Km-S Mettuppatti RF -7.4Km-SE, Vikkiramangalam RF -8.5Km -S Uttappanayakkanur RF -7.6Km-S Valaiyapatti RF -7.1Km-S, Rajadani RF-8.9Km-SW, Mankaradu Block RF -7.9Km-NW, Kadavakurichi RF-500m-NE
Notified Archaeologically important places, Monuments	Nil within 10km radius	Nil within 10km radius

<table>
<tr><td>Local Places of Historical and Tourism Interest</td><td>Nil within 10km radius</td><td>Nil within 10km radius</td></tr>
<tr><td>Environmental sensitive areas, Protected areas as per Wildlife Protection Act, 1972*</td><td>Nil within 10km radius</td><td>Nil within 10km radius</td></tr>
<tr><td>Other industries</td><td>Other than crushers, Roughstone quarries, no other major industries are located in the study area.</td><td>Other than crushers, Roughstone quarries, no other major industries are located in the study area.</td></tr>
<tr><td colspan="3">E. Technical Description</td></tr>
<tr><td>Geological Reserves</td><td>Roughstone - 7,46,980m3
Topsoil- 12,628 m3</td><td>Roughstone - 7,78,373m3
Topsoil- 18,513 m3</td></tr>
<tr><td>Mineable Reserves</td><td>Roughstone - 1,52,604m3
Topsoil- 7,191m3</td><td>Roughstone - 3,30,453 m3
Topsoil - 15,809m3</td></tr>
<tr><td>Mining Method</td><td>Opencast mechanized mining using jackhammer drilling, blasting, excavation through excavator & mineral transport through tippers will be carried out.</td><td>Opencast mechanized mining using jackhammer drilling, blasting, excavation through excavator & mineral transport through tippers will be carried out.</td></tr>
<tr><td>Production</td><td>
<table>
<tr><th>Year</th><th>Roughstone (m3)</th><th>Topsoil (m3)</th></tr>
<tr><td>1</td><td>36,704</td><td>7,191</td></tr>
<tr><td>2</td><td>42,550</td><td>--</td></tr>
<tr><td>3</td><td>32,130</td><td>--</td></tr>
<tr><td>4</td><td>21,560</td><td>--</td></tr>
<tr><td>5</td><td>19,660</td><td>--</td></tr>
<tr><td>Total</td><td>1,52,604</td><td>7,191</td></tr>
</table>
</td><td>
<table>
<tr><th>Year</th><th>Roughstone (m3)</th><th>Topsoil (m3)</th></tr>
<tr><td>1</td><td>55,588</td><td>15,089</td></tr>
<tr><td>2</td><td>61,200</td><td>--</td></tr>
<tr><td>3</td><td>71,145</td><td>--</td></tr>
<tr><td>4</td><td>70,725</td><td>--</td></tr>
<tr><td>5</td><td>71,795</td><td>--</td></tr>
<tr><td>Total</td><td>3,30,453</td><td>15,089</td></tr>
</table>
</td></tr>
<tr><td>Waste Generation and Management</td><td>There is no waste generation anticipated in these quarries since the entire excavated material will be utilized. The top soil to be generated will be used for plantation, peripheral bund formation</td><td>There is no waste generation anticipated in these quarries since the entire excavated material will be utilized. The top soil to be generated will be used for plantation, peripheral bund formation</td></tr>
<tr><td>Ultimate Depth</td><td>33m</td><td>45m</td></tr>
<tr><td colspan="3">F. Project Requirements</td></tr>
<tr><td>Manpower</td><td>16 persons directly and 50 people indirectly.</td><td>19 persons directly and 50 people indirectly.</td></tr>
<tr><td>Water Requirement and Source</td><td>Water Requirement: 8 KLD
Source: The required water will be procured initially from outside agencies. Later Rain water harvested in the mine sump can also be used.</td><td>Water Requirement: 8 KLD
Source: The required water will be procured initially from outside agencies. Later Rain water harvested in the mine sump can also be used.</td></tr>
<tr><td>Power Requirement</td><td>No electricity needed for mining operation. The minimum power requirement for office, etc will be met from state grid.</td><td>No electricity needed for mining operation. The minimum power requirement for office, etc will be met from state grid.</td></tr>
<tr><td>Site Services</td><td>This is a proposed project. Site services like mine office, first aid room, rest shelters, toilets</td><td>This is a proposed project. Site services like mine office, first aid room, rest shelters, toilets</td></tr>
</table>

	etc. will be provided as semi-permanent structures.	etc. will be provided as semi-permanent structures.
Project Cost	Rs.94.50 Lakhs	Rs.149.95 Lakhs

11.2 EXISTING ENVIRONMENTAL SCENARIO:

11.3.1 GENERAL:

The studies and data collection have been carried out systematically and meticulously as per relevant IS codes, CPCB and MoEF&CC guidelines and as per approved ToR during **Postmonsoon Season (October to December 2024)** For the purpose of this study, the area has been divided into two zones, namely, core and buffer zones. The combined lease area is considered to be the core zone while the buffer zone encompasses a 10km radius from the periphery of the core zone.

11.3.2 SOCIO-ECONOMIC STATUS:

The proposed quarries are located in in Sivaganapuram Village, Nilakottai Taluk, Dindigul District. Based on 2011 census data, in the 10km radius there are 31 Rural villages from Three Taluks namely Nilakottai, Usilampatti & Periyakulam Taluk, and Dindigul, Madurai & Theni District. The demographic profile of the study area is given below:

Table 11.2: Social, Economic And Demographic Profile of the Study Area

Details	Population	Percentage
A. Gender-wise distribution		
Male Population	112062	50.57
Female Population	109533	49.43
Total	**221595**	**100**
B. Caste-wise population distribution		
Scheduled Caste	56083	25.31
Scheduled Tribes	2158	0.97
Other	163354	73.72
Total	**221595**	**100**
C. Literate and Illiterate population		
Literate Males	83259	37.57
Literate Females	67747	30.57
Total Literate Population	**151006**	**68.14**
Others Males	28803	13.00
Others Females	41786	18.86
Others Population	**70589**	**31.86**
Total	**221595**	**100**
D. Occupational structure		

Details	Population	Percentage
Main workers	91982	41.50
Marginal workers	17173	7.70
Total Workers	**109155**	**49.20**
Total Non-workers	**112440**	**50.80**
Total	**221595**	**100**

11.3.2.1 SAMPLE SURVEY:

Nearby villages were visited for conducting sample Village survey on all socio-economic aspects and requirements of the people. The existing socio-economic scenario is studied and CER activities are also suggested to the proponent. The study details are given in **Para 3.2.4, Chapter – III**.

11.3.3 EXISTING ENVIRONMENTAL QUALITY:

Table 11.3: Baseline Data

A. Meteorological Data			
Parameters	**Minimum**	**Maximum**	
Temperature In ^{0}c	17.0	37.0	
Humidity in %	37.0	96.0	
Wind speed in km/hr	<1.8	30.7	
Predominant wind direction from	NE		
B. Ambient Air Quality Data – 6 Locations			
Parameters	**Core Zone- 1**	**Buffer Zone - 5**	**Limits**
Particulate Matter (Size <10 µm)	54.3 – 79.7	43.3 – 74.1	100
Particulate Matter (Size <2.5 µm)	29.5 – 37.9	22.0 – 37.2	60
Sulphur Dioxide (as SO_2)	3.7 – 5.7	3.3 – 6.1	80
Nitrogen Dioxide (as NO_2)	8.9 – 14.1	7.5 – 15.7	80
Conclusion: The existing Ambient Air Quality levels for PM10, PM2.5, SO2 and NO2, are within the NAAQ standards prescribed CPCB limits. The CO values in all the locations were found to be below detectable limit. Silica values in the study area are found to be below detectable limit. (Detection limit – 0.05 mg/m3)			
C. Water Quality – 6 Locations			
pH at 25 ˚C	7.23 – 7.95	**6.5-8.5**	
Total Dissolved Solids, mg/L	175 – 560	**2000**	
Chloride as Cl-, mg/L	18.90 – 158.80	**1000**	
Total Hardness (as CaCO3), mg/L	92.90 – 391.90	**600**	
Total Alkalinity (as CaCO3), mg/L	155.80– 307.50	**600**	
Sulphates as SO42-, mg/L	14.10 – 32.20	**400**	
Iron as Fe, mg/L	0.02 – 0.05	**0.3**	
Nitrate as NO3, mg/L	1.09 – 1.61	**45**	
Fluoride as F, mg/L	0.12 – 0.45	**1.5**	

Conclusion: The water quality of ground water is found to be good and within the prescribed Permissible limits of IS: 10500 Norms in the absence of an alternative source as per Drinking Water Specifications.			
D. Noise Levels – 6 Locations			
Parameter	**Core Zone**	**Buffer Zone**	**Limit**
Day Equivalent	49.5	49.0 – 50.6	55
Night Equivalent	39.4	38.6 – 42.8	45
Comparing with the MOEF&CC Norm of 55 dB(A) for day time and 45 dB(A) for night time, the monitored ambient noise levels were within the limit values for Residential areas.			
E. Soil Quality – 5 Locations			
Parameter	**Core Zone**	**Buffer Zone**	
pH	7.89	6.33 - 7.22	
Electrical Conductivity (µmho/cm)	31.5	11.0 - 51.5	
Organic matter (%)	1.3	1.1 - 1.80	
Total Nitrogen (mg/kg)	186.2	128.90 -156.40	
Phosphorus (mg/kg)	3.2	2.40 - 3.40	
Sodium (mg/kg)	623	430.20 - 636.00	
Potassium (mg/kg)	929.5	816.40 - 1020.00	
Soil is of clay loam type.			

F. Land Environment:

For the present study on land use pattern in the study area, remote sensing satellite data have been used. The area estimated of land use categories around the 10km buffer zone is provided below:

Table 11.4: Land Use in 10Km Buffer Zone

S.No	Landuse Feature	Area (Sq.Km)	Percentage
1	Agriculture/ Plantation	133.25	40.60
2	Fallow Land	67.14	20.46
3	Land With Scrub	13.87	4.23
4	Land Without Scrub	38.97	11.87
5	Water bodies	10.57	3.22
6	Scrub Forest	53.54	16.31
7	Mining / infrastructure	0.10	0.03
8	Settlement / Infracture	8.28	2.52
9	Solar Panel	2.44	0.74
10	**Total**	328.16	100

From the above table it is seen that 40.60 % of the buffer area is classified under the Agriculture/ Plantation followed by 20.46 % of fallow land, 16.31 % constitutes scrub forest, 11.87 % constitutes land with out scrub and the balance 10.76 % falls under other land use categories.

G. Biological Environment:

Flora: The lease area is a non-forest, government land partly minedout area. Other areas contains grasses shrubs, few trees like Prosopis juliflora only.

Study area depicts varying land use comprising scrubby hills on the North east, South west and South east side with intervening plains. Dominant agricultural activities are observed in part of plains proximate to the available irrigation source alongside Vaigai river and periyar canal. Crops like Rice, vegetables, watermelon, ground nut, banana etc. are cultivated in the lands with better water source & favaorable soil condition. Soil near the hilly areas are of loamy type which hardens on drying and as such affects germination due to which vegetation is poor.

The The Dominated species in the study area are Morinda tinctoria, Delonix elata, Azadirachta indica, Pongamia pinnata, Prosopis juliflora, Acacia auriculiformis etc. . The list of flora in the core and buffer zone is provided in Table No.3.24 and 25, Chapter-III.

Fauna: There is no Wild Life Sanctuary or National Park within the study area of 10 km. Domesticated animals are commonly found. The lease and 10 Km buffer zone does not fall in the Western Ghats ESA boundary. No wild mammalian species was directly sighted during the field survey. No threatened or endemic or endangered species are observed. List of fauna within the study area is given in Table No – 3.26, Chapter-III.

H) HYDROLOGICAL STUDY:

This section delves into the study of the hydrogeological scenario of the study area to evaluate the impact of mining activities on the nearby areas. The study area is considered to understand the nature of the general hydrogeological conditions of the area.

The applied lease area is exhibits an undulating topography with few outcrops of charnockite. Besides, the leases are small mound at higher elevation when compared to the general floor level of +200m to +210m RL on the southern side.

The drainage of the study area is controlled by first & second order streams which finally drains to Vaigai river located 800m from the lease area draining towards SE side.

Periyar canal branching from Vaigai river near Melmangalam (Andipatti) runs almost parallel to Vaigai river on its left side linked as system tanks and finally draining into the Vaigai river. Based on the water availability in the dam, the irrigational needs are met.

The lease area of both the projects are at higher elevation when compared to the river and canal course which are at plains sloping towards, East, South East.

Besides, the mining area consists of hard compact rock, no major water seepage within the mine is expected. The working nearby mines validates the same

11.3 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES:

11.4.1 GENERAL:

The identified impacts due to these mines during mining and associated activities have been studied in relation to various environmental components like Air, water, noise, vibration, land, transport etc.

11.4.2 AIR ENVIRONMENT:

The principal sources of air pollution in the area due to mining and allied activities are dust generation in the mine due to various activities such as excavation of material, movement of HEMM, loading, unloading and transportation operations.. Besides, Gas emission also occur as a result of emission of SO2, NOx, CO etc., from diesel driven mining equipment, compressors, generator sets, etc. The following measures will be adopted to control impact on the air quality due to mining operations in the lease area:

Table 11.5: Mitigation Measures – Air Environment

S.No	Activity	Mitigation Measures
1	Drilling	Usage of Drill bits in good condition
		Covering of drill holes with wet cloth
		Usage of sharp drill bits for drilling of holes.
		Provision of dust filters / mask to workers working at highly dust prone and affected areas.
2	Blasting	Well-designed blasting parameter, effective stemming to achieve optimum breakage occurs without generating fines.
		Use of appropriate explosives for blasting and avoiding overcharging of blast holes.
		Avoiding blasting during high wind periods where the fine dust is carried out away easily affecting the ambient air quality.
		Use of controlled blasting techniques with Nonel to keep the dust generation, noise as well as vibration level within the prescribed limits.

3	Excavation and Loading	Proper maintenance of HEMM
		Enclosures for operator cabin.
		Imparting sufficient training to operators on safety and environmental parameters.
		Proper maintenance of hauling equipments.
		Avoiding overloading of dumpers.
4	Transportation	Regular wetting of transport road using mobile water tanker.
		Proper maintenance of haul road and other roads
		Setting up of tyre wash facility in the transport road.
		Avoiding overloading of tippers
		Covering of loaded tippers with tarpaulins during transportation
		Vehicular emissions will be controlled through regular and proper preventive maintenance schedules and emissions tests are done with diesel smoke meter equipment to ensure emission values.
5	Others	Development of greenbelt / barriers around mine in the safety zone and carrying out plantation within the lease area.
		Green netting will be carried out around the lease periphery on all sides.

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

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

The cumulative post project concentration with respect to PM10 is in the range of of 53.8 μg/m3 to 83.0 μg/m3 and with respect to PM2.5 are in the range of 29.9μg/m3 to 39.8 μg/m3 which are within the statutory limits in each case.

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

11.4.3 WATER ENVIRONMENT:

The water requirement for each of these two projects are 8 KLD each comprising 1.0 KLD for drinking water and domestic use, 5.0 KLD for dust suppression and 2.0 KLD for greenbelt. The water will be sourced initially from outside agencies. Later the rainwater collected in the respective mine pit sump will be used for this purpose.

The activity / source of pollution, its impact / consequence, proposed control measures are explained below:

Table 11.6: Mitigation Measures – Water Pollution

S.No	Source	Consequence	Mitigation Measures
A	Domestic use	Generation of waste water	The domestic sewage to be generated from the project will be collected in septic tank with soak pits.
B	Rainfall	Runoff from waste dump and stack	Towards surface runoff management, a garland drain of length 600m for Roughstone Quarry of B.Selvam and 700m for Roughstone Quarry of K.Nagamuthukumar will be constructed and will be connected to settling ponds with silt traps. The supernatant clear water from the settling pond will be flow to the downstream users.
		Rainwater Harvesting	The rain water falling in the quarry will be harvested in the sump at the lowest level of the quarries. This sump will act as a settling pond to prevent solids escaping along with discharge, before outlet. etc.
C	Drainage Course	Disturbance to drainage course	• There are no perinnial water courses near the lease area. Periyar main canal is located 410m & Vaigai river is located 800m from the lease area. • No impact on these water bodies are expected due to the following: ✓ Mining operation will be at higher elevation. ✓ There will be no intersection of water table or generation or discharge of effluent outside the lease. ✓ Adoption of various mitigative measures as explained in the report will be implemented and it will be ensured that there are no impact on the surrounding water environ.

- **Generation of mine pit water:** The lease area is part of a huge dyke like compact rock formation with less intergranular porosity and fractures leading to less permeability and transmissivity values and as such the ground water level in this area is deep from surface. As such hence no major water seepage within the mines is expected from the periphery. Besides, mining operation will be on a small mound at higher elevation. The ultimate pit

depth of mining is 33m for Rough stone Quarry of B.Selvam. and 45m for K.Nagamuthukumar. The ground water table in this area is below this level. Hence, ground water intersection in not envisaged and ground water will not be affected appreciably due to the quarrying operation.

11.4.4 NOISE ENVIRONMENT:

Anticipated noise levels resulting from operation of the various machineries like excavator, tippers, drill have been computed using point source model. Computation of cumulative noise levels at the nearby villages is made based on the assumption that there are no attenuation paths between the source and the boundary. From the studies, it is found that the predicted Noise Levels due to mining operations at the periphery of the mine lease itself will be less even without considering any attenuation factor. However, practically there will be attenuation due to vegetation etc., and as such there will not be any adverse noise propagation outside the lease boundary. Since the habitations are also away the effect of noise due to mining operations will not be felt at all in the surrounding village. Hence, by implementing the following mitigative measures for noise control, the impact on noise levels will continue to be insignificant:

- Planting rows of native trees along roads, around mine area and other noise generating centres to act as acoustic barriers.
- Sound proof operator’s cabin for equipments like shovel, tippers, etc.
- Proper and regular maintenance of equipments may lead to less noise generation.
- Providing in-built mechanism for reducing sound emissions.
- Providing earplugs to workers exposed to higher noise level.
- Conducting regular health check-up of workers including Audiometry test for the workers engaged in noise prone area.
- Displaying the noise level status of operational machinery on the machines to know the extent of noise level and to control the time to which the worker is exposed to higher noise levels.
- Provision of green net in lease periphery

Further green belt and afforestation will be planned and executed to abate noise and dust propagation in the area.

11.4.5. VIBRATION:

To reduce ground vibratory conditions, various control measures will be implemented such as keeping PPV below 10mm/s for 8-25hz frequency range, formulating drilling and charging pattern with less explosive charge, initiating sequence and using NONEL, carrying out blasting with minimum charge per delay, avoiding blasting during strong winds etc. By adoption of above measures, it will be ensured that the ground level vibration due to blasting are maintained within the limits prescribed by DGMS, Dhanbad at the mining areas vide Circular No. 7 dated 29 -08-1997. Besides, different blasting time for the projects in the vicinity is suggested and the timing is to be mentioned in the display board in the respective mines entrance. Elaborate details regarding the same are provided under section 4.4.2, Chapter-IV.

11.4.6 IMPACT ON LAND ENVIRONMENT:

There is no waste generation anticipated in these quarry operations since the entire excavated material will be utilized. Hence, there is no external overburden dump involved. Plantation will be carried out in this safety zone area. In the post mining stage, in the quarry of B.Selvam., 1.35Ha of mined out area will be left as water body and 0.23 Ha will be greenbelt area. In the quarry of K.Nagamuthukumar., at the end of the lease period, 1.62.6Ha of mined out area will be left as water body and 0.33.4 Ha will be greenbelt area. Entire mined out area will be properly fenced to prevent inadvertent entry of men and animals. In the post mining stage the rainwater harvested in the mined out void shall be utilized.

11.4.7 BIOLOGICAL ENVIRONMENT:

Necessary mitigative measures like dust suppression, proper maintenance of equipment's, greenbelt and plantation etc., will be carried out to prevent dust generation & any further impact on the vegetation. In the lease area, safety barrier 10m around the periphery is left. In the Roughstone Quarry of B.Selvam, about 800 trees will be planted in and around the lease area. In the Roughstone Quarry of KNagamuthukumar, about 1000 trees will be planted in and around the lease area.

11.4.8 SOCIO ECONOMIC ENVIRONMENT:

The entire lease area is a private patta land. Hence, there are no habitations or hutments in the core zone area and no rehabilitation or resettlement problems will arise here. The mining operations in the proposed mines will each employ about 16 persons & 19 persons directly and about 50 persons. Besides through allied opportunities in logistics, trading, repairing works etc. good employment potential will arise in this area, which will provide raising income levels and standards of living in the area through various service-related activities connected with the project operations.

Towards the socio-economic development of the surrounding area, B.Selvam have allocated Rs.5.0 Lakhs and KNagamuthukumar, have allocated Rs.5 Lakhs. The activities identified will be implemented in a phased manner. In consultation with the locals based on the need & priority it will be implemented.

11.4.9 OCCUPATIONAL HEALTH AND SAFETY ASPECTS:

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

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

11.4.10 IMPACT ON LOCAL LOGISTICAL SYSTEM DUE TO PROJECT:

The lease area can be approached through a a separate localized road which is connected to Anaipatti road on the southern side of the lease area which joins SH-154 on the eastern side of the lease area. There will be about 5 trips per hour cumulatively. The existing road can absorb this traffic due to this project. The following mitigative measures are suggested for mitigation of adverse impacts on the logistical aspect of the project:

- Water sprinkling on material in the transport vehicles before transporting, so that no dust nuisance during transport will arise.
- Plantation on either side of the transport road in consultation with the concerned department.
- Proper maintenance of transport roads and vehicles
- Avoiding overloading of material
- Covering of loaded vehicles with tarpaulins sheet if warranted.
- Installation of barriers at vulunerable locations
- Provision of tyre washing facility at the mine outlet

11.4.11 WASTE MANAGEMENT:

Since the entire mined out material will be used there will not be any solid waste generation from this project. There is no process effluent generation from both mines. Hence no liquid waste is generated.

The hazardous waste generated will be stored in a separate storage area with impervious containers for waste oil, oil contaminated clothes, used lead acid batteries, scraps, tyre storage etc. It will be disposed through authorized recyclers or re-processors periodically. The hazardous wastes will be transported in accordance with the provisions of rules. By effective implementation of above said mitigation measures no major impact due to Hazardous waste is expected.

Single use plastics/ use and throwaway plastics will be banned in the site as directed by the Tamil Nadu Government vide GO(Ms)No.84 regarding ban on use of plastic products. The employees will be encouraged to use compostable material or reusable material.

11.4 ENVIRONMENTAL MONITORING PROGRAMME:

The monitoring schedules are planned for systematic study of various pollution levels with respect to air and water qualities, noise levels, etc. to ensure that they conform to the standards laid down by Environmental Protection Act and various statutory Limits.

Monitoring location and the frequency of monitoring shall be suitably modified in consultation with the nodal agency as per the actual requirements and prevailing conditions of the mine and

environmental factors, as dictated from time to time, depending on the prevailing pollution levels, if required.

Towards EMP measures, Rs.17.71 Lakhs is allocated under capital cost and Rs.14.31 Lakhs per annum will be spent under recurring cost for Roughstone Quarry of Thiru.B.Selvam. Rs.19.34 Lakhs is allocated under capital cost and Rs.18.95 Lakhs per annum will be spent under recurring cost for Roughstone Quarry of Thiru. K.Nagamuthukumar. Further details of the capital and recurring cost of environmental management have been provided in in Table No.10.2,Chapter-X.

11.5 ADDITIONAL STUDIES:

This draft EIA/EMP report will be submitted for public hearing as per mandatory procedures through the District Collector and State Pollution Control Board officials after giving 30 days advance notice in two local newspapers about the scheduled date and time for conduct of the public hearing procedures. The opinions, concerns and objections of stakeholders will be recorded during the public hearing. All the public queries and the replies to the query by the project proponent and officials concerned will be recorded and incorporated in the EIA/EMP report for approval by SEIAA, Tamil Nadu. Elaborate description in respect of Risk Assessment and Mine closure plan are given in **Chapter - VII**.

Although the individual lease area of this project is less than 5 Ha, the other existing and proposed quarries within the 500m radius along with this subject project works out to >5 Ha. The baseline monitoring carried out for this project reflects the cumulative impact of the existing quarries.

11.6 CONCLUSION:

By systematic and scientific mining adhering to all the statutory norms and enforcing and strictly implementing the above said mitigation measures mentioned in this report, no adverse impact is envisaged. The proposed mining project will benefit this region in the fields of potential employment opportunities, improved per capita income for local people, improved social welfare facilities in respect of education, medical healthcare systems, etc. in its own way and also revenue to Government through royalty, taxes etc. Besides, it will meet the raw material requirement of the construction industry also.

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CHAPTER - XII

DISCLOSURE OF CONSULTANTS ENGAGED

CHAPTER 12

DISCLOSURE OF CONSULTANTS ENGAGED

Creative Engineers & Consultants, Chennai is an **NABL** accredited testing laboratory and **NABET** accredited EIA consultancy. Established over 25 years ago, this company has steadily made good strides in the environmental impact assessment fields, and is also one of the first companies to get accredited by NABET as an Accredited Consultant Organization as early as 2011. Creative Engineers & Consultants has to its credit, successful completion of numerous EIA/EMP reports, grant of environmental clearances and periodic environmental monitoring works. Presently, the company has been accredited by NABET as a 'Category-A' organization for the sectors of Mining of Minerals (opencast only), Thermal Power Plants, Mineral Beneficiation and Cement Plants with the accreditation valid upto 23.12.2026. The team of experienced professionals that are a part of this organization has been detailed below.

Figure 12.1: Disclosure of consultants engaged

EXPERT NAME	QUALIFICATION	POSITION	EXPERIENCE
Mr. P. Giri	AMIE (Mining)	EIA Coordinator & Functional area Expert (AP,NV,HW),	Over 30 years of experience in EIA/EMP report, mine plan preparation, including modeling
Mr. K. Shankar	M.Sc (Geology). PGMEMG	Functional area Expert (GEO, HG, SHW, RH) & IBM approved RQP.	Over 25 years of experience in EIA/EMP report, Mine plan, hydrological report preparation
Mr.S.S.Rajendran	M.Sc. (Pharmaceutical Chemistry)	Lab head	More than 9 years of experience in Environmental laboratory.
Mr. R. Babu raj	M.A (Sociology), B.Com(Y.L&Cost), ITI, Advance Diploma in Computer application	Functional Area Expert (Socio Economy)	Over 15 years of experience in dispersion modeling, computer applications. Specialized in CAD and computer software, applications. 5years experience in the field of socio economy and its allied report preparation.
Mr. B. Govindaraman	B.Sc.	Field technician	Over 20 years of field monitoring & data collection experience

EXPERT NAME	QUALIFICATION	POSITION	EXPERIENCE
Dr.B.Swamynathan	M.Sc (Ecology & Environmental Sciences), M.Phill (Botany), Ph.D (Ecology & Environmental Sciences)	EIA Coordinator & Functional Area Expert (EB,SC,LU&AP)	More than 12 years of experience in Environment and allied fields.
Ms. G. Sandhya	B. Tech Chemical Engineering M.Tech Environmental Engineering	EIA Coordinator & Functional Area Expert (AQ&WP)	Over 6 years experience in preparation of EIA/EMP reports

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ANNEXURES

Annexure- 1A

ந.க.எண். 26/2024/கனிமம்
நாள்: .02.2024

புவியியல் மற்றும் சுரங்கத்துறை,
மாவட்ட ஆட்சியரகம்,
திண்டுக்கல்

குறிப்பாணை

பொருள் கனிமங்களும் குவாரிகளும் - சிறுகனிமம் - சாதாரண வகை கற்கள் - திண்டுக்கல் மாவட்டம் - நிலக்கோட்டை வட்டம் - சிவஞானபுரம் கிராமம் - புல எண்.263/1(பகுதி-3) 1.62.00 ஹெக்டேர் பரப்பில் டெண்டர் / ஏலம் முறையில் குத்தகை வழங்குவது - அதிகபட்ச டெண்டர் தொகை கோரிய திரு.போ.செல்வம், த/பெ.போஸ் என்பவரின் பெயரில் ஏலம் உறுதி செய்யப்பட்டது - ஏற்பளிக்கப்பட்ட சுரங்கத் திட்டம் மற்றும் சுற்றுச்சூழல் ஆணைய இசைவு பெற்று சமர்ப்பிக்கக் கோருதல் - தொடர்பாக.

பார்வை:
1. திண்டுக்கல் மாவட்ட அரசிதழ் சிறப்பு வெளியிடு எண்: 20 நாள் 15.11.2023.
2. திண்டுக்கல் மாவட்ட அரசிதழ் சிறப்பு வெளியிடு எண்: 26 நாள் 19.12.2023
3. திரு.போ.செல்வம் என்பவரது டெண்டர் விண்ணப்பம் நாள்:12.12.2023
4. உதவி இயக்குநர் புவியியல் மற்றும் சுரங்கத்துறை, வருவாய் கோட்டாட்சியர் திண்டுக்கல் அவர்களது ஏல நடவடிக்கை அறிக்கை நாள்-11.01.2023
5. திரு.போ.செல்வம் என்பவரின் கடித நாள்: 25.01.2023
6. தொடர்புடைய ஆவணங்கள்.

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1. திண்டுக்கல் மாவட்டத்தில் அரசு புறம்போக்கு நிலங்களில் உள்ள சாதாரண கற்களை வெட்டியெடுத்துச் செல்ல உரிமம் வழங்க ஏதுவாக பார்வையில் கண்ட திண்டுக்கல் மாவட்ட அரசிதழ் சிறப்பு வெளியீடுகளின் படி 12.12.2023-ம் நாள் பிற்பகல் 05.00 மணிக்குள் மூடி முத்திரை இடப்பட்ட டெண்டர் மனுக்களை அளிக்க இறுதி நாளாக அறிவித்து, 11.01.2024 அன்று பொது ஏலம் நடத்தப்பட்டு டெண்டர் மனுக்கள் ஏலத்தில் கலந்து கொண்டவர்கள் முன்னிலையில் திறக்கப்பட்டன.

2. மேற்கண்ட அரசிதழில் விளம்பரம் செய்யப்பட்டிருந்த குவாரிப்பட்டியலில் வரிசை எண்.9, திண்டுக்கல் மாவட்டம், நிலக்கோட்டை வட்டம், சிவஞானபுரம் கிராமம், புல எண்.263/1(பகுதி-3) 1.62.00 ஹெக்டேர் பரப்பில் டெண்டர் / ஏலம் முறையில் குத்தகை வழங்குவது குறித்தும் கற்குவாரிக்கு டெண்டர் / பொது ஏலத்தில் கலந்து கொண்டவர்களில் திரு.போ.செல்வம், த/பெ.போஸ் என்பவரின் டெண்டர் தொகையாக கோரியிருந்த ரூ.80,000,00/- மாவட்ட ஆட்சித்தலைவர் அவர்களால் நிர்ணயம் செய்யப்பட்டிருந்த ஏலத்தொகை ரூ.52,30,000 விட அதிகமாக இருந்ததால் ஏலத்தொகை

முழுவதையும் செலுத்த கேட்டுக்கொள்ளப்பட்டது. மேற்கண்ட ஏலதாரர் மொத்த குத்தகை தொகையையும் செலுத்தியுள்ளார்.

3. எனவே, டெண்டர்தாரர் குத்தகை தொகை முழுவதும் செலுத்தியிருப்பதாலும், மேற்படி கற்குவாரி ஏலமானது விதிகளின்படி உயர்ந்தபட்ச ஏலம் / டெண்டர் கோரிய என்பவருக்கு உறுதி செய்யப்படுகிறது. மேலும், மேற்படி திரு.போ.செல்வம், த/பெ.போஸ் என்பவரின் நிலக்கோட்டை வட்டம், சிவஞானபுரம் கிராமம், புல எண்.263/1(பகுதி-3) 1.62.00 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 சமர்பிக்கவும், 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:

a. 1959ம் வருடத்திய தமிழ்நாடு சிறு கனிம சலுகை விதிகள், அட்டவணை-II-ல் கண்டுள்ளபடி குவாரி செய்யப்படும் கனிமங்களுக்குரிய சீனியரேஜ் தொகை அவ்வப்போது செலுத்தி கனிமம் கொண்டு செல்லப்பட வேண்டும்.

b. அருகிலுள்ள பட்டாதாரர்களுக்கு எவ்வித இடையூரும் ஏற்படாத வண்ணம் குவாரிப் பணி மேற்கொள்ள வேண்டும்.

c. விதிகளின் படி ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினை உரிய காலத்திற்குள் சமர்பிக்க வேண்டும்.

d. குவாரி உரிமம் வழங்க உள்ள பகுதிக்கு சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் முன் அனுமதி பெற்று சமர்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும்.

இணைப்பு: குத்தகை உரிமம் வழங்க
பரிந்துரைக்கப்பட்ட புல வரைபடம்.

9/4/2024
மாவட்ட ஆட்சித்தலைவர்,
திண்டுக்கல்.

பெறுநர்:
திரு.போ.செல்வம்,
த/பெ.S.போஸ்,
வேங்கிடஷ் திரி கோட்டை,
கோம்பைப்பட்டி கிராமம்,
நிலக்கோட்டை வட்டம்,
திண்டுக்கல்.

A.ALLIMUTHU M.Sc.,M.Phil.,
Recognized Qualified Person
RQP/DMG/HYD/263/2022

நகல்: 1. ஆணையர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை

ந.க.எண். 25/2024/கனிமம்
நாள்: 09.02.2024

புவியியல் மற்றும் சுரங்கத்துறை,
மாவட்ட ஆட்சியரகம்,
திண்டுக்கல்.

குறிப்பாணை

பொருள்: கனிமங்களும் குவாரிகளும் - சிறுகனிமம் - சாதாரண வகை கற்கள் - திண்டுக்கல் மாவட்டம் - நிலக்கோட்டை வட்டம் - சிவஞானபுரம் கிராமம் - புல எண்.263/1(பகுதி-2) 2.00.00 ஹெக்டேர் பரப்பில் டெண்டர் / ஏலம் முறையில் குத்தகை வழங்குவது - அதிகபட்ச டெண்டர் தொகை கோரிய திரு.க.நாகமுத்துக்குமார், த/பெ.கருப்பையா என்பவரின் பெயரில் ஏலம் உறுதி செய்யப்பட்டது - ஏற்பளிக்கப்பட்ட சுரங்கத் திட்டம் மற்றும் சுற்றுச்சூழல் ஆணைய இசைவு பெற்று சமர்ப்பிக்கக் கோருதல் - தொடர்பாக.

பார்வை:
1. திண்டுக்கல் மாவட்ட அரசிதழ் சிறப்பு வெளியிடு எண்: 20 நாள் 15.11.2023.
2. திண்டுக்கல் மாவட்ட அரசிதழ் சிறப்பு வெளியிடு எண்: 26 நாள் 19.12.2023
3. திரு.க.நாகமுத்துக்குமார் என்பவரது டெண்டர் விண்ணப்பம் நாள்:11.01.2024
4. உதவி இயக்குநர் புவியியல் மற்றும் சுரங்கத்துறை, வருவாய் கோட்டாட்சியர் திண்டுக்கல் அவர்களது ஏல நடவடிக்கை அறிக்கை நாள்-11.01.2023
5. திரு.க.நாகமுத்துக்குமார் என்பவரின் கடித நாள்: 24.01.2023
6. தொடர்புடைய ஆவணங்கள்.

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1. திண்டுக்கல் மாவட்டத்தில் அரசு புறம்போக்கு நிலங்களில் உள்ள சாதாரண கற்களை வெட்டியெடுத்துச் செல்ல உரிமம் வழங்க ஏதுவாக பார்வையில் கண்ட திண்டுக்கல் மாவட்ட அரசிதழ் சிறப்பு வெளியீடுகளின் படி 12.12.2023-ம் நாள் பிற்பகல் 05.00 மணிக்குள் மூடி முத்திரை இடப்பட்ட டெண்டர் மனுக்களை அளிக்க இறுதி நாளாக அறிவித்து, 11.01.2024 அன்று பொது ஏலம் நடத்தப்பட்டு டெண்டர் மனுக்கள் ஏலத்தில் கலந்து கொண்டவர்கள் முன்னிலையில் திறக்கப்பட்டன.

2. மேற்கண்ட அரசிதழில் விளம்பரம் செய்யப்பட்டிருந்த குவாரிப்பட்டியலில் வரிசை எண்.8, திண்டுக்கல் மாவட்டம், நிலக்கோட்டை வட்டம், சிவஞானபுரம் கிராமம், புல எண்.263/1(பகுதி-2) 2.00.00 ஹெக்டேர் பரப்பில் டெண்டர் / ஏலம் முறையில் குத்தகை வழங்குவது குறித்தும் கற்குவாரிக்கு டெண்டர் / பொது ஏலத்தில் கலந்து கொண்டவர்களில் திரு.க.நாகமுத்துக்குமார், த/பெ.கருப்பையா என்பவரின் டெண்டர் தொகையாக கோரியிருந்த ரூ.1,35,000,00/- மாவட்ட ஆட்சித்தலைவர் அவர்களால் நிர்ணயம் செய்யப்பட்டிருந்த ஏலத்தொகை ரூ.64,50,000 விட அதிகமாக இருந்ததால் ஏலத்தொகை முழுவதையும் செலுத்த கேட்டுக்கொள்ளப்பட்டது. மேற்கண்ட ஏலதாரர் மொத்த குத்தகை தொகையையும் செலுத்தியுள்ளார்.

3. எனவே, டெண்டர்தாரர் குத்தகை தொகை முழுவதும் செலுத்திவிட்டபடியால், மேற்படி கற்குவாரி ஏலமானது விதிகளின்படி உயர்ந்தபட்ச ஏலம் / டெண்டர் கோரிய என்பவருக்கு உறுதி செய்யப்படுகிறது. மேலும், மேற்படி திரு.க.நாகமுத்துக்குமார், த/பெ.கருப்பையா என்பவரின் நிலக்கோட்டை வட்டம், சிவஞானபுரம் கிராமம், புல எண்.263/1(பகுதி-2) 2.00.00 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 சமர்பிக்கவும், 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:

a. 1959ம் வருடத்திய தமிழ்நாடு சிறு கனிம சலுகை விதிகள், அட்டவணை-II-ல் கண்டுள்ளபடி குவாரி செய்யப்படும் கனிமங்களுக்குரிய சீனியரேஜ் தொகை அவ்வப்போது செலுத்தி கனிமம் கொண்டு செல்லப்பட வேண்டும்.

b. அருகிலுள்ள பட்டாதாரர்களுக்கு எவ்வித இடையூரும் ஏற்படாத வண்ணம் குவாரிப் பணி மேற்கொள்ள வேண்டும்.

c. விதிகளின் படி ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினை உரிய காலத்திற்குள் சமர்பிக்க வேண்டும்.

d. குவாரி உரிமம் வழங்க உள்ள பகுதிக்கு சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் முன் அனுமதி பெற்று சமர்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும்.

இணைப்பு: குத்தகை உரிமம் வழங்க
பரிந்துரைக்கப்பட்ட புல வரைபடம்.

ஒ/ம்.மொ.நா.பூங்கொடி,
மாவட்ட ஆட்சித்தலைவர்,
திண்டுக்கல்.

//உ.ந.உ.ப//

உதவி இயக்குநர் 9/6/24.
புவியியல் மற்றும் சுரங்கத்துறை,
திண்டுக்கல்.

பெறுநர்:
திரு.க.நாகமுத்துக்குமார்,
த/பெ.கருப்பையா,
159/2, தெற்கு வீதி,
அய்யன்கோட்டை,
அய்யன்பாளையம்,
பட்டிவீரன்பட்டி, திண்டுக்கல்.

நகல்: 1. ஆணையர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை

Annexure- 2A

From

Thiru.K.Vijayaragavan, M.Sc.,
Assistant Director,
Geology and Mining,
Dindigul

To

Thiru.B.Selvam,
S/o.Bose,
2/56, Main Road,
Vengadasthirikottai,
Kombaipatti,
Batlagundu, Dindigul

Rc.No.26/2024 (Mines) dated: 10.02.2025

Sir,

Sub: Mines and Quarries – Minor Minerals – Dindigul District – Nilakottai Taluk – SivagnanapuramVillage – SF.No. 263/1(P-3) - over an extent of 1.62.0Hects., of Poramboke lands - Rough stone quarry lease – draft mining plan submitted by Thiru.B.Selvam - Approval of mining plan - Regarding.

Ref:
1. Dindigul District Gazette Extraordinary issue No.20 dated: 15.11.2023
2. Dindigul District Gazette Extraordinary issue No.26 dated: 19.12.2023
3. Precise area communication in Rc.No.25/2024 (Mines) dated: 09.02.2024.
4. Mining Plan submitted by Thiru.B.Selvam, S/o.Bose, 2/56 Main Road, Kombaipatti, Batlagundu, Dindigul,dated: 07.02.2025

****

Rough Stone quarry in Government Poramboke land measuring an extent of 1.62.0hects in Poramboke lands in S.F.No.263/1(P-3) of Sivagnanapuram Village, NilakottaiTaluk, DindigulDistrict was notified in the District Gazette in the reference 1st & 2ndcited to lease out through Tender-Cum-Auction system stipulated in Rule 8(1) of Tamil Nadu Minor Mineral Concession Rules 1959 for a period of 5 years.

2) In exercise of powers delegated under Rule 42 of Tamil Nadu Minor Mineral Concession Rules, 1959, I hereby approve the mining plan submitted by Thiru.B.Selvam for grant of lease to quarry rough stone, over

an extent of 1.62.0hects in Poramboke lands in S.F.No.263/1(P-3) of Sivagnanapuram Village, Nilakottai Taluk, DindigulDistrict for a period of five years and the proposed mineable reserves of rough stoneafter leaving safety distance is arrived as **1,52,604M^3** to the proposed depth of 33m. This approval is subject to the following conditions:-

(i). That the mining plan is approved without prejudice to any other Law applicable to the quarry lease from time to time whether such Laws are made by the Central Government, State Government or any other authority.

(ii). This approval of the mining plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines and Minerals (Development and 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 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.

Assistant Director,
Geology and Mining,
Dindigul

Encl: 2 copies of Approved Mining Plan.

Copy submitted to :

1. The Chairman,
   State Level Environment Impact Assessment Authority, Chennai

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

Annexure- 2B

From

Thiru.K.Vijayaragavan, M.Sc.,
Assistant Director,
Geology and Mining,
Dindigul

To

Thiru.K.Nagamuthukumar,
S/o.Karuppaiah,
159/2, South Street,
Ayyankottai, Ayyanpalayam,
Pattiveeranpatti,
Dindigul

Rc.No.25/2024 (Mines) dated: 24 .04.2024

Sir,

Sub: Mines and Quarries – Minor Minerals – Dindigul District – Nilakottai Taluk – Sivagnanapuram Village – SF.No.263/1(P-2) - over an extent of 2.00.0 Hects., of Poramboke lands - Rough stone quarry lease – draft mining plan submitted by Thiru.K.Nagamuthukumar - Approval of mining plan - Regarding.

Ref:
1. Dindigul District Gazette Extraordinary issue No.20 dated: 15.11.2023
2. Dindigul District Gazette Extraordinary issue No.26 dated: 19.12.2023
3. Precise area communication in Rc.No.25/2024 (Mines) dated: 09.02.2024.
4. Mining Plan submitted by Thiru.K.Nagamuthukumar, S/o.Karuppaiah, South Street, Ayyankottai, Pattiveeranpatti, Dindigul, dated:11.03.2024

****

Rough Stone quarry in Government Poramboke land measuring an extent of 2.00.0 hects in Poramboke lands in S.F.No.263/1(P-2) of Sivagnanapuram Village, Nilakottai Taluk, Dindigul District was notified in the District Gazette in the reference 1st & 2nd cited to lease out through Tender-Cum-Auction system stipulated in Rule 8(1) of Tamil Nadu Minor Mineral Concession Rules 1959 for a period of 5 years.

2) In exercise of powers delegated under Rule 42 of Tamil Nadu Minor Mineral Concession Rules, 1959, I hereby approve the mining plan submitted by Thiru.K.Nagamuthukumar for grant of lease to quarry rough stone, over an extent of 2.00.0 hects in Poramboke lands in S.F.No. 263/1(P-2) of Sivagnanapuram Village, Nilakottai Taluk, Dindigul District for a period of five years and the proposed mineable reserves of rough stone after leaving safety distance is arrived as **3,30,453M³** to the proposed depth of 45m. This approval is subject to the following conditions:-

(i). That the mining plan is approved without prejudice to any other Law applicable to the quarry lease from time to time whether such Laws are made by the Central Government, State Government or any other authority.

(ii). This approval of the mining plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines and Minerals (Development and 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 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.

Assistant Director,
Geology and Mining,
Dindigul

Encl: 2 copies of Approved Mining Plan.

Copy submitted to :

1. The Chairman,
   State Level Environment Impact Assessment Authority, Chennai
2. The Commissioner of Geology and Mining, Industrial Estate, Guindy,
   Chennai- 32.

சான்று

திண்டுக்கல் மாவட்டம், நிலக்கோட்டை வட்டம், சிவஞானபுரம் கிராம நிர்வாக அலுவலர் அளிக்கும் சான்று:

திண்டுக்கல் மாவட்டம், நிலக்கோட்டை வட்டம், கோம்பைபட்டி கிராமம், உட்கடை வெங்கிடாஸ்திரிகோட்டை கதவு எண்: 2/56 என்ற முகவரியில் வசிக்கும் திரு.S.போஸ் என்பவர் மகன் திரு. B.செல்வம் என்பவர் திண்டுக்கல் மாவட்டம், நிலக்கோட்டை வட்டம், சிவஞானபுரம் கிராமத்தில் உள்ள சர்வே எண்: 263/1 (பகுதி-3)ல் உள்ள 1.62.0 ஹெக்டேர் பரப்பு அரசு புறம்போக்கு நிலத்தில் உடைகல் வெட்டி எடுக்க அரசாங்கதிடமிருந்து குத்தகை அனுமதி கோரியுள்ளார். எனவே குவாரி குத்தகை எடுத்துள்ள நிலத்தை சுற்றி சுமார் 300 மீட்டருக்கு அருகில் அங்கீகரிக்கப்பட்ட வீட்டு மனைகள், மற்றும் புராதனச்சின்னங்கள் ஏதும் இல்லை எனவும், இதனால் பொதுமக்களுக்கு எவ்வித இடைஞ்சல்களோ அல்லது பாதிப்புகளோ ஏற்படாது என தெரிவித்துக் கொள்கிறேன். மேலும், அனுமதி கோரிய புலத்திற்கு வண்டிகள் சென்று வர புலத்திற்கு தெற்கில் தெற்கு - வடக்காக பாதை அமைந்துள்ளது.

கிராம நிர்வாக அலுவலர்
சிவஞானபுரம் (குரூப்),
நிலக்கோட்டை வட்டம்,
திண்டுக்கல் மாவட்டம்.

Annexure- 3B

சான்று

திண்டுக்கல் மாவட்டம், நிலக்கோட்டை வட்டம், சிவஞானபுரம் கிராம நிர்வாக அலுவலர் அளிக்கும் சான்று:

திண்டுக்கல் மாவட்டம், அய்யன்கோட்டை அஞ்சல், 157/2, தெற்குதெரு, முகவரியில் வசிக்கும் திரு. கருப்பையா என்பவரின் மகன் திரு. நாகமுத்துக்குமார், என்பவர் திண்டுக்கல், நிலக்கோட்டை வட்டம், சிவஞானபுரம் கிராமத்தில் உள்ள சர்வே எண்: 263/1 (P-2)ல் உள்ள 2.00-ஹெக்டேர் பரப்பு அரசு புறம்போக்கு நிலத்தில் சாதாரண கற்கள் எடுக்க அரசாங்கத்திடமிருந்து குத்தகை அனுமதி கோரியுள்ளார். எனவே குவாரி குத்தகை உரிமம் எடுத்துள்ள நிலத்தை சுற்றி சுமார் 300-மீட்டருக்கு அருகில் அங்கீகரிக்கப்பட்ட வீட்டு மனைகள் மற்றும் புராதனச்சின்னங்கள் ஏதும் இல்லை எனவும், இதனால் பொதுமக்களுக்கு எவ்வித இடைஞ்சல்களோ அல்லது பாதிப்புகளோ ஏற்படாது என தெரிவித்துக் கொள்கிறோன். மேலும் அனுமதி கோரிய புலத்திற்கு வண்டிகள் சென்று வர பாதை அமைந்துள்ளது.

05-08-2024

கிராம நிர்வாக அலுவலர் &
பிறப்பு-இறப்பு பதிவாளர்
சிவஞானபுரம் முழுப் கிராமம்
நிலக்கோட்டை (Tk) திண்டுக்கல் (Dt)

Annexure -3

From

Thiru.K.Vijayaragavan, M.Sc.,
Assistant Director,
Geology and Mining,
Dindigul

To

Thiru.B.Selvam,
S/o.Bose,
2/56, Main Road,
Vengadasthirikottai,
Kombaipatti,
Batlagundu, Dindigul

Rc.No.25/2024 (Mines) dated: 24.04.2024

Sir,

Sub: Mines and Quarries – Minor Minerals – Dindigul District – Nilakottai Taluk – Sivagnanapuram Village – SF.No.263/1(P-3) - over an extent of 1.62.0 Hects., of Poramboke lands - Rough stone quarry lease – draft mining plan submitted by Thiru.B.Selvam - Approval of mining plan - Regarding.

Ref:
1. Dindigul District Gazette Extraordinary issue No.20 dated: 15.11.2023
2. Dindigul District Gazette Extraordinary issue No.26 dated: 19.12.2023
3. Precise area communication in Rc.No.25/2024 (Mines) dated: 09.02.2024.
4. Mining Plan submitted by Thiru.B.Selvam, S/o.Bose, 2/56 Main Road, Kombaipatti, Batlagundu, Dindigul, dated: 15.03.2024

****

With reference to your letter in the reference 4th cited, the details of existing and lease expired quarries located within 500m radius from the proposed Rough stone quarry, over an extent of 1.62.0 hects in Poramboke lands in S.F.No.263/1(P-3) of Sivagnanapuram Village, Nilakottai Taluk, Dindigul 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.	C.Vengidasamy, No.125/1A, Middle Street, Kulipatti, Nilakottai	Sivagnana puram/ Nilakottai	263/1 (P-1)	2.00.0	20.09.2018 to 19.09.2023 Extended up to 18-12-2024 CGM Rc.No.3049/mm6/23 Date 23-05-2023
2	K.C.Jeyabalan, S/o Chidambaram Gandhi Nagar Batlagundu	Kombaipatti/ Nilakottai	S.F.No.480/4(P) (Block-1)	1.45.5	22.02.2021 to 21.02.2026

2) Lease Expired

S. No	Name of the Lessee / Permit Holder	Village & Taluk	S.F.No	Extent	Lease period
1.	V. Suresh, S/o. Venkidusamy, 5/125 Middle Street, Kulipatti Post, Nilakottai Taluk	Sivagnana puram/ Nilakottai	261	0.61.0	20.03.2012 to 19.03.2017
2.	J.Ammaiyapan, S/o.K.C.Jeyabalan. Gandhi Nagar Batlagundu	Kombaipatti/ Nilakottai	480/4 (Part)	2.00.0	05.01.2016 to 04.01.2021

3) Proposed Area

S No	Name of the applicant	Village &Taluk	S.F.No	Extent
1	K.Nagamuthukumar, S/o.Karuppaiah, 159/2, South Street, Ayyankottai, Ayyanpalayam, Pattiveeranpatti, Dindigul	Sivagnana puram/ Nilakottai	263/1(P-2)	2.00.0
2.	Thiru.B Selvam, S/o.Bose, 2/56, Main Road. Vengadasthirikottai, Kombaipatti. Batlagundu, Dindigul	Sivagnana puram/ Nilakottai	263/1(P-3)	1.62.0

24/7/24

Assistant Director,
Geology and Mining,
Dindigul

Annexure- 4B

From

Thiru.K.Vijayaragavan, M.Sc.,
Assistant Director,
Geology and Mining,
Dindigul

To

Thiru.K.Nagamuthukumar,
S/o.Karuppaiah,
159/2, South Street,
Ayyankottai, Ayyanpalayam,
Pattiveeranpatti,
Dindigul

Rc.No.25/2024 (Mines) dated: 24 .04.2024

Sir,

Sub: Mines and Quarries – Minor Minerals – Dindigul District – Nilakottai Taluk – Sivagnanapuram Village – SF.No.263/1 (P-2) - over an extent of 2.00.0 Hects., of Poramboke lands - Rough stone quarry lease – draft mining plan submitted by Thiru.K.Nagamuthukumar - Approval of mining plan - Regarding.

Ref:
1. Dindigul District Gazette Extraordinary issue No.20 dated: 15.11.2023
2. Dindigul District Gazette Extraordinary issue No.26 dated: 19.12.2023
3. Precise area communication in Rc.No.25/2024 (Mines) dated: 09.02.2024.
4. Mining Plan submitted by Thiru.K.Nagamuthukumar, S/o.Karuppaiah, South Street, Ayyankottai, Pattiveeranpatti, Dindigul, dated:11.03.2024

****

With reference to your letter in the reference 4th cited, the details of existing and lease expired quarries located within 500m radius from the proposed Rough stone quarry, over an extent of 2.00.0 hects in Poramboke lands in S.F.No.263/1(P-2) of Sivagnanapuram Village, Nilakottai Taluk, Dindigul 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.	C.Vengidasamy, No.125/1A, Middle Street, Kulipatti, Nilakottai	Sivagnana puram/ Nilakottai	263/1 (P-1)	2.00.0	20.09.2018 to 19.09.2023 Extended up to 18-12-2024 CGM Rc.NO.3049/mm 6/23 Date 23-05-2023

2.	K.C.Jeyabalan, S/o.Chidambaram Gandhi Nagar Batlagundu	Kombaipatti/ Nilakottai	S.F.No.4 80/4(P) (Block-1)	1.45.5	22.02.2021 to 21.02.2026

2) Lease Expired

S. No	Name of the Lessee / Permit Holder	Village & Taluk	S.F.No	Extent	Lease period
1.	V. Suresh, S/o. Venkidusamy, 5/125 Middle Street, Kulipatti Post, Nilakottai Taluk	Sivagnana puram/ Nilakottai	261	0.61.0	20.03.2012 to 19.03.2017
2.	J.Ammaiyapan, S/o.K.C.Jeyabalan, Gandhi Nagar Batlagundu	Kombaipatti/ Nilakottai	480/4 (Part)	2.00.0	05.01.2016 to 04.01.2021

3) <u>Proposed Area</u>

S. No	Name of the applicant	Village &Taluk	S.F.No	Extent
1	K.Nagamuthukumar, S/o.Karuppaiah, 159/2, South Street, Ayyankottai, Ayyanpalayam, Pattiveeranpatti, Dindigul	Sivagnana puram/ Nilakottai	263/1(P-2)	2.00.0
2.	Thiru.B.Selvam, S/o.Bose, 2/56, Main Road, Vengadasthirikottai, Kombaipatti, Batlagundu, Dindigul	Sivagnana puram/ Nilakottai	263/1(P-3)	1.62.0

Assistant Director,
Geology and Mining,
Dindigul

Annexure- 5

POPULATION BREAKUP & LITERACY LEVEL IN THE BUFFER ZONE

Sl.No	No. of Villages	Name of village	Rural / urban	HOUSE HOLDS	POPULATION			POPULATION BELOW 6 AGE GROUP			SCHEDULE CASTE			SCHEDULE TRIBE			LITRERATES			ILLITRERATES		
					TOTAL	MALE	F.MALE	TOTAL	MALE	F.MALE	TOTAL	MALE	F.MALE	TOTAL	MALE	F. MALE	TOTAL	MALE	F.MALE	TOTAL	MALE	F.MALE
0-2 km,Nilakkottai Sub-District, Dindigul District																						
1	1	Kombaipatti	**Rural**	2210	8406	4223	4183	815	406	409	2174	1097	1077	1	1	0	5106	2898	2208	3300	1325	1975
2	2	Sivagnanapuram	**Rural**	434	1721	888	833	167	86	81	928	474	454	0	0	0	1095	635	460	626	253	373
		total (A)		**2644**	**10127**	**5111**	**5016**	**982**	**492**	**490**	**3102**	**1571**	**1531**	**1**	**1**	**0**	**6201**	**3533**	**2668**	**3926**	**1578**	**2348**
2-5 km,Nilakkottai Sub-District, Dindigul District																						
3	1	Mallanampatti	**Rural**	910	3431	1740	1691	365	202	163	1153	590	563	0	0	0	2220	1264	956	1211	476	735
4	2	Veelinaickanpatti	**Rural**	601	2448	1284	1164	344	185	159	178	100	78	0	0	0	1568	912	656	880	372	508
5	3	Musuvanuthu	**Rural**	852	3545	1821	1724	398	213	185	918	474	444	0	0	0	2123	1217	906	1422	604	818
6	4	Bodiagoundanpatti	**Rural**	214	732	372	360	82	40	42	7	4	3	0	0	0	516	297	219	216	75	141
7	5	Kunnuvarankottai	**Rural**	1253	4887	2472	2415	491	258	233	1661	861	800	0	0	0	3256	1808	1448	1631	664	967
8	6	Viralipatti	**Rural**	2891	11370	5868	5502	1242	650	592	3942	2067	1875	0	0	0	6833	4027	2806	4537	1841	2696
9	7	Nadakottai	**Rural**	739	2682	1390	1292	312	180	132	613	318	295	0	0	0	1838	1059	779	844	331	513
10	8	Kullichettipatti	**Rural**	368	1380	694	686	125	63	62	498	245	253	0	0	0	1015	545	470	365	149	216
11	9	Viralimayanpatti	**Rural**	685	2795	1475	1320	287	149	138	980	497	483	0	0	0	1934	1123	811	861	352	509
12	10	Viruveedu	**Rural**	1677	6459	3332	3127	733	388	345	897	473	424	4	1	3	4122	2345	1777	2337	987	1350
		total (B)		**10190**	**39729**	**20448**	**19281**	**4379**	**2328**	**2051**	**10847**	**5629**	**5218**	**4**	**1**	**3**	**25425**	**14597**	**10828**	**14304**	**5851**	**8453**
5-10 km,Nilakkottai Sub-District, Dindigul District																						
13	1	Kottur	**Rural**	2322	9263	4690	4573	1038	550	488	2387	1207	1180	2	1	1	5941	3314	2627	3322	1376	1946
14	2	Kodanginaickan patti	**Rural**	1059	4418	2251	2167	582	315	267	1263	633	630	1	0	1	2745	1535	1210	1673	716	957
15	3	Chinnamanaickankottai	**Rural**	200	887	467	420	66	34	32	565	283	282	0	0	0	526	323	203	361	144	217
16	4	Nuthulapuram	**Rural**	1028	4192	2150	2042	491	255	236	2019	1029	990	0	0	0	2708	1535	1173	1484	615	869
17	5	Kanavaipatti	**Rural**	2606	9873	4858	5015	927	458	469	1534	776	758	0	0	0	7338	3894	3444	2535	964	1571
18	6	Batlagundu	**Rural**	2991	11768	5976	5792	1306	674	632	6315	3223	3092	476	245	231	7651	4294	3357	4117	1682	2435
19	7	Bangalapatti	**Rural**	96	396	190	206	42	23	19	395	190	205	0	0	0	238	118	120	158	72	86
20	8	Nakkaluthu	**Rural**	345	1371	725	646	169	96	73	1356	714	642	0	0	0	881	526	355	490	199	291
21	9	Silukkuvarpatti	**Rural**	2703	10725	5274	5451	1190	620	570	3537	1718	1819	0	0	0	7272	3870	3402	3453	1404	2049
22	10	Koovanuthu	**Rural**	594	2419	1200	1219	319	166	153	1117	565	552	0	0	0	1459	818	641	960	382	578
23	11	Pannaipatti	**Rural**	485	2013	1057	956	209	106	103	929	489	440	0	0	0	1217	726	491	796	331	465
24	12	Rengappanaickanpatti	**Rural**	1024	4078	2133	1945	415	213	202	232	120	112	0	0	0	2419	1444	975	1659	689	970
25	13	Sandaiyur	**Rural**	982	3830	1892	1938	490	257	233	110	59	51	0	0	0	2191	1222	969	1639	670	969
26	14	Sithargalnatham	**Rural**	1604	6372	3299	3073	647	321	326	1005	515	490	0	0	0	4136	2372	1764	2236	927	1309
27	15	Pillaiyarnatham	**Rural**	1698	6712	3422	3290	725	374	351	1898	970	928	1	0	1	4498	2536	1962	2214	886	1328
28	16	Vilampatti	**Rural**	683	2589	1309	1280	265	137	128	543	264	279	0	0	0	1720	945	775	869	364	505
Usilampatti Sub-District, Madurai District																						
29	1	Kalluthu	**Rural**	1236	4605	2416	2189	494	281	213	249	128	121	0	0	0	3109	1818	1291	1496	598	898
30	2	Panamoopanpatti	**Rural**	517	1950	984	966	222	108	114	77	34	43	0	0	0	1110	656	454	840	328	512
31	3	Uthappanaickanur	**Rural**	1729	6879	3522	3357	775	400	375	493	244	249	0	0	0	4085	2339	1746	2794	1183	1611
Nilakkottai Sub-District, Dindigul District																						
32	1	Sevugampatti (TP)	**Urban**	3037	11730	5916	5814	1158	586	572	2822	1458	1364	3	1	2	8077	4439	3638	3653	1477	2176
33	2	Nilakkottai (TP)	**Urban**	5611	22197	11068	11129	2390	1250	1140	4913	2436	2477	1636	851	785	17033	8879	8154	5164	2189	2975
34	3	Pattiveeranpatti (TP)	**Urban**	2290	8602	4177	4425	710	344	366	2060	997	1063	0	0	0	6992	3542	3450	1610	635	975
35	4	Batlagundu (TP)	**Urban**	5878	22928	11428	11500	2125	1102	1023	1748	854	894	34	19	15	18406	9618	8788	4522	1810	2712
Periyakulam Sub-District, Theni District																						
36	1	Ganguvarpatti (TP)	**Urban**	3075	11942	6099	5843	1304	672	632	4567	2295	2272	0	0	0	7628	4366	3262	4314	1733	2581
		total (C)		**43793**	**171739**	**86503**	**85236**	**18059**	**9342**	**8717**	**42134**	**21201**	**20933**	**2153**	**1117**	**1036**	**119380**	**65129**	**54251**	**52359**	**21374**	**30985**
		Grand Total (A+B+C)		**56627**	**221595**	**112062**	**109533**	**23420**	**12162**	**11258**	**56083**	**28401**	**27682**	**2158**	**1119**	**1039**	**151006**	**83259**	**67747**	**70589**	**28803**	**41786**

**Source: District Primary Census Abstract, Dindigul, Theni & Madurai District of Tamilnadu State-2011*

Annexure- 6

OCCUPATIONAL STRUCTURE IN THE BUFFER ZONE

Sl.No	No. of Villages	Name of village	Rural / urban	MAIN WORKERS		CULTIVATORS		AGRI LABOURS		HOUSE HOLD		OTHERS		MARGINAL WORKERS		NON WORKERS	
				MALE	F.MALE	MALE	F.MALE	MALE	F.MALE	MALE	F.MALE	MALE	F.MALE	MALE	F.MALE	MALE	F.MALE
0-2 km,Nilakkottai Sub-District, Dindigul District																	
1	1	Kombaipatti	**Rural**	1999	1342	244	132	1225	1058	43	36	487	116	596	747	1628	2094
2	2	Sivagnanapuram	**Rural**	394	322	36	32	309	256	2	3	47	31	162	145	332	366
		total (A)		**2393**	**1664**	**280**	**164**	**1534**	**1314**	**45**	**39**	**534**	**147**	**758**	**892**	**1960**	**2460**
2-5 km,Nilakkottai Sub-District, Dindigul District																	
3	1	Mallanampatti	**Rural**	1040	855	112	69	716	732	8	7	204	47	27	25	673	811
4	2	Veelinaickanpatti	**Rural**	827	608	219	157	456	400	10	1	142	50	7	22	450	534
5	3	Musuvanuthu	**Rural**	1051	896	223	168	596	649	22	18	210	61	78	79	692	749
6	4	Bodiagoundanpatti	**Rural**	197	26	30	3	117	19	0	1	50	3	35	167	140	167
7	5	Kunnuvarankottai	**Rural**	787	357	156	60	282	208	19	13	330	76	691	727	994	1331
8	6	Viralipatti	**Rural**	3542	2858	623	475	2178	2178	32	15	709	190	79	93	2247	2551
9	7	Nadakottai	**Rural**	730	504	131	47	459	422	11	8	129	27	136	259	524	529
10	8	Kullichettipatti	**Rural**	441	351	48	27	292	275	4	5	97	44	22	50	231	285
11	9	Viralimayanpatti	**Rural**	918	842	542	224	341	599	0	0	35	19	8	5	549	473
12	10	Viruveedu	**Rural**	1946	1519	411	324	1168	1083	29	24	338	88	113	113	1273	1495
		total (B)		**11479**	**8816**	**2495**	**1554**	**6605**	**6565**	**135**	**92**	**2244**	**605**	**1196**	**1540**	**7773**	**8925**
5-10 km,Nilakkottai Sub-District, Dindigul District																	
13	1	Kottur	**Rural**	2649	1741	712	457	1554	1117	16	9	367	158	212	213	1829	2619
14	2	Kodanginaickan patti	**Rural**	1345	818	182	77	470	456	160	105	533	180	58	137	848	1212
15	3	Chinnamanaickankottai	**Rural**	269	273	86	84	116	166	0	0	67	23	0	2	198	145
16	4	Nuthulapuram	**Rural**	909	730	363	342	310	324	5	2	231	62	451	364	790	948
17	5	Kanavaipatti	**Rural**	2611	1263	351	136	778	661	79	53	1403	413	286	271	1961	3481
18	6	Batlagundu	**Rural**	3152	1928	137	58	1911	1546	49	27	1055	297	316	386	2508	3478
19	7	Bangalapatti	**Rural**	96	105	0	1	69	96	0	0	27	8	9	3	85	98
20	8	Nakkaluthu	**Rural**	411	346	17	6	286	306	9	8	99	26	9	9	305	291
21	9	Silukkuvarpatti	**Rural**	2576	1691	357	167	1250	1076	48	49	921	399	470	499	2228	3261
22	10	Koovanuthu	**Rural**	638	475	102	86	356	319	4	5	176	65	121	162	441	582
23	11	Pannaipatti	**Rural**	652	589	410	387	151	160	10	11	81	31	31	22	374	345
24	12	Rengappanaickanpatti	**Rural**	1101	859	314	196	627	559	25	31	135	73	266	285	766	801
25	13	Sandaiyur	**Rural**	876	779	266	115	503	620	9	7	98	37	324	301	692	858
26	14	Sithargalnatham	**Rural**	1505	890	349	172	696	515	24	35	436	168	580	700	1214	1483
27	15	Pillaiyarnatham	**Rural**	1586	637	252	112	508	353	91	33	735	139	446	562	1390	2091
28	16	Vilampatti	**Rural**	280	101	38	23	34	12	13	8	195	58	561	537	468	642
Usilampatti Sub-District, Madurai District																	
29	1	Kalluthu	**Rural**	1088	731	233	164	684	516	18	9	153	42	427	508	901	950
30	2	Panamoopanpatti	**Rural**	541	433	274	197	216	209	1	3	50	24	49	61	394	472
31	3	Uthappanaickanur	**Rural**	1811	1233	530	83	825	1012	45	33	411	105	353	406	1358	1718
Nilakkottai Sub-District, Dindigul District																	
32	1	Sevugampatti (TP)	**Urban**	3148	1010	116	31	696	352	56	32	2280	595	180	244	2588	4560
33	2	Nilakkottai (TP)	**Urban**	6040	2377	179	73	325	379	99	194	5437	1731	224	359	4804	8393
34	3	Pattiveeranpatti (TP)	**Urban**	2263	786	148	14	230	151	19	32	1866	589	133	160	1781	3479
35	4	Batlagundu (TP)	**Urban**	6014	1600	194	29	351	134	67	57	5402	1380	476	295	4938	9605
Periyakulam Sub-District, Theni District																	
36	1	Ganguvarpatti (TP)	**Urban**	3177	1497	196	22	1917	1217	42	32	1022	226	173	146	2749	4200
		total (C)		**44738**	**22892**	**5806**	**3032**	**14863**	**12256**	**889**	**775**	**23180**	**6829**	**6155**	**6632**	**35610**	**55712**
		Grand Total (A+B+C)		**58610**	**33372**	**8581**	**4750**	**23002**	**20135**	**1069**	**906**	**25958**	**7581**	**8109**	**9064**	**45343**	**67097**

**Source: District Primary Census Abstract, Dindigul, Theni & Madurai District of Tamilnadu State-2011*

EDUCATIONAL FACILITIES IN THE STUDY AREA

Sl.No	No. of Villages	Name of village	Educational Facilities (A(1)/ NA(2))	Govt Pre - Primary School (Nursery/LKG/UKG) (Numbers)	Govt Primary School (Numbers)	Govt Middle School (Numbers)	Govt Secondary School (Numbers)	Govt Senior Secondary School (Numbers)	Govt Arts and Science Degree College (Numbers)	Govt Engineering College (Numbers)	Govt Medicine College (Numbers)	Govt Management Institute (Numbers)	Govt Polytechnic (Numbers)	Govt Vocational Training School/ITI (Numbers)	Government Non Formal Training Centre (Numbers)	Government School For Disabled (Numbers)
0-2 km,Nilakkottai Sub-District, Dindigul District																
1	1	Kombaipatti	**1**	7	6	1	1	0	0	0	0	0	0	0	0	0
2	2	Sivagnanapuram	**1**	2	2	0	0	0	0	0	0	0	0	0	0	0
		total (A)		**9**	**8**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
2-5 km,Nilakkottai Sub-District, Dindigul District																
3	1	Mallanampatti	**1**	2	2	1	1	0	0	0	0	0	0	0	0	0
4	2	Veelinaickanpatti	**1**	3	2	1	0	0	0	0	0	0	0	0	1	0
5	3	Musuvanuthu	**1**	3	3	1	0	0	0	0	0	0	0	0	0	0
6	4	Bodiagoundanpatti	**1**	1	1	0	0	0	0	0	0	0	0	0	0	0
7	5	Kunnuvarankottai	**1**	5	4	0	0	0	0	0	0	0	0	0	0	0
8	6	Viralipatti	**1**	8	8	4	1	0	0	0	0	0	0	0	0	0
9	7	Nadakottai	**1**	2	4	0	0	0	0	0	0	0	0	0	1	0
10	8	Kullichettipatti	**1**	2	2	1	0	0	0	0	0	0	0	0	1	0
11	9	Viralimayanpatti	**1**	3	5	0	0	0	0	0	0	0	0	0	1	0
12	10	Viruveedu	**1**	7	9	1	1	1	0	0	0	0	0	0	1	0
		total (B)		**36**	**40**	**9**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**
5-10 km,Nilakkottai Sub-District, Dindigul District																
13	1	Kottur	**1**	10	7	5	0	0	0	0	0	0	0	0	0	0
14	2	Kodanginaickan patti	**1**	4	3	0	0	0	0	0	0	0	0	0	0	0
15	3	Chinnamanaickankottai	**1**	1	1	1	0	0	0	0	0	0	0	0	0	0
16	4	Nuthulapuram	**1**	6	3	1	0	0	0	0	0	0	0	0	1	0
17	5	Kanavaipatti	**1**	5	5	1	0	0	0	0	0	0	0	0	0	0
18	6	Batlagundu	**1**	9	3	2	2	1	0	0	0	0	0	0	1	0
19	7	Bangalapatti	**1**	1	0	0	0	0	1	0	0	0	0	0	0	0
20	8	Nakkaluthu	**1**	1	1	0	0	0	0	0	0	0	0	0	0	0
21	9	Silukkuvarpatti	**1**	8	6	2	1	1	0	0	0	0	0	0	1	0
22	10	Koovanuthu	**1**	2	2	0	0	0	0	0	0	0	0	0	0	0
23	11	Pannaipatti	**1**	1	1	0	0	0	0	0	0	0	0	0	0	0
24	12	Rengappanaickanpatti	**1**	1	5	2	1	0	0	0	0	0	0	0	0	0
25	13	Sandaiyur	**1**	2	3	1	0	0	0	0	0	0	0	0	0	0
26	14	Sithargalnatham	**1**	8	5	1	0	0	0	0	0	0	0	0	1	0
27	15	Pillaiyarnatham	**1**	6	6	2	1	1	0	0	0	0	0	0	1	0
28	16	Vilampatti	**1**	2	3	1	1	0	0	0	0	0	0	0	1	0
Usilampatti Sub-District, Madurai District																
29	1	Kalluthu	**1**	6	6	2	1	0	0	0	0	0	0	0	1	0
30	2	Panamoopanpatti	**1**	2	3	1	0	0	0	0	0	0	0	0	1	0
31	3	Uthappanaickanur	**1**	9	10	4	1	1	0	0	0	0	0	0	1	0
		total (C)		**84**	**73**	**26**	**8**	**4**	**1**	**0**	**0**	**0**	**0**	**0**	**9**	**0**
		Grand Total (A+B+C)		**129**	**121**	**36**	**12**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**14**	**0**

**Source: District Primary Census Abstract, Dindigul, Theni & Madurai District of Tamilnadu State-2011*

MEDICAL FACILITIES WITHIN THE STUDY AREA

Sl.No	No. of Villages	Name of village	Medical Facilities (A(1)/NA(2))	Community Health Centre (Numbers)	Primary Health Centre (Numbers)	Primary Heallth Sub Centre (Numbers)	Maternity And Child Welfare Centre (Numbers)	TB Clinic (Numbers)	Hospital Allopathic (Numbers)	Hospiltal Alternative Medicine (Numbers)	Dispensary (Numbers)	Veterinary Hospital (Numbers)	Mobile Health Clinic (Numbers)	Family Welfare Centre (Numbers)
0-2 km,Nilakkottai Sub-District, Dindigul District														
1	1	Kombaipatti	**1**	0	0	3	0	0	0	0	0	1	0	0
2	2	Sivagnanapuram	**2**	0	0	0	0	0	0	0	0	0	0	0
		total (A)		**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**
2-5 km,Nilakkottai Sub-District, Dindigul District														
3	1	Mallanampatti	**1**	0	1	1	1	1	0	0	1	0	0	1
4	2	Veelinaickanpatti	**2**	0	0	0	0	0	0	0	0	0	0	0
5	3	Musuvanuthu	**1**	0	0	1	0	0	0	0	0	0	0	0
6	4	Bodiagoundanpatti	**2**	0	0	0	0	0	0	0	0	0	0	0
7	5	Kunnuvarankottai	**1**	0	0	1	0	0	0	0	0	1	0	0
8	6	Viralipatti	**1**	0	1	5	1	1	0	0	1	0	0	1
9	7	Nadakottai	**1**	0	0	2	0	0	0	0	0	0	0	0
10	8	Kullichettipatti	**1**	0	0	1	1	0	0	0	0	1	0	0
11	9	Viralimayanpatti	**1**	0	0	1	0	0	0	0	0	0	0	0
12	10	Viruveedu	**1**	1	1	1	1	1	0	0	1	1	0	1
		total (B)		**1**	**3**	**13**	**4**	**3**	**0**	**0**	**3**	**3**	**0**	**3**
5-10 km,Nilakkottai Sub-District, Dindigul District														
13	1	Kottur	**1**	0	0	1	1	0	0	0	0	0	0	0
14	2	Kodanginaickan patti	**1**	0	0	1	0	0	0	0	0	0	0	0
15	3	Chinnamanaickankottai	**2**	0	0	0	0	0	0	0	0	0	0	0
16	4	Nuthulapuram	**1**	0	1	3	1	1	0	0	1	0	0	1
17	5	Kanavaipatti	**1**	0	0	1	0	0	0	0	0	0	0	0
18	6	Batlagundu	**1**	0	2	5	2	2	0	0	2	0	0	2
19	7	Bangalapatti	**2**	0	0	0	0	0	0	0	0	0	0	0
20	8	Nakkaluthu	**2**	0	0	0	0	0	0	0	0	0	0	0
21	9	Silukkuvarpatti	**1**	0	1	1	1	1	0	0	1	0	0	1
22	10	Koovanuthu	**1**	0	0	0	1	1	0	0	0	0	0	0
23	11	Pannaipatti	**2**	0	0	0	0	0	0	0	0	0	0	0
24	12	Rengappanaickanpatti	**1**	0	0	1	0	0	0	0	0	0	0	0
25	13	Sandaiyur	**1**	0	0	1	0	0	0	0	0	0	0	0
26	14	Sithargalnatham	**1**	0	0	3	0	0	0	0	0	0	0	0
27	15	Pillaiyarnatham	**1**	0	1	3	1	1	0	0	1	1	0	1
28	16	Vilampatti	**1**	0	0	2	0	0	0	0	0	1	0	0
Usilampatti Sub-District, Madurai District														
29	1	Kalluthu	**1**	0	0	2	0	0	0	0	0	0	0	0
30	2	Panamoopanpatti	**2**	0	0	0	0	0	0	0	0	0	0	0
31	3	Uthappanaickanur	**1**	0	1	1	1	1	0	0	1	1	0	1
		total (C)		**0**	**6**	**25**	**8**	**7**	**0**	**0**	**6**	**3**	**0**	**6**
		Grand Total (A+B+C)		**1**	**9**	**41**	**12**	**10**	**0**	**0**	**9**	**7**	**0**	**9**

**Source: District Primary Census Abstract, Dindigul, Theni & Madurai District of Tamilnadu State-2011*

Note : A: Available, NA- Not Available

Annexure- 9

INFRASTRUCTURAL FACILITIES IN THE STUDY AREA

Sl.No	No. of Villages	Name of village	Tap Water-Treated (Status A(1)/NA(2))	Covered Well (Status A(1)/NA(2))	Hand Pump (Status A(1)/NA(2))	Tube Wells/Borehole (Status A(1)/NA(2))	Spring (Status A(1)/NA(2))	River/Canal (Status A(1)/NA(2))	Tank/Pond/ Lake (Status A(1)/NA(2))	Post Office (Status A(1)/NA(2))	Sub Post Office (Status A(1)/NA(2))	Post And Telegraph Office (Status A(1)/NA(2))	Telephone (landlines) (Status A(1)/NA(2))	Mobile Phone Coverage (Status A(1)/NA(2))	Public Bus Service (Status A(1)/NA(2))	Railway Station (Status A(1)/NA(2))	Commercial Bank (Status A(1)/NA(2))	Cooperative Bank (Status A(1)/NA(2))	Agricultural Credit Societies (Status A(1)/NA(2))
0-2 km,Nilakkottai Sub-District, Dindigul District																			
1	1	Kombaipatti	1	1	2	1	1	2	2	1	1	1	1	1	1	2	2	1	1
2	2	Sivagnanapuram	1	2	2	1	2	2	2	2	2	2	1	1	1	2	2	1	1
2-5 km,Nilakkottai Sub-District, Dindigul District																			
3	1	Mallanampatti	1	2	1	1	2	2	2	2	1	2	1	1	1	2	2	2	2
4	2	Veelinaickanpatti	1	1	2	1	1	2	2	2	2	2	1	1	2	2	2	2	2
5	3	Musuvanuthu	1	2	1	1	2	2	2	2	1	2	1	1	1	2	2	2	2
6	4	Bodiagoundanpatti	1	2	2	1	2	2	2	2	2	2	2	1	1	2	2	2	2
7	5	Kunnuvarankottai	1	2	1	1	2	2	2	2	1	1	1	1	1	2	2	1	1
8	6	Viralipatti	1	2	2	1	2	2	2	2	1	2	1	1	1	2	1	1	1
9	7	Nadakottai	1	1	1	2	2	2	2	2	2	2	1	1	1	2	2	2	2
10	8	Kullichettipatti	1	2	2	2	2	2	2	2	1	2	1	1	1	2	2	2	2
11	9	Viralimayanpatti	1	1	1	1	1	2	2	2	1	2	1	1	1	2	2	2	2
12	10	Viruveedu	1	1	1	1	2	2	2	1	2	1	1	1	1	2	1	1	1
5-10 km,Nilakkottai Sub-District, Dindigul District																			
13	1	Kottur	1	1	1	1	2	2	2	2	1	2	1	1	1	2	2	1	1
14	2	Kodanginaickan patti	1	1	2	1	1	1	2	1	2	1	1	1	2	2	2	2	2
15	3	Chinnamanaickankottai	2	1	2	1	2	2	2	2	2	2	1	1	1	2	2	2	2
16	4	Nuthulapuram	1	1	2	1	2	2	2	1	1	1	1	1	1	2	2	2	1
17	5	Kanavaipatti	1	1	1	1	2	2	2	2	1	2	1	1	1	2	1	2	2
18	6	Batlagundu	1	1	2	1	2	2	2	1	1	1	1	1	1	2	1	1	1
19	7	Bangalapatti	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2
20	8	Nakkaluthu	1	2	2	2	1	1	2	2	2	2	1	1	2	2	2	2	2
21	9	Silukkuvarpatti	1	1	1	1	2	2	2	1	1	1	1	1	1	2	1	1	1
22	10	Koovanuthu	1	1	1	1	2	1	2	2	2	2	1	1	1	2	2	2	2
23	11	Pannaipatti	1	2	2	1	1	1	2	2	2	2	1	1	2	2	2	2	2
24	12	Rengappanaickanpatti	1	2	2	2	2	1	2	2	1	2	1	1	1	2	2	2	2
25	13	Sandaiyur	1	1	2	1	2	2	2	2	1	2	1	1	1	2	2	2	2
26	14	Sithargalnatham	1	2	2	1	2	2	2	1	2	1	1	1	1	2	2	2	2
27	15	Pillaiyarnatham	1	2	2	1	1	2	2	1	1	1	1	1	1	2	2	2	1
28	16	Vilampatti	1	2	2	2	2	2	2	1	1	1	1	1	1	2	2	2	2
Usilampatti Sub-District, Madurai District																			
29	1	Kalluthu	1	1	1	1	2	2	2	2	1	2	1	1	1	2	2	1	2
30	2	Panamoopanpatti	1	1	2	2	2	2	2	2	2	2	1	1	1	2	2	2	1
31	3	Uthappanaickanur	1	2	1	1	1	2	2	1	2	1	1	1	1	2	2	1	2

**Source: District Primary Census Abstract, Dindigul, Theni & Madurai District of Tamilnadu State-2011*

Note : A: Available, NA- Not Available

Status: A(1)/NA(2)

CREATIVE ENGINEERS & CONSULTANTS

(NABET ACCREDITED, NABL ACCREDITED TESTING LABORATORY,
DEPARTMENT OF INDUSTRIES AND COMMERCE REGISTERED COMPANY

AMBIENT AIR QUALITY

Project	:	**Rough Stone Quarries of Thiru B.Selvam & Thiru K.Nagamuthukumar**
Name of the Location	:	**Near Lease Area**
Station Code	:	**A1**

SL.NO	DATE	PM10	PM2.5	SO2	NO2
1	08.10.24	61.8	30.5	3.9	10.9
2	09.10.24	66.2	33.3	4.4	12.7
3	15.10.24	63.5	31.6	4.0	11.1
4	16.10.24	67.3	34.0	4.7	13.4
5	22.10.24	75.7	36.3	5.3	13.9
6	23.10.24	79.7	37.9	5.7	14.1
7	29.10.24	72.6	35.7	5.2	12.6
8	29.10.24	66.4	31.5	4.6	11.1
9	04.11.24	70.6	32.9	4.8	11.9
10	05.11.24	64.2	31.1	4.4	10.6
11	11.11.24	60.3	30.6	4.2	9.4
12	12.11.24	55.1	29.7	3.7	9.1
13	18.11.24	58.6	30.2	4.0	9.7
14	19.11.24	56.2	29.7	3.9	10.0
15	25.11.24	60.7	31.2	4.4	11.3
16	26.11.24	55.6	30.3	4.0	9.5
17	01.12.24	54.3	29.5	3.7	8.9
18	02.12.24	59.6	32.1	4.2	10.8
19	08.12.24	61.4	33.6	4.8	11.9
20	09.12.24	65.3	34.4	5.0	12.3
21	15.12.24	73.5	35.7	5.4	13.6
22	16.12.24	62.7	32.4	4.9	12.7
23	22.12.24	71.5	34.1	5.1	13.3
24	23.12.24	67.3	31.1	4.7	12.0
	MIN	**54.3**	**29.5**	**3.7**	**8.9**
	AVE	**64.6**	**32.5**	**4.5**	**11.5**
	MAX	**79.7**	**37.9**	**5.7**	**14.1**

Note: BDL – Below Detectable Limit, DL: Detectable Limit.

Prepared by

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CREATIVE ENGINEERS & CONSULTANTS
(NABET ACCREDITED, NABL ACCREDITED TESTING LABORATORY,
DEPARTMENT OF INDUSTRIES AND COMMERCE REGISTERED COMPANY

AMBIENT AIR QUALITY

Project	:	**Rough Stone Quarries of Thiru B.Selvam & Thiru K.Nagamuthukumar**
Name of the Location	:	**Kulipatti village**
Station Code	:	**A2**

SL.NO	DATE	PM10	PM2.5	SO2	NO2
1	08.10.24	50.4	24.3	4.1	9.3
2	09.10.24	53.7	25.1	4.5	9.9
3	15.10.24	49.4	23.6	3.9	8.4
4	16.10.24	54.5	27.2	5.0	10.6
5	22.10.24	51.6	24.8	4.7	9.5
6	23.10.24	57.2	31.1	5.2	11.8
7	29.10.24	55.1	30.1	5.5	12.6
8	29.10.24	52.3	28.7	4.8	10.5
9	04.11.24	49.6	24.5	4.1	9.4
10	05.11.24	51.7	26.0	4.4	11.5
11	11.11.24	54.3	28.3	4.8	12.3
12	12.11.24	48.5	22.9	4.2	10.3
13	18.11.24	50.3	24.6	4.6	10.7
14	19.11.24	53.6	26.3	4.1	9.4
15	25.11.24	54.7	28.0	4.4	9.7
16	26.11.24	51.3	25.5	3.5	8.7
17	01.12.24	48.5	24.8	3.7	9.3
18	02.12.24	47.6	23.7	3.3	8.3
19	08.12.24	50.1	24.3	3.5	9.6
20	09.12.24	53.6	28.1	4.1	10.6
21	15.12.24	56.5	30.7	4.5	11.7
22	16.12.24	52.7	25.5	4.3	9.8
23	22.12.24	54.2	27.3	5.1	10.4
24	23.12.24	51.4	23.6	4.4	8.7
	MIN	**47.6**	**22.9**	**3.3**	**8.3**
	AVE	**52.2**	**26.2**	**4.4**	**10.1**
	MAX	**57.2**	**31.1**	**5.5**	**12.6**

Note: BDL – Below Detectable Limit, DL: Detectable Limit.

Prepared by

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DEPARTMENT OF INDUSTRIES AND COMMERCE REGISTERED COMPANY

AMBIENT AIR QUALITY

Project	:	**Rough Stone Quarries of Thiru B.Selvam & Thiru K.Nagamuthukumar**
Name of the Location	:	**C.Pudur Village**
Station Code	:	**A3**

SL.NO	DATE	PM10	PM2.5	SO2	NO2
1	10.10.24	60.5	29.2	4.4	10.3
2	11.10.24	57.8	28.8	3.9	9.6
3	17.10.24	64.1	31.3	4.8	11.4
4	18.10.24	61.7	30.3	4.3	10.1
5	24.10.24	65.9	32.0	5.1	12.4
6	25.10.24	68.3	35.5	5.6	14.2
7	30.10.24	74.1	37.2	6.1	15.7
8	31.10.24	63.9	33.6	5.3	12.2
9	06.11.24	58.1	29.2	4.5	11.0
10	07.11.24	55.9	28.7	4.1	10.5
11	13.11.24	57.6	28.3	4.4	11.2
12	14.11.24	53.7	27.6	3.8	9.3
13	20.11.24	58.4	29.7	4.2	10.6
14	21.11.24	63.4	32.8	4.6	12.3
15	27.11.24	65.7	33.4	5.1	12.8
16	28.11.24	67.8	34.5	4.9	13.4
17	03.12.24	60.3	30.5	4.1	10.3
18	04.12.24	54.6	28.2	3.9	9.7
19	10.12.24	60.1	29.6	4.3	10.4
20	11.12.24	63.5	31.4	4.5	12.6
21	17.12.24	67.2	33.5	5.2	13.9
22	18.12.24	70.4	35.1	5.0	14.4
23	24.12.24	63.5	30.8	4.3	11.6
24	25.12.24	58.1	29.5	4.1	10.4
	MIN	**53.7**	**27.6**	**3.8**	**9.3**
	AVE	**62.3**	**31.3**	**4.6**	**11.7**
	MAX	**74.1**	**37.2**	**6.1**	**15.7**

Note: BDL – Below Detectable Limit, DL: Detectable Limit.

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AMBIENT AIR QUALITY

Project	:	**Rough Stone Quarries of Thiru B.Selvam & Thiru K.Nagamuthukumar**
Name of the Location	:	**Kombaipatti village**
Station Code	:	**A4**

SL.NO	DATE	PM10	PM2.5	SO2	NO2
1	10.10.24	47.2	24.6	4.4	10.6
2	11.10.24	45.9	23.7	3.9	8.7
3	17.10.24	49.5	25.7	4.3	10.3
4	18.10.24	51.6	27.8	4.6	11.4
5	24.10.24	52.8	28.9	4.8	12.2
6	25.10.24	48.3	26.0	4.4	10.7
7	30.10.24	46.7	24.8	4.1	9.3
8	31.10.24	50.4	26.2	4.3	9.9
9	06.11.24	52.1	27.6	4.7	10.4
10	07.11.24	47.8	23.7	3.8	9.6
11	13.11.24	44.6	23.4	3.3	8.1
12	14.11.24	43.3	22.0	BDL	7.5
13	20.11.24	49.1	25.3	3.7	9.6
14	21.11.24	46.5	24.4	3.5	8.8
15	27.11.24	45.4	22.9	4.0	10.5
16	28.11.24	50.3	26.5	4.4	11.2
17	03.12.24	46.1	23.9	3.6	9.3
18	04.12.24	43.9	22.6	BDL	7.7
19	10.12.24	48.5	25.3	3.4	8.5
20	11.12.24	52.1	28.4	3.8	9.3
21	17.12.24	47.5	26.1	4.3	9.7
22	18.12.24	45.3	24.5	3.9	8.1
23	24.12.24	48.2	25.8	4.5	11.5
24	25.12.24	44.6	23.4	4.3	10.1
	MIN	**43.3**	**22.0**	**3.3**	**7.5**
	AVE	**47.8**	**25.1**	**4.1**	**9.7**
	MAX	**52.8**	**28.9**	**4.8**	**12.2**

Note: BDL – Below Detectable Limit, DL: Detectable Limit.

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AMBIENT AIR QUALITY

Project	:	**Rough Stone Quarries of Thiru B.Selvam & Thiru K.Nagamuthukumar**
Name of the Location	:	**Koottathuayyampalayam Village**
Station Code	:	**A5**

SL.NO	DATE	PM10	PM2.5	SO2	NO2
1	12.10.24	58.4	27.7	4.8	10.5
2	13.10.24	61.3	28.2	5.1	11.8
3	22.10.24	56.7	26.4	4.4	10.4
4	23.10.24	61.8	33.1	5.0	12.3
5	26.10.24	65.2	35.4	5.4	13.9
6	27.10.24	60.5	29.3	4.9	11.3
7	01.11.24	52.6	26.1	4.3	9.9
8	02.11.24	56.8	27.6	4.7	10.0
9	08.11.24	53.1	26.4	3.9	9.5
10	09.11.24	56.5	28.2	4.2	10.8
11	15.11.24	61.3	29.0	4.7	12.3
12	16.11.24	55.6	27.4	4.1	9.8
13	22.11.24	51.2	25.5	3.5	8.5
14	23.11.24	56.4	26.9	3.9	10.1
15	29.11.24	60.3	29.4	4.3	11.9
16	29.11.24	58.9	28.0	4.6	11.2
17	05.12.24	52.3	25.9	4.1	8.9
18	06.12.24	58.4	29.4	3.7	9.3
19	12.12.24	55.5	27.3	4.0	9.8
20	13.12.24	53.9	25.8	4.4	10.6
21	19.12.24	57.8	28.4	4.7	9.0
22	20.12.24	63.4	32.7	5.3	13.4
23	26.12.24	60.8	30.2	4.6	12.2
24	27.12.24	56.3	28.0	4.1	10.3
	MIN	**51.2**	**25.5**	**3.5**	**8.5**
	AVE	**57.7**	**28.4**	**4.4**	**10.7**
	MAX	**65.2**	**35.4**	**5.4**	**13.9**

Note: BDL – Below Detectable Limit, DL: Detectable Limit.

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AMBIENT AIR QUALITY

Project	:	**Rough Stone Quarries of Thiru B.Selvam & Thiru K.Nagamuthukumar**
Name of the Location	:	**Meenakshipuram Village**
Station Code	:	**A6**

SL.NO	DATE	PM10	PM2.5	SO2	NO2
1	12.10.24	56.1	28.4	4.2	11.9
2	13.10.24	53.5	26.8	3.8	10.6
3	22.10.24	58.9	32.5	4.7	12.6
4	23.10.24	61.5	34.0	5.2	13.5
5	26.10.24	55.6	27.8	4.6	11.2
6	27.10.24	52.3	25.2	4.2	10.5
7	01.11.24	56.7	27.2	4.5	11.3
8	02.11.24	58.4	31.0	4.9	12.0
9	08.11.24	51.3	29.7	4.3	9.6
10	09.11.24	53.1	25.3	3.5	10.5
11	15.11.24	48.4	23.4	3.3	8.3
12	16.11.24	50.5	24.8	3.6	9.4
13	22.11.24	51.7	25.6	4.1	9.9
14	23.11.24	49.5	23.8	3.9	8.8
15	29.11.24	56.4	28.7	4.3	11.4
16	29.11.24	59.8	31.6	4.8	12.7
17	05.12.24	52.1	26.3	4.2	10.7
18	06.12.24	49.7	24.7	3.6	9.2
19	12.12.24	53.6	25.3	4.0	9.7
20	13.12.24	55.2	28.0	4.3	10.4
21	19.12.24	58.4	30.6	4.7	12.0
22	20.12.24	54.6	26.2	4.2	10.8
23	26.12.24	56.9	28.3	4.6	11.3
24	27.12.24	51.5	25.1	3.8	9.6
	MIN	**48.4**	**23.4**	**3.3**	**8.3**
	AVE	**54.4**	**27.5**	**4.2**	**10.7**
	MAX	**61.5**	**34.0**	**5.2**	**13.5**

Note: BDL – Below Detectable Limit, DL: Detectable Limit.

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WATER QUALITY DATA

Project Name	:	**Rough Stone Quarries of Thiru B.Selvam & Thiru K.Nagamuthukumar**
Location Name	:	

Location Code	Location Name
W1	Near Mine lease area
W2	Kulipatti village
W3	C.Pudur Village
W4	Kombaipatti Village
W5	Koottathuayyampalayam Village
W6	Meenakshipuram Village

S. No.	Parameter	Unit	W1	W2	W3	W4	W5	W6	*Permissible Limits
1	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	**AGREEABLE**
2	Turbidity	NTU	3	<1	<1	<1	<1	<1	**-**
3	pH at 25 ˚C	-	7.95	7.23	7.27	7.6	7.65	7.3	**6.5-8.5**
4	Electrical Conductivity	µmhos/cm	297.8	927.5	552.3	795.4	477.6	913.5	**5.0**
5	Total Dissolved Solids	mg/L	175	557	325	480	290	560	
6	Total hardness as $CaCO_3$	mg/L	92.9	391.9	202	278.8	185.8	371.7	**2000**
7	Calcium as Ca	mg/L	20.2	82.4	27.5	63	38.8	100.2	**600**
8	Magnesium as Mg	mg/L	10.2	44.6	32	29.1	21.3	29.1	**200**
9	Calcium as $CaCO_3$	mg/L	50.5	206	68.7	157.6	97	250.5	**100**
10	Magnesium as $CaCO_3$	mg/L	42.4	185.8	133.3	121.2	88.9	121.2	**-**
11	Total alkalinity as $CaCO_3$	mg/L	155.8	307.5	295.2	299.3	278.8	274.7	**-**
12	Chloride as Cl^-	mg/L	18.9	153.9	25.8	109.2	21.3	158.8	**600**
13	Free Residual chlorine	mg/L	BDL (D.L -	BDL (D.L -	BDL (D.L -	BDL (D.L - 0.2)	BDL (D.L - 0.2)	BDL (D.L -	**1.0**

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S. No.	Parameter	Unit	W1	W2	W3	W4	W5	W6	*Permissible Limits
	as Cl^-		0.2)	0.2)	0.2)			0.2)	
14	Sulphates as SO_4^{2-}	mg/L	BDL(D.L-5.0)	20.9	17.2	17.6	14.1	32.2	**400**
15	Iron as Fe	mg/L	0.05	0.03	0.02	0.02	BDL(D.L - 0.01)	0.03	**0.3**
16	Nitrate as NO_3	mg/L	1.09	1.61	1.17	1.4	BDL(D.L – 1.0)	1.3	**45**
17	Fluoride as F	mg/L	0.23	0.45	0.12	0.33	BDL(D.L – 0.1)	0.36	**1.5**
18	Manganese as Mn	mg/L	BDL(D.L-0.05)	BDL (D.L - 0.05)	BDL (D.L - 0.05)	BDL (D.L - 0.05)	BDL (D.L - 0.05)	BDL (D.L - 0.05)	**0.3**

Note: * The water quality of the collected ground water samples were found to be within the prescribed permissible limits of IS: 10500:2012 Norms for Drinking in the absence of an alternative source.

Prepared by

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Annexure- 12

LAND USE PATTERN OF THE STUDY AREA WITHIN 10 KM RADIUS AROUND THE PROPOSED PROJECT AREA

Sl.No	No. of Villages	Name of village	Total Geographical Area (in Hectares)	Forest Area (in Hectares)	Area under Non-Agricultural Uses (in Hectares)	Barren & Un-cultivable Land Area (in Hectares)	Permanent Pastures and Other Grazing Land Area (in Hectares)	Land Under Miscellaneous Tree Crops etc. Area (in Hectares)	Culturable Waste Land Area (in Hectares)	Fallows Land other than Current Fallows Area (in Hectares)	Current Fallows Area (in Hectares)	Total Unirrigated Land Area (in Hectares)	Area Irrigated by Source (in Hectares)
0-2 km,Nilakkottai Sub-District, Dindigul District													
1	1	Kombaipatti	1092.66	0	0	19.39	0	2.28	0	447.11	135.88	34	454
2	2	Sivagnanapuram	499.65	0	94.78	33.49	0	0	1.71	135.69	0	11.52	222.46
		total (A)	**1592.31**	**0**	**94.78**	**52.88**	**0**	**2.28**	**1.71**	**582.8**	**135.88**	**45.52**	**676.46**
2-5 km,Nilakkottai Sub-District, Dindigul District													
3	1	Mallanampatti	834.54	0	111.61	39.55	0	0	18.05	0	366.81	255.55	42.97
4	2	Veelinaickanpatti	525.18	0	30.47	4.99	0	0	14.06	318.27	0	61.38	96.01
5	3	Musuvanuthu	1137.18	0	106.17	194.65	0	0	34.73	566.76	68.7	31.3	134.87
6	4	Bodiagoundanpatti	319.59	0	56.41	81.62	0	0	2.33	45.11	0	19.47	114.65
7	5	Kunnuvarankottai	1071.86	0	6.72	37.06	0	4.35	0	53	35	660.34	275.39
8	6	Viralipatti	3428.24	0	156.18	0	0	14.4	1120	709.66	138	865	425
9	7	Nadakottai	859.59	0	89.84	1.83	0	0	24.66	0	254.71	448.55	40
10	8	Kullichettipatti	196.31	0	43.06	0	0	0	0.14	59.05	1.29	7.31	85.46
11	9	Viralimayanpatti	722.45	0	56.19	80.65	0	0	12.61	0	262	300.73	10.27
12	10	Viruveedu	983.68	0	255.92	71.13	0	2.99	449.07	0	52.3	106.28	45.99
		total (B)	**10078.62**	**0**	**912.57**	**511.48**	**0**	**21.74**	**1675.65**	**1751.85**	**1178.81**	**2755.91**	**1270.61**
5-10 km,Nilakkottai Sub-District, Dindigul District													
13	1	Kottur	1529.02	0	0	6.21	0	2.23	14.19	973.04	22.11	204.72	306.52
14	2	Kodanginaickan patti	550.5	0	52.3	0	0	0	24.98	155.63	106.1	77.89	133.6
15	3	Chinnamanaickankottai	242.57	0	28.83	0	0	0	1.08	86.66	11.86	63.74	50.4
16	4	Nuthulapuram	1304.44	0	132.81	63.46	0	0	10.6	294.27	54.4	466.12	282.78
17	5	Kanavaipatti	2080.07	0	230.08	137.35	0	0	25.6	0	912.28	692.31	82.45
18	6	Batlagundu	1754.23	0	305	35.6	0	0	221.5	208.8	186.49	81.73	715.11
19	7	Bangalapatti	147.91	0	10.9	1.19	0	0	1.21	81.59	1.8	12.1	39.12
20	8	Nakkaluthu	166.51	0	0	23.41	0	0	0	0	67.81	17.98	57.31
21	9	Silukkuvarpatti	941.12	0	167.56	0.03	0	0	0.05	312.74	0	242.52	218.22
22	10	Koovanuthu	790.81	0	79.61	185.62	0	0	3.91	262.51	148.67	33.39	77.1
23	11	Pannaipatti	333.71	0	32.65	6.41	0	10.1	10.64	17	29	47.91	180
24	12	Rengappanaickanpatti	1152.77	0	152.27	0	400	0	140	0	0	260.5	200
25	13	Sandaiyur	1220.69	0	0	190	0	105	0	120.69	400	202	203
26	14	Sithargalnatham	1539.04	0	602.64	62.22	0	0	1.51	0	392.74	451.94	27.99
27	15	Pillaiyarnatham	753.74	0	124.25	0	0	0	0	162.14	46.5	122.16	298.69
28	16	Vilampatti	576	0	99.6	0.6	0	0	0	0	29.56	65.59	380.65
Usilampatti Sub-District, Madurai District													
29	1	Kalluthu	1228.08	140.41	95.82	187.83	0	0.1	35.19	270.66	119.1	113.74	265.23
30	2	Panamoopanpatti	453.53	0	54.46	22.92	0	0	4.9	235.8	3.13	24.39	107.93
31	3	Uthappanaickanur	3376.1	1510	181.88	337.71	0	3.78	47.34	767.53	130.04	172.92	224.9
		total (C)	**20140.84**	**1650.41**	**2350.66**	**1260.56**	**400**	**121.21**	**542.7**	**3949.06**	**2661.59**	**3353.65**	**3851**
		Grand Total (A+B+C)	**31811.77**	**1650.41**	**3358.01**	**1824.92**	**400**	**145.23**	**2220.06**	**6283.71**	**3976.28**	**6155.08**	**5798.07**

**Source: District Primary Census Abstract, Dindigul, Theni & Madurai District of Tamilnadu State-2011*

MINE PLAN

From

Thiru.K.Vijayaragavan, M.Sc.,
Assistant Director,
Geology and Mining,
Dindigul

To

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S/o.Bose,
2/56, Main Road,
Vengadasthirikottai,
Kombaipatti,
Batlagundu, Dindigul

Rc.No.26/2024 (Mines) dated: 10.02.2025

Sir,

Sub: Mines and Quarries – Minor Minerals – Dindigul District – Nilakottai Taluk – SivagnanapuramVillage – SF.No. 263/1(P-3) - over an extent of 1.62.0Hects., of Poramboke lands - Rough stone quarry lease – draft mining plan submitted by Thiru.B.Selvam - Approval of mining plan - Regarding.

Ref:
1. Dindigul District Gazette Extraordinary issue No.20 dated: 15.11.2023
2. Dindigul District Gazette Extraordinary issue No.26 dated: 19.12.2023
3. Precise area communication in Rc.No.25/2024 (Mines) dated: 09.02.2024.
4. Mining Plan submitted by Thiru.B.Selvam, S/o.Bose, 2/56 Main Road, Kombaipatti, Batlagundu, Dindigul,dated: 07.02.2025

****

Rough Stone quarry in Government Poramboke land measuring an extent of 1.62.0hects in Poramboke lands in S.F.No.263/1(P-3) of Sivagnanapuram Village, NilakottaiTaluk, DindigulDistrict was notified in the District Gazette in the reference 1st & 2ndcited to lease out through Tender-Cum-Auction system stipulated in Rule 8(1) of Tamil Nadu Minor Mineral Concession Rules 1959 for a period of 5 years.

2) In exercise of powers delegated under Rule 42 of Tamil Nadu Minor Mineral Concession Rules, 1959, I hereby approve the mining plan submitted by Thiru.B.Selvam for grant of lease to quarry rough stone, over

an extent of 1.62.0hects in Poramboke lands in S.F.No.263/1(P-3) of Sivagnanapuram Village, Nilakottai Taluk, DindigulDistrict for a period of five years and the proposed mineable reserves of rough stoneafter leaving safety distance is arrived as **1,52,604M^3** to the proposed depth of 33m. This approval is subject to the following conditions:-

(i). That the mining plan is approved without prejudice to any other Law applicable to the quarry lease from time to time whether such Laws are made by the Central Government, State Government or any other authority.

(ii). This approval of the mining plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines and Minerals (Development and 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 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.

Assistant Director,
Geology and Mining,
Dindigul

Encl: 2 copies of Approved Mining Plan.

Copy submitted to :

1. The Chairman,
   State Level Environment Impact Assessment Authority, Chennai

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

Director Dept of Geology and Mining Collectorate Dindigul
O/o Assistant

MODIFIED MINING PLAN

FOR SIVAGANAPURAM ROUGH STONE QUARRY

(Prepared under Rule 8(1) and Amended Rule of 41 & 42 Tamil Nadu Minor Mineral Concession Rules, 1959)

Lease in Government Land

Total Lease Period: (Five) 5 Years)

LOCATION OF THE LEASE APPLIED AREA

EXTENT	**: 1.62.00 ha**
S.F.No	**: 263/1 (Part-3)**
VILLAGE	**: SIVANGANAPURAM**
TALUK	**: NILAKOTTAI**
DISTRICT	**: DINDIGUL**
STATE	**: TAMIL NADU**

Applicant

Thiru . B.Selvam,
S/o.Bose,
2/56, Main Road,
Vengadasthirikottai,
Kombaipatti, Batlagundu
Dindigul District-624 202.

Prepared by

GEO MINING & ECO SOLUTIONS
Mr.N. Suresh, M.Sc.,(Qualified Person)
D.No. 257/2, Arthi Nager II, Emarald Garden, Narasothipatty, Salem-636004.
Email id: sureshhydrogeology@gmail.com
Mobile: 9994289822.

Director Dept. of Geology and Mining Collectorate Dindigul

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2	Top sheet map 10km Radius	IB	1:100000
3	Satellite Imagery & Lease area around 300m, 500m and 1km Radius	IC	1:10000
4	Mine Lease & Surface Plan	II	1:1000
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6	Year wise Development Plan & Production Section	IV & IVA	Hor-1:1000 Ver-1:500
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11	Progressive Mine Closure Plan	VIII	1:1000

CONSENT LETTER FROM THE MINE OWNER

The Modified Mining Plan in respect of Proposed Rough Stone quarry over an extent of 1.62.00 Hectares Government Land in S.F.No.263/1 (Part) Sivanganapuram Village, Nilakottai Taluk, Dindigul District and Tamil Nadu State has been prepared by Mr. N. Suresh, M.sc, a Qualified Person.

I request the Assistant Director, Department of Geology & Mining, Dindigul District to make further correspondence regarding modifications of the Modified Mining Plan with the said Qualified Person on this following address.

GEO MINING & ECO SOLUTIONS

Mr.N. Suresh, M.Sc., (Qualified Person)

D.No. 257/2, Arthi Nager II, Emarald Garden,

Narasothipatty, Salem-636004.

Email id: sureshhydrogeology@gmail.com

Mobile: 9994289822.

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

Signature of the Applicant

(Thiru.B.Selvam)

Place : Dindigul

Date :

O/o Assistant Director Dept.of Geology and Mining Collectorate Dindigul - 624 004.

Thiru . B.Selvam,
S/o. Bose,
2/56, Main Road,
Vengadasthirikottai,
Kombaipatti, Batlagundu
Dindigul District – 624 202.

DECLARATION

The Modified Mining Plan in respect of Rough Stone quarry over an extent of 1.62.00 hectares of Government Land in S.F.No.263/1 (Part-3), Sivanganapuaram Village, Nilakottai Taluk, Dindigul District and 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.

Signature of the Applicant

(Thiru.B.Selvam)

Place : Dindigul
Date :

GEO MINING & ECO SOLUTIONS

Mr.N. Suresh, M.Sc., (Qualified Person)

D.No. 257/2, Arthi Nager II, Emarald Garden,

Narasothipatty, Salem-636004.

Email id: sureshhydrogeology@gmail.com

Mobile: 9994289822.

O/o Assistant Director Dept.of Geology and Mining Collectorate Dindigul - 624 004

CERTIFICATE

This is to certify that the provisions of Rule 8(1) and Amended Rule of 41 & 42 Tamil Nadu Minor Mineral Concession Rules, 1959 have been observed in the preparation of Modified Mining Plan for the Rough Stone quarry lease over an extent of 1.62.00 Hectares of Government Land in S.F.No.263/1 (Part-3), Sivanganapuram Village, Nilakottai Taluk, Dindigul District, Tamil Nadu State Applied by Thiru.B.Selvam, S/o. Bose, No.2/56, Main Road, Vengadasthirikottai, Kombapatti, Batlagundu, Dindigul District.

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

Certified

Signature of Qualified Person

N.SURESH, M.Sc.,
Qualified Person

Place : Salem

Date : 01-02-25

GEO MINING & ECO SOLUTIONS

Mr.N. Suresh, M.Sc., (Qualified Person)

D.No. 257/2, Arthi Nager II, Emarald Garden,

Narasothipatty, Salem-636004.

Email id: sureshhydrogeology@gmail.com

Mobile: 9994289822.

Assistant Director Dept. of Geology and Mining Collectorate Dindigul. O/o

CERTIFICATE

Certified that, in the preparation of Modified Mining Plan for Rough Stone quarry over an extent of 1.62.00 Hectares of Government Land in S.F.No.263/1 (Part-3) of Sivangapuram Village, Nilakottai Taluk, Dindigul District and Tamil Nadu State, for Thiru.B.Selvam, S/o. Bose, No.2/56, Main Road, Vengadasthirikottai, Kombapatti, Batlagundu, Dindigul District, 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

N.SURESH, M.Sc.,
Qualified Person

Place : Salem

Date : 01-02-25

MODIFIED MINING PLAN

FOR ROUGH STONE QUARRY

(Prepared under rule of 8(1) and Amended rule of 41 & 42 Tamil Nadu Minor Mineral Concession Rules, 1959)

Assistant Director Dept.of Geology and Mining Collectorate Dindigul - 624 004.

1.0 INTRODUCTION

1. The present Modified Mining Plan and Environmental Management Plan are prepared for **Thiru.B.Selvam,** S/o. Bose, No.2/56, Main Road, Venkadasthirikottai, Kombapatti, Batlagundu, Dindigul District.
2. The applicant **Thiru. B.Selvam**, S/o. Bose, No.2/56, Main Road, Venkadasthirikottai, Kombapatti, Batlagundu, Dindigul District. Tamil Nadu has been Participated and obtained Tender after Successful bidder **(Rs.80,000,00)** in a public auction conducted by the government of Tamil Nadu for the lease of lands in the tender-cum- auction in Dindigul District or the purpose quarrying Rough Stone from the area located in S.F.No.263/1(Part-3), Government land over extent of 1.62.00 Ha in Sivanganapuram Village, Nilakottai Taluk, Dindigul District for a period of (Five) 5 Years only.
3. The application was meritoriously processed and precise area communication letter issued by the Assistant Director, Department of Geology & Mining, Dindigul District vide **Rc.No.26/Mines/2024 dated 09.02.2024** directed the applicant to submit the Mining Plan and to get approval from the Department of Geology & Mining.
4. The Mining Plan was approved by the Assistant Director, Department of Geology & Mining, Dindigul District vide **Rc.No.26/Mines/2024 dated 24.04.2024**
5. During Environment Clearance appraisal, The SEAC/SEIAA Tamil Nadu, directed the applicant to submit a modified mining plan by providing a bench with a 10m width for the existing height wall of 12m, subsequent benches are not less than 5m in width and revise the reserve calculation.
6. Accordingly, modified mining plan is prepared and submitted by considering the direction of SEAC/SEIAA, Tamil Nadu for approval.

Assistant Director Dept.of Geology and Mining Collectorate Dindigul - 624 004.

7. The ultimate pit limit is reduced up to 33m. The revised mineable reserve is **152604m³**.
8. Geological Resources is estimated as **746980m³** of Rough Stone, **Top soil 12168m³,** Mineable Reserves is estimated as **152704m³** of rough stone, top soil **7191m³** up to a depth of **33m (32m rough stone, 1m top soil),** Production **152604m³** of rough stone, top soil **7191m³** up to a depth of **33m (32m rough stone, 1m top soil)** after leaving the safety distance from the lease boundary of the lease applied quarry area and relevant mining laws in force.
9. Assistant Director, Department of Geology & Mining, Dindigul District directed the applicant vide the precise area communication letter. **Rc.No.26/Mines/2024 dated 09.02.2024** to follow the conditions given below,

- Tamil Nadu Minor Mineral Concession Rules, 1959, Table-II As per the amount of seniority for mined minerals shall be paid from time to time and the mineral transported.
- Quarry work should be carried out in such a way that there is no disturbance to the nearby lease holders.
- As per the rules, the approved Modified Mining Plan should be submitted within due time.
- Quarrying license will be issued only after approval is submitted to the Environmental Impact Assessment Authority for the area for which the quarrying license is to be issued.
- The safety distance of 7.5m and 10m should be maintained to the surrounding patta and Government lands around the quarrying area till the lease license expires.
- The applicant should submit the Environmental Clearance from the State Environmental Impact Assessment Authority based on the Modified Mining Plan approved by Dindigul District Assistant Director Geology and Mines as per Rule No. 42 of Tamil Nadu Minor Mineral Concession Rule as amended.
- Quarrying should be carried out subject to the conditions of the District Environmental Impact Assessment Authority.

10. Production Schedule is proposed at an average production of **152604m³ of Rough Stone** up to a depth of **33m** for the period of (Five) **5 Years** only.

11. Safety measures as per the provisions of Reg.106(2) (b) of Metalliferous Mines Regulation-1961, Labour welfare Amenities as per the Mines Rules -1955 and amended DGMS circular shall be taken care of in preparation of Modified Mining Plan.

ENVIRONMENTAL PARAMETERS,

(i) **Forest Conservation Act, 1980:** The area does not attract the Forest Conservation act, no forest found around 1.0km radius.

(ii) **Wildlife (Protection) Act, 1972**: There is no Wildlife Sanctuary found around 10 km radius from the lease area.

(iii)**The Coastal Regulation Zone (CRZ) Notification 2011**:

The area is more than 100m far from the Bay of Bengal; hence it does not attract the Coastal Regulation Zone (CRZ) Notification 2011.

(iv) Infrastructure around 500m radius:

S.No	Description	Distance from boundary of Quarry site (m)	Direction
1	Approach Road	440m	SW
2	Open Well	---	---
3	Water Bodies (River, Urani, Pond, Odai etc.,	485m	S
4	Habitation	450m	SE
5	HT / LT- Line	315m	SW

ENVIRONMENTAL MEASURES TO BE ADOPTED SHALL BE,

1) Dust suppression at loading point and transport haul roads.
2) Noise Control in control of fly rock missiles and Vibration by doing peak particle velocity with in standard as prescribed by the DGMS and MOEF.
3) Unnecessary land degradation should be avoided or damaged land should be reclaimed or rehabilitated.
4) Avoid uneven rat hole mining and follow scientific and systematic mining by safe bench system of open cast manual mining.
5) Mining near major fracture zones if any should be avoided to control ground water fluctuation in the adjacent agricultural lands.

6) Emission test of vehicles should be in tack to maintain minimum emission level of fuel gases.

7) Noise level should not exceed *80db* and the vehicles should use only permitted Air Horn while on road near residential areas.

8) Safety zones as prescribed by the Department of Geology and Mining from adjacent infrastructures should be strictly to adhere to.

9) Any other conditions as stipulated by the concerned authorities should be followed to protect the Environment and Ecology of the area.

2.0. EXECUTIVE SUMMARY

a. The applicant applied for a Rough Stone quarry lease in Government Land at Survey Number 263/1 (Part-3), Sivanganapuram Village, Nilakottai Taluk and Dindigul District.

b. Name of the Village Panchayat –Sivanganapuram

c. Name of the Panchayat Union – Nilakottai

d. Geological Resources is estimated as **746980m³**

e. The Total Minable Reserves – **152604m³** of rough stone, top soil **7191m³** up to a depth of **33m (32m rough stone, 1m top soil)**

f. **Production Schedule** is proposed an average production of **152604m³** of Rough Stone, top soil **7191m³** up to a depth of **33m (32m rough stone, 1m top soil)** for the period of (Five) **5 Years** only.

g. Total extent of the area –**1.62.00 Ha**

h. Proposed Lease Period –(Five) **5 years** only

i. Proposed Depth of mining – **33m.**

j. Method of mining / level of mechanization - Opencast, Semi-mechanized Mining with a bench height of 5.0m & width of 5.0m is proposed and involves shallow Jackhammer drilling, Slurry blasting is proposed for this quarrying operation.

k. Types of Machineries used in the quarry –Jack hammer 30-31mm dia, Tractor mounted compressor attached with Jack hammer.

l. No Trees will be uprooted due to this quarrying operation.

m. 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.

n. There is no Export of this quarrying Rough Stone.

o. Topo sketch covering 1km, radius around the proposed area with markings of Habitations, Water bodies like Streams, Rivers, Roads, Major structure like Bridges, Wells, Archeological, Historical importance, Places of worship is marked and enclosed as Plate No. IV & V.

p. The lease applied area is 1.62.00 Ha bounded and the coordinates are clearly marked in Plate no – 1I.

q. The diagram showing the Mining area, dimensions of the Pit, proposed depth of mining for the Manual Modified Mining Plan period are enclosed as Plate No –IV & VII.

r. The lease applied area is 10km away from the Inter State boundary, protected area under critically polluted area as identified by CPCB and notified Eco sensitive areas.

s. There are no wastages anticipated during this quarry operation, hence waste dump is not proposed in this lease applied area.

t. Around **16 Employees** are deploying in this quarrying operation.

O/o Assistant Director Dept of Geology and Mining Collectorate Dindigul 624 004

PART - A

3.0. GENERAL INFORMATION:

3.1. Name of the Applicant with Address.

Name : **Thiru. B.Selvam,**
S/o. Bose, 2/56, Main Road,
Venkadasthirikottai, Kombapatti,
Batlagundu, Dindigul District.

State : Tamil Nadu

3.2. Status of the Applicant (Individual / Company / Firm)

The applicant is an Individual.

3.3. Mineral which the Applicant intends to mine

Rough Stone only.

3.4. Precise area communication Letter details received from the competent authority of the government.

Precise area communication letter issued by Assistant Director, Department of Geology & Mining, Dindigul District vide **Rc.No.26/Mines/2024 dated 09.02.2024.**

3.5. Period of permission / lease to be granted

The applicant has applied permission for Five years. Assistant Director Department of Geology & Mining, Dindigul District consider grant for a lease period of (Five) **5 years** only.

3.6. Name and Address of the QP/Authorized person for preparing the Manual Mining Plan

Name : **GEO MINING & ECO SOLUTIONS**
Mr.N. Suresh, M.Sc., (Qualified Person)

Address : D.No. 257/2, Arthi Nager II, Emarald Garden, Narasothipatty, Salem-636004. TN.

Email id : sureshhydrogeology@gmail.com
Mobile: 9994289822.

Assistant Director Dept.of Geology and Mining Collectorate Dindigul - 624 004.
O/o

4.0. LOCATION:

Table No: 3

State	Tamil Nadu
District	Dindigul
Taluk	Nilakottai
Village	Sivanganapuram
S.F.No	263/1(Part-3)
Extent in (Ha)	1.62.00 Hectares

ROUTE MAP:

Dindigul 34 km Batlagundu 7km Annavati

2.5km

Quarry Site

4.1. Details of Existence of public road /railway line, if any nearby and approximate distance.

Table No: 4

S.No	Description	Place	Distance (Km)	Direction
1	Bus stop	Sivanganapuram	1.2	W
2	Post Office	Annavati	3.0	SW
3	Police Station	Batalagundu	6.5	NW
4	Fire service	Batalagundu	6.5	NW
5	Railway Station	Kodai Road	14.0	NE
6	Government Hospital	Batalagundu	6.0	NW
7	Government School	Sivanganapuram	1.2	W
8	Airport	Madurai	45.0	SE
9	Seaport	Thoothukudi	157.0	SE

Director Dept.of Geology and Mining Collectorate Dindigul - 624 004

FIG.1 GOOGLE EARTH IMAGE OF LEASE APPLIED AREA

Classification of the Area (Ryotwari / Poramboke /Patta/ others)

- It is a Government Land and non-agricultural land.

a. Ownership / Occupancy of the applied area (Surface rights)

- It is a Government Land Please refer Annexure-III

b. Toposheet No. with Latitude and Longitude

Topo Sheet No: 58 -F/16

Latitude & Longitude of the Quarry Lease Boundary Pillars

BOUNDARY GEO-CO ORDINATES		
Pillar No.	**LATITUDE**	**LONGITUDE**
1	10°07'18.97" N	77°47'45.69" E
2	10°07'20.60" N	77°47'46.79" E
3	10°07'23.83" N	77°47'52.88" E
4	10°07'16.06" N	77°47'49.49" E
5	10°07'17.71" N	77°47'47.36" E

5.0. GEOLOGY AND MINERAL RESERVES

5.1. Topography:

- The lease applied area undulated topography covered by massive Charnockite.
- The massive Charnockite formation is clearly visible from the outcrops exposed in to the surface. The area gentle sloping towards

Southwestern side of the area, the altitude of the area is above 249m above MSL.

- ❖ No major river is found nearby the lease applied area.
- ❖ Water Level is found at a depth of *60m to 65m* below Ground Level, 60m in Rainy seasons and 65m in summer seasons by monitoring nearby bore well.
- ❖ Temperature of the area is reported as 18°C to a maximum of 42°C during summer.
- ❖ Rainfall of this area is about 800mm to 900mm during the both NE & SW monsoons.

5.2. General Geology of the area (with plans):

- ❖ The area 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.
- ❖ The rock type noticed in the area for lease is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian minerals.
- ❖ The Charnockite is part of peninsular Gneisses, a high-grade metamorphic rock.
- ❖ The strike of the Charnockite formation is N30°W-S30°W with dipping towards NW 70°.

The General Geological succession of the area is given as under:

Age		Formation
Recent	-	Quaternary to recent formation (Gravel)
---------- Unconformity ----------		
Archaean	-	Charnockite
		Peninsular Gneiss complex

5.3. Details of Exploration already carried out if any:

- There is no exploration carried out in this applied quarry area.
- State Geology and Mining Department Government of Tamil Nadu has been carried out geological exploration and regional mapping study of the lease area.
- Geological Survey of India has carried out detailed mapping in Dindigul District.
- Besides the RQP and his Team members made a detailed geological study of the area and the massive Rough Stone formation is clearly inferred from the outcrops exposed in the area.

FIG.2 QUARRY SITE PHOTO

5.3. a. Estimation of Reserves (Geological Resources with geological sections on a scale of 1:1000)

- As far as Rough Stone (Charnockite) is concerned, the only practical method is the systematic geological mapping and delineation of Rough Stone within the field and careful evaluation of body lusters, physical properties, engineering properties, commercial aspects etc.,
- Totally 2 sections have been drawn, one Section drawn length wise as (X-Y) and One Section on width wise as (A-B) to cover maximum area considered for lease.

- ❖ The Topographical, Geological plan and sections demarcated the commercial, marketable Rough Stone (Charnockite) deposit has been prepared in Scale 1:1000 and Sections have been drawn with a scale of Horizontal 1:1000 and Vertical 1:500 respectively.
- ❖ Please refer Plate No. III, & VII as Rough Stone are terms of Cubic Meters (Volume) only and not for in terms of Tonnage calculations.

b) PREVIOUS MINING PLAN EXISTING PIT DIMENSION

EXISTING PIT DIMENSION:

PIT	Average Length(m)	Average Width(m)	Avg Depth(m)
I	86m	53m	12m

I. GEOLOGICAL RESOURCES:

The Geological Resources is estimated as **746980m³** of Rough Stone, up to a depth of **33m (32m rough stone, 1m Top Soil).**

Table No: 5

GEOLOGICAL RESERVES							
Section	**Bench**	**Length in (m)**	**Width in (m)**	**Depth in (m)**	**Volume in (m³)**	**Geological Reserves in m³ (100%)**	**Top Soil in m³**
XY-AB	I	169	72	1			12168
	II	169	35	2	11830	11830	
	III	169	72	5	60840	60840	
	IV	169	114	5	96330	96330	
	V	169	114	5	96330	96330	
	VI	169	114	5	96330	96330	
	VII	169	114	5	96330	96330	
	VIII	169	114	5	96330	96330	
	IX	169	114	5	96330	96330	
	X	169	114	5	96330	96330	
Grand Total=					**746980**	**746980**	**12168**

I. MINEABLE RESERVES:

The available Mineable Reserves are calculated by deducting the safety distance of 7.5m & 10m for the Patta land and Government land, from the lease applied area and bench loss as height 5.0m and width 5.0m.The available Mineable Reserves is computed as **152604m³** of Rough Stone, top soil **7191m³** at the rate of 100% recovery up to a depth of **33m (32m rough stone, 1m top soil).**

O/o Assistant Director Dept.of Geology & Mining Collectorate Dindigul - 624 004

Table No-7

MINEABLE RESERVES							
Section	**Bench**	**Length in (m)**	**Width in (m)**	**Depth in (m)**	**Volume in (m3)**	**Mineable Reserves in m3 (100%)**	**Top Soil in m3**
XY-AB	I	141	51	1			7191
	II	136	22	2	5984	5984	
	III	128	48	5	30720	30720	
	IV	115	74	5	42550	42550	
	V	102	63	5	32130	32130	
	VI	88	49	5	21560	21560	
	VII	74	35	5	12950	12950	
	VIII	61	22	5	6710	6710	
Grand Total=					**152604**	**152604**	**7191**

6.0. MINING

6.1. Method of Mining (Open cast / Underground)

Opencast method of semi mechanized mining with 5.0m vertical bench height and width 5.0 m of the bench is not less than bench height.

However, as far as the quarrying of Rough Stone is concerned, observance of the provisions of Regulation 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 the regulation 106 (2) (b) of MMR-1961, under Mine Act-1952.

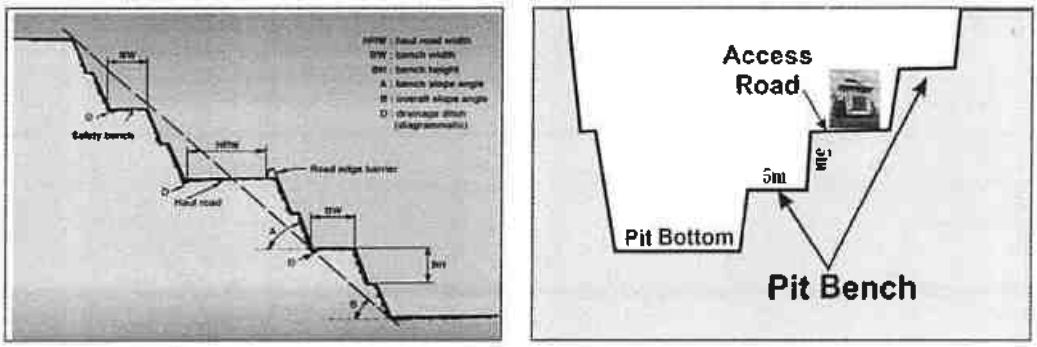

Figure 3. Shows Open pit Mining method

6.2. Mode of Working (Mechanized, Semi-mechanized, Manual)

- The Rough Stone is proposed to quarry 5.0m bench height and 5.0m bench width with conventional opencast semi-Mechanized method. The quarrying operation involves manual Jack hammer drilling, Slurry explosives blasting, loading and transportation of Rough Stone to the nearby crusher units, road formation filling purpose of low lying area for road project works of residential and industrial customers.
- 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.
- The splitting of rock mass of considerable volume from the parent rock mass by jack hammer drilling and blasting, hydraulic excavators are used for loading of Rough Stone from pithead to the needy crushers.
- The hydraulic excavators are attached with rock breakers for fragmentation to avoid secondary blasting.
- The primary boulders thus spitted are removed from the pits by excavators and further made to smaller sizes by rock breakers attached in excavators. It is a conventional opencast semi mechanized method of mining.

6.3. Proposed bench Height and Width

The quarrying of Rough Stone is proposed with the safely bench height of 5.0m and bench width of 5.0m.

6.4. Indicate the overburden/mineral production expected pit wise as detailed as below (Composite plan and section showing pit layout, dumps, disposal of waste if any etc.)

The excavated Rough Stone will be directly loaded into Tippers to the needy Customers site. The Composite Plan, Development Plan and section indicating pit layout, green belt development is shown in Plate No.V. & VII.

II. <u>YEARWISE PRODUCTION & DEVELOPMENT:</u>

The Year wise Recoverable Reserves are calculated by deducting the safety distance of 7.5m & 10m for the Patta land and government land, from the lease applied area and bench loss as height 5.0m and width 5.0m.

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Table No: 8

YEARWISE DEVELOPMENT AND PRODUCTION								
Year	**Section**	**Bench**	**Length in (m)**	**Width in (m)**	**Depth in (m)**	**Volume in (m3)**	**Recoverable Reserves in m3 (100%)**	**Top *Soil in m3**
I - YEAR	**XY-AB**	I	141	51	1			7191
		II	136	22	2	5984	5984	
		III	128	48	5	30720	30720	
		Total				**36704**	**36704**	**7191**
II-YEAR		IV	115	74	5	42550	42550	
		Total				**42550**	**42550**	
III-YEAR		V	102	63	5	32130	32130	
		Total				**32130**	**32130**	
IV-YEAR		VI	88	49	5	21560	21560	
		Total				**21560**	**21560**	
V-YEAR		VII	74	35	5	12950	12950	
		VIII	61	22	5	6710	6710	
		Total				**19660**	**19660**	
Grand Total=						**152604**	**152604**	**7191**

- The Rough Stone Production is proposed for (Five) 5 Years only.
- Recoverable Reserves are estimated **152604**of Rough Stone up to a depth of **33m** for the lease period of (Five) 5 Years only.

Production quantity per day

(1Load=6m³approx) (1Year=260 Working days)

Rough Stone quantity =152604m³/ 25434Loads

=25434/ 1300 days (5 years)

= **117m³** or **20 Lorry** Loads per day

The applicant ensures the total quantity of proposed production from the benches will not exceed during quarrying operation.

6.5. MACHINERIES TO BE USED

a. Mining

It is proposed to use the following machineries on rental basis for the development and production work in this quarrying operation,

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b. Loading

S.No	Type	Nos	Dia Hole mm	Size capacity	Make	Motive Power
1	Jack Hammer	3	32	1.1m to 6m	Atlas Copco	Compressed air
2	Compressor	3	-	400psi	Atlas Copco	Diesel Drive

Manual loading (considerable Rough Stone) accumulates the same will be loaded by Hired front end loader like JCB or Excavator of 0.90m^{3}bucket capacity (with Rock breaker attachment)

S.No	Type	Nos	Bucket capacity	Make	Motive Power
1	Excavator	2	0.90m^3	Tata Hitachi - 210	Diesel Drive

c. Transportation

Tippers/Trucks = 2Nos. 10 /20Tons capacity (from the quarry to destination (customer/other buyers)

S.No	Type	Nos	Capacity	Make	Motive Power
1	Tippers	4	10/20 Tons	Tata Tipper	Diesel Drive

IMAGES OF MACHINERIES

EXCAVATOR

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TATA TIPPER

JACK HAMMER

6.6. Energy

The Electricity for Mines office and Lights only at nights (working is restricted on day time only between 9 Am to 5 Pm). Diesel (HSD) will be used for quarrying machineries for the entire project life. Diesel will be brought from nearby diesel pumps. Lightings on the Night time the power will be taken from nearby electric poles after obtaining permission from concerned authorities.

1. Rough Stone:

The Excavator will consume	= 16 Liters / 1 hour
The Excavator will excavate	= 20m^3 of Rough Stone/Hour
Rough Stone quantity	= 152604/20 = 7630hours
Diesel consume	= 7630 hours x 16 liters
Total diesel consumption	= **122080** Liters of HSD will be utilized for this Rough Stone Quarry.

6.7. Disposal of Overburden/Waste

The overburden in the form of Top Soil, **7191 m³** will safely remove during the mining period. The quarried out of soil will be preserved within the lease applied area. Utilized for construction of bund in the part of quarry pit also spread out the quarried out top bench to facilitate the green belt development purpose.

6.8. Brief Note on Conceptual Mining Plan for the entire lease period

Conceptual Modified Mining Plan is prepared with an object of (Five) 5 Years of systematic development of bench lay outs, selection of ultimate pit limit, depth of quarrying, ultimate pit slope, selection of sites for construction of infrastructures etc.,

Ultimate pit size is designed based on certain practical factors such as the economical depth of mining, safety zones, permissible areas etc.

Ultimate Pit dimension is given as under

ULTIMATE PIT LIMIT			
Pit	**Length (m)**	**Average width(m)**	**Depth**
I	141m	94m	33m
TOTAL			**33m**

Afforestation has been proposed on all along the safety barrier by planting native species of Saplings. All the baseline information studies like Air Quality monitoring, Noise and Vibration monitoring, Water Analysis studies will be carried out every year as per the MOEF norms. It is proposed to engage any local institution to monitor the EIA and EMP studies during the course of quarrying operation after the grant of quarry lease.

7.0. BLASTING

Blasting Pattern:

The massive formation shall be broken into pieces of portable size by drilling and 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. Blasting parameters are as follows.

Drilling and blasting parameters are as follows

Diameter of the hole : 30-32 mm

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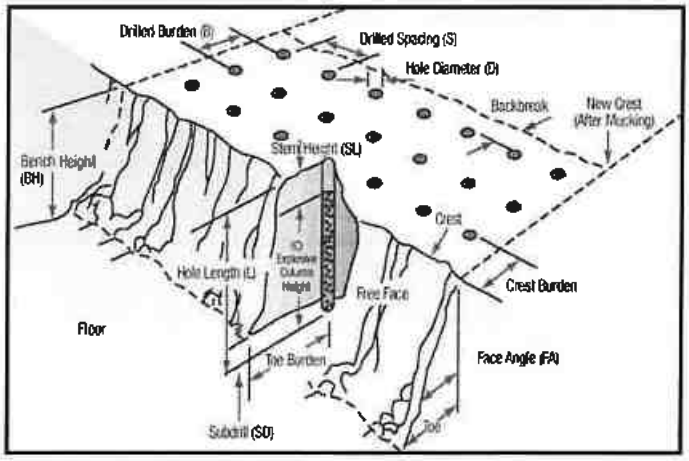
Spacing between holes	: 1.1m
Depth of each hole	: 1 to 1.5m
Burden for hole	: 1.0m
Inclination of hole	: 800 from the horizontal
Use of delay detonators	: 25 milli second
Detonating fuse	: Detonating cord Blasting
Design	: Staggered " V " Pattern



Types of Explosives

Small dia, 45 mm Slurry explosive 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.

Measures proposed to minimize ground vibration due to blasting

- Controlled blasting measures will be adopted for minimizing ground vibration and fly of rocks. Shallow depth drilling and smooth blasting is proposed to carry out with minimum usage of explosive mainly to give shattering effect in Rough Stone for easy excavation and control of fly rocks.
- The following steps shall be adopted to control ground vibration due to blasting. The minimum recommended delay time of 8ms was introduced to minimize ground vibration.
- In case of electronic detonators, which are inherently much more accurate delays (+/- 0.2 milliseconds delay) to minimizes the ground

vibration reduction in air, reduction over break, improved well fragmentation and better control of fly-rocks.

- Use of Ammonium nitrate, fuel oil mixture for shot holes may be avoided because which cause for high fly of rocks in view critical diameter problem. Only high strength explosives like slurry will be used in the form of cartridge.
- Storage of Explosives and safety measures to be taken while blasting.
- The Applicant is advised to engage an authorized explosive agency to carry out small amount of blasting and it will be supervised by the competent statutory Mining Mate /Foreman /Manager. The explosive agency should have the valid Blaster Certificate.
- He will blast holes in quarry site. After completion the blasting, the agency will take it out back the remaining quantity of explosives to the temporarily available the Magazine at the quarry site. The blasting time of the day is proposed to be 1 PM to 2.30 PM.
- First Aid Box will be keeping ready at all the time in Mines Office room. Necessary precautionary announcement will be carried out before the blasting operation.

8.0. MINE DRAINAGE

Depth of Water Level

- The ground Water Level is noticed at the depth of **60m to 65m** below Ground Level by monitoring nearby bore hole, during the climatic conditions, the fluctuations of water level is 60m in Rainy seasons and 65m in Summer seasons of this quarry area.
- The quarry operation is proposed up to a depth of **33m**. Hence the quarrying operation may not affect the ground water in any manner.
- It shall be ensured that quarrying shall not be carried out below ground water table under any circumstances.
- If ground water table occurs/intervenes within the permitted depth, then also the quarrying shall be stopped.

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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 from seepage shall be less than 300LPM and it will be pumped out periodically by a stand by diesel powered Centrifugal pump with 5HP Motor.
- The quality of water is potable and no contamination with any hazardous things.
- Hence, the water stored in quarrying pit will be pumped out the adjacent agricultural fields and further stored in old pit the water is used for Dust suppression/ Plantation purposes.

9.0. ECOLOGY AND BIODIVERSITY

The green belt in the lease area has been developed taking into consideration the availability of area as the efficiency of green belt in pollution control mainly depends on tree species, its width, distance from pollution sources, side of the habitat from working place and tree height. The proposed green belt should be designed to control PM10, gaseous pollutants, noise, surface run off and soil erosion etc., While considering the above aspects due care should be taken for selecting the suitable characteristics plant species such as fast growing, locally suitable plant species, resistant to specific pollutant and those which would maintain the regional ecological balance, soil and hydrological conditions.

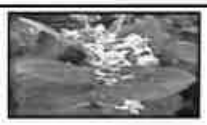
Image Showing Proposed Plants for afforestation

Flora as observed and identified in the field are covered by mostly Neem, Erukku, Panai trees, Palmira tree are found more on regional scale. The Applicant has developed trees like Neem, Pungam, Teak, Casuarina and Eucalyptus, regional trees etc., with Proper nursery garden and plantation on vacant land. The fauna species observed around the 500m radius of the project site is given in the table.

List of Flora observed around the quarry site (Flora Trees & Flora Shrubs)

Table No: 10

Flora - Trees			
S.No	**Tamil Name**	**Botanical Name**	**Photograph**
1	Neem tree	*Azadirachataindica*	
2	Panai tree	*Borassusflabellifer*	
3	MulluMaram	*Prosopisjuliflora*	
4	Punga Maram	*Millettia pinnata*	

Flora - Shrubs			
1	Korai	*Cyperus Pangorei*	
2	Avaram	*Senna articulate*	
3	Erukku	*Calotropis*	

4	Mookuthichedi	*Tridaxprocumbens*	
5	Musumusukkai	*Molothria*	

List of Fauna observed around the quarry site
(Fauna Mammals & Fauna Avian)Table No: 11

Fauna Mammals			
S.No	**Common Name**	**scientific name**	**Photograph**
1	Anil	*Funambulus Palmarum*	
2	Thavalai	*Cane toad*	
3	Keeri	*HerpestesEdwardsii*	
4	Muyal	*Oryctolaguscuniculus*	
Avian Fauna			
1	Kakam	*CorvusSplendens*	
2	Myna	*Acridotherestristis*	
3	Chittukuruvi	*SaxicoloidesFulicatus*	
4	Parunthu	*Haliastur Indus*	

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10.0. OTHER PERMANENT STRUCTURES

Habitations / Village (300m)

- *There are no inhabited sites within the radius of 300m from the boundary of lease area under Rule 36(1-A) (a) TNMMCR 1959.*
- The Nearest Village habitation is Sivanganapuram Village which is about 1.2 km on Western side of the Lease applied area.
- The applicant ensures the quarrying operation will be carried out without any hindrance to the habitants and adjoining land owners.

2. Power lines (HT/LT) (50m)

There are no Power lines (HT/LT) within 50m radius.

3. Water bodies (River, Pond, Lake, Odai, Channel etc.,) (50m)

There are no Water bodies (River, Pond, Lake, Odai, Channel etc. within 50m radius.

4. Archeological / Historical Monuments (500m)

There are no Archeological / Historical Monuments within a radius of 500m from the boundary of lease applied area.

5. Existence of public road / (SH, NH others), Railway line if any (50m)

- There is an existing road from the area leads Kulipatti Village on Western side of the lease applied area.
- NH-183 Dindigul to Theni is located which is about 6.6km on the Northwestern side of the lease applied area.
- SH-154 Batlagundu to Veerapandi road is located which is about 2.5km on the Northwestern side of the lease applied area.
- The Nearest Railway line is Dindigul to Madurai line which is about 13.5 km on the Northeastern side of the lease applied area.

6. Places of Worship (Temples, Church, Mosque etc.,) (500m)

There is no Places of Worship within a radius of 500m.

7. Reserved Forest / Forest / Wild Life Sanctuary etc., (10Km)

There is no Reserved Forest and Wild Life Sanctuary found around 1km radius,

12. Any Other Structures: Nil

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11.0. EMPLOYMENT POTENTIAL & WELFARE MEASURES:

11.1. Employment Potential (Management & Supervisory personal)

The following man powers are proposed carry out the day to day quarrying activities at the proposed production and also comply with the statutory provision of the MMR 1961.

Management and Supervisor:

1. Second Class Mines Manager (with valid statutory qualification): 1 No
2. Mines Foreman (with valid statutory qualification) : 1 No
3. Mines Mate (with valid statutory qualification) : 1 No
4. Blaster : 1 No

Laborers, Skilled, Semi-Skilled & Un-skilled

a. Skilled : 4Nos
b. Semi-skilled (Driver) : 4Nos
c. Unskilled (Musdoor/Labours, Cleaners & Watch man) : 4Nos

Total : 16Nos

Allowing 10% absenteeism, the no. of men of roll will be around 14Nos.

It is been ensured that, ***Child Labours under 18 Years of age will not be engaged for any quarrying operation***. Necessary Life Insurance policies will be taken by the applicant to all the employees up to the end of the lease period.

11.2. Welfare Measures

a. Drinking Water

- Drinking water is available from the nearby agriculture land owners or from water vendors in Kullipatti Village which is about 1.2 km on Southwestern side of the lease applied area.

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, 1955 separately for males and females. Washing facilities shall also be arranged as per Rule (36) of Mines Rules, 1955 and it will be maintained periodically.

c. First Aid Facility

- First Aid station as per provisions under Rule (44) of the Mines Rules, 1955 will be provided and First aid kits kept in mines office room, the

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qualified first aid personnel should be appointed or nominated to attend emergency first aid treatment.

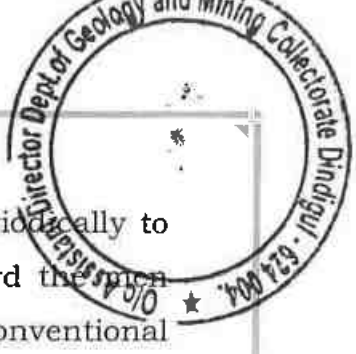
- In case of eventuality, the victim will be given first aid immediately at the site and the injured person will be taken to the nearest hospital at 6.0km on Northwestern side of Batlagundu. The competent and statutory of Foreman/Mate/Permit Manager will be in charge of the First aid.

d. Labour Health

- Periodic medical examination has to be arranged for occupational health once in a year in addition to attending medical treatment of occupational injuries under the Rule 45(A), Mines Rules, 1955.

e. Precautionary safety measures to the Laborers

- *Safety measures will be implemented to prevent access in the excavation area of a unauthorized persons as per Mine Act 1952 and MMR 1961.*
- *Safety measures will be implemented as per Mines Act 1952, MMR 1961 AND Mines Rules 1955.*
- *Provisions of MMR 1961 shall be strictly followed and all mine roads shall be wider than the height of bench or equal to the height of the bench and have a gradient of not more than 1 in 16.*
- *The bench height will be 5.0m.*
- *Protective equipment like dust mask, ear-plugs/muffs,* sand respirator (avoid silica dusts forms-Silicosis), reflector jackets, safety thick shoes, etc., as Personnel Productive Equipment (PPE) as per the circulars and amendments made for Mine Labour under the guidance of DGMS.
- *Notice giving warning to prevent inadvertent entry of persons shall be displayed at all conspicuous places and in particular near mine entries.*
- *It is manual mining quarry; no explosive is proposed.*
- *Security guards will be provided.*
- Periodically medical checkup will be conducted for all workers for any mine health problems.
- Proper training and induction will be given by qualified and experienced safety officer to all employees about the safe and systematic quarrying operation.



- ❖ The drillers and workers are sent for vocational training periodically to carry out the quarrying operations scientifically to safeguard the men machinery and mineral and to create awareness of conventional opencast quarrying operation.
- ❖ In the event of temporary closer, approaches will be fenced off and notice board displayed.

f. Disaster Management and Risk Assessment

This should deal with action plan for risk accident like landslides. Subsidence, flood, fire, seismic activities, tailing dam failure etc. and emergency plan proposed for quick excavation. Ameliorative measures to be taken etc. The capability of applicant to meet such eventualities and the assistance to be required from the local authorities should be described.

- It is manual mining quarry; no explosive is proposed.
- The complete mining operation will be carried out under the Management and control of experienced Manager having Certificate of Competency to manage the mine granted by DGMS.
- All the provisions of Mines Act 1952, MMR 1961 and Mines Rules 1955, TNMCR 1959 and other laws applicable to mine will be strictly complied with.
- During heavy rainfall the mining activities will be suspended.
- Competent Persons will be provided FIRST AID kits which they will always carry.
- The Greenbelt Development will be formed in around the quarried out top benches and panchayat roads of the lease applied area.

g. care and Maintenance during Temporary Discontinuance.

In case of any temporary discontinuance due to court order or due to statutory requirement or any other unforeseen circumstance following measures shall be taken for care, maintenance and monitoring of conditions.

- Notice of temporary discontinuance of work in mine shall be given to the DGMS as per MMR 1961.
- All the mining machinery shall be shifted to the safe place.
- Entrance to the mine or part of the mine, to be discontinued shall be fenced off. Fencing shall be as per the circular 11/1959 from DGMS.

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O/o

PART - B

12.0. ENVIRONMENTAL MANAGEMENT

12.1. Existing Land Use Pattern

The area is Undulated topography. The applied area is dry barren land and devoid of agriculture and habitations and the area is not used for the specific vegetation. The surrounding area is practiced by the seasonal cultivation.

The existing Land use pattern is given below

Table No-12

S. No.	Land Use	Present Area (Hect)	Area in use during the quarrying period (Hect)
1.	Quarrying Pit	0.41.40	1.35.00
2.	Infrastructure	NIL	0.02.00
3.	Roads	0.01.00	0.02.00
4.	Green Belt	0.01.00	0.23.00
5.	Unutilized	1.18.60	NIL
	Total	**1.62.00 Ha**	**1.62.0 Ha**

12.2. Water Regime

Water Level in this area is noticed at a depth of 60m to 65m below Ground Level, observed nearby bore well and the quarrying of Rough Stone is proposed up to a depth of **33m**. Hence, it will not affect the quality of ground water table in this area.

12.3. Flora and Fauna

The Thorny bushes are placed in quarry area and Neem, Pungam, Panai trees are noticed around the quarry area. Except acacia bushes, no other valuable trees are noticed in the lease applied area. Further, neither flora of botanical interest nor fauna of zoological interest is noticed in this area.

12.4. Climatic conditions

The Dindigul lies on 140m above sea level. The climate here is tropical. The summers are much rainier than the winters in Dindigul. This location is classified as Aw by Köppen and Geiger. In Dindigul, the average annual temperature is 28.8°C /83.9°F. In a year, the rainfall is 840 mm/ 33.1 inch. Dindigul Climate Graph // Weather by Month

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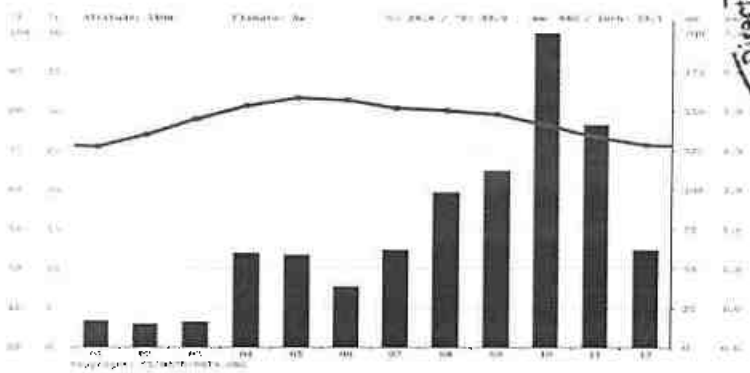
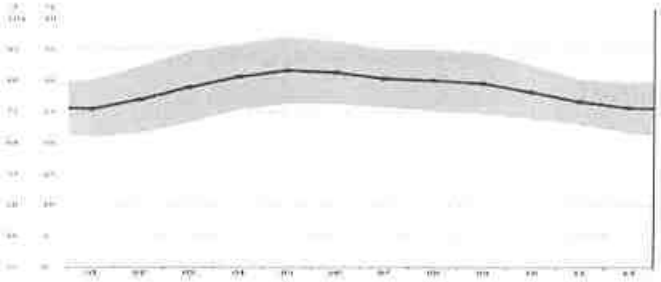


The driest month is February, with 14 mm | 0.6 inch of rain. The greatest amount of precipitation occurs in October, with an average of 191 mm | 7.5 inch.

Temperature: Dindigul Average Temperature



May is the warmest month of the year. The temperature in May averages 31.7 °C/89.1°F. The lowest average temperatures in the year occur in January, when it is around 25.5°C /77.9°F.

Dindigul Weather by Month // Weather Averages

	Avg. Temp (°C)	Min. Temp (°C)	Max. Temp (°C)	Precipitation/ Rainfall (m)	Humidity (%)	Rainy Days	Avg. Sun Hours
January	24 °C	19.8 °C	29.1 °C	25	67%	4	7.4
February	26 °C	20.8 °C	32 °C	26	57%	3	8.7
March	28.7 °C	22.9 °C	35.1 °C	37	51%	4	9.7
April	30.4°C	25.1 °C	36.7 °C	74	56%	8	10.2
May	30.1 °C	25.3 °C	36 °C	125	60%	14	10.6
June	28.5 °C	24.5 °C	33.7 °C	145	65%	15	10.1
July	28.1 °C	24.2 °C	33 °C	140	63%	15	10.2
August	27.8 °C	23.8 °C	32.8 °C	154	65%	15	10.0
September	27.7 °C	23.4 °C	32.9 °C	187	66%	15	9.6
October	26.3 °C	22.9 °C	30.8 °C	259	75%	16	8.3
November	24.7 °C	21.7 °C	28.4 °C	214	78%	14	6.6
December	23.8 °C	20.3 °C	27.8 °C	94	74%	9	6.3

12.5. Human Settlement

The nearest habitations with the population, approx. distance within 5.0Km radius from the proposed quarry site are as given under,

Table No-13

S. No	Name of the Village	Approximate distance in km	Direction from lease applied area	Population
1.	Kulipatti	1.3km	NW	650
2.	Kombaipatti	1.6km	N	1100
3.	Kullichettipatti	1.8km	SE	900
4.	Annavadi	2.7km	SW	1800

12.6. Plan for Air, Dust Suppression

The air quality will be affected by the Suspended Particulate Matter (SPM) generated by the loading and unloading during the quarrying operation. The following mitigation measures will be carried out, Mist water spraying will be carried out by means of water sprinklers to suppress dust emission in the Haul roads. The native species of Neem, Pungam, Panai etc., will be planted along the lease boundary and Safety buffer zone. The quarried-out materials will be fully covered by the Tarpaulin during transportation to avoid the spillage of materials. The Air quality will be monitored periodically as per the norms and mitigate measures carried out to prevent dust and air propagation in to the air Operators, those exposed directly to such conditions will be provide such as (PPE) Personnel Protective Equipment's like Dust mask, Ear plug, Helmet, Gloze etc., as per the Mines Act -1952.

The estimated budget for dust suppression would be around **Rs.4,80,000/-** for the period of 5 Years only.

Image of Dust Suppression Sprinkling Water Tanker

12.7. Plan for Noise Control

- The quarrying of Rough Stone will be carried out by manual mining. Hence the ground vibration and noise pollution will be very minimum

and restricted within the quarry workings. However, periodical noise level monitoring and other mitigation measures will be carried out to reduce the noise level and vibration in and around the quarry site.

- ❖ Nowhere the noise level should exceed the permissible limit of 80db during the quarry working hours.
- ❖ The drivers will be strictly instructed to move the vehicle during the transportation not exceeding 30km per Hour, Sentries with Red Flag & whistle will be posted in village junction and regulate traffic.
- ❖ The estimated budget for Noise level monitoring would be around **Rs.20, 000/-** for the period of 5 Years only.

12.8. Environmental Impact Assessment Statement Describing Impact on mining on the next Five years

- ❖ The Modified Mining Plan with **1.62.00 Ha** is proposed for a small production of Rough Stone. Such limited mining activity is not likely to cause any impact adversely on environment as far as pollution of air, Water and noise is concerned, anyhow environmental impact studies will be conducted as per EIA notification issued by MOEF. It is B2 Category of mine.
- ❖ The estimated Cost would be around **Rs. 3,70,000/-** for a period of 5 Years only.

12.9. Proposal for Waste Management

There are no wastes anticipated during this Rough Stone quarry operation. The quarried-out materials 100% will be utilized.

12.10. Proposal of Reclamation of Land affected during mining activities and at the end of mining (refilling/fencing etc.)

The proposed depth of mining is only **33m** has been envisaged as workable depth for Safe & Economic mining during the lease period. Hence, after quarry reaches Ultimate Pit Limit (for this lease period) of **33m**, *S1 type Fencing* will be constructed around the quarried pits to prevent inherent entry of the public and cattle.

There is no proposal for refilling and rehabilitation. The Barbed wire fencing cost would be around **Rs.1,50,000/-**

12.11. Program for Afforestation:

The 7.5m and 10m safety distance along the lease boundary has been identified to be utilized for Afforestation in a phased manner as described below

Table – 14

Year	No. of Saplings proposed to be planted	Survival %	Area to be covered Sq.m	Name of the species	No. of Saplings expected to be grown
I	100	80%	460	Neem, Pungam etc.,	80
II	100	80%	460	Neem, Pungam etc.,	80
III	100	80%	460	Neem, Pungam etc.,	80
IV	100	80%	460	Neem, Pungam etc.,	80
V	100	80%	460	Neem, Pungam etc.,	80

- Nearly 2300 Sq.m area is proposed to use under Afforestation by planting 100Nos of Neem, Pungam Saplings etc., every year in the spacing interval of (5m X 5m) with an anticipated survival rate of 80%.
- Appropriate native species of Neem, Pungan, Teak and Casuarinas Saplings will be planted approach roads, service roads, nearby villages, village roads, government school etc.,
- Saplings of local plants of regional tress will be planted as per the consultation of the local Forest Department.
- The Quarry Land use, Layout and Afforestation Plan are showing in Plate No. V.

Director Dept. of Geology and Mining Collectorate Dindigul - 624 004. O/o Assistant

12.12. Proposed Financial Estimate / Budget for (EMP) Environment Management

Table - 14

S.No	Monitory and Analysis Description	Rate per location	No. of location	Total Charges for monitoring		
				6 months	Per Year	5 Years
1	Ambient Air quality monitoring	5000	4	20000	40000	2,00,000
2	Water sampling and analysis	10000	1	10000	20000	1,00,000
3	Noise level monitoring	500	4	2000	4000	20,000
4	Ground vibration monitoring	2500	2	5000	10000	50,000
Total EMP Cost				**37000**	**74000**	***3,70,000***

The Environment Monitoring EMP Studies Cost would be around **Rs. 3,70,000/-** for a period of 5 Years only.

I. Project Cost & Investment:

1) Land cost

It is Government Land, Tender cost **Rs. 80, 000,00/**

2) Refilling/ Fencing

There is no proposal for Refilling, after the excavation of Rough Stone the quarried-out land will be fenced with barbed wire fencing the cost would be around **Rs.1,50,000/-**

3) Laborers shed

Labours are proposed for quarrying Rough Stone. The machine Operators and workers are from nearby local villages; hence no cost is involved. Rest shelter will be constructed as semi-permanent structure at the cost of **Rs.1,50,000/-**

4) Sanitary facility

Sanitary facility will be constructed as semi-permanent structure, the cost will be around **Rs.1,50,000/-**

II. Machinery to be used:

The Machineries like Excavator 0f 0.9m³ bucket capacity attached with Rock Breaker are proposed to deploy for quarrying operation and Tippers/Trucks of 10/2 Tons capacity will be used for the quarrying transportation for hired basis, the cost will be around Rs.**10,00,000/-**

I. <u>Fixed Asset Cost: -</u>

1. Tender cost	= Rs.80,000,00
2. Refilling/Fencing cost	= Rs. 1,50,000/-
3. Rest shelter	= Rs. 1,50,000/-
4. Sanitary Facility	=Rs. 1,50,000/-
II. <u>Machinery Cost: -</u>	=Rs. 10,00,000/-
Total Project Cost	**=Rs. 94,50,000/-**

III. <u>Expenditure:</u>

1) Drinking Water facility and other utilities for the labourers

16 Labours were proposed to work in the quarry, drinking water will be arranged from the nearby water Vendors, the cost will be around **Rs.1,60,000/-**

2) Sanitary arrangement

Sanitary maintenance at the cost of Rs.1500/- month the cost will be around **Rs.90, 000/-** for a period of (Five) 5 Years.

3) Safety kits

Rs.1,00,000 will be spent for the safety kits such as Helmet, Mine Goggles, Ear plugs, Ear muff, Dust Mask, Reflector jackets and safety Shoes.

4) Water sprinkling (if necessary)

Rs.8,000/- month will be spent for sprinkling the water on haul roads for Dust suppression; the cost will be around **Rs.4,80,000/-** for a period of (Five) 5 Years.

5) Afforestation etc.,

Afforestation is proposed within safety zones of the lease applied area and plantations will be carried out on the nearby villages and village roads, Government School after consultation with the Panchayat authorities. The cost estimate is around **Rs.60,000/-**

Expenditure :

1. Drinking water	=Rs.	1,60,000/-
2. Sanitary Arrangements	=Rs.	90,000/-
3. Safety kits	=Rs.	1,00,000/-
4. Water Sprinkling	=Rs.	4,80,000/-
5. Afforestation cost	=Rs.	60,000/-

Environment Monitoring / 5 Years :

1) Air Quality Sampling	= Rs.	2,00,000/-
2) Water Quality Sampling	=Rs.	1,00,000/-
3) Noise Level Monitoring	=Rs.	20,000/-
4) Ground vibration test	=Rs.	50,000/-

EMP Cost Total ***=Rs. 11,70,000/-***

(Expenditure Including EMP Studies)

Total Project Cost **=Rs.94,50,000/-**

EMP Cost **=Rs.11,70,000/-**

12.13 Corporate Social Responsibility (CSR):

- The Applicant shall distribute Note books, Stationary items to nearby Government Primary School and to conduct the medical camp, Environment awareness program, etc., to nearby villages after consultation with local panchayat authorities.
- The Applicant shall ensure that a minimum of 2.5% of the Total profit for the entire lease period will be utilized as CSR Activities.
- *District Mineral Fund @10% of the Royalty shall be given to the Dept. of Geology and Mining.*

13.0. MINE CLOSURE PLAN

13.1. Steps proposed for phased restoration, reclamation of already mined out area.

- This conventional Systematic, Scientific and Eco- Friendly quarrying operation for a depth of **33m** not required any Backfill, Reclamation and Rehabilitation, the quarried-out lands will be used for Water storage/ Recharge purpose.
- The mined-out area will be fenced on top of open cast working with S1 Fencing to arrest the entry of cattle and public in to the quarry site.

13.2. Measures to be under taken on mine closure as per Act & Rules.

Measure will be taken as per Act & Rules. The quarried pit will be fenced by using Barbed wire fencing to prevent inherent entry of public and cattle.

13.3. Mitigation measures to be undertaken for safety and restoration/ reclamation of the already mined out area.

Air Quality:

- (Air quality will be degrade due to mining operation and transportation)
- It is manual mining quarry; no explosive is proposed.
- Mist Water spraying on haul roads is proposed to prevent the dust propagation into the air.

Noise and Vibration:

- (The noise will be formed due to the loading and movement of Vehicles, Machineries)
- The applicant has proposed to plant native species of Neem, saplings all along safety area to prevent Noise besides wet drilling will be practiced to prevent dust and spillage.
- All the Vehicles, Machineries will be maintained in good conditions as per RTO and TNPCB Norms to prevent Noise, Smoke and Vibration to maintain Noise levels below 80 dB(decibel).

Water Regime:

- The quarrying operation has proposed up to a maximum depth of **33m** is well above the ground water table (summer 65m and Rainy

seasons 60m) for a period of 5 Years only. Hence the ground water table will not affect in any manner.

- The seepage and rain water stored in quarrying pit will be drained out by 5 H.P motor pumps and will be discharged through filter media to boundary barrier for afforestation and excess water will be sprayed on haul roads to prevent dust propagation in to the atmosphere.
- The Rough Stone quarry will not produce any harmful toxic effluence in the form of Solid, Liquid or Gas.

Human Health and Safety:

- All the labors are provided with Safety Equipment's like safety Helmet, Goggles, Ear muff, Ear Plug, Safety Jackets, Hand gloves, Thick Shoes etc., at applicant cost, as per the specifications of the Director of Mines Safety.
- The competent qualified person Foreman/Permit Mines Manager will provide First Aid will take care of small and minor injuries. If any accident happens, the Victim will be taken to the nearby hospital by the own vehicle which is always kept in the mine's office.

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14.0. ANY OTHER DETAILS INTEND TO FURNISH BY THE APPLICANT

i. This Modified Mining Plan with **1.62.00 Ha** for Rough stone (Charnockite) quarry is prepared under amended Rules 8(1) and Tamil Nadu Minor Mineral Concession Rules 1959.

ii. The measures will be taken as per Mines Act & Mine Rules and Regulations and orders made there under shall be complied with, so that the safety of mine, machinery and mine workers will be protected.

iii. It is expected that the mining will be done skillful, systematically, scientifically, and Eco-friendly quarrying operation.

iv. There is no deep hole drilling and no blasting of this lease area.

v. The Applicant will endeavor every attempt to quarry the Rough Stone economically without any wastage and to improve the environment and ecology.

vi. Any violation pointed out by the inspecting authorities shall be rectified as per the guidelines of the Department.

Prepared by

Signature of Qualified Person

N.SURESH, M.Sc.,
Qualified Person

Place : Salem
Date : 01-02-25

This Mining is approved based on guidelines & instructions issued in the CGM, Letter No : 3888/LC/2012 dated 19-11-2012 and incorporation of the particulars specified in the letter Roc.No 26/2025/Quarries Dated 10/2/2025 of the Assistant Director of Geology and Mining, Dindigul and subject to further Fulfillment of the conditions laid down under rule 41,42 of Tamil Nadu Miner Mineral Concession Rules 1959

Assistant Director of Geology & Mining
Dindigul

ந.க.எண். 26/2024/கனிமம்
நாள்: .02.2024

புவியியல் மற்றும் சுரங்கத்துறை,
மாவட்ட அலுவலகம்,
திண்டுக்கல்.

Geology and Mining Collectorate Dindigul - 624 004

குறிப்பாணை

பொருள் கனிமங்களும் குவாரிகளும் - சிறுகனிமம் - சாதாரண வகை கற்கள் - திண்டுக்கல் மாவட்டம் - நிலக்கோட்டை வட்டம் சிவஞானபுரம் கிராமம் - புல எண்.263/1(பகுதி-3) 1.62.00 ஹெக்டேர் பரப்பில் டெண்டர் / ஏலம் முறையில் குத்தகை வழங்குவது - அதிகபட்ச டெண்டர் தொகை கோரிய திரு.போ.செல்வம், த/பெ.போஸ் என்பவரின் பெயரில் ஏலம் உறுதி செய்யப்பட்டது - ஏற்பளிக்கப்பட்ட சுரங்கத் திட்டம் மற்றும் சுற்றுச்சூழல் ஆணைய இசைவு பெற்று சமர்ப்பிக்கக் கோருதல் - தொடர்பாக.

பார்வை:
1. திண்டுக்கல் மாவட்ட அரசிதழ் சிறப்பு வெளியிடு எண்: 20 நாள் 15.11.2023.
2. திண்டுக்கல் மாவட்ட அரசிதழ் சிறப்பு வெளியிடு எண்: 26 நாள் 19.12.2023
3. திரு.போ.செல்வம் என்பவரது டெண்டர் விண்ணப்பம் நாள்:12.12.2023
4. உதவி இயக்குநர் புவியியல் மற்றும் சுரங்கத்துறை, வருவாய் கோட்டாட்சியர் திண்டுக்கல் அவர்களது ஏல நடவடிக்கை அறிக்கை நாள்-11.01.2023
5. திரு.போ.செல்வம் என்பவரின் கடித நாள்: 25.01.2023
6. தொடர்புடைய ஆவணங்கள்.

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1. திண்டுக்கல் மாவட்டத்தில் அரசு புறம்போக்கு நிலங்களில் உள்ள சாதாரண கற்களை வெட்டியெடுத்துச் செல்ல உரிமம் வழங்க ஏதுவாக பார்வையில் கண்ட திண்டுக்கல் மாவட்ட அரசிதழ் சிறப்பு வெளியீடுகளின் படி 12.12.2023-ம் நாள் பிற்பகல் 05.00 மணிக்குள் மூடி முத்திரை இடப்பட்ட டெண்டர் மனுக்களை அளிக்க இறுதி நாளாக அறிவித்து, 11.01.2024 அன்று பொது ஏலம் நடத்தப்பட்டு டெண்டர் மனுக்கள் ஏலத்தில் கலந்து கொண்டவர்கள் முன்னிலையில் திறக்கப்பட்டன.

2. மேற்கண்ட அரசிதழில் விளம்பரம் செய்யப்பட்டிருந்த குவாரிப்பட்டியலில் வரிசை எண்.9, திண்டுக்கல் மாவட்டம், நிலக்கோட்டை வட்டம், சிவஞானபுரம் கிராமம், புல எண்.263/1(பகுதி-3) 1.62.00 ஹெக்டேர் பரப்பில் டெண்டர் / ஏலம் முறையில் குத்தகை வழங்குவது குறித்தும் கற்குவாரிக்கு டெண்டர் / பொது ஏலத்தில் கலந்து கொண்டவர்களில் திரு.போ.செல்வம், த/பெ.போஸ் என்பவரின் டெண்டர் தொகையாக கோரியிருந்த ரூ.80,000,00/- மாவட்ட ஆட்சித்தலைவர் அவர்களால் நிர்ணயம் செய்யப்பட்டிருந்த ஏலத்தொகை ரூ.52,30,000 விட அதிகமாக இருந்ததால் ஏலத்தொகை

முழுவதையும் செலுத்த கேட்டுக்கொள்ளப்பட்டது. மேற்கண்ட ஏலதாரர் செலுத்த குத்தகை தொகையையும் செலுத்தியுள்ளார்.

3. எனவே, டெண்டர்தாரர் குத்தகை தொகை முழுவதும் செலுத்திவிட்டபடியால், மேற்படி கற்குவாரி ஏலமானது விதிகளின்படி உயர்ந்தபட்ச ஏலம் / டெண்டர் கோரிய என்பவருக்கு உறுதி செய்யப்படுகிறது. மேலும், மேற்படி திரு.போ.செல்வம், த/பெ.போஸ் என்பவரின் நிலக்கோட்டை வட்டம், சிவஞானபுரம் கிராமம், புல எண்.263/1(பகுதி-3) 1.62.00 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 சமர்பிக்கவும், 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:

a. 1959ம் வருடத்திய தமிழ்நாடு சிறு கனிம சலுகை விதிகள், அட்டவணை-II-ல் கண்டுள்ளபடி குவாரி செய்யப்படும் கனிமங்களுக்குரிய சீனியரேஜ் தொகை அவ்வப்போது செலுத்தி கனிமம் கொண்டு செல்லப்பட வேண்டும்.

b. அருகிலுள்ள பட்டாதாரர்களுக்கு எவ்வித இடையூரும் ஏற்படாத வண்ணம் குவாரிப் பணி மேற்கொள்ள வேண்டும்.

c. விதிகளின் படி ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினை உரிய காலத்திற்குள் சமர்பிக்க வேண்டும்.

d. குவாரி உரிமம் வழங்க உள்ள பகுதிக்கு சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் முன் அனுமதி பெற்று சமர்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும்.

இணைப்பு: குத்தகை உரிமம் வழங்க
பரிந்துரைக்கப்பட்ட புல வரைபடம்.

9/4/2024
மாவட்ட ஆட்சித்தலைவர்,
திண்டுக்கல்.

பெறுநர்:
திரு.போ.செல்வம்,
த/பெ.S.போஸ்,
வேங்கிடஷ் திரி கோட்டை,
கோம்பைப்பட்டி கிராமம்,
நிலக்கோட்டை வட்டம்,
திண்டுக்கல்.

1/4

நகல்: 1. ஆணையர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை

© தமிழ்நாடு அரசு 2023

பதிவெண்: டி.எஸ்/டி.டி.எல்.10.

Deputy Director Dept.of Geology and Mining Collectorate Dindigul - 624 001

திண்டுக்கல் மாவட்ட அரசிதழ்

சிறப்பு வெளியீடு

ஆணையின்படி வெளியிடப்பட்டது

திண்டுக்கல், நவம்பர் 15, 2023
ஐப்பசி 29, சோபகிருது, திருவள்ளுவர் ஆண்டு- 2054

[எண் 20

மாவட்ட ஆட்சியர் அறிவிக்கை

(ந.க.எண்:192/கனிமம்/2023, நாள்:15.11.2023)

கல்குவாரிகள் ஏல அறிவிப்பு

திண்டுக்கல் மாவட்டத்தில் உள்ள அரசு புறம்போக்கு நிலங்களில் தேர்வு செய்யப்பட்டுள்ள கல்குவாரிகளிலிருந்து கட்டுமான பணிக்கு பயன்படும் உடைகல், ஜல்லி, கரணை கல், கட்டுக்கல், வேலிக்கல் உடைத்து எடுத்துக்கொள்ள மூடி முத்திரையிடப்பட்ட மறைமுக டெண்டருடன் இணைந்த திறந்த முறை பொது ஏலம் மூலம் குவாரி குத்தகை வழங்குவது தொடர்பான அறிவிக்கை.

தமிழ்நாடு சிறுவகைக் கனிமச் சலுகை விதிகள் 1959 விதி எண் 8 உள்விதி (1) (அ)-ன்படி இந்த அறிவிப்புடன் இணைக்கப்பட்டுள்ள அட்டவணையில் கண்டுள்ள அரசு புறம்போக்கு நிலங்களில் அமைந்துள்ள சாதாரண கற்குவாரிகளில் இருந்து கட்டிடம் மற்றும் சாலை அமைக்க பயன்படும் சாதாராண பொது உபயோக சிறுவகை கனிமங்கள், அதாவது சரளை, சக்கை, கல்தூண், ஜல்லி, முண்டுக்கல், கட்டுக்கல் மட்டும் வெட்டிஎடுத்துச் செல்ல உரிமம் வழங்க ஐந்தாண்டு மற்றும் பத்தாண்டு காலத்திற்கு குத்தகை பெற, மூடி முத்திரையிடப்பட்ட மறைமுக டெண்டருடன் இணைந்த திறந்த முறை ஏலம் மூலம் குவாரி குத்தகை கோரும் டெண்டர் மனுக்கள் திண்டுக்கல் மாவட்ட ஆட்சியரால் 12.12.2023 மாலை 5.00 மணி வரையிலும் டெண்டர் விண்ணப்பங்கள் பெறப்படும்.

திறந்த முறை ஏலம் மற்றும் மறைமுக டெண்டர் விண்ணப்பங்கள் திறப்பது ஆகிய நடைமுறைகள், திண்டுக்கல் மாவட்ட ஆட்சியர் அலுவலகத்திலுள்ள கூட்ட அரங்கத்தில் மாவட்ட ஆட்சித்தலைவரால் அல்லது அவரால் அங்கீகரிக்கப்பட்ட அலுவலரால் 13.12.2023 அன்று காலை 10.30 மணிக்கு தொடங்கி பட்டியலில் கண்டுள்ள வரிசைப்படி தொடர்ந்து நடத்தப்படும்.

நேரடியாக பொது ஏலத்தில் கலந்துகொள்ள விரும்புபவர்கள் பகுதி-I-ல் கண்ட நிபந்தனை-3-ல் குறிப்பிடப்பட்டவாறு மனு மற்றும் ஆவணங்களை அசல் மற்றும் இரண்டு நகல்களை 13.12.2023 அன்று காலை 10.30 மணி முதல் பகுதி - I இன் நிபந்தனை 4-ல் குறிப்பிடப்பட்ட அலுவலரிடம் ஏலம் நடைபெறுவதற்கு முன்னதாக ஒப்படைத்து உரிய படிவத்தில் ஒப்புதல் கடிதம் பெற்றுக்கொள்ள வேண்டும்.

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பகுதி - I மனு செய்வதற்கான நிபந்தனைகள்

1. இந்த அறிவிக்கை தொடர்பாக குத்தகைக் கோரும் டெண்டர் மனுக்கள் தமிழ்நாடு சிறுவகை கனிம சலுகை விதிகள் 1959-ல் பின்னிணைப்பு IV-ல் கண்டுள்ள படிவத்தில் அசல் மற்றும் இரண்டு நகலுடன் கொடுக்கப்பட வேண்டும். அதன் மாதிரி படிவம் இவ்வறிக்கையின் கடைசியில் இணைக்கப்பட்டுள்ளது. உரிய படிவத்தில் இல்லாத விண்ணப்பங்கள் நிராகரிக்கப்படும்.

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

3. டெண்டர் மனுவுடன் கீழ்கண்ட சான்றிதழ்கள் மற்றும் ஆவணங்கள் அசல் மற்றும் இரண்டு நகல்கள் மனுவுடன் இணைத்து கொடுக்கப்பட வேண்டும்.

அ. திரும்ப பெற இயலாத விண்ணப்ப படிவ கட்டணமாக ரூ.1500/-யை அரசு கருவூலகத்தில் செலுத்தி மனுவுடன் இணைக்கப்பட வேண்டும் அல்லது ஏதேனும் ஒரு தேசியமயமாக்கப்பட்ட வங்கியில், வங்கி வரைவோலை "மாவட்ட ஆட்சியர்" திண்டுக்கல் என்று பதவியின் பெயரில் குறிப்பிட்டு எடுத்து இணைக்கப்பட வேண்டும்.

ஆ. பிணை வைப்புத் தொகையாக ரூ.25,000/- மட்டும் மாவட்ட ஆட்சியர் திண்டுக்கல் என்ற பெயருக்கு ஏதேனும் ஒரு தேசியமயமாக்கப்பட்ட வங்கியில், வங்கி வரைவோலை பெற்று மனுவுடன் இணைக்கப்பட வேண்டும். தனிநபர் பெயருக்கு எடுத்துக் கொடுக்கப்படும் வங்கி வரைவோலை ஏற்றுக் கொள்ளப்பட மாட்டாது.

இ. டெண்டர் மனுதாரர் தான் மறைமுகமாக குறிப்பிடும் அதிகபட்சத் டெண்டர் தொகையில் 10 சதவீதத் தொகைக்கான வங்கி வரைவோலையை மாவட்ட ஆட்சியர் திண்டுக்கல் என்ற பெயருக்கு ஏதேனும் ஒரு தேசியமயமாக்கப்பட்ட வங்கியில், வங்கி வரைவோலை பெற்று மனுவுடன் இணைக்கப்பட வேண்டும்.

ஈ. டெண்டர் மனுதாரர் தனியாகவோ அல்லது மற்றவருடன் கூட்டாகவோ இணைந்து, தமிழ்நாட்டில் எந்த ஒரு மாவட்டத்திலும் (i) ஏற்கனவே காலாவதியான குவாரி குத்தகைகளும், (ii) நடப்பிலுள்ள குவாரி குத்தகைகளும், (iii) குத்தகை கோரி மனுச் செய்யப்பட்டு நிலுவையிலுள்ள மனுக்கள் விபரம் மற்றும் (iv) தற்போதைய மனுவுடன் ஒரே நேரத்தில் வேறு பகுதியில் குத்தகைக் கோரும் மனுக்கள் விபரம் ஆகியவைகள் அடங்கிய ஆணை உறுதி ஆவணத்தில் ஒப்பமிட்டு சான்று உறுதி அலுவலரின் (Notary Public) ஒப்புதல் பெற்று இணைக்க வேண்டும்.

உ) டெண்டர் மனுதாரர் நிபந்தனை (ஈ) யில் கண்ட விவரப்படி ஏற்கனவே குவாரி குத்தகை பெற்றிருப்பவராயின் சுரங்க வரியினங்களான, ராயல்டி, சீனியரேஜ் தொகை, முடக்குவரி, பரப்புவரி, ஸ்தல வரி மற்றும ஸ்தல வரிக்கான கூடுதல் வரி, மற்றும் அபராதம் ஏதேனும் விதிக்கப்பட்டிருப்பின் அந்த தொகைகளை செலுத்தியதற்கான "சுரங்கவரி நிலுவையில்லாச் சான்று" சம்பந்தப்பட்ட மாவட்டத்தில் பெற்று ஒப்படைக்க வேண்டும்.

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ஊ) டெண்டர் மனுதாரர், வருமானவரி செலுத்துபவராயின், செல்லுபடியாகத்தக்க வருமானவரிச் சான்று பெற்று ஒப்படைப்பதுடன் (i) நாளது தேதிவரை வருமானவரி தொடர்பான கணக்குகளை அத்துறைக்கு சமர்ப்பித்ததாகவும், (ii) கணக்கீடு செய்யப்பட்ட வருமான வரியை செலுத்துவதாகவும் சமர்ப்பிக்க வேண்டும். பிற நபர்கள் 1961 ஆம் ஆண்டு வருமானவரிச் சட்டத்தின்படி சுய கணக்கீடு செய்ததின் அடிப்படையில் வருமானவரி செலுத்த அவசியம் எழவில்லை எனக் குறிப்பிட்டு அதனை ஆணை உறுதி ஆவணத்தில் ஒப்பமிட்டு, சான்று உறுதி அலுவலரின் இசைவு பெற்று மனுவுடன் இணைக்க வேண்டும்.

எ) மனுதாரர் இருப்பிடச் சான்று தொடர்பாக, ஓட்டுநர் உரிமம், வாக்காளர் அடையாள அட்டை, குடும்ப அட்டை மற்றும் ஆதார் அட்டை ஆகியவற்றில் ஏதாவது ஒன்றின் நகல் இணைக்கவேண்டும்.

4. மேற்கண்ட இணைப்புகளுடன், அசல் மனு மற்றும் இரண்டு நகல்கள் ஆகியவற்றை, மூடி முத்திரையிடப்பட்ட உறையில் வைத்து உறையின்மேல் கல்குவாரி அட்டவணையில் கண்ட அரசிதழ் எண், வரிசை எண், வட்டம், கிராமம், புல எண், விஸ்தீர்ணம் ஆகியவற்றைக் குறிப்பிட்டு, குத்தகை கோரும் டெண்டர் மனு என்று தலைப்பிட்டும், அதன் கீழ் டெண்டர் மனுதாரரின் பெயர் மற்றும் சரியான முகவரி எழுதியும், பெறுநர் : மாவட்ட ஆட்சியர், திண்டுக்கல் மாவட்டம் என்று தெளிவாகவும் எழுதி, கீழ் குறிப்பிடப்பட்ட அலுவலருக்கு 12.12.2023 அன்று மாலை 5.00 மணிக்குள் கிடைக்குமாறு அனுப்பி வைக்க வேண்டும்.

"உதவி இயக்குநர், அறை எண். 277, இரண்டாம் தளம்,
புவியியல் மற்றும் சுரங்கத்துறை,
திண்டுக்கல் மாவட்ட ஆட்சியர் அலுவலக வளாகம், திண்டுக்கல்."
தொலைபேசி எண்: 0451-2460061

5. நேரடியாக அலுவலகத்தில் கொடுக்கப்படும் முத்திரை இடப்பட்ட டெண்டர் உறைகளை பெற்றுக் கொண்டமைக்காக, தமிழ்நாடு சிறுவகைக் கனிமச் சலுகை விதிகள் 1959 ன் பின்னிணைப்பு IX-இல் கண்ட படிவத்தில் ஒப்புதல் கடிதம் வழங்கப்படும்.

6. குறிப்பிடப்பட்ட காலக்கெடு முடிந்த பின்னர், மேற்படி அலுவலரால் பெறப்படும் மூடி முத்திரை வைத்த டெண்டர் உறைகள், உறையின்மீது, "பெறுநர் : மாவட்ட ஆட்சியர், திண்டுக்கல் மாவட்டம்" எனக் குறிப்பிடப்படாத டெண்டர் உறைகள் மற்றும் குவாரியின் வரிசை எண், வட்டம், கிராமம், புல எண், விஸ்தீர்ணம் குறிப்பிடப்படாத உறைகள் ஏற்றுக் கொள்ளப்பட மாட்டாது. செய்தித்தாள் மூலமாகவோ, மாவட்ட அரசிதழ் மூலமாகவோ அறிவிப்பு செய்யப்படாத குவாரிகளுக்கு ஏதாவது ஒப்பந்தப்புள்ளி விண்ணப்பங்கள் பெறப்பட்டால் அவையாவும் முதிர்ச்சி அடையாத விண்ணப்பமாகக் கருதப்பட்டு மாவட்ட ஆட்சியரால் உடனடியாக நிராகரிக்கப்படும்.

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7. முன் குறிப்பிடப்பட்ட நிபந்தனைகளின்படி பெறப்பட்ட டெண்டர் உறை அனுப்பிய மனுதாரர்கள், ஒப்புதல் கடிதம் காண்பிக்கும் பட்சத்தில் டெண்டர் உறைகள் திறக்கப்படும்போது ஏல அரங்கில் இருக்க அனுமதிக்கப்படுவர்.

8. அலுவலரால் பெறப்பட்ட மூடி முத்திரையிடப்பட்ட டெண்டர் உறைகள் குவாரி இனம் வாரியாக திறக்கப்படுவதற்கு முன் அந்த இனத்திற்கு திறந்தமுறை பொது ஏலம் நடத்தப்படும். இந்த அறிவிக்கையுடன் இணைக்கப்பட்டுள்ள அட்டவணையில் குறிப்பிடப்பட்ட ஒவ்வொரு இனங்களுக்கும் திறந்தமுறை பொது ஏலம் 13.12.2023 அன்று காலை 10.30 மணியளவில் தொடங்கி தொடர்ந்து நடத்தப்படும்.

பகுதி II திறந்த பொது ஏலத்தில் கலந்துக்கொள்வதற்கான நிபந்தனைகள்

1. திறந்தமுறை பொது ஏலத்தில் கலந்துகொள்ள மனு கொடுப்போர், மனுவின் இனம் 9-ல் கண்டுள்ள வினாவில் மனுச் செய்யும் சமயத்தில் டெண்டர்/கேட்புத் தொகை குறிப்பிடத் தேவையில்லை.

2. மூடி முத்திரையிடப்பட்ட உறையின் மூலம் டெண்டர் மனு கொடுத்துள்ள நபர் இரண்டாம் முறையாக மனு கொடுக்க தேவையில்லை. ஆனால் அவர்கள் நேரடியாக திறந்தமுறை பொது ஏலத்திலும் கலந்துகொள்ளலாம்.

3. மூடி முத்திரை இடப்பட்ட டெண்டர் உறை கொடுத்துள்ள மனுதாரர் மற்றும் பொது ஏலத்தில் கலந்துகொள்ள உள்ள மனுதாரர் ஆகியோர், பொது ஏலத்தில் கலந்துகொள்ள இயலாத நிலையில் அவர்களது நியமனம் பெற்ற மற்றொரு நபர் மனுதாரரின் ஒப்புதல் கடிதம் பெற்று அதனை சான்று உறுதி அலுவலரின் மேலொப்பம் பெற்று அதனையும், விண்ணப்பம் கொடுத்ததற்கான அலுவலரிடமிருந்து பெறப்பட்ட அசல் ஒப்புதல் கடிதத்தையும் ஏலம் நடத்தும் அலுவலரிடம் ஒப்படைத்துவிட்டு, ஏலத்தில் கலந்துகொள்ள வேண்டும். ஏலம் முடிவடைந்தவுடன் அலுவலர் கொடுத்த ஒப்புதல் கடிதம் மட்டும் திரும்ப ஒப்படைக்கப்படும்.

4(அ) மாவட்ட ஆட்சியரோ அல்லது அவரது அதிகார அனுமதி பெற்ற அலுவலரோ குவாரி குத்தகை தொடர்பாக குவாரி இனம் வாரியாக தனித்தனியே திறந்தமுறை ஏலம் நடத்துவார். அப்போது அந்த இனத்திற்கு திறந்தமுறை ஏலத்திற்கு மனு கொடுத்துள்ளவர்கள் மற்றும் டெண்டர் உறை கொடுத்தவர்களும், தான் கூற விரும்பும் ஏலத்தொகையை கூற அனுமதிக்கப்படுவர்.

(ஆ) மனுதாரர் அல்லது அவரது அதிகாரம் பெற்ற நபர் யாரேனும் ஏலத்தில் கலந்துகொள்ளாத்போதும், ஏலம் நடத்தப்பட்டு, டெண்டர் உறைகள் திறக்கப்பட்டு விதிமுறைகளின்படி, மேல் நடவடிக்கை தொடரப்படும்.

5. ஏலம் முடிந்தபின் ஏலம் நடத்தும் அலுவலர், அந்த இனத்திற்கு திறந்தமுறை ஏலத்திற்கு பெறப்பட்ட மொத்த மனுக்களின் எண்ணிக்கை, மனு கொடுத்துள்ளவர்களின் பெயர், அதிகபட்சமாக கூறப்பட்ட ஏலத்தொகையை குறிப்பிட்டு ஏலம் கூறிய நபர் மற்றும் முகவரி ஆகியவற்றை ஏலம் நடத்தப்படும் இடத்திலேயே அறிவிப்பார்.

6. பின்னர் அந்த இனத்திற்கு குத்தகை கோரி பெறப்பட்ட எல்லா மூடி முத்திரை இடப்பட்ட டெண்டர் உறைகளும் திறக்கப்பட்டு, அவற்றில் உள்ள மனுக்கள், ஏலதாரர்கள் மற்றும் டெண்டர்தாரர்கள் முன்னிலையில் ஆய்வு செய்யப்படும்.

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7. பகுதி - I இல் கண்ட நிபந்தனை 3-ல் குறிப்பிடப்பட்டுள்ள சான்றிதழ்கள், ஆவணங்கள் மற்றும் வங்கி வரைவோலைகள் இணைக்கப்படாத மனுக்களும், விண்ணப்பத்தில் காணும் விபரங்களில் வ.எண். 9-ல் தெரிவித்தபடி டெண்டர் தொகையினை தெளிவாக குறிப்பிடாத மனுக்களும், டெண்டர்தாரரின் கையொப்பம் இடப்படாத மனுக்களும் விண்ணப்பத்தில் தவறான விபரங்கள் தரப்பட்ட மனுக்களும் செல்லத்தகாதவை என்று முடிவு செய்யப்பட்டு ஏலக் கூடத்திலேயே அறிவிக்கப்படும். இதற்காக தனியே எழுத்து மூலமாக ஆணை ஏதும் பிறப்பிக்கப்படமாட்டாது.

8. செல்லுபடியாகத்தக்க மனுக்கள் ஆய்வு செய்யப்பட்டு அவற்றில் அதிகபட்ச டெண்டர் தொகை குறிப்பிடப்பட்டுள்ள டெண்டர்தாரரின் பெயர், முகவரி மற்றும் தொகை ஆகியவை ஏலக்கூடத்தில் அறிவிக்கப்படும்.

9. அந்தந்த குவாரி இனங்களுக்கு பொது ஏலத்தில் கூறப்பட்ட அதிகபட்ச ஏலத்தொகை மற்றும் அதிகபட்ச டெண்டர் கோரிய தொகை இவற்றில் எது அதிகமோ அதனை கோரியவர் குத்தகை பெற தகுதியானவர் என அறிவிக்கப்படுவார்.

10. பொது ஏலத்தில் கூறப்பட்ட அதிகபட்ச ஏலத்தொகையைவிட அதிகமாக மறைமுக டெண்டர் முறையில் இரண்டு அல்லது அதற்கு மேற்பட்ட நபர்கள் ஒரே டெண்டர் தொகையை குறிப்பிட்டிருந்தால் அவ்வாறு குறிப்பிட்ட டெண்டர்தாரர்களிடையே, இரண்டாம் நிலை திறந்தமுறை பொது ஏலம் நடத்தப்பட்டு, அதில் அதிகத் தொகை செலுத்த முன்வருபவர் குவாரி குத்தகை பெற தகுதியானவர் என்று அறிவிக்கப்படுவார்.

11. திறந்தமுறை பொது ஏலத்தில் கூறப்பட்ட அதிகபட்ச ஏலத்தொகையும் மறைமுக டெண்டர் முறையில், குறிப்பிடப்பட்ட அதிகபட்ச டெண்டர் தொகையும், ஒரே தொகையாக இருந்தால் அவ்விரு தொகைகளை கூறிய நபர்களிடையே இரண்டாம் நிலை திறந்தமுறை பொது ஏலம் நடத்தப்பட்டு அதில் அதிகத்தொகை செலுத்த முன்வருபவர் குவாரி குத்தகை பெற தகுதியானவர் என்று அறிவிக்கப்படுவர்.

12. (அ) அதிகபட்ச ஏலத்தொகை/டெண்டர் கேட்ட நபர் குவாரி குத்தகை பெற தகுதியானவர் என்று அறிவிக்கப்படும்பட்சத்தில் அவரால் கேட்கப்பட்ட ஏலம்/டெண்டர் தொகையில் 10% சதவீதம் மற்றும் கூடுதலாக 2 சதவீதம் வருமான வரியும் உடனடியாக ஏலம் நடத்திய அலுவலரிடம் செலுத்தி ஒப்புதல் கடிதம் பெற்றுக்கொள்ளவேண்டும்.

13. (அ). அதிகபட்ச ஏலம்/டெண்டர் கேட்ட நபர்/ குத்தகை பெறத்தகுதியானவர் என்று அறிவிக்கப்பட்ட நபர் உடனடியாக 10% சதவீத தொகை செலுத்தாத நிலையில், அவருக்கு அடுத்தபடியாக அதிக ஏலம் / டெண்டர் தொகை ஏற்புடையது என மாவட்ட ஆட்சியரால் அல்லது அவரது அதிகாரம் பெற்ற அலுவலர் கருதும் பட்சத்தில் குறிப்பிட்ட நபர் குத்தகை பெறத் தகுதியானவர் என்று அறிவிக்கப்பட்டு அவர் குறிப்பிட்டுள்ள குத்தகைத் தொகையில் பத்து சதவிகிதத் தொகை மற்றும் 2 சதவீதம் வருமானவரியும் செலுத்தும்பட்சத்தில் அவர் குத்தகை பெறத் தகுதியானவர் என்று அறிவிக்கப்படுவார்.

(ஆ) மேற்கண்டவாறு குத்தகை பெற தகுதியானவர் என்று அறிவிக்கப்பட்ட இரண்டாவது நபரும் 10% சதவீத தொகையை செலுத்தாதபோது மேற்கண்ட வழிமுறை மீண்டும் நடைமுறைப்படுத்தப்படும் அல்லது ஏலத்தொகை ஏற்புடையது அல்ல என்று கருதினால், உரிய குவாரியை மறு டெண்டர்/ ஏலம் மூலம் குத்தகைக்கு விடலாம்.

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14. குவாரி குத்தகை பெற தகுதியானவர் பெயர் அறிவிக்கப்பட்ட பின்னரே இதர மனுதாரருக்கு விண்ணப்பக் கட்டணம் தவிர பிற இனங்களுக்கான வரைவோலையை திரும்ப வழங்க நடவடிக்கை எடுக்கப்படும்.

15.(அ). குத்தகை பெற தகுதியானவர் என்று அறிவிக்கப்பட்ட நபர் நிலுவையிலுள்ள 10% சதவீத குத்தகைத் தொகையுடன் பிணை வைப்புத் தொகை கழித்தது போக 90% குத்தகைத் தொகையுடன் 2 சதவீதம் வருமான வரியும் தமிழ்நாடு சிறுகனிமச் சலுகை விதிகள் 1959 விதி எண்: 8(5)(vii)-ன்படி 7(ஏழு) நாட்களுக்குள் செலுத்தி அசல் சலானை ஒப்படைக்க வேண்டும்.

(ஆ).மேற்குறிப்பிட்ட 90% சதவீதத் தொகை மேற்குறிப்பிட்ட காலக்கெடுவான 7(ஏழு) நாட்களுக்குள் செலுத்தப்படாவிட்டால், குத்தகை கோரும் நபர் ஏற்கனவே செலுத்தியுள்ள 10 சதவீத தொகை மற்றும் முன்வைப்பு தொகையான ரூ.25,000/- ஆகியவை அரசு கணக்கில் ஆதாயமாக்கப்படும்.

(இ). நிபந்தனை 14(ஆ)-யின்படியும் கோரப்பட்ட குத்தகைத் தொகை செலுத்தப்படாவிட்டால், தொடர்புடைய கல் குவாரி டெண்டர்/ பொது ஏலம் மூலம் குத்தகைக்கு விட மறு அறிவிப்பு செய்யப்பட்டு நடவடிக்கை தொடரப்படும்.

16.(அ) குவாரி குத்தகை கோரி ஒரே ஒரு மறைமுக டெண்டர் மனு கொடுக்கப்பட்டு திறந்த முறை பொது ஏலத்தில் கலந்துகொள்ள யாரும் முன்வரவில்லையெனில், 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 கருதும்பட்சத்தில், மனுவைத் தள்ளுபடி செய்து ஆணையிடப்பட்டு மறு ஏலம்/டெண்டர் மூலம் குவாரி குத்தகை வழங்க மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு.

(ஆ). இரண்டு அல்லது அதற்கு அதிகமான மனுக்கள் பெறப்பட்டாலும்கூட அதிகபட்ச டெண்டர்/ ஏலத் தொகை அரசுக்கு ஆதாயமானதல்ல என்று மாவட்ட ஆட்சியர் கருதினால் மனுவை தள்ளுபடி செய்து மறு ஏலம்/டெண்டர் நடத்த மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு.

(இ). குத்தகைத் தொகை மற்றும் உரிமத்தொகை (சீனியரேஜ்) மீதான வருமானவரியை (TCS) மத்திய அரசால் அவ்வப்போது நிர்ணயம் செய்யப்படும் கணக்கீட்டின்படி செலுத்தப்படவேண்டும்.

17) கல்குவாரி குத்தகை தற்போது உள்ள இயல்பு நிலையிலேயே கொண்டு வரப்படுகிறது. குத்தகை பரப்பை நிலவியலாக பூரணமாக தெரிந்து பின்னர் கலந்து கொள்ள வேண்டும். தவறும்பட்சத்தில் குத்தகை நிலம் தொடர்பாக பிரச்சனை எழுப்ப குத்தகைதாரர் தகுதியற்றவர் ஆவார்.

18) குவாரி குத்தகை விண்ணப்பிக்கும் போது குவாரியினை விண்ணப்பதாரர் தனது சொந்த செலவில் சொந்த பொறுப்பில் பார்வையிட்டு கனிம அளவு, தரம் ஆகியவற்றை தெரிந்து கொண்டு விண்ணப்பிக்க வேண்டும்.

19) பிரசுரிக்கப்பட்ட இனங்களில் நீதிமன்ற வழக்கு அல்லது இதர தாவா இருப்பது தெரியவரும் பட்சத்தில், அந்த இனங்களை நிறுத்தி வைக்கவும் மற்றும் விஸ்தீரணத்தை குறைத்து நிர்ணயம் செய்திடவும், மாவட்ட ஆட்சியருக்கு முழு அதிகாரம் உண்டு.

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20) இந்த அறிவிப்பு பிரசுரிக்கப்பட்ட பின்னரோ குத்தகை உறுதி ஆணை பிறப்பிப்பதற்கு முன்னரோ அல்லது பின்னரோ நிபந்தனைகளை மாற்றவோ, ரத்து செய்யவோ மற்றும் பட்டியலில் கண்டுள்ள எல்லா குவாரிகளின் குத்தகை உரிமம் கோரும் விண்ணப்பத்தை எக்காரணமின்றி ரத்து செய்யவோ, அல்லது மேற்படி மனுக்களின் உறைகளை திறக்கும் நாள், நேரம் ஆகியவைகளை தள்ளி வைக்கவோ, நிறுத்தி வைக்கவோ மாவட்ட ஆட்சியருக்கு முழு அதிகாரமுண்டு. அதற்கு விண்ணப்பதாரர் எந்தவித இழப்பீடும் கோர உரிமையில்லை.

பகுதி II (ஆ) சிறப்பு நிபந்தனைகள்:

1. 1. டெண்டர்/ பொது ஏலம் எடுக்க முன்வருபவர்கள் டெண்டர்/ பொது ஏலம் எடுக்க உத்தேசிக்கும் புலத்தினை ஏலத்தில் கலந்து கொள்வதற்கு முன்பே பார்வையிடுமாறும் பாதை வசதி உள்ளதா என்பதனையும் தனியர் முன்பே தெரிந்து கொள்ள அறிவுறுத்தப்படுகிறது. டெண்டர்/ பொது ஏலம் உறுதி செய்தபின் பாதை வசதி குறித்து எந்தஒரு பிரச்சனை எழுப்ப குத்தகைதாரர் தகுதியற்றவர் ஆவார்.

2. சமீபத்திய உச்சநீதிமன்றம் தீர்ப்பாணை I.A.Nos.12-13/11 in Special Leave petition (C).No,19628-19629/2009 etc., நாள்: 27.02.2012-ன் படியும், மத்திய சுற்றுச்சூழல் மற்றும் வனத்துறை அமைச்சகம், புதுடெல்லி சுற்றறிக்கை எண் L-11011/47/2011-IA-II(M) நாள் 18.05.2012-ன் படியும், மாநில சுற்றுச்சூழல் பாதுகாப்பு அமைப்பு, தமிழ்நாடு, சென்னை நே.மு.க கடித எண். SEIAA-TN/Minor Minerals/2012 நாள் 17.09.2012-ன்படியும் ஆணையர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை கடித எண்.3868/LC/2012 நாள் 19.11.2012-ன்படியும் சிறுகனிமங்களான கல் மணல், சவுடு மற்றும் மண் குவாரிகளுக்கு குத்தகை உரிமம் வழங்குவதற்கு முன்பாக மாநில அளவிலான சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் தடையின்மைச்சான்று பெற்று சமர்பிக்கப்பட வேண்டும். எனவே இவ்விதியின் கீழ் குவாரி உரிமம் பெறுவோர் மேற்படி மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் தடையின்மைச் சான்றை பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும்.

2.(அ).இவ்விதிகளின் கீழ் குத்தகை உரிமம் வழங்கப்படும் போது மாவட்ட ஆட்சித் தலைவர் அவர்களால் தேர்வு செய்யப்படும்/ குத்தகை பெற தகுதியானவர் என்று அறிவிக்கப்பட்ட நபர் நிலுவையிலுள்ள 100% சதவீத குத்தகைத் தொகையுடன் கூடுதலாக குத்தகைத் தொகையில் 2 சதவீதம் வருமான வரியும் உடன் செலுத்த வேண்டும்.

(ஆ).மேற்குறிப்பிட்ட 100% சதவீதத் தொகையை உடன் செலுத்தப்படாவிட்டால், குத்தகை கோரும் நபர் ஏற்கனவே செலுத்தியுள்ள 10 சதவீத தொகை மற்றும் முன்வைப்பு தொகையான ரூ.25,000/- ஆகியவை அரசுடமையாக்கப்படும்.

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3.இவ்விதிகளின் கீழ் குத்தகை உரிமம் வழங்கப்படும் போது மாவட்ட ஆட்சித் தலைவர் அவர்களால் தேர்வு செய்யப்படும் குத்தகை பெற தகுதியானவர் என்று அறிவிக்கப்பட்ட நபர் நிலுவையிலுள்ள 100% சதவீத குத்தகைத் தொகையுடன் கூடுதலாக குத்தகைத் தொகையில் 2 சதவீதம் வருமான வரியும் உடன் செலுத்திய நபர் மாவட்ட ஆட்சித்தலைவர் அவர்களால் தேர்ந்தெடுக்கப்பட்ட தகுதியானவர் என பெயர் அறிவிக்கப்பட்டு குவாரி உரிமம் வழங்க உத்தேசிகப்பட்டுள்ள பரப்பாக கருதி உத்தரவை வழங்கி சுரங்கத்திட்ட அறிக்கை மற்றும் மாநில அளவிலான சுற்றுப்புறச் சூழல் செயல் விழைவு ஆணையத்தின் தடையில்லாச் சான்று பெற்று சமர்ப்பிக்குமாறு அறிவுறுத்தப்படும்.

4. மேற்படி உத்தரவை பெற்ற நபர் தகுதியான சுரங்கத் திட்ட அறிக்கையை அங்கீகரிக்கப்பட்ட (RQP) நபரிடமிருந்து தயார் செய்து சம்மந்தப்பட்ட உதவி இயக்குநரின் ஒப்புதலுக்கு மூன்று மாதத்திற்குள் சமர்பிக்க வேண்டும். சுரங்கத்திட்ட அறிக்கை அரசால் அங்கீகரிக்கப்பட்ட (RQP) நபரால் மட்டும் அரசு தெரிவித்துள்ள விதிகள் மற்றும் வழிகாட்டுதலின்படி தயாரிக்கப்பட்டிருக்க வேண்டும்.

5. சம்மந்தப்பட்ட உதவி இயக்குநரால் ஒப்புதல் செய்யப்பட்ட சுரங்கத் திட்ட அறிக்கையை தேர்வு செய்யப்பட்ட நபர் மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் தடையின்மை சான்று கோரி விண்ணப்பித்து தடையின்மைச் சான்று பெற்று சமர்ப்பிக்கும் பட்சத்தில் மாவட்ட ஆட்சித்தலைவர் அவர்களால் தகுதி பெற்ற ஏலதாரர்/ டெண்டர்தாரர்களுக்கு குவாரி உரிமம் வழங்க நடவடிக்கை எடுக்கப்படும்.

6. சுரங்கத் திட்ட அறிக்கை குவாரிப்பணி செய்ய குத்தகை ஒப்பந்த பத்திரம் ஏற்படுத்தப்பட்ட நாள் முதல் ஐந்தாண்டிற்கு மட்டும் செல்லத்தக்கதாகும்.

7. இவ்விதியின்கீழ் தேர்வு செய்யப்பட்ட நபர் சுரங்கத்திட்ட அறிக்கை மற்றும் மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணைய தடையின்மை சான்றை குறிப்பிட்ட காலத்திற்குள் சமர்ப்பிக்க தவறும்பட்சத்தில் மாவட்ட ஆட்சித் தலைவர் அவர்கள் வழங்கிய உத்தரவை சம்மந்தப்பட்ட நபரை நேரடி விசாரணை மேற்கொண்டு ரத்து செய்ய நேரிடும்.

8. இவ்விதியின்கீழ் தேர்வு செய்யப்பட்ட நபர் சுரங்கத்திட்ட அறிக்கை மற்றும் மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணைய தடையின்மை சான்று மற்றும் மாசுக்கட்டுப்பாட்டு வாரியத்தின் இசைவு பெற்று சமர்ப்பிக்கும் பட்சத்தில் மேற்படி தேர்வு பெற்ற நபருக்கு குத்தகை உரிமம் வழங்கப்பட்டதற்கான ஆணை வழங்கப்பட்டு பின்னர் குத்தகை ஒப்பந்த பத்திரம் நிறைவேற்ற தேவையான ஆவணங்கள் பெற்று குத்தகை ஒப்பந்த பத்திரம் நிறைவேற்றப்படும்.

9. குவாரிப் பணிகள் சுரங்கத்திட்ட அறிக்கையில் தெரிவித்துள்ளவாறு மேற்கொள்ளப்பட வேண்டும். அவ்வாறு சுரங்கத்திட்ட அறிவிக்கையில் தெரிவித்ததற்கு மாறாக குவாரிப்பணிகள் மேற்கொள்வது கண்டறியப்பட்டால் மேற்படி குவாரிப்பணியை நிறுத்தி வைப்பதற்கு மாவட்ட ஆட்சித் தலைவர் அவர்களால் நடவடிக்கை மேற்கொள்ளப்படும்.

10. இந்த அறிவிப்பில் கண்டுள்ள எந்த குவாரியையும் முன் அறிவிப்பின்றி நீக்க மாவட்ட ஆட்சியருக்கு அதிகாரமுண்டு.

O/o Assistant Director Dept.of Geology and Mining Collectorate Dindigul - 624 004.

பகுதி - III குவாரி குத்தகை பெறுவதற்கான நிபந்தனைகள்

1. அ) தமிழ்நாட்டில், எல்லா மாவட்டங்களிலும் சேர்த்து இவ்வாறான இனங்களில் ஒரு மனுதாரருக்கு இரண்டு கல்குவாரி குத்தகைக்கு மேல் வழங்கப்படமாட்டாது, தவறான தகவல் தந்து இரண்டுக்கு மேற்பட்ட குத்தகைகள் பெறப்பட்டிருப்பது பின்னர் தெரிய வந்தால் கடைசியாக கொடுக்கப்பட்ட குத்தகையை ரத்து செய்ய நடவடிக்கை எடுக்கப்படும்.

ஆ) தமிழ்நாடு சிறுவகைக் கனிமச் சலுகை விதிகள் 1959 இன் பிண்ணினைப்பு I-ல் கண்டுள்ள படிவத்தில் ஒப்பந்த கருத்துகளில் சேர்க்கை, நீக்கம், மாற்றங்கள் மற்றும் குத்தகைப் பரப்பை காட்டும் புலப்படத்தில் தேவையான மாறுதல்களை செய்திட மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு.

இ) மாவட்ட ஆட்சியரால் ஏலம்/டெண்டர் முறையில் தேர்வு செய்யப்பட்ட நபர் மாநில அளவிலான சுற்று புறச்சூழல் செயல் விழைவு ஆணையத்தின் தடையில்லாச் சான்று பெற்று சமர்பித்த பின்னர் குத்தகை ஒப்பந்தப் பத்திரத்தினை நிறைவேற்ற மாவட்ட ஆட்சியரால் குறிப்பிட்ட காலக்கெடுவிற்குள் கீழ்கண்ட ஆவணங்கள் மற்றும் தொகைகளை செலுத்தி அவற்றை மாவட்ட ஆட்சித் தலைவரிடம் ஒப்படைக்க வேண்டும்.

I. ரூ.20,000/- அல்லது மொத்த குத்தகை தொகையில் 20 சதவீத தொகை இவற்றில் எது அதிகமோ, அத்தொகையை காப்புத் தொகையாக செலுத்தப்படவேண்டும்.

II. மாவட்ட ஆட்சியரின் அறிவிக்கையில் கோரியுள்ளவாறு நீதிமன்றம்சாரா முத்திரைத்தாள்களில் குத்தகை ஒப்பந்த ஆவணம் தயாரித்து மாவட்ட ஆட்சித் தலைவருடன் குத்தகை ஒப்பந்தம் நிறைவேற்றும் பொருட்டு புலப்படத்துடன் கொடுக்கப்பட வேண்டும்.

2. உரிய காலக்கெடுவுக்குள், முன் குறிப்பிடப்பட்ட காப்புத் தொகையை அரசுக்குச் செலுத்தி ஆவணங்களை மாவட்ட ஆட்சியரிடம் ஒப்படைக்காத நபருக்கு ஏற்கனவே குவாரி குத்தகை வழங்கப்படும் என்று கொடுக்கப்பட்ட அறிவிப்பு ரத்து செய்யப்பட்டு, அந்த நாள்வரை அவரால் செலுத்தப்பட்ட தொகைகள் அரசுக்கு ஆதாயமாக்கப்படும்.

3. கோரப்படும் ஆவணங்கள் மற்றும் தொகைகளை குத்தகை பெறவுள்ள மனுதாரர் அரசுக்குச் செலுத்தியபின், அறிவிக்கை மூலம் தெரிவிக்கப்படும் நாளில் மேற்படி குத்தகைதாரர் மாவட்ட ஆட்சியரின் முன்பு ஆஜராகி குத்தகை ஒப்பந்த ஆவணங்களில் கையெழுத்திட்டபின் குத்தகையாளராக அறிவிக்கப்படுவர்.

4. அ) கல்குவாரி குத்தகை காலம் குத்தகை ஒப்பந்தப் பத்திரம் நிறைவேற்றப்பட்ட நாளில் இருந்து ஐந்து ஆண்டுகளாகும்.

ஆ) ஒப்பந்த ஆவணத்தில் குறிப்பிட்டுள்ளபடி குத்தகை முடிவுறும் தேதிக்கு பின்னர் குத்தகைகாலம் எந்த கோரிக்கையின் அடிப்படையிலும் நீட்டிப்பு செய்யப்படமாட்டாது.

இ) டெண்டர் மற்றும் பொது ஏலத்தின் மூலம் வழங்கப்படும் குத்தகை உரிமங்கள் புதுப்பிக்கப்படமாட்டாது. இது குறித்து புதுப்பித்தல் மனு அனுப்பப்பட்டால் அது விசாரணையின்றி தள்ளுபடி செய்யப்படும்.

ஈ). கல்குவாரி குத்தகை தற்போது உள்ள இயல்பு நிலையிலேயே ஏலம்/டெண்டர் கொண்டு வரப்படுகிறது. ஏலம் /டெண்டர்தாரர் குத்தகை பரப்பை நிலவியலாக பூரணமாக தெரிந்து பின்னர் கலந்து கொள்ள வேண்டும். குத்தகை வழங்கப்பட்ட பின்னர், குத்தகை நிலம் தொடர்பாக பிரச்சனை எழுப்ப குத்தகைதாரர் தகுதியற்றவர் ஆவார்.

5. குவாரி குத்தகை ஒப்பந்தப் பத்திரத்தில் மாவட்ட ஆட்சியருடன் மனுதாரர் கையொப்பம் இடுவதற்கு முன், குத்தகை பரப்பில் கனிமங்கள் வெட்டியெடுத்தாரானால் அப்பணி குத்தகை பெறாமல் செய்ததாக கருதப்பட்டு, விதிமுறைகளின்படி, மேல் நடவடிக்கை தொடரப்பட்டு அபராதம் விதிகக் நடவடிக்கை எடுக்கப்படும். நிறைவேற்றப்படும் குத்தகை ஒப்பந்தப் பத்திரம் குத்தகைதாரர் பொறுப்பில் பதிவு செய்து மீள சமர்ப்பிக்கப்பட வேண்டும்.

6. அ) குவாரி குத்தகை காலம் முடிவடைந்தவுடன் குத்தகைதாரர் குத்தகை பரப்பை அரசுக்கு திரும்ப ஒப்படைத்து அதற்கான கடிதத்தை உரிய கிராம நிர்வாக அலுவலர் வசம் ஒப்புவித்து அதற்கான ஆணை உறுதி ஆவணம் தயாரித்து மாவட்ட ஆட்சியரிடம் ஒப்படைக்க வேண்டும்.

ஆ) குத்தகை காலம் முடிவுற்ற பின் அல்லது குத்தகை நடைமுறை காலத்தில் ஆணை நீக்கம் செய்யப்பட்டால் குத்தகையாளர் குத்தகை பரப்பை, அரசுக்கு திரும்ப ஒப்படைக்காமல் தன்வசம் வைத்திருப்பாரானால் தமிழ்நாடு சிறுவகைக் கனிமச் சலுகை விதி 1959 இல் விதி 36-ஏ(4) இன்படி, அவர் மீது மேல்நடவடிக்கை எடுக்கப்படுவதுடன் குத்தகை பரப்பிலிருந்து அவரை வெளியேற்ற உரிய நடவடிக்கை எடுக்கப்படும். இந்நடவடிக்கையை மேற்கொள்ள மாவட்ட ஆட்சியரால் அதிகாரம் வழங்கப்படும் அலுவலர் குத்தகையாளரை வெளியேற்ற தேவைப்படும் அளவிற்கு வலிமையுடைய நடவடிக்கை எடுக்க தகுதி பெற்றவராவார்.

பகுதி IV குவாரிப்பணி செய்வது தொடர்பான விதிமுறைகள்

1. குவாரி பணி செய்வதற்கான பொது விதிமுறைகள், மாவட்ட ஆட்சியருடன் ஏலதாரர்/டெண்டர்தாரர் கையொப்பமிடும் குத்தகை ஆவணத்தில் குறிப்பிடப்பட்டிருக்கும்.

2. மேலும் ஒவ்வொரு புலத்திற்கும், சிறப்பு நிபந்தனைகள் ஏதும் இருக்குமானால் அவைகள் மாவட்ட ஆட்சியரால் குறிப்பிடப்படும் அனுமதி ஆணையில் குறிப்பிடப்படும். குத்தகை பெற்றவர் அவ்வனுமதி ஆணையை ஏற்று நடக்கவேண்டும்.

3. செலுத்தப்பட்ட குத்தகைத் தொகை தவிர, தமிழ்நாடு சிறுவகைக் கனிமச் சலுகை விதிகள் 1959 - ன் பின்னிணைப்பு II-ல் கண்டவாறு குவாரியிலிருந்து வெளியில் கொண்டு செல்லப்படும் கனிமத்திற்கு சீனியரேஜ் தொகை அல்லது ஒவ்வொரு ஆண்டிற்கான முடக்குவரி இவற்றில் எது அதிகமோ அது செலுத்தப்படவேண்டும். அந்தந்த ஆண்டுகளுக்குரிய பரப்பு வரியினையும் செலுத்த வேண்டும். சீனியரேஜ் தொகை அல்லது முடக்குவரி செலுத்தப்படாவிட்டால் குவாரி குத்தகையை ரத்துசெய்ய நடவடிக்கை எடுக்கப்படும்.

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4. மேற்குறிப்பிட்டவை தவிர பின்வரும் சிறப்பு நிபந்தனைகளும் குத்தகைதாரரால் குத்தகை காலத்தில் கடைபிடிக்கப்பட வேண்டும் :-

i) குவாரியின் எல்லைகள் தெளிவாக தெரியும்படி கல்நட்டு அடையாளமிட்ட பிறகு குவாரிப்பணி செய்ய வேண்டும். எல்லைக் கற்கள் குத்தகை கால முழுமைக்கும் சரியானபடி பராமரிக்கப்பட்டு வரவேண்டும். குத்தகையாளர் குத்தகைப் பகுதியில் வெட்டியெடுத்து வெளியில் அனுப்பும் சிறுவகைக் கனிமத்திற்கு உரிய கணக்குகளைத் திண்டுக்கல் மாவட்ட புவியியல் மற்றும் சுரங்கத்துறை உதவி இயக்குநர் குறிப்பிடும் படிவத்தில் சுரங்க விவரப் பதிவேடு ஏற்படுத்தி விவரங்கள் எழுதி, ஒவ்வொரு மாதத்திற்கும் விவரப்பட்டியல் தயாரித்து அதனை அடுத்த மாதம் ஐந்தாம் தேதிக்குள் உதவி இயக்குநருக்கு அனுப்ப வேண்டும்.

ii) குத்தகைக்கு விடப்பட்ட இடங்களை எந்த நேரத்திலும், புவியியல் மற்றும் சுரங்கத்துறை மற்றும் வருவாய்த்துறை அலுவலர்கள் பார்வையிட அதிகாரமுண்டு. இது சம்பந்தமாக பராமரிக்கப்படும் கணக்குகளை தணிக்கை செய்யவும் அதிகாரம் உண்டு. குத்தகை காலத்தில் ஏற்படுத்தப்பட்ட சுரங்க விவரப்பதிவேடுகளை குத்தகையாளர் குத்தகைகாலம் முடிந்த பின்னரும் பாதுகாத்து அரசு அலுவலர்கள் ஆய்வுக்கு கேட்கும்போது ஒப்படைக்க வேண்டும்.

iii) குத்தகையாளர் கனிமங்களை வெளியில் அனுப்ப அனுப்புகை சீட்டுகளில் உதவி இயக்குநர் ஒப்புதல் பெற வரும்போது உரிய மனு அளித்து, சீனியரேஜ் தொகையைச் செலுத்தி, அலுவலகத்திலிருந்து வழங்கப்படும் மொத்த இசைவாணைச் சீட்டுடன் (Bulk permit) அனுப்புகை சீட்டுகளில் உரிய அலுவலரின் கையொப்ப முத்திரை மற்றும் அலுவலக முத்திரைகளைப் பெற்றுச் சென்று பயன்படுத்தவேண்டும்.

iv) கனிமங்களை குத்தகைப் பகுதியிலிருந்து வெளியில் அனுப்பும்போது அனுப்பப்படும் கனிமத்தின் வகை, அதன் அளவு, எடுத்துச் செல்லும் வாகனத்தின் வகை, மற்றும் பதிவு எண், கனிமம் கொண்டு சேர்க்கப்படும் இடம், குவாரியிலிருந்து வாகனம் புறப்படும் நேரம் மற்றும் சென்றடைய உத்தேச நேரம் ஆகிய விவரங்களை அசல் சீட்டில் ஒரே பேனாவாலும் நகலை கார்பன் பேப்பர் அழுத்தம் மூலமும் எழுதி அசலை வாகனத்துடன் அனுப்பி நகலை (அடிக்கட்டு) அடுத்தமுறை அனுமதிபெற வரும்போது ஆய்வுக்கு காண்பித்துவிட்டு திரும்ப பெற்றுச்சென்று பாதுகாப்பாக வைத்திருக்கவேண்டும். குவாரிப்பகுதியில் இருந்து மட்டுமே நடைச்சீட்டு வழங்கப்பட வேண்டும். குத்தகை எடுத்த நபர்கள் வேறு நபருக்கு உள் குத்தகைக்கு விடவோ அல்லது பிற காரியங்களுக்காக உபயோகிக்கவோ கூடாது.

v) அனுப்புகைச் சீட்டில் எல்லா விவர வினாக்களுக்கும் விவரங்கள் எழுதப்படாமலோ (Over writing) அல்லது திருத்தப்பட்டோ அல்லது மேல் எழுதப்பட்டோ அல்லது வெவ்வேறு மையினால் எழுதப்பட்டிருப்பின் அந்த அனுப்புகைச் சீட்டுடன் எடுத்துச்செல்லப்படும் கனிமம், அனுமதியின்றி எடுத்துச் செல்லப்படுவதாகக் கருதி, விதிமுறைகளின்படி நடவடிக்கை எடுக்கப்படும்.

vi) குத்தகைதாரர் தனது சொந்தப் பொறுப்பில் குத்தகைப் பகுதிக்குச் செல்ல பாதை வசதி அமைத்துக்கொள்ள வேண்டும். இது தொடர்பாக ஏற்படும் தகராறுகளுக்குஅரசு பொறுப்பேற்காது. குத்தகை எடுத்தவர் எந்த காரணத்தை முன்னிட்டும் தனக்கு இழப்பு ஏற்படின் அதற்கு அரசு பொறுப்பு ஏற்காது.

vii) கல்குவாரிப் பணியில் 8 வயது முதல் 14 வயதிற்குட்பட்ட குழந்தைத் தொழிலாளர்களை பணியமர்த்தக் கூடாது.

viii) குவாரிகளுக்கு அருகில் உள்ள போக்குவரத்து சாலைகள், வண்டிப்பாதைகள், மின்கம்பங்கள் மற்றும் இதர நிலையான அமைப்புகள் இவற்றில் இருந்து நிர்ணயிக்கப்பட்ட பாதுகாப்பு இடைவெளி விட்டு மீதமுள்ள இடத்திற்குள்தான் குவாரிப்பணி செய்யவேண்டும். மேற்கண்ட பொதுமக்கள் உபயோகிக்கும் இடங்கள், பட்டா நிலங்கள், பொது சொத்துக்கள் ஆகியவற்றிற்கு சேதம் ஏதும் நேரிட்டால் அதற்கு குத்தகைதாரரே முழுப்பொறுப்பு ஏற்கவேண்டும்.

ix) அருகில் உள்ள பட்டா நிலங்களுக்கு எவ்வித பாதிப்புமில்லாமலும், ஓடை மற்றும் நீர்நிலைகள் பாதிக்காவண்ணம் குவாரி செய்ய வேண்டும்.

x). 1952-ஆம் ஆண்டைய சுரங்கச் சட்டம் மற்றும் அதன் கீழ் வரையறுக்கப்பட்ட விதிகள் 1961 ஆம் ஆண்டைய மெட்டாலிபெரஸ் மைன்ஸ் ரெகுலேசன்ஸ், 1936 ஆம் ஆண்டைய சம்பளம் வழங்குதல் சட்டம், 1884 ஆம் ஆண்டின் இந்திய வெடிபொருட்கள் சட்டம், குறைந்தபட்ச ஊதிய சட்டம் மற்றும் தமிழ்நாடு வருவாய் வகூல் சட்டம் 1864 ஆகியவற்றின் கருத்துகளுக்கு உட்பட்டு குத்தகையாளர் கனிமங்கள் குவாரி செய்ய வேண்டும்.

xi). குத்தகைப்பகுதியில் இருந்து மெருகேற்றுவதற்கு தகுந்த கிராணைட் கற்துண்டங்கள் வெட்டுதல் கூடாது. அவ்வாறு தகுதி வாய்ந்த கிராணைட் கற்துண்டங்கள் எடுக்க வாய்ப்பு ஏற்படுமானால் குவாரி குத்தகை ரத்து செய்யப்படும்.

xii). குத்தகைதாரரை தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959, மற்றும் சுரங்கங்கள் மற்றும் கனிமங்கள் (ஒழுங்கு முறை மற்றும் அபிவிருத்தி) சட்டம் 2015, மற்றும் அரசால் அவ்வப்போது கொண்டு வரப்படும் ஆணைகளும், விதிகளும் கட்டுப்படுத்தும். அவ்வப்போது அரசால் நிர்ணயிக்கப்படும் கட்டணத்தை செலுத்த வேண்டும்.

xiii). தொழிலாளர்களுக்கு தகுந்த பாதுகாப்பு அளிக்க வேண்டும். குவாரியில் வேலை செய்யும் தொழிலாளர்களுக்கும் மற்றும் இதர நபர்களுக்கும் விபத்து ஏற்படின் முழுப்பொறுப்பும் குத்தகைதாரரையே சேரும். இதற்கு அரசு பொறுப்பல்ல. விபத்து குறித்த தகவல்களை உடனடியாக மாவட்ட ஆட்சியருக்கு தெரிவிக்க வேண்டும்.

xiv). குத்தகைதாரர் ஒவ்வொரு மாதமும் குவாரியில் வேலை செய்யும் தொழிலாளர்கள் விவரமும், குவாரி செய்த அளவிற்குரிய கணக்குகளை பிரதி திங்கள் 5 ஆம் நாளுக்குள் உதவி இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, திண்டுக்கல் அவர்களுக்கு தணிக்கைக்கு ஆஜர் செய்ய வேண்டும்.

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xv). மேலே கண்ட நிபந்தனைகளை மீறி குத்தகைதாரரோ, அவரது அதிகாரம் பெற்ற நபரோ அல்லது மற்றவர்களோ கனிமம் வெட்டினாலோ அல்லது எடுத்துச் சென்றாலோ தமிழ்நாடு சிறு கனிமச் சலுகை விதிகள் 1959, சுரங்கங்கள் மற்றும் கனிமங்கள் (அபிவிருத்தி மற்றும் ஒழுங்குமுறை) சட்டம் 2015 ஆகியவற்றில் உள்ள குற்றத் தடுப்புப் பிரிவின்படி தண்டனை பெறவும் மற்றும் அபராதம் செலுத்தப்படவும் குத்தகைதாரர் பொறுப்புடையவர் ஆவார். குத்தகை காலத்திலோ அதற்கு பின்னரோ கிரமம் தவறி குத்தகையை பயன்படுத்துவதில் ஏற்படும் சகல நஷ்டங்களுக்கும் குத்தகைதாரர்கள் பொறுப்பு ஏற்கவேண்டும். இதற்காக விதிக்கப்படும் அபராதமும் செலுத்த வேண்டும்.

5. குத்தகை ஒப்பந்தப் பத்திரத்தில் உள்ள நிபந்தனைகளை மாற்றவோ அல்லது புதிய நிபந்தனைகளைச் சேர்க்கவோ மாவட்ட ஆட்சியருக்கு முழு அதிகாரமுண்டு.

6. குத்தகை ஒப்பந்தப் பத்திரம் குவாரியின் எல்லை வரையறை செய்யப்பட்ட வரைபடத்துடன் மாவட்ட ஆட்சியரால் நிர்ணயிக்கப்பட்ட நாளில் நிறைவேற்றப்பட வேண்டும். ஒப்பந்தப் பத்திரம் நிறைவேற்றிய பின்னர் ஒப்பந்த பத்திரத்தை (Indian Registration Act 1908) இந்திய பதிவு சட்டம் 1908 -பரிவு 17(1)-ன் படி குத்தகைதாரர் செலவில் கட்டாயமாக பதிவு செய்யப்பட வேண்டும்.

7. இவ்விதியின் மீது வழங்கப்படும் குத்தகை உரிமங்கள் புதுப்பிக்கப்படமாட்டாது. எக்காரணத்தைக் கொண்டும் குத்தகைக் கால நீட்டிப்பு வழங்கப்பட மாட்டாது.

8. நிர்வாகக் காரணம் மற்றும் பொது நலனைக் கருத்திற்கொண்டு குத்தகைக்கு விடப்பட்ட பரப்பினை குறைத்து நிர்ணயிக்கவும், குத்தகை ரத்து செய்யவும் மாவட்ட ஆட்சியர் அவர்களுக்கு முழு அதிகாரமுண்டு.

9. குத்தகை எடுத்த நபர்கள் வேறு நபர்களுக்கு உள் குத்தகைக்கு விடவோ அல்லது பிற காரியங்களுக்காக உபயோகிக்கவோ கூடாது.

10.குத்தகை எடுத்தவர் எந்தக் காரணத்தை முன்னிட்டும் தனக்கு எவ்விதமான இயற்கை/செயற்கை இழப்பு ஏற்படின் இழப்பீடு கோரக் கூடாது.

11.குத்தகைதாரரை மேற்குறிப்பிட்ட நிபந்தனைகளும் 1959 ஆம் ஆண்டு தமிழ்நாடு சிறுகனிம சலுகை அனைத்து விதிகளும் மற்றும் சுரங்கங்கள் மற்றும் கனிமங்கள் (ஒழுங்குமுறை மற்றும் அபிவிருத்தி) சட்டம் 2015 மற்றும் அரசால் அவ்வப்போது கொண்டுவரப்படும் ஆணைகளும் விதிகளும் கட்டுப்படுத்தும்.

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திண்டுக்கல் மாவட்டம்

1959 ஆம் வருடத்திய தமிழ்நாடு சிறுகனிமச் சலுகை விதி 8(1)-ன்படி 2023-24-ஆம் ஆண்டில் ஏலம் விட தகுதியான அரசு புறம்போக்கு நிலங்கள்

வ. எண்	கிராமம்	புல எண்.	மொத்த விஸ்தீரணம் (ஹெக்டேரில்)	ஏலம் விடும் பரப்பு (ஹெக்டேரில்)	வகைபாடு	வருடம்
திண்டுக்கல் மேற்கு வட்டம்						
1.	குருநாதநாயக்கனூர்	840 (பகுதி 1)	7.96.0	0.40.5	அரசு புறம்போக்கு	5 வருடம்
2.	குருநாதநாயக்கனூர்	840 (பகுதி 2)	7.96.0	1.00.0	அரசு புறம்போக்கு	5 வருடம்
நத்தம் வட்டம்						
3.	பூதகுடி	70/4 A(பகுதி) (பிளாக்-1)	39.84.5	1.82.0	தீர்வை ஏற்படாத தரிசு - பாறை	5 வருடம்
4	பூதகுடி	70/4 A(பகுதி) (பிளாக்-2)	39.84.5	2.00.0	தீர்வை ஏற்படாத தரிசு - பாறை	10 வருடம்
5.	பிள்ளையார் நத்தம்	419 (பகுதி-1)	4.01.0	1.68.0	தீர்வை ஏற்படாத தரிசு - பாறை	5 வருடம்
6.	பிள்ளையார் நத்தம்	360/1	5.88.0	2.00.0	தீர்வை ஏற்படாத தரிசு - பாறை	10 வருடம்
7.	நடுமண்டலம்	569/1 (பகுதி) பிளாக்1A	27.81.5	2.00.0	தீர்வை ஏற்படாத தரிசு - பாறை	5 வருடம்
நிலக்கோட்டை வட்டம்						
8.	சிவஞானபுரம்	263/1 (பகுதி-2)	7.34.5	2.00.0	தீர்வை ஏற்படாத தரிசு - குன்று கரடு	5 வருடம்
9.	சிவஞானபுரம்	263/1 (பகுதி-3)	7.34.5	1.62.0	தீர்வை ஏற்படாத தரிசு - குன்று கரடு	5 வருடம்
ஆத்தூர் வட்டம்						
10.	போடிகாமன் வாடி	486/1	0.98.0	0.98.0	நரிப்பாறை (குன்று, கரடு)	5 வருடம்

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வ. எண்	கிராமம்	புல எண்.	மொத்த விஸ்தீரணம் (ஹெக்டேரில்)	ஏலம் விடும் பரப்பு (ஹெக்டேரில்)	வகைபாடு	வருடம்
ஒட்டன்சத்திரம் வட்டம்						
11.	வீரலபட்டி	182/4 (பிளாக்-1)	23.15.50	0.88.0	தீர்வை ஏற்படாத தரிசு	5 வருடம்
12.	வீரலபட்டி	182/4 (பிளாக்-3)	23.15.50	1.00.0	தீர்வை ஏற்படாத தரிசு	5 வருடம்
13.	கரியாம்பட்டி	1027 (பகுதி 4)	65.50.0	1.00.0	தீர்வை ஏற்படாத தரிசு	5 வருடம்
14.	கூத்தாம்பூ ண்டி	1318	20.77.0	1.00.0	குன்று, கரடு	5 வருடம்
15.	அப்பனூத்து	20(பகுதி 1)	8.56.5	1.50.0	குன்று, கரடு	5 வருடம்
16.	அப்பனூத்து	20(பகுதி 2)	8.56.5	1.50.0	குன்று, கரடு	5 வருடம்
17.	கள்ளி மந்தயம்	529/1 (பகுதி 4)	145.84.0	1.50.0	தீர்வை ஏற்படாத தரிசு	5 வருடம்
18.	காளாஞ்சிப் பட்டி	41/2 (பகுதி 1)	195.92.0	2.00.0	தீர்வை ஏற்படாத தரிசு	10 வருடம்
19.	காளாஞ்சிப் பட்டி	41/2 (பகுதி 2)	195.92.0	2.00.0	தீர்வை ஏற்ப்டாத தரிசு	10 வருடம்
20.	எல்லப்பட்டி	240/5 (பகுதி 2)	158.84.50	2.60.0	குன்று/கரடு	10 வருடம்

இடம்: திண்டுக்கல்

நாள்: 15.11.2023

ஒப்பம் .....,
மாவட்ட ஆட்சித்தலைவர்,
திண்டுக்கல்.

Director Dept.of Geology and Mining Collectorate Dindigul C/o Assistant

இணைப்பு - VI

(தமிழ்நாடு சிறுவகைக் கனிமச் சலுகை விதிகள் 1959 ன் விதி எண்.8 ஐ காண்க)
குவாரி குத்தகை கோரும் டெண்டர் /ஏல விண்ணப்பம்
(அசல் மற்றும் இரண்டு நகல்களில் கொடுக்கவும்)

அனுப்புநர் :

அலுவலர் பயன்படுத்த
அ) மனு பெறப்படும் நாள்
.....
ஆ) பெறப்படும் இடம்
ஒப்பம்

பெறுநர் :
மாவட்ட ஆட்சியர்,
திண்டுக்கல் மாவட்டம்,
திண்டுக்கல்.

அய்யா,

திண்டுக்கல் மாவட்ட அரசிதழ் எண்..... நாள் ..... அல்லது ..... செய்தித்தாள் விளம்பர நாள்..... ல், வெளியிடப்பட்டுள்ளது தொடர்பாக, தமிழ்நாடு சிறுவகைக் கனிமச் சலுகை விதிகள் 1959-ன் இன் விதி 8ன்படி நான் /நாங்கள் இந்த விண்ணப்பத்தை சமர்ப்பிக்கிறேன்/சமர்ப்பிக்கின்றோம்.
தேவையான விவரங்கள் கீழே கொடுக்கப்படுகிறது :

1. மனுதாரர் பெயர் மற்றும் முழு முகவரி :

2. அ) மனுதாரர் தனிநபரா/ தனியார் கம்பெனியா/ கூட்டு நிறுவனமா (அல்லது) கூட்டமைப்பா. :

   ஆ) மனுதாரர் தனி நபரானால் எந்த நாட்டினர் :

   இ) மனுதாரர் தனியார் கம்பெனி/ வியாபார ஸ்தாபனம் அல்லது சங்கமாயின் அதன் இயக்குநர்/ பங்குதாரர்கள் / உறுப்பினர்கள் எந்த நாட்டவர் என்ற விவரம் (சான்று இணைக்கப்படவேண்டும்). :

3. பிணைவைப்புத்தொகை செலுத்திய விவரம் : (வங்கி கேட்பு வரைவோலை எண் மற்றும் நாள் ஆகிய விவரங்களை அளிக்கவும்) :

4. விண்ணப்பதாரர் கீழ்க்கண்ட விவரங்கள் அடங்கிய ஆணை உறுதி ஆவணம் அளித்துள்ளாரா? :

அ) நடப்பு தேதி வரையிலான வருமான வரி விவரப்பட்டியல் சமர்ப்பிக்கப் பட்டுள்ளதா? :

ஆ) மனுதாரருக்கு விதிக்கப்பட்ட வருமான வரி தொகையை செலுத்தியுள்ளாரா? மற்றும் :

இ) வருமான வரிச் சட்டம் 1961ல் குறிப்பிட்டவாறு சுய மதிப்பீட்டின் அடிப்படையில் வருமான வரி செலுத்தியுள்ளாரா? :

5. மனுதாரர் எந்த சிறுவகைக் கனிமத்தைக் குவாரி செய்ய விரும்புகிறார் என்ற விவரம் :

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 :

O/o Assistant Director Dept.of Geology and Mining Collectorate Dindigul - 624 004.

11 அ) குவாரி நிலுவைத் தொகை செலுத்தியது தொடர்பான சுரங்கவரி நிலுவையின்மைச் சான்று (தேவையெனில் இணைக்க) :

ஆ) விண்ணப்பம் அளிக்கும் நாளில் விண்ணபதாரர் 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 ஆட்சியரால் கேர்ப்படும் இதர விவரங்கள் மற்றும் காப்புத் தொகை ஆகியவற்றை அளிக்க தயாராக உள்ளேன் / உள்ளோம். தமிழ்நாடு சிறுவகைக் கனிமச் சலுகை விதிகள் 1959-ல் கண்டவாறு, குவாரி குத்தகை பெறுவது தொடர்பாகவும், குவாரி பணி செய்வது தொடர்பாகவும் விதிக்கப்பட்ட நிபந்தனை, சட்ட உடன்படிக்கை குறித்து நன்றாக அறிவேன் / அறிவோம் என உறுதி அளிக்கிறேன் / அளிக்கிறோம்.

(2) சாதாரண கற்கள் வெட்ட வழங்கப்பட்ட கற்குவாரியில் அறுத்து மெருகேற்றி கட்டுமானப்பணிக்கு பயன்படும் கிரானைட் கற்துண்டங்கள் வெட்டமாட்டோம் எனவும், அவ்வாறு கிரானைட் பாளங்கள் கிடைக்குமானால் குத்தகையை மாவட்ட ஆட்சியர் ரத்து செய்ய நாங்கள் ஒப்புக்கொள்கிறோம் என உறுதியளிக்கிறோம்.

தங்கள் உண்மையுள்ள

இடம் :

மனுதாரர் கையொப்பம்

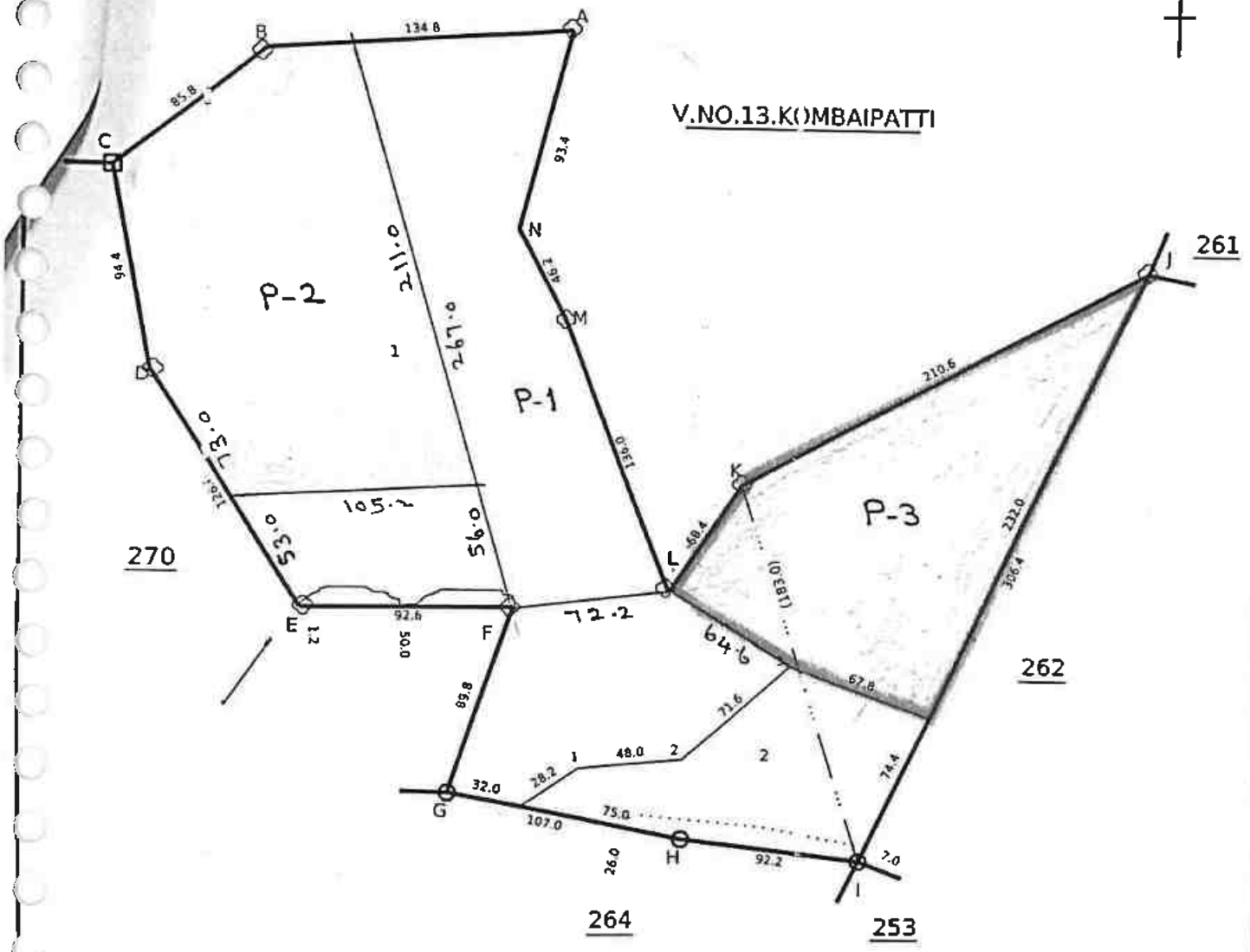
நாள் :

தமிழ்நாடு எழுதுபொருள் மற்றும் அச்சுத்துறை ஆணையரால் மதுரை அரசு கிளை அச்சகத்தில் அச்சிடப்பட்டு மாவட்ட ஆட்சியரால் வெளியிடப்பட்டது.

Dindigul
Nakottai
Sivaganapuram [15]

Survey No : 263
Area : Hect 08 Ares 25.50
Scale : 1 : 2000

Joint Director Dept.of Geology and Mining Collectorate Dindigul - 624 004 O/o Assistant



S.No: 263/1 [P-2] - 2.00.0 Hq

S.No: 263/1 [P-3] - 1.62.0 Hq

N.SURESH, M.Sc.,
Qualified Person

இ.ஆ.அ
மின்னையம் நுண்கனிம நுகவுப்பம் (பொ)
வட்டாட்சியர்
நிலக்கோட்டை

Date of Issue: 19-02-2024 15:30:18

Survey and Settlement Department, Government of TamilNadu

270 N.2

Assistant Director Dept.of Geology and Mining Collectorate Dinakaul
O/o
Lease applied area
N.SURESH, M.Sc.,
Qualified Person

O/o Assistant Director Dept. of Geology and Mining, Collectorate, Dindigul - 624 004

கி. எண். 15 (12) சிவஞானபுரம்.

1	2	3	4	5	6	7	8	9	10	11	
							ரூ.பை	ஹெ.எர்ஸ்			
239 3D	259-3D	ச	பு	...	S-2	5	2 15	0 24.0	0 52	655 க. குமார் நாயக்கர் மற்றும் நான்கு பேர்களும் *	
4	-4	ச	பு,ற	...	...	...	...	0 09.5	...	.....	வண்டிப் பாதை.
5	-5	ச	பு	...	S-2	5	2 15	0 69.0	1 26	194 பு. சின்னம நாயக்கர்.	
								3 66.0	7 69		
1	260-1	ச	பு	...	S-3	6	1 24	0 44.5	0 56	58 க. ஆண்டி நாயக்கர்.	சதுரக் கிணறு.
2	-2	ச	பு,ற	...	...	...	...	0 07.5	...	.....	வண்டிப் பாதை.
3A	-3A	ச	பு	...	S-3	6	1 24	0 41.0	0 51	58 க. ஆண்டி நாயக்கர்.	
3B	-3B	ச	பு	...	S-3	6	1 24	0 82.0	1 03	243 தீ. சென்றாய முப்பன்.	
3C	-3C	ச	பு	...	S-3	6	1 24	0 89.5	1 09	342 மி. பாண்டி.	
								2 64.5	3 19		
1	261	ச	தி.எ.த.	...	S-1	4	...	0 60 0	...	.....	தீர்வை எற்பட்ட தரிசு.
1A	262-1A	ச	பு	...	S-2	5	2 15	2 00.5	4 31	559 வே. பெருமாள்.	
1B	-1B	ச	பு	...	S-2	5	2 15	0 06.0	0 13	.....	தீர்வை எற்பட்ட தரிசு.
2	-2	ச	பு,ற	...	...	...	...	0 40.5	...	.....	ஓடை.
3	-3	ச	பு	...	S-2	5	2 15	0 88.0	1 93	370 வே. பெருமாள்.	
								3 35.0	6 37		
1	263-1	ச	தி.எ.த.	...	...	...	...	7 34.5	...		
2	-2	ச	பு	...	S-2	5	2 15	0 91.0	2 00		
								8 25.5	2 [illegible]		

* விவர[illegible]

திருமாநிலையூர் வருவாய் அலுவலர் (குரூப்), சிவஞானபுரம், திண்டுக்கல் மாவட்டம்.

இந்திய அரசாங்கம்
Government of India

செல்வம் போஸ்
Selvam Bose
தந்தை : போஸ்
Father : Bose

பிறந்த நாள் / DOB: 23/07/1979

ஆண்பால் / Male

7785 3257 6866

எனது ஆதார், எனது அடையாளம்

ஆதார்

Unique Identification Authority of India

முகவரி: தந்தை / தாய் பெயர்:
போஸ், 2/56, மெயின்ரோடு,
வெங்கடாஸ்திரிகோட்டை,
கோம்பைபட்டி, திண்டுக்கல்,
வத்தலகுண்டு, தமிழ் நாடு,
624202

Address: S/O Bose, 2/56,
mainroad, Gangadastrikottai,
Kombaipatti, Dindigul,
Batlagundu, Tamil Nadu, 624202

7785 3257 6866

1947

help@uidai.gov.in

www.uidai.gov.in

SUPER
MINES & MINERALS

MINES : Deveenna Goundanoor
S.F.No - 631/9, Sankari, Taluk,
SALEM DISTRICT. Cell : 94432 52403
Email : chandramohan5@yahoo.com

Date : 08.07.2024

TO WHOMSOEVAR IT MAY CONCERN

This is to certify that **Mr. N.SURESH** S/o. Mr.P.NARAYANAN, Residing at D.No.6/187-A, Amaragundhi Post, Omalur Taluk, Salem Taluk, Salem District -636 503 has worked in our mines from the date of **13.03.2018 to 08.07.2024** as a **GEOLOGIST with Supervisor capacity**. During the above tenure of service his execution of the assigned work in exemplary and worth mentioning. I wish him success in his future endeavors.

8.7.2024

Signature of the Mine owner
With Date & Seal
M/s. SUPER MINES & MINERALS
DEVANNAGOUNDANUR VILLAGE,
SANKARI TALUK,
SALEM DISTRICT-637 101,
TAMILNADU STATE.

Name of Mine: M/S. SUPER MINES & MINERALS
Address: No. 23/12 Sri Krishna Kudil Apartment, Highways Colony Road, Opp. To Sona Engg. College,
District: Salem – 636 005.
State: Tamilnadu.

Place: Salem
Date: 08.07.2024

OFFICE : 23/12 Sri Krishna Kudil Apartments,
Highways Colony Road,
Opp.Sona Engg. College, Salem - 636 005.

Scanned with OKEN Scanner

Reg. No. 10PGL83012
Col. Code. 106

N 2KJ 027257

பெரியார் பல்கலைக்கழகம்
Periyar University

அறிவியல் புலம்
FACULTY OF SCIENCE

பெரியார் பல்கலைக்கழக ஆட்சிக்குழு **2012** ஆம் ஆண்டு **ஏப்ரல்** மாதம் நடந்த **பயன்பாட்டுப்புவியமைப்பியல்** தேர்வில் அரசு கலைக் கல்லூரி, சேலம் - 636 007 (தன்னாட்சி) பயின்ற **N சுரேஷ்** என்பவர் **முதல் வகுப்பு A++ தரத்தில்** தேர்ச்சி பெற்றார் என்று தக்க தேர்வாளர்கள் சான்றளித்தபடி **அறிவியல் நிறைஞர்** என்னும் பட்டத்தை அவருக்குப் பல்கலைக்கழக இலச்சினையுடன் வழங்குகிறது.

The Syndicate of the **Periyar University** *hereby makes known that* **SURESH N** *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 WITH A++ GRADE** *at the Examination held in* **APR-2012** *through* GOVERNMENT ARTS COLLEGE, SALEM - 636 007 (AUTONOMOUS).

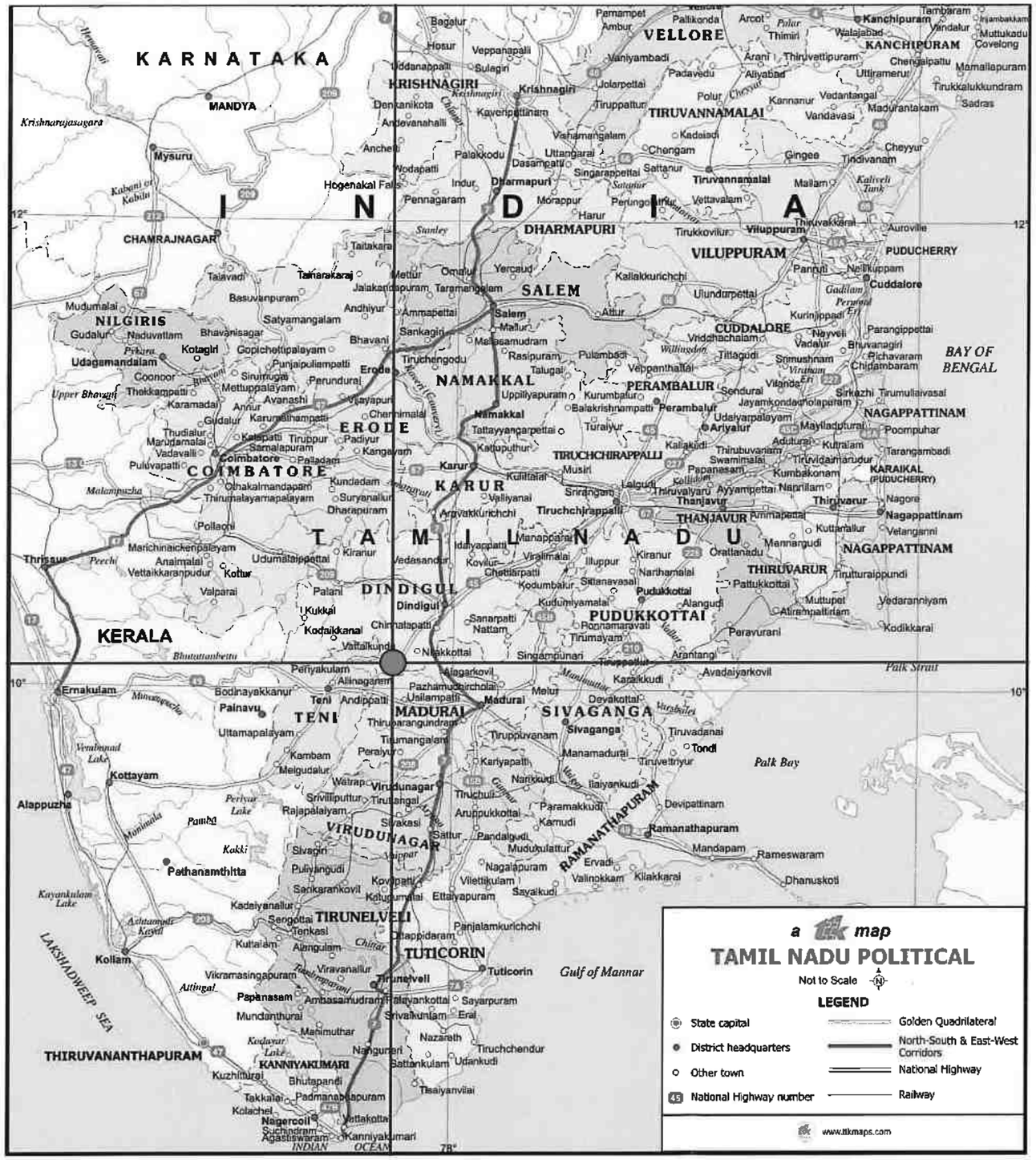
Given under the seal of this university

நாள்
Dated 09-11-2012
சேலம் 636011, தமிழ்நாடு, இந்தியா.
Salem 636011, Tamil Nadu, India.

பதிவாளர்
Registrar

துணைவேந்தர்
Vice-Chancellor

10°07'23.83"E



10°07'17.71'E

77°47'45.69"E

77°47'49.49"E

N

Office of the Assistant Director Dept.of Geology and Mining Collectorate Dindigul - 624 004.

PLATE NO:I

APPLICANT ADDRESS:

THIRU.B.SELVAM,
S/o. BOSE,
No.2/56, MAIN ROAD,
VENGADASTHIRIKOTTAI,
KOMBAIPATTI, BATLAGUNDU,
DINDIGUL DISTRICT - 624 202.

LOCATION OF QUARRY:

EXTENT	:	1.62.00 Ha,
S.F.NO	:	263/1 (Part-3),
VILLAGE	:	SIVANGANAPURAM,
TALUK	:	NILAKOTTAI,
DISTRICT	:	DINDIGUL,
STATE	:	TAMILNADU.

INDEX

QUARRY LEASE AREA :

TOPO SHEET NO. : 58-F/16,

LATITUDE :10° 07' 17.71"N to 10° 07' 23.83"N

LONGITUDE: 77° 47' 45.69"E to 77° 47' 49.49"E

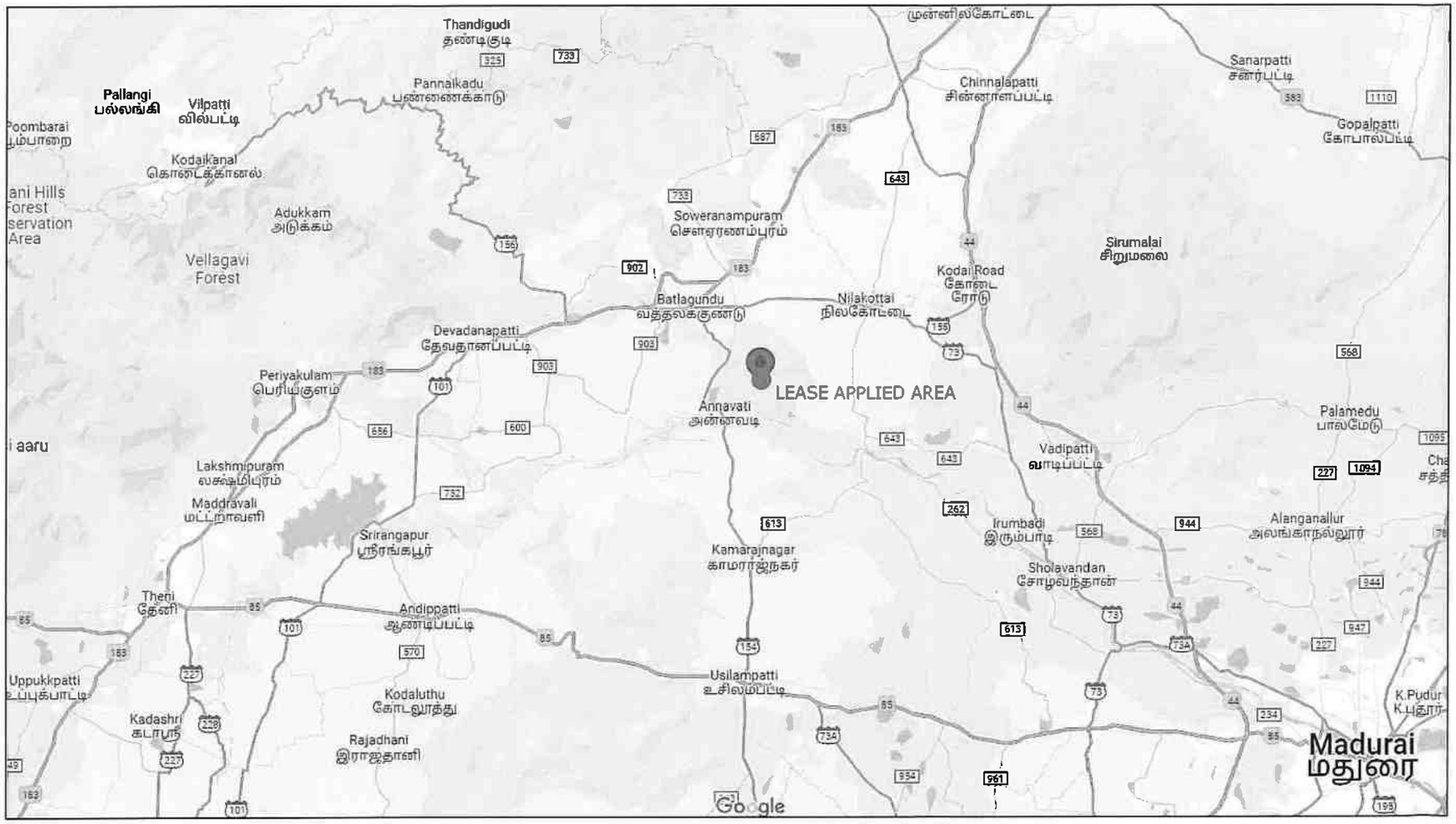
LOCATION PLAN

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

N.SURESH, M.Sc,
QUALIFIED PERSON



N

PLATE NO :IA

APPLICANT ADDRESS:

THIRU.B.SELVAM,
S/o. BOSE,
No.2/56, MAIN ROAD,
VENGADASTHIRIKOTTAI,
KOMBAIPATTI, BATLAGUNDU,
DINDIGUL DISTRICT - 624 202.

LOCATION OF QUARRY:

EXTENT	:	1.62.00 Ha,
S.F.NO	:	263/1 (Part-3),
VILLAGE	:	SIVANGANAPURAM,
TALUK	:	NILAKOTTAI,
DISTRICT	:	DINDIGUL,
STATE	:	TAMILNADU.

INDEX

QUARRY LEASE AREA
APPROACH ROAD
NH ROAD
SH ROAD
VILLAGE ROAD

ROUTE MAP

NOT TO SCALE

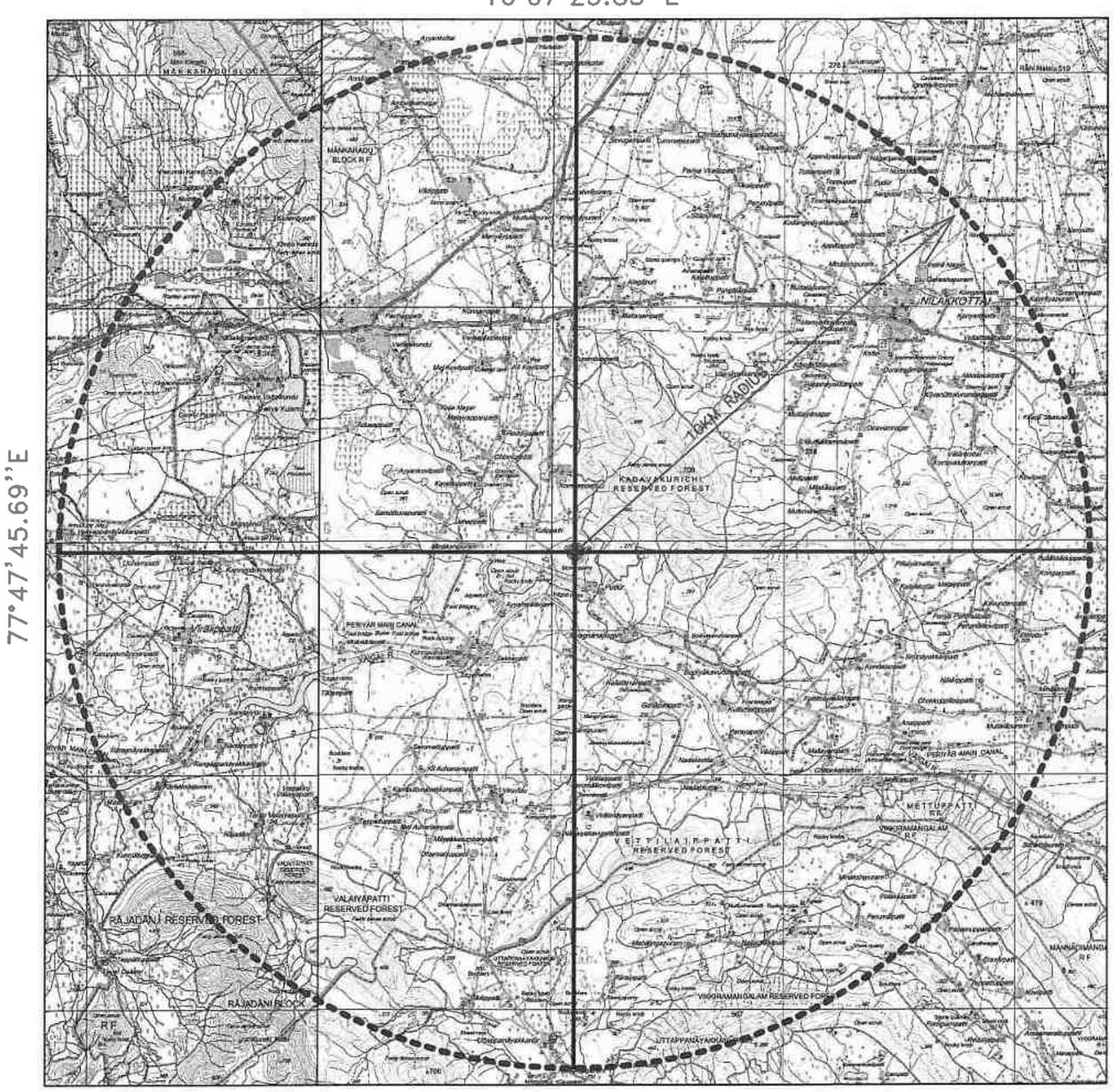
Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

N.SURESH, M.Sc,
QUALIFIED PERSON

O/o Assistant Director Dept.of Geology and Mining Collectorate Dindigul - 624 202

PLATE NO :IB



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APPLICANT ADDRESS:

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VENGADASTHIRIKOTTAI,
KOMBAIPATTI, BATLAGUNDU,
DINDIGUL DISTRICT - 624 202.

Assistant Director, Dept. of Geology and Mining Collectorate Dindigul - 624 004. * O/o

LOCATION OF QUARRY:

EXTENT	:	1.62.00 Ha,
S.F.NO	:	263/1 (Part-3),
VILLAGE	:	SIVANGANAPURAM,
TALUK	:	NILAKOTTAI,
DISTRICT	:	DINDIGUL,
STATE	:	TAMILNADU.

INDEX

QUARRY LEASE AREA :

10Km RADIUS :

TOPO SHEET NO. : 58-F/16,

LATITUDE :10° 07' 17.71"N to 10° 07' 23.83"N

LONGITUDE: 77° 47' 45.69"E to 77° 47' 49.49"E

TOPO SHEET MAP WITH 10Km RADIUS

SCALE : 1: 100000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

N.SURESH, M.Sc,
QUALIFIED PERSON

10° 07' 20.60"N
77° 47' 46.79"E

10° 07' 18.97"N
77° 47' 45.69"E

10° 07' 23.83"N
77° 47' 52.88"E

10° 07' 16.06"N
77° 47' 49.49"E

N

PLATE NO. :IC :

APPLICANT ADDRESS:

THIRU.B.SELVAM,
S/o. BOSE,
No.2/56, MAIN ROAD,
VENGADASTHIRIKOTTAI,
KOMBAIPATTI, BATLAGUNDU,
DINDIGUL DISTRICT - 624 202.

LOCATION OF QUARRY:

EXTENT : 1.62.00 Ha,
S.F.NO : 263/1 (Part-3),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.

INDEX

QUARRY LEASE BOUNDARY
VILLAGE ROAD
APPROACH ROAD
300m RADIUS
500m RADIUS
1Km RADIUS
HILLOCK

TOPO SHEET NO. : 58-F/16,

LATITUDE :10° 07' 17.71"N to 10° 07' 23.83"N

LONGITUDE: 77° 47' 45.69"E to 77° 47' 49.49"E

SATELLITE IMAGE
(1Km RADIUS)

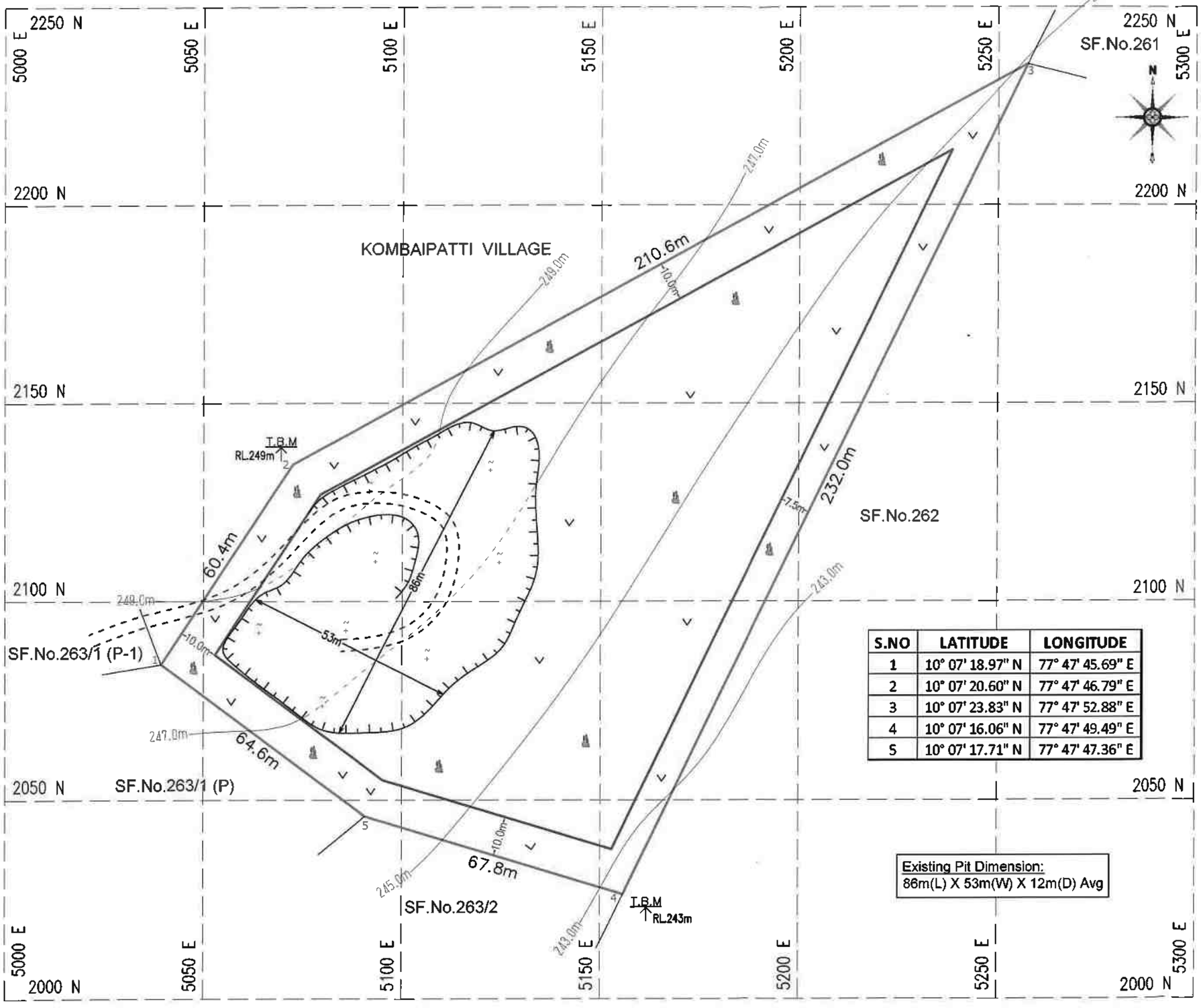
SCALE : 1: 10000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

N.SURESH, M.Sc,
QUALIFIED PERSON

O/o Assistant Director Dept.of Geology and Mining Collectorate Dindigul - 624 004.



S.NO	LATITUDE	LONGITUDE
1	10° 07' 18.97" N	77° 47' 45.69" E
2	10° 07' 20.60" N	77° 47' 46.79" E
3	10° 07' 23.83" N	77° 47' 52.88" E
4	10° 07' 16.06" N	77° 47' 49.49" E
5	10° 07' 17.71" N	77° 47' 47.36" E

Existing Pit Dimension:
86m(L) X 53m(W) X 12m(D) Avg

PLATE NO:II

Assistant Director Dept.of Geology and Mining Collectorate Dindigul - 624 004. O/o

APPLICANT ADDRESS:

THIRU.B.SELVAM,
S/o. BOSE,
No.2/56, MAIN ROAD,
VENGADASTHIRIKOTTAI,
KOMBAIPATTI, BATLAGUNDU,
DINDIGUL DISTRICT - 624 202.

LOCATION OF QUARRY:

EXTENT : 1.62.00 Ha,
S.F.NO : 263/1 (Part-3),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 243.0M)
- APPROACH ROAD
- TOP SOIL
- ROUGH STONE
- QUARRY PIT
- QUARRY ROAD
- CONTOUR LINE
- SHRUB

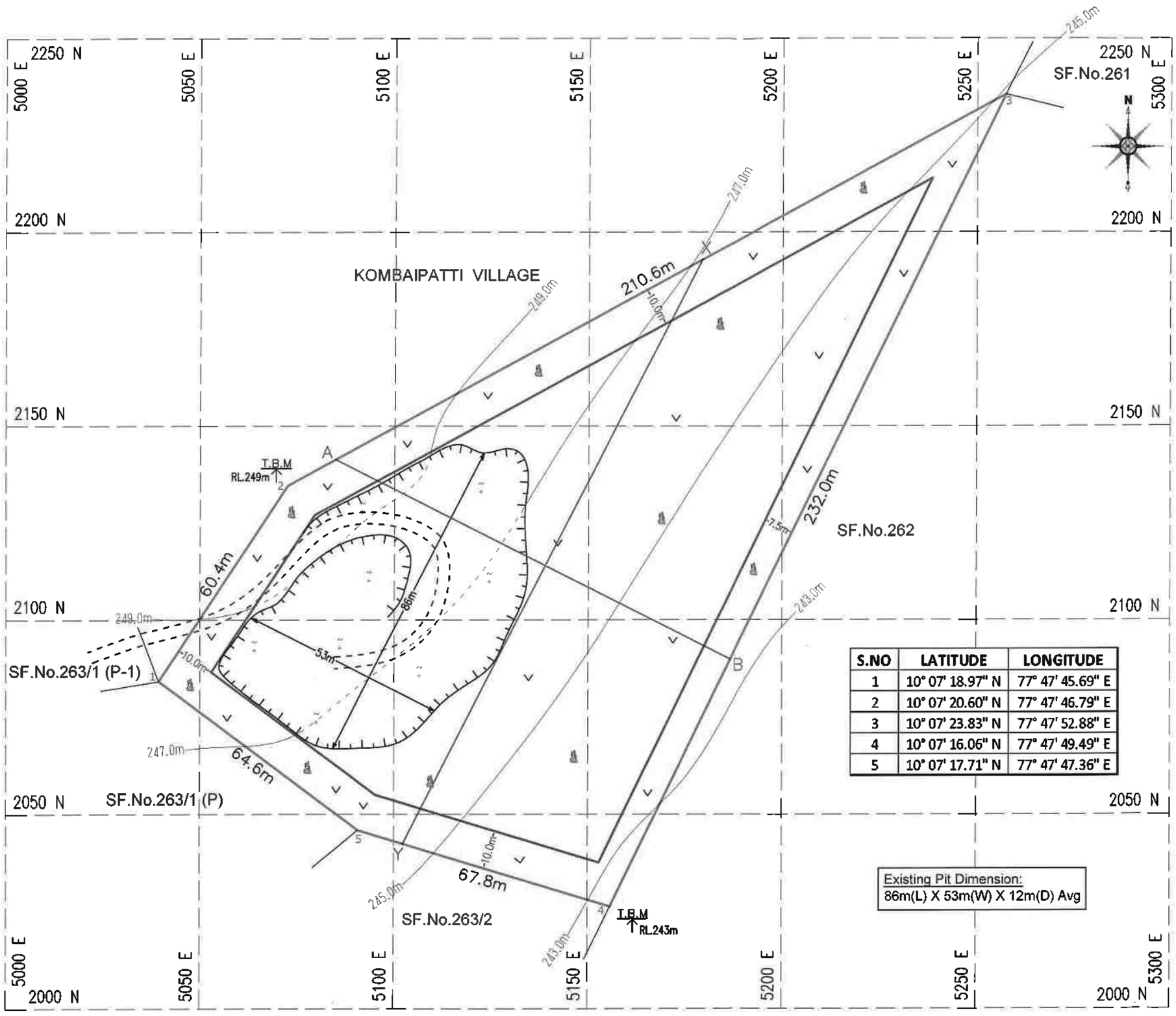
MINE LEASE & SURFACE PLAN

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

N.SURESH, M.Sc,
QUALIFIED PERSON



S.NO	LATITUDE	LONGITUDE
1	10° 07' 18.97" N	77° 47' 45.69" E
2	10° 07' 20.60" N	77° 47' 46.79" E
3	10° 07' 23.83" N	77° 47' 52.88" E
4	10° 07' 16.06" N	77° 47' 49.49" E
5	10° 07' 17.71" N	77° 47' 47.36" E

Existing Pit Dimension:
86m(L) X 53m(W) X 12m(D) Avg

Director Dept.of Geology and Mining Collectorate Dindigul - 624 004

PLATE NO:III

APPLICANT ADDRESS

THIRU.B.SELVAM,
S/o. BOSE,
No.2/56, MAIN ROAD,
VENGADASTHIRIKOTTAI,
KOMBAIPATTI, BATLAGUNDU,
DINDIGUL DISTRICT - 624 202.

LOCATION OF QUARRY:

EXTENT	:	1.62.00 Ha,
S.F.NO	:	263/1 (Part-3),
VILLAGE	:	SIVANGANAPURAM,
TALUK	:	NILAKOTTAI,
DISTRICT	:	DINDIGUL,
STATE	:	TAMILNADU.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 243.0M)
- APPROACH ROAD
- TOP SOIL
- ROUGH STONE
- QUARRY PIT
- QUARRY ROAD
- CONTOUR LINE
- SHRUB

GEOLOGICAL PLAN

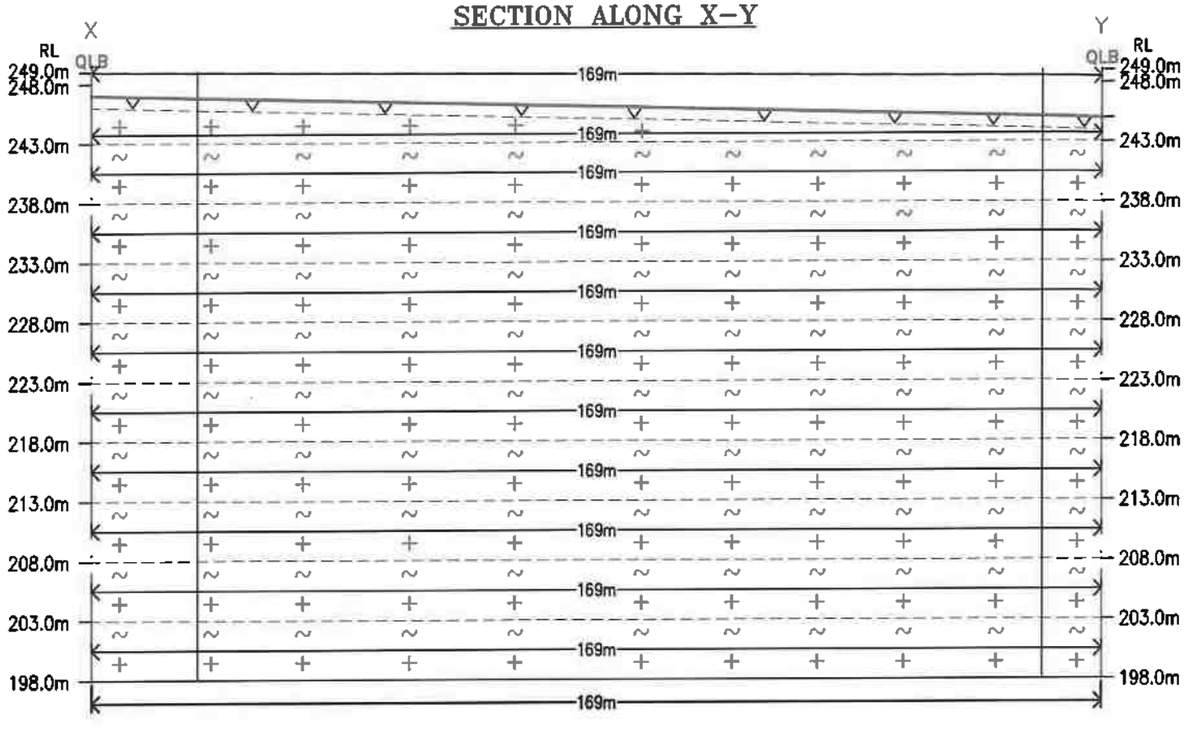
SCALE 1:1000

Prepared By:

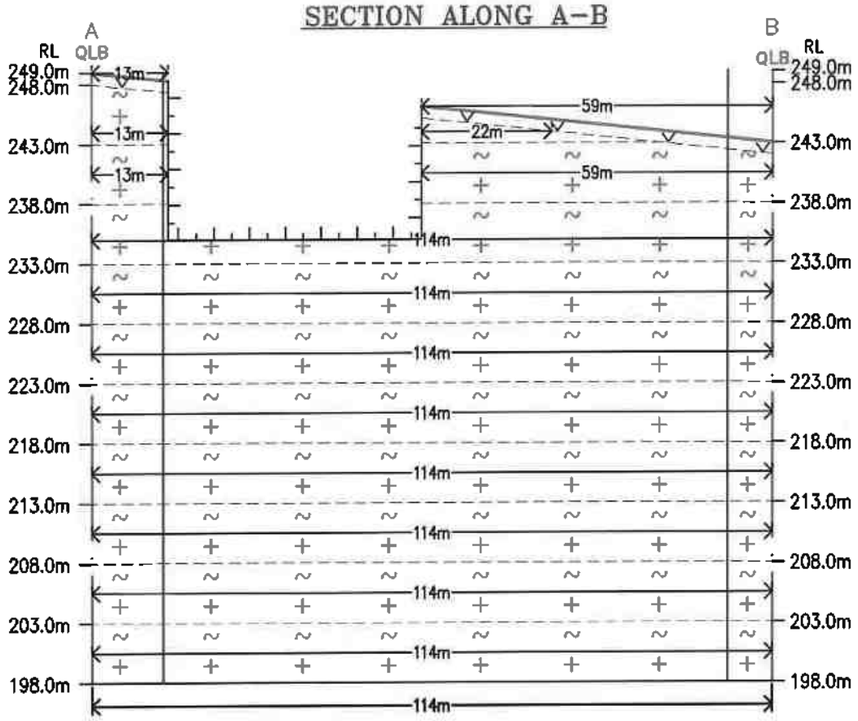
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

N.SURESH, M.Sc,
QUALIFIED PERSON

SECTION ALONG X–Y



SECTION ALONG A–B



GEOLOGICAL RESOURCES

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (m3)	Geological Resources in m3 (100%)	Top Soil in m3
XY-AB	I	169	72	1			12168
	II	169	35	2	11830	11830	
	III	169	72	5	60840	60840	
	IV	169	114	5	96330	96330	
	V	169	114	5	96330	96330	
	VI	169	114	5	96330	96330	
	VII	169	114	5	96330	96330	
	VIII	169	114	5	96330	96330	
	IX	169	114	5	96330	96330	
	X	169	114	5	96330	96330	
Grand Total=					**746980**	**746980**	**12168**

Asst. Director Dept.of Geology and Mining Collectorate Dindigul - 624 004

PLATE NO:III-A

APPLICANT ADDRESS:

THIRU.B.SELVAM,
S/o. BOSE,
No.2/56, MAIN ROAD,
VENGADASTHIRIKOTTAI,
KOMBAIPATTI, BATLAGUNDU,
DINDIGUL DISTRICT - 624 202.

LOCATION OF QUARRY:

EXTENT : 1.62.00 Ha,
S.F.NO : 263/1 (Part-3),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.

INDEX

QUARRY LEASE BOUNDARY
7.5m & 10.0m SAFETY DISTANCE
TOP SOIL
ROUGH STONE

GEOLOGICAL SECTIONS

SCALE: HOR-1:1000
VER-1:500

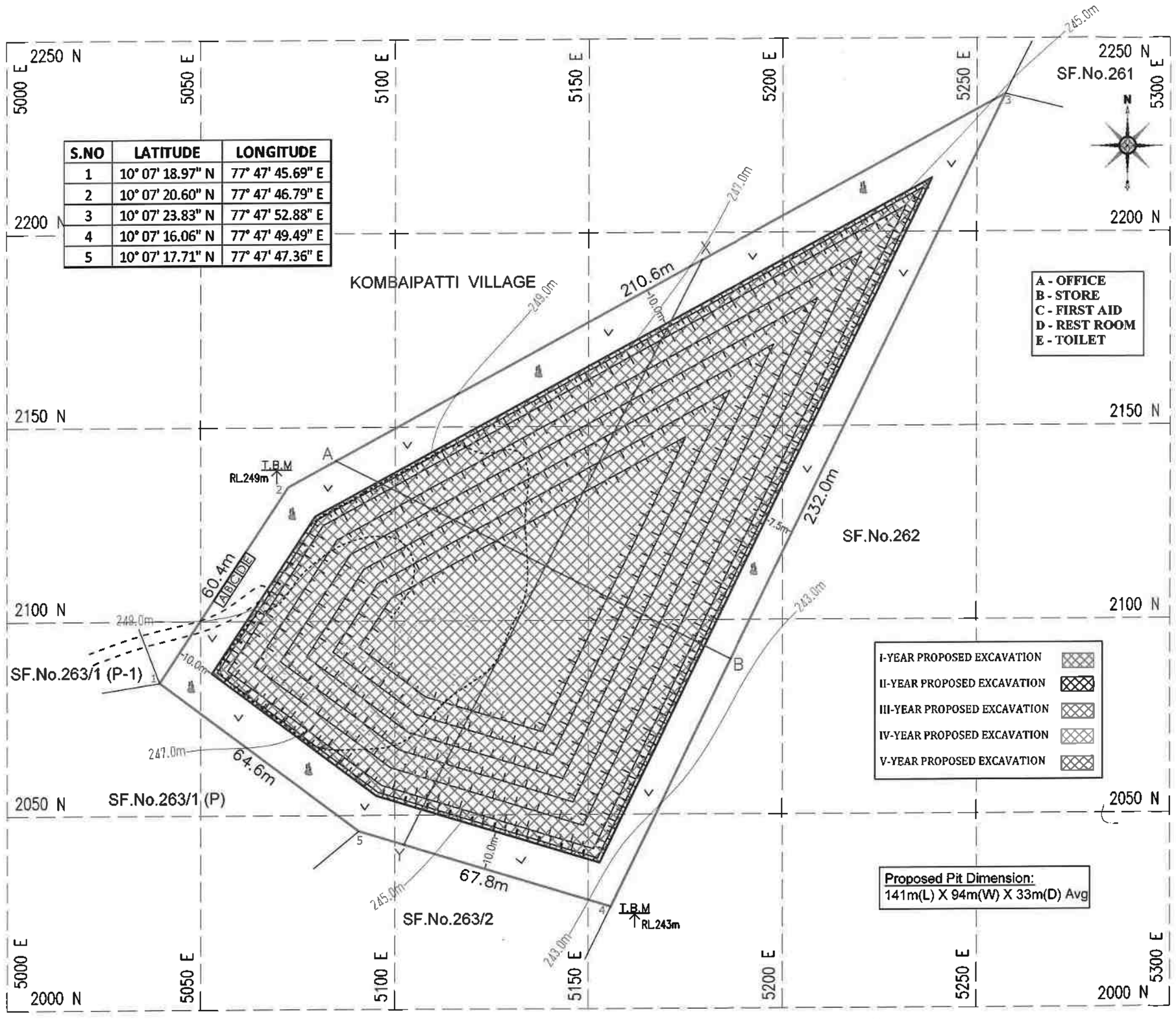
Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

N.SURESH, M.Sc,
QUALIFIED PERSON

PLATE NO:IV

S.NO	LATITUDE	LONGITUDE
1	10° 07' 18.97" N	77° 47' 45.69" E
2	10° 07' 20.60" N	77° 47' 46.79" E
3	10° 07' 23.83" N	77° 47' 52.88" E
4	10° 07' 16.06" N	77° 47' 49.49" E
5	10° 07' 17.71" N	77° 47' 47.36" E



Assistant Director Dept.of Geology and Mining Collectorate Dindigul - 624 004.

APPLICANT ADDRESS

THIRU.B.SELVAM,
S/o. BOSE,
No.2/56, MAIN ROAD,
VENGADASTHIRIKOTTAI,
KOMBAIPATTI, BATLAGUNDU,
DINDIGUL DISTRICT - 624 202.

LOCATION OF QUARRY:

EXTENT : 1.62.00 Ha,
S.F.NO : 263/1 (Part-3),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 243.0M)
- APPROACH ROAD
- TOP SOIL
- ROUGH STONE
- QUARRY PIT
- QUARRY ROAD
- CONTOUR LINE (249.0M / 243.0M)
- SHRUB

YEARWISE DEVELOPMENT AND PRODUCTION PLAN

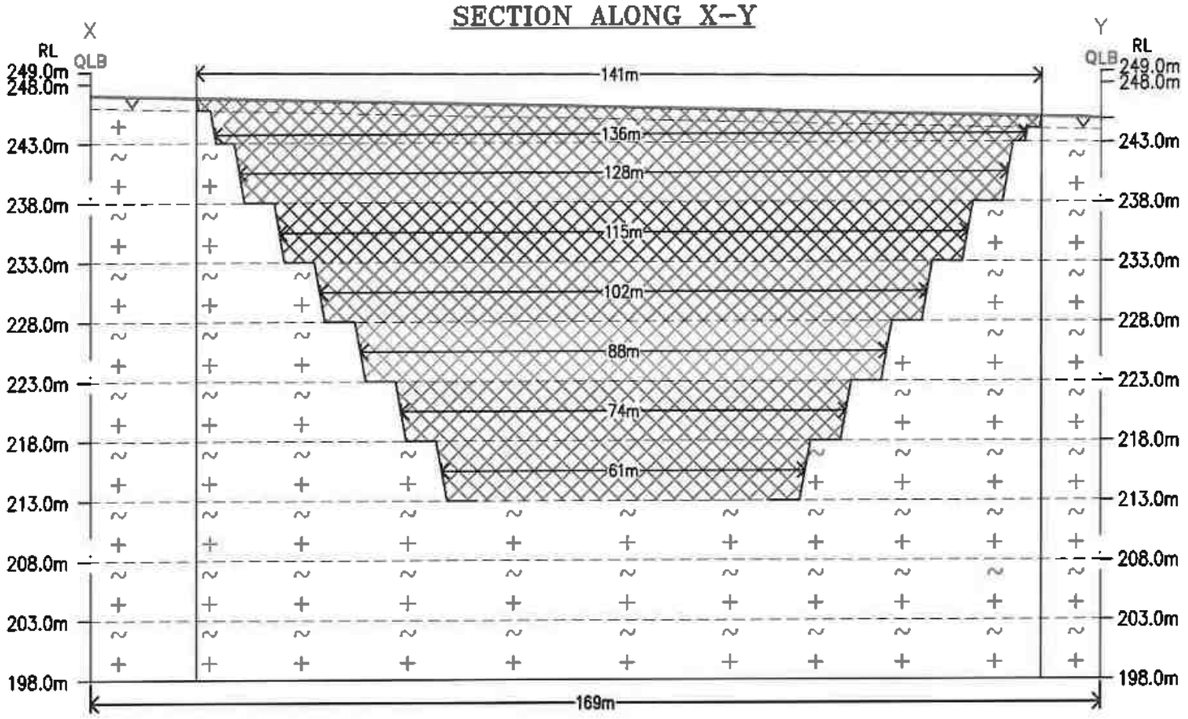
SCALE 1:1000

Prepared By:

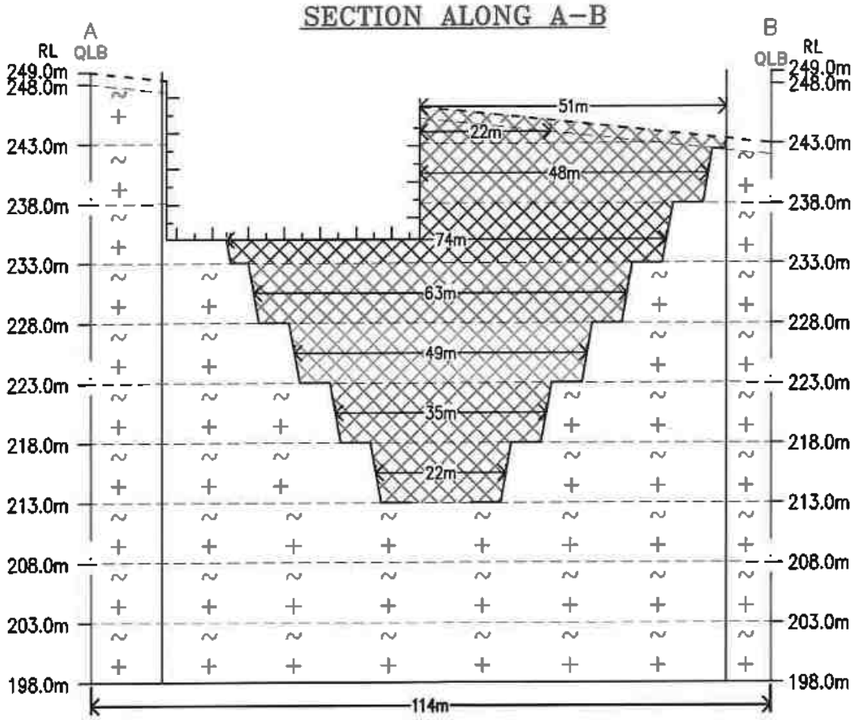
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

N.SURESH, M.Sc,
QUALIFIED PERSON

SECTION ALONG X-Y



SECTION ALONG A-B



I-YEAR PROPOSED EXCAVATION
II-YEAR PROPOSED EXCAVATION
III-YEAR PROPOSED EXCAVATION
IV-YEAR PROPOSED EXCAVATION
V-YEAR PROPOSED EXCAVATION

YEARWISE DEVELOPMENT AND PRODUCTION

Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (m3)	Recoverable Reserves in m3 (100%)	Top Soil in m3
I - YEAR	XY-AB	I	141	51	1			7191
		II	136	22	2	5984	5984	
		III	128	48	5	30720	30720	
		Total				**36704**	**36704**	**7191**
II-YEAR		IV	115	74	5	42550	42550	
		Total				**42550**	**42550**	
III-YEAR		V	102	63	5	32130	32130	
		Total				**32130**	**32130**	
IV-YEAR		VI	88	49	5	21560	21560	
		Total				**21560**	**21560**	
V-YEAR		VII	74	35	5	12950	12950	
		VIII	61	22	5	6710	6710	
		Total				**19660**	**19660**	
Grand Total=						**152604**	**152604**	**7191**

O/o Assistant Director Dept.of Geology and Mining Collectorate Dindigul - 624 004.

PLATE NO:IV-A

APPLICANT ADDRESS:

THIRU.B.SELVAM,
S/o. BOSE,
No.2/56, MAIN ROAD,
VENGADASTHIRIKOTTAI,
KOMBAIPATTI, BATLAGUNDU,
DINDIGUL DISTRICT - 624 202.

LOCATION OF QUARRY:

EXTENT : 1.62.00 Ha,
S.F.NO : 263/1 (Part-3),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.

INDEX

QUARRY LEASE BOUNDARY
7.5m & 10.0m SAFETY DISTANCE
TOP SOIL
ROUGH STONE

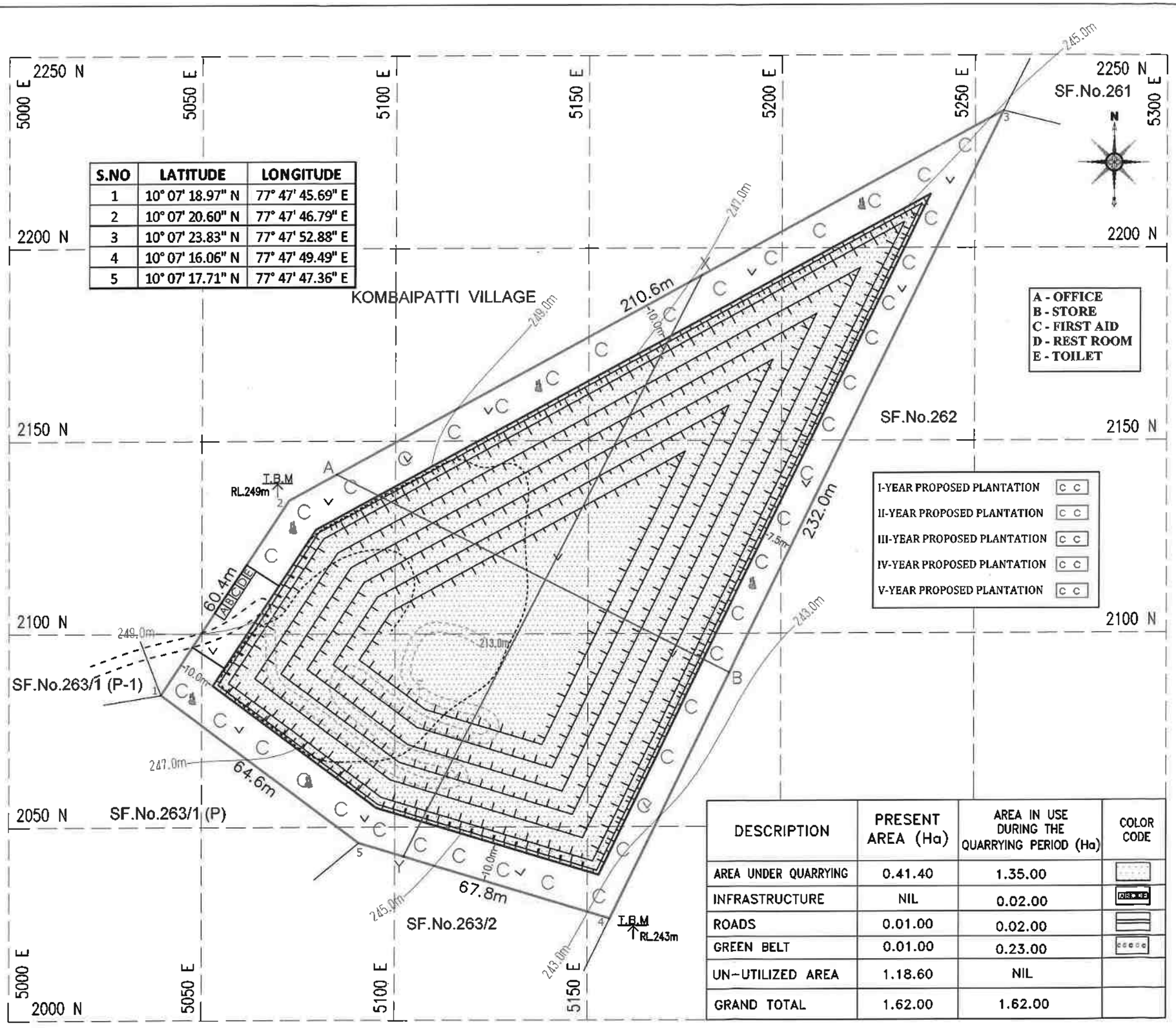
YEARWISE DEVELOPMENT AND PRODUCTION SECTIONS

SCALE: HOR-1:1000
VER-1:500

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

N.SURESH, M.Sc,
QUALIFIED PERSON



S.NO	LATITUDE	LONGITUDE
1	10° 07' 18.97" N	77° 47' 45.69" E
2	10° 07' 20.60" N	77° 47' 46.79" E
3	10° 07' 23.83" N	77° 47' 52.88" E
4	10° 07' 16.06" N	77° 47' 49.49" E
5	10° 07' 17.71" N	77° 47' 47.36" E

DESCRIPTION	PRESENT AREA (Ha)	AREA IN USE DURING THE QUARRYING PERIOD (Ha)	COLOR CODE
AREA UNDER QUARRYING	0.41.40	1.35.00	
INFRASTRUCTURE	NIL	0.02.00	A/B/C/D/E
ROADS	0.01.00	0.02.00	
GREEN BELT	0.01.00	0.23.00	
UN-UTILIZED AREA	1.18.60	NIL	
GRAND TOTAL	1.62.00	1.62.00	

PLATE NO.V

O/o Assistant Director Dept.of Geology and Mining Collectorate Dindigul - 624 004.

APPLICANT ADDRESS:

THIRU.B.SELVAM,
S/o. BOSE,
No.2/56, MAIN ROAD,
VENGADASTHIRIKOTTAI,
KOMBAIPATTI, BATLAGUNDU,
DINDIGUL DISTRICT - 624 202.

LOCATION OF QUARRY:

EXTENT : 1.62.00 Ha,
S.F.NO : 263/1 (Part-3),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 243.0M)
- APPROACH ROAD
- TOP SOIL
- QUARRY PIT
- QUARRY ROAD
- CONTOUR LINE
- MINE LAYOUT

MINE LAYOUT, LAND USE PATTERN & AFFORESTATION PLAN

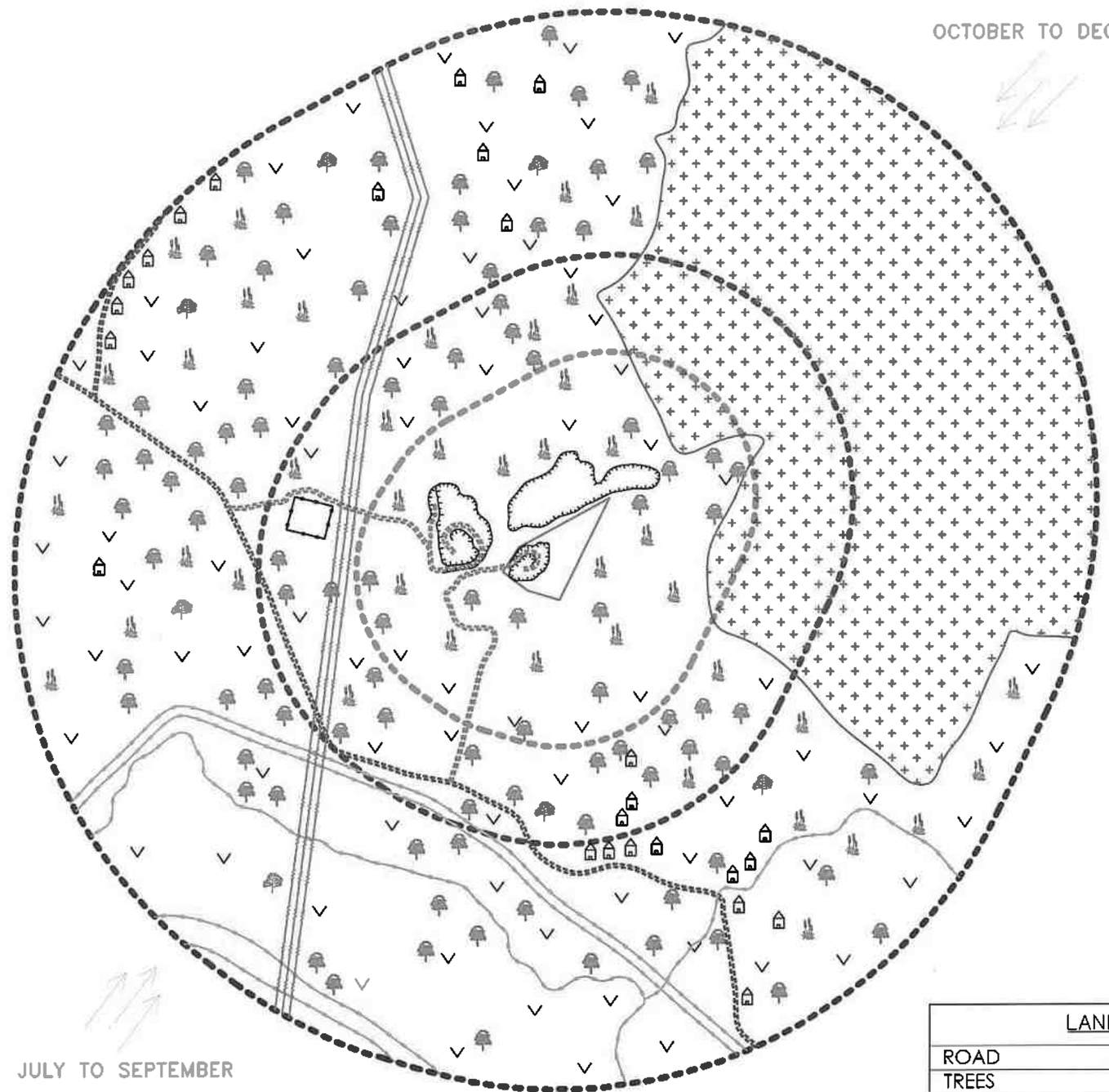
SCALE 1:1000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

M.SURESH, M.Sc,
QUALIFIED PERSON

PLATE NO:VI



APPLICANT ADDRESS:

THIRU.B.SELVAM,
S/o. BOSE,
No.2/56, MAIN ROAD,
VENGADASTHIRIKOTTAI,
KOMBAIPATTI, BATLAGUNDU,
DINDIGUL DISTRICT - 624 202.

LOCATION OF QUARRY:

EXTENT	:	1.62.00 Ha,
S.F.NO	:	263/1 (Part-3),
VILLAGE	:	SIVANGANAPURAM,
TALUK	:	NILAKOTTAI,
DISTRICT	:	DINDIGUL,
STATE	:	TAMILNADU.

INDEX

- QUARRY LEASE BOUNDARY
- VILLAGE ROAD
- APPROACH ROAD
- 300m RADIUS
- 500m RADIUS
- 1Km RADIUS
- TREES
- SHRUB
- DRY AGRICULTURAL LAND
- QUARRY PIT
- INFRASTRUCTURES
- WIND DIRECTION
- HT POWER LINE
- ODAI
- HILLOCK

ENVIRONMENT PLAN

SCALE 1:1000

LAND USE PATTERN

ROAD	(05%)
TREES	(25%)
SEASONAL AGRICULTURAL LAND	(30%)
BARREN LAND	(15%)
HABITATIONS	(05%)
HILLOCK	(20%)

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

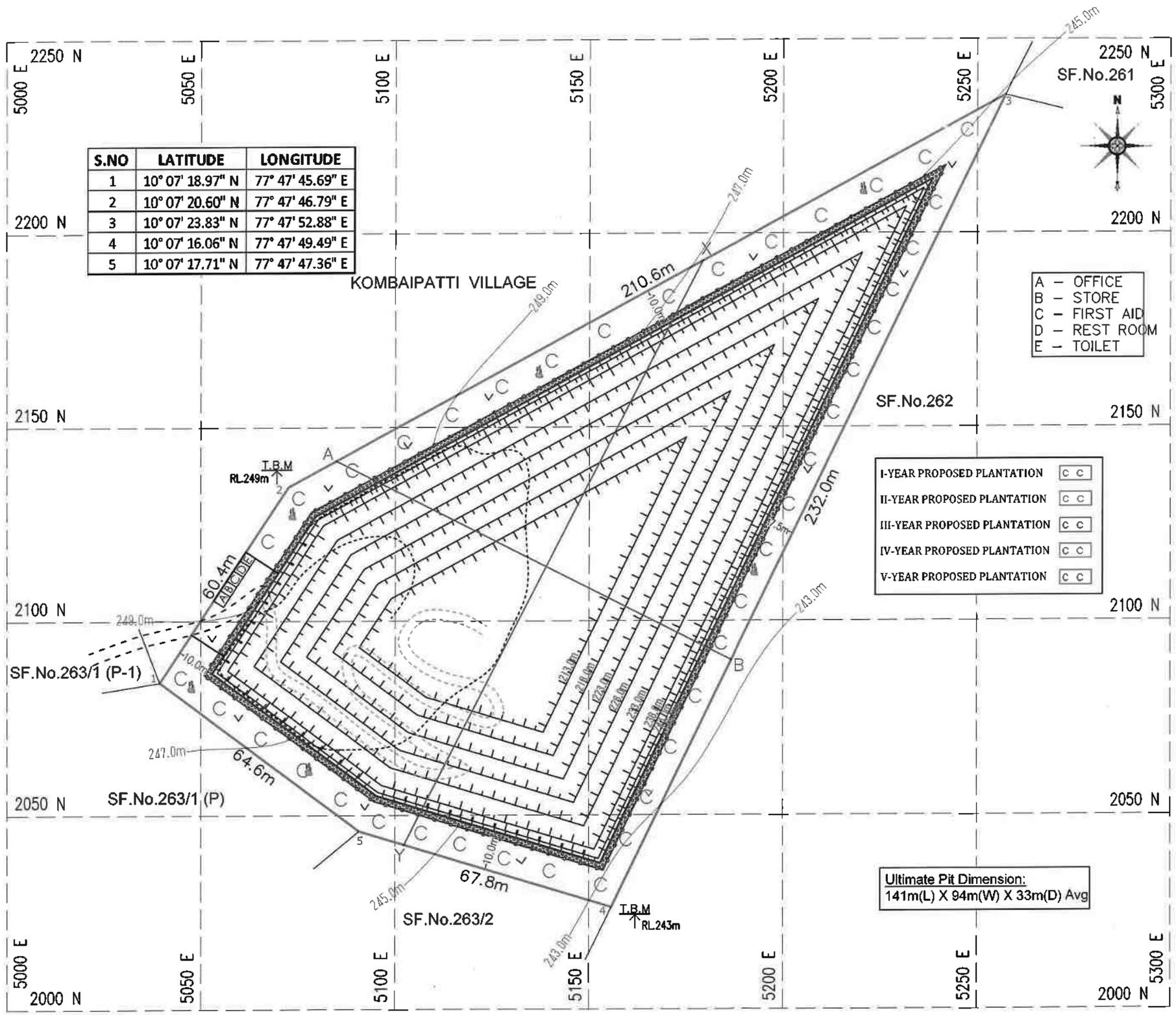
N.SURESH, M.Sc,
QUALIFIED PERSON

Received from the Deputy Director Dept.of Geology and Mining Collectorate Dindigul - 624 004. ★ O/o Assistant Director

O/o Assistant Director Dept. of Geology and Mining Collectorate Dindigul - 624 004.

PLATE NO:VII

S.NO	LATITUDE	LONGITUDE
1	10° 07' 18.97" N	77° 47' 45.69" E
2	10° 07' 20.60" N	77° 47' 46.79" E
3	10° 07' 23.83" N	77° 47' 52.88" E
4	10° 07' 16.06" N	77° 47' 49.49" E
5	10° 07' 17.71" N	77° 47' 47.36" E



APPLICANT ADDRESS:

THIRU.B.SELVAM,
S/o. BOSE,
No.2/56, MAIN ROAD,
VENGADASTHIRIKOTTAI,
KOMBAIPATTI, BATLAGUNDU,
DINDIGUL DISTRICT - 624 202.

LOCATION OF QUARRY:

EXTENT : 1.62.00 Ha,
S.F.NO : 263/1 (Part-3),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 243.00M)
- APPROACH ROAD
- QUARRY PIT
- QUARRY ROAD
- CONTOUR LINE
- FENCING
- PARAPET WALL
- ULTIMATE PIT LIMIT
- PROPOSED WATER STORAGE

CONSEPTUAL & FINAL MINE CLOSURE PLAN

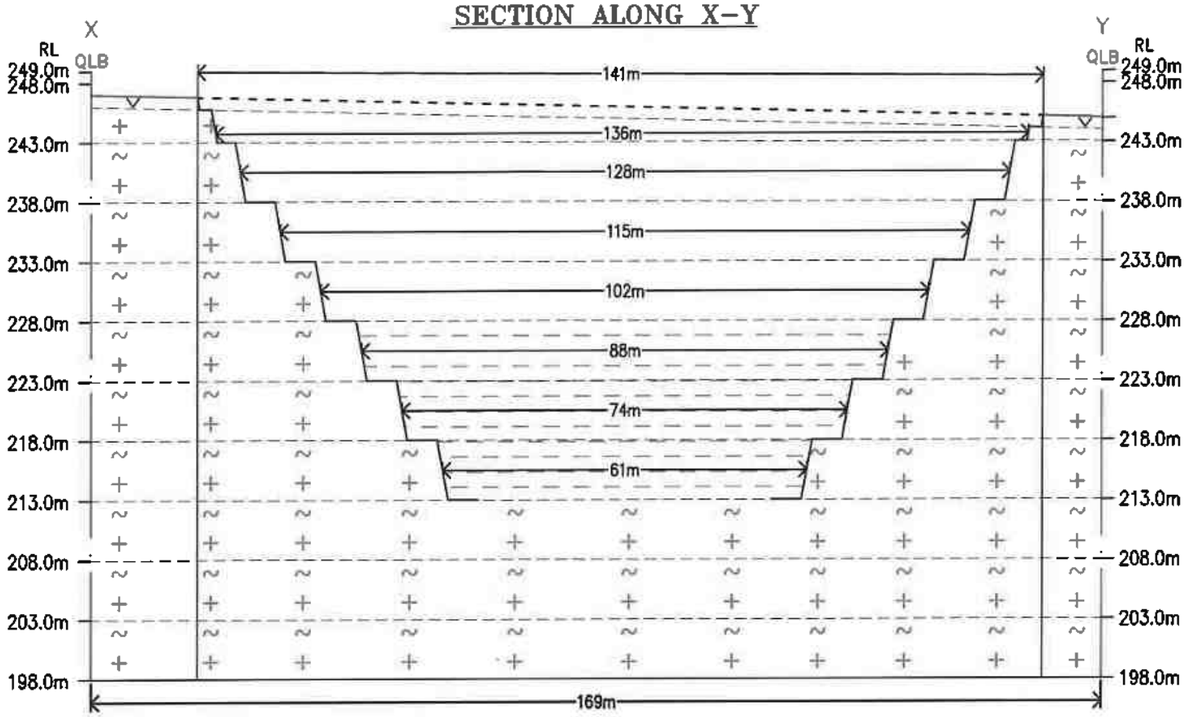
SCALE 1:1000

Prepared By:

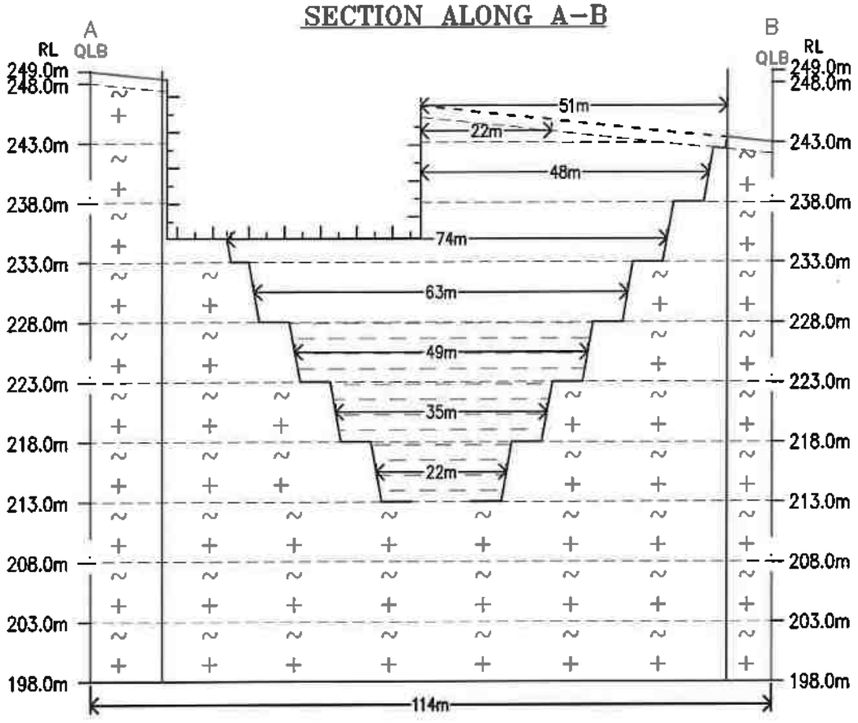
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

N.SURESH, M.Sc,
QUALIFIED PERSON

SECTION ALONG X–Y



SECTION ALONG A–B



MINEABLE RESERVES

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (m3)	Mineable Reserves in m3 (100%)	Top Soil in m3
XY-AB	I	141	51	1			7191
	II	136	22	2	5984	5984	
	III	128	48	5	30720	30720	
	IV	115	74	5	42550	42550	
	V	102	63	5	32130	32130	
	VI	88	49	5	21560	21560	
	VII	74	35	5	12950	12950	
	VIII	61	22	5	6710	6710	
Grand Total=					**152604**	**152604**	**7191**

O/o Assistant Director Dept.of Geology and Mining Collectorate Dindigul - 624 004.

PLATE NO:VII

APPLICANT ADDRESS:

THIRU.B.SELVAM,
S/o. BOSE,
No.2/56, MAIN ROAD,
VENGADASTHIRIKOTTAI,
KOMBAIPATTI, BATLAGUNDU,
DINDIGUL DISTRICT - 624 202.

LOCATION OF QUARRY:

EXTENT : 1.62.00 Ha,
S.F.NO : 263/1 (Part-3),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TOP SOIL
- ROUGH STONE
- QUARRY PIT
- OLD SURFACE LEVEL
- ULTIMATE PIT SLOPE
- PROPOSED WATER STORAGE

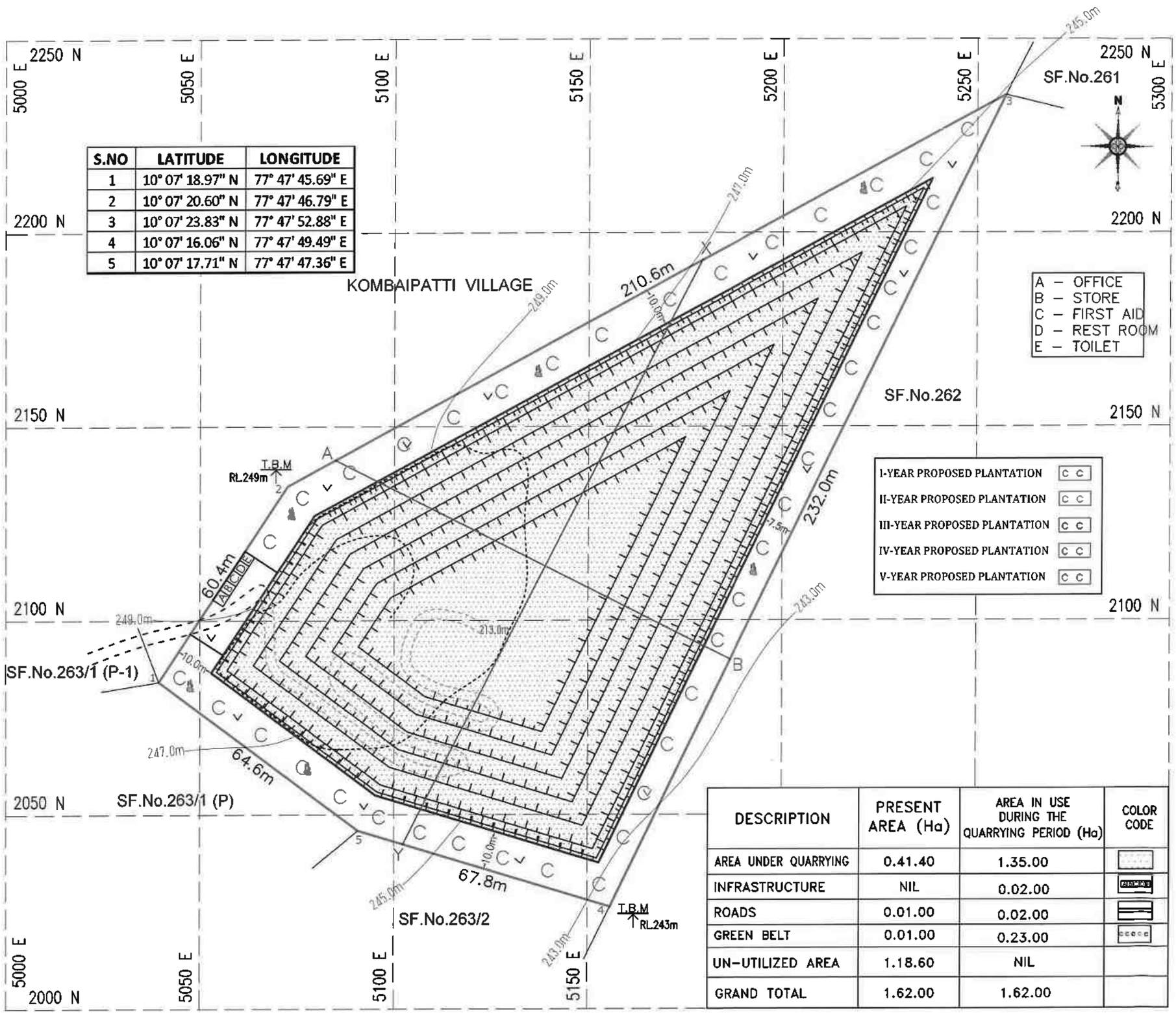
CONCEPTUAL & FINAL MINE CLOSURE SECTIONS

SCALE: HOR-1:1000
VER-1:500

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

N.SURESH, M.Sc,
QUALIFIED PERSON



S.NO	LATITUDE	LONGITUDE
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4	10° 07' 16.06" N	77° 47' 49.49" E
5	10° 07' 17.71" N	77° 47' 47.36" E

DESCRIPTION	PRESENT AREA (Ha)	AREA IN USE DURING THE QUARRYING PERIOD (Ha)	COLOR CODE
AREA UNDER QUARRYING	0.41.40	1.35.00	
INFRASTRUCTURE	NIL	0.02.00	
ROADS	0.01.00	0.02.00	
GREEN BELT	0.01.00	0.23.00	
UN-UTILIZED AREA	1.18.60	NIL	
GRAND TOTAL	1.62.00	1.62.00	

Office of Geology and Mining Collectorate Dindigul - 624 004
O/o Assistant Director

PLATE NO: VI

APPLICANT ADDRESS:

THIRU.B.SELVAM,
S/o. BOSE,
No.2/56, MAIN ROAD,
VENGADASTHIRIKOTTAI,
KOMBAIPATTI, BATLAGUNDU,
DINDIGUL DISTRICT - 624 202.

LOCATION OF QUARRY:

EXTENT : 1.62.00 Ha,
S.F.NO : 263/1 (Part-3),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 243.0M)
- APPROACH ROAD
- TOP SOIL
- QUARRY PIT
- QUARRY ROAD
- CONTOUR LINE
- 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

N.SURESH, M.Sc,
QUALIFIED PERSON

APPROVED MINE PLAN WITH PLATES

Dept. of Geology and Mining Collectorate Dindigul - 624 004.

MINING PLAN

FOR SIVANGANAPURAM ROUGH STONE QUARRY

(Prepared under Rule 8(1) and Amended Rule of 41 & 42 Tamil Nadu Minor Mineral Concession Rules, 1959)

Lease in Government Land

Total Lease Period: (Five) 5 Years)

LOCATION OF THE LEASE APPLIED AREA

EXTENT	: 2.00.00 ha
S.F.No	: 263/1 (Part-2)
VILLAGE	: SIVANGANAPURAM
TALUK	: NILAKOTTAI
DISTRICT	: DINDIGUL
STATE	: TAMIL NADU

Applicant

Thiru . K.Nagamuthukumar,
S/o Karuppaiah,
159/2, South Street,
Aiyyankottai, Ayyapalayam,
Pattiveeranpatti,
Dindigul District- 624 211.

Prepared by

A.Allimuthu, M.Sc, M.Phil.
Recognised Qualified Person,
Reg.No.RQP/DMG/HYD/85/2022,
D.No.1/231, Pattakaranvalavu,
Chinnamuthiyampatti,
Puduppalayam Post,
Edapaddi Taluk,
Salem District – 636 306.

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O/o Assistant Director of Geology and Mining Collectorate Dindigul - 624 004.

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3	Satellite Imagery & Lease area around 300m, 500m and 1km Radius	IC	1:10000
4	Mine Lease & Surface Plan	II	1:1000
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CONSENT LETTER FROM THE MINE OWNER

The Mining Plan in respect of Proposed Rough Stone quarry over an extent of 2.00.00 Hectares Government Land in S.F.No.263/1 (Part-2) Sivanganapuram Village, Nilakottai Taluk, Dindigul District and Tamil Nadu State has been prepared by A.Allimuthu, M.Sc, M.Phil, a Recognized Qualified Person.

I request the Assistant Director, Department of Geology & Mining, Dindigul District to make further correspondence regarding modifications of the Mining Plan with the said Qualified Person on this following address.

A.Allimuthu, M.Sc, M.Phil.

Recognized Qualified Person

Reg.No.RQP/DMG/HYD/85/2022

D No.1/231, Pattakaranvalavu,

Chinnamuthiyampatti,

Puduppalayam Post,

Edapaddi Taluk,

Salem District – 636 306.

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

Signature of the Applicant

(Thiru.K.Nagamuthukumar)

Place: Dindigul

Date :

O/o Assistant Director Dept. of Geology and Mining Collectorate Dindigul - 624 004.

Thiru . K.Nagamuthukumar,
S/o. Karuppaiah,
159/2, South Street,
Ayyankottai, Ayyanpalayam,
Pattiveeranpatti,
Dindigul District – 624 211.

DECLARATION

The Mining Plan in respect of Rough Stone quarry over an extent of 2.00.00 Hectares of Government Land in S.F.No.263/1 (Part-2), Sivanganapuaram Village, Nilakottai Taluk, Dindigul District and 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.

Signature of the Applicant

(Thiru.K.Nagamuthukumar)

Place : Dindigul
Date :

A.Allimuthu, M.Sc, M.Phil.
Recognised Qualified Person
Reg.No.RQP/DMG/HYD/85/2022
D No.1/231, Pattakaranvalavu,
Chinnamuthiyampatti, Puduppalayam Post,
Edapaddi Taluk, Salem District – 636 306.

Office of Assistant Director Geology and Mining Collectorate Dindigul - 624 004.

CERTIFICATE

This is to certify that the provisions of Rule 8(1) and Amended Rule of 41 & 42 Tamil Nadu Minor Mineral Concession Rules, 1959 have been observed in the preparation of Mining Plan for the Rough Stone quarry lease over an extent of 2.00.00 Hectares of Government Land in S.F.No.263/1 (Part-2), Sivanganapuram Village, Nilakottai Taluk, Dindigul District, Tamil Nadu State Applied by Thiru.K.Nagamuthukumar, S/o. Karuppaiah, No.156/2, South Street, Aiyyankottai, Ayyampalayam, Pattiveeranpati, Dindigul District.

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

Certified

Signature of Recognized Qualified Person

A.ALLIMUTHU, M.Sc.,M.Phil.,
Recognized Qualified Person
RQP/DMG/HYD/85/2022

Place :
Date :

A.Allimuthu, M.Sc, M.Phil.
Recognised Qualified Person
Reg.No.RQP/DMG/HYD/85/2022
D No.1/231, Pattakaranvalavu,
Chinnamuthiyampatti, Puduppalayam Post,
Edapaddi Taluk, Salem District – 636 306.

O/o Assistant Director Geology and Mining Collectorate Dindigul - 624 004.

CERTIFICATE

Certified that, in the preparation of Mining Plan for Rough Stone quarry over an extent of 2.00.00 Hectares of Government Land in S.F.No.263/1 (Part-2) of Sivangapuram Village, Nilakottai Taluk, Dindigul District and Tamil Nadu State, for Thiru.K.Nagamuthukumar, S/o. Karuppaiah, No.156/2, South Street, Aiyyankottai, Ayyampalayam, Pattiveeranpati, Dindigul District, 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 Recognized Qualified Person

A.ALLIMUTHU, M.Sc.,M.Phil.,
Recognized Qualified Person
RQP/DMG/HYD/85/2022

Place :
Date :

MINING PLAN FOR ROUGH STONE QUARRY

(Prepared under rule of 8(1) and Amended rule of 41 & 42 Tamil Nadu Minor Mineral Concession Rules, 1959)

Mining Collectorate Dindigul - 624 004. O/o Assistant Director Geology & Mining

1.0 INTRODUCTION

1. The Present Mining Plan and Environmental Management Plan are prepared for **Thiru.K.Nagamuthukuamr,** S/o. Karuppaiah, No.156/2, South Street, Aiyyankottai, Ayyampalayam, Pattiveeeranpatti, Dindigul District.
2. The applicant **Thiru.K.Nagamuthukuamr,** S/o. Karuppaiah, No.156/2, South Street, Ayyankottai, Ayyanpalayam, Pattiveeeranpati, Dindigul District, Tamil Nadu has been Participated and obtained Tender after Successful bidder **(Rs.1,35,000,00)** in a public auction conducted by the government of Tamil Nadu for the lease of lands in the tender-cum-auction in Dindigul District or the purpose quarrying Rough Stone from the area located in S.F.No.263/1(Part-2), Government land over extent of 2.00.00 Ha in Sivanganapuram Village, Nilakottai Taluk, Dindigul District for a period of (Five) 5 Years only.
3. The application was meritoriously processed and precise area communication letter issued by the Assistant Director, Department of Geology & Mining, Dindigul District vide **Rc.No.25/Mines/2024 dated 09.02.2024** directed the applicant to submit the Mining Plan and to get approval and obtain Environmental Clearance from State Level Environment Impact Assessment Authority, Tamil Nadu State, as per EIA Notification 2006 and its amendments vide MOEF and Climate Change Notification.
4. Geological Resources is estimated as **778373m³** of Rough Stone, **Top soil 18513m³,** Mineable Reserves is estimated as **330453m³** of Rough stone, top soil **15089m³** up to a depth of **45m (44m rough stone, 1m top soil),** Production **330453m³** of Rough stone, top soil **15089m³** up to a depth of **45m (44m rough stone, 1m top soil)** after leaving the safety distance from the lease boundary of the lease applied quarry area and relevant mining laws in force.

5. Assistant Director, Department of Geology & Mining, Dindigul District directed the applicant vide the precise area communication letter. **Rc.No.25/Mines/2024 dated 09.02.2024** to follow the conditions given below,

- Tamil Nadu Minor Mineral Concession Rules, 1959, Table-II As per the amount of seniority for mined minerals shall be paid from time to time and the mineral transported.
- Quarry work should be carried out in such a way that there is no disturbance to the nearby lease holders.
- As per the rules, the approved mining plan should be submitted within due time.
- Quarrying license will be issued only after approval is submitted to the Environmental Impact Assessment Authority for the area for which the quarrying license is to be issued.
- The safety distance of 7.5m and 10m should be maintained to the surrounding patta and Government lands around the quarrying area till the lease license expires.
- The applicant should submit the Environmental Clearance from the State Environmental Impact Assessment Authority based on the Mining Plan approved by Dindigul District Assistant Director Geology and Mines as per Rule No. 42 of Tamil Nadu Minor Mineral Concession Rule as amended.
- Quarrying should be carried out subject to the conditions of the District Environmental Impact Assessment Authority.

6. Production Schedule is proposed at an average production of **330453m³ of Rough Stone** up to a depth of **45m** for the period of (Five) **5 Years** only.

7. Safety measures as per the provisions of Reg.106(2) (b) of Metalliferous Mines Regulation-1961, Labour welfare Amenities as per the Mines Rules -1955 and amended DGMS circular shall be taken care of in preparation of Mining Plan.

ENVIRONMENTAL PARAMETERS,

(i) **Forest Conservation Act, 1980:** The area does not attract the Forest Conservation act, Kadavakuruchi Reserved forest found around 370.0m radius.

(ii) **Wildlife (Protection) Act, 1972**: There is no Wildlife Sanctuary found around 10 km radius from the lease area.

(iii)**The Coastal Regulation Zone (CRZ) Notification 2011**: The area is more than 100m far from the Bay of Bengal; hence it does not attract the Coastal Regulation Zone (CRZ) Notification 2011.r

(iv) Infrastructure around 500m radius:

S.No	Description	Distance from boundary of Quarry site (m)	Direction
1	Approach Road	290m	SW
2	Open Well	---	---
3	Water Bodies (River, Urani, Pond, Odai etc.,	410m	S
4	Habitation	630m	SE
5	HT / LT- Line	150m	SW

ENVIRONMENTAL MEASURES TO BE ADOPTED SHALL BE,

1) Dust suppression at loading point and transport haul roads.
2) Noise Control in control of fly rock missiles and Vibration by doing peak particle velocity with in standard as prescribed by the DGMS and MOEF.
3) Unnecessary land degradation should be avoided or damaged land should be reclaimed or rehabilitated.
4) Avoid uneven rat hole mining and follow scientific and systematic mining by safe bench system of open cast manual mining.
5) Mining near major fracture zones if any should be avoided to control ground water fluctuation in the adjacent agricultural lands.
6) Emission test of vehicles should be in tack to maintain minimum emission level of fuel gases.
7) Noise level should not exceed *80db* and the vehicles should use only permitted Air Horn while on road near residential areas.
8) Safety zones as prescribed by the Department of Geology and Mining from adjacent infrastructures should be strictly to adhere to.

9) Any other conditions as stipulated by the concerned authorities should be followed to protect the Environment and Ecology of the area.

2.0. EXECUTIVE SUMMARY

a. The applicant applied for a Rough Stone quarry lease in Government Land at Survey Number 263/1 (Part-2), Sivanganapuram Village, Nilakottai Taluk and Dindigul District.

b. Name of the Village Panchayat –Sivanganapuram

c. Name of the Panchayat Union – Nilakottai

d. Geological Resources is estimated as **778373m³**

e. The Total Minable Reserves – **330453m³** of Rough stone, top soil **15089m³** up to a depth of **45m (44m rough stone, 1m top soil)**

f. **Production Schedule** is proposed an average production of **330453m³** of Rough Stone, top soil **15089m³** up to a depth of **45m (44m rough stone, 1m top soil)** for the period of (Five) **5 Years** only.

g. Total extent of the area **–2.00.00 Ha**

h. Proposed Lease Period –(Five) **5 years** only

i. Proposed Depth of mining – **45m**

j. Method of mining / level of mechanization - Opencast, Semi-mechanized Mining with a bench height of 5.0m & width of 5.0m is proposed and involves shallow Jackhammer drilling, Slurry blasting is proposed for this quarrying operation.

k. Types of Machineries used in the quarry –Jack hammer 30-31mm dia, Tractor mounted compressor attached with Jack hammer.

l. No Trees will be uprooted due to this quarrying operation.

m. 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.

n. There is no Export of this quarrying Rough Stone.

o. Topo sketch covering 1km, radius around the proposed area with markings of Habitations, Water bodies like Streams, Rivers, Roads, Major structure like Bridges, Wells, Archeological, Historical importance, Places of worship is marked and enclosed as Plate No. IB & VI.

p. The lease applied area is 2.00.00 Ha bounded and the coordinates are clearly marked in Plate no – 1I.

q. The diagram showing the Mining area, dimensions of the Pit, proposed depth of mining for the Manual Mining Plan period are enclosed as Plate No –IV & VII.

r. The lease applied area is 10km away from the Inter State boundary, protected area under critically polluted area as identified by CPCB and notified Eco sensitive areas.

s. There are no wastages anticipated during this quarry operation, hence waste dump is not proposed in this lease applied area.

t. Around **16 Employees** are deploying in this quarrying operation.

PART - A

3.0. GENERAL INFORMATION:

3.1. Name of the Applicant with Address.

Name : **Thiru . K.Nagamuthukumar,**
S/o. Karuppaiah,
No.156/2, South Street,
Aiyyankottai, Ayyampalayam,
Pattiveeranpati,
Dindigul District-624 211.

State : Tamil Nadu

3.2. Status of the Applicant (Individual / Company / Firm)

The applicant is an Individual.

3.3. Mineral which the Applicant intends to mine

Rough Stone only.

3.4. Precise area communication Letter details received from the competent authority of the government.

Precise area communication letter issued by Assistant Director, Department of Geology & Mining, Dindigul District vide **Rc.No.25/Mines/2024 dated 09.02.2024**

3.5. Period of permission / lease to be granted

The applicant has applied permission for Five years. Assistant Director Department of Geology & Mining, Dindigul District consider grant for a lease period of (Five) **5 years** only.

3.6. Name and Address of the QP/Authorized person for preparing the Manual Mining Plan

Name : **A.Allimuthu, M.Sc, M.Phil.**
Recognised Qualified Person,
Reg.No.RQP/DMG/HYD/85/2022

Address : D No.1/231, Pattakaranvalavu,
Chinnamuthiyampatti,
Puduppalayam Post,
Edapaddi Taluk,
Salem District – 636 306.

4.0. LOCATION:

Table No: 3

State	Tamil Nadu
District	Dindigul
Taluk	Nilakottai
Village	Sivanganapuram
S.F.No	263/1(Part-2)
Extent in (Ha)	2.00.00 Hectares

ROUTE MAP:

Dindigul 34 km Batlagundu 7km Annavati

2.5km

Quarry Site

4.1. Details of Existence of public road /railway line, if any nearby and approximate distance.

Table No: 4

S.No	Description	Place	Distance (Km)	Direction
1	Bus stop	Sivanganapuram	1.2	W
2	Post Office	Annavati	3.0	SW
3	Police Station	Batalagundu	6.5	NW
4	Fire service	Batalagundu	6.5	NW
5	Railway Station	Kodai Road	14.0	NE
6	Government Hospital	Batalagundu	6.0	NW
7	Government School	Sivanganapuram	1.2	W
8	Airport	Madurai	45.0	SE
9	Seaport	Thoothukudi	157.0	SE

FIG.1 GOOGLE EARTH IMAGE OF LEASE APPLIED AREA

Classification of the Area (Ryotwari / Poramboke /Patta/ others)

- It is a Government Land and non-agricultural land.

Collectorate Dindigul - 624 004. Geology and Mining Office Assistant Director Deputy

a. Ownership / Occupancy of the applied area (Surface rights)

- It is an Government Land Please refer Annexure-III

b. Toposheet No. with Latitude and Longitude

Topo Sheet No: 58 -F/16

Latitude & Longitude of the Quarry Lease Boundary Pillars

BOUNDARY GEO-CO ORDINATES		
Pillar No.	**LATITUDE**	**LONGITUDE**
1	10°07'18.84" N	77°47'39.94" E
2	10°07'22.42" N	77°47'37.94" E
3	10°07'25.44" N	77°47'37.37" E
4	10°07'27.04" N	77°47'39.68" E
5	10°07'27.15" N	77°47'40.80" E
6	10°07'18.81" N	77°47'43.92" E

5.0. GEOLOGY AND MINERAL RESERVES

5.1. Topography:

- The lease applied area undulated topography covered by massive Charnockite.
- The massive Charnockite formation is clearly visible from the outcrops exposed in to the surface. The area gentle sloping towards Southwestern side of the area, the altitude of the area is above **253 to 245m** above MSL.
- No major river is found nearby the lease applied area.
- Water Level is found at a depth of *60m to 65m* below Ground Level, 60m in Rainy seasons and 65m in summer seasons by monitoring nearby bore well.
- Temperature of the area is reported as 18ºC to a maximum of 42ºC during summer.
- Rainfall of this area is about 800mm to 900mm during the both NE & SW monsoons.

5.2. General Geology of the area (with plans):

- The area 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.
- The rock type noticed in the area for lease is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian minerals.
- The Charnockite is part of peninsular Gneisses, a high grade metamorphic rock.
- The strike of the Charnockite formation is N30°W-S30°W with dipping towards NW 70°.

The General Geological succession of the area is given as under:

Age		Formation
Recent	-	Quaternary to recent formation (Gravel)
---------- Unconformity ----------		
Archaean	-	Charnockite
		Peninsular Gneiss complex

5.3. Details of Exploration already carried out if any:

- There is no exploration carried out in this applied quarry area.
- State Geology and Mining Department Government of Tamil Nadu has been carried out geological exploration and regional mapping study of the lease area.
- Geological Survey of India has carried out detailed mapping in Dindigul District.
- Besides the RQP and his Team members made a detailed geological study of the area and the massive Rough Stone formation is clearly inferred from the outcrops exposed in the area.

Collectorate Dindigul - 624 004.
Geology and Mining
Asst. Director Geol.

FIG.2 QUARRY SITE PHOTO

5.3. a. Estimation of Reserves (Geological Resources with geological sections on a scale of 1:1000)

- As far as Rough Stone (Charnockite) is concerned, the only practical method is the systematic geological mapping and delineation of Rough Stone within the field and careful evaluation of body lusters, physical properties, engineering properties, commercial aspects etc.,
- Totally 3 sections have been drawn, one Section drawn length wise as (X-Y) and Two Sections on width wise as (A-B) (C-D) to cover maximum area considered for lease.
- The Topographical, Geological plan and sections demarcated the commercial, marketable Rough Stone (Charnockite) deposit has been prepared in Scale 1:1000 and Sections have been drawn with a scale of Horizontal 1:1000 and Vertical 1:500 respectively.
- Please refer Plate No. III, & VII as Rough Stone are terms of Cubic Meters (Volume) only and not for in terms of Tonnage calculations.

b) PREVIOUS MINING PLAN EXISTING PIT DIMENSION

EXISTING PIT DIMENSION:

PIT	Average Length(m)	Average Width(m)	Avg Depth(m)
I	64m	26m	30m

I. GEOLOGICAL RESOURCES :

The Geological Resources is estimated as **778373m³** of Rough Stone, up to a depth of **45m (44m rough stone, 1m Top Soil).**

Table No: 5

GEOLOGICAL RESERVES							
Section	**Bench**	**Length in (m)**	**Width in (m)**	**Depth in (m)**	**Volume in (m³)**	**Geological Reserves in m³ (100%)**	**Top Soil in m³**
XY-AB	I	90	110	1			9900
	II	1	37	4	148	148	
	III	90	110	5	49500	49500	
	IV	90	117	5	52650	52650	
	V	90	117	5	52650	52650	
	VI	90	117	5	52650	52650	
	VII	90	117	5	52650	52650	
	VIII	90	117	5	52650	52650	
	IX	90	117	5	52650	52650	
	X	90	117	5	52650	52650	
				Total	**418198**	**418198**	**9900**
XY-CD	I	99	87	1			8613
	II	1	16	3	90	90	
	III	52	77	5	20020	20020	
	IV	99	87	5	43065	43065	
	V	99	87	5	43065	43065	
	VI	99	87	5	43065	43065	
	VII	99	87	5	43065	43065	
	VIII	99	113	5	55935	55935	
	IX	99	113	5	55935	55935	
	X	99	113	5	55935	55935	
				Total	**360175**	**360175**	**8613**
				Grand Total	**778373**	**778373**	**18513**

II. MINEABLE RESERVES:

The available Mineable Reserves are calculated by deducting the safety distance of 7.5m & 10m for the Patta land and Government land, from the lease applied area and bench loss as height 5.0m and width 5.0m.The available Mineable Reserves is computed as **330453m³** of Rough Stone, top soil **15089m³** at the rate of 100% recovery up to a depth of **45m (44m rough stone, 1m top soil).**

Table No-6

MINEABLE RESERVES							
Section	**Bench**	**Length in (m)**	**Width in (m)**	**Depth in (m)**	**Volume in (m³)**	**Mineable Reserves in m³ (100%)**	**Top Soil in m³**
XY-AB	I	79	100	1			7900
	II	1	25	4	100	100	
	III	77	92	5	35420	35420	
	IV	72	82	5	29520	29520	
	V	67	72	5	24120	24120	
	VI	62	62	5	19220	19220	
	VII	57	52	5	14820	14820	
	VIII	52	42	5	10920	10920	
	IX	47	32	5	7520	7520	
	X	42	22	5	4620	4620	
				Total	**146260**	**146260**	**7900**
XY-CD	I	91	79	1			7189
	II	1	16	3	48	84	
	III	52	77	5	20020	20020	
	IV	88	72	5	31680	31680	
	V	83	67	5	27805	27805	
	VI	78	62	5	24180	24180	
	VII	73	57	5	20805	20805	
	VIII	68	79	5	26860	26860	
	IX	63	59	5	18585	18585	
	X	58	49	5	14210	14210	
				Total	**184193**	**184193**	**7189**
				Grand Total	**330453**	**330453**	**15089**

6.0. MINING

6.1. Method of Mining (Open cast / Underground)

Opencast method of semi mechanized mining with 5.0m vertical bench height and width 5.0 m of the bench is not less than bench height.

However, as far as the quarrying of Rough Stone is concerned, observance of the provisions of Regulation 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 the regulation 106 (2) (b) of MMR-1961, under Mine Act-1952.

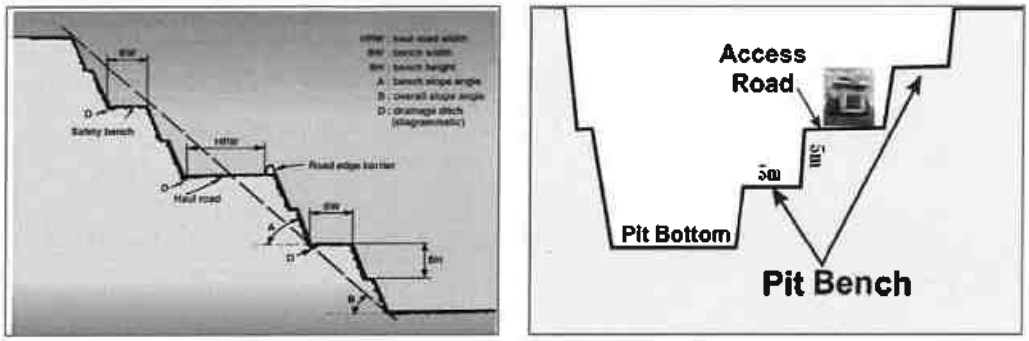

Figure 3. Shows Open pit Mining method

6.2. Mode of Working (Mechanized, Semi-mechanized, Manual)

- The Rough Stone is proposed to quarry 5.0m bench height and 5.0m bench width with conventional opencast semi-Mechanized method. The quarrying operation involves manual Jack hammer drilling, Slurry explosives blasting, loading and transportation of Rough Stone to the nearby crusher units, road formation filling purpose of low lying area for road project works of residential and industrial customers.
- 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.
- The splitting of rock mass of considerable volume from the parent rock mass by jack hammer drilling and blasting, hydraulic excavators are used for loading of Rough Stone from pithead to the needy crushers.

- The hydraulic excavators are attached with rock breakers for fragmentation to avoid secondary blasting.
- The primary boulders thus spitted are removed from the pits by excavators and further made to smaller sizes by rock breakers attached in excavators.

It is a conventional opencast semi mechanized method of mining.

6.3. Proposed bench Height and Width

The quarrying of Rough Stone is proposed with the safely bench height of 5.0m and bench width of 5.0m.

6.4. Indicate the overburden/mineral production expected pit wise as detailed as below (Composite plan and section showing pit layout, dumps, disposal of waste if any etc.)

The excavated Rough Stone will be directly loaded into Tippers to the needy Customers site. The Composite Plan, Development Plan and section indicating pit layout, Green belt development are shown in Plate No.V. & VII.

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III. YEARWISE PRODUCTION & DEVELOPMENT :

The Year wise Recoverable Reserves are calculated by deducting the safety distance of 7.5m & 10m for the Patta land and government land, from the lease applied area and bench loss as height 5.0m and width 5.0m.

Table No: 8

YEARWISE DEVELOPMENT AND PRODUCTION								
Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (m^3)	Mineable Reserves in m^3 (100%)	Top Soil in m^3
I - YEAR	XY-AB	I	79	100	1			7900
		II	1	25	4	100	100	
		III	77	92	5	35420	35420	
	XY-CD	I	91	79	1			7189
		II	1	16	3	48	48	
		III	52	77	5	20020	20020	
		Total				**55588**	**55588**	**15089**
II-YEAR	XY-AB	IV	72	82	5	29520	29520	
	XY-CD	IV	88	72	5	31680	31680	
		Total				**61200**	**61200**	
III-YEAR	XY-AB	V	67	72	5	24120	24120	
		VI	62	62	5	19220	19220	
	XY-CD	V	83	67	5	27805	27805	
		Total				**71145**	**71145**	
IV-YEAR	XY-CD	VI	78	62	5	24180	24180	
		VII	73	57	5	20805	20805	
	XY-AB	VII	57	52	5	14820	14820	
		VIII	52	42	5	10920	10920	
		Total				**70725**	**70725**	
V-YEAR	XY-CD	VIII	68	79	5	26860	26860	
		IX	63	59	5	18585	18585	
		X	58	49	5	14210	14210	
	XY-AB	IX	47	32	5	7520	7520	
		X	42	22	5	4620	4620	
		Total				**71795**	**71795**	
Grand Total=						**330453**	**330453**	**15089**

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- The Rough Stone Production is proposed for (Five) 5 Years only.
- Recoverable Reserves are estimated **330453** of Rough Stone up to a depth of **45m** for the lease period of (Five) 5 Years only.

Production quantity per day

(1Load=6m³approx) (1Year=260 Working days)

Rough Stone quantity =330453m³/ 55075Loads
=55075/ 1300 days (5 years)
= **252m³** or **42 Lorry** Loads per day

The applicant ensures the total quantity of proposed production from the benches will not exceed during quarrying operation.

6.5. MACHINERIES TO BE USED

a. Mining

It is proposed to use the following machineries on rental basis for the development and production work in this quarrying operation,

b. Loading

S.No	Type	Nos	Dia Hole mm	Size capacity	Make	Motive Power
1	Jack Hammer	3	32	1.1m to 6m	Atlas Copco	Compressed air
2	Compressor	3	-	400psi	Atlas Copco	Diesel Drive

Manual loading (considerable Rough Stone) accumulates the same will be loaded by Hired front end loader like JCB or Excavator of 0.90m³bucket capacity (with Rock breaker attachment)

S.No	Type	Nos	Bucket capacity	Make	Motive Power
1	Excavator	2	0.90m³	Tata Hitachi - 210	Diesel Drive

c. Transportation

Tippers/Trucks = 2Nos. 10 /20Tons capacity (from the quarry to destination (customer/other buyers)

S.No	Type	Nos	Capacity	Make	Motive Power
1	Tippers	4	10/20 Tons	Tata Tipper	Diesel Drive

10/A

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IMAGES OF MACHINERIES

EXCAVATOR

TATA TIPPER

JACK HAMMER

6.6. Energy

The Electricity for Mines office and Lights only at nights (working is restricted on day time only between 9 Am to 5 Pm). Diesel (HSD) will be used for quarrying machineries for the entire project life. Diesel will be brought from nearby diesel pumps. Lightings on the Night time the power will be taken from nearby electric poles after obtaining permission from concerned authorities.

1. <u>Rough Stone:</u>

The Excavator will consume	= 16 Liters / 1 hour
The Excavator will excavate	= 20m³ of Rough Stone/Hour
Rough Stone quantity	= 330453/20 = 16523hours
Diesel consume	= 16523 hours x 16 liters
Total diesel consumption	= **264368** Liters of HSD will be utilized for this Rough Stone Quarry.

6.7. Disposal of Overburden/Waste

The overburden in the form of Top Soil, **15089 m³** will safely remove during the mining period. The quarried out of soil will be preserved within the lease applied area. Utilized for construction of bund in the part of quarry pit also spread out the quarried out top bench to facilitate the green belt development purpose.

6.8. Brief Note on Conceptual Mining Plan for the entire lease period

Conceptual Mining Plan is prepared with an object of (Five) 5 Years of systematic development of bench lay outs, selection of ultimate pit limit, depth of quarrying, ultimate pit slope, selection of sites for construction of infrastructures etc.,

Ultimate pit size is designed based on certain practical factors such as the economical depth of mining, safety zones, permissible areas etc.

Ultimate Pit dimension is given as under

ULTIMATE PIT LIMIT			
Pit	**Length (m)**	**Average width(m)**	**Depth**
I	171m	100m	45m
TOTAL			**45m**

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Afforestation has been proposed on all along the safety barrier by planting native species of Saplings. All the baseline information studies like Air Quality monitoring, Noise and Vibration monitoring, Water Analysis studies will be carried out every year as per the MOEF norms. It is proposed to engage any local institution to monitor the EIA and EMP studies during the course of quarrying operation after the grant of quarry lease.

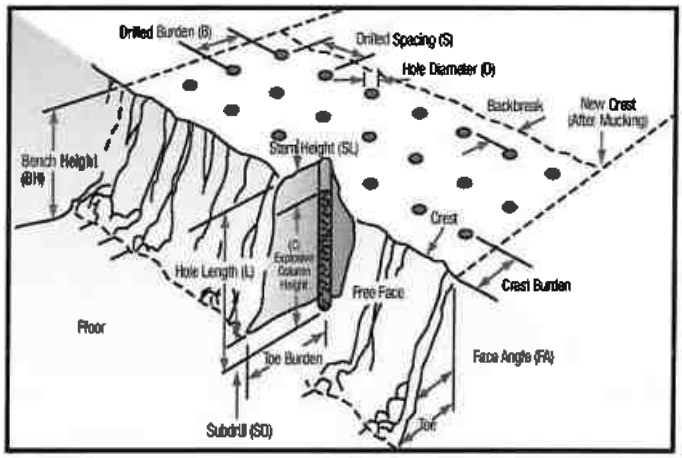
7.0. BLASTING

Blasting Pattern:

The massive formation shall be broken into pieces of portable size by drilling and 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. Blasting parameters are as follows.

Drilling and blasting parameters are as follows

Diameter of the hole	: 30-32 mm
Spacing between holes	: 1.1m
Depth of each hole	: 1 to 1.5m
Burden for hole	: 1.0m
Inclination of hole	: 800 from the horizontal
Use of delay detonators	: 25 milli second
Detonating fuse	: Detonating cord Blasting
Design	: Staggered " V " Pattern



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Types of Explosives

Small dia, 45 mm Slurry explosive are proposed to be used for shattering and heaving effect for removal and winning of Rough Stone. No deep drilling or primary blasting is proposed.

Measures proposed to minimize ground vibration due to blasting

- Controlled blasting measures will be adopted for minimizing ground vibration and fly of rocks. Shallow depth drilling and smooth blasting is proposed to carry out with minimum usage of explosive mainly to give shattering effect in Rough Stone for easy excavation and control of fly rocks.
- The following steps shall be adopted to control ground vibration due to blasting. The minimum recommended delay time of 8ms was introduced to minimize ground vibration.
- In case of electronic detonators, which are inherently much more accurate delays (+/- 0.2 milliseconds delay) to minimizes the ground vibration reduction in air, reduction over break, improved well fragmentation and better control of fly-rocks.
- Use of Ammonium nitrate, fuel oil mixture for shot holes may be avoided because which cause for high fly of rocks in view critical diameter problem. Only high strength explosives like slurry will be used in the form of cartridge.
- Storage of Explosives and safety measures to be taken while blasting.
- The Applicant is advised to engage an authorized explosive agency to carry out small amount of blasting and it will be supervised by the competent statutory Mining Mate /Foreman /Manager. The explosive agency should have the valid Blaster Certificate.
- He will blast holes in quarry site. After completion the blasting, the agency will take it out back the remaining quantity of explosives to the temporarily available the Magazine at the quarry site. The blasting time of the day is proposed to be 1 PM to 2.30 PM.
- First Aid Box will be keeping ready at all the time in Mines Office room. Necessary precautionary announcement will be carried out before the blasting operation.

8.0. MINE DRAINAGE

Depth of Water Level

- The ground Water Level is noticed at the depth of **60m to 65m** below Ground Level by monitoring nearby bore hole, during the climatic conditions, the fluctuations of water level is 60m in Rainy seasons and 65m in Summer seasons of this quarry area.
- The quarry operation is proposed up to a depth of **45m**. Hence the quarrying operation may not affect the ground water in any manner.
- It shall be ensured that quarrying shall not be carried out below ground water table under any circumstances.
- If ground water table occurs/intervenes within the permitted depth, then also the quarrying shall be stopped.

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 from seepage shall be less than 300LPM and it will be pumped out periodically by a stand by diesel powered Centrifugal pump with 5HP Motor.
- The quality of water is potable and no contamination with any hazardous things.
- Hence, the water stored in quarrying pit will be pumped out the adjacent agricultural fields and further stored in old pit the water is used for Dust suppression/ Plantation purposes.

9.0. ECOLOGY AND BIODIVERSITY

The green belt in the lease area has been developed taking into consideration the availability of area as the efficiency of green belt in pollution control mainly depends on tree species, its width, distance from pollution sources, side of the habitat from working place and tree height. The proposed green belt should be designed to control PM10, gaseous pollutants, noise, surface run off and soil erosion etc., While considering the above aspects due care should be taken for selecting the suitable characteristics plant species such as fast growing, locally suitable plant species, resistant to specific pollutant and

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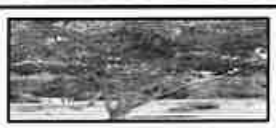
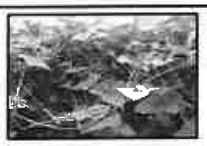
those which would maintain the regional ecological balance, soil and hydrological conditions.

Image Showing Proposed Plants for afforestation

Flora as observed and identified in the field are covered by mostly Neem, Erukku, Panai trees, Palmira tree are found more on regional scale. The Applicant has developed trees like Neem, Pungam, Teak, Caesarians and Eucalyptus, regional trees etc., with Proper nursery garden and plantation on vacant land. The fauna species observed around the 500m radius of the project site is given in the table.

List of Flora observed around the quarry site (Flora Trees & Flora Shrubs)
Table No: 10

Flora - Trees			
S.No	**Tamil Name**	**Botanical Name**	**Photograph**
1	Neem tree	*Azadirachataindica*	
2	Panai tree	*Borassusflabellifer*	
3	MulluMaram	*Prosopisjuliflora*	
4	Punga Maram	*Millettia pinnata*	

Flora - Shrubs			
1	Korai	*Cyperus Pangorei*	
2	Avaram	*Senna articulate*	
3	Erukku	*Calotropis*	
4	Mookuthichedi	*Tridaxprocumbens*	
5	Musumusukkai	*Melothria*	

List of Fauna observed around the quarry site (Fauna Mammals & Fauna Avian)
Table No: 11

Fauna Mammals			
S.No	**Common Name**	**scientific name**	**Photograph**
1	Anil	*Funambulus Palmarum*	
2	Thavalai	*Cane toad*	
3	Keeri	*HerpestesEdwardsii*	
4	Muyal	*Oryctolaguscuniculus*	

Avian Fauna			
1	Kakam	*CorvusSplendens*	
2	Myna	*Acridotherestristis*	
3	Chittukuruvi	*SaxicoloidesFulicatus*	
4	Parunthu	*Haliastur Indus*	

10.0. OTHER PERMANENT STRUCTURES

Habitations / Village (300m)

- *There are no inhabited sites within the radius of 300m from the boundary of lease area under Rule 36(1-A) (a) TNMMCR 1959.*
- The Nearest Village habitation is Sivanganapuram Village which is about 660 m on Western side of the Lease applied area.
- The applicant ensures the quarrying operation will be carried out without any hindrance to the habitants and adjoining land owners.

2. Power lines (HT/LT) (50m)

There is no Power lines (HT/LT) within 50m radius.

3. Water bodies (River, Pond, Lake, Odai, Channel etc.,) (50m)

There are no Water bodies (River, Pond, Lake, Odai, Channel etc. within 50m radius.

4. Archeological / Historical Monuments (500m)

There are no Archeological / Historical Monuments within a radius of 500m from the boundary of lease applied area.

5. Existence of public road /(SH, NH others), Railway line if any (50m)

- There is an existing road from the area leads Kulipatti Village on Western side of the lease applied area.

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- ❖ NH-183 Dindigul to Theni is located which is about 6.0km on the Northwestern side of the lease applied area.
- ❖ SH-154 Batlagundu to Veerapandi road is located which is about 2.5km on the Northwestern side of the lease applied area.
- ❖ The Nearest Railway line is Dindigul to Madurai line which is about 13.5 km on the Northeastern side of the lease applied area.

6. ***Places of Worship (Temples, Church, Mosque etc.,) (500m)***

There is no Places of Worship within a radius of 500m.

7. ***Reserved Forest / Forest / Wild Life Sanctuary etc., (10Km)***

There is no Reserved Forest and Wild Life Sanctuary found around 1km radius,

8. ***Any Other Structures : Nil***

11.0. EMPLOYMENT POTENTIAL & WELFARE MEASURES:

11.1. Employment Potential (Management & Supervisory personal)

The following man powers are proposed carry out the day to day quarrying activities at the proposed production and also comply with the statutory provision of the MMR 1961.

Management and Supervisor:

1. Second Class Mines Manager (with valid statutory qualification): 1 No
2. Mines Foreman (with valid statutory qualification) : 1 No
3. Mines Mate (with valid statutory qualification) : 1 No
4. Blaster : 1 No

Laborers, Skilled, Semi-Skilled & Un-skilled

a. Skilled : 5Nos
b. Semi-skilled (Driver) : 4Nos
c. Unskilled (Musdoor/Labours, Cleaners & Watch man) : 6Nos

Total : 19Nos

Allowing 10% absenteeism, the no. of men of roll will be around 17Nos.

It is been ensured that, ***Child Labours under 18 Years of age will not be engaged for any quarrying operation.*** Necessary Life Insurance policies will be taken by the applicant to all the employees up to the end of the lease period.

11.2. Welfare Measures

a. Drinking Water

- Drinking water is available from the nearby agriculture land owners or from water vendors in Kullipatti Village which is about 660 m on Southwestern side of the lease applied area.

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, 1955 separately for males and females. Washing facilities shall also be arranged as per Rule (36) of Mines Rules, 1955 and it will be maintained periodically.

c. First Aid Facility

- First Aid station as per provisions under Rule (44) of the Mines Rules, 1955 will be provided and First aid kits kept in mines office room, the qualified first aid personnel should be appointed or nominated to attend emergency first aid treatment.
- In case of eventuality, the victim will be given first aid immediately at the site and the injured person will be taken to the nearest hospital at 6.0km on Northwestern side of Batlagundu. The competent and statutory of Foreman/Mate/Permit Manager will be in charge of the First aid.

d. Labour Health

- Periodic medical examination has to be arranged for occupational health once in a year in addition to attending medical treatment of occupational injuries under the Rule 45(A), Mines Rules, 1955.

e. Precautionary safety measures to the Laborers

- *Safety measures will be implemented to prevent access in the excavation area of a unauthorized persons as per Mine Act 1952 and MMR 1961.*
- *Safety measures will be implemented as per Mines Act 1952, MMR 1961 AND Mines Rules 1955.*
- *Provisions of MMR 1961 shall be strictly followed and all mine roads shall be wider than the height of bench or equal to the height of the bench and have a gradient of not more than 1 in 16.*
- *The bench height will be 5.0m.*

- *Protective equipment like dust mask, ear-plugs/muffs,* sand respirator (avoid silica dusts forms-Silicosis), reflector jackets, safety thick shoes, etc., as Personnel Productive Equipment (PPE) as per the circulars and amendments made for Mine Labour under the guidance of DGMS.
- *Notice giving warning to prevent inadvertent entry of persons shall be displayed at all conspicuous places and in particular near mine entries.*
- *It is manual mining quarry, No explosive is proposed.*
- *Security guards will be provided.*
- Periodically medical checkup will be conducted for all workers for any mine health problems.
- Proper training and induction will be given by qualified and experienced safety officer to all employees about the safe and systematic quarrying operation.
- The drillers and workers are sent for vocational training periodically to carry out the quarrying operations scientifically to safeguard the men machinery and mineral and to create awareness of conventional opencast quarrying operation.
- In the event of temporary closer, approaches will be fenced off and notice board displayed.

f. Disaster Management and Risk Assessment

This should deal with action plan for risk accident like landslides. Subsidence, flood, fire, seismic activities, tailing dam failure etc. and emergency plan proposed for quick excavation. Ameliorative measures to be taken etc. The capability of applicant to meet such eventualities and the assistance to be required from the local authorities should be described.

- It is manual mining quarry, No explosive is proposed.
- The complete mining operation will be carried out under the Management and control of experienced Manager having Certificate of Competency to manage the mine granted by DGMS.
- All the provisions of Mines Act 1952, MMR 1961 and Mines Rules 1955, TNMCR 1959 and other laws applicable to mine will be strictly complied with.
- During heavy rainfall the mining activities will be suspended.

- Competent Persons will be provided FIRST AID kits which they will always carry.
- The Greenbelt Development will be formed in around the quarried out top benches and panchayat roads of the lease applied area.

g. care and Maintenance during Temporary Discontinuance.

In case of any temporary discontinuance due to court order or due to statutory requirement or any other unforeseen circumstance following measures shall be taken for care, maintenance and monitoring of conditions.

- Notice of temporary discontinuance of work in mine shall be given to the DGMS as per MMR 1961.
- All the mining machinery shall be shifted to the safe place.
- Entrance to the mine or part of the mine, to be discontinued shall be fenced off. Fencing shall be as per the circular 11/1959 from DGMS.

PART - B

12.0. ENVIRONMENTAL MANAGEMENT

12.1. Existing Land Use Pattern

The area is Undulated topography. The applied area is dry barren land and devoid of agriculture and habitations and the area is not used for the specific vegetation. The surrounding area is practiced by the seasonal cultivation.

The existing Land use pattern is given below

Table No-12

S. No.	Land Use	Present Area (Hect)	Area in use during the quarrying period (Hect)
1.	Quarrying Pit	0.38.20	1.62.60
2.	Infrastructure	NIL	0.02.00
3.	Roads	0.01.00	0.02.00
4.	Green Belt	0.01.00	0.33.40
5.	Unutilized	1.59.80	NIL
	Total	**2.00.00 Ha**	**2.00.00 Ha**

12.2. Water Regime

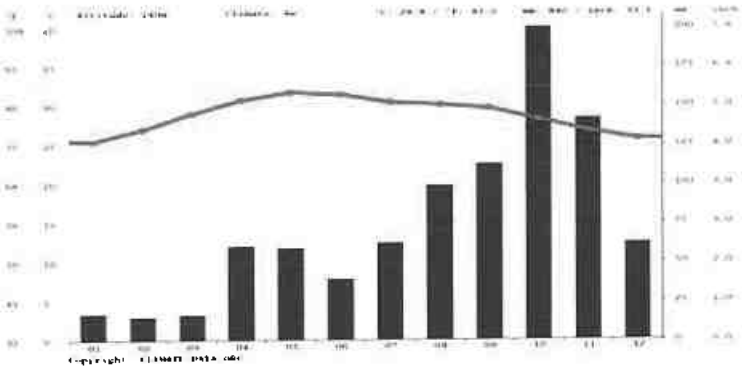
Water Level in this area is noticed at a depth of 60m to 65m below Ground Level, observed nearby bore well and the quarrying of Rough Stone is proposed up to a depth of **45m**. Hence, it will not affect the quality of ground water table in this area.

12.3. Flora and Fauna

The Thorny bushes are placed in quarry area and Neem, Pungam, Panai trees are noticed around the quarry area. Except acacia bushes, other valuable trees are noticed in the lease applied area. Further, neither flora of botanical interest nor fauna of zoological interest is noticed in this area.

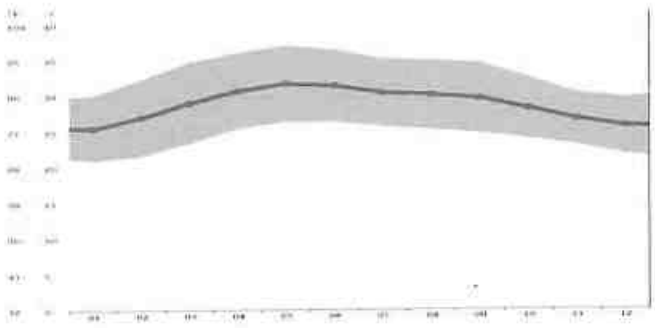
12.4. Climatic conditions

The Dindigul lies on 140m above sea level. The climate here is tropical. The summers are much rainier than the winters in Dindigul. This location is classified as Aw by Köppen and Geiger. In Dindigul, the average annual temperature is 28.8°C /83.9°F. In a year, the rainfall is 840 mm/ 33.1 inch. Dindigul Climate Graph // Weather by Month



The driest month is February, with 14 mm | 0.6 inch of rain. The greatest amount of precipitation occurs in October, with an average of 191 mm | 7.5 inch.

Temperature: Dindigul Average Temperature



May is the warmest month of the year. The temperature in May averages 31.7 °C/89.1°F. The lowest average temperatures in the year occur in January, when it is around 25.5°C /77.9°F.

Dindigul Weather By Month // Weather Averages

	Avg. Temp (°C)	Min. Temp (°C)	Max. Temp (°C)	Precipitation/ Rainfall (m)	Humidity (%)	Rainy Days	Avg. Sun Hours
January	24 °C	19.8 °C	29.1 °C	25	67%	4	7.4
February	26 °C	20.8 °C	32 °C	26	57%	3	8.7
March	28.7 °C	22.9 °C	35.1 °C	37	51%	4	9.7
April	30.4°C	25.1 °C	36.7 °C	74	56%	8	10.2
May	30.1 °C	25.3 °C	36 °C	125	60%	14	10.6
June	28.5 °C	24.5 °C	33.7 °C	145	65%	15	10.1
July	28.1 °C	24.2 °C	33 °C	140	63%	15	10.2
August	27.8 °C	23.8 °C	32.8 °C	154	65%	15	10.0
September	27.7 °C	23.4 °C	32.9 °C	187	66%	15	9.6
October	26.3 °C	22.9 °C	30.8 °C	259	75%	16	8.3
November	24.7 °C	21.7 °C	28.4 °C	214	78%	14	6.6
December	23.8 °C	20.3 °C	27.8 °C	94	74%	9	6.3

12.5. Human Settlement

The nearest habitations with the population, approx. distance within 5.0Km radius from the proposed quarry site are as given under,

Table No-13

S. No	Name of the Village	Approximate distance in km	Direction from lease applied area	Population
1.	Kulipatti	1.3km	NW	650
2.	Kombaipatti	1.6km	N	1100
3.	Kullichettipatti	1.8km	SE	900
4.	Annavadi	2.7km	SW	1800

12.6. Plan for Air, Dust Suppression

The air quality will be affected by the Suspended Particulate Matter (SPM) generated by the loading and unloading during the quarrying operation. The following mitigation measures will be carried out, Mist water spraying will be carried out by means of water sprinklers to suppress dust emission in the Haul roads. The native species of Neem, Pungam, Panai etc., will be planted along the lease boundary and Safety buffer zone. The quarried out materials will be fully covered by the Tarpaulin during transportation to avoid the spillage of materials. The Air quality will be monitored periodically as per the norms and mitigate measures carried out to prevent dust and air propagation in to the air Operators, those exposed directly to such conditions will be provide such as

(PPE) Personnel Protective Equipment's like Dust mask, Ear plug, Helmet, Gloze etc., as per the Mines Act -1952.

The estimated budget for dust suppression would be around **Rs.5,00,000/-** for the period of 5 Years only.

Image of Dust Suppression Sprinkling Water Tanker

12.7. Plan for Noise Control

- The quarrying of Rough Stone will be carried out by manual mining. Hence the ground vibration and noise pollution will be very minimum and restricted within the quarry workings. However, periodical noise level monitoring and other mitigation measures will be carried out to reduce the noise level and vibration in and around the quarry site.
- Nowhere the noise level should exceed the permissible limit of 80db during the quarry working hours.
- The drivers will be strictly instructed to move the vehicle during the transportation not exceeding 30km per Hour, Sentries with Red Flag & whistle will be posted in village junction and regulate traffic.
- The estimated budget for Noise level monitoring would be around **Rs.20, 000/-** for the period of 5 Years only.

12.8. Environmental Impact Assessment Statement Describing Impact on mining on the next Five years

- The Mining Plan with **2.00.00 Ha** is proposed for a small production of Rough Stone. Such limited mining activity is not likely to cause any impact adversely on environment as far as pollution of air, Water and noise is concerned, anyhow environmental impact studies will be conducted as per EIA notification issued by MOEF. It is B2 Category of mine.
- The estimated Cost would be around **Rs. 3,70,000/-** for a period of 5 Years only.

12.9. Proposal for Waste Management

There are no wastes anticipated during this Rough Stone quarry operation. The quarried out materials 100% will be utilized.

12.10. Proposal of Reclamation of Land affected during mining activities and at the end of mining (refilling/fencing etc.)

The proposed depth of mining is only **45m** has been envisaged as workable depth for Safe & Economic mining during the lease period. Hence, after quarry reaches Ultimate Pit Limit (for this lease period) of **45m**, *S1 type Fencing* will be constructed around the quarried pits to prevent inherent entry of the public and cattle.

There is no proposal for refilling and rehabilitation. The Barbed wire fencing cost would be around **Rs.1,75,000/-**

12.11. Program for Afforestation:

The 7.5m and 10m safety distance along the lease boundary has been identified to be utilized for Afforestation in a phased manner as described below

Table – 14

Year	No. of Saplings proposed to be planted	Survival %	Area to be covered Sq.m	Name of the species	No. of Saplings expected to be grown
I	100	80%	668	Neem, Pungam etc.,	80
II	100	80%	668	Neem, Pungam etc.,	80
III	100	80%	668	Neem, Pungam etc.,	80
IV	100	80%	668	Neem, Pungam etc.,	80
V	100	80%	668	Neem, Pungam etc.,	80

- Nearly 3340 Sq.m area is proposed to use under Afforestation by planting 100Nos of Neem, Pungam Saplings etc., every year in the spacing interval of (5m X 5m) with an anticipated survival rate of 80%.
- Appropriate native species of Neem, Pungan, Teak and Casuarinas Saplings will be planted approach roads, service roads, nearby villages, village roads, government school etc.,
- The Quarry Land use, Layout and Afforestation Plan are showing in Plate No. V.

12.12. Proposed Financial Estimate / Budget for (EMP) Environment Management

Table - 14

S.No	Monitory and Analysis Description	Rate per location	No. of location	Total Charges for monitoring		
				6 months	Per Year	5 Years
1	Ambient Air quality monitoring	5000	4	20000	40000	2,00,000
2	Water sampling and analysis	10000	1	10000	20000	1,00,000
3	Noise level monitoring	500	4	2000	4000	20,000
4	Ground vibration monitoring	2500	2	5000	10000	50,000
			Total EMP Cost	**37000**	**74000**	***3,70,000***

The Environment Monitoring EMP Studies Cost would be around **Rs. 3,70,000/-** for a period of 5 Years only.

I. Project Cost & Investment:

1) Land cost

It is Government Land, Tender cost **Rs. 1, 35,000,00/**

2) Refilling/ Fencing

There is no proposal for Refilling, after the excavation of Rough Stone the quarried out land will be fenced with barbed wire fencing the cost would be around **Rs.1,75,000/-**

3) Laborers shed

Labours are proposed for quarrying Rough Stone. The machine Operators and workers are from nearby local villages, hence no cost is involved. Rest shelter will be constructed as semi-permanent structure at the cost of **Rs.1,60,000/-**

4) Sanitary facility

Sanitary facility will be constructed as semi-permanent structure, the cost will be around **Rs.1,60,000/-**

II. Machinery to be used :

The Machineries like Excavator Of 0.9m³ bucket capacity attached with Rock Breaker are proposed to deploy for quarrying operation and Tippers/Trucks of 10/2 Tons capacity will be used for the quarrying transportation for hired basis, the cost will be around **Rs.10,00,000/-**

I. Fixed Asset Cost :-

1. Tender cost	= Rs.1,35,000,00
2. Refilling/Fencing cost	= Rs. 1,75,000/-
3. Rest shelter	= Rs. 1,60,000/-
4. Sanitary Facility	=Rs. 1,60,000/-
II. Machinery Cost :-	=Rs. 10,00,000/-
Total Project Cost	**=Rs. 1,49,95,000/-**

III. Expenditure :

1) Drinking Water facility and other utilities for the labourers

19 Labours were proposed to work in the quarry, drinking water will be arranged from the nearby water Vendors, the cost will be around **Rs.1,60,000/-**

2) Sanitary arrangement

Sanitary maintenance at the cost of Rs.1500/- month the cost will be around **Rs.90, 000/-** for a period of (Five) 5 Years.

3) Safety kits

Rs.1,00,000 will be spent for the safety kits such as Helmet, Mine Goggles, Ear plugs, Ear muff, Dust Mask, Reflector jackets and safety Shoes.

4) Water sprinkling (if necessary)

Rs.8,000/- month will be spent for sprinkling the water on haul roads for Dust suppression; the cost will be around **Rs.4,80,000/-** for a period of (Five) 5 Years.

5) Afforestation etc.,

Afforestation is proposed within safety zones of the lease applied area and plantations will be carried out on the nearby villages and village roads, Government School after consultation with the Panchayat authorities. The cost estimate is around **Rs.60,000/-**

Expenditure :

1. Drinking water	=Rs.	1,60,000/-
2. Sanitary Arrangements	=Rs.	90,000/-
3. Safety kits	=Rs.	1,00,000/-
4. Water Sprinkling	=Rs.	4,80,000/-
5. Afforestation cost	=Rs.	60,000/-

Environment Monitoring / 5 Years :

1) Air Quality Sampling	= Rs. 2,00,000/-
2) Water Quality Sampling	=Rs. 1,00,000/-
3) Noise Level Monitoring	=Rs. 20,000/-
4) Ground vibration test	=Rs. 50,000/-
EMP Cost Total	***=Rs. 11,70,000/-***

(Expenditure Including EMP Studies)

Total Project Cost	**=Rs.1,49,95000/-**
EMP Cost	**=Rs.11,70,000/-**

12.13 Corporate Social Responsibility (CSR):

- The Applicant shall distribute Note books, Stationary items to nearby Government Primary School and to conduct the Medical camp, Environment awareness program, etc., to nearby villages after consultation with local panchayat authorities.
- The Applicant shall ensure that a minimum of 2.5% of the Total profit for the entire lease period will be utilized as CSR Activities.
- *District Mineral Fund @10% of the Royalty shall be given to the Dept. of Geology and Mining.*

13.0. MINE CLOSURE PLAN

13.1. Steps proposed for phased restoration, reclamation of already mined out area.

- This conventional Systematic, Scientific and Eco- Friendly quarrying operation for a depth of **45m** not required any Backfill, Reclamation and Rehabilitation, the quarried out lands will be used for Water storage/ Recharge purpose.
- The mined out area will be fenced on top of open cast working with S1 Fencing to arrest the entry of cattle and public in to the quarry site.

13.2. Measures to be under taken on mine closure as per Act & Rules.

Measure will be taken as per Act & Rules. The quarried pit will be fenced by using Barbed wire fencing to prevent inherent entry of public and cattle.

13.3. Mitigation measures to be undertaken for safety and restoration/ reclamation of the already mined out area.

Air Quality:

- (Air quality will be degrade due to mining operation and transportation)
- It is manual mining quarry, No explosive is proposed.
- Mist Water spraying on haul roads is proposed to prevent the dust propagation into the air.

Noise and Vibration:

- (The noise will be formed due to the loading and movement of Vehicles, Machineries)
- The applicant has proposed to plant native species of Neem, saplings all along safety area to prevent Noise besides wet drilling will be practiced to prevent dust and spillage.
- All the Vehicles, Machineries will be maintained in good conditions as per RTO and TNPCB Norms to prevent Noise, Smoke and Vibration to maintain Noise levels below 80 dB(decibel).

Water Regime:

- The quarrying operation has proposed up to a maximum depth of **45m** is well above the ground water table (summer 65m and Rainy seasons 60m) for a period of 5 Years only. Hence the ground water table will not affect in any manner.

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O/o Assistant Director (Geology)

- The seepage and rain water stored in quarrying pit will be drained out by 5 H.P motor pumps and will be discharged through filter media to boundary barrier for afforestation and excess water will be sprayed on haul roads to prevent dust propagation in to the atmosphere.
- The Rough Stone quarry will not produce any harmful toxic effluence in the form of Solid, Liquid or Gas.

Human Health and Safety:

- All the labors are provided with Safety Equipment's like safety Helmet, Goggles, Ear muff, Ear Plug, Safety Jackets, Hand gloves, Thick Shoes etc., at applicant cost, as per the specifications of the Director of Mines Safety.
- The competent qualified person Foreman/Permit Mines Manager will provide First Aid will take care of small and minor injuries. If any accident happens, the Victim will be taken to the nearby hospital by the own vehicle which is always kept in the mines office.

14.0. ANY OTHER DETAILS INTEND TO FURNISH BY THE APPLICANT

i. This Mining Plan with **2.00.00 Ha** for Rough stone (Charnockite) quarry is prepared under amended Rules 8(1) and Tamil Nadu Minor Mineral Concession Rules 1959.

ii. The measures will be taken as per Mines Act & Mine Rules and Regulations and orders made there under shall be complied with, so that the safety of mine, machinery and mine workers will be protected.

iii. It is expected that the mining will be done skillful, systematically, scientifically, and Eco-friendly quarrying operation.

iv. There is no deep hole drilling and no blasting of this lease area.

v. The Applicant will endeavor every attempt to quarry the Rough Stone economically without any wastage and to improve the environment and ecology.

vi. Any violation pointed out by the inspecting authorities shall be rectified as per the guidelines of the Department.

Prepared by

A. Arumugam

Signature of Recognized Qualified Person

A. ARUMUGAM, M.Sc.,M.Phil.,
Recognized Qualified Person
RQP/DMG/HYD/65/2022

Place : Dindigul

Date : 11.3.24

RoC. No. 25/M/2024 Date : 04.4.24

This Mining Plan is approved based on Instruction guidelines given by the Commissioner of Geology and Mining, Chennai wide Letter No : 3868/LC/2012, Dated 19-11-2012 and condition no laid by The District Collector, Dindigul in Precise, Area Communication letter Roc. No .RoC.No..25/M/24.(Mines), dated ...9..2..24....

ASSISTANT DIRECTOR
GEOLOGY AND MINING
DINDIGUL.

ந.க.எண். 25/2024/கனிமம்
நாள்: 09.02.2024

புவியியல் மற்றும் சுரங்கத்துறை,
மாவட்ட ஆட்சியரகம்,
திண்டுக்கல்

குறிப்பாணை

பொருள்: கனிமங்களும் குவாரிகளும் - சிறுகனிமம் - சாதாரண வகை கற்கள் - திண்டுக்கல் மாவட்டம் - நிலக்கோட்டை வட்டம் - சிவஞானபுரம் கிராமம் - புல எண்.263/1(பகுதி-2) 2.00.00 ஹெக்டேர் பரப்பில் டெண்டர் / ஏலம் முறையில் குத்தகை வழங்குவது - அதிகபட்ச டெண்டர் தொகை கோரிய திரு.க.நாகமுத்துக்குமார், த/பெ.கருப்பையா என்பவரின் பெயரில் ஏலம் உறுதி செய்யப்பட்டது - ஏற்பளிக்கப்பட்ட சுரங்கத் திட்டம் மற்றும் சுற்றுச்சூழல் ஆணைய இசைவு பெற்று சமர்ப்பிக்கக் கோருதல் - தொடர்பாக.

பார்வை:
1. திண்டுக்கல் மாவட்ட அரசிதழ் சிறப்பு வெளியிடு எண்: 20 நாள் 15.11.2023.
2. திண்டுக்கல் மாவட்ட அரசிதழ் சிறப்பு வெளியிடு எண்: 26 நாள் 19.12.2023
3. திரு.க.நாகமுத்துக்குமார் என்பவரது டெண்டர் விண்ணப்பம் நாள்:11.01.2024
4. உதவி இயக்குநர் புவியியல் மற்றும் சுரங்கத்துறை, வருவாய் கோட்டாட்சியர் திண்டுக்கல் அவர்களது ஏல நடவடிக்கை அறிக்கை நாள்-11.01.2023
5. திரு.க.நாகமுத்துக்குமார் என்பவரின் கடித நாள்: 24.01.2023
6. தொடர்புடைய ஆவணங்கள்.

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1. திண்டுக்கல் மாவட்டத்தில் அரசு புறம்போக்கு நிலங்களில் உள்ள சாதாரண கற்களை வெட்டியெடுத்துச் செல்ல உரிமம் வழங்க ஏதுவாக பார்வையில் கண்ட திண்டுக்கல் மாவட்ட அரசிதழ் சிறப்பு வெளியீடுகளின் படி 12.12.2023-ம் நாள் பிற்பகல் 05.00 மணிக்குள் மூடி முத்திரை இடப்பட்ட டெண்டர் மனுக்களை அளிக்க இறுதி நாளாக அறிவித்து, 11.01.2024 அன்று பொது ஏலம் நடத்தப்பட்டு டெண்டர் மனுக்கள் ஏலத்தில் கலந்து கொண்டவர்கள் முன்னிலையில் திறக்கப்பட்டன.

2. மேற்கண்ட அரசிதழில் விளம்பரம் செய்யப்பட்டிருந்த குவாரிப்பட்டியலில் வரிசை எண்.8, திண்டுக்கல் மாவட்டம், நிலக்கோட்டை வட்டம், சிவஞானபுரம் கிராமம், புல எண்.263/1(பகுதி-2) 2.00.00 ஹெக்டேர் பரப்பில் டெண்டர் / ஏலம் முறையில் குத்தகை வழங்குவது குறித்தும் கற்குவாரிக்கு டெண்டர் / பொது ஏலத்தில் கலந்து கொண்டவர்களில் திரு.க.நாகமுத்துக்குமார், த/பெ.கருப்பையா என்பவரின் டெண்டர் தொகையாக கோரியிருந்த ரூ.1,35,000,00/- மாவட்ட ஆட்சித்தலைவர் அவர்களால் நிர்ணயம் செய்யப்பட்டிருந்த ஏலத்தொகை ரூ.64,50,000 விட அதிகமாக இருந்ததால் ஏலத்தொகை முழுவதையும் செலுத்த கேட்டுக்கொள்ளப்பட்டது. மேற்கண்ட ஏலதாரர் மொத்த குத்தகை தொகையையும் செலுத்தியுள்ளார்.

3. எனவே, டெண்டர்தாரர் குத்தகை தொகை முழுவதும் செலுத்திவிட்டபடியால், மேற்படி கற்குவாரி ஏலமானது விதிகளின்படி உயர்ந்தபட்ச ஏலம் / டெண்டர் கோரியவர் என்பவருக்கு உறுதி செய்யப்படுகிறது. மேலும், மேற்படி திரு.க.நாகமுத்துக்குமார், த/பெ.கருப்பையா என்பவரின் நிலக்கோட்டை வட்டம், சிவஞானபுரம் கிராமம், புல எண்.263/1(பகுதி-2) 2.00.00 ஹெக்டேர் பரப்பில் ஐந்து (5) ஆண்டுகளுக்கு குத்தகை உரிமம் வழங்க ஏதுவாக 1959ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள், விதி எண்.41-ன்படி கீழ்க்கண்ட நிபந்தனைகளுடன் ஏற்பளிக்கப்பட்ட சுரங்கத் திட்டத்தினை 90 தினங்களுக்குள் சமர்பிக்கவும், 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:

a. 1959ம் வருடத்திய தமிழ்நாடு சிறு கனிம சலுகை விதிகள், அட்டவணை-II-ல் கண்டுள்ளபடி குவாரி செய்யப்படும் கனிமங்களுக்குரிய சீனியரேஜ் தொகை அவ்வப்போது செலுத்தி கனிமம் கொண்டு செல்லப்பட வேண்டும்.

b. அருகிலுள்ள பட்டாதாரர்களுக்கு எவ்வித இடையூரும் ஏற்படாத வண்ணம் குவாரிப் பணி மேற்கொள்ள வேண்டும்.

c. விதிகளின் படி ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினை உரிய காலத்திற்குள் சமர்பிக்க வேண்டும்.

d. குவாரி உரிமம் வழங்க உள்ள பகுதிக்கு சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் முன் அனுமதி பெற்று சமர்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும்.

இணைப்பு: குத்தகை உரிமம் வழங்க
பரிந்துரைக்கப்பட்ட புல வரைபடம்.

ஒ/ம்.மொ.நா.பூங்கொடி,
மாவட்ட ஆட்சித்தலைவர்,
திண்டுக்கல்.

//உ.ந.உ.ப//

9/2/24.
உதவி இயக்குநர்
புவியியல் மற்றும் சுரங்கத்துறை,
திண்டுக்கல்.

பெறுநர்:
திரு.க.நாகமுத்துக்குமார்,
த/பெ.கருப்பையா,
159/2, தெற்கு வீதி,
அய்யன்கோட்டை,
அய்யன்பாளையம்,
பட்டிவீரன்பட்டி, திண்டுக்கல்.

A. Alimuthu
A.ALIMUTHU, M.Sc.,M.Phil.,
Recognized Qualified Person
RQP/DMG/HYD/85/2022

நகல்: 1. ஆணையர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை

© தமிழ்நாடு அரசு
2023

பதிவெண்: டி.என்/ஆடி.எல்.10.

O/o Assistant Director (Geology and Mining) Collectorate Dindigul - 624 004.

திண்டுக்கல் மாவட்ட அரசிதழ்

சிறப்பு வெளியீடு

ஆணையின்படி வெளியிடப்பட்டது

திண்டுக்கல், நவம்பர் 15, 2023
ஐப்பசி 29, சோபகிருது, திருவள்ளுவர் ஆண்டு- 2054

[எண் 20

மாவட்ட ஆட்சியர் அறிவிக்கை

(ந.க.எண்:192/கனிமம்/2023, நாள்:15.11.2023)

கல்குவாரிகள் ஏல அறிவிப்பு

திண்டுக்கல் மாவட்டத்தில் உள்ள அரசு புறம்போக்கு நிலங்களில் தேர்வு செய்யப்பட்டுள்ள கல்குவாரிகளிலிருந்து கட்டுமான பணிக்கு பயன்படும் உடைகல், ஜல்லி, கரணை கல், கட்டுக்கல், வேலிக்கல் உடைத்து எடுத்துக்கொள்ள மூடி முத்திரையிடப்பட்ட மறைமுக டெண்டருடன் இணைந்த திறந்த முறை பொது ஏலம் மூலம் குவாரி குத்தகை வழங்குவது தொடர்பான அறிவிக்கை.

தமிழ்நாடு சிறுவகைக் கனிமச் சலுகை விதிகள் 1959 விதி எண் 8 உள்விதி (1) (அ)-ன்படி இந்த அறிவிப்புடன் இணைக்கப்பட்டுள்ள அட்டவணையில் கண்டுள்ள அரசு புறம்போக்கு நிலங்களில் அமைந்துள்ள சாதாரண கற்குவாரிகளில் இருந்து கட்டிடம் மற்றும் சாலை அமைக்க பயன்படும் சாதாரண பொது உபயோக சிறுவகை கனிமங்கள், அதாவது சரளை, சக்கை, கல்தூண், ஜல்லி, முண்டுக்கல், கட்டுக்கல் மட்டும் வெட்டிஎடுத்துச் செல்ல உரிமம் வழங்க ஐந்தாண்டு மற்றும் பத்தாண்டு காலத்திற்கு குத்தகை பெற, மூடி முத்திரையிடப்பட்ட மறைமுக டெண்டருடன் இணைந்த திறந்த முறை ஏலம் மூலம் குவாரி குத்தகை கோரும் டெண்டர் மனுக்கள் திண்டுக்கல் மாவட்ட ஆட்சியரால் 12.12.2023 மாலை 5.00 மணி வரையிலும் டெண்டர் விண்ணப்பங்கள் பெறப்படும்.

திறந்த முறை ஏலம் மற்றும் மறைமுக டெண்டர் விண்ணப்பங்கள் திறப்பது ஆகிய நடைமுறைகள், திண்டுக்கல் மாவட்ட ஆட்சியர் அலுவலகத்திலுள்ள கூட்ட அரங்கத்தில் மாவட்ட ஆட்சித்தலைவரால் அல்லது அவரால் அங்கீகரிக்கப்பட்ட அலுவலரால் 13.12.2023 அன்று காலை 10.30 மணிக்கு தொடங்கி பட்டியலில் கண்டுள்ள வரிசைப்படி தொடர்ந்து நடத்தப்படும்.

நேரடியாக பொது ஏலத்தில் கலந்துகொள்ள விரும்புபவர்கள் பகுதி-I-ல் கண்ட நிபந்தனை-3-ல் குறிப்பிடப்பட்டவாறு மனு மற்றும் ஆவணங்களை அசல் மற்றும் இரண்டு நகல்களை 13.12.2023 அன்று காலை 10.30 மணி முதல் பகுதி - I இன் நிபந்தனை 4-ல் குறிப்பிடப்பட்ட அலுவலரிடம் ஏலம் நடைபெறுவதற்கு முன்னதாக ஒப்படைத்து உரிய படிவத்தில் ஒப்புதல் கடிதம் பெற்றுக்கொள்ள வேண்டும்.

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பகுதி - I மனு செய்வதற்கான நிபந்தனைகள்

1. இந்த அறிவிக்கை தொடர்பாக குத்தகைக் கோரும் டெண்டர் மனுக்கள் தமிழ்நாடு சிறுவகை கனிம சலுகை விதிகள் 1959-ல் பின்னிணைப்பு IV-ல் கண்டுள்ள படிவத்தில் அசல் மற்றும் இரண்டு நகலுடன் கொடுக்கப்பட வேண்டும். அதன் மாதிரி படிவம் இவ்வறிக்கையின் கடைசியில் இணைக்கப்பட்டுள்ளது. உரிய படிவத்தில் இல்லாத விண்ணப்பங்கள் நிராகரிக்கப்படும்.

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

3. டெண்டர் மனுவுடன் கீழ்கண்ட சான்றிதழ்கள் மற்றும் ஆவணங்கள் அசல் மற்றும் இரண்டு நகல்கள் மனுவுடன் இணைத்து கொடுக்கப்பட வேண்டும்.

அ. திரும்ப பெற இயலாத விண்ணப்ப படிவ கட்டணமாக ரூ.1500/-யை அரசு கருவூலகத்தில் செலுத்தி மனுவுடன் இணைக்கப்பட வேண்டும் அல்லது ஏதேனும் ஒரு தேசியமயமாக்கப்பட்ட வங்கியில், வங்கி வரைவோலை "மாவட்ட ஆட்சியர்" திண்டுக்கல் என்று பதவியின் பெயரில் குறிப்பிட்டு எடுத்து இணைக்கப்பட வேண்டும்.

ஆ. பிணை வைப்புத் தொகையாக ரூ.25,000/- மட்டும் மாவட்ட ஆட்சியர் திண்டுக்கல் என்ற பெயருக்கு ஏதேனும் ஒரு தேசியமயமாக்கப்பட்ட வங்கியில், வங்கி வரைவோலை பெற்று மனுவுடன் இணைக்கப்பட வேண்டும். தனிநபர் பெயருக்கு எடுத்துக் கொடுக்கப்படும் வங்கி வரைவோலை ஏற்றுக் கொள்ளப்பட மாட்டாது.

இ. டெண்டர் மனுதாரர் தான் மறைமுகமாக குறிப்பிடும் அதிகபட்சத் டெண்டர் தொகையில் 10 சதவீதத் தொகைக்கான வங்கி வரைவோலையை மாவட்ட ஆட்சியர் திண்டுக்கல் என்ற பெயருக்கு ஏதேனும் ஒரு தேசியமயமாக்கப்பட்ட வங்கியில், வங்கி வரைவோலை பெற்று மனுவுடன் இணைக்கப்பட வேண்டும்.

ஈ. டெண்டர் மனுதாரர் தனியாகவோ அல்லது மற்றவருடன் கூட்டாகவோ இணைந்து, தமிழ்நாட்டில் எந்த ஒரு மாவட்டத்திலும் (i) ஏற்கனவே காலாவதியான குவாரி குத்தகைகளும், (ii) நடப்பிலுள்ள குவாரி குத்தகைகளும், (iii) குத்தகை கோரி மனுச் செய்யப்பட்டு நிலுவையிலுள்ள மனுக்கள் விபரம் மற்றும் (iv) தற்போதைய மனுவுடன் ஒரே நேரத்தில் வேறு பகுதியில் குத்தகைக் கோரும் மனுக்கள் விபரம் ஆகியவைகள் அடங்கிய ஆணை உறுதி ஆவணத்தில் ஒப்பமிட்டு சான்று உறுதி அலுவலரின் (Notary Public) ஒப்புதல் பெற்று இணைக்க வேண்டும்.

உ) டெண்டர் மனுதாரர் நிபந்தனை (ஈ) யில் கண்ட விவரப்படி ஏற்கனவே குவாரி குத்தகை பெற்றிருப்பவராயின் சுரங்க வரியினங்களான, ராயல்டி, சீனியரேஜ் தொகை, முடக்குவரி, பரப்புவரி, ஸ்தல வரி மற்றும ஸ்தல வரிக்கான கூடுதல் வரி, மற்றும் அபராதம் ஏதேனும் விதிக்கப்பட்டிருப்பின் அந்த தொகைகளை செலுத்தியதற்கான "சுரங்கவரி நிலுவையில்லாச் சான்று" சம்பந்தப்பட்ட மாவட்டத்தில் பெற்று ஒப்படைக்க வேண்டும்.

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ஊ) டெண்டர் மனுதாரர், வருமானவரி செலுத்துபவராயின், செல்லுபடியாகத்தக்க வருமானவரிச் சான்று பெற்று ஒப்படைப்பதுடன் (i) நாளது தேதிவரை வருமானவரி தொடர்பான கணக்குகளை அத்துறைக்கு சமர்ப்பித்ததாகவும், (ii) கணக்கீடு செய்யப்பட்ட வருமான வரியை செலுத்துவதாகவும் சமர்ப்பிக்க வேண்டும். பிற நபர்கள் 1961 ஆம் ஆண்டு வருமானவரிச் சட்டத்தின்படி சுய கணக்கீடு செய்ததின் அடிப்படையில் வருமானவரி செலுத்த அவசியம் எழவில்லை எனக் குறிப்பிட்டு அதனை ஆணை உறுதி ஆவணத்தில் ஒப்பமிட்டு, சான்று உறுதி அலுவலரின் இசைவு பெற்று மனுவுடன் இணைக்க வேண்டும்.

எ) மனுதாரர் இருப்பிடச் சான்று தொடர்பாக, ஓட்டுநர் உரிமம், வாக்காளர் அடையாள அட்டை, குடும்ப அட்டை மற்றும் ஆதார் அட்டை ஆகியவற்றில் ஏதாவது ஒன்றின் நகல் இணைக்கவேண்டும்.

4. மேற்கண்ட இணைப்புகளுடன், அசல் மனு மற்றும் இரண்டு நகல்கள் ஆகியவற்றை, மூடி முத்திரையிடப்பட்ட உறையில் வைத்து உறையின்மேல் கல்குவாரி அட்டவணையில் கண்ட அரசிதழ் எண், வரிசை எண், வட்டம், கிராமம், புல எண், விஸ்தீர்ணம் ஆகியவற்றைக் குறிப்பிட்டு, குத்தகை கோரும் டெண்டர் மனு என்று தலைப்பிட்டும், அதன் கீழ் டெண்டர் மனுதாரரின் பெயர் மற்றும் சரியான முகவரி எழுதியும், பெறுநர் : மாவட்ட ஆட்சியர், திண்டுக்கல் மாவட்டம் என்று தெளிவாகவும் எழுதி, கீழ் குறிப்பிடப்பட்ட அலுவலருக்கு 12.12.2023 அன்று மாலை 5.00 மணிக்குள் கிடைக்குமாறு அனுப்பி வைக்க வேண்டும்.

"உதவி இயக்குநர், அறை எண். 277, இரண்டாம் தளம்,
புவியியல் மற்றும் சுரங்கத்துறை,
திண்டுக்கல் மாவட்ட ஆட்சியர் அலுவலக வளாகம், திண்டுக்கல்."
தொலைபேசி எண்: 0451-2460061

5. நேரடியாக அலுவலகத்தில் கொடுக்கப்படும் முத்திரை இடப்பட்ட டெண்டர் உறைகளை பெற்றுக் கொண்டமைக்காக, தமிழ்நாடு சிறுவகைக் கனிமச் சலுகை விதிகள் 1959 ன் பின்னிணைப்பு IX-இல் கண்ட படிவத்தில் ஒப்புதல் கடிதம் வழங்கப்படும்.

6. குறிப்பிடப்பட்ட காலக்கெடு முடிந்த பின்னர், மேற்படி அலுவலரால் பெறப்படும் மூடி முத்திரை வைத்த டெண்டர் உறைகள், உறையின்மீது, "பெறுநர் : மாவட்ட ஆட்சியர், திண்டுக்கல் மாவட்டம்" எனக் குறிப்பிடப்படாத டெண்டர் உறைகள் மற்றும் குவாரியின் வரிசை எண், வட்டம், கிராமம், புல எண், விஸ்தீர்ணம் குறிப்பிடப்படாத உறைகள் ஏற்றுக் கொள்ளப்பட மாட்டாது. செய்தித்தாள் மூலமாகவோ, மாவட்ட அரசிதழ் மூலமாகவோ அறிவிப்பு செய்யப்படாத குவாரிகளுக்கு ஏதாவது ஒப்பந்தப்புள்ளி விண்ணப்பங்கள் பெறப்பட்டால் அவையாவும் முதிர்ச்சி அடையாத விண்ணப்பமாகக் கருதப்பட்டு மாவட்ட ஆட்சியரால் உடனடியாக நிராகரிக்கப்படும்.

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7. முன் குறிப்பிடப்பட்ட நிபந்தனைகளின்படி பெறப்பட்ட டெண்டர் உறை அனுப்பிய மனுதாரர்கள், ஒப்புதல் கடிதம் காண்பிக்கும் பட்சத்தில் டெண்டர் உறைகள் திறக்கப்படும்போது ஏல அரங்கில் இருக்க அனுமதிக்கப்படுவர்.

8. அலுவலரால் பெறப்பட்ட மூடி முத்திரையிடப்பட்ட டெண்டர் உறைகள் குவாரி இனம் வாரியாக திறக்கப்படுவதற்கு முன் அந்த இனத்திற்கு திறந்தமுறை பொது ஏலம் நடத்தப்படும். இந்த அறிவிக்கையுடன் இணைக்கப்பட்டுள்ள அட்டவணையில் குறிப்பிடப்பட்ட ஒவ்வொரு இனங்களுக்கும் திறந்தமுறை பொது ஏலம் 13.12.2023 அன்று காலை 10.30 மணியளவில் தொடங்கி தொடர்ந்து நடத்தப்படும்.

பகுதி II திறந்த பொது ஏலத்தில் கலந்துக்கொள்வதற்கான நிபந்தனைகள்

1. திறந்தமுறை பொது ஏலத்தில் கலந்துகொள்ள மனு கொடுப்போர், மனுவின் இனம் 9-ல் கண்டுள்ள வினாவில் மனுச் செய்யும் சமயத்தில் டெண்டர்/கேட்புத் தொகை குறிப்பிடத் தேவையில்லை.

2. மூடி முத்திரையிடப்பட்ட உறையின் மூலம் டெண்டர் மனு கொடுத்துள்ள நபர் இரண்டாம் முறையாக மனு கொடுக்க தேவையில்லை. ஆனால் அவர்கள் நேரடியாக திறந்தமுறை பொது ஏலத்திலும் கலந்துகொள்ளலாம்.

3. மூடி முத்திரை இடப்பட்ட டெண்டர் உறை கொடுத்துள்ள மனுதாரர் மற்றும் பொது ஏலத்தில் கலந்துகொள்ள உள்ள மனுதாரர் ஆகியோர், பொது ஏலத்தில் கலந்துகொள்ள இயலாத நிலையில் அவர்களது நியமனம் பெற்ற மற்றொரு நபர் மனுதாரரின் ஒப்புதல் கடிதம் பெற்று அதனை சான்று உறுதி அலுவலரின் மேலொப்பம் பெற்று அதனையும், விண்ணப்பம் கொடுத்ததற்கான அலுவலரிடமிருந்து பெறப்பட்ட அசல் ஒப்புதல் கடிதத்தையும் ஏலம் நடத்தும் அலுவலரிடம் ஒப்படைத்துவிட்டு, ஏலத்தில் கலந்துகொள்ள வேண்டும். ஏலம் முடிவடைந்தவுடன் அலுவலர் கொடுத்த ஒப்புதல் கடிதம் மட்டும் திரும்ப ஒப்படைக்கப்படும்.

4(அ) மாவட்ட ஆட்சியரோ அல்லது அவரது அதிகார அனுமதி பெற்ற அலுவலரோ குவாரி குத்தகை தொடர்பாக குவாரி இனம் வாரியாக தனித்தனியே திறந்தமுறை ஏலம் நடத்துவார். அப்போது அந்த இனத்திற்கு திறந்தமுறை ஏலத்திற்கு மனு கொடுத்துள்ளவர்கள் மற்றும் டெண்டர் உறை கொடுத்தவர்களும், தான் கூற விரும்பும் ஏலத்தொகையை கூற அனுமதிக்கப்படுவர்.

(ஆ) மனுதாரர் அல்லது அவரது அதிகாரம் பெற்ற நபர் யாரேனும் ஏலத்தில் கலந்துகொள்ளாத்போதும், ஏலம் நடத்தப்பட்டு, டெண்டர் உறைகள் திறக்கப்பட்டு விதிமுறைகளின்படி, மேல் நடவடிக்கை தொடரப்படும்.

5. ஏலம் முடிந்தபின் ஏலம் நடத்தும் அலுவலர், அந்த இனத்திற்கு திறந்தமுறை ஏலத்திற்கு பெறப்பட்ட மொத்த மனுக்களின் எண்ணிக்கை, மனு கொடுத்துள்ளவர்களின் பெயர், அதிகபட்சமாக கூறப்பட்ட ஏலத்தொகையை குறிப்பிட்டு ஏலம் கூறிய நபர் மற்றும் முகவரி ஆகியவற்றை ஏலம் நடத்தப்படும் இடத்திலேயே அறிவிப்பார்.

6. பின்னர் அந்த இனத்திற்கு குத்தகை கோரி பெறப்பட்ட எல்லா மூடி முத்திரை இடப்பட்ட டெண்டர் உறைகளும் திறக்கப்பட்டு, அவற்றில் உள்ள மனுக்கள், ஏலதாரர்கள் மற்றும் டெண்டர்தாரர்கள் முன்னிலையில் ஆய்வு செய்யப்படும்.

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7. பகுதி - I இல் கண்ட நிபந்தனை 3-ல் குறிப்பிடப்பட்டுள்ள சான்றிதழ்கள், ஆவணங்கள் மற்றும் வங்கி வரைவோலைகள் இணைக்கப்படாத மனுக்களும், விண்ணப்பத்தில் காணும் விபரங்களில் வ.எண். 9-ல் தெரிவித்தபடி டெண்டர் தொகையினை தெளிவாக குறிப்பிடாத மனுக்களும், டெண்டர்தாரரின் கையொப்பம் இடப்படாத மனுக்களும், விண்ணப்பத்தில் தவறான விபரங்கள் தரப்பட்ட மனுக்களும் செல்லத்தகாதவை என்று முடிவு செய்யப்பட்டு ஏலக் கூடத்திலேயே அறிவிக்கப்படும். இதற்காக தனியே எழுத்து மூலமாக ஆணை ஏதும் பிறப்பிக்கப்படமாட்டாது.

8. செல்லுபடியாகத்தக்க மனுக்கள் ஆய்வு செய்யப்பட்டு அவற்றில் அதிகபட்ச டெண்டர் தொகை குறிப்பிடப்பட்டுள்ள டெண்டர்தாரரின் பெயர், முகவரி மற்றும் தொகை ஆகியவை ஏலக்கூடத்தில் அறிவிக்கப்படும்.

9. அந்தந்த குவாரி இனங்களுக்கு பொது ஏலத்தில் கூறப்பட்ட அதிகபட்ச ஏலத்தொகை மற்றும் அதிகபட்ச டெண்டர் கோரிய தொகை இவற்றில் எது அதிகமோ அதனை கோரியவர் குத்தகை பெற தகுதியானவர் என அறிவிக்கப்படுவார்.

10. பொது ஏலத்தில் கூறப்பட்ட அதிகபட்ச ஏலத்தொகையைவிட அதிகமாக மறைமுக டெண்டர் முறையில் இரண்டு அல்லது அதற்கு மேற்பட்ட நபர்கள் ஒரே டெண்டர் தொகையை குறிப்பிட்டிருந்தால் அவ்வாறு குறிப்பிட்ட டெண்டர்தாரர்களிடையே, இரண்டாம் நிலை திறந்தமுறை பொது ஏலம் நடத்தப்பட்டு, அதில் அதிகத் தொகை செலுத்த முன்வருபவர் குவாரி குத்தகை பெற தகுதியானவர் என்று அறிவிக்கப்படுவார்.

11. திறந்தமுறை பொது ஏலத்தில் கூறப்பட்ட அதிகபட்ச ஏலத்தொகையும் மறைமுக டெண்டர் முறையில், குறிப்பிடப்பட்ட அதிகபட்ச டெண்டர் தொகையும், ஒரே தொகையாக இருந்தால் அவ்விரு தொகைகளை கூறிய நபர்களிடையே இரண்டாம் நிலை திறந்தமுறை பொது ஏலம் நடத்தப்பட்டு அதில் அதிகத்தொகை செலுத்த முன்வருபவர் குவாரி குத்தகை பெற தகுதியானவர் என்று அறிவிக்கப்படுவர்.

12. (அ) அதிகபட்ச ஏலத்தொகை/டெண்டர் கேட்ட நபர் குவாரி குத்தகை பெற தகுதியானவர் என்று அறிவிக்கப்படும்பட்சத்தில் அவரால் கேட்கப்பட்ட ஏலம்/டெண்டர் தொகையில் 10% சதவீதம் மற்றும் கூடுதலாக 2 சதவீதம் வருமான வரியும் உடனடியாக ஏலம் நடத்திய அலுவலரிடம் செலுத்தி ஒப்புதல் கடிதம் பெற்றுக்கொள்ளவேண்டும்.

13. (அ). அதிகபட்ச ஏலம்/டெண்டர் கேட்ட நபர்/ குத்தகை பெறத்தகுதியானவர் என்று அறிவிக்கப்பட்ட நபர் உடனடியாக 10% சதவீத தொகை செலுத்தாத நிலையில், அவருக்கு அடுத்தபடியாக அதிக ஏலம் / டெண்டர் தொகை ஏற்புடையது என மாவட்ட ஆட்சியரால் அல்லது அவரது அதிகாரம் பெற்ற அலுவலர் கருதும் பட்சத்தில் குறிப்பிட்ட நபர் குத்தகை பெறத் தகுதியானவர் என்று அறிவிக்கப்பட்டு அவர் குறிப்பிட்டுள்ள குத்தகைத் தொகையில் பத்து சதவிகிதத் தொகை மற்றும் 2 சதவீதம் வருமானவரியும் செலுத்தும்பட்சத்தில் அவர் குத்தகை பெறத் தகுதியானவர் என்று அறிவிக்கப்படுவார்.

(ஆ) மேற்கண்டவாறு குத்தகை பெற தகுதியானவர் என்று அறிவிக்கப்பட்ட இரண்டாவது நபரும் 10% சதவீத தொகையை செலுத்தாதபோது மேற்கண்ட வழிமுறை மீண்டும் நடைமுறைப்படுத்தப்படும் அல்லது ஏலத்தொகை ஏற்புடையது அல்ல என்று கருதினால், உரிய குவாரியை மறு டெண்டர்/ ஏலம் மூலம் குத்தகைக்கு விடலாம்.

Geology and Mining Collectorate Dy. Assistant Director

14. குவாரி குத்தகை பெற தகுதியானவர் பெயர் அறிவிக்கப்பட்ட பின்னர், இதர மனுதாரருக்கு விண்ணப்பக் கட்டணம் தவிர பிற இனங்களுக்கான வரைவோலையை திரும்ப வழங்க நடவடிக்கை எடுக்கப்படும்.

15.(அ). குத்தகை பெற தகுதியானவர் என்று அறிவிக்கப்பட்ட நபர் நிலுவையிலுள்ள 10% சதவீத குத்தகைத் தொகையுடன் பிணை வைப்புத் தொகை கழித்தது போக 90% குத்தகைத் தொகையுடன் 2 சதவீதம் வருமான வரியும் தமிழ்நாடு சிறுகனிமச் சலுகை விதிகள் 1959 விதி எண்: 8(5)(vii)-ன்படி 7(ஏழு) நாட்களுக்குள் செலுத்தி அசல் சலானை ஒப்படைக்க வேண்டும்.

(ஆ).மேற்குறிப்பிட்ட 90% சதவீதத் தொகை மேற்குறிப்பிட்ட காலக்கெடுவான 7(ஏழு) நாட்களுக்குள் செலுத்தப்படாவிட்டால், குத்தகை கோரும் நபர் ஏற்கனவே செலுத்தியுள்ள 10 சதவீத தொகை மற்றும் முன்வைப்பு தொகையான ரூ.25,000/- ஆகியவை அரசு கணக்கில் ஆதாயமாக்கப்படும்.

(இ). நிபந்தனை 14(ஆ)-யின்படியும் கோரப்பட்ட குத்தகைத் தொகை செலுத்தப்படாவிட்டால், தொடர்புடைய கல் குவாரி டெண்டர்/ பொது ஏலம் மூலம் குத்தகைக்கு விட மறு அறிவிப்பு செய்யப்பட்டு நடவடிக்கை தொடரப்படும்.

16.(அ) குவாரி குத்தகை கோரி ஒரே ஒரு மறைமுக டெண்டர் மனு கொடுக்கப்பட்டு திறந்த முறை பொது ஏலத்தில் கலந்துகொள்ள யாரும் முன்வரவில்லையெனில், 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 கருதும்பட்சத்தில், மனுவைத் தள்ளுபடி செய்து ஆணையிடப்பட்டு மறு ஏலம்/டெண்டர் மூலம் குவாரி குத்தகை வழங்க மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு.

(ஆ). இரண்டு அல்லது அதற்கு அதிகமான மனுக்கள் பெறப்பட்டாலும்கூட அதிகபட்ச டெண்டர்/ ஏலத் தொகை அரசுக்கு ஆதாயமானதல்ல என்று மாவட்ட ஆட்சியர் கருதினால் மனுவை தள்ளுபடி செய்து மறு ஏலம்/டெண்டர் நடத்த மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு.

(இ). குத்தகைத் தொகை மற்றும் உரிமத்தொகை (சீனியரேஜ்) மீதான வருமானவரியை (TCS) மத்திய அரசால் அவ்வப்போது நிர்ணயம் செய்யப்படும் கணக்கீட்டின்படி செலுத்தப்படவேண்டும்.

17) கல்குவாரி குத்தகை தற்போது உள்ள இயல்பு நிலையிலேயே கொண்டு வரப்படுகிறது. குத்தகை பரப்பை நிலவியலாக பூரணமாக தெரிந்து பின்னர் கலந்து கொள்ள வேண்டும். தவறும்பட்சத்தில் குத்தகை நிலம் தொடர்பாக பிரச்சனை எழுப்ப குத்தகைதாரர் தகுதியற்றவர் ஆவார்.

18) குவாரி குத்தகை விண்ணப்பிக்கும் போது குவாரியினை விண்ணப்பதாரர் தனது சொந்த செலவில் சொந்த பொறுப்பில் பார்வையிட்டு கனிம அளவு, தரம் ஆகியவற்றை தெரிந்து கொண்டு விண்ணப்பிக்க வேண்டும்.

19) பிரசுரிக்கப்பட்ட இனங்களில் நீதிமன்ற வழக்கு அல்லது இதர தாவா இருப்பது தெரியவரும் பட்சத்தில், அந்த இனங்களை நிறுத்தி வைக்கவும் மற்றும் விஸ்தீரணத்தை குறைத்து நிர்ணயம் செய்திடவும், மாவட்ட ஆட்சியருக்கு முழு அதிகாரம் உண்டு.

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20) இந்த அறிவிப்பு பிரசுரிக்கப்பட்ட பின்னரோ குத்தகை உறுதி ஆணை பிறப்பிப்பதற்கு முன்னரோ அல்லது பின்னரோ நிபந்தனைகளை மாற்றவோ, ரத்து செய்யவோ மற்றும் பட்டியலில் கண்டுள்ள எல்லா குவாரிகளின் குத்தகை உரிமம் கோரும் விண்ணப்பத்தை எக்காரணமின்றி ரத்து செய்யவோ, அல்லது மேற்படி மனுக்களின் உறைகளை திறக்கும் நாள், நேரம் ஆகியவைகளை தள்ளி வைக்கவோ, நிறுத்தி வைக்கவோ மாவட்ட ஆட்சியருக்கு முழு அதிகாரமுண்டு. அதற்கு விண்ணப்பதாரர் எந்தவித இழப்பீடும் கோர உரிமையில்லை.

பகுதி II (ஆ) சிறப்பு நிபந்தனைகள்:

1. 1. டெண்டர்/ பொது ஏலம் எடுக்க முன்வருபவர்கள் டெண்டர்/ பொது ஏலம் எடுக்க உத்தேசிக்கும் புலத்தினை ஏலத்தில் கலந்து கொள்வதற்கு முன்பே பார்வையிடுமாறும் பாதை வசதி உள்ளதா என்பதனையும் தனியர் முன்பே தெரிந்து கொள்ள அறிவுறுத்தப்படுகிறது. டெண்டர்/ பொது ஏலம் உறுதி செய்துபின் பாதை வசதி குறித்து எந்தஒரு பிரச்சனை எழுப்ப குத்தகைதாரர் தகுதியற்றவர் ஆவார்.

2. சமீபத்திய உச்சநீதிமன்றம் தீர்ப்பாணை I.A.Nos.12-13/11 in Special Leave petition (C).No,19628-19629/2009 etc., நாள்: 27.02.2012-ன் படியும், மத்திய சுற்றுச்சூழல் மற்றும் வனத்துறை அமைச்சகம், புதுடெல்லி சுற்றறிக்கை எண் L-11011/47/2011-IA-II(M) நாள் 18.05.2012-ன் படியும், மாநில சுற்றுச்சூழல் பாதுகாப்பு அமைப்பு, தமிழ்நாடு, சென்னை நே.மு.க கடித எண். SEIAA-TN/Minor Minerals/2012 நாள் 17.09.2012-ன்படியும் ஆணையர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை கடித எண்.3868/LC/2012 நாள் 19.11.2012-ன்படியும் சிறுகனிமங்களான கல் மணல், சவுடு மற்றும் மண் குவாரிகளுக்கு குத்தகை உரிமம் வழங்குவதற்கு முன்பாக மாநில அளவிலான சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் தடையின்மைச்சான்று பெற்று சமர்பிக்கப்பட வேண்டும். எனவே இவ்விதியின் கீழ் குவாரி உரிமம் பெறுவோர் மேற்படி மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் தடையின்மைச் சான்றை பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும்.

2.(அ).இவ்விதிகளின் கீழ் குத்தகை உரிமம் வழங்கப்படும் போது மாவட்ட ஆட்சித் தலைவர் அவர்களால் தேர்வு செய்யப்படும்/ குத்தகை பெற தகுதியானவர் என்று அறிவிக்கப்பட்ட நபர் நிலுவையிலுள்ள 100% சதவீத குத்தகைத் தொகையுடன் கூடுதலாக குத்தகைத் தொகையில் 2 சதவீதம் வருமான வரியும் உடன் செலுத்த வேண்டும்.

(ஆ).மேற்குறிப்பிட்ட 100% சதவீதத் தொகையை உடன் செலுத்தப்படாவிட்டால், குத்தகை கோரும் நபர் ஏற்கனவே செலுத்தியுள்ள 10 சதவீத தொகை மற்றும் முன்வைப்பு தொகையான ரூ.25,000/- ஆகியவை அரசுடமையாக்கப்படும்.

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3.இவ்விதிகளின் கீழ் குத்தகை உரிமம் வழங்கப்படும் போது மாவட்ட ஆட்சித் தலைவர் அவர்களால் தேர்வு செய்யப்படும் குத்தகை பெற தகுதியானவர் என்று அறிவிக்கப்பட்ட நபர் நிலுவையிலுள்ள 100% சதவீத குத்தகைத் தொகையுடன் கூடுதலாக குத்தகைத் தொகையில் 2 சதவீதம் வருமான வரியும் உடன் செலுத்திய நபர் மாவட்ட ஆட்சித்தலைவர் அவர்களால் தேர்ந்தெடுக்கப்பட்ட தகுதியானவர் என பெயர் அறிவிக்கப்பட்டு குவாரி உரிமம் வழங்க உத்தேசிகப்பட்டுள்ள பரப்பாக கருதி உத்தரவை வழங்கி சுரங்கத்திட்ட அறிக்கை மற்றும் மாநில அளவிலான சுற்றுப்புறச் சூழல் செயல் விழைவு ஆணையத்தின் தடையில்லாச் சான்று பெற்று சமர்ப்பிக்குமாறு அறிவுறுத்தப்படும்.

4. மேற்படி உத்தரவை பெற்ற நபர் தகுதியான சுரங்கத் திட்ட அறிக்கையை அங்கீகரிக்கப்பட்ட (RQP) நபரிடமிருந்து தயார் செய்து சம்மந்தப்பட்ட உதவி இயக்குநரின் ஒப்புதலுக்கு மூன்று மாதத்திற்குள் சமர்பிக்க வேண்டும். சுரங்கத்திட்ட அறிக்கை அரசால் அங்கீகரிக்கப்பட்ட (RQP) நபரால் மட்டும் அரசு தெரிவித்துள்ள விதிகள் மற்றும் வழிகாட்டுதலின்படி தயாரிக்கப்பட்டிருக்க வேண்டும்.

5. சம்மந்தப்பட்ட உதவி இயக்குநரால் ஒப்புதல் செய்யப்பட்ட சுரங்கத் திட்ட அறிக்கையை தேர்வு செய்யப்பட்ட நபர் மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் தடையின்மை சான்று கோரி விண்ணப்பித்து தடையின்மைச் சான்று பெற்று சமர்ப்பிக்கும் பட்சத்தில் மாவட்ட ஆட்சித்தலைவர் அவர்களால் தகுதி பெற்ற ஏலதாரர்/ டெண்டர்தாரர்களுக்கு குவாரி உரிமம் வழங்க நடவடிக்கை எடுக்கப்படும்.

6. சுரங்கத் திட்ட அறிக்கை குவாரிப்பணி செய்ய குத்தகை ஒப்பந்த பத்திரம் ஏற்படுத்தப்பட்ட நாள் முதல் ஐந்தாண்டிற்கு மட்டும் செல்லத்தக்கதாகும்.

7. இவ்விதியின்கீழ் தேர்வு செய்யப்பட்ட நபர் சுரங்கத்திட்ட அறிக்கை மற்றும் மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணைய தடையின்மை சான்றை குறிப்பிட்ட காலத்திற்குள் சமர்ப்பிக்க தவறும்பட்சத்தில் மாவட்ட ஆட்சித் தலைவர் அவர்கள் வழங்கிய உத்தரவை சம்மந்தப்பட்ட நபரை நேரடி விசாரணை மேற்கொண்டு ரத்து செய்ய நேரிடும்.

8. இவ்விதியின்கீழ் தேர்வு செய்யப்பட்ட நபர் சுரங்கத்திட்ட அறிக்கை மற்றும் மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணைய தடையின்மை சான்று மற்றும் மாசுக்கட்டுப்பாட்டு வாரியத்தின் இசைவு பெற்று சமர்ப்பிக்கும் பட்சத்தில் மேற்படி தேர்வு பெற்ற நபருக்கு குத்தகை உரிமம் வழங்கப்பட்டதற்கான ஆணை வழங்கப்பட்டு பின்னர் குத்தகை ஒப்பந்த பத்திரம் நிறைவேற்ற தேவையான ஆவணங்கள் பெற்று குத்தகை ஒப்பந்த பத்திரம் நிறைவேற்றப்படும்.

9. குவாரிப் பணிகள் சுரங்கத்திட்ட அறிக்கையில் தெரிவித்துள்ளவாறு மேற்கொள்ளப்பட வேண்டும். அவ்வாறு சுரங்கத்திட்ட அறிவிக்கையில் தெரிவித்ததற்கு மாறாக குவாரிப்பணிகள் மேற்கொள்வது கண்டறியப்பட்டால் மேற்படி குவாரிப்பணியை நிறுத்தி வைப்பதற்கு மாவட்ட ஆட்சித் தலைவர் அவர்களால் நடவடிக்கை மேற்கொள்ளப்படும்.

10. இந்த அறிவிப்பில் கண்டுள்ள எந்த குவாரியையும் முன் அறிவிப்பின்றி நீக்க மாவட்ட ஆட்சியருக்கு அதிகாரமுண்டு.

Office of the Assistant Director of Geology and Mining Collectorate Dindigul

பகுதி - III குவாரி குத்தகை பெறுவதற்கான நிபந்தனைகள்

1. அ) தமிழ்நாட்டில், எல்லா மாவட்டங்களிலும் சேர்த்து இவ்வாறான இனங்களில் ஒரு மனுதாரருக்கு இரண்டு கல்குவாரி குத்தகைக்கு மேல் வழங்கப்படமாட்டாது, தவறான தகவல் தந்து இரண்டுக்கு மேற்பட்ட குத்தகைகள் பெறப்பட்டிருப்பது பின்னர் தெரிய வந்தால் கடைசியாக கொடுக்கப்பட்ட குத்தகையை ரத்து செய்ய நடவடிக்கை எடுக்கப்படும்.

ஆ) தமிழ்நாடு சிறுவகைக் கனிமச் சலுகை விதிகள் 1959 இன் பிண்ணிணைப்பு I-ல் கண்டுள்ள படிவத்தில் ஒப்பந்த கருத்துகளில் சேர்க்கை, நீக்கம், மாற்றங்கள் மற்றும் குத்தகைப் பரப்பை காட்டும் புலப்படத்தில் தேவையான மாறுதல்களை செய்திட மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு.

இ) மாவட்ட ஆட்சியரால் ஏலம்/டெண்டர் முறையில் தேர்வு செய்யப்பட்ட நபர் மாநில அளவிலான சுற்று புறச்சூழல் செயல் விழைவு ஆணையத்தின் தடையில்லாச் சான்று பெற்று சமர்பித்த பின்னர் குத்தகை ஒப்பந்தப் பத்திரத்தினை நிறைவேற்ற மாவட்ட ஆட்சியரால் குறிப்பிட்ட காலக்கெடுவிற்குள் கீழ்கண்ட ஆவணங்கள் மற்றும் தொகைகளை செலுத்தி அவற்றை மாவட்ட ஆட்சித் தலைவரிடம் ஒப்படைக்க வேண்டும்.

I. ரூ.20,000/- அல்லது மொத்த குத்தகை தொகையில் 20 சதவீத தொகை இவற்றில் எது அதிகமோ, அத்தொகையை காப்புத் தொகையாக செலுத்தப்படவேண்டும்.

II. மாவட்ட ஆட்சியரின் அறிவிக்கையில் கோரியுள்ளவாறு நீதிமன்றம்சாரா முத்திரைத்தாள்களில் குத்தகை ஒப்பந்த ஆவணம் தயாரித்து மாவட்ட ஆட்சித் தலைவருடன் குத்தகை ஒப்பந்தம் நிறைவேற்றும் பொருட்டு புலப்படத்துடன் கொடுக்கப்பட வேண்டும்.

2. உரிய காலக்கெடுவுக்குள், முன் குறிப்பிடப்பட்ட காப்புத் தொகையை அரசுக்குச் செலுத்தி ஆவணங்களை மாவட்ட ஆட்சியரிடம் ஒப்படைக்காத நபருக்கு ஏற்கனவே குவாரி குத்தகை வழங்கப்படும் என்று கொடுக்கப்பட்ட அறிவிப்பு ரத்து செய்யப்பட்டு, அந்த நாள்வரை அவரால் செலுத்தப்பட்ட தொகைகள் அரசுக்கு ஆதாயமாக்கப்படும்.

3. கோரப்படும் ஆவணங்கள் மற்றும் தொகைகளை குத்தகை பெறவுள்ள மனுதாரர் அரசுக்குச் செலுத்தியபின், அறிவிக்கை மூலம் தெரிவிக்கப்படும் நாளில் மேற்படி குத்தகைதாரர் மாவட்ட ஆட்சியரின் முன்பு ஆஜராகி குத்தகை ஒப்பந்த ஆவணங்களில் கையெழுத்திட்டபின் குத்தகையாளராக அறிவிக்கப்படுவர்.

4. அ) கல்குவாரி குத்தகை காலம் குத்தகை ஒப்பந்தப் பத்திரம் நிறைவேற்றப்பட்ட நாளில் இருந்து ஐந்து ஆண்டுகளாகும்.

ஆ) ஒப்பந்த ஆவணத்தில் குறிப்பிட்டுள்ளபடி குத்தகை முடிவுறும் தேதிக்கு பின்னர் குத்தகைகாலம் எந்த கோரிக்கையின் அடிப்படையிலும் நீட்டிப்பு செய்யப்படமாட்டாது.

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இ) டெண்டர் மற்றும் பொது ஏலத்தின் மூலம் வழங்கப்படும் குத்தகை உரிமங்கள் புதுப்பிக்கப்படமாட்டாது. இது குறித்து புதுப்பித்தல் மனு அனுப்பப்பட்டால் அது விசாரணையின்றி தள்ளுபடி செய்யப்படும்.

ஈ). கல்குவாரி குத்தகை தற்போது உள்ள இயல்பு நிலையிலேயே ஏலம்/டெண்டர் கொண்டு வரப்படுகிறது. ஏலம் /டெண்டர்தாரர் குத்தகை பரப்பை நிலவியலாக பூரணமாக தெரிந்து பின்னர் கலந்து கொள்ள வேண்டும். குத்தகை வழங்கப்பட்ட பின்னர், குத்தகை நிலம் தொடர்பாக பிரச்சனை எழுப்ப குத்தகைதாரர் தகுதியற்றவர் ஆவார்.

5. குவாரி குத்தகை ஒப்பந்தப் பத்திரத்தில் மாவட்ட ஆட்சியருடன் மனுதாரர் கையொப்பம் இடுவதற்கு முன், குத்தகை பரப்பில் கனிமங்கள் வெட்டியெடுத்தாரானால் அப்பணி குத்தகை பெறாமல் செய்ததாக கருதப்பட்டு, விதிமுறைகளின்படி, மேல் நடவடிக்கை தொடரப்பட்டு அபராதம் விதிக்க நடவடிக்கை எடுக்கப்படும். நிறைவேற்றப்படும் குத்தகை ஒப்பந்தப் பத்திரம் குத்தகைதாரர் பொறுப்பில் பதிவு செய்து மீள சமர்ப்பிக்கப்பட வேண்டும்.

6. அ) குவாரி குத்தகை காலம் முடிவடைந்தவுடன் குத்தகைதாரர் குத்தகை பரப்பை அரசுக்கு திரும்ப ஒப்படைத்து அதற்கான கடிதத்தை உரிய கிராம நிர்வாக அலுவலர் வசம் ஒப்புவித்து அதற்கான ஆணை உறுதி ஆவணம் தயாரித்து மாவட்ட ஆட்சியரிடம் ஒப்படைக்க வேண்டும்.

ஆ) குத்தகை காலம் முடிவுற்ற பின் அல்லது குத்தகை நடைமுறை காலத்தில் ஆணை நீக்கம் செய்யப்பட்டால் குத்தகையாளர் குத்தகை பரப்பை, அரசுக்கு திரும்ப ஒப்படைக்காமல் தன்வசம் வைத்திருப்பாரானால் தமிழ்நாடு சிறுவகைக் கனிமச் சலுகை விதி 1959 இல் விதி 36-ஏ(4) இன்படி, அவர் மீது மேல்நடவடிக்கை எடுக்கப்படுவதுடன் குத்தகை பரப்பிலிருந்து அவரை வெளியேற்ற உரிய நடவடிக்கை எடுக்கப்படும். இந்நடவடிக்கையை மேற்கொள்ள மாவட்ட ஆட்சியரால் அதிகாரம் வழங்கப்படும் அலுவலர் குத்தகையாளரை வெளியேற்ற தேவைப்படும் அளவிற்கு வலிமையுடைய நடவடிக்கை எடுக்க தகுதி பெற்றவராவார்.

பகுதி IV குவாரிப்பணி செய்வது தொடர்பான விதிமுறைகள்

1. குவாரி பணி செய்வதற்கான பொது விதிமுறைகள், மாவட்ட ஆட்சியருடன் ஏலதாரர்/டெண்டர்தாரர் கையொப்பமிடும் குத்தகை ஆவணத்தில் குறிப்பிடப்பட்டிருக்கும்.

2. மேலும் ஒவ்வொரு புலத்திற்கும், சிறப்பு நிபந்தனைகள் ஏதும் இருக்குமானால் அவைகள் மாவட்ட ஆட்சியரால் குறிப்பிடப்படும் அனுமதி ஆணையில் குறிப்பிடப்படும். குத்தகை பெற்றவர் அவ்வனுமதி ஆணையை ஏற்று நடக்கவேண்டும்.

3. செலுத்தப்பட்ட குத்தகைத் தொகை தவிர, தமிழ்நாடு சிறுவகைக் கனிமச் சலுகை விதிகள் 1959 - ன் பின்னிணைப்பு II-ல் கண்டவாறு குவாரியிலிருந்து வெளியில் கொண்டு செல்லப்படும் கனிமத்திற்கு சீனியரேஜ் தொகை அல்லது ஒவ்வொரு ஆண்டிற்கான முடக்குவரி இவற்றில் எது அதிகமோ அது செலுத்தப்படவேண்டும். அந்தந்த ஆண்டுகளுக்குரிய பரப்பு வரியினையும் செலுத்த வேண்டும். சீனியரேஜ் தொகை அல்லது முடக்குவரி செலுத்தப்படாவிட்டால் குவாரி குத்தகையை ரத்துசெய்ய நடவடிக்கை எடுக்கப்படும்.

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4. மேற்குறிப்பிட்டவை தவிர பின்வரும் சிறப்பு நிபந்தனைகளும் குத்தகைதாரால் குத்தகை காலத்தில் கடைபிடிக்கப்பட வேண்டும் :-

i) குவாரியின் எல்லைகள் தெளிவாக தெரியும்படி கல்நட்டு அடையாளமிட்ட பிறகு குவாரிப்பணி செய்ய வேண்டும். எல்லைக் கற்கள் குத்தகை கால முழுமைக்கும் சரியானபடி பராமரிக்கப்பட்டு வரவேண்டும். குத்தகையாளர் குத்தகைப் பகுதியில் வெட்டியெடுத்து வெளியில் அனுப்பும் சிறுவகைக் கனிமத்திற்கு உரிய கணக்குகளைத் திண்டுக்கல் மாவட்ட புவியியல் மற்றும் சுரங்கத்துறை உதவி இயக்குநர் குறிப்பிடும் படிவத்தில் சுரங்க விவரப் பதிவேடு ஏற்படுத்தி விவரங்கள் எழுதி, ஒவ்வொரு மாதத்திற்கும் விவரப்பட்டியல் தயாரித்து அதனை அடுத்த மாதம் ஐந்தாம் தேதிக்குள் உதவி இயக்குநருக்கு அனுப்ப வேண்டும்.

ii) குத்தகைக்கு விடப்பட்ட இடங்களை எந்த நேரத்திலும், புவியியல் மற்றும் சுரங்கத்துறை மற்றும் வருவாய்த்துறை அலுவலர்கள் பார்வையிட அதிகாரமுண்டு. இது சம்பந்தமாக பராமரிக்கப்படும் கணக்குகளை தணிக்கை செய்யவும் அதிகாரம் உண்டு. குத்தகை காலத்தில் ஏற்படுத்தப்பட்ட சுரங்க விவரப்பதிவேடுகளை குத்தகையாளர் குத்தகைகாலம் முடிந்த பின்னரும் பாதுகாத்து அரசு அலுவலர்கள் ஆய்வுக்கு கேட்கும்போது ஒப்படைக்க வேண்டும்.

iii) குத்தகையாளர் கனிமங்களை வெளியில் அனுப்ப அனுப்புகை சீட்டுகளில் உதவி இயக்குநர் ஒப்புதல் பெற வரும்போது உரிய மனு அளித்து, சீனியரேஜ் தொகையைச் செலுத்தி, அலுவலகத்திலிருந்து வழங்கப்படும் மொத்த இசைவாணைச் சீட்டுடன் (Bulk permit) அனுப்புகை சீட்டுகளில் உரிய அலுவலரின் கையொப்ப முத்திரை மற்றும் அலுவலக முத்திரைகளைப் பெற்றுச் சென்று பயன்படுத்தவேண்டும்.

iv) கனிமங்களை குத்தகைப் பகுதியிலிருந்து வெளியில் அனுப்பும்போது அனுப்பப்படும் கனிமத்தின் வகை, அதன் அளவு, எடுத்துச் செல்லும் வாகனத்தின் வகை, மற்றும் பதிவு எண், கனிமம் கொண்டு சேர்க்கப்படும் இடம், குவாரியிலிருந்து வாகனம் புறப்படும் நேரம் மற்றும் சென்றடைய உத்தேச நேரம் ஆகிய விவரங்களை அசல் சீட்டில் ஒரே பேனாவாலும் நகலை கார்பன் பேப்பர் அழுத்தம் மூலமும் எழுதி அசலை வாகனத்துடன் அனுப்பி நகலை (அடிக்கட்டு) அடுத்தமுறை அனுமதிபெற வரும்போது ஆய்வுக்கு காண்பித்துவிட்டு திரும்ப பெற்றுச்சென்று பாதுகாப்பாக வைத்திருக்கவேண்டும். குவாரிப்பகுதியில் இருந்து மட்டுமே நடைச்சீட்டு வழங்கப்பட வேண்டும். குத்தகை எடுத்த நபர்கள் வேறு நபருக்கு உள் குத்தகைக்கு விடவோ அல்லது பிற காரியங்களுக்காக உபயோகிக்கவோ கூடாது.

v) அனுப்புகைச் சீட்டில் எல்லா விவர வினாக்களுக்கும் விவரங்கள் எழுதப்படாமலோ (Over writing) அல்லது திருத்தப்பட்டோ அல்லது மேல் எழுதப்பட்டோ அல்லது வெவ்வேறு மையினால் எழுதப்பட்டிருப்பின் அந்த அனுப்புகைச் சீட்டுடன் எடுத்துச்செல்லப்படும் கனிமம், அனுமதியின்றி எடுத்துச் செல்லப்படுவதாகக் கருதி, விதிமுறைகளின்படி நடவடிக்கை எடுக்கப்படும்.

vi) குத்தகைதாரர் தனது சொந்தப் பொறுப்பில் குத்தகைப் பகுதிக்குச் செல்ல பாதை வசதி அமைத்துக்கொள்ள வேண்டும். இது தொடர்பாக ஏற்படும் தகராறுகளுக்குஅரசு பொறுப்பேற்காது. குத்தகை எடுத்தவர் எந்த காரணத்தை முன்னிட்டும் தனக்கு இழப்பு ஏற்படின் அதற்கு அரசு பொறுப்பு ஏற்காது.

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vii) கல்குவாரிப் பணியில் 8 வயது முதல் 14 வயதிற்குட்பட்ட குழந்தை தொழிலாளர்களை பணியமர்த்தக் கூடாது.

viii) குவாரிகளுக்கு அருகில் உள்ள போக்குவரத்து சாலைகள், வண்டிப்பாதைகள், மின்கம்பங்கள் மற்றும் இதர நிலையான அமைப்புகள் இவற்றில் இருந்து நிர்ணயிக்கப்பட்ட பாதுகாப்பு இடைவெளி விட்டு மீதமுள்ள இடத்திற்குள்தான் குவாரிப்பணி செய்யவேண்டும். மேற்கண்ட பொதுமக்கள் உபயோகிக்கும் இடங்கள், பட்டா நிலங்கள், பொது சொத்துக்கள் ஆகியவற்றிற்கு சேதம் ஏதும் நேரிட்டால் அதற்கு குத்தகைதாரரே முழுப்பொறுப்பு ஏற்கவேண்டும்.

ix) அருகில் உள்ள பட்டா நிலங்களுக்கு எவ்வித பாதிப்புமில்லாமலும், ஓடை மற்றும் நீர்நிலைகள் பாதிக்காவண்ணம் குவாரி செய்ய வேண்டும்.

x). 1952-ஆம் ஆண்டைய சுரங்கச் சட்டம் மற்றும் அதன் கீழ் வரையறுக்கப்பட்ட விதிகள் 1961 ஆம் ஆண்டைய மெட்டாலிபெரஸ் மைன்ஸ் ரெகுலேசன்ஸ், 1936 ஆம் ஆண்டைய சம்பளம் வழங்குதல் சட்டம், 1884 ஆம் ஆண்டின் இந்திய வெடிபொருட்கள் சட்டம், குறைந்தபட்ச ஊதிய சட்டம் மற்றும் தமிழ்நாடு வருவாய் வசூல் சட்டம் 1864 ஆகியவற்றின் கருத்துகளுக்கு உட்பட்டு குத்தகையாளர் கனிமங்கள் குவாரி செய்ய வேண்டும்.

xi). குத்தகைப்பகுதியில் இருந்து மெருகேற்றுவதற்கு தகுந்த கிரானைட் கற்துண்டங்கள் வெட்டுதல் கூடாது. அவ்வாறு தகுதி வாய்ந்த கிரானைட் கற்துண்டங்கள் எடுக்க வாய்ப்பு ஏற்படுமானால் குவாரி குத்தகை ரத்து செய்யப்படும்.

xii). குத்தகைதாரரை தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959, மற்றும் சுரங்கங்கள் மற்றும் கனிமங்கள் (ஒழுங்கு முறை மற்றும் அபிவிருத்தி) சட்டம் 2015, மற்றும் அரசால் அவ்வப்போது கொண்டு வரப்படும் ஆணைகளும், விதிகளும் கட்டுப்படுத்தும். அவ்வப்போது அரசால் நிர்ணயிக்கப்படும் கட்டணத்தை செலுத்த வேண்டும்.

xiii). தொழிலாளர்களுக்கு தகுந்த பாதுகாப்பு அளிக்க வேண்டும். குவாரியில் வேலை செய்யும் தொழிலாளர்களுக்கும் மற்றும் இதர நபர்களுக்கும் விபத்து ஏற்படின் முழுப்பொறுப்பும் குத்தகைதாரரையே சேரும். இதற்கு அரசு பொறுப்பல்ல. விபத்து குறித்த தகவல்களை உடனடியாக மாவட்ட ஆட்சியருக்கு தெரிவிக்க வேண்டும்.

xiv). குத்தகைதாரர் ஒவ்வொரு மாதமும் குவாரியில் வேலை செய்யும் தொழிலாளர்கள் விவரமும், குவாரி செய்த அளவிற்குரிய கணக்குகளை பிரதி திங்கள் 5 ஆம் நாளுக்குள் உதவி இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, திண்டுக்கல் அவர்களுக்கு தணிக்கைக்கு ஆஜர் செய்ய வேண்டும்.

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xv). மேலே கண்ட நிபந்தனைகளை மீறி குத்தகைதாரரோ, அவரது அதிகாரம் பெற்ற நபரோ அல்லது மற்றவர்களோ கனிமம் வெட்டினாலோ அல்லது எடுத்துச் சென்றாலோ, தமிழ்நாடு சிறு கனிமச் சலுகை விதிகள் 1959, சுரங்கங்கள் மற்றும் கனிமங்கள் (அபிவிருத்தி மற்றும் ஒழுங்குமுறை) சட்டம் 2015 ஆகியவற்றில் உள்ள குற்றத் தடுப்புப் பிரிவின்படி தண்டனை பெறவும் மற்றும் அபராதம் செலுத்தப்படவும் குத்தகைதாரர் பொறுப்புடையவர் ஆவார். குத்தகை காலத்திலோ அதற்கு பின்னரோ கிரமம் தவறி குத்தகையை பயன்படுத்துவதில் ஏற்படும் சகல நஷ்டங்களுக்கும் குத்தகைதாரர்கள் பொறுப்பு ஏற்கவேண்டும். இதற்காக விதிக்கப்படும் அபராதமும் செலுத்த வேண்டும்.

5. குத்தகை ஒப்பந்தப் பத்திரத்தில் உள்ள நிபந்தனைகளை மாற்றவோ அல்லது புதிய நிபந்தனைகளைச் சேர்க்கவோ மாவட்ட ஆட்சியருக்கு முழு அதிகாரமுண்டு.

6. குத்தகை ஒப்பந்தப் பத்திரம் குவாரியின் எல்லை வரையறை செய்யப்பட்டட வரைபடத்துடன் மாவட்ட ஆட்சியரால் நிர்ணயிக்கப்பட்ட நாளில் நிறைவேற்றப்பட வேண்டும். ஒப்பந்தப் பத்திரம் நிறைவேற்றிய பின்னர் ஒப்பந்த பத்திரத்தை (Indian Registration Act 1908) இந்திய பதிவு சட்டம் 1908 -பரிவு 17(1)-ன் படி குத்தகைதாரர் செலவில் கட்டடாயமாக பதிவு செய்யப்பட வேண்டும்.

7. இவ்விதியின் மீது வழங்கப்படும் குத்தகை உரிமங்கள் புதுப்பிக்கப்படமாட்டாது. எக்காரணத்ததைக் கொண்டும் குத்தகைக் கால நீட்டிப்பு வழங்கப்பட மாட்டாது.

8. நிர்வாகக் காரணம் மற்றும் பொது நலனைக் கருத்திற்கொண்டு குத்தகைக்கு விடப்பட்ட பரப்பினை குறைத்து நிர்ணயிக்கவும், குத்தகை ரத்து செய்யவும் மாவட்ட ஆட்சியர் அவர்களுக்கு முழு அதிகாரமுண்டு.

9. குத்தகை எடுத்த நபர்கள் வேறு நபர்களுக்கு உள் குத்தகைக்கு விடவோ அல்லது பிற காரியங்களுக்காக உபயோகிக்கவோ கூடாது.

10.குத்தகை எடுத்தவர் எந்தக் காரணத்தை முன்னிட்டும் தனக்கு எவ்விதமான இயற்கை/செயற்கை இழப்பு ஏற்படின் இழப்பீடு கோரக் கூடாது.

11.குத்தகைதாரரை மேற்குறிப்பிட்ட நிபந்தனைகளும் 1959 ஆம் ஆண்டு தமிழ்நாடு சிறுகனிம சலுகை அனைத்து விதிகளும் மற்றும் சுரங்கங்கள் மற்றும் கனிமங்கள் (ஒழுங்குமுறை மற்றும் அபிவிருத்தி) சட்டம் 2015 மற்றும் அரசால் அவ்வப்போது கொண்டுவரப்படும் ஆணைகளும் விதிகளும் கட்டுப்படுத்தும்.

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திண்டுக்கல் மாவட்டம்

1959 ஆம் வருடத்திய தமிழ்நாடு சிறுகனிமச் சலுகை விதி 8(1)-ன்படி 2023-24-ஆம் ஆண்டில் ஏலம் விட தகுதியான அரசு புறம்போக்கு நிலங்கள்

வ. எண்	கிராமம்	புல எண்.	மொத்த விஸ்தீரணம் (ஹெக்டேரில்)	ஏலம் விடும் பரப்பு (ஹெக்டேரில்)	வகைபாடு	வருடம்
திண்டுக்கல் மேற்கு வட்டம்						
1.	குருநாதநாயக்கனூர்	840 (பகுதி 1)	7.96.0	0.40.5	அரசு புறம்போக்கு	5 வருடம்
2.	குருநாதநாயக்கனூர்	840 (பகுதி 2)	7.96.0	1.00.0	அரசு புறம்போக்கு	5 வருடம்
நத்தம் வட்டம்						
3.	பூதகுடி	70/4 A(பகுதி) (பிளாக்-1)	39.84.5	1.82.0	தீர்வை ஏற்படாத தரிசு - பாறை	5 வருடம்
4	பூதகுடி	70/4 A(பகுதி) (பிளாக்-2)	39.84.5	2.00.0	தீர்வை ஏற்படாத தரிசு - பாறை	10 வருடம்
5.	பிள்ளையார் நத்தம்	419 (பகுதி-1)	4.01.0	1.68.0	தீர்வை ஏற்படாத தரிசு - பாறை	5 வருடம்
6.	பிள்ளையார் நத்தம்	360/1	5.88.0	2.00.0	தீர்வை ஏற்படாத தரிசு - பாறை	10 வருடம்
7.	நடுமண்டலம்	569/1 (பகுதி) பிளாக்1A	27.81.5	2.00.0	தீர்வை ஏற்படாத தரிசு - பாறை	5 வருடம்
நிலக்கோட்டை வட்டம்						
8.	சிவஞானபுரம்	263/1 (பகுதி-2)	7.34.5	2.00.0	தீர்வை ஏற்படாத தரிசு - குன்று கரடு	5 வருடம்
9.	சிவஞானபுரம்	263/1 (பகுதி-3)	7.34.5	1.62.0	தீர்வை ஏற்படாத தரிசு - குன்று கரடு	5 வருடம்
ஆத்தூர் வட்டம்						
10.	போடிகாமன் வாடி	486/1	0.98.0	0.98.0	நரிப்பாறை (குன்று, கரடு)	5 வருடம்

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வ. எண்	கிராமம்	புல எண்.	மொத்த விஸ்தீரணம் (ஹெக்டேரில்)	ஏலம் விடும் பரப்பு (ஹெக்டேரில்)	வகைபாடு	குத்தகை காலம்
ஒட்டன்சத்திரம் வட்டம்						
11.	வீரலபட்டி	182/4 (பிளாக்-1)	23.15.50	0.88.0	தீர்வை ஏற்படாத தரிசு	5 வருடம்
12.	வீரலபட்டி	182/4 (பிளாக்-3)	23.15.50	1.00.0	தீர்வை ஏற்படாத தரிசு	5 வருடம்
13.	கரியாம்பட்டி	1027 (பகுதி 4)	65.50.0	1.00.0	தீர்வை ஏற்படாத தரிசு	5 வருடம்
14.	கூத்தாம்பூண்டி	1318	20.77.0	1.00.0	குன்று, கரடு	5 வருடம்
15.	அப்பனூத்து	20(பகுதி 1)	8.56.5	1.50.0	குன்று, கரடு	5 வருடம்
16.	அப்பனூத்து	20(பகுதி 2)	8.56.5	1.50.0	குன்று, கரடு	5 வருடம்
17.	கள்ளிமந்தயம்	529/1 (பகுதி 4)	145.84.0	1.50.0	தீர்வை ஏற்படாத தரிசு	5 வருடம்
18.	காளாஞ்சிப்பட்டி	41/2 (பகுதி 1)	195.92.0	2.00.0	தீர்வை ஏற்படாத தரிசு	10 வருடம்
19.	காளாஞ்சிப்பட்டி	41/2 (பகுதி 2)	195.92.0	2.00.0	தீர்வை ஏற்படாத தரிசு	10 வருடம்
20.	எல்லப்பட்டி	240/5 (பகுதி 2)	158.84.50	2.60.0	குன்று/கரடு	10 வருடம்

இடம்: திண்டுக்கல்

நாள்: 15.11.2023

ஒப்பம் .....,
மாவட்ட ஆட்சித்தலைவர்,
திண்டுக்கல்.

Collectorate Dindigul
Assistant Director Geology and Mining

இணைப்பு - VI

(தமிழ்நாடு சிறுவகைக் கனிமச் சலுகை விதிகள் 1959 ன் விதி எண்.8 ஐ காண்க)
குவாரி குத்தகை கோரும் டெண்டர் /ஏல விண்ணப்பம்
(அசல் மற்றும் இரண்டு நகல்களில் கொடுக்கவும்)

அனுப்புநர் :

அலுவலர் பயன்படுத்த
அ) மனு பெறப்படும் நாள்
.....
ஆ) பெறப்படும் இடம்
ஒப்பம்

பெறுநர் :
மாவட்ட ஆட்சியர்,
திண்டுக்கல் மாவட்டம்,
திண்டுக்கல்.

அய்யா,

திண்டுக்கல் மாவட்ட அரசிதழ் எண்..... நாள் ..... அல்லது ..... செய்தித்தாள் விளம்பர நாள்..... ல், வெளியிடப்பட்டுள்ளது தொடர்பாக, தமிழ்நாடு சிறுவகைக் கனிமச் சலுகை விதிகள் 1959-ன் இன் விதி 8ன்படி நான் /நாங்கள் இந்த விண்ணப்பத்தை சமர்ப்பிக்கிறேன்/சமர்ப்பிக்கின்றோம். தேவையான விவரங்கள் கீழே கொடுக்கப்படுகிறது :

1. மனுதாரர் பெயர் மற்றும் முழு முகவரி :

2. அ) மனுதாரர் தனிநபரா/ தனியார் கம்பெனியா/ கூட்டு நிறுவனமா (அல்லது) கூட்டமைப்பா. :

ஆ) மனுதாரர் தனி நபரானால் எந்த நாட்டினர் :

இ) மனுதாரர் தனியார் கம்பெனி/ வியாபார ஸ்தாபனம் அல்லது சங்கமாயின் அதன் இயக்குநர்/ பங்குதாரர்கள் / உறுப்பினர்கள் எந்த நாட்டவர் என்ற விவரம் (சான்று இணைக்கப்பட வேண்டும்). :

3. பிணைவைப்புத்தொகை செலுத்திய விவரம் : (வங்கி கேட்பு வரைவோலை எண் மற்றும் நாள் ஆகிய விவரங்களை அளிக்கவும்) :

4. விண்ணப்பதாரர் கீழ்க்கண்ட விவரங்கள் அடங்கிய ஆணை உறுதி ஆவணம் அளித்துள்ளாரா? :

அ) நடப்பு தேதி வரையிலான வருமான வரி விவரப்பட்டியல் சமர்ப்பிக்கப் பட்டுள்ளதா? :

ஆ) மனுதாரருக்கு விதிக்கப்பட்ட வருமான வரி தொகையை செலுத்தியுள்ளாரா? மற்றும் :

இ) வருமான வரிச் சட்டம் 1961ல் குறிப்பிட்டவாறு சுய மதிப்பீட்டின் அடிப்படையில் வருமான வரி செலுத்தியுள்ளாரா? :

5. மனுதாரர் எந்த சிறுவகைக் கனிமத்தைக் குவாரி செய்ய விரும்புகிறார் என்ற விவரம் :

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 :

Collectorate Dindigul
Assistant Director of Geology and Mining
Dindigul - 624 004

11 அ) குவாரி நிலுவைத் தொகை செலுத்தியது தொடர்பான சுரங்கவரி நிலுவையின்மைச் சான்று (தேவையெனில் இணைக்க) :

ஆ) விண்ணப்பம் அளிக்கும் நாளில் விண்ணபதாரர் 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 ஆட்சியரால் கோரப்படும் இதர விவரங்கள் மற்றும் காப்புத் தொகை ஆகியவற்றை அளிக்க தயாராக உள்ளேன் / உள்ளோம். தமிழ்நாடு சிறுவகைக் கனிமச் சலுகை விதிகள் 1959-ல் கண்டவாறு, குவாரி குத்தகை பெறுவது தொடர்பாகவும், குவாரி பணி செய்வது தொடர்பாகவும் விதிக்கப்பட்ட நிபந்தனை, சட்ட உட்பிடிக்கை குறித்து நன்றாக அறிவேன் / அறிவோம் என உறுதி அளிக்கிறேன் / அளிக்கிறோம்.

(2) சாதாரண கற்கள் வெட்ட வழங்கப்பட்ட கற்குவாரியில் அறுத்து மெருகேற்றி கட்டுமானப்பணிக்கு பயன்படும் கிரானைட் கற்துண்டங்கள் வெட்டமாட்டோம் எனவும், அவ்வாறு கிரானைட் பாளங்கள் கிடைக்குமானால் குத்தகையை மாவட்ட ஆட்சியர் ரத்து செய்ய நாங்கள் ஒப்புக்கொள்கிறோம் என உறுதியளிக்கிறோம்.

தங்கள் உண்மையுள்ள

இடம் :

மனுதாரர் கையொப்பம்

நாள் :

தமிழ்நாடு எழுதுபொருள் மற்றும் அச்சுத்துறை ஆணையரால் மதுரை அரசு கிளை அச்சகத்தில் அச்சிடப்பட்டு
மாவட்ட ஆட்சியரால் வெளியிடப்பட்டது.

Dindigul

akottal

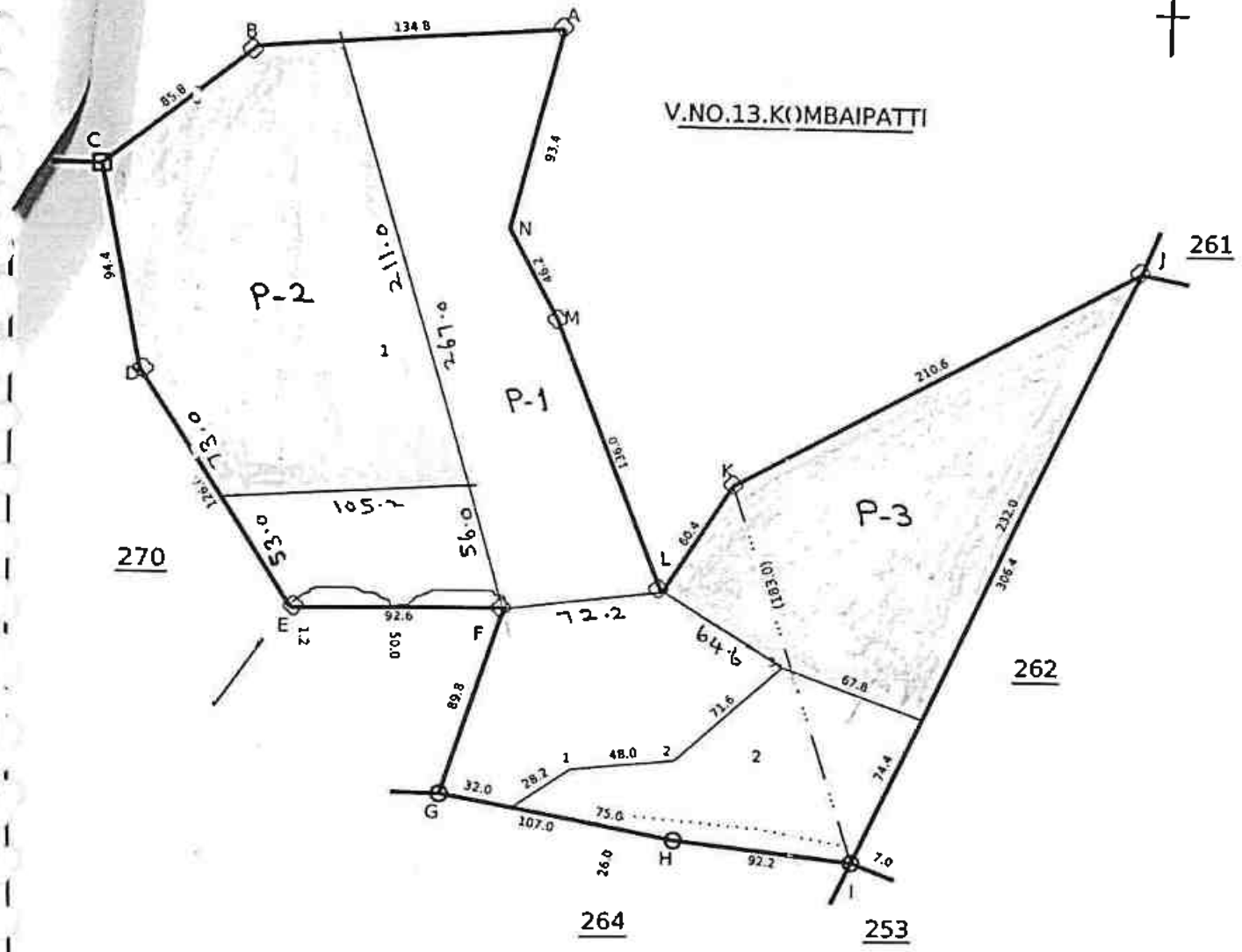
ivaiganapuram [15]

Survey No : 263

Area : Hect 08 Ares 25.50

Scale : 1 : 2000

O/o Assistant Director Geology and Mining Collectorate Dindigul - 624 004.



— S.No: 263/1 [P-2] - 2.00.0 Ha

— S.No: 263/1 [P-3] - 1.62.0 Ha

A. Asim

A. ASLIM M.Sc., M.Phil.,
Recognized Qualified Person
ROP/DGM/TN/1080/21

உ.ம.அ

பின்னையர்சத்திரம் கிராமம் (எண்)

வட்டாட்சியர்

திண்டுக்கல்

Date of Issue: 19-02-2024 15:30:18

Survey and Settlement Department, Government of TamilNadu

270 fv 2

A. ARUNMOZHI, M.Sc.,M.Phil.,
Recognized Qualified Person
ROP/DMG/HYD/05/2022

Office of the Assistant Director Geology and Mining Collectorate Dindigul

1	2	3	4	5	6	7	8	9	10	11	
							ரூ.பை	ஹெ.ஏர்ஸ்			
239	3D	259-3D	ர	பு	...	S-2	5	2 15	0 24.0	0 52	655 க. குமார் நாயக்கர் மற்றும் நான்கு பேர்களும்.
	4	-4	ச	பு.த	...	...	...	...	0 09.5	...	..... வண்டிப் பாதை.
	5	-5	ர	பு	...	S-2	5	2 15	0 69.0	1 26	194 பூ. சின்னம நாயக்கர்.
									3 66.0	7 69	
	1	260-1	ர	பு	...	S-3	6	1 24	0 44.5	0 56	58 க. ஆண்டி நாயக்கர். சதுரக் கிணறு.
	2	-2	ச	பு.த	...	...	...	...	0 07.5	...	..... வண்டிப் பாதை.
	3A	-3A	ர	பு	...	S-3	6	1 24	0 41.0	0 51	58 க. ஆண்டி நாயக்கர்.
	3B	-3B	ர	பு	...	S-3	6	1 24	0 82.0	1 03	243 தி. சென்றாய ரூப்பன்.
	3C	-3C	ர	பு	...	S-3	6	1 24	0 89.5	1 09	342 மி. பாண்டி.
									2 64.5	3 19	
		261	ச	தி.எ.த.	...	S-1	4	...	0 60.0	...	..... தீர்வை எற்பட்ட தரிசு.
	1A	262-1A	ர	பு	...	S-2	5	2 15	2 00.5	4 31	559 வே. பெரு மாள்.
	1B	-1B	ர	பு	...	S-2	5	2 15	0 06.0	0 13	..... தீர்வை எற்பட்ட தரிசு.
		-2	ச	பு.த	...	...	...	...	0 40.5	...	..... ஓடை.
	3	-3	ர	பு	...	S-2	5	2 15	0 88.0	1 93	370 வே. பெருமாள்.
									3 35.0	6 37	
		263-1	ச	தி.எ.த.	...	...	...	...	7 34.5	...	
	2	-2	ச	பு	...	S-2	5	2 15	0 91.0	2 00	
									25.5	2	

* விவரம் - தல்பயர்

Office of the Assistant Director of Geology and Mining Collectorate Dindigul - 624 004.

இந்திய அரசாங்கம்
Government of India

இந்திய தனிப்பட்ட அடையாள ஆணைய அமைப்பு
Unique Identification Authority of India

பதிவேட்டு எண்/ Enrolment No.: 2043/51025/00476

To
நாகமுத்துக்குமார் கருப்பையா
Naga Muthukumar Karupaiah
S/O: Karuppaiah,
159/2,
SOUTH STREET,
AIYYANKOTTAI,
AYYAMPALAIYAM,
VTC: Pattiveeranpatti,
PO: PATTIVEERANPATTI,
Sub District: Nilakkottai,
District: Dindigul,
State: Tamil Nadu,
PIN Code: 624211,
Mobile: 7598194232

உங்கள் ஆதார் எண் / Your Aadhaar No. :
2012 4433 6851
VID : 9157 9612 3974 8987

எனது ஆதார், எனது அடையாளம்

Government of India

நாகமுத்துக்குமார் கருப்பையா
Naga Muthukumar Karupaiah
பிறந்த நாள்/DOB: 02/06/1992
ஆண்/ MALE

Aadhaar is proof of identity, not of citizenship or date of birth. It should be used with verification (online authentication, or scanning of QR code / offline XML).

2012 4433 6851

எனது ஆதார், எனது அடையாளம்

Government of India

AADHAAR

தகவல் / INFORMATION

- ஆதார் என்பது அடையாளத்திற்கான சான்றாகும். குடியுரிமை அல்லது பிறந்த தேதிக்கான சான்றல்ல. பிறந்த தேதி எனது ஆதார் எண் வைத்திருப்பவரால் சமர்ப்பிக்கப்பட்ட விதிமுறைகளில் குறிப்பிடப்பட்டுள்ள பிறந்த தேதி ஆவணத்தின் ஆதாரம் மூலம் அதரிக்கப்படும் தகவலின் அடிப்படையில் அமைந்துள்ளது.
- இந்த ஆதார் கடிதத்தை UIDAI நியமித்த அங்கீகார நிறுவனத்தால் ஆன்லைன் அங்கீகாரம் அல்லது ஆப் ஸ்டோர்களில் கிடைக்கும் எம் ஆதார் அல்லது ஆதார் QR ஸ்கேனர் செயலியை பயன்படுத்தி QR குறியீடு ஸ்கேனிங் அல்லது www.uidai.gov.in ல் கிடைக்கும் பாதுகாப்பான QR குறியீடு ரீடர் செயலியை பயன்படுத்தி சரிபார்க்க வேண்டும்.
- ஆதார் தனித்துவமானது மற்றும் பாதுகாப்பானது.
- ஆதார் பதிவு செய்யப்பட்ட தேதியிலிருந்து ஒவ்வொரு 10 வருடங்களுக்குப் பிறகும் ஆதாரில் அடையாளம் மற்றும் முகவரிக்கான ஆவணங்கள் புதுப்பிக்கப்பட வேண்டும்.
- பல்வேறு அரசு மற்றும் அரசு சாரா பலன்கள் / சேவைகளைப் பெற ஆதார் உங்களுக்கு உதவுகிறது.
- உங்கள் மொபைல் எண் மற்றும் மின்னஞ்சல் ஐடியை ஆதாரில் புதுப்பிக்கவும்.
- ஆதார் சேவைகளைப் பெற mAadhaar செயலியை பதிவிறக்கவும்.
- ஆதார்பயோமெட்ரிக்களைப் பயன்படுத்தாதபோது பாதுகாப்பை உறுதிசெய்ய ஆதார்பயோமெட்ரிக்ஸ் லாக்/அன்லாக் அம்சத்தைப் பயன்படுத்தவும்.
- ஆதார் கோரும் நிறுவனங்கள் ஒப்புதலைப் பெற வேண்டிய கடமையும் உள்ளது.
- Aadhaar is proof of identity, not of citizenship or date of birth (DOB). DOB is based on information supported by proof of DOB document specified in regulations, submitted by Aadhaar number holder.
- This Aadhaar letter should be verified through either online authentication by UIDAI-appointed authentication agency or QR code scanning using mAadhaar or Aadhaar QR Scanner app available in app stores or using secure QR code reader app available on www.uidai.gov.in
- Aadhaar is unique and secure.
- Documents to support identity and address should be updated in Aadhaar after every 10 years from date of enrolment for Aadhaar.
- Aadhaar helps you avail of various Government and Non-Government benefits/services.
- Keep your mobile number and email id updated in Aadhaar.
- Download mAadhaar app to avail of Aadhaar services.
- Use the feature of Lock/Unlock Aadhaar biometrics to ensure security when not using Aadhaar biometrics.
- Entities seeking Aadhaar are obligated to seek consent.

Unique Identification Authority of India

முகவரி:
தந்தை / தாய் பெயர்: கருப்பையா, 159/2,
தெற்கு தெரு, அய்யன்கோட்டை,
அய்யம்பாளையம், பட்டிவீரன்பட்டி,
பட்டிவீரன்பட்டி, திண்டுக்கல்,
தமிழ் நாடு - 624211

Address:
S/O: Karuppaiah, 159/2, SOUTH STREET,
AIYYANKOTTAI, AYYAMPALAIYAM,
Pattiveeranpatti, PO: PATTIVEERANPATTI,
DIST: Dindigul,
Tamil Nadu - 624211

2012 4433 6851
VID : 9157 9612 3974 8987

1947 | help@uidai.gov.in | www.uidai.gov.in

File No.DMG-P/4/2022-DMG

Collectorate Dindigul - 624 004.
O/o Assistant Director of Geology and Mining

GOVERNMENT OF TELANGANA
DEPARTMENT OF MINES AND GEOLOGY

CERTIFICATE OF REGISTRATION
AS RECOGNIZED QUALIFIED PERSON
TO PREPARE MINING PLAN

[Under Rule 14(2) of Granite Conservation and Development Rules 1999 & Rule 7(B) of Telangana State Minor Mineral Concession Rules, 1966]

* * * * *

Sri A. Allimuthu, S/o Arumugam, D.No.1/231, Pattakarnavalavu, Chinnamuthiyampatti, Puduppalayam Post, Edapaddi Taluk, Salem District, Tamil Nadu-636306 *whose photograph and signature is affixed herein above, having given evidence of his qualification and experience is hereby granted recognition under Rule 14(2) of Granite Conservation & Development Rules, 1999 and Rule 7(B) of Telangana State Minor Mineral Concession Rules, 1966 as Recognized Qualified Person (RQP) to prepare Mining Plan.*

Registration Number : **RQP/DMG/HYD/85/2022**

This Recognition is valid for period of (10) years with effect from 26.04.2022.

This certificate will liable to be withdrawn/cancelled in the event of furnishing the wrong information/documents in the Mining Plan submitted by the Recognized Qualified Person.

Place: Hyderabad,
Date: 26.04.2022.

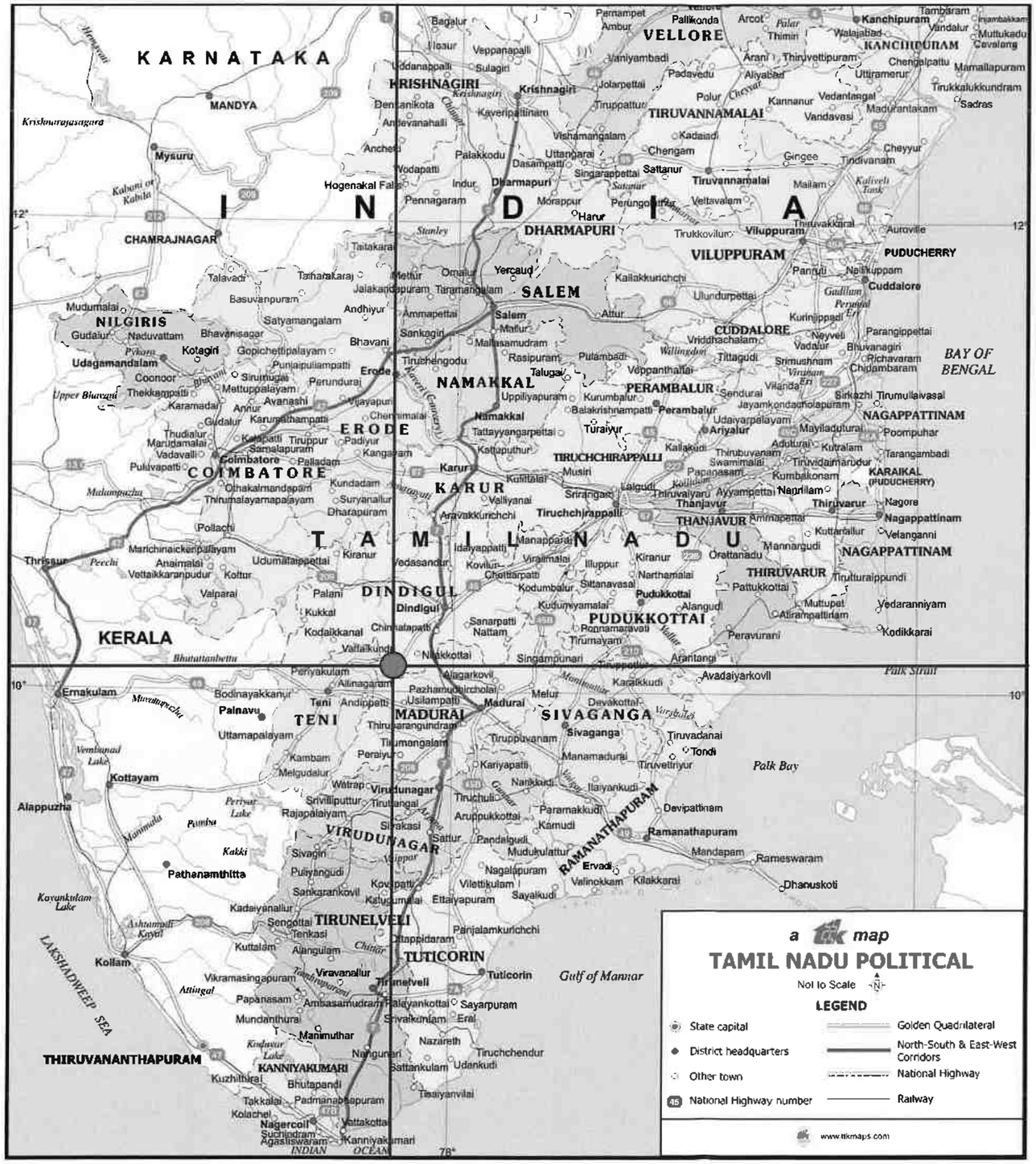
DIRECTOR OF MINES AND GEOLOGY

Signed by D Ronald Rose
Date: 26-04-2022 09:41:13
Reason: Approved

A. Allimuthu

A.ALLIMUTHU, M.Sc.,M.Phil.,
Recognized Qualified Person
RQP/DMG/HYD/85/2022

10°07'27.15"E



77°47'37.37"E

77°47'43.92"E

10°07'18.84'E

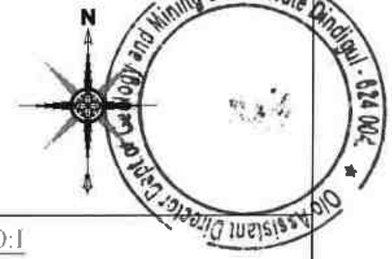


PLATE NO:I

DATE OF SURVEY: 14.02.2024

APPLICANT ADDRESS:

THIRU.K.NAGAMUTHUKUMAR,
S/o. KARUPPAIAH,
No.159/2, SOUTH STREET,
AIYYANKOTTAI, AYYAMPALAYAM,
PATTIVEERANPATTI,
DINDIGUL DISTRICT - 624 211.

LOCATION OF QUARRY:

EXTENT	:	2.00.00 Ha,
S.F.NO	:	263/1 (Part-2),
VILLAGE	:	SIVANGANAPURAM,
TALUK	:	NILAKOTTAI,
DISTRICT	:	DINDIGUL,
STATE	:	TAMILNADU.

INDEX

QUARRY LEASE AREA :

TOPO SHEET NO. : 58-F/16,

LATITUDE :10° 07' 18.84"N to 10° 07' 27.15"N

LONGITUDE: 77° 47' 37.37"E to 77° 47' 43.92"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

A. Allimuthu

A.ALLIMUTHU, M.Sc,M.Phil
RECOGNISED QUALIFIED PERSON
RQP/DMG/HYD/85/2022

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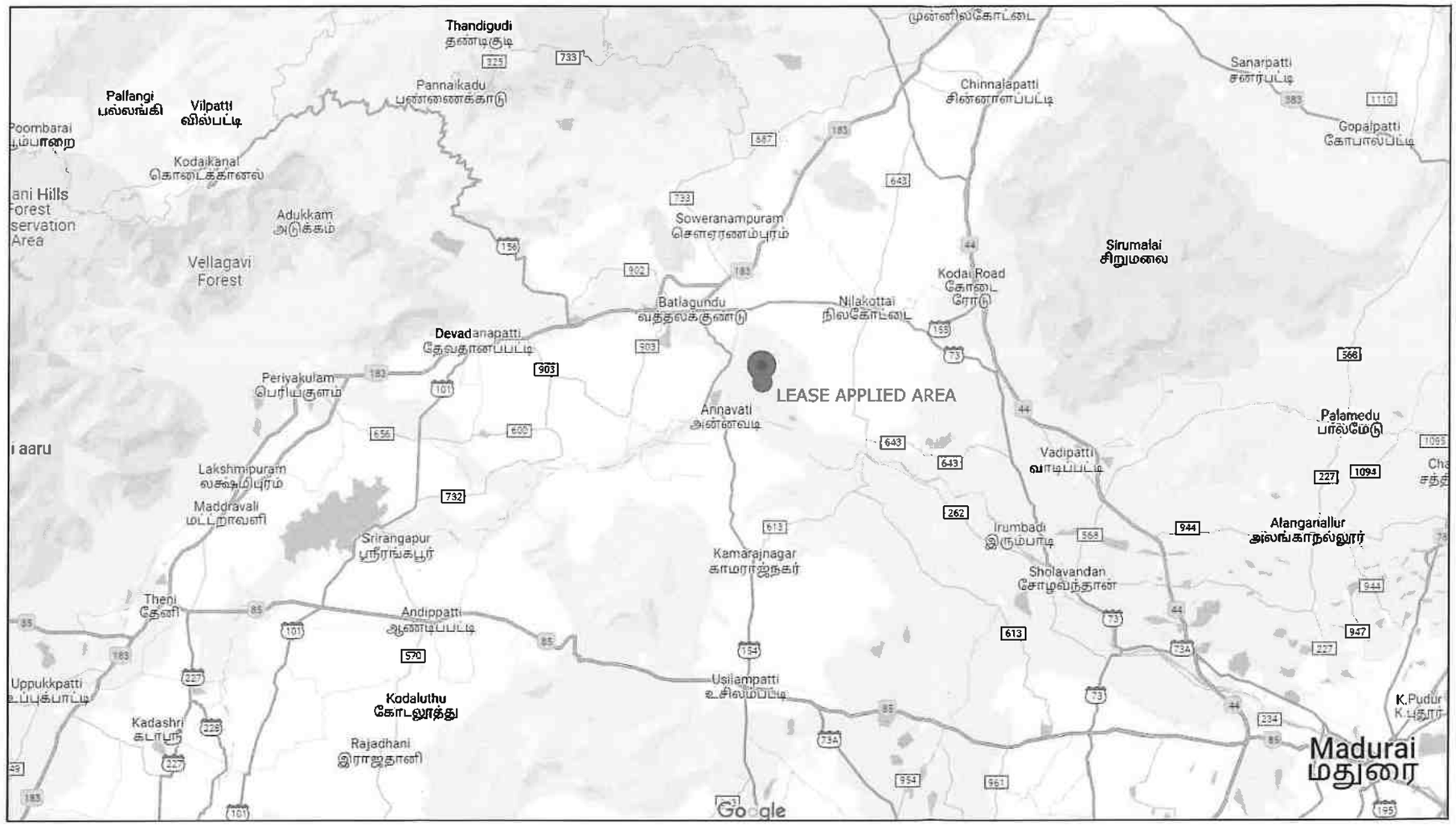


N

Office of Assistant Director Geology and Mining Collectorate Dindigul - 624 004

PLATE NO :IA

DATE OF SURVEY: 14.02.2024

APPLICANT ADDRESS:

THIRU.K.NAGAMUTHUKUMAR,
S/o. KARUPPAIAH,
No.159/2, SOUTH STREET,
AIYYANKOTTAI, AYYAMPALAYAM,
PATTIVEERANPATTI,
DINDIGUL DISTRICT - 624 211.

LOCATION OF QUARRY:

EXTENT	:	2.00.00 Ha,
S.F.NO	:	263/1 (Part-2),
VILLAGE	:	SIVANGANAPURAM,
TALUK	:	NILAKOTTAI,
DISTRICT	:	DINDIGUL,
STATE	:	TAMILNADU.

INDEX

QUARRY LEASE AREA

APPROACH ROAD

NH ROAD

SH ROAD

VILLAGE 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

A. Alli

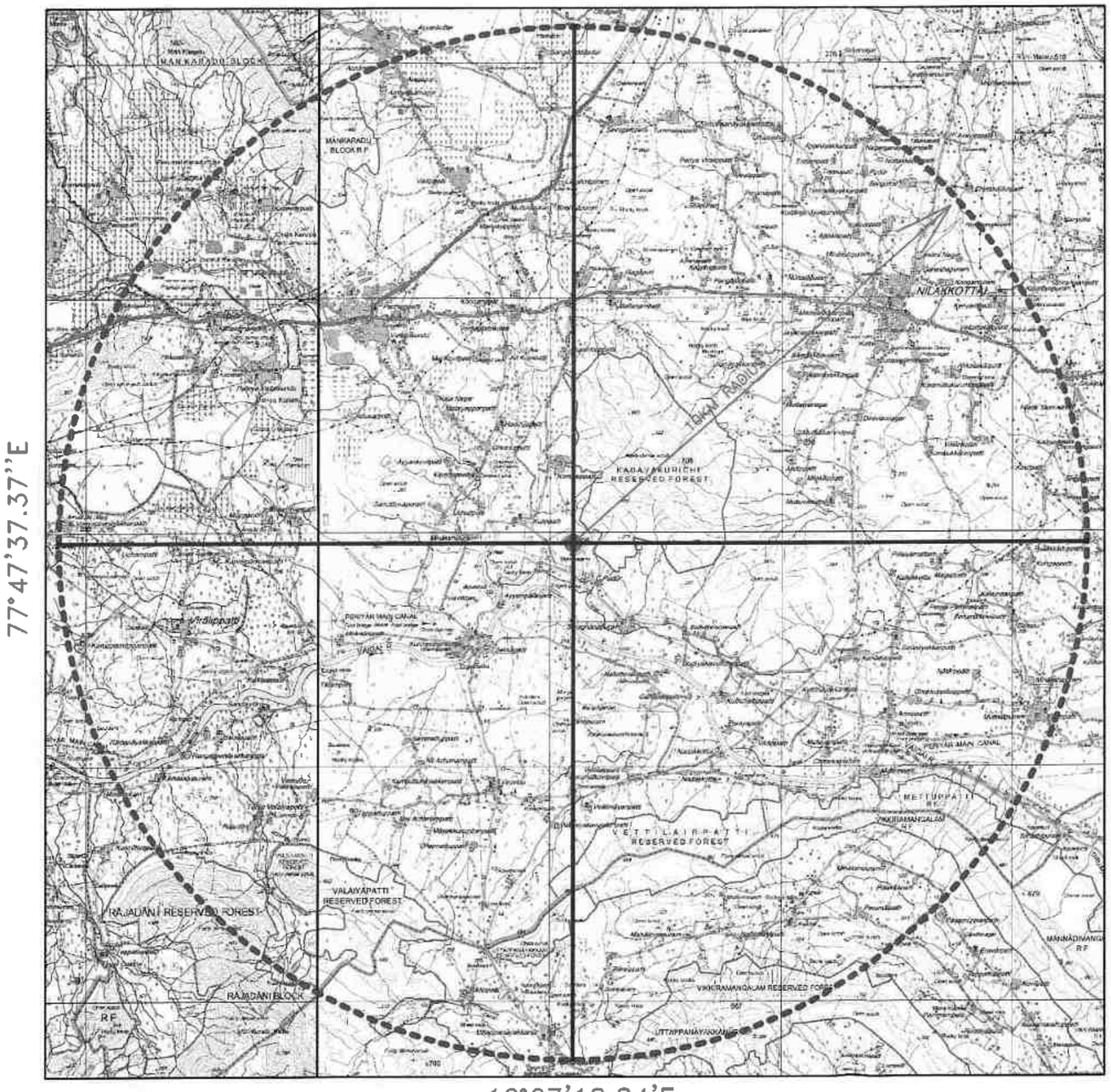
A.ALLIMUTHU, M.Sc,M.Phil
RECOGNISED QUALIFIED PERSON
RQP/DMG/HYD/85/2022

150

PLATE NO :IB

DATE OF SURVEY: 14.02.2024

10°07'27.15"E



APPLICANT ADDRESS:

THIRU.K.NAGAMUTHUKUMAR,
S/o. KARUPPAIAH,
No.159/2, SOUTH STREET,
AIYYANKOTTAI, AYYAMPALAYAM,
PATTIVEERANPATTI,
DINDIGUL DISTRICT - 624 211.

Dy. Assistant Director, Geology and Mining Collectorate Dindigul - 624 211

LOCATION OF QUARRY:

EXTENT	:	2.00.00 Ha,
S.F.NO	:	263/1 (Part-2),
VILLAGE	:	SIVANGANAPURAM,
TALUK	:	NILAKOTTAI,
DISTRICT	:	DINDIGUL,
STATE	:	TAMILNADU.

INDEX

QUARRY LEASE AREA :

10Km RADIUS :

TOPO SHEET NO. : 58-F/16,

LATITUDE :10° 07' 18.84"N to 10° 07' 27.15"N

LONGITUDE: 77° 47' 37.37"E to 77° 47' 43.92"E

TOPO SHEET MAP WITH
10Km RADIUS

SCALE : 1: 100000

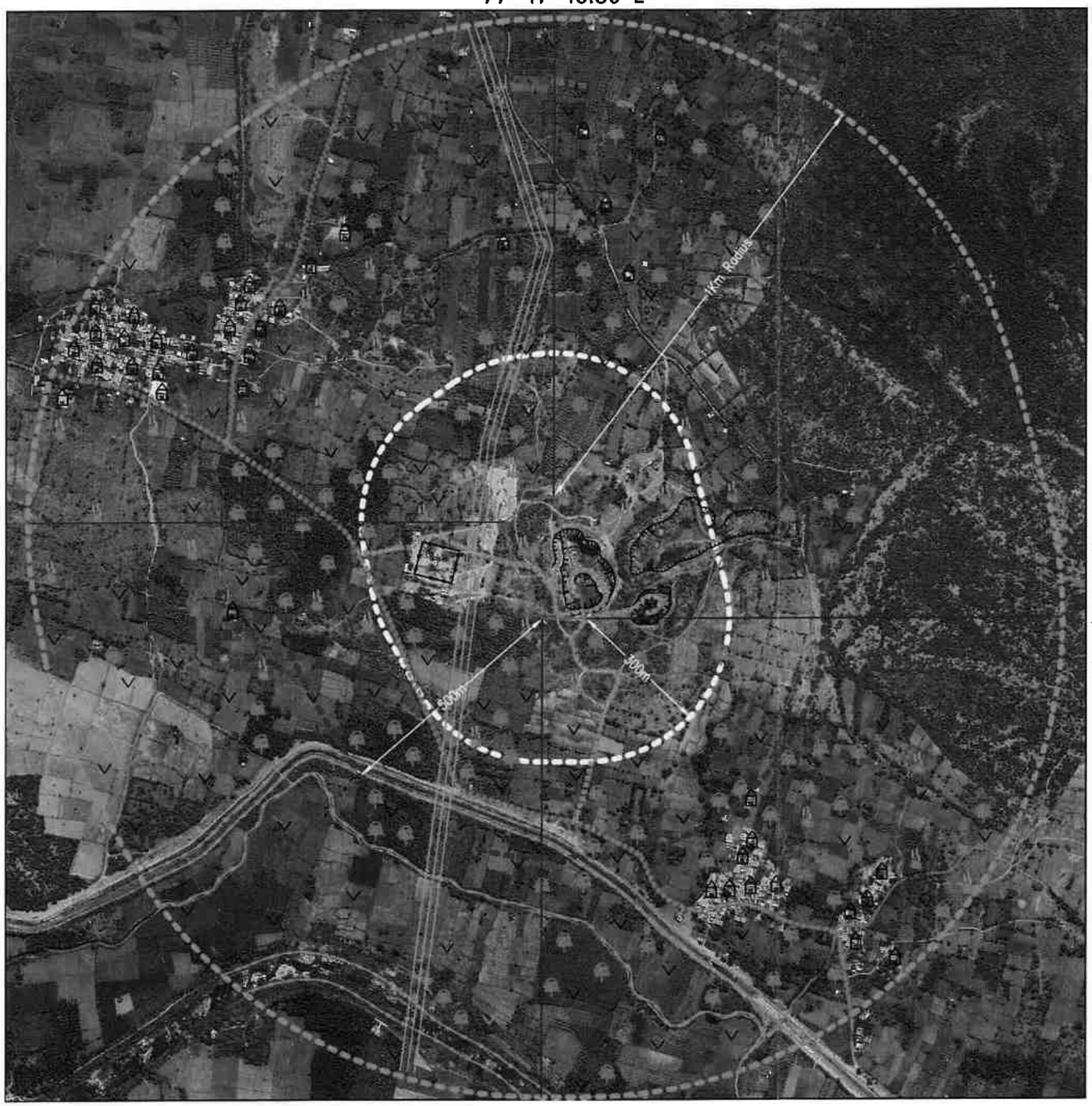
Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

A. Allimuthu

A.ALLIMUTHU, M.Sc,M.Phil
RECOGNISED QUALIFIED PERSON
RQP/DMG/HYD/85/2022

10° 07' 27.15"N
77° 47' 10.80"E



10° 07' 25.44"N
77° 47' 37.37"E

10° 07' 18.81"N
77° 47' 43.92"E

10° 07' 18.84"N
77° 47' 39.94"E

N

PLATE NO :IC

DATE OF SURVEY: 14.02.2024

Deputy Director of Geology and Mining Collectorate Dindigul - 624 004.
O/o Assistant Director

APPLICANT ADDRESS:

THIRU.K.NAGAMUTHUKUMAR,
S/o. KARUPPAIAH,
No.159/2, SOUTH STREET,
AIYYANKOTTAI, AYYAMPALAYAM,
PATTIVEERANPATTI,
DINDIGUL DISTRICT - 624 211.

LOCATION OF QUARRY:

EXTENT : 2.00.00 Ha,
S.F.NO : 263/1 (Part-2),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.

INDEX

QUARRY LEASE BOUNDARY
VILLAGE ROAD
APPROACH ROAD
300m RADIUS
500m RADIUS
1Km RADIUS
HILLOCK

TOPO SHEET NO. : 58-F/16,

LATITUDE :10° 07' 18.84"N to 10° 07' 27.15"N

LONGITUDE: 77° 47' 37.37"E to 77° 47' 43.92"E

SATELLITE IMAGE
(1Km RADIUS)

SCALE : 1: 10000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

A.ALLIMUTHU, M.Sc,M.Phil
RECOGNISED QUALIFIED PERSON
RQP/DMG/HYD/85/2022

PLATE NO:II

DATE OF SURVEY: 14.02.2024

APPLICANT ADDRESS:

THIRU.K.NAGAMUTHUKUMAR,
S/o. KARUPPAIAH,
No.159/2, SOUTH STREET,
AIYYANKOTTAI, AYYAMPALAYAM,
PATTIVEERANPATTI,
DINDIGUL DISTRICT - 624 211.

LOCATION OF QUARRY:

EXTENT : 2.00.00 Ha,
S.F.NO : 263/1 (Part-2),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.

S.NO	LATITUDE	LONGITUDE
1	10° 07' 18.84" N	77° 47' 39.94" E
2	10° 07' 22.42" N	77° 47' 37.94" E
3	10° 07' 25.44" N	77° 47' 37.37" E
4	10° 07' 27.04" N	77° 47' 39.68" E
5	10° 07' 27.15" N	77° 47' 40.80" E
6	10° 07' 18.81" N	77° 47' 43.92" E

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 245.0M)
- APPROACH ROAD
- TOP SOIL
- ROUGH STONE
- QUARRY PIT
- QUARRY ROAD
- CONTOUR LINE
- SHRUB

MINE LEASE & SURFACE PLAN

SCALE 1:1000

Existing Pit Dimension:
64m(L) X 26m(W) X 30m(D) Avg

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

A.ALLIMUTHU, M.Sc,M.Phil
RECOGNISED QUALIFIED PERSON
RQP/DMG/HYD/85/2022

153

PLATE NO:III

DATE OF SURVEY: 14.02.2024

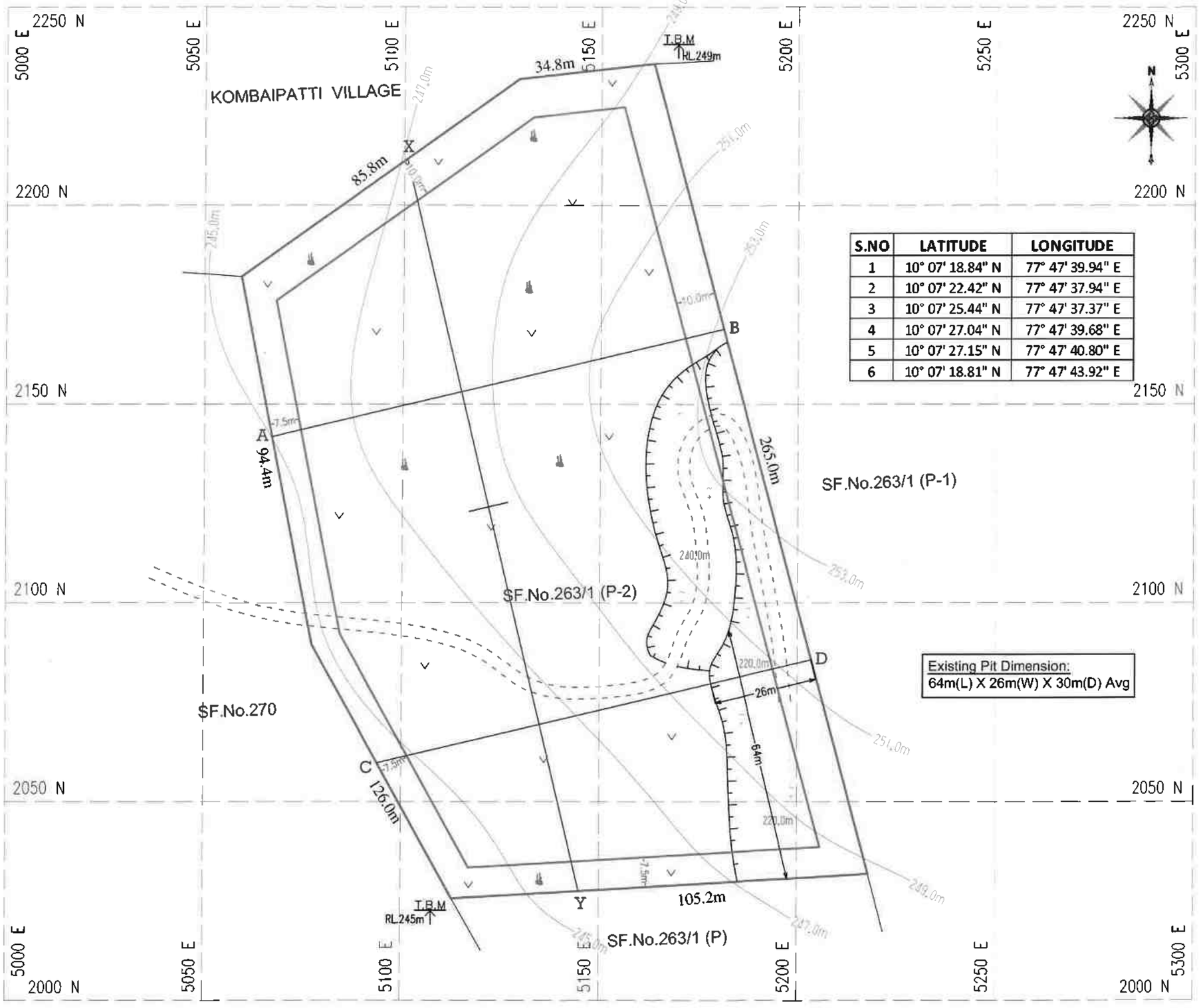
Dy.Assistant Director Geology and Mining Collectorate Dindigul - 624 004.

APPLICANT ADDRESS:

THIRU.K.NAGAMUTHUKUMAR,
S/o. KARUPPAIAH,
No.159/2, SOUTH STREET,
AIYYANKOTTAI, AYYAMPALAYAM,
PATTIVEERANPATTI,
DINDIGUL DISTRICT - 624 211.

LOCATION OF QUARRY:

EXTENT : 2.00.00 Ha,
S.F.NO : 263/1 (Part-2),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.



S.NO	LATITUDE	LONGITUDE
1	10° 07' 18.84" N	77° 47' 39.94" E
2	10° 07' 22.42" N	77° 47' 37.94" E
3	10° 07' 25.44" N	77° 47' 37.37" E
4	10° 07' 27.04" N	77° 47' 39.68" E
5	10° 07' 27.15" N	77° 47' 40.80" E
6	10° 07' 18.81" N	77° 47' 43.92" E

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- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 245.0M)
- APPROACH ROAD
- TOP SOIL
- ROUGH STONE
- QUARRY PIT
- QUARRY ROAD
- CONTOUR LINE
- SHRUB

MINE LEASE & SURFACE 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

A. Allimuthu.

A.ALLIMUTHU, M.Sc,M.Phil
RECOGNISED QUALIFIED PERSON
RQP/DMG/HYD/85/2022

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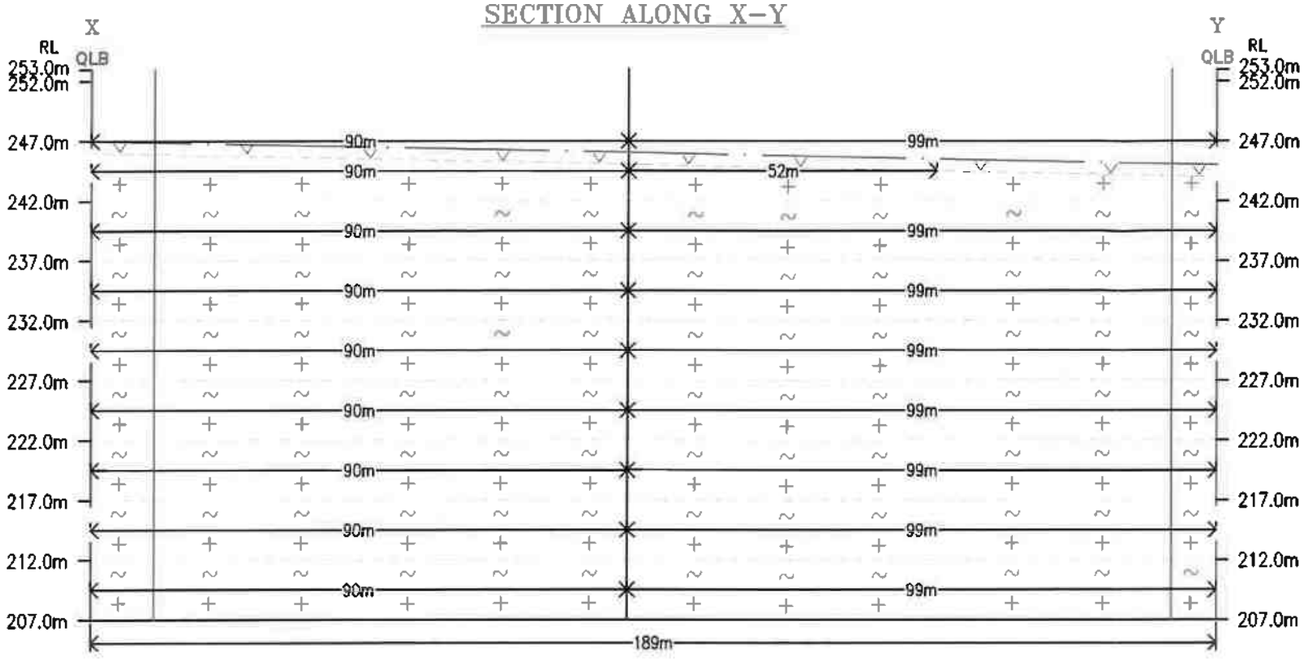
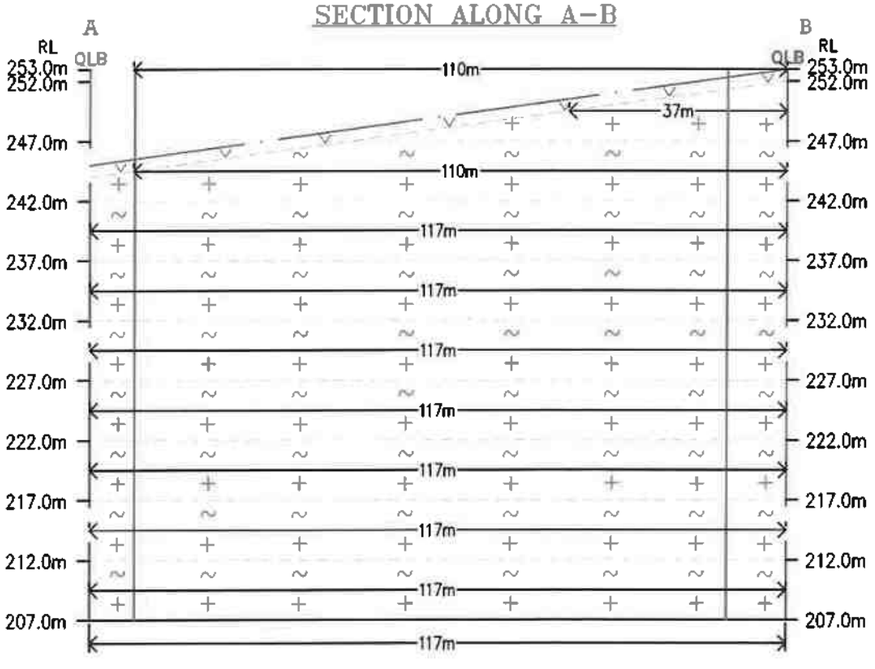
SECTION ALONG X–Y



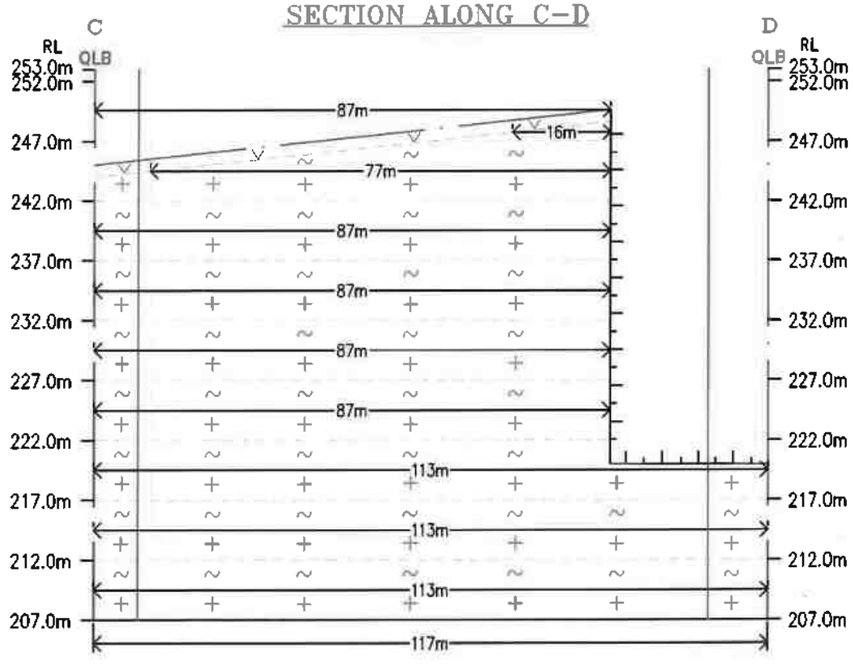
GEOLOGICAL RESERVES

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (m3)	Geological Reserves in m3 (100%)	Top Soil in m3
XY-AB	I	90	110	1			9900
	II	1	37	4	148	148	
	III	90	110	5	49500	49500	
	IV	90	117	5	52650	52650	
	V	90	117	5	52650	52650	
	VI	90	117	5	52650	52650	
	VII	90	117	5	52650	52650	
	VIII	90	117	5	52650	52650	
	IX	90	117	5	52650	52650	
	X	90	117	5	52650	52650	
	Total				418198	418198	9900
XY-CD	I	99	87	1			8613
	II	1	16	3	90	90	
	III	52	77	5	20020	20020	
	IV	99	87	5	43065	43065	
	V	99	87	5	43065	43065	
	VI	99	87	5	43065	43065	
	VII	99	87	5	43065	43065	
	VIII	99	113	5	55935	55935	
	IX	99	113	5	55935	55935	
	X	99	113	5	55935	55935	
	Total				360175	360175	8613
Grand Total=					778373	778373	18513

SECTION ALONG A–B



SECTION ALONG C–D



Office of Geology and Mining Collectorate Dindigul - 624 004
Dy. Assistant Director

PLATE NO:III-A

DATE OF SURVEY: 14.02.2024

APPLICANT ADDRESS:

THIRU.K.NAGAMUTHUKUMAR,
S/o. KARUPPAIAH,
No.159/2, SOUTH STREET,
AIYYANKOTTAI, AYYAMPALAYAM,
PATTIVEERANPATTI,
DINDIGUL DISTRICT - 624 211.

LOCATION OF QUARRY:

EXTENT : 2.00.00 Ha,
S.F.NO : 263/1 (Part-2),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.

INDEX

QUARRY LEASE BOUNDARY
7.5m & 10.0m SAFETY DISTANCE
TOP SOIL
ROUGH STONE

GEOLOGICAL SECTIONS

SCALE: HOR-1:1000
VER-1:500

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

A. Allimuthu.

A.ALLIMUTHU, M.Sc,M.Phil
RECOGNISED QUALIFIED PERSON
RQP/DMG/HYD/85/2022

PLATE NO:IV

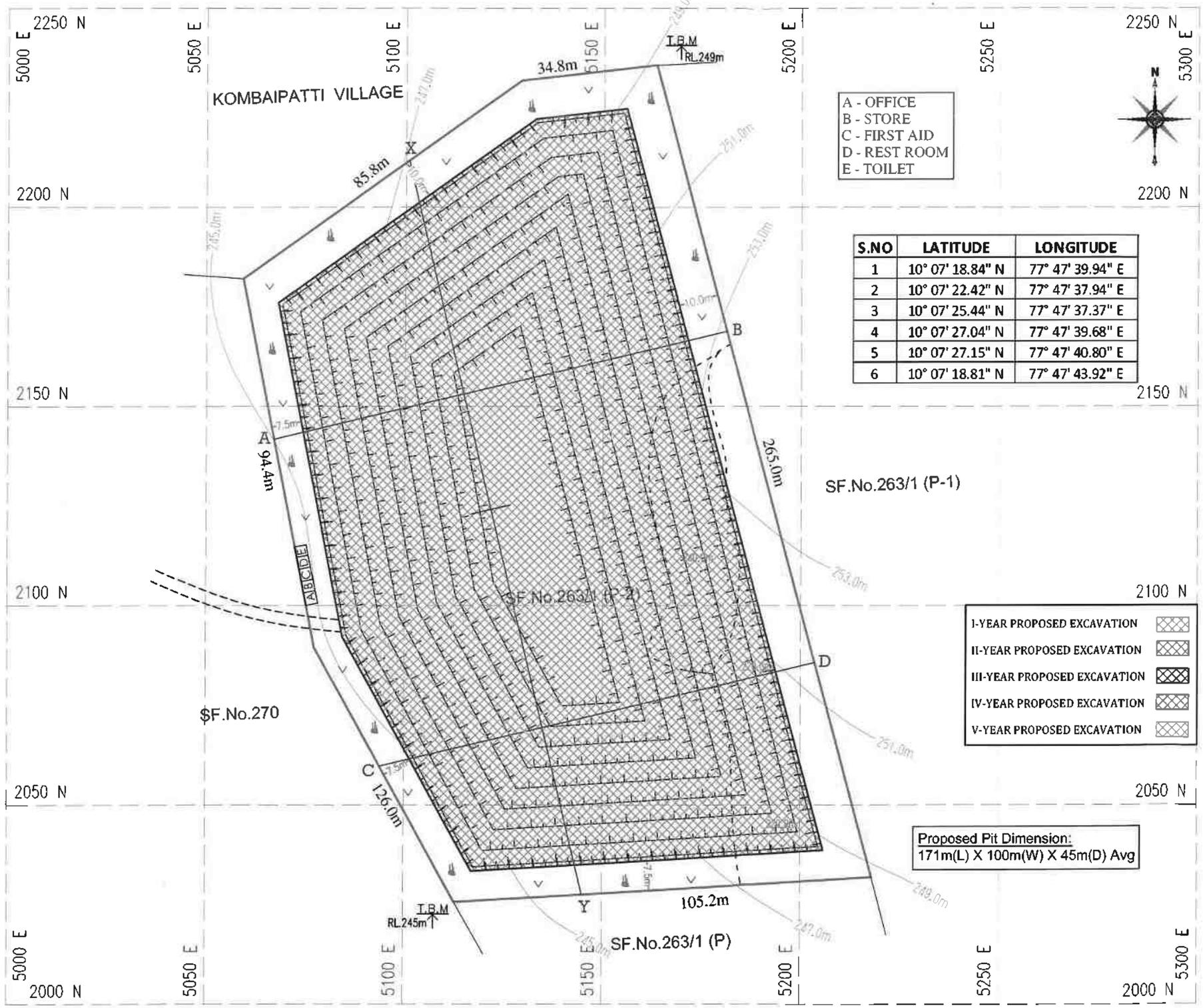
DATE OF SURVEY: 14.02.2024

APPLICANT ADDRESS:

THIRU.K.NAGAMUTHUKUMAR,
S/o. KARUPPAIAH,
No.159/2, SOUTH STREET,
AIYYANKOTTAI, AYYAMPALAYAM,
PATTIVEERANPATTI,
DINDIGUL DISTRICT - 624 211.

LOCATION OF QUARRY:

EXTENT : 2.00.00 Ha,
S.F.NO : 263/1 (Part-2),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.



S.NO	LATITUDE	LONGITUDE
1	10° 07' 18.84" N	77° 47' 39.94" E
2	10° 07' 22.42" N	77° 47' 37.94" E
3	10° 07' 25.44" N	77° 47' 37.37" E
4	10° 07' 27.04" N	77° 47' 39.68" E
5	10° 07' 27.15" N	77° 47' 40.80" E
6	10° 07' 18.81" N	77° 47' 43.92" E

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK
- APPROACH ROAD
- TOP SOIL
- ROUGH STONE
- QUARRY PIT
- QUARRY ROAD
- CONTOUR LINE
- SHRUB

YEARWISE DEVELOPMENT AND PRODUCTION PLAN

SCALE 1:1000

Prepared By:

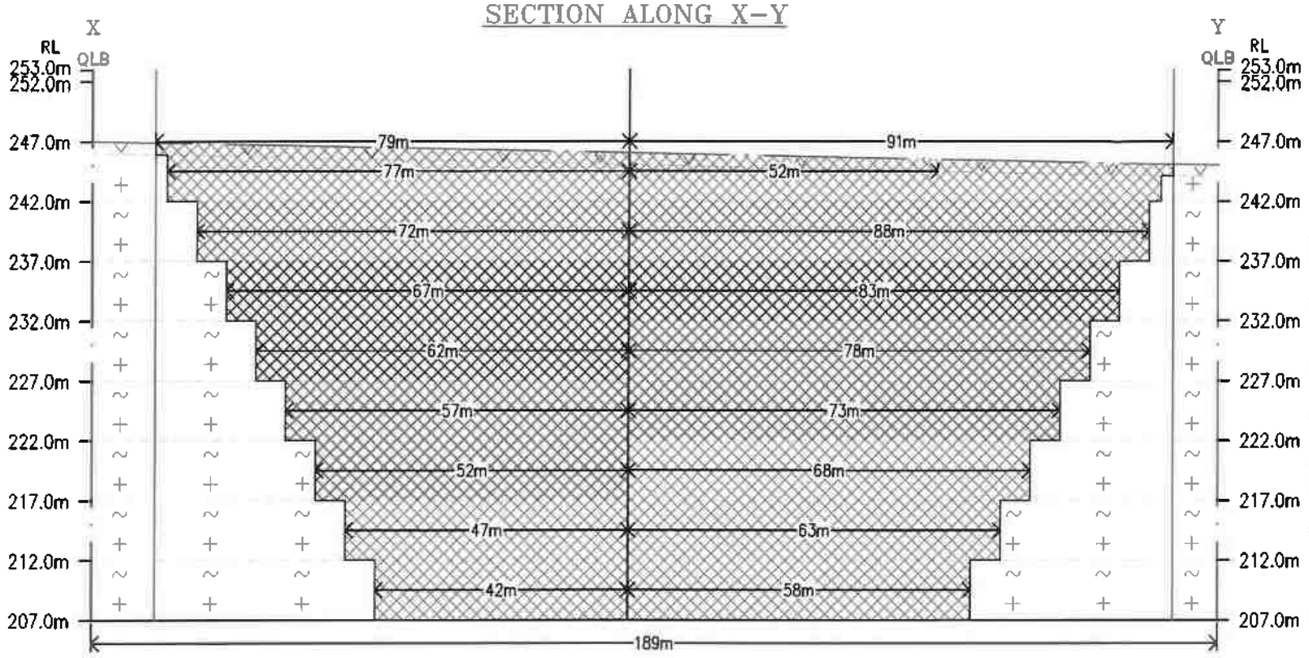
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

A. Allimuthu

A.ALLIMUTHU, M.Sc,M.Phil
RECOGNISED QUALIFIED PERSON
RQP/DMG/HYD/85/2022

Assistant Director Geology and Mining Collectorate Dindigul - 624 004.

SECTION ALONG X–Y

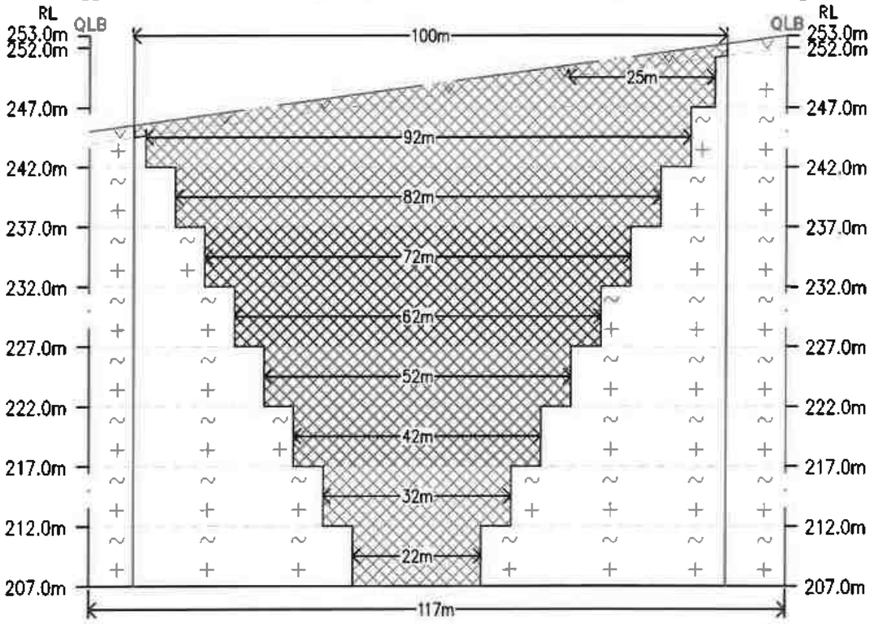


I-YEAR PROPOSED EXCAVATION
II-YEAR PROPOSED EXCAVATION
III-YEAR PROPOSED EXCAVATION
IV-YEAR PROPOSED EXCAVATION
V-YEAR PROPOSED EXCAVATION

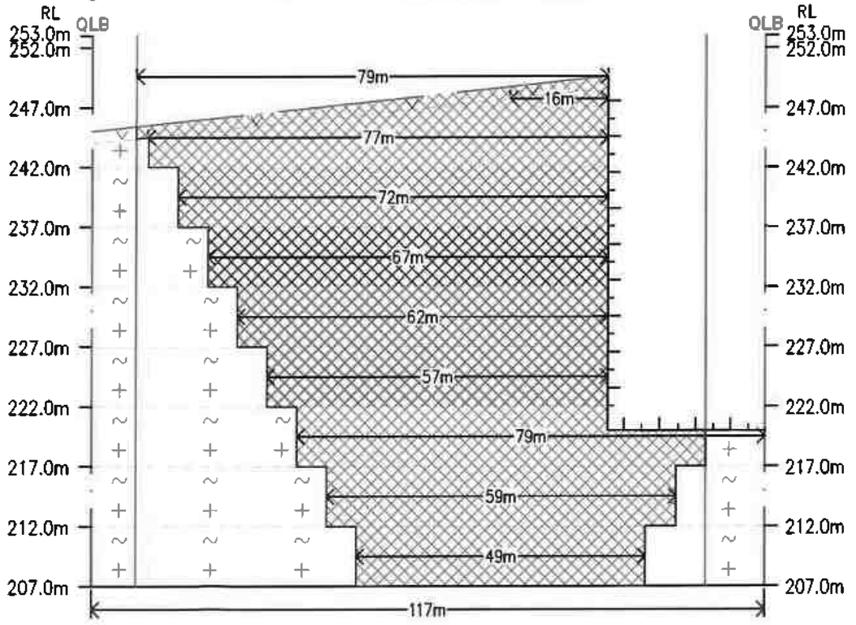
YEARWISE DEVELOPMENT AND PRODUCTION

Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (m3)	Mineable Reserves in m3 (100%)	Top Soil in m3
I - YEAR	XY-AB	I	79	100	1			7900
		II	1	25	4	100	100	
		III	77	92	5	35420	35420	
	XY-CD	I	91	79	1			7159
		II	1	16	3	48	48	
		III	52	77	5	20020	20020	
				Total		55588	55588	15089
II-YEAR	XY-AB	IV	72	82	5	29520	29520	
	XY-CD	IV	68	72	5	31680	31680	
				Total		61200	61200	
III-YEAR	XY-AB	V	67	72	5	24120	24120	
		VI	62	62	5	19220	19220	
	XY-CD	V	63	67	5	27805	27805	
				Total		71145	71145	
IV-YEAR	XY-CD	VI	78	62	5	24180	24180	
		VII	73	57	5	20805	20805	
	XY-AB	VII	57	52	5	14820	14820	
		VIII	52	42	5	10920	10920	
				Total		70725	70725	
V-YEAR	XY-CD	VIII	68	79	5	26860	26860	
		IX	63	59	5	18585	18585	
		X	58	49	5	14210	14210	
	XY-AB	IX	47	32	5	7520	7520	
		X	42	22	5	4620	4620	
				Total		71795	71795	
Grand Total=						330453	330453	15089

SECTION ALONG A–B



SECTION ALONG C–D



Geology and Mining Collectorate Dindigul - 624 004
O/o Assistant Director

PLATE NO:IV-A

DATE OF SURVEY: 14.02.2024

APPLICANT ADDRESS:

THIRU.K.NAGAMUTHUKUMAR,
S/o. KARUPPAIAH,
No.159/2, SOUTH STREET,
AIYYANKOTTAI, AYYAMPALAYAM,
PATTIVEERANPATTI,
DINDIGUL DISTRICT - 624 211.

LOCATION OF QUARRY:

EXTENT : 2.00.00 Ha,
S.F.NO : 263/1 (Part-2),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.

INDEX

QUARRY LEASE BOUNDARY
7.5m & 10.0m SAFETY DISTANCE
TOP SOIL
ROUGH STONE

YEARWISE DEVELOPMENT AND PRODUCTION SECTIONS

SCALE: HOR-1:1000
VER-1:500

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

A. Allimuthu

A.ALLIMUTHU, M.Sc,M.Phil
RECOGNISED QUALIFIED PERSON
RQP/DMG/HYD/85/2022

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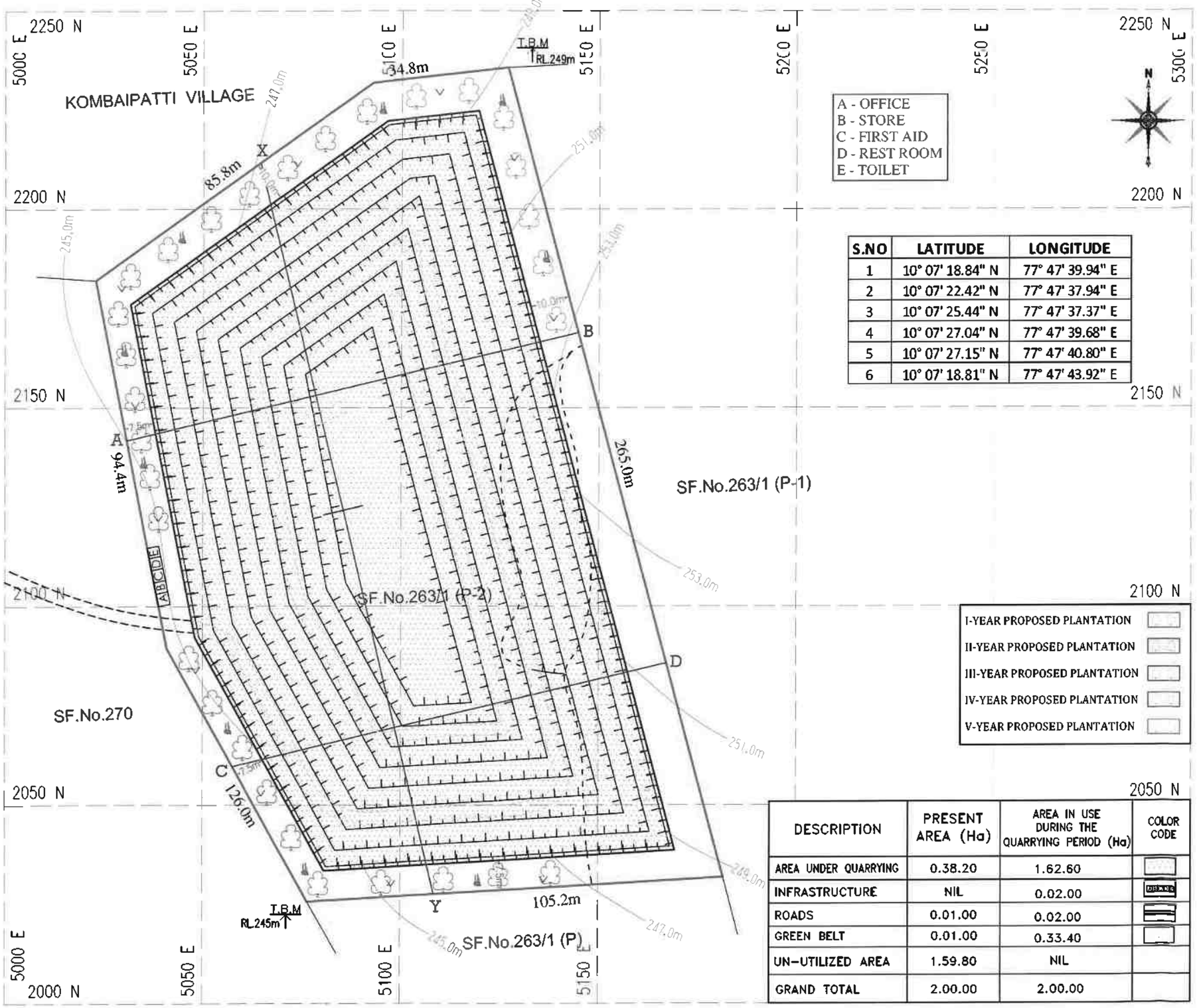


S.NO	LATITUDE	LONGITUDE
1	10° 07' 18.84" N	77° 47' 39.94" E
2	10° 07' 22.42" N	77° 47' 37.94" E
3	10° 07' 25.44" N	77° 47' 37.37" E
4	10° 07' 27.04" N	77° 47' 39.68" E
5	10° 07' 27.15" N	77° 47' 40.80" E
6	10° 07' 18.81" N	77° 47' 43.92" E

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	0.38.20	1.62.60	
INFRASTRUCTURE	NIL	0.02.00	
ROADS	0.01.00	0.02.00	
GREEN BELT	0.01.00	0.33.40	
UN-UTILIZED AREA	1.59.80	NIL	
GRAND TOTAL	2.00.00	2.00.00	

PLATE NO:V

DATE OF SURVEY: 14.02.2024

APPLICANT ADDRESS:

THIRU.K.NAGAMUTHUKUMAR
S/o. KARUPPAIAH,
No.159/2, SOUTH STREET,
AIYYANKOTTAI, AYYAMPALAYAM,
PATTIVEERANPATTI,
DINDIGUL DISTRICT - 624 211.

LOCATION OF QUARRY:

EXTENT : 2.00.00 Ha,
S.F.NO : 263/1 (Part-2),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 245.0M)
- APPROACH ROAD
- TOP SOIL
- QUARRY PIT
- QUARRY ROAD
- CONTOUR LINE
- MINE LAYOUT

MINE LAYOUT, LAND USE PATTERN & AFFORESTATION 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

A. Allimuthu.

A.ALLIMUTHU, M.Sc,M.Phil
RECOGNISED QUALIFIED PERSON
RQP/DMG/HYD/85/2022

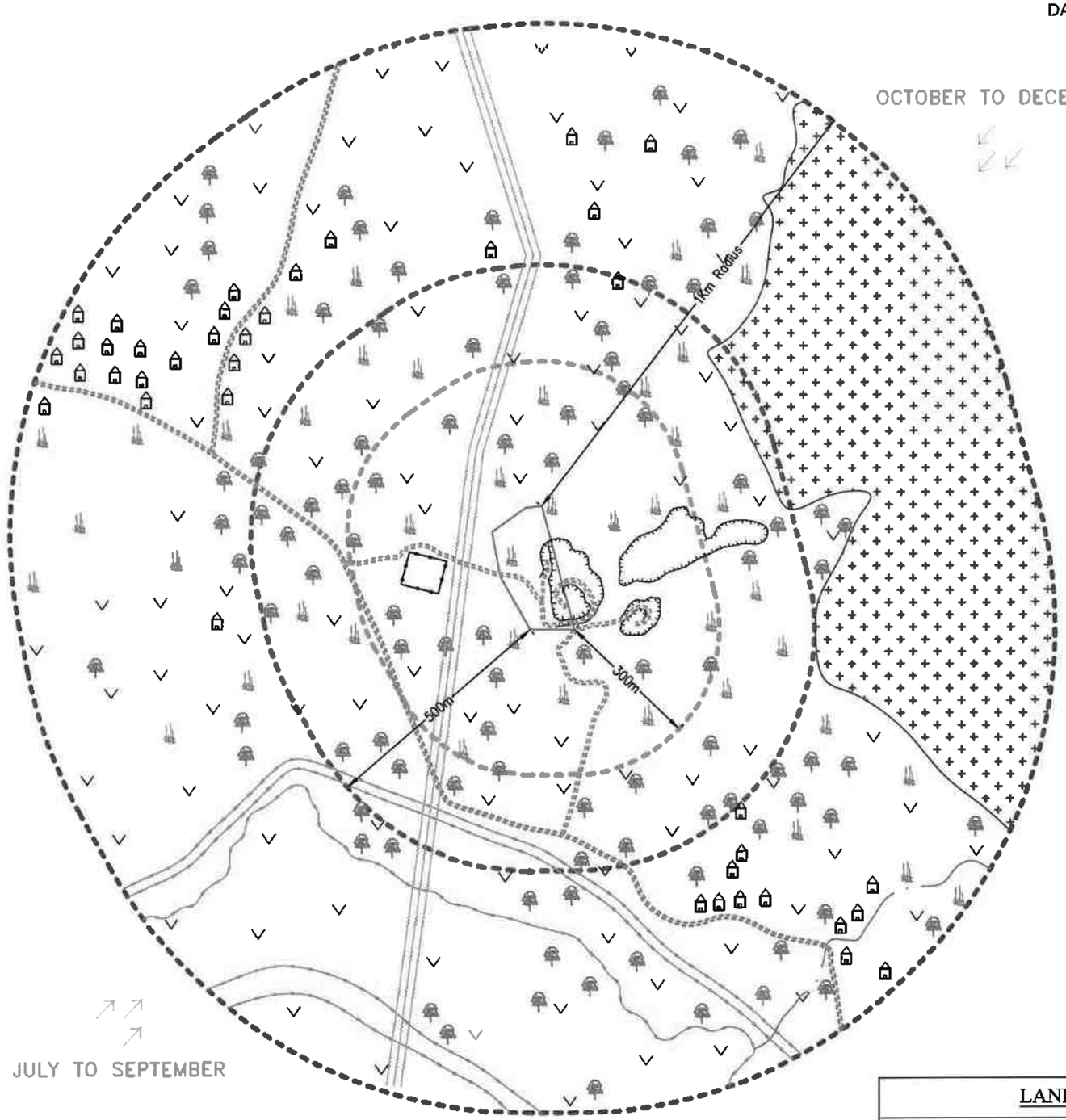
Dy. Assistant Director of Geology and Mining Collectorate Dindigul - 624 004

158

PLATE NO:VI

DATE OF SURVEY: 14.02.2024

OCTOBER TO DECEMBER



JULY TO SEPTEMBER

APPLICANT ADDRESS:

THIRU.K.NAGAMUTHUKUMAR,
S/o. KARUPPAIAH,
No.159/2, GOUTHI STREET,
AIYYANKOTTAI, AYYAMPALAYAM,
PATTIVEERANPATTI,
DINDIGUL DISTRICT - 624 211.

O/o Assistant Director Geology and Mining Collectorate Dindigul - 624 004.

LOCATION OF QUARRY:

EXTENT	:	2.00.00 Ha,
S.F.NO	:	263/1 (Part-2),
VILLAGE	:	SIVANGANAPURAM,
TALUK	:	NILAKOTTAI,
DISTRICT	:	DINDIGUL,
STATE	:	TAMILNADU.

INDEX

- QUARRY LEASE BOUNDARY
- VILLAGE ROAD
- APPROACH ROAD
- 300m RADIUS
- 500m RADIUS
- 1Km RADIUS
- TREES
- SHRUB
- DRY AGRICULTURAL LAND
- QUARRY PIT
- INFRASTRUCTURES
- WIND DIRECTION
- HT POWER LINE
- ODAI
- HILLOCK

ENVIRONMENT PLAN

SCALE 1:1000

LAND USE PATTERN	
ROAD	(05%)
TREES	(25%)
SEASONAL AGRICULTURAL LAND	(30%)
BARREN LAND	(15%)
HABITATIONS	(10%)
HILLOCK	(15%)

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

A. Allimuthu.

A.ALLIMUTHU, M.Sc,M.Phil
RECOGNISED QUALIFIED PERSON
RQP/DMG/HYD/85/2022

PLATE NO:VII

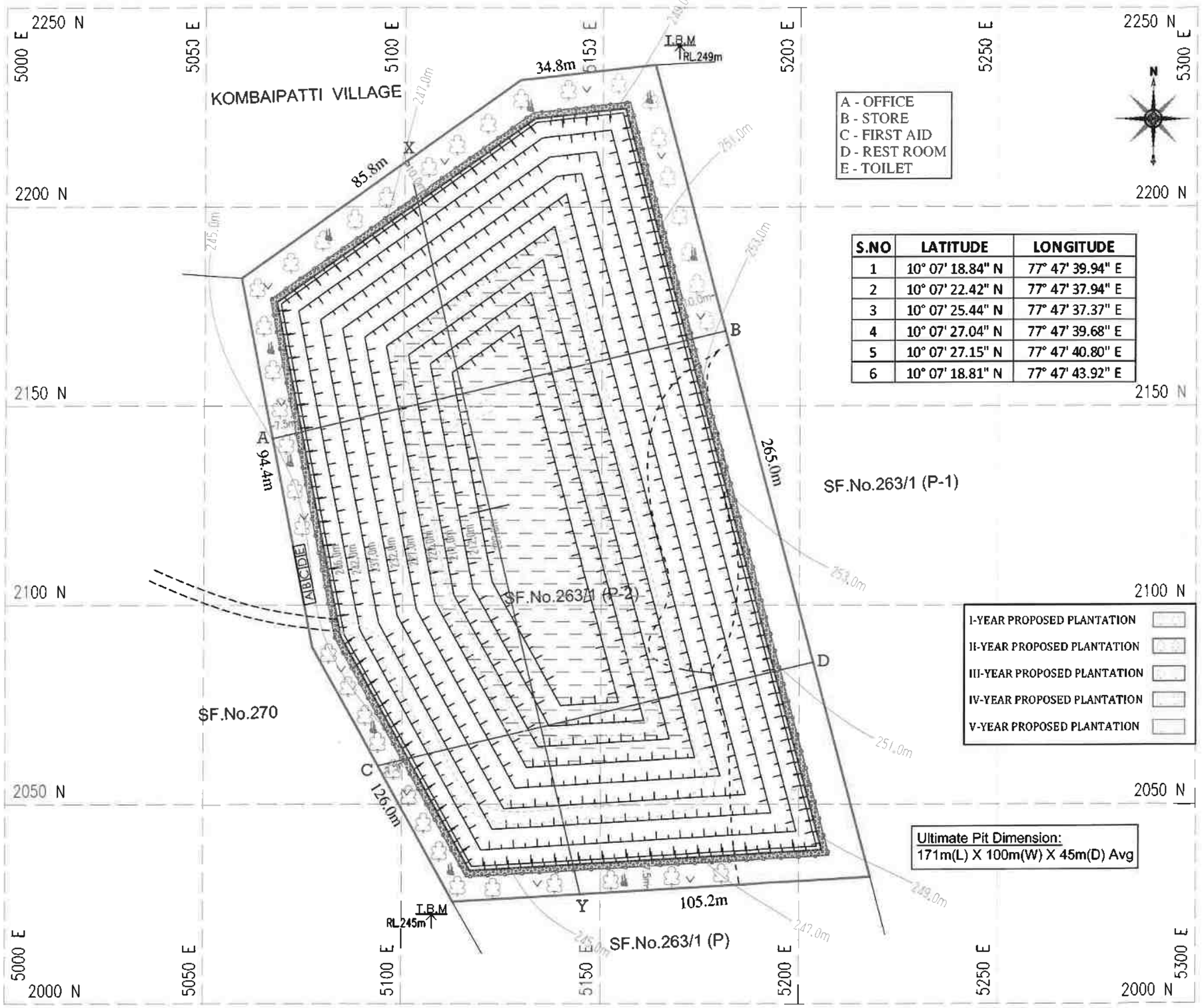
DATE OF SURVEY: 14.02.2024

APPLICANT ADDRESS:

THIRU.K.NAGAMUTHUKUMAR,
S/o. KARUPPAIAH,
No.159/2, SOUTH STREET,
AIYYANKOTTAI, AYYAMPALAYAM,
PATTIVEERANPATTI,
DINDIGUL DISTRICT - 624 211.

LOCATION OF QUARRY:

EXTENT : 2.00.00 Ha,
S.F.NO : 263/1 (Part-2),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.



S.NO	LATITUDE	LONGITUDE
1	10° 07' 18.84" N	77° 47' 39.94" E
2	10° 07' 22.42" N	77° 47' 37.94" E
3	10° 07' 25.44" N	77° 47' 37.37" E
4	10° 07' 27.04" N	77° 47' 39.68" E
5	10° 07' 27.15" N	77° 47' 40.80" E
6	10° 07' 18.81" N	77° 47' 43.92" E

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK
- APPROACH ROAD
- QUARRY PIT
- QUARRY ROAD
- CONTOUR LINE
- FENCING
- PARAPET WALL
- ULTIMATE PIT LIMIT
- PROPOSED WATER STORAGE

CONSEPTUAL & 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

A. Allimuthu

A.ALLIMUTHU, M.Sc,M.Phil
RECOGNISED QUALIFIED PERSON
RQP/DMG/HYD/85/2022

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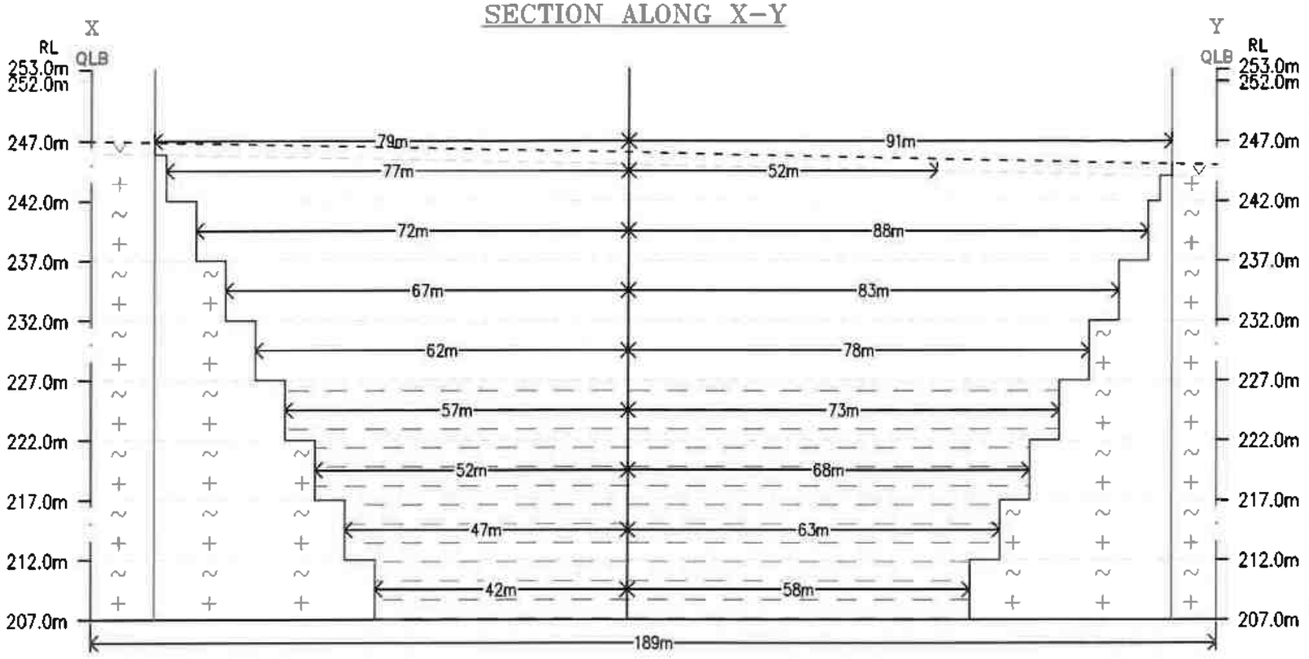
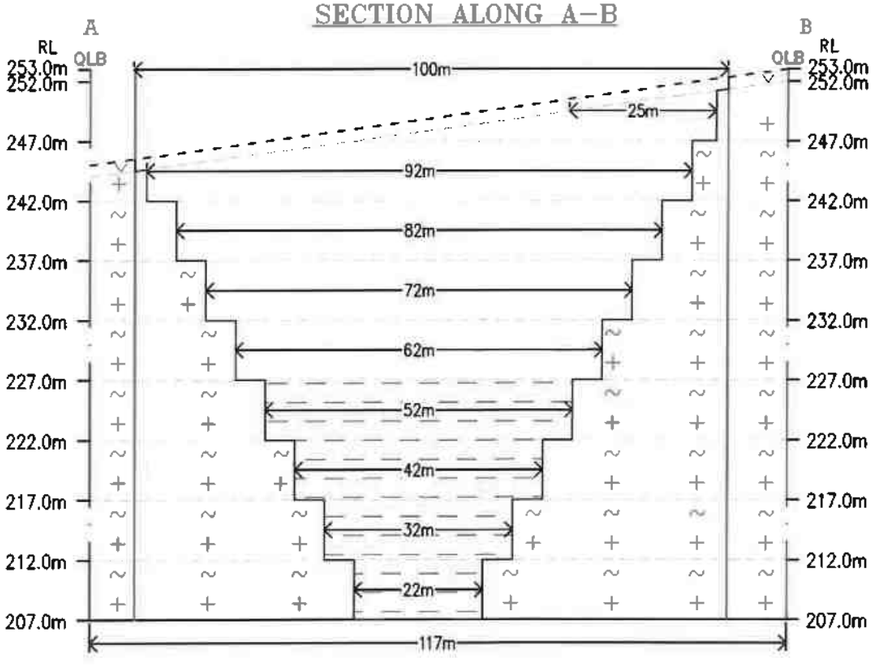
Dy. Assistant Director Geology and Mining Collectorate Dindigul - 624 004.

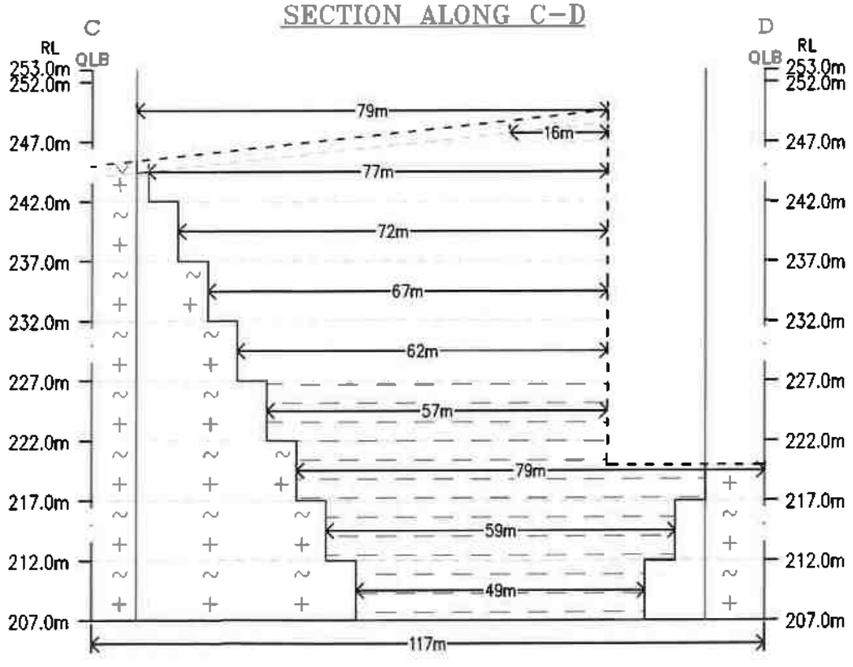
SECTION ALONG X–Y



SECTION ALONG A–B



SECTION ALONG C–D



MINEABLE RESERVES

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (m3)	Mineable Reserves in m3 (100%)	Top Soil in m3
XY-AB	I	79	100	1			7900
	II	1	25	4	100	100	
	III	77	92	5	35420	35420	
	IV	72	82	5	29520	29520	
	V	67	72	5	24120	24120	
	VI	62	62	5	19220	19220	
	VII	57	52	5	14820	14820	
	VIII	52	42	5	10920	10920	
	IX	47	32	5	7520	7520	
	X	42	22	5	4620	4620	
	Total				146260	146260	7900
XY-CD	I	91	79	1			7189
	II	1	16	3	48	84	
	III	52	77	5	20020	20020	
	IV	88	72	5	31680	31680	
	V	83	67	5	27805	27805	
	VI	78	62	5	24180	24180	
	VII	73	57	5	20805	20805	
	VIII	68	79	5	26860	26860	
	IX	63	59	5	18585	18585	
	X	58	49	5	14210	14210	
	Total				184193	184193	7189
Grand Total=					330453	330453	15089

PLATE NO:VII-A

DATE OF SURVEY: 14.02.2024

APPLICANT ADDRESS:

THIRU.K.NAGAMUTHUKUMAR,
S/o. KARUPPAIAH,
No.159/2, SOUTH STREET,
AIYYANKOTTAI, AYYAMPALAYAM,
PATTIVEERANPATTI,
DINDIGUL DISTRICT - 624 211.

LOCATION OF QUARRY:

EXTENT : 2.00.00 Ha,
S.F.NO : 263/1 (Part-2),
VILLAGE : SIVANGANAPURAM,
TALUK : NILAKOTTAI,
DISTRICT : DINDIGUL,
STATE : TAMILNADU.

Dy.Assistant Director Geology and Mining Collectorate Dindigul - 624 004.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TOP SOIL
- ROUGH STONE
- QUARRY PIT
- OLD SURFACE LEVEL
- ULTIMATE PIT SLOPE
- PROPOSED WATER STORAGE

CONCEPTUAL & FINAL MINE CLOSURE SECTIONS

SCALE: HOR-1:1000
VER-1:500

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

A. Alli

A.ALLIMUTHU, M.Sc,M.Phil
RECOGNISED QUALIFIED PERSON
RQP/DMG/HYD/85/2022

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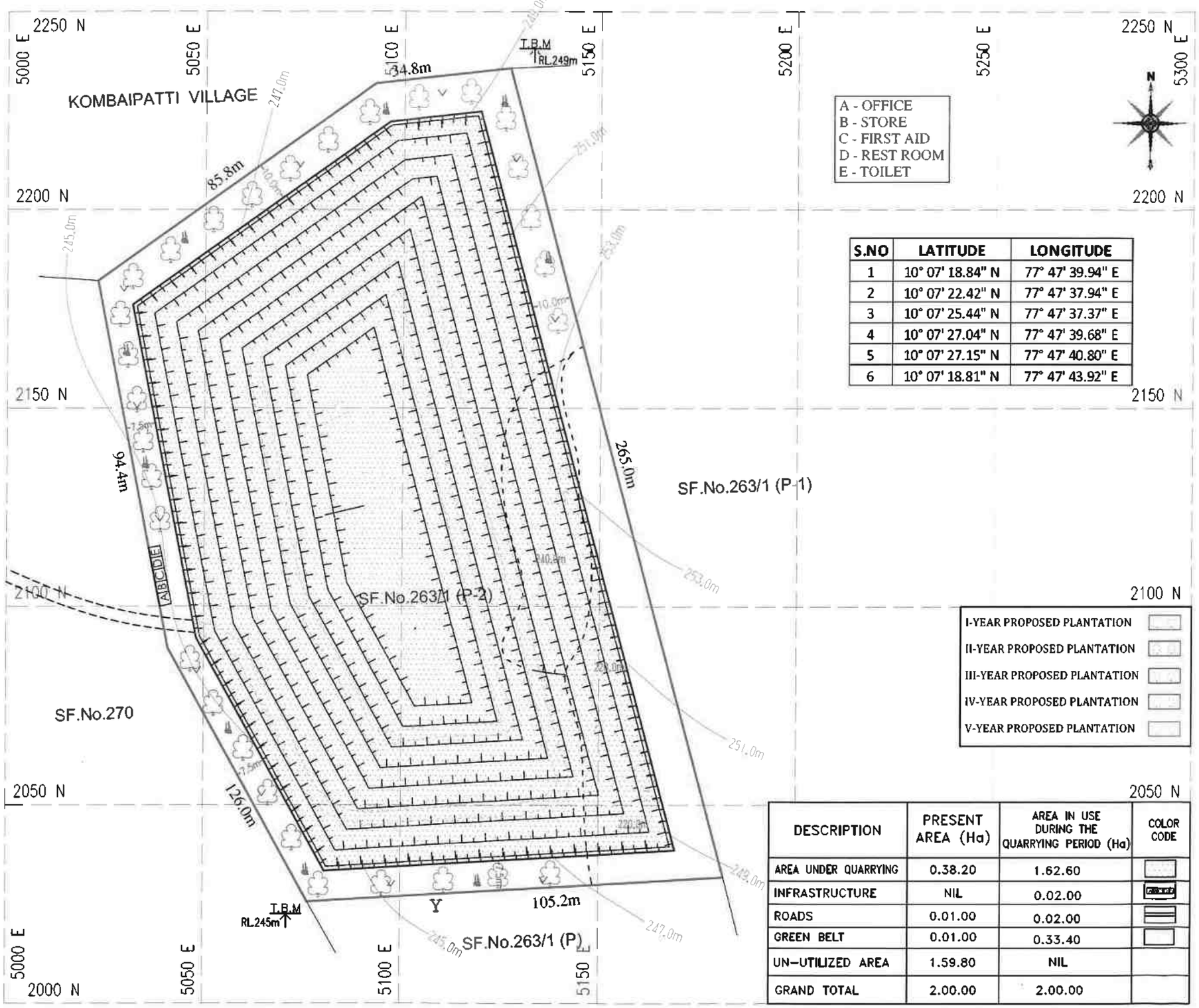

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I-YEAR PROPOSED PLANTATION
II-YEAR PROPOSED PLANTATION
III-YEAR PROPOSED PLANTATION
IV-YEAR PROPOSED PLANTATION
V-YEAR PROPOSED PLANTATION

DESCRIPTION	PRESENT AREA (Ha)	AREA IN USE DURING THE QUARRYING PERIOD (Ha)	COLOR CODE
AREA UNDER QUARRYING	0.38.20	1.62.60	
INFRASTRUCTURE	NIL	0.02.00	
ROADS	0.01.00	0.02.00	
GREEN BELT	0.01.00	0.33.40	
UN-UTILIZED AREA	1.59.80	NIL	
GRAND TOTAL	2.00.00	2.00.00	

PLATE NO:VIII

DATE OF SURVEY: 14.03.2024

APPLICANT ADDRESS:

THIRU.K.NAGAMUTHUKUMAR,
S/o. KARUPPAIAH,
No.159/2, SOUTH STREET,
AIYYANKOTTAI, AYYAMPALAYAM,
PATTIVEERANPATTI,
DINDIGUL DISTRICT - 624 211.

LOCATION OF QUARRY:

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DISTRICT : DINDIGUL,
STATE : TAMILNADU.

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- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (T.B.M 245.0M)
- APPROACH ROAD
- TOP SOIL
- QUARRY PIT
- QUARRY ROAD
- CONTOUR LINE
- MINE LAYOUT

PROGRESSIVE MINE CLOSURE PLAN

SCALE 1:1000

Prepared By:

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Dy. Assistant Director Geology and Mining Collectorate Dindigul - 624 004.

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